

UWA DATA LOG: SHRIMP ZIRCON U-Pb

Date: 7/10/97 UWA Mount No.: 97-18 Whose sample?: April Operator(s): McN + Ap.

Indicate any change to the following:

	196	204	bkg	206	207	208	238	248	254	
Precambrian	Count time (secs):	2	<u>7</u>	<u>7</u>	10	<u>7</u>	<u>7</u>	5	<u>3</u>	2
Phanerozoic*	Delay time (secs):	<u>78</u>	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 = 8.160 actual 204-bkg = 0.040 expected resolution = >4200
 actual 206-207 = 0.999 actual 206-208 = 1.998 actual resolution = 4980
 Primary = 4.4 nA PESABM = 57 pA actual Primary : PESABM (≈ 50:1) = 77
 Raster time (mins): 1 Raster aperture (microns): 100 No. of scans: 4

Comments: C = R20893
 * spot on small crack → highish 204
 ⊕ slight drift of 10 down (4.4 → 4.3 nA)
 ⊕ 1' dropped to 3.6 nA during last scan → Dv02 needed adjusting
nC=97; nB=12

Processed, only rejection e C5-1 (del last scan Pb208 onward)

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.
	<u>sl. 5-1</u>	<u>10:29</u>	<u>5.86</u>	<u>19.4</u>	<u>2477</u>	<u>220</u>	<u>0.4</u>	<u>.04</u>	<u>572 ± 1</u>	<u>593 ± ?</u>	<u>204</u>
	<u>sl. 5-2*</u>	<u>10:40</u>	<u>6.03</u>	<u>19.5</u>	<u>2552</u>	<u>205</u>	<u>3.2</u>	<u>.30</u>	<u>567 ± 1</u>	<u>454 ± 54</u>	<u>"</u>
	<u>C. 1-1</u>	<u>10:51</u>	<u>5.94</u>	<u>19.5</u>	<u>575</u>	<u>60.3</u>	<u>1.4</u>	<u>.55</u>	<u>462 ± 2</u>	<u>314 ± 139</u>	<u>"</u>
	<u>C. 2-1</u>	<u>11:01</u>	<u>5.29</u>	<u>16.8</u>	<u>1537</u>	<u>249</u>	<u>-0.2</u>	<u>—</u>	<u>530 ± 1</u>	<u>584 ± 44</u>	<u>—</u>
	<u>sl. 4-1</u>	<u>11:13</u>	<u>6.14</u>	<u>18.7</u>	<u>2437</u>	<u>198</u>	<u>0.2</u>	<u>.02</u>	<u>553 ± 1</u>	<u>590 ± 41</u>	<u>204</u>
	<u>C. 3-1</u>	<u>11:23</u>	<u>5.95</u>	<u>18.5</u>	<u>3080</u>	<u>148</u>	<u>4.1</u>	<u>.27</u>	<u>1012 ± 2</u>	<u>1051 ± 33</u>	<u>"</u>
	<u>C. 4-1</u>	<u>11:33</u>	<u>6.07</u>	<u>18.3</u>	<u>10K</u>	<u>739</u>	<u>0.6</u>	<u>-0.1</u>	<u>656 ± 1</u>	<u>615 ± 18</u>	<u>"</u>
	<u>C. 5-1</u>	<u>11:43</u>	<u>5.73</u>	<u>18.3</u>	<u>1775</u>	<u>134</u>	<u>-1.1</u>	<u>—</u>	<u>762 ± 2</u>	<u>996 ± 34</u>	<u>—</u>
	<u>sl. 4-2</u>	<u>11:53</u>	<u>6.27</u>	<u>17.1</u>	<u>2304</u>	<u>189</u>	<u>0.5</u>	<u>.05</u>	<u>564 ± ?</u>	<u>568 ± ?</u>	<u>204</u>
	<u>C. 6-1</u>	<u>12:04</u>	<u>6.00</u>	<u>17.3</u>	<u>1146</u>	<u>33.2</u>	<u>1.3</u>	<u>.21</u>	<u>1660 ± 9</u>	<u>1708 ± 43</u>	<u>"</u>
	<u>C. 7-1</u>	<u>12:14</u>	<u>5.92</u>	<u>16.1</u>	<u>1607</u>	<u>133</u>	<u>12.6</u>	<u>1.39</u>	<u>697 ± 2</u>	<u>822 ± 84</u>	<u>"</u>

