Supplement 2. SHRIMP-RG trace element data for zircons in selected AMC samples

	10JH21	10JH21	10JH21	10JH21	10JH21	10JH21	10JH21	10JH21	10JH21
	1.1C	**1.2R**	**2.1C**	**2.2R**	**3.1C**	**3.2R**	**4.1C**	**4.2R**	**5.1C**
FW*	798	755	808	748	836	781	857	749	798
Li (Est.)	0.2	2.4	0.3	1.0	0.5	0.5	0.8	0.7	0.6
Be	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
B	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
F	3.9	3.5	3.7	3.0	3.7	2.5	3.6	2.4	2.7
Na (Est.)	2.0	2.2	2.3	2.3	2.3	2.3	1.9	2.0	1.9
Al (Est.)	10.5	15.1	11.5	15.0	9.3	15.0	9.1	10.2	23.9
P	90.9	133	118	120	154	117	265	133	198
K (Rel.)	0.6	0.6	0.8	0.8	0.5	0.6	0.6	0.7	0.8
Ca (Est.)	1.9	2.1	2.3	2.3	2.4	2.2	2.2	2.2	2.2
Sc	28.7	24.7	34.7	35.0	47.4	33.5	91.9	43.1	35.5
^{48}Ti	11.5	7.8	13.0	7.1	17.0	9.7	20.4	6.9	12.0
^{49}Ti	11.8	7.7	13.0	7.1	16.9	10.0	20.3	7.2	11.8
Fe	0.7	1.9	1.0	0.9	1.1	1.2	2.2	2.7	0.8
Y	373	248	546	290	849	258	857	410	331
Nb	0.3	0.9	0.4	0.8	0.5	0.6	1.2	0.9	0.9
La	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Ce	2.8	3.4	3.5	2.8	4.1	2.4	6.0	3.6	2.7
Nd	0.3	0.1	1.2	0.1	1.5	0.1	0.6	0.2	0.3
Sm	0.9	0.3	1.8	0.5	2.4	0.4	1.5	0.7	0.4
Eu	0.6	0.1	1.0	0.2	1.2	0.2	0.6	0.2	0.3
Ho	14.5	9.2	21.0	10.8	32.9	9.6	31.5	16.3	12.1
Gd	7.6	4.7	13.4	4.7	19.8	4.6	15.3	7.7	5.9
Tb	3.0	1.6	4.6	2.1	7.4	1.8	5.9	2.9	2.1
Dy	34.9	21.3	53.2	25.1	81.8	22.0	69.9	38.6	26.3
Er	70.1	46.2	98.8	56.0	153	47.4	154	87.7	62.9
Tm	16.0	10.6	22.0	13.0	34.4	10.8	36.0	21.1	15.5
Yb	145	102	197	125	295	108	306	192	143
Lu	28.2	20.9	38.3	26.9	54.4	22.9	60.1	38.6	29.9
Hf	8858	9868	8760	9066	9072	8816	8959	9721	8858
Th	75.4	72.3	104	63.7	189	44.4	158	88.4	40.9
U	161	245	213	197	359	140	414	292	140

Notes: C = core, R = rim, I = intermediate

*FW, T(°C), calibration of Ferry and Watson [*a* SiO_2=1.00, *a* TiO_2=0.7]

