

Supplementary data

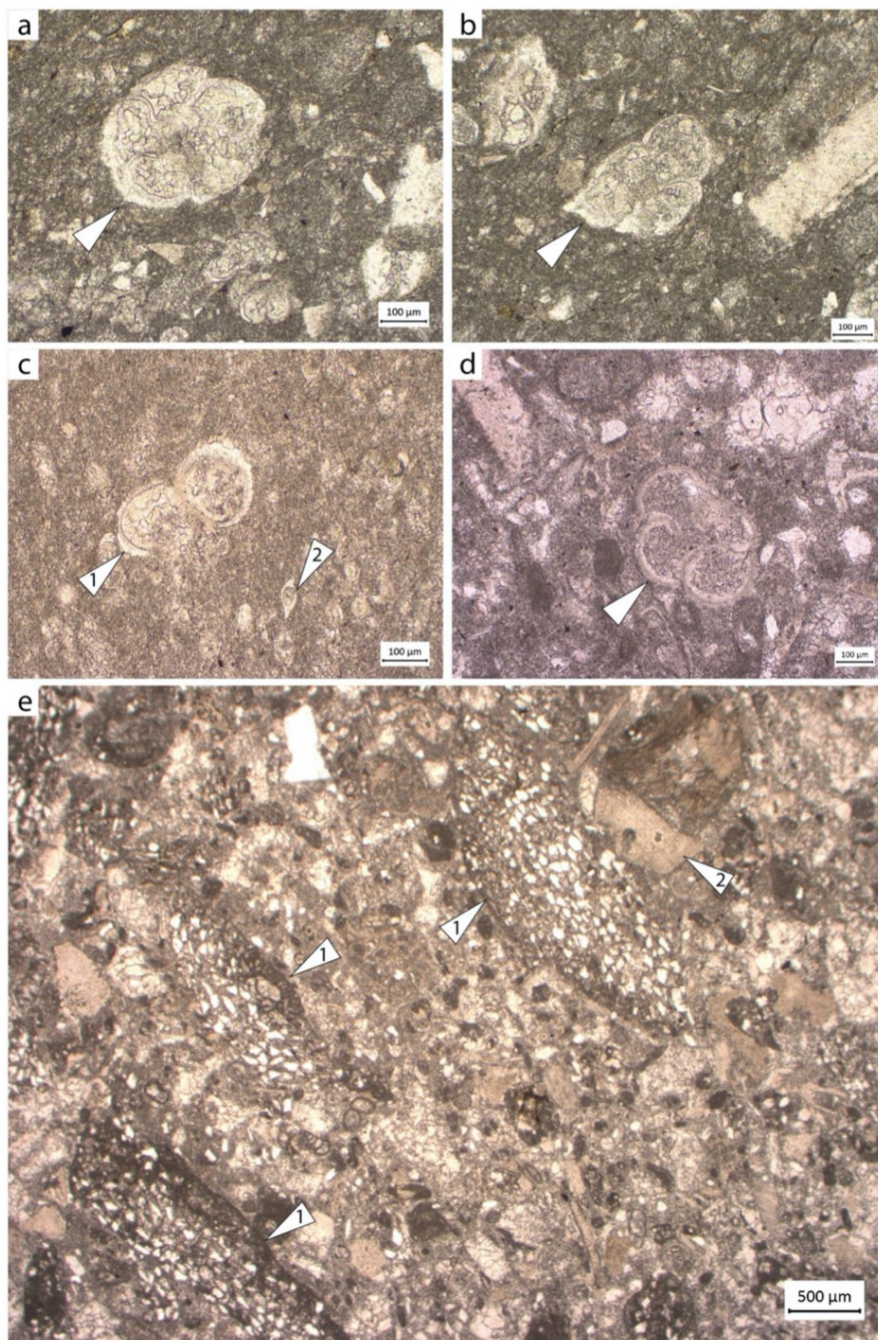
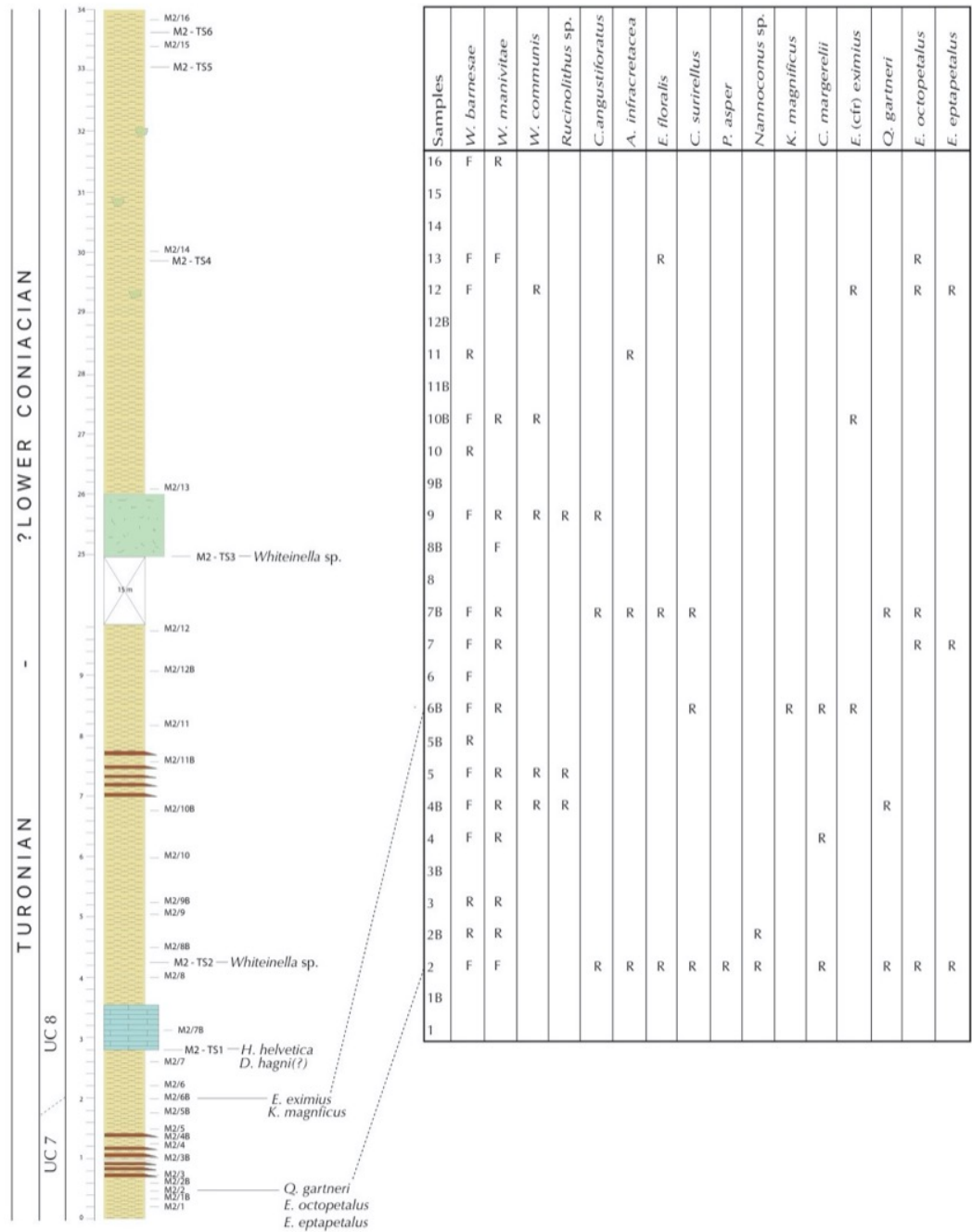


Figure S1: (a) Sample M2-TS1 *Helvetoglobotruncana helvetica*; (b) Sample M2-TS1 *Dicarinella* sp.; (c) Sample M2-TS2, 1 = *Whiteinella*, 2= radiolarian; (d) Sample M2-TS3 *Whiteinella*; (e) M2-TS3, 1 = *Orbitolinid*, 2 = *Echinoderm*.

Asomata M2 Section



5

Figure S2: Biostratigraphic section M2 showing sample depths, observed foraminifera, and observed nannoplankton. Section taken from N40° 28' 53" E022° 13' 46".

