

## APPENDIX 2

### Representative EMP composition of congolite

Crystal C-2										
Analysis #	1	4	7	23	35	46	51	59	60	61
MgO [wt. %]	3.35	10.99	6.27	1.27	7.60	1.23	9.51	0.88	7.23	11.39
FeO	36.51	28.33	34.60	40.99	33.30	40.90	30.00	41.53	33.67	28.44
MnO	2.16	1.39	1.52	1.17	0.89	1.09	1.41	1.31	1.06	0.83
Cl <sub>2</sub>	7.09	7.46	7.17	7.16	7.35	6.96	7.59	7.18	7.16	7.76
B <sub>2</sub> O <sub>3</sub>	50.50	55.77	53.50	50.24	53.98	49.96	54.70	50.23	53.86	56.06
O = Cl <sub>2</sub>	-1.60	-1.68	-1.62	-1.61	-1.66	-1.57	-1.71	-1.62	-1.62	-1.75
TOTAL	98.00	102.26	101.46	99.21	101.46	98.57	101.50	99.51	101.37	102.74
Number of ions on the basis of 3 Me <sup>2+</sup> and 14 (O.Cl) pfu										
Mg <sup>2+</sup> apfu	0.40	1.19	0.71	0.15	0.85	0.15	1.05	0.11	0.81	1.23
Fe <sup>2+</sup>	2.45	1.72	2.19	2.77	2.09	2.78	1.86	2.80	2.12	1.72
Mn <sup>2+</sup>	0.15	0.09	0.10	0.08	0.06	0.07	0.09	0.09	0.07	0.05
B <sup>3+</sup>	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Cl <sup>-</sup>	0.96	0.92	0.92	0.98	0.94	0.96	0.95	0.98	0.91	0.95
Crystal C-6										
Analysis #	2	6	11	28	31	32	35	46	47	51
MgO	11.29	5.73	9.24	3.82	8.74	4.22	7.97	2.55	4.19	12.21
FeO	26.66	32.51	29.51	34.65	31.66	36.57	30.90	37.79	33.90	26.50
MnO	2.61	3.56	2.45	3.93	1.36	1.56	3.16	2.87	3.96	1.31
Cl	7.68	7.06	7.61	7.08	7.51	7.14	7.44	7.02	7.21	7.85
B <sub>2</sub> O <sub>3</sub>	55.88	52.37	54.79	51.37	54.97	51.64	54.60	51.16	51.32	56.07
O = Cl <sub>2</sub>	-1.73	-1.59	-1.72	-1.60	-1.69	-1.61	-1.68	-1.58	-1.63	-1.77
TOTAL	102.39	99.63	101.89	99.26	102.56	99.53	102.37	99.80	98.96	102.17
Number of ions on the basis of 3 Me <sup>2+</sup> and 14 (O.Cl) pfu										
Mg <sup>2+</sup> apfu	1.22	0.66	1.02	0.45	0.96	0.49	0.88	0.30	0.49	1.32
Fe <sup>2+</sup>	1.62	2.11	1.83	2.29	1.95	2.40	1.92	2.51	2.24	1.60
Mn <sup>2+</sup>	0.16	0.23	0.15	0.26	0.09	0.10	0.20	0.19	0.27	0.08
B <sup>3+</sup>	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Cl <sup>-</sup>	0.94	0.93	0.95	0.95	0.94	0.95	0.94	0.94	0.97	0.96