



Appendix I

Analytical Methods

Appendix Ia:	Sample preparation
Appendix Ib:	X-Ray Fluorescence Analysis
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Appendix Ia: Sample preparation

Quarter-core samples were crushed in a jaw crusher before being milled in a C-steel mill. The samples were milled to a particle size of $<63 \mu\text{m}$. To minimize possible cross contamination, the mill was cleaned after every sample by milling clean quartz, washing the mill pots, and drying with acetone.

Appendix Ib: X-Ray Fluorescence Analysis

APPARATUS: ARL 9400XP+ Wavelength dispersive XRF Spectrometer

SAMPLE PREPARATION: 3 grams of each sample powder were weighed and dried At 100⁰C overnight before being roasted at 1000⁰C overnight to determine the absorbed (H₂O) and the percentage loss on ignition, respectively.

Major elements were determined on fused beads, prepared following the standard method used in the XRD and XRF laboratory of the University of Pretoria, as adapted from Bennett and Oliver (1992). One gram of pre-roasted sample powder and 6 grams of flux (Lithium tetra borate) mixed in a Au crucible was fused at 1050⁰C for 15 minutes in a muffle furnace with occasional swirling. The fusion mixture was poured into a pre-heated Pt/Au mould and left to cool at room temperature. The bottom surface of the glass disk was analysed by XRF.

Trace elements were determined on pressed powder briquettes prepared following the method of Watson (1996). Approximately 16-20ml of sample powder mixed with less than 1 volume % of a liquid binder (Mowiol: polyvinyl alcohol) was loaded into aluminum cups to increase the stability and strength before being pressed at ± 7 tons/in².

CALIBRATION: The XRF Spectrometer was calibrated with Certified reference materials. The NBSGSC fundamental parameter program was used for matrix correction of major elements

as well as Cl, Co, Cr, V, Sc and S. The Rh Compton peak ratio method was used for the other trace elements.

Standard deviations and detection limits are listed in Table



STANDARD DEVIATIONS AND LOWER LIMIT OF DETECTION OF THE XRF METHOD

	Std dev. (%)	LOD
SiO ₂	0.4	0.02
TiO ₂	0.03	0.0032
Al ₂ O ₃	0.3	0.01
Fe ₂ O ₃	0.3	0.0097
MnO	0.0065	0.0013
MgO	0.1	0.0118
CaO	0.07	0.01
Na ₂ O	0.11	0.0265
K ₂ O	0.06	0.005
P ₂ O ₅	0.08	0.01
Cr ₂ O ₃	0.0053	0.0006
NiO	0.01	0.0013
V ₂ O ₅	0.0018	0.0008
ZrO ₂	0.005	0.0009
CuO	0.0037	0.0003

	Std dev. (ppm)	LOD
As*	10	3
Cu	3	2
Ga	2	2
Mo	1	1
Nb	3	2
Ni	6	3
Pb	3	3
Rb	4	2
Sr	4	3
Th	2	3
U	2	3
W*	10	6
Y	4	3
Zn	4	4
Zr	6	10
Ba	14	5
Ce	14	6
Cl*	100	11
Co	6	3
Cr	40	15
F*	500	400
S*	300	40
Sc	5	1
V	10	1

Values for elements indicated with an * should be considered semi-quantitative. LOD = Limit of Detection, std dev = standard deviation, ppm = parts per million.



Appendix Ic. PGE analysis

The platinum-group elements, Re and Au were determined by instrumental neutron activation analysis (INAA) at the University of Quebec at Chicoutimi (UQAC), after pre-concentration in a Ni-sulphide bead from 50g of rock powder. Sample irradiation was carried out at the Ecole Polytechnique in Montreal in a SLOWPOKE II reactor.

Five determinations of five different NiS beads of the CANMET standard WGB-1 (Table below) can be used to estimate the precision and accuracy of the analyses. For all the elements except Au the relative standard deviations are 9–17 %.

For Au, Pt and Pd the accuracy of the analyses may be assessed by comparing the results obtained at UQAC for standards UTM-1 and WGB-1 with the certified values. The results are in good agreement with both the high- and low-level standard. For Rh, Ru and Ir certified values are available only for UTM-1. The UQAC analysed results agree with CANMET results. For the low-level standard WGB-1 only informational values are available for Rh, Ru, Ir and Re. The results agree with these when the standard deviation on the CANMET informational value is considered.

No noble metals were detected in the blank, except Ir and Au. These were present at 0.02 and 0.1 ppb, respectively. As both values are far lower than the levels present in the samples, no significant contamination is believed to have occurred in preparing the samples, and no blank correction was made on the samples.



Precision and accuracy of the PGE analyses

	UTM-1				WGB-1			
	UQAC*	s	CANMET ^A	error	UQAC*	s	CANMET	error
	ppb	+/-	ppb	+/-	ppb	+/-	ppb	+/-
Os ppb	7.1	0.57	8	2.1	0.48	0.08	n.v.	
Ir	10.0	0.40	8.8	0.6	0.25	0.04	0.33	0.27
Ru	10.9	0.98	10.9	1.5	<1.2	0.33	0.3	0.2
Rh	10.8	0.43	9.5	1.1	0.46	0.08	0.32	0.19
Pt	131	7.9	129	5	5.98	0.55	6.1	1.6
Pd	110	4.4	106	3	13.20	1.94	13.9	2.1
Au	47.9	4.3	48	2	1.34	0.59	2.9	1.1

* = average of five NiS beads all fused, dissolved and irradiated in the same batch,
s = 1 sigma of the five values, CANMET Certificate of Analysis (1996). Note that the figures in italics are informational values only, i.e. there are as yet no certified values for these elements in these standards, the error in these cases are the standard deviation of the values submitted in the round robin tests.

n.v. = no values

Appendix Id. Microprobe Analysis

APPARATUS: JEOL JXA – 733 Electron Microprobe.

The probe was operated at 20 kV accelerating voltage, 30nA beam current and the samples were analysed using a 10 µm beam diameter. K_{α} was used for all elements. Counting times were set at 10 seconds on peak and 5 seconds on either side of the peak on the background. To improve the detection limits for Ni, counting time was set at 50 seconds on peak and 25 seconds on either side of the peak on the background.

STANDARDS: Orthoclase for K,Si
Jadeite for Al, Na
Plagioclase for Ca
Olivine for Mg
Nickel, magnetite for Ni, Fe
Willemite for Mn
Rutile for Ti
Chromite for Cr

ANALYSING CRYSTALS: TAP crystals for Si, AL, Na, Mg
LIF crystals for Fe, Mn, Cr, Ni
PET crystals for K, Ca, Ti

DETECTION LIMITS at 99% confidence in elemental weight % (single line)

Si	Al	Na	Mg	Fe	Mn	Cr	Ni	K	Ca	Ti
0.028	0.029	0.045	0.028	0.036	0.037	0.037	0.018	0.033	0.036	0.055



Appendix Ie: S-Isotope analyses

APPARATUS: Finnigan MAT252 isotope ratio mass spectrometer

SAMPLE PREPARATION: Sulphide powders and small amount of V_2O_5 were loaded into tin capsules and analysed using Elemental Analyser-Continuous Flow Isotope Ratio Mass Spectrometry on a Finnigan MAT252 isotope ratio mass spectrometer.

ANALYTICAL PRECISION: better than ± 0.05 per mil.

SAMPLE REPRODUCIBILITY: ± 0.1 per mil.

Appendix II

THIN SECTION SAMPLE LIST

Sample number	Depth on the core(m)	PS/TS	Short description
TM1	30.50	PS	gabbro-norite, with disseminated sulphides
TM2	31.78	PS	gabbro-norite, with disseminated sulphides
TM3	35.12	PS	gabbro-norite, with disseminated sulphides
TM4	38.94	PS	pyroxenite, medium-grained
TM5	40.44	PS	hornfels, with schlieren of gabbro-norite
TM6	41.21	PS	hornfels, with schlieren of gabbro-norite
TM7	41.53	PS	gabbro-sulphide free
TM8	44.78	PS	gabbro-sulphide free
TM9	48.87	PS	hybrid zone, gabbro-norite-metasediment
TM10	55.89	PS	gabbro with disseminated sulphides
TM11	57.54	PS	melagabbro, with disseminated sulphides and calcsilicate schlieren
TM12	58.34	PS	melagabbro, with disseminated sulphides and calcsilicate schlieren
TM13	74.49	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM14	77.09	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM15	78.95	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM16	80.61	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM17	82.32	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM18	84.69	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM19	86.60	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM20	88.65	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM21	89.36	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM22	91.13	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM23	91.44	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM24	94.40	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM25	95.85	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM26	99.86	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM27	100.12	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM28	101.86	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM29	101.95	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM30	102.45	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM31	107.24	PS	gabbro-norite, with numerous schlieren and xenoliths of calcsilicates.
TM32	109.39	PS	hybrid zone, gabbro-norite with calcsilicate xenoliths
TM33	111.21	PS	hybrid zone, gabbro-norite with calcsilicate xenoliths
TM34	111.25	PS	hornfels, with several fine grained gabbroic sills
TM35	116.72	PS	hornfels, with several fine grained gabbroic sills
TM36	127.15	PS	norite, with calcsilicate schlieren and xenoliths
TM37	136.39	PS	norite, with calcsilicate schlieren and xenoliths
TM38	144.47	PS	norite, with calcsilicate schlieren and xenoliths
TM39	197.97	PS	hornfels
TM40	200.50	PS	fine grained gabbroic sill

NB. The depth on core refers to the bottom measurement of the thin section position.

PS = Polished section.



