

SHRIMP data acquisition logsheet

SHRIMP A or B

Perovskite
Zircon or Titanite

Date	Sample/Mount(s)	Sample owner	SH operator	Night-runner(s)
4/10/16	A 82 (R) N16-33 (L)	McN + CT	Auto McN CT	Auto

Deadtime.....25.....ns Kohler aperture.....100..... Retard.....volts Resoln.....

Primary O₂⁻ on: epoxynA standardnA PostESA BM on std

Raster: Time (mins) Aperture No. of scans6.....

Zircon/Badd.	196	204	Bk	206	207	208	238	248	254
Count time (secs)	2	10	10	10/20	30/10	10	5	5	2
Delay time (secs)	8	4	2	4	2	2	3	3	3
Peak centring time (secs)	3	-	-	6	-	-	3	3	2
Titanite	200*	204	Bk	206	207	208	248	254	270
Count time (secs)	2	10	10	10/20	30/10	5	5	5	7
Delay time (secs)	8	34	2	4	2	2	4	3	3
Peak centring time (secs)	3	-	-	6	-	-	23	3	3

Offsets					
Zircon/Badd.	196-204	204-Bk	204-206	206-207	206-208
Expected offset	8.170	0.040	2.001/9	1.001/5	2.001/9
Setup offsets					
Titanite	200*-204	204-Bk	204-206	206-207	206-208
Expected offset	4.136	0.040	2.001/9	1.001/5	2.001/9
Setup offsets					

Standards

Zircon: BR266 206/238 age = 559 Ma; 903 ppm U
 TEM2 206/238 age = 416.78 +/- 0.33 Ma; U = variable
 OGC-1 207/206 age = 3467 +/- 3 Ma; U = variable
 CZ3 206/238 age = 561.5 Ma; 551 ppm U
 M257 206/238 age = 561.3 Ma; 840 ppm U

Titanite: Khan 206/238 age = 522.2 Ma; 700 ppm U
 ORBA 207/206 age = 2691.5 +/- 1.1 Ma; 140 ppm U

* Titanite reference peak for m/z 200 is a doublet: use low-mass peak.

NB: The two mounts were approx. in the same orientation as when analysed on 18/7/16.

AIM: Go to same grains (NB - CT repolished mount) in the same order as 18/7/16.

BEAM ONLY

Date 04/10/2016

Mount A82/N16-33

Page no. 1

Filename	Time	UO/U	196 Keps	206 -cps-	206 (%)	U ppm	Sensit- ivity	Age/Ma 206/238	Age/Ma 207/206	SBM (%)
Alternatives		UO2/UO	Ref. (U)			254/270		Pb/U ratio	207/206	
		270/254	Keps			Keps			207/206	
N16-33 KH. 1-1	10:26	0.79	2.6	7000	0.33	4.3	-	0.162	698	8.0
" KH. 2-1	11:04	0.77	2.6	6900	0.23	4.0	-	0.173	656	3.9
" ORBA. 1-1	11:47	0.84	2.9	10K	0.66	9.8	-	1.04	2772	5.0
A-82 * PVI. 1-1	12:12	1.48	5.8	4100	1.28	34K	-	0.120	1082	8.9
" PVI. 1-2	12:35	1.48	6.6	4500	1.30	38K	-	0.119	1103	3.4
" PVI. 1-3	12:57	1.50	6.6	4500	1.31	38K	-	0.119	1105	2.6
" MG4. 1-1	13:21	1.53	6.6	290	6.76	1.1	-	0.256	2600	5.7
" " 2-1	13:43	1.50	6.5	300	7.33	1.2	-	0.248	2561	3.0
" " 3-1	14:12	1.48	5.7	260	5.67	1.0	-	0.254	2571	6.5
N16-33 KH. 3-1	14:35	0.81	2.8	7500	0.29	44K	-	0.172	664	3.1
A-82 PVI. 1-4	15:00	1.49	6.1	4100	1.20	35K	-	0.118	1083	3.6
" MG4. 4-1	15:26	1.547	6.1	270	6.72	1.1	-	0.251	2602.7	3.6
" MG4. 5-1	15:47	1.562	6.3	270	8.09	1.1	-	0.258	2579	3.3
" MG4. 6-1	16:10	1.584	6.7	280	8.06	1.1	-	0.263	2652	3.5
Autoren PVI. 1-5	17:30	1.485	6.1	8/100	1.37	34	-	0.119	1080	3.7
" ORBA 2-1	17:52	0.794	2.9	9600	0.51	9.7	-	0.995	2703	3.1
" MG4. 7-1	18:14	1.53	6.4	310	6.08	1.2	-	0.252	2608	3.6
" " 8-1	18:35	1.48	6.1	300	8.63	1.3	-	0.238	1347 ²	1.9
" " 9-1	18:55	1.56	6.5	300	7.75	1.2	-	0.252	2458 ²	2.0
" PV. 1-6	19:16	1.50	6.4	4300	1.51	36K	-	0.118	1130 ²	3.2
" MG4. 10-1	19:36	1.54	6.3	270	6.97	1.1	-	0.250	2610 ²	1.7
" " 11-1	19:57	1.50	5.8	280	6.80	1.3	-	0.212	2602 ²	1.8
" " 12-1	20:17	1.57	6.4	270	6.49	1.1	-	0.254	2546	1.9
" PV. 1-7	20:38	1.47	6.3	4400	1.43	36K	-	0.120	708	2.9
" MG4. 13-1	20:58	1.47	5.6	280	7.19	1.2	-	0.246	2575	2.5
" " 14-1	21:18	1.54	6.0	280	7.61	1.2	-	0.234	2639	2.5
" " 15-1	21:39	1.51	6.0	270	7.33	1.1	-	0.244	2511	2.5
" PV. 1-8	21:59	1.48	6.2	4200	1.22	36K	-	0.118	1099	1.8
" ORBA. 3-1	22:22	0.84	3.3	10K	0.81	9.6	-	1.05	2768	3.0
" MG4. 16-1	22:44	1.52	6.4	290	6.80	1.2	-	0.247	2486	3.4
" " 17-1	23:04	1.51	6.1	270	8.45	1.1	-	0.251	2663	2.6
" " 18-1	23:25	1.50	6.0	270	7.19	1.1	-	0.247	2568	4.4
" PV. 1-9	23:45	1.49	6.4	4300	1.34	36K	-	0.119	1099	2.7
" MG4. 19-1	00:06	1.54	6.4	290	6.76	1.2	-	0.250	2496	1.8
" " 20-1	00:26	1.47	6.6	390	7.94	1.6	-	0.241	2523	4.0
" PV. 10	00:48	1.49	6.2	4200	1.32	36K	-	0.118	1090	3.7

