

UWA DATA LOG: SHRIMP ZIRCON U-Pb

Date: 29/8/96 UWA Mount No. 96-52 Whose sample? Linda Hanley Operator(s) McV + Linda

Indicate any change to the following: 196 204 bkg 206 207 208 238 248 254  
 Precambrian Count time (secs): 2 10 10 10 30 10 5 5 2  
 Phanerozoic\* Delay time (secs): 7 3 1 2 1 1 3 2 2  
 expected 196-204 = 8.170 amu expected 204-bkg = 0.040 amu Dead-time = 32 nanosecs  
 actual 196-204 = 8.170 actual 204-bkg = 0.040 expected resolution = >4200  
 actual 206-207 = 1.001 actual 206-208 = 2.001 actual resolution = 5090  
 Primary = 3.4 nA PESABM = 59 pA actual Primary: PESABM (= 50:1) = 57.6  
 Raster time (mins): 2 Raster aperture (microns): 100 No. of scans: 6

Comments: ① Cooling water + magnet off → magnet tripped; fixed OK.

- ② Refoc. 17 (Duo Y). I<sub>p</sub> 2 → 3 nA.
- ③ 17 dropped to < 2 during raster. Recovered ~90% using elec deflections.

std = sl652.1-1  
 UNK = U652B.2-1  
 Th/U = 0.2 - 1.0 (MAGNETIC)

Next Std. might not be in Prawn file

Rejection over-ride	Sample/ Std ID	Time - printout	UO/U	196 cps (K)	206 cps	U ppm	204Pb ppb	f <sub>206</sub> %	Age ±1σ (Ma) 206/238 207/206	Corr. (Th/U)
207 238	sl. 2-1	11:32	6.39	17.6	1693	220	0.7	-0.7	572 ± 1 581 ± 19	208
248 254	sl. 2-2	11:55	6.21	21.5	2045	222	0.8	-0.1	610 ± 1 564 ± 17	208
196 206 238 248 254	sl. 2-3	12:13	6.01	23.8	2000	227	1.4	.03	590 ± 1 582 ± 17	208
206 207, 208 238 248 254	B. 1-1	12:36	6.12	18.0	3895	268	170	4.79	1106 ± 3 2050 ± 25	204 (.66)
196 206 207 208 238 248 254	B. 1-2	12:54	6.96	15.1	6.7K	568	500	10.90	703 ± 2 1428 ± 45	204 (.80)
206 254	sl. 2-4	13:24	6.66	20.3	2153	206	0.9	.10	589 ± 1 592 ± 17	208
196 206 207 238 248 254	B. 2-1	13:46	6.32	22.3	4614	136	3.2	.11	1858 ± 4 1867 ± 9	204 (.61)
196 206 207 207 (scans) = 1M	B. 3-1	14:06	6.16	22.6	7003	214	45.3	.93	1890 ± 4 1905 ± 10	204 (.34)
196 204 207 254	sl. 3-1	14:55	6.15	22.6	1980	218	2.2	.03	593 ± 1 617 ± 17	208
206	B. 4-1	15:14	6.23	21.7	3820	108	6.1	.21	2037 ± 5 2402 ± 8	204 (.41)
196 206 207 254	B. 4-2	15:37	6.91	18.3	2845	182	267	15.32	739 ± 3 2031 ± 58	204 (1.00)

