

UWA SHRIMP DATA LOG

Date: 23/11/99 UWA Mount No.: 99-59 Whose sample?: Neal Operator(s): McN + AR

Indicate any change to the following: 196 204 bkg 206 207 208 ~~238~~ 248 254 270

Precambrian Count time (secs): 2 10 10 10/20 ⁴⁰ 10 5 5 2 2
Phanerozoic* Delay time (secs): 8 3 1 2 1 1 7 24 2 3

Steel: Wein volts / nA = 72V/11.0 for O⁻; = 48V/2.4 for O₂⁻; = 38V/7.0 for NO⁻

dead-time = 32 nanosecs expected resolution = >4200 actual resolution = 4678

aperture = 100 microns retardation lens = 3 volts

Expected offsets (amu): ²⁰⁰196-204 = 8.170; 204-bkg = 0.045; 204-206 = 2.000; 206-207 = 1.000; 206-208 = 2.000

Actual: ²⁰⁰196-204 = 4.139 204-bkg = 0.045 204-206 = 2.000

206-207 = 1.000 206-208 = 2.000

Primary-epoxy = 6.4 nA Primary ^{khon}CZ3 = 7.7 nA PESABM-CZ3 = 1.5 pA nA

Raster time (mins): 1 Raster aperture (microns): 100 No. of scans: 6

Comments: Priorities (A+B done 12/11/99) → E, D, C, F

NB: using NO⁻ peak → I⁰ starts > 9 nA + drops to < 8 nA during run.

| Rejection override | Sample/ Std ID | Time - printout | ^{UO₂/UO} UO₂/U | ²⁰⁰ 196 Kcps | 206 cps | ²⁷⁰ U ppm Kcps | 204Pb ppb cps | f ₂₀₆ % | Age ±1σ (Ma) 206/238 270 | 207/206 | Offsets OK? |
|---------------------------------|-------------------|--------------------|---|-------------------------------|------------|------------------------------------|---------------------|-----------------------|--------------------------------|---------|----------------|
| | Kh. 8-1 | 12:25 | .787 | 3273 | 4401 | 31.3 | 1.7 | .57 | .140 | 499 | ✓ |
| | Kh. 8-2 | 12:43 | .782 | 3734 | 4468 | 32.2 | 1.7 | .56 | .139 | 479 | ✓ |
| 1st UO | E. 1-2 | 13:11 | .820 | 3444 | 943 | 2017 | 0.6 | .45 | .468 | 1581 | ✓ |
| | Kh. 8-3 | 13:29 | .798 | 3538 | 4402 | 32.0 | 1.9 | .66 | .138 | 419 | ✓ |
| | E. 5-2 | 13:53 | .853 | 3575 | 1410 | ³⁰¹⁸ 301 | 0.6 | .15 | .467 | 1603 | ✓ |
| | E. 5-3 | 14:12 | .783 | 3208 | 1268 | ¹⁵⁷⁶ 158 | 0.5 | .14 | .469 | 1579 | ✓ |
| | Kh. 8-4 | 14:30 | .775 | 3782 | 4600 | 33.8 | 1.5 | .43 | .136 | 517 | ✓ |
| 1st UO, ThO, UO ₂ | E. 5-4 | 14:49 | .825 | 3594 | 1610 | 3380 | 0.7 | .33 | .476 | 1583 | ✓ |

Rejection Sample/ Time - ^{CO₂/100} ²⁰⁰ ²⁷⁰ 204Pb f₂₀₆ Age ±1σ (Ma) Offsets
 override Std ID printout ^{U/U} ¹⁹⁶ cps ⁰ ppm ^{ppb} % 206/238 207/206 OK?
^{270/254} ^{Kcps} ^{Kcps} ^{cps} ²⁷⁰