Offsets: ²⁰⁰196-204 = 4.150 204-Bkg = .045 204-206 = 2.005 206-207 = 1.005 206-208 = 2.009

* SBM + 1° less stable → repeat = PVI. 1-2

Filename	Time	UO/U 254/238 UO2/UO 270/254	196 Keps Ref. Keps	206 -cps-	206 2/4000 ³ (%)	U ppm 254/270 Keps	Sensit- ivity	Age/Ma 206/238 Pb/U ratio	Age/Ma 207/206 207/206	SBM (%)
PV2. 1-1	01:09	1.55	6.8	19K	1.25	160K	-	0.121	1044	3.2
" 2-1	01:29	1.49	6.3	24K	0.90	200K	-	0.120	937	29.0
" 3-1	01:50	1.56	4.6	15K	1.29	120K	-	0.120	1040	3.0
PV1. 11	02:10	1.51	4.4	3000	1.48	26K	-	0.118	1098	2.9
CRBA. 4-1	02:31	0.84	2.4	7700	0.69	7.4	-	1.04	2797	8.1
PV2. 4-1	02:52	1.58	4.9	21K	1.02	170K	-	0.122	945	6.3
" 5-1	03:12	1.57	4.9	17K	1.15	140K	-	0.121	1047	3.9
" 6-1	03:33	1.58	5.0	17K	1.12	140K	-	0.121	1015	5.2
PV1. 12	03:53	1.51	4.5	3100	1.24	26K	-	0.120	1102	3.5
PV2. 7-1	04:14	1.56	4.9	17K	1.17	140K	-	0.120	1046	3.6
" 8-1	04:36	1.56	4.9	18K	1.26	150K	-	0.121	1049	3.8
PV1. 13	04:58	1.50	4.7	3300	1.32	27K	-	0.119	1093	3.9
PV1. 10-1	05:20	1.49	4.9	3200	1.38	27K	-	0.119	1107	3.9
M64. 30-1	05:41	1.53	4.8	220	8.74	0.88	-	0.248	2574	3.2
" 31-1	06:01	1.52	4.8	230	6.60	12.1	-	0.219	2614	2.3
" 32-1	06:21	1.49	5.2	310	7.10	1.2	-	0.249	2555	3.8
PV1. 11-1	06:42	1.50	4.9	3300	1.35	28K	-	0.118	1107	3.5
CRBA. 5-1	07:04	0.87	2.5	8400	0.64	8.1	-	1.03	2770	5.6
PV1. 14	07:25	1.51	4.9	3300	1.26	28K	-	0.117	1084	4.3
PV2. 1-2	07:45	1.60	5.4	19K	1.07	160K	-	0.121	978	3.7
" 2-2	08:06	1.55	5.4	21K	0.89	130K	-	0.119	898	5.4
" 3-2	08:26	1.57	5.3	18K	0.98	150K	-	0.119	922	2.0
PV1. 15	08:47	1.51	4.9	3300	1.27	28K	-	0.118	1092	4.2
← FINISHED →										

Offsets: 196-204 = 204-Bkg = 204-206 = 206-207 = 206-208 =