

UWA DATA LOG: SHRIMP ZIRCON U-Pb

Date: 7/4/97 UWA Mount No. 96-77 Whose sample? C. Adams Operator(s) McN + AP

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

Precambrian Count time (secs): 2 10 10 10 50 10 5 5 2  
 Phanerozoic\* Delay time (secs): 78 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 = 8.816 actual 204-bkg = 0.040 expected resolution = >4200  
 actual 206-207 = 1.002 actual 206-208 = 2.004 actual resolution = 4980

Primary = 2.5 nA PESABM = 35 pA actual Primary : PESABM (≈ 50:1) = 71  
 Raster time (mins): 2 Raster aperture (microns): 100 No. of scans: 4

Comments: NB: analysis time ~ 7 minutes

B = R20925

A = R19496

C = R20840

4 standard Gps

Gp1 = (nB = 18, 17 grains)

Gp2 = (nB = 8)

Gp3 = (nB = 7)

Gp4 = (nB = 13)

Reprocessed using Krill (in red) 64 =  
 Processed using Brown & Waller.

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.

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.
206, 238, 254	sl. 6-1	11:41	6.43	14.4	1293	220	2.6	.22	571 ± 1	464 ± 64	204	
196, 206, 254	sl. 6-2	11:52	6.78	13.3	1316	213	2.1	.19	551 ± 1	463 ± 63	204	
-	B. 1-1	12:07	6.49	14.0	189	70.1	-1.4	-	268 ± 1	184 ± 152	-	
196	B. 2-1	12:18	6.46	14.4	692	59.8	2.2	.35	1066 ± 5	890 ± 78	204	
238, 254	B. 3-1	12:29	6.82	13.6	1945	518	2.3	.15	328 ± 4	337 ± 55	204	
238, 248, 254	sl. 6-3	12:40	6.40	14.3	1290	232	1.2	.10	552 ± 1	539 ± 60	204	2.4 mA
196, 206, 238, 248	B. 4-1	12:52	6.71	13.9	168	152	3.5	1.99	99.9 ± 1	0	204	
196, 248, 254	B. 4-2	13:03	6.51	13.7	145	130	2.3	1.35	112 ± 1	-	204	
238, 248, 254	B. 5-1	13:14	6.40	14.2	178	64.6	-0.4	-	282 ± 1	558 ± 135	-	
196, 206, 238, 254	B. 6-1	13:30	6.68	13.9	490	124	2.5	.63	357 ± 1	275 ± 145	204	
196, 206, 238, 248, 254	B. 7-1	13:41	6.64	14.3	1809	223	-0.3	-	714 ± 1	648 ± 40	-	

Set up for max. no of spots

type 23-1



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.

196, 254	sl. 6-4	13:52	6.71	13.7	1398	214	-0.5	-	587 ± 1	632 ± 46	-
254	B. 7-2	14:04	6.64	13.8	1101	153	1.2	.13	656 ± 2	678 ± 113	204
248, 254	B. 8-1	14:14	6.80	13.7	2697	181	2.0	.09	1224 ± 3	1282 ± 27	204
206, 238, 248, 254	B. 9-1	14:25	6.76	13.5	852	68.8	0.9	.12	1057 ± 5	1084 ± 80	204
248, 254	B. 10-1	14:36	6.84	13.2	194	65.1	-0.1	-	269 ± 1	529 ± 131	-
196, 238, 248, 254	B. 11-1	14:47	6.80	12.9	104	92.1	-1.3	-	108 ± 1	357 ± 194	-
196, 206, 238, 248, 254	sl. 6-5	14:58	6.56	13.4	1316	222	1.3	.11	580 ± 1	515 ± 61	204
196, 206, 208, 238, 248, 254	B. 12-1	15:12	7.16	11.9	3.4K	258	10.4	.38	1063 ± 2	943 ± 34	204
196, 238, 248, 254	B. 13-1	15:23	6.48	12.6	282	118	3.9	1.07	263 ± 1	24 ± 282	204
238, 254	B. 14-1	15:34	6.29	12.9	316	109	1.4	.42	343 ± 2	356 ± 277	204
196, 238, 248, 254	B. 15-1	15:46	6.97	12.1	293	81.7	0.9	.36	330 ± 1	526 ± 140	204
196, 238	B. 16-1	15:57	6.95	12.5	230	57.6	1.3	.71	356 ± 3	475 ± 288	204
196, 254	sl. 6-6	16:09	7.02	12.2	1270	204	3.2	.31	548 ± 1	518 ± 64	204

analysis time = 8:40 mins

New run table:

Mean	196	204	BKG	20	207	208	238	248	254	206-207 =
Time	2	10	10	10	20	10	5	5	2	1.004
Delay	8	3	1	2	1	1	3	2	2	206-208 =
										2.008