Supplementary Data
Table S3

| Plane | Latitude | Longitude | Dip Angle | Dip Azimuth |
|-----------|-----------|-----------|-----------|-------------|
| Fault | 40.465041 | 22.242527 | 86 | 13 |
| Fault | 40.465196 | 22.242587 | 21 | 66 |
| Fault | 40.420692 | 22.193283 | 55 | 82 |
| Fault | 40.425450 | 22.190061 | 34 | 354 |
| Fault | 40.425248 | 22.180059 | 34 | 21 |
| Fault | 40.481256 | 22.227301 | 82 | 50 |
| Fault | 40.483579 | 22.230109 | 15 | 90 |
| Fault | 40.483597 | 22.230115 | 18 | 23 |
| Fault | 40.461326 | 22.258370 | 38 | 179 |
| Fault | 40.461368 | 22.258403 | 27 | 184 |
| Fault | 40.475379 | 22.247594 | 39 | 28 |
| Fault | 40.474400 | 22.246642 | 24 | 24 |
| Fault | 40.474049 | 22.246296 | 26 | 42 |
| Fault | 40.472414 | 22.244458 | 20 | 178 |
| Fault | 40.411390 | 22.196036 | 81 | 288 |
| Fault | 40.412645 | 22.195346 | 26 | 148 |
| Fault | 40.467859 | 22.242980 | 56 | 162 |
| Fault | 40.467867 | 22.242925 | 28 | 18 |
| Fault | 40.467675 | 22.242466 | 13 | 68 |
| Fault | 40.437418 | 22.175634 | 43 | 131 |
| Fault | 40.436383 | 22.178010 | 68 | 359 |
| Fault | 40.437819 | 22.246576 | 40 | 103 |
| Fault | 40.415774 | 22.228657 | 77 | 18 |
| Fault | 40.415790 | 22.228687 | 4 | 334 |
| Fault | 40.468674 | 22.211876 | 89 | 308 |
| Fault | 40.468853 | 22.211844 | 75 | 283 |
| Fault | 40.469669 | 22.210826 | 42 | 33 |
| Fault | 40.472480 | 22.212549 | 78 | 239 |
| Fault | 40.473195 | 22.213055 | 46 | 210 |
| Fault | 40.473217 | 22.213029 | 56 | 26 |
| Fault | 40.480384 | 22.216631 | 64 | 327 |
| Fault | 40.479099 | 22.213695 | 87 | 61 |
| Fault | 40.478039 | 22.212978 | 69 | 235 |
| Fault | 40.478011 | 22.212996 | 56 | 212 |
| Fault | 40.478052 | 22.212999 | 69 | 237 |
| Fault | 40.479093 | 22.213693 | 85 | 60 |
| Fault | 40.408432 | 22.196112 | 42 | 256 |
| Foliation | 40.464575 | 22.263631 | 19 | 172 |
| Foliation | 40.456710 | 22.250205 | 40 | 328 |
| Foliation | 40.456529 | 22.250096 | 27 | 314 |
| Foliation | 40.442747 | 22.245089 | 34 | 200 |
| Foliation | 40.426324 | 22.189264 | 21 | 306 |
| Foliation | 40.461935 | 22.240930 | 37 | 61 |
| Foliation | 40.461861 | 22.240914 | 38 | 2 |
| Foliation | 40.462222 | 22.241018 | 40 | 339 |
| Foliation | 40.462324 | 22.241086 | 27 | 22 |
| Foliation | 40.458361 | 22.253522 | 48 | 165 |

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| | | | | |
|-----------|-----------|-----------|----|-----|
| Foliation | 40.457803 | 22.253438 | 14 | 130 |
| Foliation | 40.457029 | 22.253030 | 48 | 335 |
| Foliation | 40.456957 | 22.252924 | 76 | 158 |
| Foliation | 40.456852 | 22.253028 | 82 | 340 |
| Foliation | 40.392756 | 22.210951 | 29 | 251 |
| Foliation | 40.479316 | 22.254012 | 34 | 299 |
| Foliation | 40.479117 | 22.248737 | 35 | 139 |
| Foliation | 40.478465 | 22.248536 | 45 | 182 |
| Foliation | 40.475361 | 22.247586 | 37 | 356 |
| Foliation | 40.474411 | 22.246738 | 23 | 66 |
| Foliation | 40.474361 | 22.246677 | 27 | 26 |
| Foliation | 40.474358 | 22.246734 | 22 | 66 |
| Foliation | 40.474098 | 22.246299 | 31 | 30 |
| Foliation | 40.472750 | 22.244759 | 18 | 146 |
| Foliation | 40.472467 | 22.244709 | 27 | 186 |
| Foliation | 40.472338 | 22.244813 | 27 | 147 |
| Foliation | 40.472367 | 22.244790 | 19 | 196 |
| Foliation | 40.472330 | 22.244652 | 28 | 224 |
| Foliation | 40.472031 | 22.244589 | 21 | 321 |
| Foliation | 40.471425 | 22.243880 | 74 | 14 |
| Foliation | 40.471280 | 22.243020 | 33 | 47 |
| Foliation | 40.414277 | 22.195455 | 44 | 94 |
| Foliation | 40.413048 | 22.194560 | 25 | 287 |
| Foliation | 40.413571 | 22.196419 | 10 | 49 |
| Foliation | 40.467676 | 22.242974 | 23 | 178 |
| Foliation | 40.467697 | 22.243009 | 16 | 106 |
| Foliation | 40.465721 | 22.230135 | 48 | 293 |
| Foliation | 40.465634 | 22.230131 | 20 | 347 |
| Foliation | 40.464670 | 22.226987 | 82 | 249 |
| Foliation | 40.464796 | 22.228344 | 48 | 33 |
| Foliation | 40.464756 | 22.227833 | 56 | 304 |
| Foliation | 40.450244 | 22.247460 | 88 | 88 |
| Foliation | 40.437446 | 22.247761 | 12 | 105 |
| Foliation | 40.437483 | 22.247827 | 79 | 130 |
| Foliation | 40.437457 | 22.247776 | 63 | 107 |
| Foliation | 40.437831 | 22.246569 | 24 | 58 |
| Foliation | 40.437822 | 22.246689 | 11 | 159 |
| Foliation | 40.437705 | 22.246749 | 22 | 10 |
| Foliation | 40.432618 | 22.239742 | 34 | 35 |
| Foliation | 40.432386 | 22.240025 | 24 | 236 |
| Foliation | 40.426805 | 22.240821 | 10 | 73 |
| Foliation | 40.426298 | 22.241195 | 17 | 354 |
| Foliation | 40.443008 | 22.259099 | 22 | 335 |
| Foliation | 40.443247 | 22.259197 | 28 | 49 |
| Foliation | 40.445916 | 22.260071 | 14 | 32 |
| Foliation | 40.445718 | 22.260113 | 34 | 140 |
| Foliation | 40.445748 | 22.260061 | 23 | 26 |
| Foliation | 40.445747 | 22.260064 | 20 | 20 |

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| | | | | |
|-------------|-----------|-----------|----|-----|
| Foliation | 40.444831 | 22.260781 | 57 | 128 |
| Foliation | 40.444827 | 22.260805 | 24 | 147 |
| Foliation | 40.418742 | 22.244351 | 43 | 311 |
| Foliation | 40.418929 | 22.244168 | 71 | 330 |
| Foliation | 40.418927 | 22.244170 | 33 | 342 |
| Foliation | 40.418901 | 22.244174 | 53 | 320 |
| Foliation | 40.418906 | 22.244209 | 54 | 296 |
| Foliation | 40.419057 | 22.241613 | 81 | 333 |
| Foliation | 40.419082 | 22.241636 | 55 | 51 |
| Foliation | 40.416714 | 22.232965 | 21 | 302 |
| Foliation | 40.416734 | 22.232971 | 36 | 306 |
| Foliation | 40.417413 | 22.234782 | 18 | 23 |
| Foliation | 40.417588 | 22.235286 | 71 | 128 |
| Foliation | 40.418183 | 22.237368 | 66 | 85 |
| Foliation | 40.480196 | 22.220905 | 67 | 318 |
| Foliation | 40.480114 | 22.220658 | 79 | 169 |
| Foliation | 40.479814 | 22.219476 | 43 | 301 |
| Cleavage | 40.444433 | 22.261622 | 53 | 351 |
| Cleavage | 40.416311 | 22.246411 | 61 | 150 |
| Cleavage | 40.416742 | 22.227183 | 89 | 303 |
| Cleavage | 40.416739 | 22.227180 | 84 | 300 |
| Cleavage | 40.416729 | 22.227169 | 79 | 308 |
| Shear Plane | 40.480925 | 22.225507 | 41 | 65 |
| Shear Plane | 40.480947 | 22.225552 | 36 | 76 |
| Shear Plane | 40.464659 | 22.227007 | 51 | 81 |
| Shear Plane | 40.464804 | 22.228344 | 54 | 242 |
| Shear Plane | 40.441827 | 22.244630 | 22 | 331 |
| Shear Plane | 40.437819 | 22.246697 | 24 | 53 |
| Shear Plane | 40.432411 | 22.239894 | 24 | 324 |
| Shear Plane | 40.433135 | 22.242140 | 47 | 349 |
| Shear Plane | 40.433135 | 22.242167 | 28 | 11 |
| Shear Plane | 40.433075 | 22.242114 | 32 | 298 |
| Shear Plane | 40.443814 | 22.262142 | 41 | 244 |
| Shear Plane | 40.480644 | 22.219537 | 75 | 317 |
| Shear Plane | 40.480649 | 22.219570 | 54 | 222 |
| Shear Plane | 40.480661 | 22.219575 | 40 | 183 |
| Shear Plane | 40.479771 | 22.219035 | 58 | 186 |
| Shear Plane | 40.478975 | 22.213497 | 65 | 61 |
| Shear Plane | 40.479007 | 22.213430 | 73 | 182 |
| Shear Plane | 40.478914 | 22.213468 | 26 | 61 |
| Shear Plane | 40.478954 | 22.213444 | 57 | 20 |
| Shear Plane | 40.478424 | 22.213339 | 18 | 36 |
| Shear Plane | 40.478389 | 22.213321 | 21 | 11 |
| Shear Plane | 40.478949 | 22.213473 | 55 | 47 |
| Shear Plane | 40.478934 | 22.213488 | 42 | 349 |
| Shear Plane | 40.478883 | 22.213510 | 26 | 324 |
| Shear Plane | 40.476073 | 22.216853 | 26 | 305 |
| Shear Plane | 40.476155 | 22.217035 | 39 | 274 |

