

UWA DATA LOG: SHRIMP ZIRCON U-Pb

Date: 9/12/95 UWA Mount No.: 95-12 Whose sample?: A-Ross Operator(s): IF+AR

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
	Delay time (secs):	7	3	1	2	1	1	3	2	2
Phanerozoic	Count time (secs):	2	10	10	10	10	10	5	5	2
	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 = 8.168 actual 204-bkg = 0.045 expected resolution = >4200
 Primary = 2.3 nA PESABM = 39 pA actual resolution = 4540
 expected Primary : PESABM ≈ 50:1 actual Primary : PESABM = 60

Comments: Late start because of need to shuffle mounts, etc. after HV turned back on, 2^m extraction was strange for about an hour, then came back close to previous settings fairly quickly. Drift in 1^m seemed to settle down at about the same time (12:30)

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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Problem ←
w/ secondary extraction

delete	SL 52-261	12:15	6.47	9	1116	-	3.0	0.4	-	561	208	
	AR ₁	31 24-2	12:51	6.70	15	1870	-	4.3	0.3	548	208	
	ULIAR	SI 24-3	13:15	6.59	16	1849	222	5.2	0.4	570	604	208
	ULIAR	US12A. 4-4	13:41	6.87	16	15K	290	168	1.7	2505	2483	204
	u	30-1	14:06	6.66	16	5295	108	9.7	0.2	2703	2694	204
	u, AR	2-5	14:30	6.63	16	8925	180	22.	0.3	2673	2666	204
	SI	24-4	15:06	6.71	15	1872	215	6.0	0.5	578	576	208
	AR	u 31-1	15:31	6.56	16	2254	46	9.6	0.5	2814	2761	204
	AR	31-2	15:54	6.70	15	2189	42	19.	1.1	2834	2758	204
	ULIAR	26-4	16:16	6.66	16	8738	173	208	3.0	2762	2679	204
	X	19-4	-	204	too high	-	-	-	-	-	-	

Bad data
Remove scan 1 of 30.
Checked Pb offsets.
AR
some bright instability

Rejection over-ride	Sample/Std ID	Time - printout	UO/U K cps	196 cps	206 cps	U ppm	204Pb ppb	f ₂₀₆ %	Age ±1σ (Ma) 206/238 207/206	Corr.	
X	u 32-1	—	204				too high				
AR, NL	u 32-2	16:59	6.59	17	5289	106	27	0.7	2707 2654	204	
AR, NL	S/24-5	17:22	6.62	15	1878	223	4.1	0.4	574.8 578.8	208	
AR, NL	u 33-1	17:52	7.47	14	1366	273	96.7	1.1	2363 2431	204	
X	u 34-1	—	204				too high				
	Remove screw in, rest good	u 35-1	18:26	6.56	17	6077	121	135	0.29	2744 2692	204
X	u 36-2	—	204				too high				
AR	u 36-3	18:58	6.55	16.7	4360	86.3	175	3.7	2680 2671	204	
AR	u 36-4	19:21	6.88	15.2	15383	309	51.4	0.47	2597 2549 ^{±4}	204	
AR, NL	u 36-1	19:45	7.22	13.9	17184	336	149	1.2	2606 2540	204	
AR	S/23-1	20:08	6.80	15.6	1947	217	4.2	0.3	559.6 599	208	
AR, NL	u 37-1	20:33	6.91	15.1	1292	24.6	1.6	0.17	2723 2717	204	
X	u 38-1	—	204				too high				
AR, NL	u 38-2	21:02	6.44	18.9	2799	55.2	360	1.8	2579 2678	204	
X	u 39-1	—	204				too high				
AR, NL	u 39-1	22:40	7.52	14.1	15380	296	79.1	0.87	2326 2379	204	
X	u 7-2	—	↑ 204				↓ U abandoned				
AR, NL	u 12-4	22:16	7.08	15.8	5562	91.4	1233	3.41	2723 2637	204	
AR, NL	S/23-2	22:38	6.90	15.1	1870	210	2.3	0.37	548 538	208	
	Went hunting for more standard. Can't get to it.	u 9-2	23:21	6.80	15.8	5260	106	33.5	0.86	2590 2728	204
AR, NL	u 40-1	23:47	6.97	15.7	10404	191	22.4	0.31	2655 2680	204	
AR, NL	primary dropped during analysis	u 40-2	00:09	6.65	15.3	6422	134	93.5	1.8	2704 2691	204
X	u 14-2	—	↑ 204				[378 counts]				
X	u 22-4	—	↑ 204				136				
AR, NL	u 1-3	00:58	7.90	14.1	28553	457	88.6	0.61	2430 2235	204	

① - Fluctation in primary → increase.

Rejection over-ride	Sample/Std ID	Time - printout	UO/U k cps	196 cps	206 cps	U ppm	204Pb ppb	f206 %	Age ±1σ (Ma) 206/238 207/206	Corr.
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X	u10-6	—	abandoned	204P	[393 counts]					
AK, NL	u29-2	1:31	7.15	14.8	3071	58.6	20.2	0.98	2518	2646 204
AK, NL	s125-3	1:53	6.68	16.0	1952	222	5.4	0.45	560	595 208
	s1530B2-8 included in here by mistake, but on line!									
	<p>* → excludes 24-1, includes s1530B2-8. ← mistake</p> <p>Zr/U: 1.92513 Zr/U: 1.92419</p> <p>Uo/U: 6.73853 Uo/U: 6.72237</p> <p>Pb*/U: 0.23641? Pb*/U: 0.235368</p> <p>n=8 n=7</p> <p>1.6151% w/ s130B2-8 = 95% cov. 1.7216%</p> <p>21 is unknown</p>									