

## UWA SHRIMP LOG SHEET

**Date** 25/3/05      **UWA mount no(s)** 04-89+      **Mineral(s)** monazite      **Whose sample?** NV      **Operator(s)** MB.

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

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

Titanite/Perovskite	200	204	204.1	<b>206</b>	207	208	<b>248</b>	<b>254</b>	<b>270</b>
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	<b>206</b>	207	<b>208</b>	<b>232</b>	<b>254</b>	<b>264</b>	<b>270</b>
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	<b>206</b>	207	208	<b>238</b>	<b>248</b>	<b>254</b>
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.

<b>Zircon/Badd.</b>	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:	.....	.....	.....	.....	.....	
<b>Titanite/Perovsk.</b>	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:	.....	.....	.....	.....	.....	
<b>Monazite (SHB)</b>	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:	.....	1.105	0.045	2.008	1.005	2.008
<b>Xenotime (SHB)</b>	(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 30µm      Retard .....volts      Resoln 5682

Primary on Steel: O<sup>-</sup> ..... bits & nA      O<sub>2</sub><sup>-</sup> ..... bits & nA

Primary O<sub>2</sub><sup>-</sup> on: epoxy = ~0.28 nA; standard = ~0.38 nA; PESABM on std = 16.5 pA

Raster: Time (mins): 2.0      Aperture: 65      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:

The peak is sloped from left down to right - have seen this before and discussed with Ian, who said not critical to age calc so don't worry. All other peaks are fine (refer to printouts).

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 <sub>206</sub> %	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!!!
Fv. 1-1	11:49	1.2714	3032	10707	15.2	6	249	0.2055	0.0600	✓
PO95.1-1	12:15	1.1297	2884	4766	161	10	515	0.6659	0.1042	✓
QMa. 1-1	12:38	1.3372	3172	8481	11.1	2	90	0.2043	0.0604	✓
<p>Consensus error while working on <sup>(poly)</sup> pop. A gain A3 → had to restart computer.</p>										
Fv. 1-2	14:05	1.3122	2660	9704	12.4	7	235	0.2053	0.0591	✓
04-89B. 4-1	15:02	1.5783	2571	564	0.13	1	4.6	1.7590	0.2021	✓
04-89C. 1-1	15:39	1.3272	2463	954	0.21	3	3.92	1.1778	0.1813	✓
PO95.1-2	16:02	1.1576	2883	4856	164	10	521	0.6812	0.1038	✓
04-89D. 1-1	16:38	1.2847	2701	1793	0.35	3	6.9	1.3088	0.1829	✓
Fv. 1-3	18:32	1.2900	3417	11805	15.3	4	291	0.1987	0.0593	✓
04-89L. 1-1	19:00	1.3282	3819	12664	2.57	11	3.51	1.3069	0.1916	✓
04-89M. 1-1	19:29	1.3846	3124	2141	0.47	3	2.83	1.2669	0.2018	✓
PO95.1-3	19:52	1.1607	3205	5046	172	14	513	0.6812	0.1043	✓
QMa. 1-2	20:14	1.3374	3447	10.5	13.6	1	113	0.2065	0.0576	✓
0489O. 1-1	20:53	1.3784	3004	10620	2.27	4	3.27	1.2881	0.1800	✓
04-89. 1-1b	21:12	1.1815	4292	8814	2.04	4	4.29	1.0219	0.1869	✓
Fv. 1-4	21:37	1.2626	3309	12077	14.9	5	286	0.2048	0.0602	✓
Fv. 1-4b	21:57	1.3521	3525	9678	14.4	8	251	0.1813	0.0591	✓
<p>04-89OUT → SAMPLE CHANGE</p>										
04-90IN										
04-90A. 6-1	22:48	1.3157	4093	4400	1.09	7	6.19	1.0602	0.1975	✓
04-90A. 2-1	23:21	1.4547	2447	7740	1.64	5	0.78	1.3748	0.1887	✓