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Table S3

| | | | | |
|-------------|-----------|-----------|----|-----|
| Shear Plane | 40.476186 | 22.216982 | 79 | 339 |
| Shear Plane | 40.476186 | 22.216982 | 55 | 154 |
| Shear Plane | 40.477391 | 22.216691 | 31 | 283 |
| Shear Plane | 40.477391 | 22.216691 | 23 | 2 |
| Shear Plane | 40.477391 | 22.216691 | 83 | 311 |
| Shear Plane | 40.411102 | 22.197115 | 18 | 188 |

| Line | Latitude | Longitude | Plunge Dip | Plunge Azimuth |
|----------------------|-----------|-----------|------------|----------------|
| Fold Axis | 40.437943 | 22.175514 | 22 | 305 |
| Fold Axis | 40.437928 | 22.174911 | 31 | 128 |
| Fold Axis | 40.437316 | 22.175734 | 18 | 222 |
| Fold Axis | 40.429903 | 22.189150 | 6 | 298 |
| Fold Axis | 40.429779 | 22.188602 | 7 | 114 |
| Fold Axis | 40.429789 | 22.188658 | 4 | 289 |
| Fold Axis | 40.423700 | 22.240841 | 6 | 39 |
| Fold Axis | 40.415913 | 22.246595 | 10 | 41 |
| Fold Axis | 40.416250 | 22.246465 | 26 | 9 |
| Fold Axis | 40.417263 | 22.245961 | 16 | 31 |
| Fold Axis | 40.416645 | 22.227238 | 3 | 136 |
| Fold Axis | 40.415989 | 22.228490 | 9 | 44 |
| Fold Axis | 40.415985 | 22.228492 | 0 | 209 |
| Fold Axis | 40.416256 | 22.229741 | 9 | 140 |
| Fold Axis | 40.416461 | 22.232528 | 2 | 285 |
| Fold Axis | 40.416740 | 22.233087 | 15 | 313 |
| Fold Axis | 40.416821 | 22.233334 | 62 | 307 |
| Fold Axis | 40.416919 | 22.233359 | 7 | 139 |
| Fold Axis | 40.416903 | 22.233385 | 7 | 138 |
| Stretching Lineation | 40.455869 | 22.249521 | 0 | 39 |
| Stretching Lineation | 40.456822 | 22.250093 | 10 | 30 |
| Stretching Lineation | 40.456822 | 22.250093 | 6 | 29 |
| Stretching Lineation | 40.456820 | 22.250113 | 13 | 31 |
| Stretching Lineation | 40.456828 | 22.250099 | 13 | 26 |
| Stretching Lineation | 40.456846 | 22.250120 | 11 | 14 |
| Stretching Lineation | 40.456856 | 22.250132 | 16 | 19 |
| Stretching Lineation | 40.456855 | 22.250135 | 6 | 29 |
| Stretching Lineation | 40.456849 | 22.250157 | 9 | 27 |
| Stretching Lineation | 40.455801 | 22.222052 | 28 | 202 |
| Stretching Lineation | 40.455860 | 22.222059 | 9 | 6 |
| Stretching Lineation | 40.479272 | 22.253991 | 17 | 239 |
| Stretching Lineation | 40.437309 | 22.175778 | 5 | 222 |
| Stretching Lineation | 40.430029 | 22.187984 | 3 | 215 |
| Stretching Lineation | 40.456903 | 22.250139 | 15 | 28 |
| Stretching Lineation | 40.456903 | 22.250139 | 7 | 23 |
| Stretching Lineation | 40.456905 | 22.250154 | 11 | 19 |
| Stretching Lineation | 40.437490 | 22.247828 | 11 | 214 |
| Stretching Lineation | 40.437739 | 22.246829 | 4 | 175 |
| Stretching Lineation | 40.432548 | 22.239776 | 66 | 226 |
| Stretching Lineation | 40.432457 | 22.240026 | 18 | 208 |

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| | | | | |
|----------------------|-----------|-----------|----|-----|
| Stretching Lineation | 40.432416 | 22.239913 | 13 | 203 |
| Stretching Lineation | 40.432413 | 22.240091 | 17 | 210 |
| Stretching Lineation | 40.426812 | 22.240810 | 15 | 62 |
| Stretching Lineation | 40.426311 | 22.241185 | 16 | 40 |
| Stretching Lineation | 40.425613 | 22.240841 | 5 | 231 |
| Stretching Lineation | 40.424980 | 22.240654 | 14 | 223 |
| Stretching Lineation | 40.423812 | 22.240936 | 16 | 55 |
| Stretching Lineation | 40.442936 | 22.259149 | 17 | 8 |
| Stretching Lineation | 40.443815 | 22.262139 | 18 | 317 |
| Stretching Lineation | 40.444561 | 22.261392 | 6 | 141 |
| Stretching Lineation | 40.444599 | 22.261095 | 6 | 137 |
| Stretching Lineation | 40.444718 | 22.260831 | 51 | 95 |
| Stretching Lineation | 40.444783 | 22.260877 | 7 | 177 |
| Stretching Lineation | 40.444191 | 22.260001 | 20 | 50 |
| Stretching Lineation | 40.444191 | 22.259968 | 45 | 255 |
| Stretching Lineation | 40.417294 | 22.245934 | 16 | 190 |
| Stretching Lineation | 40.417307 | 22.245926 | 0 | 42 |
| Stretching Lineation | 40.418734 | 22.244298 | 6 | 236 |
| Stretching Lineation | 40.418921 | 22.244171 | 10 | 50 |
| Stretching Lineation | 40.418888 | 22.244170 | 4 | 228 |
| Stretching Lineation | 40.418750 | 22.242218 | 18 | 238 |
| Stretching Lineation | 40.418537 | 22.240503 | 12 | 243 |
| Stretching Lineation | 40.416091 | 22.226759 | 23 | 63 |
| Stretching Lineation | 40.415383 | 22.229338 | 0 | 40 |
| Stretching Lineation | 40.416375 | 22.229689 | 3 | 30 |
| Stretching Lineation | 40.416437 | 22.232554 | 2 | 201 |
| Stretching Lineation | 40.417054 | 22.233558 | 33 | 225 |
| Stretching Lineation | 40.417076 | 22.233573 | 9 | 31 |
| Stretching Lineation | 40.418184 | 22.237363 | 12 | 27 |
| Stretching Lineation | 40.471549 | 22.211449 | 8 | 77 |
| Stretching Lineation | 40.473233 | 22.210659 | 0 | 40 |
| Stretching Lineation | 40.477391 | 22.216691 | 27 | 61 |
| Mineral Lineation | 40.425521 | 22.186178 | 18 | 175 |
| Mineral Lineation | 40.393502 | 22.209526 | 12 | 352 |
| Mineral Lineation | 40.467740 | 22.243037 | 33 | 241 |
| Mineral Lineation | 40.437967 | 22.175508 | 21 | 246 |
| Mineral Lineation | 40.422718 | 22.240286 | 2 | 30 |
| Slickenside | 40.420695 | 22.193305 | 51 | 69 |
| Slickenside | 40.425449 | 22.190030 | 34 | 354 |
| Slickenside | 40.461977 | 22.247124 | 57 | 331 |
| Slickenside | 40.412195 | 22.196075 | 70 | 258 |
| Slickenside | 40.441853 | 22.244594 | 25 | 313 |
| Slickenside | 40.444718 | 22.260850 | 61 | 157 |
| Slickenside | 40.480622 | 22.219532 | 6 | 235 |
| Slickenside | 40.480649 | 22.219570 | 5 | 304 |
| Slickenside | 40.479698 | 22.219041 | 50 | 234 |
| Slickenside | 40.479703 | 22.218986 | 31 | 255 |
| Slickenside | 40.479804 | 22.219360 | 35 | 251 |

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| | | | | |
|-------------|-----------|-----------|----|-----|
| Slickenside | 40.479099 | 22.213695 | 72 | 139 |
| Slickenside | 40.478917 | 22.213488 | 72 | 143 |

Table S3: Table of structural measurements taken in mapped area.

215

220

225

230

235

240

245

age :age (Ma)
 cIL :lower 0.95 confidential interval (Ma)
 cIU :upper 0.95 confidential interval (Ma)
 sE :standard error (Ma)

| | age | cIL | cIU | sE |
|---------|-----|-----|--------|----|
| Pooled | 157 | 148 | 167.66 | 5 |
| Central | 156 | 138 | 176.74 | 10 |

Probability of χ^2 (%) : 0
 Age dispersion (%) : 23.88
 Pooled spontaneous tracks : 5628
 Pooled induced tracks : 1353
 Pooled counter squares : 46034
 Mean U concentration +/- 1 σ (ppm) : 222 +/- 13

SINGLE GRAIN DATA in ORIGINAL ORDER:

n :grain number
 mN :mount number
 gNM :grain number per mount
 nS :spontaneous tracks (tr)
 rhoS :density of spontaneous tracks (tr/cm⁻²)
 nl :induced tracks
 rhoI :density of induced tracks (tr/cm⁻²)
 nSq :number of counter squares
 uG :uranium concentration (ppm)
 uGSE :standard error of uranium concentration
 ageG :grain age (Ma)
 cILG :lower 0.95 confidential interval (Ma)
 cIUG :upper 0.95 confidential interval (Ma)
 sEG :relative standard error (1 σ , Ma)