Scan 6: omit 207 → 254

Rejection over-ride	Sample/ Std ID	Time - printout	UO/U	196 cps (K)	206 cps	U ppm	204Pb ppb	f206 %	Age ±1σ (Ma) 206/238	207/206	Corr. (Th/U)
196 206 207	sl. <del>4</del> -2	15:56	6.38	20.3	1923	212	-0.1	.09	582 ± 1	599 ± 18	208
248 254	B. 5-1	16:19	7.30	20.2	2955	141	14.8	1.07	885 ± 2	1900 ± 17	204 (.42)
196 208	B. <del>5</del> -2	16:37	5.91	22.9	1822	60.7	0.2	.01	1971 ± ?	1880 ± ?	204 (.43)
206 238 254	B. 6-1	16:57	7.38	20.6	8.5K	300	48.2	1.32	1109 ± 1	1636 ± 12	204 (.32)
196 206 238	sl. 3-3	17:16	6.24	22.0	2067	218	2.4	.02	604 ± 1	492 ± 18	208
196 254	B. 7-1	17:35	5.78	23.1	1018	30.3	1.0	.11	2307 ± 11	2191 ± 17	204 (.59)
196 248	B. 7-2	17:53	6.66	21.9	2042	55.4	4.8	.41	1754 ± 5	2167 ± 14	204 (.75)
207 248	B. 8-1	18:14	6.32	22.8	6.8K	201	25.8	0.60	1804 ± 3	1846 ± 9	204 (1.16)
196 206 208 238 254	sl. 3-4	18:36	6.57	21.7	2143	199	1.3	0.04	5936 ± 1	559 ± 16	208
196 248	B. 9-1	18:58	6.14	23.4	1751	50.6	3.4	0.3	1955 ± 7	1831 ± 16	204 (.60)
196 208	B. 10-1	19:17	6.01	23.6	2232	75.0	5.9	.37	1806 ± 5	1867 ± 15	204 (.51)
248	B. 11-1	19:42	7.08	23.7	2468	101.7	18.8	1.7	940 ± 2	1865 ± 22	204 (0.86)
208	B. 12-1	20:08	5.72	24.6	1144	44.2	2.1	0.2	1789 ± 7	1860 ± 20	204 (0.18)
196 206 207	sl. 3-5	20:31	6.91	18.8	2074	190.2	0.4	0.03	596 ± 0.6	515.2 ± 17	208
196 207, 208	B. 13-1	20:59	6.38	19.4	1741	38.1	2.2	0.16	2620 ± 11	2530 ± 10	204 (0.95)
206 207, 208 238 248 254	B. 14-1	21:26	6.63	21.3	3048	103.2	31.5	1.6	1482.8 ± 4	2340 ± 14	204 (0.46)
196	B. 15-1	21:51	6.04	23.0	2919	95.5	39.3	0.13	1868.9 ± 4	1854 ± 10	204 (0.41)
196 208 No outliers	B. 16-1	22:14	6.20	21.7	2412	74.2	32.3	0.11	1932 ± 5	1869 ± 11	204 (0.44)
196 207 248	sl. 3-6	22:36	6.33	20.6	1941	215.7	1.0	0.03	588 ± 0.6	652 ± 17	208
207 238 No outliers	UG52A1.1	23:12	6.34	20.9	1904	56.0	2.9	0.2	1946 ± 6	1873 ± 14	204 (1.69)
" "	UG52A1.2	23:33	6.72	11.5	813	36.5	4.1	0.4	1923 ± 10	1858 ± 26	204 (0.77)
196 " "	UG52A2.0	23:55	6.77	10.2	900	44.1	3.9	0.38	1948 ± 10	1869 ± 24	204 (0.65)
204, 206, 248	UG52A3.0	18:04?	7.05	7.81	1414	77.5	4.5	0.23	2023 ± 8	1972 ± 15	204 (0.50)
206, 207 238 248 254	sl. 3-7	42:22	7.60	6.88	894	175.4	3.5	0.17	584 ± 1	570 ± 26	208
238 # 1 196 254 # 1	UG52C1.0	1:06	6.44	10.2	293	18.0	4.1	1.0	1822 ± 17	1772 ± 60	204 (0.50)

