

SHRIMP data acquisition logsheet

SHRIMP A or **B**

Mineral = **RUTILE**

Date	Sample/Mount(s)	Sample owner	SH operator	Night-runner(s)
4/8/11	08-03 11-21 10-05	AGM MCN	MCN	

Deadtime... 25 ns Kohler aperture... 100 Retard... 14.4 volts Resoln... 5252

Primary on steel: O⁻ Bits/nA O₂⁻ Bits/nA

Primary O₂⁻ on: epoxy nA standard nA PostESA BM on std

Raster: Time (mins) 2 Aperture 120 No. of scans 6/7

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	3	1	4	2	1	3	2	2		
Peak centring time (secs)	3	-	-	3	-	-	3	3	2		
Titanite/Perovskite	200	204	Bk	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		
Peak centring time (secs)	3	-	-	4	-	-	2	3	3		
Rutile	192	204	Bk	206	207	208	248	254	270		
Count time (secs)	2	10	10	10/20	30/10	10	5	5	3		
Delay time (secs)	8	3	1	4	2	1	4	2	3		
Peak centring time (secs)	3	-	-	4	-	-	2	3	3		
Monazite	202	203	204	Bk	206	207	208	232	254	264	270
Count time (secs)	2	10	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
Peak centring time (secs)	1	2	-	-	4	-	2	2	2	2	2
Xenotime	194	204	Bk	206	207	208	238	248	254		
Count time (secs)	2	10	10	10/20	30/10	5	5	5	2		
Delay time (secs)	8	3	1	4	2	1	3	2	2		
Peak centring time (secs)	1	-	-	3	-	-	4	3	2		

Offsets						
Zircon/Badd.	196-204	204-Bk	204-206	206-207	206-208	
Expected offset	8.170	0.045	2.001/9	1.001/5	2.001/9	
Setup offsets						
Titanite/Perovskite	200-204	204-Bk	204-206	206-207	206-208	
Expected offset	4.136	0.045	2.001/9	1.001/5	2.001/9	
Setup offsets						
Rutile	192-204	204-Bk	204-206	206-207	206-208	
Expected offset	12.100	0.045	2.001/9	1.001/5	2.001/9	
Setup offsets	12.091	0.040	~2.010	1.005	2.007	
Monazite	202-203	203-204	204-Bk	204-206	206-207	206-208
Expected offset	1.000	1.110	0.045	2.001/9	1.001/5	2.001/9
Setup offsets						
Xenotime	194-204	204-Bk	204-206	206-207	206-208	
Expected offset	10.143	0.045	2.001/9	1.001/5	2.001/9	
Setup offsets						

WH Rutile 206/238 age = 2625 Ma
 207/206 " = 2642 Ma
 Ave U = 164 ppm

08-03 = Std

Date 4/8/11 Mount 08-03 + 11-21 Page no. 1

Filename	Time	CALC.		206	f206 (%)	U ppm	Sensitivity	CALC.		SMB
		UO/U	196 Kcps					Age/Ma	Age/Ma	
Alternatives		254/238	Reference Kcps	-cps-		238/270		206/238	207/206	%
		UO2/UO	Kcps			238/270		Pb/U ratio	207/206	
0803 WHC.1-1	9:46	1.63	1300	9400	-	9.600	-	206/270		
" " 1-2	10:07	1.67	1300	9700	.03	10.0K	-	.979	2637±7	7.2
" " 2-1	10:29	1.81	830	8000	.07	7.600	-	.970	2647±6	5.0
1121 D.1-1	10:56	0.67	1800	110	2.76	1120	-	1.053	2663±7	10.3
" D.2-1	11:16	1.19	1400	180	-	9.190	-	.917	2931±817	10.1
" D.3-1	11:36	.78	1200	78	5.07	1174	-	.947	2814±30	10.9
* → 0803 WHC.3-1	11:58	2.00	650	8300	.03	7.800	-	1.054	3051±297	8.7
" " 4-1	12:21	0.90	2500	4800	-	5.200	-	1.064	2637±6	7.8
" " 5-1	12:44	1.65	1000	7600	.05	7.600	-	.923	2639±83	16.5
→ 1121 D.4-1	13:13	1.00	2100	150	3.62	1150	-	1.000	2634±6	3.5
" D.5-1	13:35	1.06	960	180	5.09	1170	-	.938	2749±174	?
" D.6-1	14:06	1.09	970	87	6.06	1186	-	.802	2887±114	9.6
0803 WHC.6-1	14:34	1.46	1100	7000	.01	7.000	-	1.012	2817±126	11.6
								1.000	2662±12	2.3
SAMPLE CHANGE → HV off (11-21 replaced by 10-05 in stage)										
0803 WHC.7-1	15:30	0.77	3400	4900	.07	5000	-	.980	2613±78	13.2
" WHC.8-1	15:52	1.35	1700	7800	-	8400	-	.929	2629±7	7.6
" WHC.9-1	16:16	1.01	2400	6500	.04	7200	-	.903	2644±31	5.1
		↑ Due P to dry & stabilize 10								
" WHC.10-1	16:45	1.79	840	8600	-	7900	-	1.089	2644±20	8.4
1005 B.1-1	17:11	2.00	880	620	-	630	-	.984	2668±21	10.0
" B.1-2	17:35	1.86	860	270	.73	260	-	1.038	2596±57	7.2
" B.2-1	17:57	1.87	800	1400	.13	1500	-	.933	2634±22	13.1
" B.2-2	18:20	1.98	900	1500	.99	1600	-	.937	2526±25	10.4
" B.2-3	18:42	1.92	830	1400	.70	1500	-	.933	2557±21	10.4
0803 WHC.11-1	19:08	1.73	1000	7900	-	7600	-	1.039	2661±5	4.9
" " 12-1	19:31	1.45	2100	6700	-	6900	-	.971	2631±22	7.2
1005 A.1-1		-	aborted → v. low U + Pb							
" A.2-1			" " " "							
" C.1-1	20:16	0.91	1100	9.7	-	40	-	.242	2614±113	3.6
" C.2-1	20:39	0.94	1000	12	-	48	-	.25	2618±121	4.7
0803 WHC.13-1	21:07	1.52	1300	6700	-	7000	-	.957	2632±6	7.6