... in ORIGINAL ORDER:

| n | mN | gNM | nS | rhoS | nl | rhoI | nSq | uG | uGSE | ageG | cILG | cIUG | sEG |
|----|----|-----|-----|----------|----|----------|-----|-----|------|-------|-------|--------|-------|
| 1 | 1 | 1 | 39 | 1.14E+07 | 10 | 2.92E+06 | 343 | 219 | 135 | 146.5 | 73.08 | 328.53 | 49.86 |
| 2 | 1 | 2 | 77 | 1.13E+07 | 21 | 3.09E+06 | 679 | 233 | 100 | 138.7 | 85.5 | 236.34 | 33.51 |
| 3 | 1 | 3 | 85 | 1.56E+07 | 21 | 3.85E+06 | 546 | 289 | 125 | 152.9 | 94.9 | 259.17 | 36.57 |
| 4 | 1 | 4 | 41 | 1.41E+07 | 17 | 5.84E+06 | 291 | 440 | 210 | 91.58 | 51.32 | 171.89 | 25.81 |
| 5 | 1 | 5 | 49 | 1.57E+07 | 20 | 6.41E+06 | 312 | 482 | 213 | 93.09 | 54.72 | 165.28 | 24.22 |
| 6 | 1 | 6 | 60 | 1.11E+07 | 13 | 2.40E+06 | 541 | 181 | 98 | 173.4 | 95.6 | 343.31 | 51.39 |
| 7 | 1 | 7 | 77 | 1.33E+07 | 13 | 2.24E+06 | 581 | 168 | 92 | 221.6 | 124.4 | 432.39 | 64.32 |
| 8 | 1 | 8 | 41 | 9.88E+06 | 16 | 3.86E+06 | 415 | 290 | 143 | 97.2 | 53.87 | 185.51 | 27.95 |
| 9 | 1 | 9 | 57 | 7.33E+06 | 17 | 2.19E+06 | 778 | 164 | 79 | 126.8 | 73.49 | 232.33 | 34.23 |
| 10 | 1 | 10 | 85 | 1.91E+07 | 16 | 3.59E+06 | 446 | 270 | 133 | 199.5 | 117.7 | 363.26 | 52.98 |
| 11 | 2 | 1 | 44 | 1.21E+07 | 9 | 2.47E+06 | 364 | 186 | 121 | 182.3 | 89.73 | 423.04 | 63.7 |
| 12 | 2 | 2 | 55 | 1.75E+07 | 9 | 2.86E+06 | 315 | 215 | 140 | 227 | 113.9 | 518.52 | 77.86 |
| 13 | 2 | 3 | 25 | 7.72E+06 | 5 | 1.54E+06 | 324 | 116 | 99 | 184.4 | 71.73 | 611.93 | 83.26 |
| 14 | 2 | 4 | 123 | 1.24E+07 | 41 | 4.14E+06 | 990 | 312 | 97 | 113.8 | 79.7 | 166.15 | 20.35 |
| 15 | 2 | 5 | 66 | 1.12E+07 | 17 | 2.90E+06 | 587 | 218 | 104 | 146.3 | 85.78 | 265.47 | 38.84 |
| 16 | 2 | 6 | 40 | 1.28E+07 | 8 | 2.56E+06 | 313 | 193 | 132 | 186.1 | 87.97 | 458.05 | 68.43 |
| 17 | 2 | 7 | 69 | 1.57E+07 | 30 | 6.80E+06 | 441 | 513 | 186 | 87.4 | 56.44 | 138.96 | 18.88 |
| 18 | 2 | 8 | 58 | 9.34E+06 | 13 | 2.09E+06 | 621 | 158 | 86 | 167.4 | 92.02 | 332.04 | 49.76 |
| 19 | 2 | 9 | 61 | 1.12E+07 | 15 | 2.76E+06 | 543 | 208 | 106 | 153 | 87 | 289.18 | 42.9 |

| | | | | | | | | | | | | | |
|----|---|----|-----|----------|----|----------|------|-----|-----|-------|-------|---------|--------|
| 27 | 2 | 17 | 41 | 8.93E+06 | 13 | 2.83E+06 | 459 | 214 | 116 | 118.9 | 63.24 | 241.67 | 36.69 |
| 28 | 2 | 18 | 62 | 1.87E+07 | 22 | 6.65E+06 | 331 | 501 | 212 | 106.7 | 65.19 | 182.25 | 26.02 |
| 29 | 2 | 19 | 73 | 1.07E+07 | 29 | 4.26E+06 | 681 | 321 | 118 | 95.56 | 61.71 | 152.36 | 20.7 |
| 30 | 3 | 1 | 105 | 1.79E+07 | 27 | 4.60E+06 | 587 | 348 | 133 | 146.6 | 96.02 | 232.41 | 31.18 |
| 31 | 3 | 2 | 88 | 1.46E+07 | 20 | 3.31E+06 | 605 | 250 | 110 | 165.3 | 101.9 | 282.98 | 40.13 |
| 32 | 3 | 3 | 47 | 1.00E+07 | 12 | 2.55E+06 | 470 | 193 | 109 | 146.8 | 77.83 | 303.45 | 45.89 |
| 33 | 3 | 4 | 67 | 1.54E+07 | 30 | 6.91E+06 | 434 | 522 | 189 | 84.7 | 54.56 | 134.94 | 18.38 |
| 34 | 3 | 5 | 60 | 1.21E+07 | 31 | 6.25E+06 | 496 | 472 | 169 | 73.5 | 47.08 | 117.3 | 16.06 |
| 35 | 3 | 6 | 96 | 2.51E+07 | 23 | 6.01E+06 | 383 | 454 | 187 | 157 | 99.74 | 258.92 | 35.83 |
| 36 | 3 | 7 | 45 | 7.56E+06 | 13 | 2.19E+06 | 595 | 165 | 90 | 130.1 | 69.86 | 262.5 | 39.7 |
| 37 | 3 | 8 | 90 | 1.20E+07 | 36 | 4.81E+06 | 748 | 364 | 121 | 94.77 | 64.01 | 143.57 | 18.5 |
| 38 | 3 | 9 | 195 | 1.49E+07 | 55 | 4.20E+06 | 1310 | 317 | 85 | 134.1 | 99.34 | 184.11 | 20.36 |
| 39 | 3 | 10 | 57 | 1.07E+07 | 22 | 4.13E+06 | 533 | 312 | 132 | 98.01 | 59.4 | 168.3 | 24.17 |
| 40 | 3 | 11 | 67 | 1.99E+07 | 22 | 6.53E+06 | 337 | 493 | 208 | 115 | 70.69 | 195.4 | 27.76 |
| 41 | 3 | 12 | 54 | 1.64E+07 | 14 | 4.24E+06 | 330 | 321 | 168 | 144.8 | 80.37 | 281.79 | 42.18 |
| 42 | 3 | 13 | 66 | 2.88E+07 | 18 | 7.86E+06 | 229 | 594 | 276 | 138 | 81.81 | 246.64 | 35.88 |
| 43 | 3 | 14 | 50 | 1.51E+07 | 16 | 4.82E+06 | 332 | 364 | 179 | 117.8 | 66.64 | 221.37 | 32.99 |
| 44 | 3 | 15 | 24 | 4.38E+06 | 4 | 7.30E+05 | 548 | 55 | 52 | 218.6 | 78.43 | 852.31 | 106.57 |
| 45 | 3 | 16 | 66 | 1.15E+07 | 11 | 1.92E+06 | 573 | 145 | 86 | 223 | 119.3 | 465.42 | 69.89 |
| 46 | 3 | 17 | 112 | 1.24E+07 | 19 | 2.11E+06 | 900 | 160 | 72 | 220.3 | 136.5 | 377.78 | 53.48 |
| 47 | 3 | 18 | 120 | 2.04E+07 | 12 | 2.04E+06 | 588 | 154 | 87 | 367.6 | 207.8 | 720.28 | 107.28 |
| 48 | 3 | 19 | 64 | 1.72E+07 | 9 | 2.41E+06 | 373 | 182 | 118 | 262.7 | 133.4 | 594.36 | 89.17 |
| 49 | 3 | 20 | 94 | 1.04E+07 | 31 | 3.42E+06 | 907 | 258 | 92 | 114.7 | 76.14 | 177.96 | 23.47 |
| 50 | 3 | 21 | 78 | 1.23E+07 | 17 | 2.67E+06 | 636 | 202 | 97 | 172.1 | 102.2 | 309.38 | 44.96 |
| 51 | 3 | 22 | 89 | 1.65E+07 | 16 | 2.97E+06 | 538 | 225 | 111 | 207.8 | 123 | 377.57 | 54.98 |
| 52 | 3 | 23 | 63 | 1.62E+07 | 13 | 3.35E+06 | 388 | 253 | 138 | 181.2 | 100.3 | 357.61 | 53.45 |
| 53 | 3 | 24 | 94 | 1.63E+07 | 23 | 3.99E+06 | 577 | 301 | 124 | 153.8 | 97.56 | 253.87 | 35.17 |
| 54 | 3 | 25 | 38 | 9.25E+06 | 10 | 2.43E+06 | 411 | 184 | 114 | 142.2 | 70.73 | 319.52 | 48.53 |
| 55 | 3 | 26 | 43 | 7.71E+06 | 6 | 1.08E+06 | 558 | 81 | 64 | 262.8 | 115.2 | 744.45 | 106.69 |
| 56 | 3 | 27 | 53 | 5.71E+06 | 14 | 1.51E+06 | 928 | 114 | 60 | 142.2 | 78.77 | 276.99 | 41.49 |
| 57 | 4 | 1 | 47 | 1.40E+07 | 18 | 5.37E+06 | 335 | 407 | 189 | 98.45 | 56.59 | 180.06 | 26.7 |
| 58 | 4 | 2 | 19 | 4.99E+06 | 8 | 2.10E+06 | 381 | 159 | 109 | 89.08 | 37.81 | 235.34 | 35.72 |
| 59 | 4 | 3 | 49 | 1.45E+07 | 10 | 2.97E+06 | 337 | 225 | 139 | 182.2 | 92.98 | 401.89 | 60.66 |
| 60 | 4 | 4 | 114 | 1.31E+07 | 13 | 1.50E+06 | 869 | 113 | 62 | 323.1 | 185.5 | 618.13 | 91.46 |
| 61 | 4 | 5 | 208 | 1.75E+07 | 29 | 2.45E+06 | 1186 | 185 | 68 | 267.1 | 182.5 | 406.5 | 52.21 |
| 62 | 4 | 6 | 47 | 1.23E+07 | 12 | 3.13E+06 | 383 | 237 | 134 | 146.5 | 77.67 | 302.8 | 45.79 |
| 63 | 4 | 7 | 74 | 2.03E+07 | 17 | 4.67E+06 | 364 | 354 | 169 | 163 | 96.43 | 293.96 | 42.8 |
| 64 | 4 | 8 | 83 | 8.07E+06 | 17 | 1.65E+06 | 1028 | 125 | 60 | 182.5 | 108.8 | 327.11 | 47.43 |
| 65 | 4 | 9 | 110 | 1.70E+07 | 13 | 2.01E+06 | 648 | 152 | 83 | 312.1 | 178.9 | 598.03 | 88.51 |
| 66 | 4 | 10 | 78 | 2.22E+07 | 21 | 5.97E+06 | 352 | 452 | 195 | 139.6 | 86.13 | 237.66 | 33.67 |
| 67 | 4 | 11 | 54 | 1.26E+07 | 13 | 3.02E+06 | 430 | 229 | 125 | 155.3 | 84.89 | 309.58 | 46.5 |
| 68 | 4 | 12 | 106 | 6.18E+06 | 17 | 9.91E+05 | 1716 | 75 | 36 | 232.1 | 140.4 | 411.03 | 59.15 |
| 69 | 4 | 13 | 161 | 1.60E+07 | 33 | 3.27E+06 | 1009 | 248 | 86 | 183.1 | 126.2 | 274.23 | 34.58 |
| 70 | 4 | 14 | 37 | 7.05E+06 | 4 | 7.62E+05 | 525 | 58 | 54 | 332.5 | 125.7 | 1238.42 | 157.36 |
| 71 | 4 | 15 | 40 | 1.55E+07 | 3 | 1.16E+06 | 258 | 88 | 94 | 468.3 | 160.2 | 2166.27 | 243.06 |
| 72 | 4 | 16 | 79 | 9.08E+06 | 19 | 2.18E+06 | 870 | 165 | 75 | 155.9 | 94.61 | 271.99 | 39 |
| 73 | 4 | 17 | 88 | 1.08E+07 | 16 | 1.96E+06 | 817 | 148 | 73 | 205.1 | 121.3 | 372.82 | 54.31 |
| 74 | 4 | 18 | 72 | 1.30E+07 | 14 | 2.54E+06 | 552 | 192 | 101 | 191.8 | 108.9 | 366.8 | 54.38 |
| 75 | 4 | 19 | 41 | 5.13E+06 | 9 | 1.13E+06 | 799 | 85 | 55 | 169.4 | 82.77 | 395.07 | 59.56 |
| 76 | 4 | 20 | 87 | 7.71E+06 | 21 | 1.86E+06 | 1128 | 141 | 61 | 155.5 | 96.63 | 263.16 | 37.08 |
| 77 | 4 | 21 | 98 | 1.80E+07 | 12 | 2.21E+06 | 544 | 167 | 95 | 301.2 | 168.5 | 596.27 | 88.84 |
| 78 | 4 | 22 | 64 | 1.05E+07 | 12 | 1.96E+06 | 612 | 148 | 84 | 198.5 | 108 | 402.16 | 60.29 |
| 79 | 4 | 23 | 49 | 1.33E+07 | 10 | 2.72E+06 | 368 | 206 | 127 | 182.2 | 92.98 | 401.89 | 60.66 |

