

## APPENDIX 1

### Chemical EMP and calculated phase composition of olivine forming host rock, clasts and unequilibrated inclusions in the Puttusk breccia

[wt.%]	H3.8 inclusions				H4/H5 host rock					Clasts H5 and H6		
Al <sub>2</sub> O <sub>3</sub>	0.07	b.d.	b.d.	0.02	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.
MgO	50.78	45.92	43.78	34.98	44.00	43.41	42.76	43.07	42.33	43.05	42.13	41.93
SiO <sub>2</sub>	41.41	39.77	39.74	37.41	39.62	39.67	39.70	39.42	38.83	38.98	39.31	38.99
TiO <sub>2</sub>	0.03	0.03	b.d.	b.d.	0.04	b.d.	b.d.	b.d.	0.09	b.d.	b.d.	b.d.
CaO	0.03	0.03	0.05	0.05	b.d.	b.d.	b.d.	b.d.	0.04	0.03	b.d.	0.02
FeO	6.69	14.29	16.53	26.99	16.67	16.94	17.46	17.69	17.76	17.16	17.23	18.59
MnO	0.11	0.40	0.42	0.39	0.47	0.49	0.53	0.51	0.50	0.47	0.47	0.46
Cr <sub>2</sub> O <sub>3</sub>	0.10	b.d.	0.03	0.07	b.d.	b.d.	0.15	b.d.	b.d.	b.d.	0.04	b.d.
NiO	0.15	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.
Na <sub>2</sub> O	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.
K <sub>2</sub> O	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.
Total	99.37	100.44	100.55	99.91	100.80	100.51	100.60	100.69	99.56	99.68	99.18	99.98
Fo [mol%]	93.01	84.78	82.17	69.49	80.06	81.61	80.90	80.83	80.51	81.32	80.92	79.69
Fa [mol%]	6.88	14.80	17.39	30.07	17.44	17.86	18.53	18.62	18.94	18.18	18.56	19.82
Tp [mol%]	0.11	0.42	0.44	0.44	0.50	0.53	0.57	0.54	0.54	0.50	0.52	0.49

b.d. – below detection limit