

NR

UWA SHRIMP DATA LOG: ZIRCON U-Pb

Date: 24/7/95 UWA Mount No. 95-9 Whose sample? YUMIN Operator(s) McEN + YUMIN

Indicate any change to the following:		196	204	bkg	206	207	208	238	248	254
Precambrian	Count time (secs):	2	10	10	10	30 40	10	5	5	2
	Delay time (secs):	87	3	1	2	X2	X2	24	2	2
Phanerozoic	Count time (secs):	2	10	10	10	10	10	5	5	2
	Delay time (secs):	6	3	1	2	1	1	3	2	2

expected 196-204 = 8.170 amu expected 204-bkg = 0.040 amu Dead-time = 36 nanoseconds
 actual 196-204 = 8.170 actual 204-bkg = 0.040 expected resolution = >4200
 Primary = 2.5 nA PESABM = n/a → electron suppressor grounded actual resolution = 4585
 expected Primary : PESABM = 50:1 actual Primary : PESABM = n/a

Comments from Log Book:

206, 254
 SAMPLE B ↓
 (YQ22)

Rejection over-ride	Sample/Std ID	Time - printout	196 cps	206 cps	U ppm	204Pb ppb	f ₂₀₆ %	Age ±1σ (Ma) 206/238	207/206	Corr.
	std 2-11	11:59	13.1K	854	220	1.2	.03	572 ± 1	615 ± 24	208
	std 2-12	12:21	12.7K	843	220	0.3	.03	572 ± 1	578 ± 25	208
	unk 17-1	12:45	12.5K	3985	168	2.2	.04	2649 ± 6	2638 ± 6	204
	std 2-13	13:07	12.8K	849	218	0.5	.03	569 ± 1	530 ± 25	208
	unk 7-2	13:31	12.6K	3762	171	0.7	.01	2753 ± 7	2647 ± 6	204
	UNK 18-1	→ Aborted ⇒ v. high		204	!!					
	unk 10-2	14:11	13.4K	2960	143	12.0	0.23	2587 ± 7	2634 ± 8	204
	std 2-14	14:37	13.6K	902	222	2.6	0.08	275 ± 1	541 ± 25	208
	unk 18-1	15:10	14.9K	2161	112	116	3.99	1903 ± 6 2626 ± 19	2626 ± 19	204
	unk 19-1	15:33	14.9K	2238	98	47.3	1.51	2310 ± 7	2636 ± 12	204
	unk 20-1	15:55	14.4K	2480	117	58.7	1.80	2049 ± 6	2664 ± 13	204
	std 2-15	16:17	13.8K	916	223	2.0	.03	577 ± 1	569 ± 24	208

238, 248, 254
 238
 196, 206
 leave 248 out

20 1° dropped 20% during analysis & then recovered!

Std 2.11 to 2.10
 $2r/U = 2.06263$
 $U_0/U = 5.81942$
 $Pb^*/U = 0.135782$
 $n = 6$
 $std dev = 0.95\%$

Rejection over-ride Sample/ Std ID Time - printout 196 cps 206 cps U ppm 204pb ppb f206 % Age ±1σ (Ma) 206/238 207/206 Corr.

