

Appendix 1 Table 1

Table 1. Representative microprobe data for biotite inclusions within garnet from sam

**Weight. % Oxides**

Sample	VMEC11-14C1B1	VMEC11-14C1B2	VMEC11-14C1B3
SiO <sub>2</sub>	36.21	37.94	35.56
TiO <sub>2</sub>	3.08	2.55	2.53
Al <sub>2</sub> O <sub>3</sub>	19.14	21.54	18.42
FeO	16.20	16.70	15.11
MnO	0.05	0.25	0.02
MgO	12.18	9.15	12.44
CaO	0.00	0.01	0.01
Na <sub>2</sub> O	0.36	0.15	0.24
K <sub>2</sub> O	9.43	9.86	9.39
F	0.41	0.17	0.74
Cl	0.01	0.00	0.00
Cr <sub>2</sub> O <sub>3</sub>	0.09	0.06	0.06
Total	96.97	98.33	94.23

**Cations per 12 oxygens**

Si	5.34	5.49	5.39
Al iv	2.66	2.51	2.61
Al vi	0.67	1.16	0.69
Ti	0.34	0.28	0.29
Fe	2.00	2.02	1.92
Mn	0.01	0.03	0.00
Mg	2.68	1.97	2.81
Na	0.10	0.04	0.07
K	1.77	1.82	1.82
OH*	3.81	3.92	3.65
F	0.19	0.08	0.35
Cl	0.00	0.00	0.00
Total	19.59	19.33	19.61
Al total	3.33	3.67	3.30
Fe/Fe+Mg	0.43	0.51	0.41

ple VMEC 11-14.

VMEC11-14C2B1 VMEC11-14C2B2 VMEC11-14C2B3 VMEC11-14C2B4

34.94	36.12	37.45	38.20
1.19	1.32	1.36	1.22
18.75	18.35	18.73	19.63
14.29	16.41	16.10	18.73
0.00	0.01	0.04	0.02
13.94	14.25	12.94	11.49
0.00	0.00	0.01	0.02
0.26	0.14	0.19	0.19
9.12	8.93	9.78	9.55
0.58	0.70	0.76	1.09
0.01	0.03	0.02	0.03
0.01	0.01	0.00	0.03
92.86	95.95	97.05	99.76

5.35	5.39	5.52	5.53
2.65	2.61	2.48	2.48
0.74	0.61	0.77	0.87
0.14	0.15	0.15	0.13
1.83	2.05	1.98	2.27
0.00	0.00	0.01	0.00
3.18	3.17	2.84	2.48
0.08	0.04	0.05	0.05
1.78	1.70	1.84	1.76
3.72	3.66	3.64	3.50
0.28	0.33	0.35	0.50
0.00	0.01	0.00	0.01
19.75	19.72	19.65	19.58
3.39	3.23	3.25	3.35
0.37	0.39	0.41	0.48