| Rejection override | Sample/ Std ID | Time - printout | ^{CO₂/100} U/U | ²⁰⁰ cps | 206 cps | ²⁷⁰ ppm | ²⁷⁰ Kcps | 204Pb ppb | f ₂₀₆ % | Age ±1σ (Ma) 206/238 | 207/206 | Offsets OK? |
|---|-------------------|--------------------|--------------------------------------|-----------------------|-------------|-----------------------|------------------------|--------------|-----------------------|-------------------------|---------|----------------|
| | E6-2 | 15:10 | .899 | 3796 | 570 | 1178 | 0.3 | — | .483 | 1584 | ✓ | |
| | E6-3 | 15:28 | .800 | 3563 | 1112 | 2346 | 0.5 | .28 | .474 | 1571 | ✓ | |
| | Kh8-5 | 15:47 | .763 | 3248 | 4348 | 31.4 | 1.5 | .45 | .138 | 524 | ✓ | |
| | E6-4 | 16:05 | .890 | 3801 | 2311 | 4697 | 0.3 | .02 | .492 | 1577 | ✓ | |
| | E6-5 | 16:24 | .805 | 3813 | 1328 | 2886 | 0.4 | .03 | .460 | 1605 | ✓ | |
| | E7-1 | 16:53 | .865 | 3516 | 631 | 1332 | 0.2 | — | .474 | 1592 | ✓ | |
| | E8-1 | 17:12 | .854 | 3693 | 793 | 1664 | 0.4 | .18 | .477 | 1541 | ✓ | |
| | Kh8-6 | 17:31 | .780 | 3285 | 4468 | 32.6 | 1.8 | .58 | .137 | 498 | ✓ | |
| ¹²⁴ ¹¹⁰ ¹⁰² | E9-1 | 17:58 | .859 | 3483 | 1960 | 4049 | 0.4 | .09 | .484 | 1603 | ✓ | |
| | E9-2 | 18:19 | .816 | 3633 | 892 | 1964 | 0.8 | .73 | .454 | 1538 | ✓ | |
| | E9-3 | 18:37 | .841 | 3984 | 2112 | 4385 | 0.3 | — | .482 | 1599 | ✓ | |
| | Kh8-7 | 18:55 | .776 | 3326 | 4379 | 31.9 | 1.7 | .62 | .137 | 475 | ✓ | |
| | E10-1 | 19:18 | .835 | 3513 | 1106 | 2306 | 0.4 | .16 | .480 | 1548 | ✓ | |
| | E11-1 | 19:42 | .815 | 3288 | 1088 | 2317 | 0.4 | .09 | .469 | 1607 | ✓ | |
| | E12-1 | 20:01 | .878 | 3567 | 1663 | 3518 | 0.4 | — | .473 | 1584 | ✓ | |
| ^{mislabelled} ^{Kh959E.8-8} | Kh8-8 | 20:19 | .782 | 3325 | 4256 | 30.9 | 1.4 | .44 | .138 | 511 | ✓ | |
| | E12-2 | 20:38 | .871 | 3201 | 1540 | 3262 | 0.5 | .27 | .472 | 1608 | ✓ | |
| | E13-1 | 21:10 | .876 | 3627 | 1924 | 4010 | 0.4 | .16 | .480 | 1579 | ✓ | |
| | E13-2 | 21:29 | .840 | 3629 | 1908 | 4012 | 0.4 | .10 | .475 | 1622 | ✓ | |
| | Kh8-9 | 21:48 | .771 | 3502 | 4413 | 32.4 | 1.5 | .50 | .136 | 493 | ✓ | |
| ¹²⁴ ¹¹⁰ | E14-1 | 22:14 | .813 | 3465 | 974 | 2035 | 0.5 | .36 | .478 | 1558 | ✓ | |
| | E15-1 | 22:36 | .792 | 2945 | 872 | 1819 | 0.5 | .05 | .479 | 1607 | ✓ | |
| E | E16-1 | 23:02 | .834 | 3643 | 1104 | 2275 | 0.6 | .57 | .485 | 1515 | ✓ | |
| D | Kh8-10 | 23:21 | .770 | 3276 | 4207 | 30.6 | 1.4 | .44 | .138 | 499 | ✓ | |
| ¹²⁴ ¹¹⁰ | E1-1 | 23:43 | .834 | 3982 | 829 | 1811 | 0.4 | .34 | .458 | 1528 | ✓ | |