Appendix III

XRF SAMPLE LIST

Sample	Depth(m)	Unit	S isotope	Rock type
P1	30.40	U- Platreef		gabbro norite
P2	32.69	U- Platreef	√	sulphide bearing gabbro norite
P3	34.91	U- Platreef	√	sulphide bearing gabbro norite
P4	38.85	U- Platreef		gabbro norite with minor disseminated sulphides
P5	44.77	Sill		gabbroic sill
P6	55.80	Sill	√	fine-med grained norite sill
P7	57.70	U- Platreef		sulphide bearing pegmatoidal gabbro norite
P8	62.55	Sill		fine-grained gabbro
P9	63.65	Shale interlayer		hornfels
P10	68.30	Shale interlayer		fine-grained hornfels
P11	76.99	M- Platreef	√	sulphide bearing gabbro norite
P12	78.74	M- Platreef		sulphide bearing gabbro norite
P13	80.75	M- Platreef		sulphide bearing gabbro norite
P14	86.42	M- Platreef		sulphide bearing gabbro norite
P15	89.55	M- Platreef	√	sulphide bearing pegmatoidal gabbro norite
P16	94.30	M- Platreef		non-sulphide bearing gabbro norite
P17	96.60	Xenolith		skarn (dolomite xenolith)
P18	100.05	M- Platreef		non-sulphide bearing gabbro norite
P19	102.35	M- Platreef	√	sulphide bearing pegmatoidal gabbro norite
P20	109.82	M- Platreef		sulphide bearing pegmatoidal gabbro norite
P21	110.95	M- Platreef		sulphide bearing gabbro norite
P22	112.75	Shale interlayer		hornfels
P23	118.95	Shale interlayer		hornfels
P24	126.90	L- Platreef		non-sulphide bearing norite
P25	138.38	L- Platreef	√	non-sulphide bearing norite
P26	145.60	L- Platreef	√	sulphide bearing norite
P28	170.40	Floor rock	√	sulphide bearing silica-rich hornfels
P29	174.95	Floor rock		hornfels
P30	189.95	Floor rock	√	calcisilicate
P31	197.37	Floor rock	√	hornfels
P32	205.18	Floor rock	√	hornfels
P33	213.00	Floor rock		sediment

U- Platreef = Upper Platreef

M- Platreef = Middle Platreef

L- Platreef = Lower Platreef



Appendix IV

MINERAL CHEMISTRY

Abbreviations used in the Tables

U-Plat = Upper Platreef

M-Plat = Middle Platreef

L-Plat = Lower Platreef

An = cationic ratio of $100 * Ca / (Ca + Na + K)$

Fo = cationic ratio of $100 * Mg / (Mg + Fe^{2+})$ in olivine

Mg no. = cationic ratio of $100 * Mg / (Mg + Fe^{2+})$

nd = Not detected

Pl = Plagioclase

Ol = Olivine

Opx = Orthopyroxene

Cpx = clinopyroxene

Orthopyroxene Analyses

Depth (m)	TM2		TM4				TM9				TM11					TM13
	U-pyrox	U-pyrox	U-pyrox	U-pyrox	U-pyrox	U-pyrox	U-pyrox	U-pyrox	U-pyrox	U-pyrox	U-pyrox	U-pyrox	U-pyrox	U-pyrox	U-pyrox	M-pyrox
Sample	TM2 opx1	TM2 opx2	TM4 opx1	TM4 opx2	TM4 opx3	TM4 opx4	TM9 opx1	TM9 opx2	TM9 opx3	TM9 opx4	TM11 opx1	TM11 opx2	TM11 opx3	TM11 opx4	TM11 opx5	TM13 opx1
Wt %																
SiO ₂	53.22	51.73	53.34	52.87	53.11	54.59	50.43	51.78	50.92	51.51	54.18	52.87	52.94	54.11	53.63	53.07
Al ₂ O ₃	1.30	1.57	1.55	1.55	1.62	1.19	1.34	1.12	1.52	2.10	1.91	2.08	1.90	1.88	1.90	0.65
Na ₂ O	nd	nd	nd	nd	nd	nd	nd	nd	0.11	0.11	nd	nd	nd	0.05	nd	nd
MgO	28.86	29.12	29.48	29.58	29.09	29.50	26.42	25.47	25.58	25.84	30.66	30.72	30.52	29.89	30.33	25.69
FeO	13.91	13.34	11.68	12.64	12.66	12.26	17.86	18.34	18.31	17.98	11.57	11.84	12.30	11.91	11.86	17.97
MnO	0.28	0.24	0.27	0.24	0.29	0.22	0.26	0.33	0.34	0.29	0.26	0.30	0.23	0.31	0.24	0.41
Cr ₂ O ₃	nd	0.24	0.41	0.41	0.29	0.39	0.08	nd	0.07	0.08	0.20	0.22	nd	0.20	0.36	0.28
NiO	nd	nd	0.08	0.06	nd	nd	nd	nd	nd	nd	0.03	0.02	nd	nd	nd	nd
K ₂ O	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CaO	0.82	1.19	1.75	1.75	1.43	1.96	0.86	0.86	0.77	0.95	0.79	0.72	0.98	1.38	1.38	0.91
TiO ₂	0.05	0.10	0.16	0.05	0.13	nd	0.13	0.11	0.10	0.14	0.27	0.12	0.16	0.03	0.11	0.24
Total	98.47	97.54	98.75	99.17	98.64	100.12	97.39	98.02	97.71	98.99	99.85	98.91	99.22	99.92	99.73	99.13
Cations (based on 6 oxygens)																
Si	1.94	1.91	1.93	1.91	1.93	1.95	1.90	1.94	1.92	1.91	1.93	1.90	1.91	1.93	1.92	1.96
Al	0.06	0.07	0.07	0.07	0.07	0.05	0.06	0.05	0.07	0.09	0.08	0.09	0.08	0.08	0.08	0.03
Na	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Mg	1.57	1.60	1.59	1.60	1.57	1.57	1.49	1.42	1.44	1.43	1.63	1.65	1.64	1.59	1.62	1.41
Fe	0.42	0.41	0.35	0.38	0.38	0.37	0.56	0.57	0.58	0.56	0.34	0.36	0.37	0.36	0.35	0.56
Mn	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cr	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ca	0.03	0.05	0.07	0.07	0.06	0.08	0.04	0.03	0.03	0.04	0.03	0.03	0.04	0.05	0.05	0.04
Ti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01
O	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Total	10.03	10.05	10.03	10.05	10.03	10.02	10.06	10.03	10.05	10.05	10.03	10.04	10.05	10.03	10.04	10.02
Mg no.	78.71	79.57	81.81	80.81	80.39	81.12	72.50	71.24	71.36	71.93	82.53	82.20	81.56	81.73	82.02	71.81

Orthopyroxene Analyses

Depth (m)	TM13		TM14					TM15					TM16		
	M-pyrox	M-pyrox	M-pyrox	M-pyrox	M-pyrox	M-pyrox	M-pyrox	M-pyrox	M-pyrox	M-pyrox	M-pyrox	M-pyrox	M-pyrox	M-pyrox	M-pyrox
Sample	TM13 opx2	TM13 opx3	TM14 opx1	TM14 opx2	TM14 opx3	TM14 opx4	TM14 opx5	TM15 opx1	TM15 opx2	TM15 opx3	TM15 opx4	TM15 opx5	TM16 opx1	TM16 opx2	TM18 opx1
Wt %															
SiO ₂	52.59	52.72	53.35	53.60	53.17	53.09	52.91	53.70	54.51	54.30	54.21	54.47	52.89	54.93	54.42
Al ₂ O ₃	0.79	0.92	1.35	1.23	1.40	1.28	1.24	1.17	1.25	1.22	1.37	1.14	1.79	1.26	1.51
Na ₂ O	0.03	nd	nd	nd	nd	nd	nd	0.09	nd	nd	0.06	0.06	nd	nd	nd
MgO	26.45	26.28	27.71	27.83	28.12	28.11	27.05	28.59	29.00	28.76	28.87	29.01	30.90	29.76	29.60
FeO	16.82	17.14	14.37	15.10	13.85	14.28	13.75	12.86	13.20	13.14	13.42	13.20	11.45	12.79	13.10
MnO	0.33	0.36	0.32	0.25	0.27	0.33	0.27	0.37	0.37	0.36	0.35	0.35	0.29	0.27	0.25
Cr ₂ O ₃	0.15	0.15	0.36	0.26	0.27	0.22	0.34	0.14	0.09	0.22	0.14	0.09	0.16	0.08	0.08
NiO	nd	nd	nd	nd	nd	nd	nd	0.08	0.07	0.05	0.09	0.07	0.05	0.09	0.10
K ₂ O	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CaO	1.31	1.24	1.86	1.50	1.41	1.26	2.95	1.82	1.40	2.02	1.20	1.84	0.93	1.17	1.08
TiO ₂	0.26	0.20	0.06	0.25	0.21	0.27	0.13	0.10	0.35	0.15	0.31	0.07	0.20	0.17	0.30
Total	98.73	99.03	99.42	100.05	98.72	98.84	98.65	98.92	100.28	100.19	100.01	100.30	98.71	100.53	100.44
Cations (based on 6 oxygens)															
Si	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.94	1.94	1.95	1.91	1.95	1.94
Al	0.04	0.04	0.06	0.05	0.06	0.06	0.05	0.05	0.05	0.05	0.06	0.05	0.08	0.05	0.06
Na	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	1.46	1.45	1.50	1.50	1.53	1.53	1.48	1.55	1.54	1.54	1.54	1.55	1.66	1.58	1.57
Fe	0.52	0.53	0.44	0.46	0.42	0.44	0.42	0.39	0.39	0.39	0.40	0.40	0.35	0.38	0.39
Mn	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cr	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ca	0.05	0.05	0.07	0.06	0.06	0.05	0.12	0.07	0.05	0.08	0.05	0.07	0.04	0.05	0.04
Ti	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.01	0.01
O	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Total	10.03	10.03	10.03	10.03	10.03	10.03	10.03	10.03	10.02	10.02	10.02	10.03	10.05	10.02	10.02
Mg no.	73.70	73.20	77.48	76.68	78.35	77.84	77.82	79.84	79.66	79.62	79.32	79.65	82.80	80.60	80.11