⊕ del last scan from Pb208 → UO254
 I' = 4.1 nA

Hamilton Hill
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Rejection over-ride	Sample/ Std ID	Time - printout	UO/U	196 Kcps	206 cps	U ppm	²⁰⁴ Pb ppb	f ²⁰⁶ %	Age ±1σ (Ma) 206/238 207/206		Corr.
4.0	C. 8-1	12:23	6.08	17.1	1378	124	3.8	.58	562 ± 1	594 ± 72	204
	C. 9-1	12:33	5.32	14.7	6.9K	399	2.7	.04	1511 ± 3	1392 ± 16	"
3.9	C. 10-1	12:43	4.86	13.6	6.5K	395	2.12	1.85	2127 ± 6	2671 ± 14	"
	sl. 4-3	12:53	6.03	16.8	2179	205	-0.2	-	567 ± 1	483 ± 39	-
	C. 11-1	13:06	5.82	14.7	4773	309	6.5	0.20	1014 ± 2	1105 ± 25	204
3.8	C. 12-1	13:15	5.86	16.4	2218	86.9	3.9	0.29	1426 ± 5	1338 ± 35	204
	C. 13-1	13:26	5.22	13.8	4000	605	1.7	0.04	714 ± 1	727 ± 31	204
	C. 14-1	13:36	5.47	14.3	1404	112	2.3	0.20	1062 ± 4	1009 ± 51	204
	C. 15-1	13:46	6.02	14.1	1583	56.6	0.2	0.02	1634 ± 7	2969 ± 18	204
	C. 16-1	13:58	6.05	16.2	806	39.1	1.5	0.36	1077 ± 5	1027 ± 71	204
	sl. 4-4	14:09	5.74	17.1	1991	225	-0.4	-	550 ± 1	622 ± 38	-
	C. 17-1	14:20	6.12	16.2	1944	73.5	3.6	0.35	1310 ± 5	1271 ± 39	204
	C. 18-1	14:32	6.21	14.8	8830	193	1.4	0.03	2207 ± 5	2231 ± 10	204
	C. 19-1	14:42	6.23	16.0	2018	189	-0.1	-	538 ± 1	544 ± 39	-
	C. 20-1	14:52	6.08	13.8	589.8	40.0	-1.2	-	901 ± 4	1065 ± 60	-
	C. 21-1	15:02	6.10	16.0	2900	277	0.9	0.06	564 ± 1	498 ± 38	204
	C. 22-1	15:11	5.99	14.5	1276	80.3	1.0	0.13	969 ± 3	1030 ± 49	204
3.7	sl. 4-5	15:21	6.14	16.0	2055	192	1.5	0.15	563 ± 1	509 ± 55	204
	C. 23-1	15:33	6.14	15.7	1575	137	0.4	0.05	618 ± 1	653 ± 46	204
	C. 24-1	15:45	6.09	15.8	5087	105	1.8	0.06	2298 ± 7	2296 ± 13	204
3.6-3.7	C. 25-1	15:55	6.19	15.8	1882	170	-0.2	-	575 ± 1	579 ± 40	-
	C. 26-1	16:04	6.03	14.9	2840	298	8.3	0.52	569 ± 1	559 ± 52	204
	C. 27-1	16:16	6.23	15.7	4411	97.5	1.4	0.06	2050 ± 7	2027 ± 17	204
	C. 28-1	16:25	6.02	15.2	4857	164.0	87.8	0.91	1566 ± 5	1783 ± 33	204
	sl. 4-6	16:35	5.99	15.8	2037	209	0.6	0.05	566 ± 1	585 ± 67	204