| | | | | | | | | | | | | | |
|----|---|----|-----|----------|----|----------|------|-----|-----|-------|-------|--------|-------|
| 4 | 1 | 4 | 41 | 1.41E+07 | 17 | 5.84E+06 | 291 | 440 | 210 | 91.58 | 51.32 | 171.89 | 25.81 |
| 5 | 1 | 5 | 49 | 1.57E+07 | 20 | 6.41E+06 | 312 | 482 | 213 | 93.09 | 54.72 | 165.28 | 24.22 |
| 37 | 3 | 8 | 90 | 1.20E+07 | 36 | 4.81E+06 | 748 | 364 | 121 | 94.77 | 64.01 | 143.57 | 18.5 |
| 29 | 2 | 19 | 73 | 1.07E+07 | 29 | 4.26E+06 | 681 | 321 | 118 | 95.56 | 61.71 | 152.36 | 20.7 |
| 8 | 1 | 8 | 41 | 9.88E+06 | 16 | 3.86E+06 | 415 | 290 | 143 | 97.2 | 53.87 | 185.51 | 27.95 |
| 39 | 3 | 10 | 57 | 1.07E+07 | 22 | 4.13E+06 | 533 | 312 | 132 | 98.01 | 59.4 | 168.3 | 24.17 |
| 57 | 4 | 1 | 47 | 1.40E+07 | 18 | 5.37E+06 | 335 | 407 | 189 | 98.45 | 56.59 | 180.06 | 26.7 |
| 20 | 2 | 10 | 42 | 1.01E+07 | 15 | 3.61E+06 | 415 | 273 | 139 | 105.8 | 58.09 | 205.37 | 31 |
| 22 | 2 | 12 | 31 | 5.45E+06 | 11 | 1.93E+06 | 569 | 146 | 86 | 106.2 | 52.67 | 234.25 | 35.95 |
| 28 | 2 | 18 | 62 | 1.87E+07 | 22 | 6.65E+06 | 331 | 501 | 212 | 106.7 | 65.19 | 182.25 | 26.02 |
| 14 | 2 | 4 | 123 | 1.24E+07 | 41 | 4.14E+06 | 990 | 312 | 97 | 113.8 | 79.7 | 166.15 | 20.35 |
| 49 | 3 | 20 | 94 | 1.04E+07 | 31 | 3.42E+06 | 907 | 258 | 92 | 114.7 | 76.14 | 177.96 | 23.47 |
| 40 | 3 | 11 | 67 | 1.99E+07 | 22 | 6.53E+06 | 337 | 493 | 208 | 115 | 70.69 | 195.4 | 27.76 |
| 43 | 3 | 14 | 50 | 1.51E+07 | 16 | 4.82E+06 | 332 | 364 | 179 | 117.8 | 66.64 | 221.37 | 32.99 |
| 27 | 2 | 17 | 41 | 8.93E+06 | 13 | 2.83E+06 | 459 | 214 | 116 | 118.9 | 63.24 | 241.67 | 36.69 |
| 9 | 1 | 9 | 57 | 7.33E+06 | 17 | 2.19E+06 | 778 | 164 | 79 | 126.8 | 73.49 | 232.33 | 34.23 |
| 24 | 2 | 14 | 41 | 7.11E+06 | 12 | 2.08E+06 | 577 | 157 | 89 | 128.6 | 67.23 | 268.48 | 40.8 |
| 36 | 3 | 7 | 45 | 7.56E+06 | 13 | 2.19E+06 | 595 | 165 | 90 | 130.1 | 69.86 | 262.5 | 39.7 |
| 38 | 3 | 9 | 195 | 1.49E+07 | 55 | 4.20E+06 | 1310 | 317 | 85 | 134.1 | 99.34 | 184.11 | 20.36 |
| 42 | 3 | 13 | 66 | 2.88E+07 | 18 | 7.86E+06 | 229 | 594 | 276 | 138 | 81.81 | 246.64 | 35.88 |
| 2 | 1 | 2 | 77 | 1.13E+07 | 21 | 3.09E+06 | 679 | 233 | 100 | 138.7 | 85.5 | 236.34 | 33.51 |
| 66 | 4 | 10 | 78 | 2.22E+07 | 21 | 5.97E+06 | 352 | 452 | 195 | 139.6 | 86.13 | 237.66 | 33.67 |
| 56 | 3 | 27 | 53 | 5.71E+06 | 14 | 1.51E+06 | 928 | 114 | 60 | 142.2 | 78.77 | 276.99 | 41.49 |
| 54 | 3 | 25 | 38 | 9.25E+06 | 10 | 2.43E+06 | 411 | 184 | 114 | 142.2 | 70.73 | 319.52 | 48.53 |
| 41 | 3 | 12 | 54 | 1.64E+07 | 14 | 4.24E+06 | 330 | 321 | 168 | 144.8 | 80.37 | 281.79 | 42.18 |
| 15 | 2 | 5 | 66 | 1.12E+07 | 17 | 2.90E+06 | 587 | 218 | 104 | 146.3 | 85.78 | 265.47 | 38.84 |
| 62 | 4 | 6 | 47 | 1.23E+07 | 12 | 3.13E+06 | 383 | 237 | 134 | 146.5 | 77.67 | 302.8 | 45.79 |
| 1 | 1 | 1 | 39 | 1.14E+07 | 10 | 2.92E+06 | 343 | 219 | 135 | 146.5 | 73.08 | 328.53 | 49.86 |
| 30 | 3 | 1 | 105 | 1.79E+07 | 27 | 4.60E+06 | 587 | 348 | 133 | 146.6 | 96.02 | 232.41 | 31.18 |
| 32 | 3 | 3 | 47 | 1.00E+07 | 12 | 2.55E+06 | 470 | 193 | 109 | 146.8 | 77.83 | 303.45 | 45.89 |
| 3 | 1 | 3 | 85 | 1.56E+07 | 21 | 3.85E+06 | 546 | 289 | 125 | 152.9 | 94.9 | 259.17 | 36.57 |
| 19 | 2 | 9 | 61 | 1.12E+07 | 15 | 2.76E+06 | 543 | 208 | 106 | 153 | 87 | 289.18 | 42.9 |
| 53 | 3 | 24 | 94 | 1.63E+07 | 23 | 3.99E+06 | 577 | 301 | 124 | 153.8 | 97.56 | 253.87 | 35.17 |
| 67 | 4 | 11 | 54 | 1.26E+07 | 13 | 3.02E+06 | 430 | 229 | 125 | 155.3 | 84.89 | 309.58 | 46.5 |
| 76 | 4 | 20 | 87 | 7.71E+06 | 21 | 1.86E+06 | 1128 | 141 | 61 | 155.5 | 96.63 | 263.16 | 37.08 |
| 72 | 4 | 16 | 79 | 9.08E+06 | 19 | 2.18E+06 | 870 | 165 | 75 | 155.9 | 94.61 | 271.99 | 39 |
| 35 | 3 | 6 | 96 | 2.51E+07 | 23 | 6.01E+06 | 383 | 454 | 187 | 157 | 99.74 | 258.92 | 35.83 |
| 21 | 2 | 11 | 189 | 2.02E+07 | 44 | 4.69E+06 | 938 | 354 | 106 | 162.3 | 117 | 230.37 | 26.96 |
| 63 | 4 | 7 | 74 | 2.03E+07 | 17 | 4.67E+06 | 364 | 354 | 169 | 163 | 96.43 | 293.96 | 42.8 |
| 31 | 3 | 2 | 88 | 1.46E+07 | 20 | 3.31E+06 | 605 | 250 | 110 | 165.3 | 101.9 | 282.98 | 40.13 |
| 18 | 2 | 8 | 58 | 9.34E+06 | 13 | 2.09E+06 | 621 | 158 | 86 | 167.4 | 92.02 | 332.04 | 49.76 |
| 75 | 4 | 19 | 41 | 5.13E+06 | 9 | 1.13E+06 | 799 | 85 | 55 | 169.4 | 82.77 | 395.07 | 59.56 |
| 50 | 3 | 21 | 78 | 1.23E+07 | 17 | 2.67E+06 | 636 | 202 | 97 | 172.1 | 102.2 | 309.38 | 44.96 |
| 6 | 1 | 6 | 60 | 1.11E+07 | 13 | 2.40E+06 | 541 | 181 | 98 | 173.4 | 95.6 | 343.31 | 51.39 |
| 52 | 3 | 23 | 63 | 1.62E+07 | 13 | 3.35E+06 | 388 | 253 | 138 | 181.2 | 100.3 | 357.61 | 53.45 |
| 59 | 4 | 3 | 49 | 1.45E+07 | 10 | 2.97E+06 | 337 | 225 | 139 | 182.2 | 92.98 | 401.89 | 60.66 |
| 79 | 4 | 23 | 49 | 1.33E+07 | 10 | 2.72E+06 | 368 | 206 | 127 | 182.2 | 92.98 | 401.89 | 60.66 |
| 11 | 2 | 1 | 44 | 1.21E+07 | 9 | 2.47E+06 | 364 | 186 | 121 | 182.3 | 89.73 | 423.04 | 63.7 |
| 64 | 4 | 8 | 83 | 8.07E+06 | 17 | 1.65E+06 | 1028 | 125 | 60 | 182.5 | 108.8 | 327.11 | 47.43 |
| 23 | 2 | 13 | 49 | 9.65E+06 | 10 | 1.97E+06 | 508 | 148 | 92 | 183 | 93.38 | 403.59 | 60.92 |
| 69 | 4 | 13 | 161 | 1.60E+07 | 33 | 3.27E+06 | 1009 | 248 | 86 | 183.1 | 126.2 | 274.23 | 34.58 |
| 13 | 2 | 3 | 25 | 7.72E+06 | 5 | 1.54E+06 | 324 | 116 | 99 | 184.4 | 71.73 | 611.93 | 83.26 |
| 16 | 2 | 6 | 40 | 1.28E+07 | 8 | 2.56E+06 | 313 | 193 | 132 | 186.1 | 87.97 | 458.05 | 68.43 |

