

UWA SHRIMP LOG SHEET

Date 16/7/07 **UWA mount no(s)** 07-16 **Mineral(s)** ZR **Whose sample?** McN **Operator(s)** McN + Nick

Notes: Masses in **bold** = peak centred; others = offset from lower mass centred peak (see offsets below).

Zircon/Badd.	196	204	204.1	206	207	208	238	248	254
Count time (secs)	2	10	10	10/20	30/10	10/5	5	5	2
Delay time (secs)	8	3	1	4	2	2	24	23	23
Centring (secs)	3	-	-	34	-	-	3	3	2

Titanite/Perovskite	200	204	204.1	206	207	208	248	254	270
Count time (secs)	2	10	10	10/20	30/10	10	5	5	7
Delay time (secs)	8	3	1	4	2	1	4	2	3
Centring (secs)	3	-	-	4	-	-	4	3	3

Monazite (SHB)	202	203	204	204.1	206	207	208	232	254	264	270
Count time (secs)	2	2	10	10	10/20	30/10	5	5	2	2	2
Delay time (secs)	8	1	1	1	4	2	2	4	3	3	2
Centring (secs)	1	2	-	-	4	-	2	2	2	2	2
Cup in/out (SHA) out									in	out	in

Xenotime (SHB)	194	(196)	204	204.1	206	207	208	238	248	254
Count time (secs)	2	(5)	10	10	10/20	30/10	5	5	5	2
Delay time (secs)	8	(2)	3	1	4	2	1	3	2	2
Centring (secs)	1	-	-	-	4	-	-	4	3	2

MASS OFFSETS (record setup offsets for session, and **check them after each analysis**).

Note: Setup offsets are different for SHRIMP A and B: i.e. 206-207 = 1.001 for A and 1.005 for B.

Zircon/Badd.	196-204	204-204.1	204-206	206-207	206-208	
Expected offsets:	8.170	0.045	~2.001/9	1.001/5	2.001/9	
Setup offsets:	8.155	0.045	~2.010	1.004	2.006	
Titanite/Perovsk.	200-204	204-204.1	204-206	206-207	206-208	
Expected offsets:	4.136	0.045	~2.001/9	1.001/5	2.001/9	
Setup offsets:						
Monazite (SHB)	202-203	203-204	204-204.1	204-206	206-207	206-208
Expected offsets:	~1.000	1.110	0.045	~2.001/9	1.001/5	~2.001/9
Setup offsets:						
Xenotime (SHB)	(194-196)	194-204	204-204.1	204-206	206-207	206-208
Expected offsets:	1.998	10.143	0.045	~2.001/9	1.001/5	2.001/9
Setup offsets:						

Deadtime 25 ns **Kohler aperture** 100 **Retard** 134 volts **Resoln** 4838

Primary on Steel: O⁻ bits & nA O₂⁻ bits & nA

Primary O₂⁻ on: epoxy = 2.3 nA; standard = 3.2 nA; **PESABM** on std = 72 pA

Raster: Time (mins): 2 Aperture: 120 No. of scans: 5

Useful information

CZ3 = 564 Ma & 551 ppm U
 Temora 2 = 417 Ma & ~130 ppm U
 Khan = 518 Ma & 700 ppm U
 SDA : 7/6 age = 3578 +/- 4 Ma
 BR266 : 559 Ma & 903 ppm U

MONAZITE

French = 514 Ma & 1000 ppm U
 PD95 7/6 age = 1698 (?) Ma
 Z2908 7/6 age = 1795 (?) Ma
 QMa = 505 (?) Ma

XENOTIME

MG1 = 490 (?) Ma
 BS1 = 507 (?) Ma
 Xenol = 994 Ma & 7/6 age = 997 Ma

300kHz
 46% = 900 ppm U
 need <15% scale
 or <40% on 100 kHz

Note: Bold = constant for stds & unknowns.....check after each analysis; also check offsets.

Sample/ Std ID	Time on printout	UO/U 254/238	196 (zr) Kcps	206 cps	U ppm	f ₂₀₆ %	Sensit.	Age+/-1σ (Ma) 206/238	207/206	Offsets OK?
Alternative		UO2/UO 270/254	194 (xt) 200 (tnt) 203 (mz)	206 cps	254 270 Kcps	204 cps	196/194 26A Kcps	206/238 206/254 206/270	207/206	Check after each!!!

07-16
SEM
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A.82-1	15:02	6.41	22	14K	371	.04	23.1	3499±26	3704±3	✓
A.83-1	15:26	6.16	23	8400	224	.05	22.8	3547±22	3697±6	✓
A.84-1			Aborted							✓
A.85-1	15:47	6.03	23	11K	305	.01	23.2	3481±20	3657±5	✓
BR.4-8	16:02	6.49	20	4200	988	.08	23.1	550±4	538±19	✓
A.86-1	16:19	5.65	25	5400	150	.05	21.3	3642±27	3710±6	✓
A.87-1	16:35	5.58	24	5500	142	.01	20.9	3847±16	3884±6	✓
A.88-1	16:54	5.74	24	7400	215	.01	22.0	3637±26	3581±5	✓
A.89-1	17:28	5.78	24	5400	139	.03	23.1	3685±33	3730±5	✓
A.90-1	17:45	6.04	23	6900	186	.07	22.6	3619±30	3726±5	✓
BR.4-9	18:04	6.13	23	44000	961	.01	22.4	562±4	547±16	✓
A.91-1	18:25	5.78	24	9400	257	.04	23.1	3538±26	3702±4	✓
A.92-1	18:48	5.67	24	6100	174	.01	22.3	3537±22	3633±6	✓
A.93-1			aborted							
A.94-1	19:15	5.80	22	4000	115	.25	20.1	3722±57	3848±7	✓
A.95-1	19:32	6.30	44	8500	225	.02	23.3	3569±28	3766±4	✓
A.96-1	19:48	6.00	23	5100	146	0	23.0	3584±∞	3647±	✓
A.97-1	20:09	6.36	22	7900	203	0	24.3	3589±	3714	✓
A.98-1	20:36	5.78	24	15000	458	0	21.7	3285±	3683 357	✓
BR.4-10	20:54	6.67	21	4600	986	.05	24.9	546±4	531±18	✓
A.99-1	21:06		aborted							

Note: Bold = constant for stds & unknowns.....check after each analysis; also check offsets.

