

UWA DATA LOG: SHRIMP ZIRCON U-Pb

Date: 2/8/96 UWA Mount No. 96-38 Whose sample? J. MIKUCKI, J. KNIGHT Operator(s) MCN & APES

TITANITE

Indicate any change to the following: <sup>200</sup>196 204 bkg 206 207 208 <sup>254</sup>238 <sup>270</sup>248 <sup>254</sup>254

Precambrian Count time (secs): 52 10 10 10 30/10 10 82 882 2  
 Phanerozoic\* Delay time (secs): 7 3 1 2 1 1 84 2 2

expected 196-204 = 8.170 amu expected 204-bkg = 0.040 amu Dead-time = 32 nanosecs  
 actual <sup>200</sup>196-204 = 4.129 actual 204-bkg = 0.060 expected resolution = >4200  
 actual 206-207 = 1.000 actual 206-208 = 2.000 actual resolution = 5250

Primary = 2.8 nA PESABM = 78 pA actual Primary : PESABM (= 50:1) = 35.9  
 Raster time (mins): 2 Raster aperture (microns): 100 No. of scans: 7

Comments: Note that scan = 200 → 204 → bkg → 206/207/208 → 254 → 248 → 270.

chart paper ran out during the analysis of A.9-2. Pen 2 reboxed working after that.

1° very noisy for most of the night. (1° dropped from 2.8 to 2.2 - refer to notes beside individual analyses. Pop B & C very low U counts < 3 kHz, not titanites?

C+R @ 518 Ma =  
 7/6 = 0.8910  
 4/6 = 0.0573

7\*/6\* = .0577 @ 518 Ma

Rejection over-ride Sample/Std ID Time-printout  $\frac{UO_2}{UO_2}$  <sup>200</sup>196 cps <sup>206</sup>Pb cps <sup>204</sup>Pb ppm <sup>206</sup>Pb % Age ± 1σ (Ma) Corr.

Rejection over-ride	Sample/Std ID	Time-printout	$\frac{UO_2}{UO_2}$	<sup>200</sup> 196 cps	<sup>206</sup> Pb cps	<sup>204</sup> Pb ppm	<sup>206</sup> Pb %	Age ± 1σ (Ma)	Corr.
✓	KHAN.2-1	15:55	1.0477	2256	1936	0.00	112	6.704 .0734	-
✓	KHAN.2-2	16:18	.9952	2076	2088	.00	372	6.767 .1242	-
✓	KH. 2-3	16:44	1.0193	2126	2052	.00	094	6.862 .0699	-
✓	A. 1-1	17:08	.9222	1917	881	.00	137	1.338 .1877	-
✓	A. 2-1	17:30	.9432	2100	1254	.00	099	1.278 .1843	-
✓	KH. 2-4	17:52	1.0848	2259	1447	.00	086	6.755 .0694	-
✓	A. 3-1	18:17	1.0105	1671	1818	.00	035	1.145 .1786	-
✓	A. 2-2	18:38	0.9320	2173	1364	.00	282	1.193 .2080	-
✓	KH. 2-5	18:58	0.9995	2090	1792	.00	0866	7.1232 .0699	-
✓	A. 2-3	19:19	0.9365	2098	2020	.00	300	1.2527 .2123	-
✓	A. 4-1	19:41	0.9659	2077	1466	.00	064	1.2189 .1785	-

Delete - high 204

1st UO<sub>2</sub> ThO<sub>2</sub>

1st ThO<sub>2</sub>

A sl2-5 already exist. Dops.  
 & sl2-6 " " "