196 - 204 = 8.184

206, 238, 248	sl. 6-7	16:37	6.62	11.9	1195	220	-0.3	-	572 ± 1	547 ± 31	-
254	B. 17-1	17:05	6.51	10.9	153	67.1	3.4	1.97	278 ± 3	336 ± 318	204
196, 207, 238, 248	B. 18-1	17:18	6.92	12.3	141	51.8	0.7	.62	250 ± 2	588 ± 228	204
206, 207, 238, 254	B. 19-1	17:31	7.17	11.6	568	171	-0.3	-	293 ± 1	256 ± 51	-
196, 238, 248, 254	B. 20-1	17:45	7.15	11.2	236	73.3	0.1	.06	246 ± 1	210 ± 97	204
196, 206, 238, 248, 254	sl. 5-1	18:00	6.84	14.3	1399	201	-0.2	-	555 ± 1	571 ± 29	-
238, 254	B. 21-1	18:14	6.59	13.9	442	104	-0.3	-	396 ± 1	365 ± 55	-
196, 0, 206, 208	B. 22-1	18:26	6.41	14.6	2.4K	217	16.1	7.29	999 ± 3	1099 ± 37	204
196, 207, 238, 254	B. 23-1	18:41	7.42	14.2	338	22.6	-1.5	3.20	901 ± 9	338 ± 322	208

1° unstable!  
1° jumped up during last scan  
1° stable at higher level

del scan 4  
28 onward

2.4

2.3

2.7



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.

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.
	B.24-1	18:54	6.89	14.4	473	113	0.0	-	332±1	282±55	-	wont do file
v. poor scan del scan 2 A corrupt & unstable!!	S1.5-2	19:07	6.59	11.5	1099	223	0.0	-	546±1	589±33	-	
Notes: printout mislabelled = B.25-1 / damaged.	<del>B.25-1</del>											
	S1.5-4	20:49	6.61	8.5	781	220	-0.9	.08	572±1	593±40	208	1.6
	B.26-1	21:03	7.22	8.1	212	80.4	-0.1	-	351±1	320±82	-	
del scan 2 for 288-254 3 for 196	B.27-1	21:16	7.18	8.3	538	243	5.9	0.94	291±1	142±43	204	
i° dropped for last scan del scan 4 A del scan 4 for 206-254	B.28-1	21:28	7.84	8.3	782	144	2.0	.27	552±2	479±74	204	
	S1.5-5	21:43	6.87	9.1	899	194	0.8	-0.07	618±1	478±44	204	
i° dropped down near end	B.29-1	21:59	8.06	7.4	92	32	1.1	1.20	308±4	400±382	204	1.6
i° drifted down progressively to ~1.0nA	B.30-1	22:13	7.32	7.3	1071	244	2.8	.20	611±1	526±48	204	
	B.31-1	22:26	7.55	6.4	457	199	2.5	.41	339±1	290±129	204	
	B.32-1	22:39	7.43	5.0	648	133	128	10.2	842±8	1182±25	204	1.0
	S1.4-1	23:03	7.29	4.8	532	185	-ve	0.06	609.7±2	578±49	208	Rm Temp 24.5
Adjusted Dns P slightly → 1.2 nA @ 2R												
i° very stable												
	S1.4-2	23:34	6.94	6.7	681	210	0.4	0.02	579±1	620±42	208	
	B.33-1	23:52	6.91	7.0	108	53	1.1	0.66	352±3	324±286	204	
	B.34-1	24:04	7.15	6.5	1607	232	0.7	0.03	1111±3	1092±23	204	
	B.35-1	24:18	7.06	7.0	156	60	2.8	1.2	421±4	370±355	204	
	B.36-1	24:31	7.12	6.9	547	162	2.1	0.26	537±1	587±74	204	
	B.37-1	24:47	7.36	6.5	192	88.5	4.2	1.55	338±3	258±0	204	
	B.38-1	24:59	6.72	6.5	127	69.6	1.4	0.63	370±3	184±0	204	
	S1.4-3	1:15	7.31	6.4	763	202	-ve	-	599±1	415±41		
	B.39-1	1:34	7.17	5.9	223	64.7	2.4	0.64	620±3	487±141	204	
	B.40-1	1:49	6.98	6.02	186	69	5.1	1.56	517±4	127±0	204	Rm Temp 24.3

commencement of minor instability, but during analysis there's slight drifting of i°

Mount/sample No: 96-77

Date: 8/4/97

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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.
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	196, 248											
	B41-1	2:04	7.20	5.8	120	40.1	6.9	2.63	536 ± 5	-	204	
	238, 248, 254	B42-1	2:19	7.24	5.6	123	80.9	5.4	1.92	293 ± 2	-	204
	238, 248, 254	B43-1	2:31	7.41	4.8	370	203	4.5	0.67	375 ± 1	152 ± 142	204
*	206, 208, 238, 248, 254	SL 4-4	2:49	7.65	4.6	541	181	3.2	0.32	581.7 ± 2	520 ± 72	208/204
	248	B44-1	3:07	7.77	4.2	454	98	0.7	0.08	934	1083	204
	196, 254	B. 45-1	3:20	6.64	3.9	390	132	6.4	0.49	997 ± 5	937 ± 75	204
	196, 206, 248, 254	SL 4-5	3:35	7.87	3.2	391	167	3.8	0.09	601 ± 2	565 ± 58	208
*	196, 238, 254	SL 4-6	3:51	7.84	2.9	331	168	-ve	0.11	575 ± 2	606 ± 62	208

T=24.2

T=24.1

T=23.9

1<sup>st</sup> at 1 nA  
1<sup>st</sup> 206 high?

1<sup>st</sup> = 1 nA

1<sup>st</sup> = 0.7 nA

0.7 nA

0.6 nA