Sample/ Std ID	Time on printout	UO/U 254/238	196 (zr) Kcps	206 cps	U ppm	f ₂₀₆ %	Sensit.	Age+/-1σ (Ma) 206/238	207/206	Offsets OK?
Alternative		UO2/UO 270/254	194 (xt) 200 (tnt) 203 (mz)	206 cps	254 270 Kcps	204 cps	196/194 264 Kcps	206/238 206/254 206/270	207/206	Check after each!!!

SEM
PHOTO

22	A.100-1	21:26	6-28	23	3600	90	.03	23.9	3735 ± 43	3832 ± 7	✓
22	A.101-1	21:47	5-61	25	5800	163	0	22.8	3486 ± 35	3683 ± 4	✓
22	A.102-1	22:08	5-95	22	5000	143	.03	20.5	3628 ± 29	3658 ± 5	✓
22	A.103-1	22:25	6-20	22	7100	255	.15	22	2914 ± 33	3728 ± 14	✓
22	A.104-1	22:45	5-60	25	4500	245	.03	21.4	3772 ± 29	3734 ± 5	✓
23	A.105-1	23:07	6-06	22	6400	178	.02	21.7	3576 ± 47	3834 ± 19	✓
23	A.106-1	23:31	5-83	24	6700	178	-.01	22.4	3601 ± 45	3662 ± 8	✓
24	A.107-1	23:55	5-42	24	8300	237	0	22.1	3434 ± 23	3628 ± 9	✓
24	A.108-1	00:17	5-33	24	5000	141	.09	19.1	3726 ± 29	3841 ± 6	✓
25	A.109-1	00:43	5-66	25	5400	138	.07	22.2	3682 ± 34	3754 ± 6	✓
	BR.2-4	01:04	6-68	6	1300	991	.05	6.5	528 ± 5	520 ± 33	✓
	BR.2-5	01:22	7-22	3.8	1800	1025	-.13	4.7	587 ± 8	543 ± 46	✓
	BR.2-6	01:42	7-36	27	820	1037	.02	3.4	628 ± 10	563 ± 48	✓
25	A.110-1	02:03	5-71	26	1900	48	.11	22.5	3653 ± 65	3650 ± 8	✓
25	A.111-1	02:25	5-89	23	7200	215	.07	21	3341 ± 29	3595 ± 5	✓
26	A.112-1	02:45	6-10	24	9200	236	.04	23.7	3506 ± 20	3592 ± 6	✓
26	A.113-1	03:08	6-16	24	4300	110	.03	23.1	3589 ± 33	3682 ± 7	✓
27	A.114-1	03:24	6-01	23	2900	70	.08	21.4	3887 ± 61	3847 ± 7	✓
27	A.115-1	03:41	7-33	19	3000	133	-.24	22.9	2275 ± 27	3634 ± 10	✓
28	A.116-1	04:03	5-53	27	4400	200	.08	21.8	2276 ± 42	3608 ± 60	✓
28	A.117-1	04:21	5-62	25	8500	231	.05	21.2	3547 ± 21	3604 ± 5	✓

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Sample/ Std ID	Time on printout	UO/U 254/238	196 (zr) Kcps	206 cps	U ppm	f ₂₀₆ %	Sensit.	Age+/-1σ (Ma) 206/238 207/206	Offsets OK?	
Alternative		UO2/UO 270/254	194 (xt) 200 (mt) 203 (mz)	206 cps	254 270 Kcps	204 cps	196/194 264 Kcps	206/238 206/254 206/270	207/206	Check after each!!!
BR-3-1	04:38	6.01	26	4800	936	.05	23.5	558 ± 3	556 ± 24	✓
BR-3-2	04:55	6.35	25	5000	975	.04	24.8	547 ± 2	565 ± 15	✓
BR-3-3	05:12	6.54	22	4800	1005	-.04	23.9	542 ± 3	532 ± 40	✓
29 A.118-1	05:31	5.70	26	4100	98.3	.04	22.5	3760 ± 39	3782 ± 8	✓
30 A.119-1	05:50	6.21	24	5400	143	-.05	24.0	3394 ± 29	368 ± 10	✓
A.120-1	06:09	6.09	24	6200	158	.05	22.7	3570 ± 24	3736 ± 8	✓
A.121-1	06:29	5.69	26	7900	207	.03	21	3597 ± 24	3730 ± 6	✓
A.122-1	06:47	5.99	24	8800	226	-.09	21.9	3583 ± 25	3701 ± 4	✓
A.123-1	07:06	5.71	27	3400	84	.132	22.9	3654 ± 31	3694 ± 9	✓
BR-3-4	07:22	6.28	23	4700	987	.06	22.8	553 ± 4	536 ± 26	✓
BR-3-5	07:38	5.68	22	4000	1018	-.15	18.3	548 ± 4	542 ± 47	✓
BR-3-6	07:55	5.05	16	2900	1095	-.06	11.6	578 ± 4	561 ± 71	✓