Orthopyroxene Analyses

Sample Depth (m) Unit	TM18					TM20						TM21					
	M-pyrox TM18 opx2	M-pyrox TM18 opx3	M-pyrox TM18 opx4	M-pyrox TM18 opx5	M-pyrox TM18 opx6	M-pyrox TM20 opx1	M-pyrox TM20 opx2	M-pyrox TM20 opx3	M-pyrox TM20 opx4	M-pyrox TM20 opx5	M-pyrox TM20 opx6	M-pyrox TM21 opx1	M-pyrox TM21 opx2	M-pyrox TM21 opx3	M-pyrox TM21 opx4		
84.69						88.65							89.36				
Wt %																	
SiO ₂	54.50	53.83	53.89	53.27	54.37	51.82	51.89	52.19	51.77	52.82	52.85	54.71	55.09	53.79	54.03		
Al ₂ O ₃	1.34	1.12	1.30	1.34	1.34	2.44	3.00	3.00	2.01	1.79	1.92	2.27	1.68	2.53	2.74		
Na ₂ O	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.08	nd	nd	nd	nd		
MgO	29.74	28.99	29.17	28.90	29.92	25.38	25.32	25.46	25.15	26.04	26.09	30.58	29.87	29.66	29.73		
FeO	12.56	13.80	13.46	13.62	12.47	17.83	18.18	17.70	18.32	17.36	17.61	12.18	12.34	12.51	12.68		
MnO	0.27	0.28	0.24	0.31	0.31	0.27	0.29	0.23	0.30	0.32	0.30	0.24	0.27	0.18	0.22		
Cr ₂ O ₃	0.14	0.14	0.06	0.21	0.09	0.24	0.15	0.24	0.11	0.19	0.12	0.11	0.08	0.04	0.04		
NiO	0.09	0.10	0.09	0.11	0.09	nd	nd	nd	nd	nd	nd	0.06	0.09	0.09	0.10		
K ₂ O	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		
CaO	1.70	1.58	1.65	1.56	1.65	0.22	0.27	0.33	0.28	0.36	0.26	1.15	1.21	0.91	0.66		
TiO ₂	0.15	0.15	0.19	0.23	0.28	0.18	0.17	0.23	0.18	0.17	0.13	0.10	0.23	0.22	0.29		
Total	100.49	100.00	100.05	99.55	100.51	98.42	99.27	99.39	98.15	99.05	99.37	101.43	100.87	99.93	100.50		
Cations (based on 6 oxygens)																	
Si	1.94	1.94	1.93	1.93	1.93	1.92	1.91	1.91	1.93	1.94	1.94	1.92	1.94	1.92	1.92		
Al	0.06	0.05	0.06	0.06	0.06	0.11	0.13	0.13	0.09	0.08	0.08	0.09	0.07	0.11	0.11		
Na	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00		
Mg	1.58	1.55	1.56	1.56	1.59	1.40	1.39	1.39	1.40	1.43	1.43	1.60	1.57	1.58	1.57		
Fe	0.37	0.42	0.40	0.41	0.37	0.55	0.56	0.54	0.57	0.53	0.54	0.36	0.36	0.37	0.38		
Mn	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		
Cr	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00		
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Ca	0.07	0.06	0.06	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.05	0.04	0.03		
Ti	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01		
O	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00		
Total	10.03	10.03	10.03	10.04	10.03	10.02	10.02	10.01	10.02	10.01	10.02	10.03	10.02	10.02	10.02		
Mg no.	80.87	78.92	79.43	79.08	81.04	71.74	71.27	71.94	71.00	72.81	72.53	81.75	81.19	80.86	80.69		

Orthopyroxene Analyses

Depth (m)	TM25					TM30				TM32				
	95.85	M-pyrox		M-pyrox		M-Plat		M-Plat		109.39	M-Plat		M-Plat	
Unit	M-pyrox	M-pyrox	M-pyrox	M-pyrox	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat
Sample	TM25 opx1	TM25 opx2	TM25 opx3	TM25 opx4	TM25 opx5	TM30 opx1	TM30 opx2	TM30 opx3	TM30 opx4	TM32 opx1	TM32 opx2	TM32 opx3	TM32 opx4	TM32 opx5
Wt %														
SiO₂	53.96	54.65	55.09	53.91	54.29	52.89	53.36	53.47	53.63	54.27	55.46	54.86	53.61	53.89
Al₂O₃	0.89	0.90	0.87	1.45	0.70	0.63	0.91	0.68	0.73	0.55	0.49	0.65	1.60	1.12
Na₂O	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MgO	28.45	30.64	30.74	29.77	28.67	23.98	24.31	24.08	25.32	27.42	26.98	27.39	27.41	27.27
FeO	11.62	11.82	11.52	12.34	13.76	20.33	19.81	20.64	19.49	15.10	15.51	15.39	15.03	15.22
MnO	0.23	0.18	0.23	0.24	0.27	0.43	0.38	0.38	0.39	0.40	0.40	0.36	0.45	0.50
Cr₂O₃	0.07	nd	0.08	0.16	0.10	nd	0.07	0.05	0.08	0.07	0.18	0.19	0.32	0.40
NiO	nd	nd	0.13	0.12	0.19	0.08	0.22	nd	0.05	nd	nd	nd	nd	nd
K₂O	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CaO	1.33	1.04	1.07	0.89	1.26	1.14	1.44	1.09	0.98	0.99	1.25	0.95	0.56	0.77
TiO₂	0.18	0.20	0.23	0.16	0.22	0.14	0.20	0.12	0.15	0.25	0.28	0.28	0.24	0.26
Total	96.75	99.45	99.96	99.04	99.46	99.64	100.73	100.51	100.86	99.04	100.57	100.09	99.24	99.46
Cations (based on 6 oxygens)														
Si	1.98	1.95	1.96	1.94	1.96	1.97	1.96	1.97	1.96	1.98	1.99	1.98	1.95	1.96
Al	0.04	0.04	0.04	0.06	0.03	0.03	0.04	0.03	0.03	0.02	0.02	0.03	0.07	0.05
Na	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	1.56	1.63	1.63	1.60	1.54	1.33	1.33	1.32	1.38	1.49	1.44	1.47	1.48	1.48
Fe	0.36	0.35	0.34	0.37	0.42	0.63	0.61	0.64	0.60	0.46	0.47	0.46	0.46	0.46
Mn	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Cr	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
Ni	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ca	0.05	0.04	0.04	0.03	0.05	0.05	0.06	0.04	0.04	0.04	0.05	0.04	0.02	0.03
Ti	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01
O	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Total	10.00	10.02	10.02	10.02	10.02	10.02	10.02	10.01	10.02	10.01	9.99	10.00	10.01	10.01
Mg no.	81.37	82.21	82.62	81.15	78.79	67.76	68.61	67.54	69.84	76.43	75.63	76.02	76.49	76.16

Orthopyroxene Analyses

Depth (m)	TM33					TM36				TM37				TM38		
	111.21					127.15				136.39				144.47		
	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	L-Plat	L-Plat	L-Plat	L-Plat	L-Plat	L-Plat	L-Plat	L-Plat	L-Plat	L-Plat	L-Plat
Sample	TM33 opx1	TM33 opx2	TM33 opx3	TM33 opx4	TM33 opx5	TM36 opx1	TM36 opx2	TM36 opx3	TM36 opx4	TM37 opx1	TM37 opx2	TM37 opx3	TM37 opx4	TM38 opx1	TM38 opx2	TM38 opx3
Wt %																
SiO ₂	53.96	54.21	52.81	53.95	53.30	53.932	53.185	53.931	54.114	54.145	53.905	53.446	54.09	54.493	55.22	54.421
Al ₂ O ₃	1.80	2.88	2.51	2.42	2.72	1.395	1.711	1.763	1.487	1.113	1.404	1.193	0.97	1.596	1.158	1.599
Na ₂ O	0.06	nd	nd	nd	nd	0.032	0.013	0	0.121	0	0	0.189	0.064	0	0	0
MgO	25.72	26.70	26.64	26.93	26.49	28.802	28.413	28.366	28.321	26.582	28.577	26.409	27.298	30.453	30.682	28.745
FeO	16.74	16.43	16.15	16.29	16.52	13.815	13.461	13.813	13.431	16.083	13.87	15.304	15.202	12.014	11.958	13.853
MnO	0.32	0.26	0.27	0.32	0.29	0.178	0.194	0.253	0.294	0.283	0.263	0.319	0.221	0.267	0.291	0.247
Cr ₂ O ₃	0.12	nd	nd	nd	0.30	0.103	0.123	0.088	0.116	0.193	0	0.158	0.129	0.094	0.031	0.077
NiO	nd	nd	nd	0.06	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
K ₂ O	nd	nd	nd	nd	nd	0	0	0	0	0	0	0	0	0	0	0
CaO	1.36	0.21	0.18	0.08	0.11	0.699	1.079	1.055	1.045	1.645	1.365	2.722	0.777	0.802	0.6	0.779
TiO ₂	0.20	0.10	0.16	0.23	0.13	0.263	0.104	0.228	0.215	0.386	0.284	0.38	0.138	0.09	0.132	0.284
Total	100.28	100.80	98.72	100.29	99.86	99.48	98.282	99.498	99.144	100.43	99.669	100.12	98.89	99.809	100.073	100.004
Cations (based on 6 oxygens)																
Si	1.95	1.94	1.93	1.94	1.93	1.946	1.938	1.942	1.953	1.955	1.941	1.94	1.97	1.939	1.956	1.947
Al	0.08	0.12	0.11	0.10	0.12	0.059	0.073	0.075	0.063	0.047	0.06	0.051	0.042	0.067	0.048	0.067
Na	0.00	0.00	0.00	0.00	0.00	0.002	0.001	0	0.008	0	0	0.013	0.005	0	0	0
Mg	1.39	1.43	1.45	1.45	1.43	1.549	1.544	1.523	1.524	1.431	1.534	1.429	1.482	1.616	1.621	1.533
Fe	0.51	0.49	0.49	0.49	0.50	0.417	0.41	0.416	0.405	0.486	0.418	0.465	0.463	0.358	0.354	0.415
Mn	0.01	0.01	0.01	0.01	0.01	0.005	0.006	0.008	0.009	0.009	0.008	0.01	0.007	0.008	0.009	0.007
Cr	0.00	0.00	0.00	0.00	0.01	0.003	0.004	0.003	0.003	0.006	0	0.005	0.004	0.003	0.001	0.002
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
K	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
Ca	0.05	0.01	0.01	0.00	0.00	0.027	0.042	0.041	0.04	0.064	0.053	0.106	0.03	0.031	0.023	0.03
Ti	0.01	0.00	0.00	0.01	0.00	0.007	0.003	0.006	0.006	0.01	0.008	0.01	0.004	0.002	0.004	0.008
O	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Total	10.00	10.00	10.01	10.00	10.00	10.02	10.02	10.01	10.01	10.01	10.02	10.03	10.01	10.02	10.02	10.01
Mg no.	73.26	74.33	74.64	74.68	74.05	78.79	79.02	78.55	79.00	74.65	78.59	75.45	76.20	81.86	82.08	78.70