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Rejection over-ride	Sample/ Std ID	Time - printout	UO/U = 270/254	196 cps	206 cps	U ppm 204/206	204Pb ppb	206 %	Age 1σ (Ma) 206/238 207/206 254/206 207/206	Corr.
✓	AS-1	20:04	0.928	1983	2894	.00	1522	-	1.2765 .1936	-
✓	kh2-6	20:26	0.8371	2021	1606	.00	1475	-	6.6549 .0773	1° 2.4-2.6.
✓	A.6-1	20:49	0.9789	2024	1308	.00	0656	-	1.2746 .1869	-
✓	A.7-1	21:09	0.9284	2016	2046	.00	0540	-	1.3121 .1835	1° unstable
✓	A.8-1	21:36	.9403	2048	732	.00	1243	-	1.2176 .1881	-
✓	kh2-6	22:11	1.0664	2160	1640	.00	1080	-	6.3921 .07011	1° unstable
✓	Th(1) A.9-1	22:34	.9785	2174	1251	.00	0852	-	1.1907 .1810	-
✓	A.9-2	22:54	.9041	1826	919	.00	0747	-	1.2661 .1807	-
✓	kh-2-8	24:00	1.0547	2103	1619	.00	1084	-	6.5225 .0716	1° very spiky
✓	kh.2-9	24:23	1.0252	2041	1779	.00	1029	-	6.8952 .0706	-
✓	A.10-1	24:45	0.9846	2114	1748	.00	0941	-	1.1919 .1815	1° fell for last few scans from 2.5 to 2.4.
✓	A.11-1	1:09	0.9348	2128	868	.00	1019	-	1.2679 .1859	-
✓	A.11-2	1:29	0.9712	2209	778	.00	1179	-	1.2106 .1868	-
✓	kh-2-10	1:51	1.0362	2100	1914	.00	2616	-	6.3592 .0927	1° rel. stable.
✓	1st scan (1) A.12-1	2:13	0.9197	2042	1482	.00	0487	-	1.2466 .1800	-
✓	A.13-1	2:36	0.9926	1913	1055	.00	0986	-	1.1202 .1836	1° unstable
✓	A.14-1	2:57	0.9439	2118	1324	.00	1322	-	1.1996 .1873	-
✓	kh.2-11	3:18	1.0539	1990	1764	.00	6781	-	6.7535 .0703	-
✓	1st Th(1) A.15-1	3:39	0.9392	1903	1096	.00	0937	-	1.3150 .1870	1° unstable.
✓	A.16-1	4:05	0.9030	1935	1387	.00	1305	-	1.2538 .1884	1° dispersed
✓	A.17-1	4:28	0.9819	1842	1664	.00	0323	-	1.2244 .1743	1° noisy.
✓	kh.2-12	4:50	0.8295	1953	1815	.00	0698	-	6.7761 0.0710	1° noisy
✓	kh.2-13	5:11	1.0466	1829	1708	.00	0822	-	6.6493 0.0677	-
✓	Th(1) A.17-2	5:32	0.9588	1736	1101	.00	0590	-	1.2511 0.1818	-
✓	A.18-1	5:55	0.9523	1414	482	.00	1298	-	1.2948 0.1947	1° 2.2

In record as kh2-6 → change to sl2-7.  
 done

~~kh2-6~~?

In file as sl2-6.  
 del 1st Th(1) →

Delete - high 204  
 del 1st Th(1) →

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del 1st Th(1) →

Rejection over-ride Sample/Std ID Time - printout  $U_2/U$   $^{200}Pb/^{206}Pb$  cps  $^{206}Pb$  cps  $U$  ppm  $^{204}Pb$  ppb  $f^{206}$  % Age  $\pm 1\sigma$  (Ma)  $^{206}/^{238}$   $^{207}/^{206}$  Corr.

✓	A19-1	6:18	0.9884	1699	1120	.00	2432	-	1.3037	0.1963	-
✓	SL2-14	6:41	1.0451	1770	1578	.00	1165	-	6.5012	0.0708	-

(B) ? Not titanium?  $B1-1$  7:14 0.5719 (5.1) 41.0 5.2 730 - 4.8784 0.8393 ↑ to 24-26

NB: Pop B & C, grains have very low U. < 34Hz.

✓	<del>SL2-16</del> (15?)	8:01	1.1240	1747	1440	.00	1062	-	6.1341	0.0726	-
✓	A20-1	8:23	0.9320	1428	1751	.00	0400	-	1.3057	0.1727	-

IRF 8/8/96

Zr/"U" 0.18018  
 "U0"/"U" 1.04749  
 Pb\*/"U" 0.146892

n 13  
 $\sigma$  2.51% (valid in XL)

Adjusted values for use with Unks and Stds Recal:

Zr/U 0.22834 (+1.2673)  
 U0/U 1.04749  
 Pb\*/U 0.160465 (\*1.0924)