Rejection over-ride	Sample/ Std ID	Time - printout	UO/U	196 cps (k)	206 cps	U ppm	204Pb ppb	f ₂₀₆ %	Age ±1σ (Ma) 206/238	207/206	Corr.
	C29-1	16:46	6.36	15.2	305.1	32.7	0.7	0.51	463 ± 2	202 ± 2	204
	C30-1	16:55	6.11	15.6	6373	300	1.5	0.04	1119 ± 2	1117 ± 19	204
	C31-1	17:06	5.76	14.7	1575	237	0.4	0.04	473 ± 1	435 ± 55	204
	C32-1	17:16	6.29	12.5	1856	78.0	-0.5	-	1391 ± 5	1437 ± 29	-
	C33-1	17:27	5.01	9.7	149.5	41.2	10.2	3.11	646 ± 9	0	204
	C34-1	17:37	6.08	14.2	1767	190	-0.9	-	569 ± 1	503 ± 43	-
	SL4-7	17:47	6.33	14.8	2023	185	0.0	0.003	566 ± 1	519 ± 40	204
	C35-1	17:58	6.16	13.9	776	85.9	1.0	0.24	542 ± 1	412 ± 91	204
	C36-1	18:07	6.23	15.0	2240	101	0.4	0.03	1136 ± 4	1184 ± 37	204
	C37-1	18:16	6.23	15.1	2469	224	-0.3	-	588 ± 1	566 ± 35	-
	C38-1	18:26	6.09	14.7	2008	169	0.3	0.03	690 ± 1	686 ± 39	204
	C39-1	18:37	6.18	15.6	765.0	73.8	2.6	0.67	548 ± 2	713 ± 102	204
	C40-1	18:47	6.07	15.7	482.2	48.1	-0.2	-	558 ± 2	633 ± 79	-
	SL4-8	18:57	6.13	15.0	2020	198	2.0	0.19	575 ± 1	524 ± 52	204
	C41-1	19:07	5.95	14.8	2479	211	1.2	0.08	731 ± 1	755 ± 35	204
	C42-1	19:17	6.24	15.2	1747	35.8	-0.9	-	261 ± 1	356 ± 148	-
	C43-1	19:28	6.29	15.0	685.2	82.4	1.1	0.35	435 ± 1	492 ± 110	204
	C44-1	19:38	5.99	13.2	914.0	76.8	17.7	2.86	788 ± 4	1034 ± 120	204
	C45-1	19:54	6.18	14.7	9816	898	1.1	0.02	614 ± 1	600 ± 20	204
	C46-1	20:00	No print out								
	SL4-9	20:18	6.23	15.1	1988	187	0.5	0.06	566 ± 1	496 ± 44	204
	C47-1	20:28	5.95	13.8	3561	104	-0.2	-	2060 ± 7	2063 ± 16	-
	C48-1	20:47	6.09	14.9	640.0	66.4	0.8	0.22	557 ± 2	548 ± 114	204
	C49-1	20:58	6.15	14.7	3771	322	7.8	0.38	659 ± 1	725 ± 37	204
	C50-1	21:04	6.13	14.6	4098	173	2.2	0.09	1293 ± 3	1372 ± 22	204