Clinopyroxene Analyses

Depth (m) Unit sample	TM2			TM4	TM13						TM14			TM16	TM18
	U-Plat	U-Plat	U-Plat	U-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat
	TM2cpx1	TM2cpx1	TM2cpx1	TM4cpx1	TM13cpx1	TM13cpx2	TM13cpx3	TM13cpx4	TM13cpx5	TM13cpx6	TM14cpx1	TM14cpx2	TM14cpx3	TM16cpx1	TM18cpx1
Wt %															
SiO ₂	49.98	51.54	50.25	50.70	51.33	50.89	51.35	50.41	50.86	51.86	51.32	51.20	50.39	51.62	52.55
Al ₂ O ₃	2.21	2.55	2.26	2.65	1.40	1.37	1.53	1.30	1.40	1.55	2.10	1.97	2.27	2.03	2.08
Na ₂ O	0.31	0.18	0.21	0.24	0.10	0.18	0.21	0.19	0.14	0.31	0.25	0.21	0.17	0.23	0.23
MgO	16.31	16.20	16.11	16.15	18.44	16.13	15.73	15.68	15.54	15.46	15.84	16.37	18.26	17.36	16.21
FeO	6.04	5.99	6.16	5.74	10.06	7.56	7.04	7.10	6.97	6.80	6.24	6.64	7.90	5.95	6.28
MnO	0.22	0.10	0.15	0.15	0.24	0.20	0.17	0.17	0.18	0.19	0.16	0.20	0.16	0.13	0.11
Cr ₂ O ₃	0.48	0.54	0.37	0.72	0.28	0.24	0.25	0.35	0.29	0.26	0.64	0.36	0.60	0.42	0.34
NiO	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.05	0.07
K ₂ O	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CaO	22.88	22.76	23.18	23.42	17.06	22.24	22.89	22.92	22.91	22.83	22.88	21.37	18.34	22.06	22.92
TiO ₂	0.20	0.19	0.28	0.10	0.13	0.30	0.30	0.44	0.36	0.40	0.40	0.56	0.22	0.20	0.32
Total	98.63	100.05	98.98	99.86	99.04	99.12	99.46	98.56	98.65	99.67	99.83	98.87	98.30	100.04	101.10
Cations (based on 6 oxygens)															
Si	1.89	1.91	1.89	1.89	1.92	1.92	1.92	1.91	1.92	1.93	1.91	1.92	1.89	1.91	1.92
Al	0.10	0.11	0.10	0.12	0.06	0.06	0.07	0.06	0.06	0.07	0.09	0.09	0.10	0.09	0.09
Na	0.02	0.01	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.02	0.02	0.02	0.01	0.02	0.02
Mg	0.92	0.89	0.90	0.90	1.03	0.91	0.88	0.89	0.88	0.86	0.88	0.91	1.02	0.96	0.88
Fe	0.19	0.19	0.19	0.18	0.32	0.24	0.22	0.23	0.22	0.21	0.19	0.21	0.25	0.18	0.19
Mn	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Cr	0.01	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.01	0.01
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ca	0.92	0.90	0.93	0.93	0.69	0.90	0.92	0.93	0.93	0.91	0.91	0.86	0.74	0.87	0.90
Ti	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01
O	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Total	10.07	10.03	10.06	10.05	10.04	10.05	10.04	10.05	10.04	10.03	10.04	10.03	10.05	10.05	10.03
Mg no.	82.84	82.84	82.30	83.41	76.58	79.18	79.96	79.73	79.91	80.21	81.90	81.45	80.49	83.86	82.16

Clinopyroxene Analyses

Depth (m) Unit sample	TM19			TM22							TM24					
	86.6			91.13							94.4					
	M-Plat TM19cpx1	M-Plat TM19cpx2	M-Plat TM19cpx3	M-Plat TM22cpx1	M-Plat TM22cpx2	M-Plat TM22cpx3	M-Plat TM22cpx4	M-Plat TM22cpx5	M-Plat TM22cpx6	M-Plat TM22cpx7	M-Plat TM24cpx1	M-Plat TM24cpx2	M-Plat TM24cpx3	M-Plat TM24cpx4	M-Plat TM24cpx5	M-Plat TM24cpx6
Wt %																
SiO ₂	48.49	46.23	46.90	50.01	53.98	54.73	47.68	49.89	51.73	51.66	53.05	53.39	52.85	51.77	51.99	52.36
Al ₂ O ₃	7.68	9.68	9.66	5.07	1.16	0.76	6.33	5.59	2.44	3.29	0.66	1.15	2.27	3.17	2.28	1.73
Na ₂ O	0.10	0.14	0.19	0.16	0.06	nd	0.15	0.07	0.08	0.17	0.19	0.20	0.21	0.17	0.22	0.17
MgO	14.37	13.58	13.57	16.44	17.54	17.75	15.53	15.49	16.96	17.21	16.48	17.09	17.65	16.83	17.28	16.72
FeO	3.67	4.13	4.00	3.84	3.40	2.94	3.68	3.58	3.65	3.37	4.84	4.63	4.23	4.26	5.28	5.22
MnO	0.06	0.05	0.06	0.06	0.10	0.08	0.06	0.05	0.09	nd	0.16	0.12	0.11	0.06	0.13	0.14
Cr ₂ O ₃	nd	0.06	0.05	0.05	0.05	0.07	0.10	0.08	0.05	0.07	0.06	0.09	0.06	0.10	0.09	nd
NiO	nd	nd	nd	0.03	0.02	0.03	nd	0.02	0.03	nd	nd	nd	0.16	nd	nd	nd
K ₂ O	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.01	nd
CaO	25.31	24.97	24.97	24.43	25.05	25.60	24.95	24.98	24.61	24.32	24.04	23.64	23.06	23.59	22.44	23.28
TiO ₂	0.76	1.01	0.89	0.37	0.22	0.10	0.41	0.35	0.58	0.18	0.10	0.40	0.20	0.25	0.83	0.38
Total	100.46	99.86	100.30	100.45	101.58	102.09	98.90	100.10	100.20	100.30	99.57	100.70	100.77	100.21	100.55	100.04
Cations (based on 6 oxygens)																
Si	1.78	1.71	1.73	1.83	1.95	1.96	1.78	1.83	1.90	1.89	1.96	1.95	1.92	1.90	1.90	1.93
Al	0.33	0.42	0.42	0.22	0.05	0.03	0.28	0.24	0.11	0.14	0.03	0.05	0.10	0.14	0.10	0.08
Na	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01
Mg	0.79	0.75	0.75	0.90	0.94	0.95	0.87	0.85	0.93	0.94	0.91	0.93	0.96	0.92	0.94	0.92
Fe	0.11	0.13	0.12	0.12	0.10	0.09	0.12	0.11	0.11	0.10	0.15	0.14	0.13	0.13	0.16	0.16
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Cr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ca	1.00	0.99	0.99	0.96	0.97	0.98	1.00	0.98	0.97	0.95	0.95	0.92	0.90	0.93	0.88	0.92
Ti	0.02	0.03	0.03	0.01	0.01	0.00	0.01	0.01	0.02	0.01	0.00	0.01	0.01	0.01	0.02	0.01
O	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Total	10.04	10.05	10.04	10.05	10.02	10.02	10.07	10.04	10.04	10.04	10.03	10.02	10.03	10.03	10.03	10.03
Mg no.	87.53	85.44	85.83	88.39	90.15	91.51	88.28	88.53	89.23	90.10	85.84	86.82	88.11	87.52	85.34	85.08