| | | | | | | | | | | | | | |
|----|---|----|-----|----------|----|----------|------|-----|-----|-------|-------|---------|--------|
| 7 | 1 | 7 | 77 | 1.33E+07 | 13 | 2.24E+06 | 581 | 168 | 92 | 221.6 | 124.4 | 432.39 | 64.32 |
| 25 | 2 | 15 | 54 | 7.51E+06 | 9 | 1.25E+06 | 719 | 94 | 61 | 222.9 | 111.7 | 509.9 | 76.58 |
| 45 | 3 | 16 | 66 | 1.15E+07 | 11 | 1.92E+06 | 573 | 145 | 86 | 223 | 119.3 | 465.42 | 69.89 |
| 12 | 2 | 2 | 55 | 1.75E+07 | 9 | 2.86E+06 | 315 | 215 | 140 | 227 | 113.9 | 518.52 | 77.86 |
| 68 | 4 | 12 | 106 | 6.18E+06 | 17 | 9.91E+05 | 1716 | 75 | 36 | 232.1 | 140.4 | 411.03 | 59.15 |
| 48 | 3 | 19 | 64 | 1.72E+07 | 9 | 2.41E+06 | 373 | 182 | 118 | 262.7 | 133.4 | 594.36 | 89.17 |
| 55 | 3 | 26 | 43 | 7.71E+06 | 6 | 1.08E+06 | 558 | 81 | 64 | 262.8 | 115.2 | 744.45 | 106.69 |
| 61 | 4 | 5 | 208 | 1.75E+07 | 29 | 2.45E+06 | 1186 | 185 | 68 | 267.1 | 182.5 | 406.5 | 52.21 |
| 77 | 4 | 21 | 98 | 1.80E+07 | 12 | 2.21E+06 | 544 | 167 | 95 | 301.2 | 168.5 | 596.27 | 88.84 |
| 65 | 4 | 9 | 110 | 1.70E+07 | 13 | 2.01E+06 | 648 | 152 | 83 | 312.1 | 178.9 | 598.03 | 88.51 |
| 60 | 4 | 4 | 114 | 1.31E+07 | 13 | 1.50E+06 | 869 | 113 | 62 | 323.1 | 185.5 | 618.13 | 91.46 |
| 70 | 4 | 14 | 37 | 7.05E+06 | 4 | 7.62E+05 | 525 | 58 | 54 | 332.5 | 125.7 | 1238.42 | 157.36 |
| 47 | 3 | 18 | 120 | 2.04E+07 | 12 | 2.04E+06 | 588 | 154 | 87 | 367.6 | 207.8 | 720.28 | 107.28 |
| 71 | 4 | 15 | 40 | 1.55E+07 | 3 | 1.16E+06 | 258 | 88 | 94 | 468.3 | 160.2 | 2166.27 | 243.06 |

PARAMETERS:

nM: Number of mounts

rhoD: Effective track density (tr/cm²)

nD: Count for fluence monitor (tr)

uGlass: Uranium concentration of glass standard (ppm)

zeta: zeta factor (a cm²/tr)

zetaSE: standard error of zeta factor (a cm²/tr)

sSC: size of square counter (cm²)

| nM | rhoD | nD | uGlass | zeta | zetaSE | sSC |
|----|----------|------|--------|--------|--------|---------|
| 1 | 5.29E+05 | 6594 | 39.8 | 145.39 | 7.04 | 1.0E-08 |
| 2 | 5.28E+05 | 6579 | 39.8 | 145.39 | 7.04 | 1.0E-08 |
| 3 | 5.27E+05 | 6565 | 39.8 | 145.39 | 7.04 | 1.0E-08 |
| 4 | 5.26E+05 | 6551 | 39.8 | 145.39 | 7.04 | 1.0E-08 |

Sample ID

v1504 a-c, ETH404, #7-8, GF 43013

SAMPLE POOLED and CENTRAL AGES

age :age (Ma)

clL :lower 0.95 confidential interval (Ma)

clU :upper 0.95 confidential interval (Ma)

sE :standard error (Ma)

| | age | clL | clU | sE |
|---------|-----|-----|--------|----|
| Pooled | 177 | 165 | 189.65 | 6 |
| Central | 177 | 153 | 204.12 | 13 |

Probability of χ^2 (%) :

0

Age dispersion (%) :

34.45

Pooled spontaneous tracks:

5101

Pooled induced tracks:

1083

Pooled counter squares:

38078

Mean U concentration +/- 1 σ (ppm): 216 +/- 14

SIN GR DAT/in ORIGINAL ORDER:

n grain number

nSg :number of counter squares
 uG :uranium concentration (ppm)
 uGSE :standard error of uranium concentration
 ageG :grain age (Ma)
 cILG :lower 0.95 confidential interval (Ma)
 cIUG :upper 0.95 confidential interval (Ma)
 sEG :relative standard error (1 σ , Ma)

... in ORIGINAL ORDER:

| n | mN | gNM | nS | rhoS | nl | rhoI | nSq | uG | uGSE | ageG | cILG | cIUG | sEG |
|----|----|-----|-----|----------|----|----------|------|-----|------|-------|-------|---------|--------|
| 1 | 1 | 1 | 67 | 1.38E+07 | 19 | 3.93E+06 | 484 | 299 | 135 | 132 | 79.11 | 232.36 | 33.58 |
| 2 | 1 | 2 | 86 | 2.58E+07 | 15 | 4.49E+06 | 334 | 342 | 174 | 212.6 | 123.9 | 394.35 | 57.84 |
| 3 | 1 | 3 | 32 | 8.84E+06 | 9 | 2.49E+06 | 362 | 189 | 123 | 132.2 | 62.78 | 314.47 | 47.67 |
| 4 | 1 | 4 | 139 | 6.17E+06 | 48 | 2.13E+06 | 2252 | 162 | 47 | 109 | 78.3 | 154.55 | 18.12 |
| 5 | 1 | 5 | 70 | 1.56E+07 | 19 | 4.23E+06 | 449 | 322 | 146 | 137.8 | 82.88 | 242 | 34.9 |
| 6 | 1 | 6 | 35 | 1.01E+07 | 4 | 1.15E+06 | 347 | 88 | 83 | 313.7 | 117.9 | 1175.57 | 148.95 |
| 7 | 1 | 7 | 79 | 3.50E+07 | 15 | 6.64E+06 | 226 | 505 | 257 | 195.6 | 113.4 | 364.41 | 53.58 |
| 8 | 1 | 8 | 51 | 1.04E+07 | 11 | 2.24E+06 | 492 | 170 | 100 | 172 | 90.12 | 364.88 | 55.08 |
| 9 | 1 | 9 | 123 | 2.81E+07 | 29 | 6.62E+06 | 438 | 504 | 186 | 158.7 | 106 | 246.27 | 32.32 |
| 10 | 1 | 10 | 107 | 1.63E+07 | 35 | 5.33E+06 | 657 | 405 | 136 | 114.9 | 78.23 | 173.32 | 22.14 |
| 11 | 1 | 11 | 71 | 1.35E+07 | 18 | 3.41E+06 | 528 | 259 | 121 | 147.4 | 87.85 | 262.23 | 38.02 |
| 12 | 1 | 12 | 58 | 1.17E+07 | 15 | 3.02E+06 | 497 | 230 | 117 | 144.3 | 81.74 | 273.68 | 40.68 |
| 13 | 1 | 13 | 91 | 1.50E+07 | 34 | 5.60E+06 | 607 | 426 | 145 | 100.7 | 67.59 | 153.99 | 20.02 |
| 14 | 1 | 14 | 55 | 1.35E+07 | 20 | 4.89E+06 | 409 | 372 | 164 | 103.3 | 61.39 | 181.77 | 26.43 |
| 15 | 1 | 15 | 67 | 1.29E+07 | 12 | 2.30E+06 | 521 | 175 | 99 | 206.7 | 112.9 | 417.76 | 62.56 |
| 16 | 1 | 16 | 75 | 1.82E+07 | 20 | 4.85E+06 | 412 | 369 | 163 | 140.3 | 85.58 | 242.21 | 34.6 |
| 17 | 1 | 17 | 61 | 1.64E+07 | 21 | 5.65E+06 | 372 | 429 | 185 | 109 | 65.98 | 188.37 | 27.07 |
| 18 | 1 | 18 | 66 | 1.85E+07 | 10 | 2.81E+06 | 356 | 214 | 132 | 243 | 127 | 525.87 | 79.01 |
| 19 | 2 | 1 | 34 | 6.98E+06 | 9 | 1.85E+06 | 487 | 140 | 91 | 140.6 | 67.28 | 332.81 | 50.38 |
| 20 | 2 | 2 | 61 | 6.89E+06 | 19 | 2.15E+06 | 885 | 163 | 74 | 120.6 | 71.71 | 213.49 | 31.01 |
| 21 | 2 | 3 | 99 | 9.71E+06 | 12 | 1.18E+06 | 1020 | 89 | 51 | 303.6 | 169.9 | 600.64 | 89.48 |
| 22 | 2 | 4 | 149 | 1.62E+07 | 29 | 3.15E+06 | 920 | 239 | 88 | 192.1 | 129.6 | 295.82 | 38.46 |
| 23 | 2 | 5 | 133 | 1.11E+07 | 36 | 3.01E+06 | 1197 | 228 | 76 | 138.9 | 96.06 | 206.41 | 25.83 |
| 24 | 2 | 6 | 52 | 9.37E+06 | 19 | 3.42E+06 | 555 | 260 | 118 | 103 | 60.36 | 184.31 | 27.03 |
| 25 | 2 | 7 | 87 | 1.96E+07 | 13 | 2.93E+06 | 444 | 222 | 121 | 247.6 | 140.1 | 480.14 | 71.25 |
| 26 | 2 | 8 | 72 | 2.27E+07 | 18 | 5.68E+06 | 317 | 431 | 201 | 149.7 | 89.35 | 266.23 | 38.58 |
| 27 | 2 | 9 | 80 | 1.47E+07 | 17 | 3.12E+06 | 545 | 237 | 113 | 175.7 | 104.5 | 315.4 | 45.79 |
| 28 | 2 | 10 | 68 | 1.62E+07 | 14 | 3.34E+06 | 419 | 254 | 133 | 180.9 | 102.3 | 347.14 | 51.54 |
| 29 | 2 | 11 | 24 | 7.04E+06 | 12 | 3.52E+06 | 341 | 267 | 151 | 75.3 | 36.56 | 165.25 | 25.74 |
| 30 | 2 | 12 | 34 | 3.89E+06 | 10 | 1.14E+06 | 875 | 87 | 54 | 126.9 | 62.3 | 287.74 | 43.84 |
| 31 | 2 | 13 | 82 | 2.22E+07 | 13 | 3.52E+06 | 369 | 267 | 146 | 233.7 | 131.7 | 454.5 | 67.51 |
| 32 | 2 | 14 | 49 | 8.24E+06 | 19 | 3.19E+06 | 595 | 242 | 110 | 97.08 | 56.57 | 174.54 | 25.69 |
| 33 | 2 | 15 | 89 | 1.21E+07 | 17 | 2.31E+06 | 735 | 176 | 84 | 195.1 | 116.8 | 348.37 | 50.39 |
| 34 | 2 | 16 | 118 | 9.81E+06 | 21 | 1.75E+06 | 1203 | 132 | 57 | 209.4 | 132.5 | 349.45 | 48.63 |
| 35 | 2 | 17 | 64 | 1.41E+07 | 14 | 3.08E+06 | 455 | 233 | 123 | 170.4 | 95.95 | 328.2 | 48.83 |
| 36 | 2 | 18 | 103 | 2.23E+07 | 8 | 1.74E+06 | 461 | 132 | 90 | 464.7 | 235.6 | 1073.15 | 161.25 |
| 37 | 2 | 19 | 84 | 2.28E+07 | 5 | 1.36E+06 | 369 | 103 | 88 | 593.4 | 258.5 | 1760.38 | 249.77 |
| 38 | 2 | 20 | 101 | 1.94E+07 | 8 | 1.53E+06 | 522 | 116 | 80 | 456 | 230.9 | 1054.42 | 158.36 |
| 39 | 2 | 21 | 68 | 2.13E+07 | 16 | 5.00E+06 | 320 | 379 | 187 | 158.8 | 92.28 | 292.71 | 43.01 |
| 40 | 2 | 22 | 36 | 7.42E+06 | 8 | 1.65E+06 | 485 | 125 | 86 | 166.7 | 77.92 | 413.83 | 61.9 |
| 41 | 2 | 23 | 97 | 1.73E+07 | 19 | 3.39E+06 | 561 | 257 | 117 | 190.5 | 117.1 | 328.77 | 46.76 |
| 42 | 2 | 24 | 64 | 1.52E+07 | 16 | 3.80E+06 | 421 | 288 | 142 | 149.6 | 86.52 | 276.72 | 40.76 |
| 43 | 2 | 25 | 76 | 1.55E+07 | 16 | 3.25E+06 | 492 | 247 | 122 | 177.2 | 103.8 | 324.56 | 47.49 |
| 44 | 2 | 26 | 86 | 2.82E+07 | 8 | 2.62E+06 | 305 | 199 | 137 | 390.4 | 195.9 | 912.19 | 136.52 |

| | | | | | | | | | | | | | |
|----|---|----|-----|----------|----|----------|------|-----|-----|-------|-------|---------|--------|
| 52 | 2 | 34 | 191 | 1.67E+07 | 14 | 1.23E+06 | 1142 | 93 | 49 | 495 | 295.5 | 903.49 | 132.73 |
| 53 | 2 | 35 | 120 | 7.83E+06 | 29 | 1.89E+06 | 1532 | 144 | 53 | 155.2 | 103.6 | 241.12 | 31.69 |
| 54 | 2 | 36 | 93 | 1.80E+07 | 13 | 2.52E+06 | 517 | 191 | 104 | 264.3 | 150.1 | 510.78 | 75.72 |
| 55 | 2 | 37 | 31 | 5.85E+06 | 10 | 1.89E+06 | 530 | 143 | 88 | 115.9 | 56.21 | 264.82 | 40.47 |
| 56 | 2 | 38 | 97 | 1.42E+07 | 26 | 3.81E+06 | 682 | 289 | 113 | 140.1 | 90.79 | 224.69 | 30.47 |
| 57 | 2 | 39 | 130 | 2.17E+07 | 9 | 1.51E+06 | 598 | 114 | 74 | 520 | 275.3 | 1127.19 | 170.45 |
| 58 | 2 | 40 | 93 | 1.33E+07 | 16 | 2.28E+06 | 701 | 173 | 85 | 216.1 | 128.2 | 391.7 | 56.97 |
| 59 | 2 | 41 | 42 | 1.12E+07 | 4 | 1.06E+06 | 376 | 81 | 76 | 375.2 | 143.6 | 1378.86 | 176.33 |
| 60 | 2 | 42 | 97 | 1.70E+07 | 35 | 6.14E+06 | 570 | 466 | 157 | 104.5 | 70.69 | 158.41 | 20.39 |
| 61 | 2 | 43 | 243 | 1.16E+07 | 72 | 3.43E+06 | 2100 | 260 | 61 | 126.8 | 97.31 | 165.11 | 17.27 |