Offsets: Ref-204 = 12.091 204-Bkg = .040 204-206 = 2.010 206-207 = 1.005 206-208 = 2.007

* Switched from 6 to 7 means

Date 5/8/11

Mount

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Filename	Time	UO/U 254/238	196 Kcps	206 -cps-	f206 (%)	U ppm	Sensit- ivity	Age/Ma 206/238	Age/Ma 207/206	SBM %	
Alternatives		UO2/UO 270/254	Reference Kcps			204 270 Kcps		Pb/U ratio 206/200	207/206		
14-1 1005 1005 " "	B. 3-1	21:32	1.875	840	8900	-	9000	-	0.98	2635±7	8.7
	B. 3-1	22:01	2.193	600	670	.47	680	-	0.98	2622±15	5.4
	B. 4-1	22:25	2.289	680	1900	.43	1900	-	1.0	2614±11	9.1
	B. 5-1	22:57	2.3	560	870	.05	840	-	1.03	2648±13	9.4
	B. 6-1	23:21	1.0	3000	1000	1.59	1200	-	0.83	2639±20	6.9
	B. 7-1	23:47	2.30	480	1500	.05	1500	-	1.0	2612±9	5.4
0803 " "	WHC.15-1	00:16	2.0	730	1100	-	1000	-	1.1	2629±9	3.3
1005	WHC.2-2	00:42	1.78	950	8100	-	7500	-	1.08	2640±5	4.6
	B. 8-1	01:40	2.18	980	1300	-	1400	-	0.93	2609±16	3.7
	B. 9-1	02:14	1.6	1600	1700	0.90	2000	-	0.85	2612±9	2.0
	B. 10-1	02:40	1.90	1400	1700	0.77	1900	-	0.89	2618±9	2.9
	B. 11-1	03:07	2.0	1200	1800	0.88	2000	-	0.90	2624±13	5.2
	B. 12-1	03:35	2.28	770	2000	1.06	2100	-	0.95	2623±10	3.5
0803	WHC.6-2	04:04	1.53	1400	8200	0.01	8300	-	0.98	2649±6	3.3
1105 1005?	WHC.7-2	04:29	0.79	3900	4800	0.07	5100	-	0.94	2628±66	13.8
	B. 13-1	04:56	2.10	840	2000	0.72	2100	-	0.95	2621±10	11.5
	B. 14-1	05:22	2.05	780	810	-	780	-	1.03	2606±16	5.9
	B. 15-1	05:49	1.69	1600	1900	0.28	2200	-	0.86	2607±11	3.5
	B. 16-1	06:14	1.79	1100	1100	-	1200	-	0.92	2613±11	9.9
	B. 17-1	06:41	3300 0.94	3300	1500	1.59	1700	-	0.88	2586±28	9.0
6803	WHC.10-2	07:31	1.80	1000	12000	-	11000	-	1.09	2650±5	3.6
	WHC.11-2	07:54	1.73	1200	11000	.005	9700	-	1.03	2624±5	4.1
					10000						
	WHC.16-1	08:18	1.85	760	12000	-	10000	-	1.2	2635±5	4.9

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