Clinopyroxene Analyses

Depth(m) Unit sample	TM25							TM26					TM31				
	94.4			95.85				99.86					107.24				
	M-Plat TM24cpx7	M-Plat TM24cpx8	M-Plat TM24cpx9	M-Plat TM25cpx1	M-Plat TM25cpx2	M-Plat TM25cpx3	M-Plat TM25cpx4	M-Plat TM26cpx1	M-Plat TM26cpx2	M-Plat TM26cpx3	M-Plat TM26cpx4	M-Plat TM26cpx5	M-Plat TM31cpx1	M-Plat TM31cpx2	M-Plat TM31cpx3	M-Plat TM31cpx4	M-Plat TM31cpx5
Wt %																	
SiO ₂	52.76	53.02	52.36	52.09	52.48	52.52	51.86	47.47	48.97	50.33	48.16	51.65	54.65	58.30	55.01	53.07	52.12
Al ₂ O ₃	1.72	2.06	2.03	2.35	1.75	1.52	1.86	6.68	5.58	4.33	6.55	2.63	1.23	0.00	0.61	1.34	2.02
Na ₂ O	0.21	0.22	0.12	0.19	0.20	0.19	0.15	0.11	0.16	nd	0.20	0.10	0.21	nd	0.06	0.20	0.32
MgO	16.65	17.70	16.83	16.29	18.18	17.63	16.72	14.35	15.01	15.27	15.05	16.58	16.47	19.68	16.59	16.46	16.01
FeO	5.05	4.82	5.06	5.62	6.04	4.47	4.96	5.00	5.15	4.76	4.41	4.61	4.63	7.09	4.22	4.62	5.13
MnO	0.07	0.12	0.10	0.13	0.14	0.07	0.14	0.09	0.10	0.13	0.06	0.09	0.14	nd	0.10	0.13	0.15
Cr ₂ O ₃	0.05	nd	nd	0.54	0.18	0.46	0.21	0.06	0.09	0.06	nd	0.05	0.21	nd	0.10	0.13	0.39
NiO	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
K ₂ O	nd	nd	nd	nd	nd	nd	0.03	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CaO	23.46	22.15	23.66	21.03	20.45	22.85	23.54	23.86	24.23	24.33	24.34	23.46	22.96	13.33	24.37	22.88	21.63
TiO ₂	0.49	0.39	0.53	0.30	0.49	0.17	0.50	0.86	1.19	0.98	0.77	0.79	0.33	nd	0.06	0.36	0.39
Total	100.46	100.50	100.71	98.54	99.90	99.87	99.96	98.47	100.49	100.21	99.54	99.95	100.81	98.41	101.12	99.19	98.15
Cations (based on 6 oxygens)																	
Si	1.93	1.93	1.92	1.94	1.93	1.93	1.91	1.79	1.81	1.86	1.79	1.90	1.98	2.11	1.99	1.96	1.95
Al	0.07	0.09	0.09	0.10	0.08	0.07	0.08	0.30	0.24	0.19	0.29	0.11	0.05	0.00	0.03	0.06	0.09
Na	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.02	0.01	0.01	0.00	0.00	0.01	0.02
Mg	0.91	0.96	0.92	0.90	1.00	0.97	0.92	0.81	0.83	0.84	0.83	0.91	0.89	1.06	0.90	0.91	0.89
Fe	0.16	0.15	0.16	0.18	0.19	0.14	0.15	0.16	0.16	0.15	0.14	0.14	0.14	0.21	0.13	0.14	0.16
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Cr	0.00	0.00	0.00	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ca	0.92	0.86	0.93	0.84	0.81	0.90	0.93	0.96	0.96	0.96	0.97	0.93	0.89	0.52	0.95	0.91	0.87
Ti	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.02	0.03	0.03	0.02	0.02	0.01	0.00	0.00	0.01	0.01
O	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Total	10.02	10.02	10.03	10.00	10.03	10.03	10.04	10.04	10.04	10.03	10.05	10.02	9.99	9.90	10.00	10.01	10.00
Mg no.	85.43	86.73	85.55	83.78	84.25	87.58	85.74	83.68	83.86	85.09	85.88	86.50	86.41	83.19	87.49	86.37	84.79

Plagioclase Analyses

Depth (m) Unit Sample	TM4		TM9			TM15				TM16			TM 20		
	U-Plat	U-Plat	U-Plat	U-Plat	U-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	
	TM4 pl1	TM4 pl2	TM9 pl1	TM9 pl2	TM9 pl3	TM15 pl1	TM15 pl2	TM15 pl3	TM15 pl4	TM16 pl1	TM16 pl2	TM16 pl3	TM 20 pl1	TM 20 pl2	TM 20 pl3
Wt %.															
SiO2	45.39	46.43	52.47	51.35	51.19	44.67	48.71	48.06	46.74	46.09	45.72	46.26	52.18	53.49	50.49
Al2O3	32.77	32.95	28.60	28.66	28.85	32.71	30.57	31.39	31.59	32.13	33.46	33.34	29.37	28.18	30.25
Na2O	1.99	2.02	4.98	4.69	4.47	2.07	2.91	3.21	2.14	2.02	1.78	1.88	4.59	4.96	4.01
MgO	nd	0.06	nd	nd	nd	nd	0.16	nd	1.89	0.89	nd	0.12	0.05	nd	nd
FeO	0.55	0.54	0.25	0.32	0.31	0.41	1.09	0.55	0.71	1.86	0.54	0.74	0.16	0.18	0.17
MnO	nd	nd	nd	nd	nd	nd	0.04	0.04	0.06	0.05	nd	0.02	nd	nd	nd
Cr2O3	nd	nd	nd	nd	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
NiO	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.12
K2O	0.09	0.10	0.19	0.25	0.20	0.05	0.18	0.13	0.06	0.03	0.06	0.06	0.28	0.32	0.24
CaO	16.98	16.85	11.61	12.11	12.16	17.35	14.90	15.22	15.30	15.88	17.55	16.92	11.96	11.20	13.66
TiO2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.06	nd	nd
Total	97.81	98.96	98.12	97.39	97.25	97.28	98.56	98.62	98.51	98.96	99.15	99.37	98.64	98.34	98.97
Cations (based on 32 oxygens)															
Si	8.57	8.65	9.70	9.59	9.57	8.50	9.09	8.96	8.73	8.63	8.52	8.59	9.60	9.84	9.32
Al	7.30	7.24	6.23	6.31	6.36	7.34	6.72	6.90	6.95	7.09	7.35	7.30	6.37	6.11	6.58
Na	0.73	0.73	1.78	1.70	1.62	0.76	1.05	1.16	0.78	0.73	0.64	0.68	1.64	1.77	1.44
Mg	0.00	0.02	0.00	0.00	0.00	0.01	0.05	0.01	0.53	0.25	0.01	0.03	0.01	0.00	0.00
Fe	0.09	0.09	0.04	0.05	0.05	0.07	0.17	0.09	0.11	0.29	0.09	0.12	0.02	0.03	0.03
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Cr	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
K	0.02	0.03	0.05	0.06	0.05	0.01	0.04	0.03	0.02	0.01	0.01	0.01	0.07	0.08	0.06
Ca	3.44	3.36	2.30	2.42	2.43	3.54	2.98	3.04	3.06	3.19	3.51	3.37	2.36	2.21	2.70
Ti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
O	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00
Total	52.15	52.11	52.10	52.13	52.09	52.22	52.10	52.19	52.19	52.20	52.13	52.10	52.06	52.03	52.14
An	82.1	81.7	55.7	58.0	59.4	82.0	73.1	71.9	79.5	81.1	84.2	83.0	58.1	54.5	64.4

Plagioclase Analyses

Depth (m) Unit Sample	88.65			TM 24	TM 30				TM 32				
	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat
	TM 20 pl4	TM 20 pl5	TM 20 pl6	TM 24 pl1	TM 30 pl1	TM 30 pl2	TM 30 pl3	TM 30 pl4	TM 32 pl1	TM 32 pl2	TM 32 pl3	TM 32 pl8	TM 32 pl10
Wt %.													
SiO2	48.99	51.03	50.82	46.86	46.92	47.93	49.19	49.24	49.09	51.91	49.99	49.03	48.88
Al2O3	31.30	30.03	30.55	32.78	33.17	33.15	31.85	32.12	32.68	30.57	32.72	32.63	32.42
Na2O	3.32	4.42	3.78	2.34	2.04	2.43	3.01	3.11	2.99	4.35	3.01	2.78	3.10
MgO	nd	0.04	0.04	0.05	nd	nd	nd	0.05	nd	nd	nd	nd	nd
FeO	0.23	0.21	0.19	0.38	0.56	0.62	0.44	0.40	0.22	0.17	0.20	0.17	0.08
MnO	nd	nd	nd	nd	nd	0.05	nd	nd	nd	nd	nd	nd	nd
Cr2O3	nd	nd	nd	0.04	nd	nd	nd	nd	nd	nd	nd	nd	0.04
NiO	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
K2O	0.19	0.30	0.22	0.10	0.08	0.09	0.16	0.10	0.06	0.13	0.10	0.07	0.05
CaO	14.06	12.37	13.38	16.17	17.09	16.34	15.07	15.38	14.81	12.45	14.59	14.71	14.43
TiO2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.06
Total	98.12	98.45	99.02	98.71	99.92	100.63	99.78	100.41	99.86	99.60	100.66	99.41	99.06
Cations (based on 32 oxygens)													
Si	9.12	9.43	9.34	8.73	8.66	8.77	9.03	8.99	8.98	9.46	9.06	9.00	9.00
Al	6.87	6.54	6.62	7.20	7.22	7.15	6.89	6.91	7.04	6.56	6.99	7.06	7.04
Na	1.20	1.58	1.35	0.85	0.73	0.86	1.07	1.10	1.06	1.54	1.06	0.99	1.11
Mg	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00
Fe	0.04	0.03	0.03	0.06	0.09	0.10	0.07	0.06	0.03	0.03	0.03	0.03	0.01
Mn	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cr	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
K	0.05	0.07	0.05	0.02	0.02	0.02	0.04	0.02	0.01	0.03	0.02	0.02	0.01
Ca	2.80	2.45	2.64	3.23	3.38	3.20	2.96	3.01	2.90	2.43	2.83	2.89	2.85
Ti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
O	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00
Total	52.07	52.12	52.04	52.10	52.11	52.10	52.08	52.12	52.04	52.04	51.99	51.98	52.03
An	69.3	59.7	65.3	78.8	81.9	78.4	72.8	72.8	73.0	60.8	72.3	74.2	71.8