3.6

3.5-3.6

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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.
	C51-1	21:24	6.17	14.6	1311	139	1.0	0.14	539 ± 1	480 ± 69	204
	C52-1	21:37	5.22	12.3	17180	605	59.1	0.22	2913 ± 6	2957 ± 6	204
3.5 nA	SL 4-10 C52B+	21:47	6.68	14.7	1878	201	1.0	0.095	552 ± 1	555 ± 45	204
	C53-1	21:59	6.19	95.1	3310	162	1.2	0.07	1071 ± 2	1033 ± 28	204
	C54-1	22:09	6.24	14.9	4993	212	2.4	0.09	1202 ± 2	1193 ± 21	204
	C55-1	22:18	6.19	15.0	5517	584	2.1	0.08	520 ± 1	519 ± 26	204
	C56-1	22	No Printout								
	C57-1	22:38	6.19	14.7	5905	298	2.7	0.09	1063 ± 2	1034 ± 22	204
3.5 nA	C58-1	22:50	6.13	14.8	894	90.5	1.3	0.27	563 ± 1	570 ± 75	204
weird printout →	SL 4-11	23:01	5.95	15.8	1928	208	0.9	0.09	551 ± 1	454 ± 53	204
	C59-1	23:13	6.12	14.9	242	23.9	-1.8	-	579 ± 2	429 ± 121	-
	C60-1	23:23	6.29	12.6	1515	155	-0.7	-	605 ± 1	540 ± 46	-
	C61-1	23:34	6.14	15.1	1105	105	0.4	0.06	589 ± 2	520 ± 53	204
	C62-1	23:48	6.07	15.0	3466	128	-0.1	-	1475 ± 4	1468 ± 21	-
	C63-1	23:58	6.09	14.6	316	16.6	-0.2	-	1081 ± 8	1056 ± 82	-
	C64-1	24:09	6.11	15.2	4969	457	3.1	0.12	613 ± 1	605 ± 28	204
	SL 4-12	24:20	6.68	15.1	1956	203	0.4	0.04	558 ± 1	580 ± 47	204
	C-65-1	24:30	6.22	15.1	5647	150	0.0	0.001	1824 ± 5	2017 ± 13	204
	C-66-1	24:40	5.81	14.9	2196	244	1.7	0.09	613 ± 1	558 ± 47	204
	C-67-1	24:54	5.66	14.2	481	31.2	2.4	0.66	1140 ± 8	1012 ± 113	204
	C-68-1	i:62	6.08	15.0	6280	156	0.1	0.003	2064 ± 2	2558 ± 2	204
	C-69-1	i:13	6.18	14.1	2025	136	1.9	0.16	885 ± 2	874 ± 46	204
	C-70-1	1:23	6.02	14.8	698	63.0	2.8	0.71	664 ± 2	610 ± 102	204
	SL 4-13	1:34	6.10	14.7	1960	202	1.6	0.15	569 ± 1	493 ± 56	204
	C-71-1	1:45	5.74	14.3	2774	208	-0.7	-	959 ± 2	973 ± 28	-

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Rejection over-ride	Sample/ Std ID	Time - printout	UO/U	196 cps	206 cps	U ppm	²⁰⁴ Pb ppb	f ₂₀₆ %	Age ±1σ (Ma) 206/238 207/206		Corr.
	C 72-1	1:54	6.17	14.5	1908	189	0.2	0.02	577 ± 1	593 ± 40	204
	C 73-1	2:04	5.88	14.5	1321	181	-0.1	-	492 ± 1	551 ± 49	-
	C 74-1	2:13	6.16	14.7	799	81.0	1.2	0.28	560 ± 2	568 ± 95	204
	C 75-1	2:23	6.10	14.1	1741	120 330	3.30	0.32	867 ± 2	861 ± 49	204
	C 76-1	2:32	6.18	14.2	538.8	62.2	0.4	0.13	504 ± 2	73 ± ?	204
	sl 6-1	2:43	6.25	14.7	1948	192	-0.9	5 -	551 ± 1	607 ± 39	-
	C 77-1	2:52	5.95	11.9	1807	273	4.5	0.35	520 ± 1	467 ± 64	204
	C 78-1	3:01	6.14	13.8	2980	166	0.0	0.00	1058 ± 2	1028 ± 27	204
	C 79-1	3:11	5.97	13.8	1634	73.8	2.6	0.24	1381 ± 5	1398 ± 37	204
	C 80-1	3:21	6.15	14.0	546.9	36.1	1.1	0.36	884 ± 5	872 ± 100	204
	C 81-1	3:30	5.29	11.3	2540	282	2.4	0.08	1096 ± 3	1132 ± 30	204
	C 82-1	3:40	5.52	12.4	4688	128	0.9	0.02	2961 ± 11	3176 ± 10	204
	sl 6-2	3:51	6.07	14.9	1926	201	1.4	0.13	561 ± 1	601 ± 44	204
	C 83-1	4:01	6.21	12.9	5370	134	0.6	0.02	2223 ± 7	2278 ± 13	204
	C 84-1	4:11	6.17	14.6	509	18.7	-0.5	-	1438 ± 10	1423 ± 56	-
	C 85-1	4:20	6.17	13.0	440	57.1	1.1	0.42	492 ± 2	510 ± 170	204
	C 86-1	4:30	5.36	13.2	647	41.6	1.4	0.21	1486 ± 9	1487 ± 60	204
	C 87-1	4:40	6.09	14.4	2292	58.0	1.4	0.09	2100 ± 9	2058 ± 23	204
	C 88-1	4:49	6.15	14.1	7716	291	1.0	0.02	1469 ± 3	2441 ± 10	204
	sl 6-3	4:59	6.38	14.3	1984	182	-0.2	-	570 ± 1	633 ± 38	-
	C 89-1	5:08	5.29	13.0	1672	168	-1.7	-	1057 ± 3	1092 ± 35	-
	C 90-1	5:17	6.16	14.3	1402	134	1.5	0.2	604 ± 1	330 ± 71	204
	C 91-1	5:31	6.16	14.5	568	71.0	-0.4	-	465 ± 1	476 ± 77	-
	C 92-1	5:42	6.11	13.0	963	64.2	1.6	0.25	958 ± 4	1089 ± 66	204
	C 93-1	5:52	6.06	14.4	8221	151	2.3	0.04	2791 ± 8	3007 ± 8	204

