

Follow on from 99-43.

UWA DATA LOG: SHRIMP ZIRCON U-Pb

Date: 2/9/99 UWA Mount No.: 99-45 Whose sample?: Tim Evans Operator(s): AP/NMcN/AR

Indicate any change to the following:

	196	204	bkg	206	207	208	238	248	254	270
Precambrian	Count time (secs):	2	10	10	10/20*	30/10*	10	5	5	2
Phanerozoic*	Delay time (secs):	8	3	1	2	1	1	3	2	2

expected 196-204 = 8.170 amu expected 204-bkg = 0.045 amu Dead-time = 32 nanosecs
 actual 196-204 = 8.168 actual 204-bkg = 0.045 expected resolution = >4200
 actual 206-207 = 1.000 actual 206-208 = 1.999 actual resolution =

Primary = 4.33 = 4.1 nA PESABM = pA actual Primary : PESABM (≈ 50:1) =
 Raster time (mins): 1 Raster aperture (microns): 120 No. of scans: 6

Comments: F = TRE 036 only 1 datable zircon grain.
 A = TRE 026

Rejection over-ride	Sample/ Std ID	Time - printout	UO/U Kcps	196 cps	206 cps	U ppm	204Pb ppb	f ₂₀₆ %	Age ±1σ (Ma) 206/238	207/206	Offsets OK?
	sl. 3-1	7:09	6.22	15.4	1532	220	0.8	.02	572 ± 1	583 ± 20	O.K.
	sl. 3-2	7:29	6.16	15.3	1489	225	1.1	.09	562 ± 1	526 ± 39	✓
	F. 2 β-1	7:50	6.24	15.0	675	46	0.8	.15	1170 ± 5	1231 ± 32	✓
	sl. 3-3	8:09	6.22	15.4	1509	223	1.3	.02	553 ± 1	665 ± 19	✓
	A. 12-1	8:27	6.41	14.9	1897	47	-ve	-	2639 ± 11	2624 ± 8	✓
	A. 12-2	8:44	6.30	15.0	1842	48	2.1	.12	2635 ± 11	2620 ± 10	✓
	A. 13-1	9:04	6.33	15.4	2.9K	74	3.5	.14	2560 ± 9	2586 ± 8	✓
	sl. 3-4	9:22	6.21	15.3	1525	225	2.2	.18	563 ± 1	503 ± 33	✓
	A. 16-1	9:41	6.29	15.3	2.7K	76	1.8	.08	2392 ± 8	2577 ± 8	✓
	A. 17-1	10:00	6.02	14.1	2.6K	88	-0.3	/	2562 ± 9	2624 ± 7	✓
	A. 18-1	10:17	6.02	14.6	2.9K	95	4.3	.13	2540 ± 8	2610 ± 7	✓

4.1nA

calibra-
std.

F

A

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 Offsets OK?

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	Offsets OK?
	sl.3-5	10:35	6.16	15.9	1527	222	-0.4	.01	562±1	549±20	✓
	A.19-1	10:53	6.35	14.0	4.2K	113	2.1	0.05	2667±8	2607±6	✓
	A.20-1	11:10	6.34	15.1	2029	52	1.5	.08	2602±11	2620±9	✓
	C.4-1	11:29	6.28	15.6	1207	76	4.9	.53	1187±4	1168±30	✓
	C.5-1	11:47	6.09	15.1	754	54	1.4	.21	1183±4	1204±33	✓
	sl.3-6	12:05	6.10	15.3	1468	232	0.5	.04	557±1	607±23	✓
	C.7-1	12:24	6.13	15.7	272	18	0.6	.25	1190±8	1327±73	✓
	C.8-1	12:46	6.41	15.0	974	58	1.2	.16	1217±4	1188±25	✓
	D.2-1	13:05	6.95	12.6	1657	94	-0.3	/	1199±3	1218±14	✓
	D.1-1	13:22	6.62	13.5	2.7K	170	0.1	.01	1169±2	1216±12	✓
	sl.3-7	13:40	6.12	15.8	1480	223	2.0	.18	559±1	526±33	✓
	E.1-1	13:58	6.44	14.5	5.0K	89	2.4	.05	3464±11	3462±4	✓
	E.5-1	14:16	5.99	14.4	2.5K	181	120	4.68	1223±4	1704±37	✓
	E.2-1	14:33	7.09	12.9	7.6K	380	1.2	.03	1248±2	1208±7	✓
	E.6-1				high	204	→	~	3.4 ka?		
	E.7-1	14:56	6.34	14.5	2613	166	1.7	.08	1224±3	1187±15	✓
	sl.3-8	15:14	6.15	15.9	1508	221	0.5	.04	563±1	560±23	✓
	B.11-1	15:40	6.09	15.7	1484	100	0.6	.05	1219±3	1231±21	✓
	B.12-1	16:01	5.91	14.9	661	51	5.1	.78	1230±5	1140±49	✓
	B.1-1	16:19	6.14	15.7	1172	78	0.6	.07	1200	1221	✓
	B.2-1	16:38	6.38	14.9	1317	76	1.3	.13	1194	1205	✓
	sl.2-1	17:07	4.64	41	1353	246	0.5	.04	538	582	✓
	B.3-1	17:36	4.62	42	568	39	0.1	.04	1336	1250	✓
	B.5-1	18:04	6.19	15.6	1673	107	15	.11	1225	1193	✓
	sl.2-2	18:23	6.03	15.7	1498	233	-ve	-	569	580	✓