Plagioclase Analyses

Depth (m)	TM 33					TM37
	M-Plat	M-Plat	M-Plat	M-Plat	M-Plat	L-Plat
Unit	TM 33 pl1	TM 33 pl2	TM 33 pl8	TM 33 pl9	TM 33 pl10	TM37pl1
Sample						
Wt %.						
SiO ₂	60.40	60.51	53.28	52.01	49.14	49.52
Al ₂ O ₃	24.82	24.19	29.74	30.17	33.35	34.12
Na ₂ O	7.68	7.93	4.97	4.64	2.61	3.24
MgO	nd	nd	nd	nd	nd	0.02
FeO	0.06	0.10	0.15	0.24	0.19	0.40
MnO	nd	nd	nd	nd	nd	0.00
Cr ₂ O ₃	nd	0.04	nd	nd	0.05	0.02
NiO	nd	nd	nd	nd	nd	nd
K ₂ O	0.72	0.60	0.30	0.28	0.09	0.20
CaO	5.95	5.25	10.99	11.40	15.25	14.75
TiO ₂	nd	0.05	nd	nd	nd	0.01
Total	99.63	98.66	99.50	98.77	100.70	102.28
Cations (based on 32 oxygens)						
Si	10.80	10.90	9.68	9.54	8.91	8.87
Al	5.23	5.13	6.37	6.52	7.13	7.20
Na	2.66	2.77	1.75	1.65	0.92	1.13
Mg	0.00	0.00	0.00	0.00	0.00	0.00
Fe	0.01	0.02	0.02	0.04	0.03	0.06
Mn	0.00	0.00	0.00	0.00	0.00	0.00
Cr	0.00	0.01	0.00	0.00	0.01	0.00
Ni	0.00	0.00	0.00	0.00	0.00	0.00
K	0.16	0.14	0.07	0.07	0.02	0.05
Ca	1.14	1.01	2.14	2.24	2.96	2.83
Ti	0.00	0.01	0.01	0.00	0.00	0.00
O	32.00	32.00	32.00	32.00	32.00	32.00
Total	52.00	51.98	52.04	52.06	51.99	52.12
An	28.7	25.8	54.1	56.6	75.9	70.7

Olivine Analyses

Depth (m) Unit sample	TM4					TM11			TM15			TM16			
	38.94					57.54			78.95			80.61			
	U-Plat TM4 ol1	U-Plat TM4 ol2	U-Plat TM4 ol3	U-Plat TM4 ol4	U-Plat TM4 ol5	U-Plat TM11 ol1	U-Plat TM11 ol2	U-Plat TM11 ol3	M-Plat TM15 ol1	M-Plat TM15 ol2	M-Plat TM15 ol3	M-Plat TM16 ol1	M-Plat TM16 ol2	M-Plat TM16 ol3	M-Plat TM16 ol4
Wt %															
SiO ₂	37.68	38.47	37.63	37.79	37.32	38.61	38.47	38.74	37.81	38.33	40.05	37.71	38.70	38.68	38.79
Al ₂ O ₃	0.00	0.00	0.00	0.00	0.00	nd	nd	nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Na ₂ O	nd	nd	nd	nd	nd	nd	nd	0.05	0.08	0.05	nd	nd	nd	nd	nd
MgO	43.55	43.05	41.62	43.03	43.10	44.03	43.36	44.61	41.45	41.17	42.41	42.45	40.92	42.44	41.09
FeO	17.67	17.92	18.62	18.39	18.09	16.67	17.41	16.37	20.21	20.24	14.91	18.63	19.35	18.70	19.70
MnO	0.26	0.25	0.28	0.31	0.31	0.30	0.21	0.24	0.36	0.36	0.27	0.28	0.32	0.31	0.31
Cr ₂ O ₃	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.03	nd	nd	nd
NiO	0.26	0.29	0.28	0.32	0.34	0.19	0.20	0.19	0.31	0.28	0.21	0.31	0.31	0.30	0.30
K ₂ O	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
CaO	0.05	0.06	0.03	0.05	nd	nd	nd	nd	nd	0.04	nd	nd	nd	0.06	0.05
TiO ₂	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total	99.47	100.06	98.46	99.90	99.22	99.83	99.68	100.24	100.22	100.46	97.87	99.42	99.62	100.49	100.29
Cations (based on 4 oxygens)															
Si	0.97	0.98	0.98	0.97	0.97	0.98	0.98	0.98	0.98	0.99	1.03	0.97	1.00	0.99	1.00
Al	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Na	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	1.67	1.64	1.62	1.65	1.66	1.67	1.65	1.68	1.60	1.58	1.62	1.64	1.57	1.61	1.57
Fe	0.38	0.38	0.41	0.40	0.39	0.36	0.37	0.35	0.44	0.44	0.32	0.40	0.42	0.40	0.42
Mn	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ni	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.01
K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ca	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Total	7.03	7.02	7.02	7.03	7.04	7.02	7.02	7.02	7.03	7.02	6.97	7.03	7.00	7.01	7.01
fo	81.24	80.86	79.70	80.40	80.68	82.22	81.44	82.72	78.22	78.08	83.28	80.01	78.76	79.92	78.54

Olivine Analyses

Depth (m)	TM18						
	80.61		84.69				
	M-Plat sample	M-Plat sample	M-Plat sample	M-Plat sample	M-Plat sample	M-Plat sample	M-Plat sample
	TM16 ol5	TM16 ol6	TM18 ol1	TM18 ol2	TM18 ol2	TM18 ol3	TM18 ol4
Wt %							
SiO ₂	38.67	38.45	38.64	38.68	36.87	38.64	39.06
Al ₂ O ₃	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Na ₂ O	nd	nd	nd	0.05	nd	nd	nd
MgO	42.72	41.47	41.46	41.28	43.11	42.24	41.82
FeO	18.37	19.60	19.48	19.90	19.22	19.69	19.68
MnO	0.30	0.25	0.25	0.26	0.28	0.26	0.25
Cr ₂ O ₃	nd	nd	nd	nd	nd	nd	nd
NiO	0.32	0.31	0.39	0.37	0.41	0.37	0.39
K ₂ O	nd	nd	nd	nd	nd	nd	nd
CaO	nd	nd	0.06	0.06	0.06	0.03	0.08
TiO ₂	nd	nd	nd	nd	nd	nd	nd
Total	100.39	100.10	100.28	100.60	99.95	101.26	101.30
Cations (based on 4 oxygens)							
Si	0.99	0.99	0.99	0.99	0.95	0.98	0.99
Al	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Na	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	1.62	1.59	1.59	1.58	1.66	1.60	1.58
Fe	0.39	0.42	0.42	0.43	0.42	0.42	0.42
Mn	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cr	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ni	0.01	0.01	0.01	0.01	0.01	0.01	0.01
K	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ca	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ti	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Total	7.01	7.01	7.01	7.01	7.05	7.02	7.01
fo	80.31	78.83	78.93	78.49	79.76	79.05	78.91



MAJOR ELEMENT, TRACE ELEMENT AND PGE



Appendix VI

BOREHOLE LOG (PROVIDED BY FALCONBRIDGE VENTURES OF AFRICA)