All elemental values given in ppm

10JH21	10JH21	10JH21	10JH18	10JH18	10JH18	10JH18	10JH18	10JH18	10JH18	10JH18
5.2R	**6.1C**	**6.2R**	**1.1C**	**1.2R**	**2.1C**	**2.2R**	**3.1C**	**3.2R**	**4.1C**	**4.2R**
760	816	805	744	735	787	722	766	741	830	752
2.1	0.6	0.8	1.0	1.2	0.2	3.3	0.3	3.2	0.2	0.7
n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
3.2	3.5	3.7	2.9	3.3	5.3	3.2	3.0	2.6	5.2	3.3
1.7	1.8	2.1	2.2	2.6	2.5	2.2	2.5	2.0	2.4	2.6
9.3	17.7	24.6	9.7	11.7	10.8	17.3	9.1	15.6	8.3	12.3
114	134	124	81.8	78.3	242	83.4	102	81.0	260	86.3
0.5	0.5	0.5	0.7	0.7	0.7	0.7	0.9	0.6	0.7	0.8
1.9	2.1	2.2	1.4	1.6	1.8	1.4	1.7	1.5	1.7	1.5
22.0	33.4	22.8	25.1	29.3	44.1	17.8	32.3	22.8	46.4	21.4
7.9	13.1	12.1	7.2	6.1	10.7	5.4	8.4	5.8	15.3	7.3
8.1	14.1	12.7	6.9	6.2	10.7	5.4	8.6	6.6	16.0	7.4
2.6	0.5	0.6	1.0	2.3	1.4	2.0	1.8	1.5	1.0	1.2
195	261	209	402	201	1670	115	579	145	1771	208
0.5	0.6	0.6	0.8	0.6	1.4	0.7	0.6	0.7	1.5	0.7
n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2.7	2.6	3.0	3.4	2.0	9.0	2.1	4.1	2.2	9.8	2.3
0.1	0.3	0.1	0.3	0.1	2.2	n.d.	0.9	0.1	2.6	0.1
0.3	0.5	0.4	0.8	0.3	4.9	0.1	1.4	0.3	5.3	0.3
0.1	0.3	0.2	0.5	0.2	1.1	0.1	0.7	0.2	1.1	0.2
7.2	12.1	7.4	14.6	7.8	63.2	4.2	21.6	5.4	68.2	7.7
3.2	6.2	4.0	8.9	3.4	41.3	1.4	13.0	1.9	45.4	3.1
1.2	2.4	1.4	2.9	1.2	13.8	0.6	4.5	0.8	16.0	1.2
16.7	29.9	17.1	35.0	17.3	158	9.0	51.2	11.4	173	16.8
36.2	64.3	37.8	73.8	39.7	284	23.0	105	28.9	297	38.0
8.7	14.6	7.9	18.4	10.0	60.6	6.1	25.2	7.6	61.1	10.4
83.0	136	79.2	180	104	498	69.2	239	77.1	506	106
17.6	28.1	15.8	37.6	23.9	91.5	15.5	48.6	17.5	88.3	22.4
9117	8848	8755	9870	8971	9635	9720	9426	9342	9811	9547
66.6	60.4	44.9	131	73.0	231	64.1	143	82.4	232	56.7
199	141	141	295	247	413	364	324	322	409	180

10JH18	10JH18	10JH18	10JH18	10JH16	10JH16	10JH16	10JH16	10JH16	10JH17	10JH17
5.1C	**5.2R**	**6.1C**	**6.2R**	**1.1R**	**1.2C**	**2.1R**	**2.2C**	**2.3I**	**1.1C**	**1.2I**
811	746	781	735	841	722	723	741	757	770	653
0.9	0.3	0.3	2.2	2.52	0.42	3.84	2.73	0.27	18.0	0.4
n.d.	n.d.	n.d.	n.d.	0.07	0.03	0.05	0.18	0.03	0.5	n.d.
n.d.	n.d.	n.d.	n.d.	0.05	0.04	0.02	45.78	0.06	1.6	n.d.
4.6	3.5	3.1	2.7	5.79	6.98	3.88	7.05	5.60	15.1	5.6
2.0	2.1	2.4	2.4	2.11	1.90	5.81	3177	1.88	379	1.5
6.1	7.3	11.8	14.6	8.12	8.80	11.49	8510	8.24	1024	8.9
234	86.0	86.9	75.9	442	139	250	316	183	1294	186
0.6	0.5	0.8	0.8	0.60	0.75	0.88	9335	0.63	1078	0.5
1.4	1.4	1.7	1.8	1.54	1.62	3.67	397	1.63	45.7	1.4
37.4	25.9	23.1	22.0	43.05	21.13	32.95	49.17	44.51	79.5	31.6
13.6	6.9	9.6	5.7	17.37	5.08	5.32	7.14	8.51	8.4	2.6
13.4	7.0	10.1	6.2	17.65	5.42	5.45	6.66	7.87	9.0	2.4
2.8	0.9	0.3	1.5	6.28	4.98	3.55	6.75	1.53	110	3.1
1731	407	411	160	1216	1263	410	715	758	5842	799
1.5	0.7	0.5	0.9	6.93	2.02	4.41	6.80	2.72	84.7	6.8
n.d.	n.d.	n.d.	n.d.	0.02	0.03	0.37	0.16	0.02	5.3	n.d.
9.6	2.9	3.4	2.4	22.76	12.11	12.35	14.52	6.59	81.1	11.0
2.9	0.5	0.3	0.1	1.29	1.75	0.69	0.52	0.72	7.6	0.3
4.9	0.9	0.5	0.2	3.32	3.30	1.81	1.09	1.62	10.8	1.1
0.9	0.6	0.4	0.2	0.08	1.03	0.32	0.35	0.39	0.8	0.2
69.6	14.4	14.7	5.5	45.31	48.45	15.21	30.02	30.83	228	31.0
43.8	8.6	7.9	2.1	32.18	27.44	8.99	11.64	18.19	108	14.3
15.3	3.1	3.1	1.0	10.10	10.72	2.98	4.85	6.33	45.5	5.8
175	34.6	35.7	12.9	110	118	34.32	64.60	76.16	550	72.6
314	70.8	75.4	33.0	189	249	73.87	151	139	1073	155
65.5	17.1	18.2	8.0	39.19	59.44	17.38	36.86	29.01	236	34.9
532	175	165	85.2	325	548	154	374	237	2024	308
95.4	36.2	33.2	18.5	57.57	108	30.54	69.75	42.59	347	58.1
10172	9464	10350	9438	11417	8701	13511	11909	9021	11927	11749
271	140	79.0	88.7	242	281	67.77	105	63.16	4900	136
485	331	195	347	593	607	292	340	161.58	8557	529