Rejection over-ride	Sample/ Std ID	Time - printout	196 cps	206 cps	U ppm	204pb ppb	f206 %	Age ±1σ (Ma) 206/238	207/206	Corr.
204 207	UNK 17-2	16:40	11.8K	6975	443	34.6	.28	2163 ± 3	2356 ± 6	204
206 208 238 248 254	UNK 21-1	17:04	13.5K	5223	213	8.7	.11	2614 ± 5	2650 ± 5	204
196 208 248 254	UNK 22-1	17:27	15.3K	1201	65	110.1	8.29	1488 ± 7	2565 ± 39	204
204	UNK 23-1	17:49	13.2K	5933	253	23.3	.26	2563 ± 5	2654 ± 5	204
206, 207 have 248 out	Std 2-16	18:12	13.9K	918	222	-1.2	.11	571 ± 1	573 ± 24	208
206 out 208	UNK 24-1	18:49	13.2K	473	20	1.0	.13	2713 ± 18	2681 ± 18	204
196 206 206 207 208 238 248	UNK 25-1	19:11	13.7K	4448	193	24.2	.35	2586 ± 5	2608 ± 6	204
238 248 254	UNK 26-1	19:34	13.3K	3766	173	0.0	-	2612 ± 6	2640 ± 6	NO CORR.
LOADED SAMPLE IN RACK → HV "OFF"										
SAMPLE (YQ6)	Std 1-1	20:36	12.2K	875	262	1.9	.13	590 ± 1	665 ± 41	204
207	Std 1-2	21:00	12.7K	885	227	2.8	.25	544 ± 1	545 ± 50	204
238 ✓	UNK C1-1	21:25	12.9K	8966	392	13.1	-	2359 ± 3	2475 ± 4	No Corre.
	Std 1-3	21:58	13.1K	839	250	1.5	.12	550 ± 1	496 ± 51	204
196 206 238 254	Std 1-4	22:23	14.2K	950	224	2.1	.18	572 ± 1	552 ± 39	204
PM goes very high ← 6.1 204 ✓	UNK C-2	22:50	62K	8388	273	79.7	1.4	1631 ± 2	2549 ± 7	204
Wrong PK, STOPPED 586 may be 207	Std 1-5	00:03	14K	802	243	-0.7	✓	507 ± 0.4	861 ± 22	No Corre.
208 ✓	Std 1-6	00:42	13.5K	891	216	-0.3	✓	544 ± 1	552 ± 24	208
206 254 248 out	Std 1-7	00:59	12.1K	894	227	2.7	.23	554 ± 1.2	538 ± 47	204
196	UNK C4-1	1:24	12.8K	1646	172	22.1	.74	1369 ± 3	2657 ± 12	204
OK	Std 1-8	1:52	15K	980	213	1.3	.12	565 ± 1	575 ± 30	204
	UNK C5-1	2:20	10.9K	6091	532	5.3	.03	2036 ± 3	2259 ± 4	204
	UNK C6-1	2:45	12.5K	10.2K	431	11.7	.09	2384 ± 3	2467 ± 4	204
204	UNK C7-1	3:16	13.3K	11.5K	724	91.8	.46	2125 ± 3	2395 ± 4	208
238 had been 208 206	UNK C8-1	3:41	12.2K	7477	327	10.2	.09	2479 ± 4	2630 ± 4	204
% very stable for this period, although 1-9 failed to give correct age	Std 1-9	3:58	13.6K	933	240	3.2	.24	595 ± 1	477 ± 39	204
								596 ± 1	552 ± 24	208

Sample / Sfd	Time Print-out	196 CPS	206 CPS	U PPM	204 PPB	f 206 %	Age ± 1σ (Mg)		
							206/238	207/206	Corr
26 238 248 Std 3-1	4:33	12.4 K	941	210	1.8	.16	584 ± 1 584 ± 1	542 ± 45 565 ± 24	204 208
OK → 196 238 256 Std 3-2	5:11	13.8 K	865	246	0.7	.05	567 ± 1	563 ± 32	204
196 206 207 ✓ Unk C 9-1	5:28	15.5 K	1439	132	17.3	.78	1343	2621 ± 13	204
238 248 ✓ Unk C 10-1	5:51	11.1 K	13995	620	33.9	.19	2218 ± 3	2257 ± 4	204
208 ✓ Unk C 11-1	6:16	13.7 K	5138	315	12.6	.13	2278 ± 4	2640 ± 5	204
196 208 Std 3-3 *	6:52	13.1 K	914	207	-0.2	✓	531 ± 4	585 ± 22	—
Stopped → Unk C. 12-1 Std 3-4 Unk C. 13	no file								

95-9.C. std 24/25 / 2.95

$Zr/U = 1.98626$
 $UO/U = 5.84759$
 $Pb^*/U = 0.132190$
 No. Std 18