Hole ID: TL01-3

From	To	DESCRIPTION
31.55	32.20	Medium-grained, slightly felspathic pyroxenite, slightly magnetic. 2-5% interstitial pyrrhotite>chalcopyrite.
32.20	33.15	Medium-grained pyroxenite. 3 mm carbonate vein. Fine to medium-grained zones. Slightly magnetic. 2-5% fine to coarse interstitial - blebby pyrrhotite>chalcopyrite.
33.15	33.70	Medium to coarse-grained altered/contaminated magnetic metasediment. Epidotized with narrow pyroxenite zones. 1-2% interstitial pyrrhotite>chalcopyrite.
33.70	34.68	Medium-grained, slightly felspathic pyroxenite. 1-2% pyrrhotite=>chalcopyrite. at upper contact, chloritized veins. Slightly magnetic.
34.68	35.43	Medium-grained, slightly felspathic pyroxenite, slightly magnetic. 2% pyrrhotite>chalcopyrite. over a 6cm zone at 35.10 m. Variable texture.
35.43	36.54	Medium-grained, slightly felspathic pyroxenite, coarser grained zone. Slightly magnetic. 1-2% pyrrhotite= chalcopyrite., finely disseminated.
36.54	37.45	Medium-grained, slightly felspathic pyroxenite, coarser grained zones. Moderately - strongly magnetic. Coarse magnetite. Trace pyrrhotite.
37.45	38.59	Medium-grained, slightly felspathic pyroxenite, coarser grained zones. Moderately - strongly magnetic. Coarse magnetite. Trace pyrrhotite.
38.59	39.47	Medium-grained, slightly felspathic pyroxenite. Slightly magnetic. 2% interstitial pyrrhotite>chalcopyrite.
39.47	39.95	Medium-grained, slightly felspathic pyroxenite with coarser grained zones. Slightly magnetic. Trace pyrrhotite.
39.95	40.75	Fine to medium-grained, highly magnetic meta-sediment with massive magnetite. Strongly magnetic. Trace pyrite.
40.75	41.44	Fine to medium-grained, highly magnetic meta-sediment with massive magnetite. Strongly magnetic. Trace pyrite.
41.44	42.56	Medium-grained, feldspathic pyroxenite, weakly magnetic. Trace, fine interstitial pyrrhotite.
42.56	43.52	Medium-grained, feldspathic pyroxenite, weakly magnetic. Trace, fine interstitial pyrrhotite.
43.52	44.52	Medium-grained, feldspathic pyroxenite, weakly magnetic. Trace, fine interstitial pyrrhotite.
44.52	45.60	Medium-grained, feldspathic pyroxenite, weakly magnetic. Trace, fine interstitial pyrrhotite.
45.60	46.35	Medium-grained, feldspathic pyroxenite weakly magnetic. Trace, fine interstitial pyrrhotite.
46.35	47.05	Medium-grained, feldspathic pyroxenite weakly magnetic. Trace, fine interstitial pyrrhotite.
47.05	48.01	Fine to medium-grained, altered/contaminated meta-sediment and minor feldspathic pyroxenite. Highly magnetic. 6cm wide epidote zone. Trace fine pyrrhotite.
48.01	48.92	Fine to medium-grained, altered/contaminated meta-sediment and minor feldspathic pyroxenite. Highly magnetic. Trace fine pyrrhotite.
48.92	50.00	Medium-grained, feldspathic pyroxenite, weakly magnetic. Trace, fine interstitial pyrrhotite.
50.00	51.00	Medium-grained, feldspathic pyroxenite, weakly magnetic. Trace, fine interstitial pyrrhotite.
51.00	52.00	Medium-grained, feldspathic pyroxenite, weakly magnetic. Trace, fine interstitial pyrrhotite.
52.00	53.05	Medium-grained, feldspathic pyroxenite, weakly magnetic. Trace, fine interstitial pyrrhotite.
53.05	53.61	Medium-grained, feldspathic pyroxenite, granite appearance. Moderately magnetic. Trace pyrrhotite.
53.61	54.62	Medium-grained, feldspathic pyroxenite, weakly magnetic. Trace, fine interstitial pyrrhotite.
54.62	55.63	Medium-grained, feldspathic pyroxenite, weakly magnetic. Trace, fine interstitial pyrrhotite.
55.63	56.15	Medium-grained, feldspathic pyroxenite, weakly magnetic. Up to 2% fine to blebby interstitial pyrrhotite.
56.15	56.61	Medium-grained, meta-sediment (quartzite), highly magnetic in places with massive magnetite. Narrow pyroxenite zone.
56.61	57.06	Medium-grained, feldspathic pyroxenite, moderately magnetic. Finer grained towards lower contact. Trace pyrrhotite.
57.06	57.96	Medium-grained, slightly felspathic pyroxenite. Slightly magnetic. Fine to blebby interstitial pyrrhotite>chalcopyrite up to 2%. 10cm wide 10-20%pyrrhotite>chalcopyrite (57.63 - 57.73 m).
57.96	58.75	Medium-grained, slightly felspathic pyroxenite. Slightly magnetic. Trace pyrrhotite. Small xenolith of magnetic meta-sediment.
58.75	59.55	Medium-grained meta-sediment. Narrow felspathic zones, highly magnetic.
59.55	60.64	Medium-grained, feldspathic pyroxenite. Weakly magnetic with trace pyrrhotite.
60.64	61.78	Medium-grained, feldspathic pyroxenite. Weakly magnetic with trace pyrrhotite.
61.78	62.83	Medium-grained, feldspathic pyroxenite. Weakly magnetic with trace pyrrhotite. Magnetic meta-sediment xenolith 61.78 - 61.84 m.
62.83	63.84	Fine to medium-grained highly magnetic meta-sediment xenolith with fine interstitial magnetite throughout and in places massive.
63.84	64.85	Fine to medium-grained highly magnetic meta-sediment xenolith with fine interstitial magnetite throughout and in places massive.
64.85	65.90	Fine to medium-grained highly magnetic meta-sediment xenolith with fine interstitial magnetite throughout and in places massive. Narrow pyroxenite zone.
65.90	66.95	Fine to medium-grained highly magnetic sedimentary xenolith. Massive magnetite and trace pyrite. Narrow carbonate vein and fine grained mudstone layer? 67.54 - 67.64 m (75° contacts)
67.75	68.40	Fine to medium-grained moderately magnetic mudstone layer.
68.40	69.50	Medium-grained highly magnetic sedimentary xenolith. Massive magnetite in narrow (<2cm wide) zones and as blebs. Carbonate filled vugs (Zeolite). Trace pyrite.
69.50	70.39	Medium-grained highly magnetic sedimentary xenolith. Massive magnetite in narrow (<2cm wide) zones and as blebs. Carbonate filled vugs (Zeolite). Trace pyrite.
70.39	71.28	Medium-grained highly magnetic sedimentary xenolith. Massive magnetite in narrow (<2cm wide) zones and as blebs, becoming mottled more contaminated and chloritized. Trace pyrite.
71.28	72.50	Medium-grained highly magnetic sedimentary xenolith. Massive magnetite in narrow (<2cm wide) zones and as blebs, becoming mottled more contaminated and chloritized. Trace pyrite.
72.50	73.60	Medium-grained highly magnetic sedimentary xenolith. Massive magnetite in narrow (<2cm wide) zones and as blebs, becoming mottled more contaminated and chloritized. Trace pyrite. 5 mm carbonate filled vein (zeolite).
73.60	74.10	Medium-grained pyroxenite, slightly felspathic to 73.75 m. Weakly magnetic. 2 - 5% interstitial pyrrhotite=chalcopyrite
74.10	74.47	Fine-grained pyroxenite, zone, fine interstitial pyrrhotite to 2%. Weakly magnetic.
74.47	75.43	Medium-grained pyroxenite, slightly felspathic. Interstitial to blebby pyrrhotite>chalcopyrite to 10%. Minor pyrrhotite along fractures. Fine-grained pyroxenite between 74.97 - 75.05 m. Weakly magnetic.
75.43	76.25	Medium-grained pyroxenite, minor felspar. Moderately magnetic. Fine interstitial to blebby pyrrhotite>chalcopyrite to 5 - 10%.
76.25	77.04	Medium-grained pyroxenite, minor felspar. Moderately magnetic. Fine interstitial to blebby pyrrhotite>chalcopyrite to 5 - 10%.
77.04	78.02	Medium-grained pyroxenite, with olivine content variable from here down. Interstitial pyrrhotite>chalcopyrite, 5 - 10%. Minor felspar and moderately magnetic.
78.02	78.95	Medium-grained pyroxenite with olivine content variable from here down. Interstitial pyrrhotite>chalcopyrite, 5 - 10%. Minor felspar and moderately magnetic.
78.95	79.93	Medium-grained pyroxenite with olivine content variable from here down. Interstitial pyrrhotite>chalcopyrite, 5 - 10%. Minor felspar and moderately magnetic.
79.93	81.08	Medium-grained pyroxenite with olivine content variable from here down. Interstitial pyrrhotite>chalcopyrite, 5 - 10%. Minor felspar and moderately magnetic.
81.08	82.06	Medium-grained pyroxenite with olivine content variable from here down. Interstitial pyrrhotite>chalcopyrite, 5 - 10%. Moderately magnetic becoming more felspathic.
82.06	83.02	Medium-grained pyroxenite with some coarser felspar, narrow F-gr olivine / shaly zones. Fine interstitial - blebby pyrrhotite=>chalcopyrite to 5%. Narrow coarse-grained zone with biotite.