stage
fluorescence

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C

Rejection over-ride	Sample/ Std ID	Time - printout	UO/U	196 cps	206 cps	U ppm	204Pb ppb	f ₂₀₆ %	Age ± 1σ (Ma) 206/238 207/206		Corr.
	C94-1	6:02	6.14	13.9	4464	134	0.0	-	1830 ± 5	1800 ± 16	-
	SL1-1	6:12	6.17	14.6	1898	189	0.0	-	571 ± 1	524 ± 41	-
	C95-1	6:22	6.15	14.1	1891	74.7	0.9	0.08	1402 ± 5	1504 ± 30	204
	C96-1	6:32	6.19	13.8	3629	119	1.4	0.06	1663 ± 5	1657 ± 28	204
	C97-1	6:41	5.47	13.6	1466	224	19.8	1.6	596 ± 2	562 ± 106	204
	B.1-1	6:51	6.23	14.6	1070	113	1.1	0.20	521 ± 1	565 ± 72	204
	B.2-1	7:01	6.12	15.2	206	48.9	0.2	0.19	241 ± 1	195 ± ?	204
	B.3-1	7:11	6.05	15.0	218	47.3	0.3	0.24	278 ± ?	546 ± ?	204
	SL1-2 B.4-1	7:22	6.39	14.7	2044	182	0.1	0.02	567 ± 1	544 ± 42	204
	B.4-1	7:32	6.13	14.9	433	102	1.5	0.51	248 ± 1	46 ± ?	204
	B.5-1	7:42	6.19	14.4	513	161	0.9	0.34	187 ± 1	52 ± 124	204
	B.6-1	7:51	6.18	15.1	927	150	1.2	0.26	341 ± 1	246 ± 92	204
	B.7-1	8:02	6.18	15.2	165	45.7	-0.6	-	202 ± 1	317 ± 162	-
	B.8-1	8:12	6.06	15.3	659	161	0.6	0.18	241 ± 1	211 ± 131	204
	B.9-1	8:22	6.42	14.8	858	246	2.8	0.55	176 ± 1	0	204
	SL1-3	8:32	6.11	14.8	1905	198	0.8	0.08	559 ± 1	509 ± 46	204
	B.10-1	8:41	6.34	13.8	3161	226	1.3	0.08	758 ± 1	665 ± 34	204
	B.11-1	8:51	6.22	14.7	613	95.7	2.1	0.52	356 ± 1	0	204
	B.12-1	9:01	6.25	14.5	114	33.4	0.7	1.32	190 ± 3	208 ± ?	204
	B.14-1										

3.4-3.5

B

3.5
1
3.6