TITANITE

follows on A-05 ZIRCON

UWA SHRIMP DATA LOG

Date	UWA Mount No.	Whose sample?	Operator(s)
18/4/00	A-05/99-70	Peter VDB/Neal	McN + MG.

Indicate any change to the following:		196	204	bkg	206	207	208	~~238~~ 248	~~248~~ 254	~~254~~ 270	~~270~~
Precambrian	Count time (secs):	2	10	10	10/~~20~~	30/~~40~~	~~10~~ 5	~~8~~ 2	~~5~~ 2	~~2~~ 2
Phanerozoic*	Delay time (secs):	8	3	1	2	1	1	~~3~~ 4	2	~~8~~ 3

see A-05 ZIRCON

Steel: Wein volts / nA = ... for O^-; = ... for O_2^-; = ... for NO^-

dead-time = ... nanosecs expected resolution = >4200 actual resolution = ...

aperture = ... microns retardation lens = ... volts

Expected offsets (amu): ~~196~~ 200-204 = ~~8.170~~ 4.136; 204-bkg = 0.045; 204-206 ~ 2.000; 206-207 = 1.000; 206-208 = 2.000

Actual: ~~196~~ 200-204 = 4.135 204-bkg = 0.045 204-206 = 1.998

206-207 = 1.000 206-208 = 2.000

Primary-epoxy = 4.8 nA Primary-~~CZ3~~ khan = 6.2 nA PESABM-~~CZ3~~ khan = 0.16 ~~pA~~ nA

Raster time (mins): 1 Raster aperture (microns): 120 No. of scans: 6

Comments: C' = tnt

To calculate from cps

Rejection over-ride	Sample/ Std ID	Time - printout	UO_2/UO	196 200 ~~4~~ cps	206 cps	(UO_2) 270 ppm KCps	^{204}Pb ppb	f_{206} %	~~206/238~~ 206/270	Age ±1σ (Ma) 207/206	Offsets OK?
	Khan.9-1	10:27	.934	2790	4655	37.8	7.0	.79	.124	536±26	✓
	Kh.9-2	10:43	.962	2869	4857	38.3	4.3	.49	.127	487±22	✓
	C.1-1	→		not tnt →			> 2000 cps		204 →		
	had some CaTi @ 280 → > 10^6 cts on 206, 207,										
	208, U, Th etc ⇒ probably monazite !!										
	—		GO TO ZIRCONS							—	

Mount/sample No: A-05/99-70 **Date:** 18/4/00 **Page No:** 3

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	Offsets OK?
High 204	A.24-1	22:31	7.03	26.9	4316	85.5	191	7.7	1993 ±6	2762 ±18	✓
last scan	A.25-1	22:57	6.28	50.6	3605	57.1	9.8	.63	2002 ±4	2801 ±8	✓
last scan	sl.2-10	23:18	6.38	44.6	3002	208	0.5	.05	558 ±1	491 ±24	✗/ OK
	sl.2-11	23:47	6.33	44.3	3015	220	0.7	.06	572 ±1	572 ±17	✓
last 1/2	sl.2-12	00:08	6.31	44.8	2930	216	0.7	.06	565 ±1	531 ±19	✓
	A.26-1	00:25	6.14	52.6	5531	63.0	2.8	.11	2837 ±6	2819 ±5	✓
	sl.2-13	01:29	6.36	36.8	2551	226	1.3	.11	572 ±1	484 ±22	✓
	sl.2-14	01:53	6.16	36.2	2191	226	0.0	–	539 ±1	582 ±15	✓
	A.27-1	02:17	6.07	40.0	3830	71	5.5	.02	2~~813~~ 433 ±6	2~~648~~ 813 ±6	✓
	sl.2-15	02:38	6.81	36.1	2782	197	0.6	.06	576 ±1	564 ±22	✓
	B.1-1	03:15	7.27	34.5	3707	38	14	.91	2845 ±8	2773 ±8	✓
	sl.6-3	04:21	6.61	33.4	2412	204	0.6	.06	239 ±1	293 ±26	✓ ✗?
	970A.1-1	04:42	6.39	36.3	2939	44.9	0.5	.03	2709 ±8	2652 ±8	✓
	70A.2-1	05:02	3.84	15.6	224	269	17	.53	1178 ±7	950 ±117	✓
Low U	70A.3-1	05:24	6.37	34.3	244	8.3	0.1	~~.07~~ –ve	1450 ±	1473	✓
	sl.6-4	05:43	7.05	30.2	2576	201	0.5	.05	566 ±1	562 ±20	✓
	70A.4-1	06:02	7.19	31.3	1625	51.9	0.8	.12	1198 ±3	1188 ±21	✓
v. non-lin.	70A.5-1	06:20	6.26	30.3	1332	53.2	2.0	.24	1466 ±4	1485 ±21	✓
Scan 1	70A.6-1	06:39	7.13	31.0	2622	64.6	–ve	–	1563 ±4	1462 ±10	✓
	sl.6-5	06:58	6.99	31.0	2524	196	0.2	.02	568 ±1	610 ±18	✓
	70A.7-1	07:18	4.74	21.5	305	77	4.1	.53	983 ±4	968 ±82	✓
	70A.8-1	07:38	5.99	39.6	1084	36	1.0	.16	1557 ±5	1510 ±22	✓
	70A.9-1	07:57	3.95	17.5	699	228	0.3	.01	2614	2627	✓
	sl.6-6	08:17	6.85	32.1	2487	205	0.2	.02	550 ±1	583 ±18	✓

Margin notes:

changed → (A.24-1)
[..]o pressure [re]sulting in [o]nly large [in]crease in 1°

[Ca]libration Std → (sl.2-11)

[Te]mp. crash → (A.26-1)
[St]age reset.
[C]alib. Std. → (sl.2-13)

[P]opulation B → (B.1-1)

[T]ried 6 more [g]rains. All have high [2]04

Mount 99-70