From	To	DESCRIPTION
83.02	83.83	Medium-grained feldspathic pyroxenite. Fine interstitial - blebby pyrrhotite>chalcopyrite up to 5%. Moderately magnetic.
83.83	84.75	Medium-grained, in places medium to coarse-grained feldspathic pyroxenite. Fine interstitial - disseminated pyrrhotite>chalcopyrite 2-5%. Moderately magnetic.
84.75	85.80	Medium-grained pyroxenite, slightly felspathic with narrow olivine / shaly zones (magnetic). Interstitial - blebby pyrrhotite>chalcopyrite 5 - 10%. Moderately magnetic.
85.80	86.86	Medium-grained pyroxenite, slightly felspathic with narrow olivine / shaly zones (magnetic). Interstitial - blebby pyrrhotite>chalcopyrite 10 - 20% locally concentrated (86.52 - 86.65 m) but 2 - 5% average. Moderately magnetic.
86.86	87.90	Medium-grained pyroxenite becoming feldspathic (87.60 m) Sediment xenolith (87.16 - 87.26 m) and quartz felspar vein (87.30 - 87.40 m). Interstitial pyrrhotite>chalcopyrite up to 5%.
87.90	88.87	Medium-grained pyroxenite in places slightly felspathic with narrow finer grained zones. Moderately magnetic. Interstitial - disseminated pyrrhotite>chalcopyrite to 2%.
88.87	89.60	Medium-grained pyroxenite, in places coarser grained and feldspathic. Up to 10% pyrrhotite>chalcopyrite, blebby and finer interstitial.
89.60	90.59	Medium-grained pyroxenite, minor felspar. Moderately magnetic. Fine interstitial to blebby pyrrhotite>chalcopyrite 2 - 5%. One 10 mm pyrrhotite bleb.
90.59	91.60	Medium-grained pyroxenite, minor felspar with finer grained zones. Interstitial fine pyrrhotite=chalcopyrite to 10% and coarse blebby pyrrhotite/chalcopyrite (12 mm ea). Moderately magnetic.
91.60	92.52	Medium-grained pyroxenite, minor felspar with finer grained olivine / shaly zones. Interstitial fine Po=chalcopyrite to 10% and coarse blebby pyrrhotite/chalcopyrite (12 mm ea). Moderately magnetic.
92.52	93.40	Medium-grained pyroxenite, narrow feldspathic zone (12 cm) and 6 cm wide F-gr zone. Moderately magnetic with interstitial - blebby pyrrhotite - chalcopyrite up to 5%.
93.40	94.23	Medium-grained pyroxenite, slightly felspathic. Moderately magnetic in finer grained olivine/shaly zones. Disseminated - blebby 1 - 2% pyrrhotite>chalcopyrite.
94.23	95.23	Medium-grained pyroxenite, slightly felspathic. Moderately magnetic in finer grained olivine/shaly zones. Trace pyrrhotite/chalcopyrite. Biotite.
95.23	95.62	Coarse-grained feldspathic pyroxenite, biotite.
95.62	96.65	Medium-grained pyroxenite, slightly felspathic. Moderately magnetic in olivine/shaly zones. Interstitial - blebby pyrrhotite=chalcopyrite to 2%. Massive granular magnetite in finer grained zones.
96.65	97.33	Medium-grained pyroxenite, slightly felspathic. Moderately magnetic in olivine/shaly zones. Fine interstitial - blebby pyrrhotite=chalcopyrite to 2%.
97.33	98.23	Medium-grained pyroxenite, slightly felspathic. Moderately magnetic. Fine interstitial pyrrhotite - trace and blebby pyrrhotite=chalcopyrite in top 5cm.
98.23	99.09	Medium-grained pyroxenite slightly felspathic. Moderately magnetic. Interstitial - blebby pyrrhotite>>chalcopyrite to 5%
99.09	99.81	Medium-grained pyroxenite, slightly felspathic. Moderately magnetic with interstitial pyrrhotite>chalcopyrite to 1%
99.81	100.54	Medium-grained pyroxenite, slightly felspathic, moderately magnetic. Trace pyrrhotite / chalcopyrite
100.54	101.25	Medium-grained pyroxenite, with coarse feldspathic zone. Trace - 5% (locally concentrated) pyrrhotite>chalcopyrite. Moderately
101.25	101.58	Medium-grained pyroxenite, slightly coarser below sulphide zone. Interstitial pyrrhotite > chalcopyrite with semi - massive to massive F-gr pyrrhotite>>chalcopyrite zone (101.43 - 101.49 m). In places net-textured.
101.58	102.20	Medium-grained pyroxenite, with finer grained olivine / shaly zone and coarse blebby / interstitial pyrrhotite>chalcopyrite (101.71 - 101.76 m) up to 20%. Moderately magnetic.
102.20	103.14	Medium-grained pyroxenite, slightly felspathic. Interstitial to coarse blebby pyrrhotite>>chalcopyrite, net-textured in places. Ex-solution network evident in coarse pyrrhotite. 20 - 50% locally concentrated in semi-massive zones (102.46 - 102.51 m, 102.67 - 102.72 m). Moderately magnetic.
103.14	103.80	Medium-grained pyroxenite, variable with fine-grained pyroxenite and feldspathic zones. Interstitial to blebby pyrrhotite=chalcopyrite between 2-5%. Weakly to moderately magnetic.
103.80	104.66	Medium-grained pyroxenite, variable with fine-grained pyroxenite and feldspathic zones. 1-2% pyrrhotite=chalcopyrite interstitial to blebby. Weakly to moderately magnetic.
104.66	105.33	Medium-grained pyroxenite, variable with fine-grained pyroxenite, fine-grained magnetic, olivine / shaly zones. Interstitial to blebby pyrrhotite=chalcopyrite up to 2% in upper 34 cm.
105.33	106.26	Medium-grained pyroxenite, variable with magnetic olivine? rich zone. Interstitial to blebby pyrrhotite=chalcopyrite to 2%. Moderately magnetic.
106.26	106.94	Medium-grained pyroxenite, variable with magnetic olivine? rich zone. Interstitial to blebby pyrrhotite=chalcopyrite to 2% in places net-textured. Moderately magnetic.
106.94	107.38	Medium-grained pyroxenite. Semi-massive pyrrhotite>chalcopyrite (50%) from 106.94 - 106.97 m. Variable to fine-grained pyroxenite, pyrrhotite>chalcopyrite to 20% locally concentrated (107.15 - 107.25 m). Fine interstitial elsewhere to 2%. Moderately magnetic.
107.38	108.33	Medium-grained, well layered pyroxenite with layers of concentrated opx 12 cm wide (108.22 - 108.34 m). Interstitial 1-2% pyrrhotite>chalcopyrite. Moderately magnetic.
108.33	109.20	Medium-grained, well layered pyroxenite with layers of concentrated opx 5 cm wide (108.58 - 108.63 m). Fine interstitial pyrrhotite=chalcopyrite up to 5%. Moderately magnetic. Mottled appearance (felspar).
109.20	110.28	Medium-grained pyroxenite, slightly felspathic, variable with narrow, magnetic sediment xenolith (109.92 - 110.03 m). Interstitial pyrrhotite=chalcopyrite up to 2%. Moderately magnetic.
110.28	111.25	Medium-grained pyroxenite, variable, well layered. Interstitial to blebby pyrrhotite=chalcopyrite to 5% locally concentrated. Moderately magnetic.
111.25	112.03	Fine to medium-grained quartzite / sediment. Highly magnetic with disseminated to granular magnetite and fine interstitial Py.
139.05	140.05	Medium-grained, feldspathic pyroxenite (hybrid?), weakly magnetic
140.05	140.53	Medium-grained, highly serpentinized calcsilicate. Weakly magnetic
140.53	141.46	Medium-grained, serpentinized calcsilicate, Trace pyrite. Weakly magnetic
141.46	142.26	Medium-grained, chloritized feldspathic pyroxenite. Trace pyrrhotite. Weakly magnetic.
142.26	143.18	Medium-grained, chloritized feldspathic pyroxenite. Up to 5% pyrrhotite=chalcopyrite, locally concentrated. Narrow fine-grained shaly zones (Highly magnetic). Weakly - moderately magnetic throughout.
143.18	144.32	Medium-grained, chloritized feldspathic pyroxenite. Narrow, fine-grained shaly zone. Trace disseminated pyrrhotite. Minor carbonate veining. Weakly magnetic.
144.32	145.30	Medium-grained, chloritized feldspathic pyroxenite, narrow calcsilicate zone between 144.54 - 144.84 m. Up to 2% chalcopyrite>pyrrhotite. Weakly magnetic.
145.30	146.08	Medium-grained feldspathic pyroxenite, weakly - moderately magnetic. 1-2% fine pyrrhotite=chalcopyrite.
146.08	147.04	Medium-grained feldspathic pyroxenite with slightly coarser zone. Weakly - moderately magnetic. Trace fine pyrrhotite.
147.04	148.27	Medium-grained, in places finer grained. Highly magnetic, epidotized meta-sediment / calcsilicate. Occasional pyrite blebs.
148.27	148.79	Fine-grained, highly magnetic quartzite
169.04	170.10	Fine-grained, dolomite intrusive. Moderately - highly magnetic



From	To	DESCRIPTION
170.10	170.83	Medium-grained, meta-pyroxenite, HY. Felspathic, moderately magnetic with Trace pyrrhotite.
170.83	171.98	Medium-grained, meta-pyroxenite, HY. Felspathic, moderately magnetic with Trace pyrrhotite. Occasional quartzite xenoliths / clasts.
171.98	172.63	Medium-grained meta-pyroxenite, HY. Felspathic, moderately magnetic with Trace pyrrhotite. Occasional quartzite xenoliths / clasts.
172.63	173.42	Medium-grained, meta-pyroxenite, HY. Felspathic, moderately magnetic with Trace pyrrhotite. Occasional quartzite xenoliths / clasts.
173.42	173.82	Fine-grained meta-sedimentary / quartzite xenolith, moderately magnetic.
173.82	174.38	Medium-grained, meta-pyroxenite, HY. Felspathic, moderately magnetic with Trace pyrrhotite.
174.38	175.14	Fine-grained dolomite intrusive with 5 cm wide quartz / felspar vein. Chloritized
175.14	176.01	Medium-grained, meta-pyroxenite, HY. Felspathic with quartzite xenolith / clasts. Trace - % pyrrhotite=chalcopyrite, fine to blebby and locally concentrated in narrow accumulations at 175.55 m and 175.90 m.
176.01	177.12	Medium-grained felspathic meta-pyroxenite, HY with finer grained shaly zones. 2 - 5% pyrrhotite.>chalcopyrite but concentrated up to 20% in narrow zones <1 cm wide at 176.30 m, 176.85 m, 176.87 m and 176.98 m.
177.12	178.23	Medium-grained felspathic meta-pyroxenite, HY with finer grained zones and quartzite. xenoliths / clasts. Trace pyrrhotite.
178.23	178.80	Medium-grained quartzite. Moderately to strongly magnetic.
192.36	192.90	Medium-grained serpentized calcsilicate.
192.90	193.95	Medium-grained, highly magnetic, biotitic, felspathic in places meta-sedimentary (quartzite). Semi-massive magnetite bleb and 1-2% finely disseminated pyrite.
193.95	195.05	Medium-grained, highly magnetic biotitic, felspathic meta-sedimentary (quartzite). Narrow, irregular carbonate veining. 1-2% disseminated pyrite and a 6 cm wide coarse grained vein.
195.05	196.07	Medium-grained, highly magnetic, biotitic, felspathic meta-sedimentary (quartzite). Trace - % finely disseminated pyrite and a 4 cm wide coarse-grained quartz / felspar vein.
196.07	197.04	Medium-grained, highly magnetic, biotitic, felspathic meta-sedimentary (quartzite). Trace finely disseminated pyrite and a 4 cm wide coarse-grained quartz / felspar vein and narrow, irregular carbonate veining.