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Rejection over-ride	Sample/ Std ID	Time - printout	UO/U	196 Kcps	206 cps	U ppm	204Pb ppb	f206 %	Age ±1σ (Ma) 206/238	207/206	Corr.
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206 207 238 208 248 Normalies	U652C2.0	1.27	6.42	14.2	1939	80.5	6.2	0.32	1952 ± 6	2108 ± 13	(Th/U) (0.57) 204
206 207 238 248 254	U652C3.0	1.46	6.53	13.2	4168	111.6	10.6	0.23	2871 ± 8	2850 ± 6	204 (0.83)
238	U652C4.0	2.05	7.07	11.0	772	27.1	1.8	0.24	2188 ± 13	2189 ± 20	204 (0.68)
196, 206, 208 238	S16521.1	2.26	5.99	12.3	1071	232.3	2.3	0.06	600 ± 0.7	463 ± 24	208
248	U652A4.1	2.49	6.41	16.9	7.10	34.7	7.1	0.86	1970 ± 11	1888 ± 30	204 (0.78)
204 207	U652A5.1	3.09	6.36	12.6	1267	61.7	3.8	0.27	1934 ± 7.8	1839 ± 18	204 (0.35)
196	U652A6.1	3.28	6.59	12.4	831	35.7	3.3	0.39	1983 ± 10	1932 ± 27	204 (0.89)
204 208 248	U652A7.1	4.22	6.90	10.4	1874	110.1	20.8	1.0	1559 ± 5	1830 ± 19	204 (0.57)
196, 206, 238 254	S16521.2	4.41	6.40	12.7	1209	210.8	2.2	0.09	587 ± 0.7	599 ± 22	208
207 248	U652C5.1	5.03	6.62	12.4	2110	90.6	2.2	0.10	1963 ± 6	1943 ± 11	204 (0.32)
206 207	U652C6.1	5.22	7.50	11.9	3344	102.7	67.9	2.6	1949 ± 6	2312 ± 16	204 (0.34)
206	U652C7.1	5.42	6.64	12.6	1883	67.6	32.4	0.2	2237 ± 8	2150 ± 11	204 (0.48)
	U652C8.1	6.01	6.92	11.3	1177	40.2	9.5	0.7	2309 ± 12	2469 ± 17	204 (1.4)
206 207 254	S16521.3	6.22	6.28	13.7	1248	217.1	0.4	0.08	577 ± 0.7	595 ± 22	208
204 248	U652A8.1	6.47	6.94	10.8	1736	95.9	2.1	0.12	1932 ± 7	1874 ± 15	204 (0.48)
196 248 254	U652A9.1	7.07	6.74	10.7	1006	46.8	6.5	0.59	1979 ± 9.5	1855 ± 23	204 (0.91)
196, 204 206 238 248	U652A10.1	7.26	6.69	9.2	2490	137.3	8.8	0.27	1998 ± 6	1849 ± 12	204 (0.58)
	U652A11.1	7.46	6.41	10.6	1073	59.7	10.9	0.78	1951 ± 9	1871 ± 26	204 (0.59)
196 207, 208	S16521.4	8.05	6.62	11.9	1225	201.3	2.8	0.08	594 ± 0.8	628 ± 21	208
206 238	C9-1	8.26	6.64	12.5	2719	120	2.5	0.09	1884 ± 5	1883 ± 10	204
v. clean grain surface ② 206 254	C10-1	8.54	6.22	20.4	771	16	0.6	0.09	2813	2676	204
206 207 248	C11-1	9.16	6.56	21.1	4827	87	1.0	0.03	2669	2534	204
206 208 248	C12-1	9.35	6.45	22.4	8400	223	130.	2.6	1870	1834	204
196, 206, 208	sl 1-5	9.55	6.15	22.8	2032	221	1.2	0.08	592	547	208
196 206 207 208 248 254	A2-1	10.23	6.21	23.4	3947	143	27.	1.1	1546	1831	204

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Rejection over-ride	Sample/ Std ID	Time - printout	UO/U	196 / cps	206 cps	U ppm	204Pb ppb	f206 %	Age ±1σ (Ma) 206/238	207/206	Corr.
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196 238 248 254	A13-1	10:41	6.77	21.3	6031	166	14.	0.4	1704	1958	204
③ 206 207 238 254	A14-1	11:09	6.84	19.1	6525	194	23.	0.5	1938	2374	204
196 207 208 238 248	A15-1	11:27	6.61	17.5	6298	212	9.1	0.2	1810	1849	204

might not be on disc fill

206 207 254	s/ 1-6	11:46	6.41	18.9	1820	214	-ve	-	581	586	208
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STPS

$Zr/U = 2.02919$   
 $UO/U = 6.43006$   
 $Pb^*/U = 0.196028$   
 $n = 17$

No of UNKS = 48  
 UNKNOWN'S  
 $B = 20$   
 $A = 16$   
 $C = 12$   
 std dev = 1.41%

$A = 1.18\% \quad 24$   
 $C = 1.60\% \quad 29$