10JH17	10JH17	10JH17	10JH17	10JH17	10JH17	10JH17	10JH17	10JH17	10JH17	10JH17
1.3R	**2.1C**	**2.2R**	**3.1C**	**3.2R**	**4.1C**	**4.2R**	**5.1C**	**5.2R**	**6.1C**	**6.2R**
621	660	645	664	728	1098	647	629	830	677	652
3.5	7.9	1.9	0.6	0.5	28.5	1.3	0.9	2.8	0.6	1.4
n.d.	n.d.	0.1	n.d.	n.d.	7.0	n.d.	n.d.	0.3	0.1	n.d.
n.d.	n.d.	0.0	n.d.	n.d.	132	n.d.	n.d.	6.9	1.1	n.d.
8.1	7.8	7.3	5.0	6.3	1075	8.2	4.1	147	4.2	4.3
1.9	2.2	2.9	2.8	2.3	185	2.4	1.6	72.6	701	2.1
9.5	10.2	10.0	8.7	9.6	2885	9.8	7.3	330	2255	10.7
264	682	216	151	199	1494	234	112	765	120	195
0.6	0.6	0.9	0.6	0.7	722	0.7	0.6	265	2213	0.7
1.7	1.8	2.1	1.7	1.8	2099	1.8	1.6	163	159	1.8
19.0	61.1	28.8	25.7	39.6	75.6	19.9	18.0	106	29.3	21.2
1.4	3.2	2.1	2.8	5.9	111	2.2	1.8	16.8	3.4	2.0
1.5	2.6	2.1	2.7	5.7	113	2.2	1.7	16.1	3.2	2.3
10.4	10.0	6.6	2.8	2.7	1948	5.1	3.1	40.9	4.1	6.1
1062	1679	956	681	731	4303	938	446	2862	538	777
13.2	11.7	10.0	2.7	3.6	74.1	8.0	2.4	42.2	2.5	7.5
n.d.	n.d.	n.d.	n.d.	n.d.	52.8	n.d.	n.d.	26.9	4.1	n.d.
11.0	19.0	12.8	8.9	12.2	307	13.0	7.1	98.1	14.1	8.8
0.3	0.7	0.4	0.7	0.6	161	0.3	0.8	40.7	0.7	0.2
1.3	2.7	1.4	1.9	1.7	106	1.4	1.4	36.1	0.9	1.0
0.1	0.3	0.2	0.4	0.4	5.7	0.2	0.6	2.1	0.2	0.2
40.2	63.6	37.9	30.8	29.1	159	35.2	15.5	113	22.2	29.2
15.8	32.2	17.1	18.3	15.9	236	15.4	9.3	125	10.3	11.7
7.5	12.4	6.9	6.3	6.0	55.8	6.6	3.2	32.0	4.3	5.0
93.6	149	88.0	75.9	71.2	461	81.5	37.7	306	52.8	64.9
199	302	178	142	135	790	177	83.6	491	108	158
45.9	66.4	40.2	30.8	29.2	184	40.9	19.9	101	24.2	37.3
414	579	347	259	253	1715	358	198	835	210	345
76.8	107	65.1	48.4	44.7	326	66.2	43.2	140	40.5	68.0
14940	11959	12686	10980	9802	14982	12349	9256	12994	10831	12224
332	502	218	111	137	1544	275	142	1410	66.5	133
1418	1415	830	287	328	6550	897	398	3054	215	616

