

UWA SHRIMP LOG SHEET

Date 22/6/05 **UWA mount no(s)** OS-65 **Mineral(s)** ZR **Whose sample?** Ken McC **Operator(s)** McN + McC

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

Mineral	196	204	204.1	206	207	208	238	248	254	264	270
Zircon/Badd.	196	204	204.1	206 60	207	208	238	248	254		
Count time (secs)	2	10	10	10/20	30/10	10	5	5	2		
Delay time (secs)	8	3	1	A3	2	1	34	23	23		
Centring (secs)	3	-	-	35	-	-	32	32	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:	8.174	0.045	-2.002	1.001	2.002	
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 0 volts Resoln 4745

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

Primary O₂ on: epoxy = 2.2 nA; standard = 3.1 nA; PESABM on std = 38 pA

Raster: Time (mins): 3 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) Kcps	206 cps	U ppm	f ₂₀₆ %	Sensit.	Age+/-1σ (Ma)		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!!!	
<i>05-65</i> C2.1-1	10:34	4.9	14	1300	551	.05	12.3	563±4	581±37	✓	2.002
Tem.1-1	11:06	4.9	14	452	244	.05	12.5	420±4	441±89	✓	2.003
Tem.1-2	11:37	4.95	14	500	279	.16	12.3	529±51	418±4	✓	2.003
a.1-1	12:08	4.81	14	885	144.6	.56	13.7	1.99±1.1	1.22±0.1	✓	2.004
<i>centre.1</i>											
a.2-1	12:48	4.89	14	3.8	604.8	.14	13.1	1.29±0.1	1.29±0.2	✓	2.003
<i>centre.2</i>											
a.3-1	13:27	4.95	15	5.8	192.5	.59	13.9	0.69±0.3	2.7±1.3	✓	2.002
<i>centre.3</i>											
Tem.1-3	14:00		12	390	279	.050	9.7	421±3.6	383±6.2	✓	2.006
a.4-1	14:29	4.49	14	29	161.6	0.88	11.3	2.6±2.5	4415±621	✓	2.002
<i>centre.4</i>											
a.5-1	15:02	4.91	14	2.3	268.1	.21	12.8	1.3±0.1	2700±1484	✓	2.002
<i>centre.5</i>											
a.6-1	15:37	5.02	14	1.2	199.8	-1.4	14.2	1.25±0.1	1815±NaN	✓	2.004
Tem.1-4	16:07	4.55	11	2.5	194.2	.261	9.7	416.8±4	367.9±119	✓	2.003
a.7-1	16:37	4.85	15	3.4	153.8	.75	13.4	1.7±1	NaN±NaN	✓	2.002
<i>centre.6</i>								1.83±0.3	NaN		
a.8-1	17:12	4.65	10	3.0	254.5	.74	9.1	1.83±0.3	NaN±NaN	✓	2.002
<i>centre.7</i>											
a.9-1	17:44	3.22	27	53	45.2	.26	1.7	280.±46	5762±NaN	✓	2.002

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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!!!
OS65 Tem.2-1	18:11	4.2	1.0	88	81.6	.11	7.3	443 ± 9	320 ± NaN	✓ 2.002
b.1-1	18:43	4.78	14	11	1845.2	44	12.4	1.02 ± 0	NaN ± NaN	✓ 2.002
Centre.8								1.02 ± 0	NaN	
b.2-1	19:15	5.34	12	4.6	209.5	1.11	12.5	1.54 ± 2	6855 ± NaN	✓ 2.002
Centre.9										
b.3-1	19:48	4.87	15	600	207.8	.89	13.2	634.6 ± 10	666 ± 112	✓ 2.003
Tem.2-2	20:15	4.14	72	64	835	.1	5.2	436 ± 8	794 ± 309	✓ 2.003
b.4-1	20:57	4.36	11	680	355	1.6	8.1	679 ± 5	663 ± 88	✓ 2.002
Centre.10										
b.5-1	21:30	4.97	15	140	153.7	106	14.1	1.89 ± 0.7	644.6 ± NaN	✓ 2.004
Centre.11										
b.6-1	22:06	5.09	14	1.3	239.9	.34	14.2	1.01 ± 0.1	NaN ± NaN	✓ 2.003
Tem.2-3	22:36	4.63	9.5	84	64.0	.9	9.1	489 ± 14	194 ± 394	✓ 2.003
b.7-1	23:10	5.14	12	1.7	312.4	.24	13.5	1.02 ± 0.1	3581 ± NaN	✓ 2.002
Centre.12										
b.8-1	23:47	5.08	14	960	170.6	.072	12.6	1229 ± 20	1210 ± 38	✓ 2.005
Centre.13										
b.8-2	00:22	5.66	11	1800	353.4	.38	12.3	1179 ± 12	1234 ± 19	✓ 2.004
b.9-1	01:02	4.88	16	12	1741	.39	14.2	0.99 ± 0.0	0.00 ± NaN	✓ 2.004
Tem.3-1	01:32	4.86	12	360	235.8	.06	10.8	424 ± 3.4	449 ± NaN	✓ 2.004
b.10-1	02:06	4.87	13	1.2	173.9	.96	12.3	1.3 ± 0.1	NaN ± NaN	✓ 2.002

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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!!!	
Centre.14											
b.11-1	02:41	4.89	15	1700	648	1.9	13.4	556±27	747±55	✓	2.004
Centre.15											
b.12-1	03:13	4.47	12	5.5	158.8	0.55	9.4	1.99±.6	4499±682	✓	2.000
Tem.3-2	03:42	4.89	14	320	175.3	.34	12.7	429±6	252±119	✓	2.003
b.12-2	04:14	4.16	20	5.8	140.8	1.1	14.0	1.07±.6	6219±NaN	✓	2.002
Centre.16											
b.5-2	04:47	4.68	17	23	221.3	0.94	13.9	1.78±.7	NaN±NaN	✓	2.003
Centre.17											
b.13-1	05:23	5.15	14	1.4	226.2	.02	14.5	0.96±.1	3294±436	✓	2.004
Tem.4-1	05:52	5.08	13	220	121.2	.47	12.6	423±5	367±140	✓	2.004
b.13-2	06:20	5.25	14	1.6	266.1	-.32	14.5	1.02±.1	4084±104	✓	2.002
Centre.18											
b.1-1	06:56	5.20	13	88	159	1.13	15.1	0.87±.1	4574±1183	✓	2.003
c.1-1	06:56	5.20	13	.85	159	-1.13	15.1	0.87±.1	4574±1183	✓	2.003
Centre.19											
c.1-2	07:29	4.73	15	1.6	200	1.25	13.3	0.86±.1	6597±NaN	✓	2.004
Tem.4-2	07:56	5.27	13	370	199.7	-0.09	13.3	421±6	510±68	✓	2.004
c.2-1	08:25	4.12	15	1.4	166.5	1.15	10.9	1.26±.1	7243±NaN	✓	