| Rejection over-ride | Sample/ Std ID | Time - printout | ^{UO2/UO} 200 ^{UO/U} 196 Keps | 206 cps | 270 ^U ppm Kcps | 204Pb ppb | f206 % | Age ±1σ (Ma) 206/238 270 | 207/206 | Offsets OK? | |
|---|----------------|-----------------|--|-------------|------------------------------------|------------|------------|--------------------------------|-------------|-------------|---|
| | B2-1 | 00:09 | .801 | 3800 | 961 | 2099 | 0.3 | .06 | .458 | 1557 | ✓ |
| | B3-1 | 00:30 | .814 | 3814 | 1039 | 2267 | 0.3 | .15 | .458 | 1565 | ✓ |
| | Kh8-11 | 00:49 | .768 | 3151 | 4255 | 302 | 1.7 | -.58 | .141 | 474 | ✓ |
| <i>1-21 UO UO</i> | B4-1 | 1:11 | .784 | 2926 | 1057 | 2298 | 0.2 | .07 | .460 | 1568 | ✓ |
| | B5-1 | 1:31 | .808 | 3773 | 993 | 2193 | 0.3 | .09 | .453 | 1577 | ✓ |
| | B6-1 | 1:49 | .856 | 3813 | 969 | 2124 | 0.2 | - | .456 | 1594 | ✓ |
| | Kh8-12 | 2:08 | .778 | 3355 | 4230 | 308 | 1.7 | -.58 | .137 | 488 | ✓ |
| <i>1-21 UO UO</i> | D7-1 | 2:28 | .787 | 3952 | 1136 | 2482 | 0.3 | .01 | .457 | 1575 | ✓ |
| | D8-1 | 2:46 | .780 | 3426 | 1503 | 3175 | 0.2 | - | .473 | 1689 | ✓ |
| | D9-1 | 3:06 | .807 | 3878 | 1002 | 2239 | 0.3 | - | .447 | 1570 | ✓ |
| | D10-1 | 3:26 | .821 | 3570 | 1352 | 2888 | 0.2 | - | .468 | 1575 | ✓ |
| | Kh8-13 | 3:45 | .759 | 3075 | 3859 | 284 | 1.3 | .42 | .136 | 514 | ✓ |
| <i>1-21 UO</i> | D10-2 | 4:04 | .841 | 3305 | 1266 | 2707 | 0.2 | - | .468 | 1600 | ✓ |
| | D11-1 | 4:23 | .803 | 3637 | 1103 | 2425 | 0.2 | .01 | .455 | 1601 | ✓ |
| | D12-1 | 4:42 | .826 | 4183 | 980 | 2177 | 0.2 | .18 | .450 | 1533 | ✓ |
| <i>Strongly non-linear; sep. 208, 210</i> | D13-1 | 5:00 | .777 | 3857 | 1200 | 2588 | 0.4 | .20 | .464 | 1550 | ✓ |
| | Kh8-14 | 5:18 | .759 | 3357 | 3969 | 299 | 1.4 | .49 | .133 | 520 | ✓ |
| | D14-1 | 5:38 | .793 | 3160 | 973 | 2077 | 0.3 | - | .468 | 1599 | ✓ |
| | D15-1 | 5:57 | .767 | 3083 | 1342 | 2835 | 0.2 | -.01 | .473 | 1586 | ✓ |
| | D16-1 | 6:17 | .797 | 3601 | 1776 | 3879 | 0.2 | - | .458 | 1587 | ✓ |
| | D17-1 | 6:38 | .829 | 3456 | 1564 | 3339 | 0.2 | - | .468 | 1582 | ✓ |
| <i>Deplete. word 206/270</i> | Kh8-15 | 6:56 | .783 | 2709 | 3685 | 289 | 1.0 | -.36 | .127 | 549 | ✓ |
| | D17-2 | 7:15 | .811 | 3552 | 1592 | 3446 | 0.4 | .29 | .462 | 1548 | ✓ |
| | D15-2 | 7:32 | .779 | 2718 | 2738 | 5935 | 0.2 | - | .461 | 1570 | ✓ |
| | D18-1 | 7:54 | .787 | 2980 | 1019 | 2303 | 0.3 | .17 | .442 | 1563 | ✓ |

* Note: Pop D, unlike Pop E, has a fairly consistent U concentration. Aborted analysis are only slightly lower than un-aborted analysis. Only aborted 11 out of 32 grains. [65% of grains were good].