10SQ21	10SQ21	10SQ21	10SQ21	10SQ21	10SQ21	10SQ21	10SQ21	10SQ21	10SQ21	10SQ21
1.1C	**1.2R**	**2.1C**	**2.2R**	**3.1C**	**3.2R**	**4.1C**	**4.2R**	**5.1C**	**5.2R**	**6.1C**
730	726	736	689	726	683	775	703	752	670	764
0.3	0.4	0.2	1.1	0.6	2.4	2.1	3.7	0.7	1.7	2.9
0.1	0.1	0.1	0.4	0.1	0.4	3.1	0.1	0.1	0.2	0.8
0.2	0.1	0.1	0.1	0.2	0.1	1.8	0.0	0.1	0.0	38.2
40.8	22.7	40.6	16.7	9.2	50.6	218	13.7	17.7	84.1	86.4
2.3	2.8	2.3	2.8	31.9	8.5	6.3	2.5	2.1	10.2	226
8.4	10.9	9.2	10.0	17.0	11.7	23.1	143.8	9.9	9.7	1431
188	229	198	361	485	283	729	157	165	786	659
0.5	0.8	0.6	0.9	112.8	4.0	1.4	10.9	0.5	0.6	1533.6
1.5	2.1	1.7	1.9	6.9	169.8	1.9	1.7	1.7	2915.9	153.3
41.1	44.3	38.2	24.0	66.4	32.4	145.6	16.7	46.2	23.0	120.4
6.1	5.6	5.9	3.7	6.3	3.6	9.9	4.0	7.2	3.4	8.8
5.9	5.6	6.3	3.7	5.6	3.4	9.5	4.3	7.4	2.9	8.5
2.6	3.3	3.1	7.3	4.0	11.9	18.3	11.9	2.8	8.3	25.1
2117	1276	2066	1647	1453	1469	8625	512	1290	1147	4578
3.1	9.1	3.1	16.9	2.7	11.7	24.6	5.8	1.1	12.5	24.4
n.d.	n.d.	n.d.	n.d.	0.1	0.4	0.8	1.3	n.d.	18.6	0.1
7.9	16.8	8.4	27.4	5.5	21.6	83.0	9.1	6.6	52.3	61.4
2.7	0.9	2.9	0.9	3.0	0.9	13.1	0.8	1.7	17.2	5.8
5.3	2.8	6.1	2.8	7.1	2.0	33.2	0.9	3.9	5.6	14.5
1.1	0.4	1.0	0.1	1.0	0.2	4.8	0.1	0.8	0.2	2.2
85.8	53.6	84.5	65.1	57.4	52.0	370	18.7	59.0	43.9	194
55.2	31.2	54.2	31.7	54.0	20.2	285	9.1	38.1	25.5	146
19.4	11.6	18.4	12.1	16.2	8.2	93.2	3.4	13.6	7.9	47.9
219	134	215	145	164	112	978	41.3	151.5	99.1	516
367	246	368	282	233	258	1475	92.2	267	215	810
72.1	52.1	71.6	58.5	48.5	64.3	284	20.9	53.7	49.0	154
561	414	564	465	409	568	2132	186	445	423	1198
96.8	73.3	96.8	83.2	75.9	106	346	34.0	80.8	79.0	200
8944	9935	9002	11724	10465	12830	8138	13100	9785	13023	8055
116	141	128	222	117	352	871	73.9	156	147	1004
240	373	275	604	361	1102	1146	398	328	553	1114

10SQ21
6.2R
704
5.2
0.3
0.2
258
82.7
92.1
393
54.7
829.9
21.2
4.7
4.4
22.2
1210
9.1
3.5
33.6
3.2
2.8
0.3
46.0
22.8
8.6
98.1
218
50
443
82
12659
508
1314