INCREASING AGE

| n | mN | gNM | nS | rhoS | nl | rhoI | nSq | uG | uGSE | ageG | cILG | cIUG | sEG |
|----|----|-----|-----|----------|----|----------|------|-----|------|-------|-------|--------|-------|
| 29 | 2 | 11 | 24 | 7.04E+06 | 12 | 3.52E+06 | 341 | 267 | 151 | 75.3 | 36.56 | 165.25 | 25.74 |
| 32 | 2 | 14 | 49 | 8.24E+06 | 19 | 3.19E+06 | 595 | 242 | 110 | 97.08 | 56.57 | 174.54 | 25.69 |
| 13 | 1 | 13 | 91 | 1.50E+07 | 34 | 5.60E+06 | 607 | 426 | 145 | 100.7 | 67.59 | 153.99 | 20.02 |
| 24 | 2 | 6 | 52 | 9.37E+06 | 19 | 3.42E+06 | 555 | 260 | 118 | 103 | 60.36 | 184.31 | 27.03 |
| 14 | 1 | 14 | 55 | 1.35E+07 | 20 | 4.89E+06 | 409 | 372 | 164 | 103.3 | 61.39 | 181.77 | 26.43 |
| 60 | 2 | 42 | 97 | 1.70E+07 | 35 | 6.14E+06 | 570 | 466 | 157 | 104.5 | 70.69 | 158.41 | 20.39 |
| 4 | 1 | 4 | 139 | 6.17E+06 | 48 | 2.13E+06 | 2252 | 162 | 47 | 109 | 78.3 | 154.55 | 18.12 |
| 17 | 1 | 17 | 61 | 1.64E+07 | 21 | 5.65E+06 | 372 | 429 | 185 | 109 | 65.98 | 188.37 | 27.07 |
| 51 | 2 | 33 | 73 | 7.32E+06 | 25 | 2.51E+06 | 997 | 190 | 75 | 109.9 | 69.43 | 180.57 | 25.08 |
| 10 | 1 | 10 | 107 | 1.63E+07 | 35 | 5.33E+06 | 657 | 405 | 136 | 114.9 | 78.23 | 173.32 | 22.14 |
| 55 | 2 | 37 | 31 | 5.85E+06 | 10 | 1.89E+06 | 530 | 143 | 88 | 115.9 | 56.21 | 264.82 | 40.47 |
| 20 | 2 | 2 | 61 | 6.89E+06 | 19 | 2.15E+06 | 885 | 163 | 74 | 120.6 | 71.71 | 213.49 | 31.01 |
| 61 | 2 | 43 | 243 | 1.16E+07 | 72 | 3.43E+06 | 2100 | 260 | 61 | 126.8 | 97.31 | 165.11 | 17.27 |
| 30 | 2 | 12 | 34 | 3.89E+06 | 10 | 1.14E+06 | 875 | 87 | 54 | 126.9 | 62.3 | 287.74 | 43.84 |
| 1 | 1 | 1 | 67 | 1.38E+07 | 19 | 3.93E+06 | 484 | 299 | 135 | 132 | 79.11 | 232.36 | 33.58 |
| 3 | 1 | 3 | 32 | 8.84E+06 | 9 | 2.49E+06 | 362 | 189 | 123 | 132.2 | 62.78 | 314.47 | 47.67 |
| 5 | 1 | 5 | 70 | 1.56E+07 | 19 | 4.23E+06 | 449 | 322 | 146 | 137.8 | 82.88 | 242 | 34.9 |
| 23 | 2 | 5 | 133 | 1.11E+07 | 36 | 3.01E+06 | 1197 | 228 | 76 | 138.9 | 96.06 | 206.41 | 25.83 |
| 56 | 2 | 38 | 97 | 1.42E+07 | 26 | 3.81E+06 | 682 | 289 | 113 | 140.1 | 90.79 | 224.69 | 30.47 |
| 16 | 1 | 16 | 75 | 1.82E+07 | 20 | 4.85E+06 | 412 | 369 | 163 | 140.3 | 85.58 | 242.21 | 34.6 |
| 19 | 2 | 1 | 34 | 6.98E+06 | 9 | 1.85E+06 | 487 | 140 | 91 | 140.6 | 67.28 | 332.81 | 50.38 |
| 12 | 1 | 12 | 58 | 1.17E+07 | 15 | 3.02E+06 | 497 | 230 | 117 | 144.3 | 81.74 | 273.68 | 40.68 |
| 11 | 1 | 11 | 71 | 1.35E+07 | 18 | 3.41E+06 | 528 | 259 | 121 | 147.4 | 87.85 | 262.23 | 38.02 |
| 42 | 2 | 24 | 64 | 1.52E+07 | 16 | 3.80E+06 | 421 | 288 | 142 | 149.6 | 86.52 | 276.72 | 40.76 |
| 26 | 2 | 8 | 72 | 2.27E+07 | 18 | 5.68E+06 | 317 | 431 | 201 | 149.7 | 89.35 | 266.23 | 38.58 |
| 53 | 2 | 35 | 120 | 7.83E+06 | 29 | 1.89E+06 | 1532 | 144 | 53 | 155.2 | 103.6 | 241.12 | 31.69 |
| 9 | 1 | 9 | 123 | 2.81E+07 | 29 | 6.62E+06 | 438 | 504 | 186 | 158.7 | 106 | 246.27 | 32.32 |
| 39 | 2 | 21 | 68 | 2.13E+07 | 16 | 5.00E+06 | 320 | 379 | 187 | 158.8 | 92.28 | 292.71 | 43.01 |
| 48 | 2 | 30 | 86 | 1.65E+07 | 20 | 3.85E+06 | 520 | 292 | 129 | 160.9 | 99.08 | 275.78 | 39.14 |
| 40 | 2 | 22 | 36 | 7.42E+06 | 8 | 1.65E+06 | 485 | 125 | 86 | 166.7 | 77.92 | 413.83 | 61.9 |
| 35 | 2 | 17 | 64 | 1.41E+07 | 14 | 3.08E+06 | 455 | 233 | 123 | 170.4 | 95.95 | 328.2 | 48.83 |
| 8 | 1 | 8 | 51 | 1.04E+07 | 11 | 2.24E+06 | 492 | 170 | 100 | 172 | 90.12 | 364.88 | 55.08 |
| 27 | 2 | 9 | 80 | 1.47E+07 | 17 | 3.12E+06 | 545 | 237 | 113 | 175.7 | 104.5 | 315.4 | 45.79 |
| 43 | 2 | 25 | 76 | 1.55E+07 | 16 | 3.25E+06 | 492 | 247 | 122 | 177.2 | 103.8 | 324.56 | 47.49 |
| 28 | 2 | 10 | 68 | 1.62E+07 | 14 | 3.34E+06 | 419 | 254 | 133 | 180.9 | 102.3 | 347.14 | 51.54 |
| 41 | 2 | 23 | 97 | 1.73E+07 | 19 | 3.39E+06 | 561 | 257 | 117 | 190.5 | 117.1 | 328.77 | 46.76 |
| 22 | 2 | 4 | 149 | 1.62E+07 | 29 | 3.15E+06 | 920 | 239 | 88 | 192.1 | 129.6 | 295.82 | 38.46 |
| 50 | 2 | 32 | 94 | 2.53E+07 | 18 | 4.84E+06 | 372 | 367 | 171 | 194.7 | 118.2 | 341.37 | 48.95 |
| 33 | 2 | 15 | 89 | 1.21E+07 | 17 | 2.31E+06 | 735 | 176 | 84 | 195.1 | 116.8 | 348.37 | 50.39 |

| | | | | | | | | | | | | | |
|----|---|----|-----|----------|----|----------|------|-----|-----|-------|-------|---------|--------|
| 47 | 2 | 29 | 67 | 1.44E+07 | 10 | 2.15E+06 | 465 | 163 | 101 | 247.1 | 129.3 | 534.31 | 80.27 |
| 25 | 2 | 7 | 87 | 1.96E+07 | 13 | 2.93E+06 | 444 | 222 | 121 | 247.6 | 140.1 | 480.14 | 71.25 |
| 54 | 2 | 36 | 93 | 1.80E+07 | 13 | 2.52E+06 | 517 | 191 | 104 | 264.3 | 150.1 | 510.78 | 75.72 |
| 21 | 2 | 3 | 99 | 9.71E+06 | 12 | 1.18E+06 | 1020 | 89 | 51 | 303.6 | 169.9 | 600.64 | 89.48 |
| 6 | 1 | 6 | 35 | 1.01E+07 | 4 | 1.15E+06 | 347 | 88 | 83 | 313.7 | 117.9 | 1175.57 | 148.95 |
| 59 | 2 | 41 | 42 | 1.12E+07 | 4 | 1.06E+06 | 376 | 81 | 76 | 375.2 | 143.6 | 1378.86 | 176.33 |
| 44 | 2 | 26 | 86 | 2.82E+07 | 8 | 2.62E+06 | 305 | 199 | 137 | 390.4 | 195.9 | 912.19 | 136.52 |
| 38 | 2 | 20 | 101 | 1.94E+07 | 8 | 1.53E+06 | 522 | 116 | 80 | 456 | 230.9 | 1054.42 | 158.36 |
| 36 | 2 | 18 | 103 | 2.23E+07 | 8 | 1.74E+06 | 461 | 132 | 90 | 464.7 | 235.6 | 1073.15 | 161.25 |
| 45 | 2 | 27 | 80 | 1.28E+07 | 6 | 9.63E+05 | 623 | 73 | 57 | 477.8 | 219.7 | 1288.88 | 187.77 |
| 52 | 2 | 34 | 191 | 1.67E+07 | 14 | 1.23E+06 | 1142 | 93 | 49 | 495 | 295.5 | 903.49 | 132.73 |
| 57 | 2 | 39 | 130 | 2.17E+07 | 9 | 1.51E+06 | 598 | 114 | 74 | 520 | 275.3 | 1127.19 | 170.45 |
| 37 | 2 | 19 | 84 | 2.28E+07 | 5 | 1.36E+06 | 369 | 103 | 88 | 593.4 | 258.5 | 1760.38 | 249.77 |
| 49 | 2 | 31 | 94 | 1.66E+07 | 5 | 8.82E+05 | 567 | 67 | 57 | 660.5 | 289.8 | 1936.73 | 277 |

PARAMETERS:

nM: Number of mounts

rhoD: Effective track density (tr/cm²)

nD: Count for fluence monitor (tr)

uGlass: Uranium concentration of glass standard (ppm)

zeta: zeta factor (a cm²/tr)

zetaSE: standard error of zeta factor (a cm²/tr)

sSC: size of square counter (cm²)

| nM | rhoD | nD | uGlass | zeta | zetaSE | sSC |
|----|----------|------|--------|--------|--------|----------|
| 1 | 5.23E+05 | 6523 | 39.8 | 145.39 | 7.04 | 1.00E-08 |
| 2 | 5.25E+05 | 6537 | 39.8 | 145.39 | 7.04 | 1.00E-08 |

Table S4: Detailed zircon fission-track grain and sample data.

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