partly on epoxy

[C]

[D]

[E]

Overlaps onto epoxy

" "

[B]

wrong peak! NO₂⁻

Ⓛ. Duo Y significantly offset, adjusted, then when centered Duo Z, 1° increased from 4.1 to 4.8 uA. ← on NO₂⁻ peak

Mount/sample No: 99-45 Date: 2/8/99 Page No: 3

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 Offsets OK?

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	Offsets OK?
	B.6-1	18:40	6.48	15.4	1676	97	0.7	.06	1188	1203	✓
	B.7-1	18:58	6.49	15.1	586	21	2.5	.58	1792	1734	✓
	B.9-1	19:18	6.52	15.4	430	16	0.5	.16	1733	1774	✓
	B.4-1	19:37	6.51	15.0	2234	147	3.1	.18	1169	1205	✓
	S1.2-3	19:57	6.49	15.3	1621	208	-	-	565	583	✓
	E.8-1	20:25	6.06	16.4	3995	82	6.1	.13	3272	3460	✓
	E.3-1	20:44	5.94	14.2	3926	102	9.0	.16	3203	3467	✓
	E.9-1	21:05	7.00	13.1	5860	298	2.7	.07	1246	1214	✓
	E.10-1	21:24	6.61	13.5	9658	584	9.6	.13	1214	1194	✓
	S1.2-4	21:41	6.23	16.3	1586	218	0.8	.07	562	557	✓
	E.11-1	22:01	6.55	15.3	5184	118	6.0	.13	2610	3345	✓
	D.3-1	22:19	6.12	15.7	575	40	3.6	.75	1160	1095	✓
	D.4-1	22:37	6.63	14.1	1173	89	0.9	.11	1191	1152	✓
	D.5-1	22:56	6.52	14.6	561	33	1.1	.27	1205	1138	✓
	S1.2-5	23:15	6.35	15.7	1568	212	-ve	.03	559	599	✓
	D.6-1	23:32	6.07	13.1	2003	170	-ve	-	1167	1201	✓
	D.7-1	23:52	6.45	15.1	2663	159	-ve	-	1184	1185	✓
	D.8-1	00:10	6.08	14.8	827	58	0.2	.02	1249	1199	✓
	D.9-1	00:30	6.07	15.3	604	43	0.1	.02	1186	1241	✓
	S1.2-6	00:47	6.32	15.0	1520	217	-ve	-	560	593	✓
	C.3-1	1:05	6.27	15.6	1031	63	3.0	.38	1214	1167	✓
	C.1-1	1:23	6.36	15.4	3050	169	1.2	.05	1305	1334	✓
	C.6-1	1:42	6.17	15.8	842	54	2.4	.35	1201	1178	✓
	C.9-1	2:00	6.40	15.2	738	44	2.8	.51	1192	1170	✓
	S1.2-7	2:19	6.29	15.6	1581	218	2.3	.20	565	517	✓

Partially on epoxy

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	Offsets OK?
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scan #3
but possibly
should be
deleted

	C10-1	2:38	6.47	14.6	615	39	2.2	.47	1160	1101	✓
	C11-1	Cyro Not working. → consulted with AK.									

* source chamber leak during analysis - Pressure at $\times 10^{-7}$. Air leaking from source chamber, cyro not working. Reset procedure ineffective. Called AK - went through extensive shut down procedure to stop Nitrogen loss. End of session.