

UWA SHRIMP LOG SHEET

Date 17/9/05 **UWA mount no(s)** 05-67 **Mineral(s)** ZR **Whose sample?** KMc **Operator(s)** McN + KMc

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	60 10/20	30/10	10	5	5	2		
Delay time (secs)	8	3	1	4 3	2	1	84	23	23		
Centring (secs)	3	-	-	85	-	-	82	82	21		
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	~2.009	1.004	2.005	
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 24 ns Kohler aperture 100? Retard 34 volts Resoln 5359

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

Primary O₂⁻ on: epoxy = 2.7 nA; standard = 3.7 nA; PESABM on std = 132 pA

Raster: Time (mins): 3.0 Aperture: 130 No. of scans: 7

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

Comments:

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) Keps	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 Keps	204 cps	196/194 264 Keps	206/238 206/254 206/270	207/206	Check after each!!!
* Tem.1-1	10:46	5.59	46	270	130	1.57	11.8	411 ± 5	365 ± 26	✓
* CZ.1-1	11:26	5.76	25	2800	551	.18	21.3	563 ± 2	541 ± 34	✓
Tem.2-1	11:54	5.83	24	350	91	7.61	21.8	435 ± 7	559 ± 202	✓
a.1-1	12:33	6.01	22	4.8	152.7	0.54	23.0	1.67 ± 14	1.4 ± 0.2	✓
Mag. Cycle										
a.1-2	13:08	5.63	24	5.6	132.9	1.18	20.8	4.99 ± 0.9	1.85 ± 0.2	✓
Tem.3-1	13:49	5.01 5.02	17	330	154.3	0.02	12.4	424 ± 8	426.3 ± 8	✓
a.1-3	14:14	5.57	23	5.1	155.6	1.68	20.7	4.18 ± 4	1.68 ± 0.1	✓
Mag. Cycle										
a.2-1	14:48	5.74	23	6.3	95.7	1.22	21.1	8.26 ± 0.2	1.7 ± 0.3	✓
Mag. Cycle										
a.2-2	15:22	5.87	22	7.0	166.4	0.98	22.9	5.05 ± 0.1	1.85 ± 0.1	✓
Tem.4-1	15:52	5.75	24	6.7	177.2	0.015	21.9	441 ± 3.2	433.8 ± 32	✓
a.3-1	16:21	5.80	23	8.9	223.1	1.12	22.4	4.78 ± 0.1	1.59 ± 0.2	✓
Mag. Cycle										
a.3-2	16:54	5.46	25	7.7	168.5	0.44	21.4	5.53	1.5 ± 0.2	✓
Mag. Cycle										
a.4-1	17:29	5.95	22	12	407.7	0.75	23.2	3.59 ± 0.1	1.77 ± 0.1	✓
Tem.5-1	17:58	5.53	23	430	124	0.03	20.2	438 ± 4	432 ± 4	✓
a.5-1	18:30	5.66	23	9.3	190	0.67	21.3	6.12 ± 0.2	1.54 ± 0.2	✓
Mag. Cycle										

Calibration
OK

Centering
on.

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!!!
a.6-1	19:03	5.98	22	8.4	36.1	0.79	22.3	28.4±.8	1.78	✓
Mag. Cycle	19:									
a.7-1	19:37	5.66	24	420	313.8	0.01	21.7	179.8±23	17.7±22	✓
Tem.6-1	20:05	5.69	23 23	370	106.4	0.011	20.7	432±5.5	428±5.5	✓
a.7-2	20:33	6.37	20	6.5	1064	0.93	24.8	7±0.2	1.07±0.3	✓
Mag. Cycle										
a.8-3	21:07	5.51	24	130	92.4	0.05	21.7	183±2.1	176±2.1	✓
Mag. Cycle										
a.8-1	21:41	5.70	23	7.2	165.1	0.88	21.7	5.39±0.1	1.85±0.2	✓
Tem.7-1	22:09	5.48	24	280	79.1	0.014	20.5	438±6	433±6.3	✓
a.9-1	22:39	5.86	22	9.8	159.5	0.66	22.0	7.7±0.2	1.48±0.2	✓
Mag. Cycle										
a.10-1	23:13	6.11	20	11	259.1	0.55	21.0	5.59±0.1	1.71±0.1	✓
Mag. Cycle										
a.11-1	23:47	5.78	20	290	526.7	0.77	19.2	8±0.6	2.14±0.9	✓
Tem.8-1	00:16	5.89	22	220	58.4	0.04	21.7	449±8.6	435±8.4	✓
a.11-2	00:42	6.58	19	120	139.7	0.74	22.1	10.9±0.2	2.8±0.3	✓
Mag. Cycle	00:42									
a.11-3	01:19	5.72	23	10	73.0	0.79	21.8	17±0.3	2.4±0.7	✓
Mag. Cycle										
a.12-1	01:56	5.94	21	11	343	0.78	19.5	4.59±0.1	1.94±0.1	✓

