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SUDBURY
INTEGRATED NICKEL
OPERATIONS
A GLENCORE COMPANY

Date: November 24, 2014
To: MNDM Assessment Office
Copies To: file
From: J. Michael Sweeny
Subject: Application to File Assessment Work – DDH NRD-67

DDH NRD-067 to be filed for Assessment, please find attached:

- Declaration of Assessment Work Performed on Mining Lands (form 0241E)
- Map showing Contiguity of Claims
- Technical Report (2 copies) -- Drill Log, Drill Plan Map, & Drill Hole Section
- Title Abstract for Licence of Occupation.
- Statement of Qualification



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INTRODUCTION

Claim location and Road Access

The work described in this report was performed on LO 10540, located in Morgan Township, northwest of the City of Sudbury. Access is provided through Glencore Mine Access road and local drill trails.

Holder

Glencore Canada holds 100% of the mining rights for the property during the duration of the work completed.

Regional geology

The properties are located in the North Range of the Sudbury Igneous Complex (SIC). The bedrock is composed of rocks of the SIC, underlain by gneisses and granites of the Archean Levack Gneiss Complex and Cartier batholith. Overburden is composed of poorly sorted till.

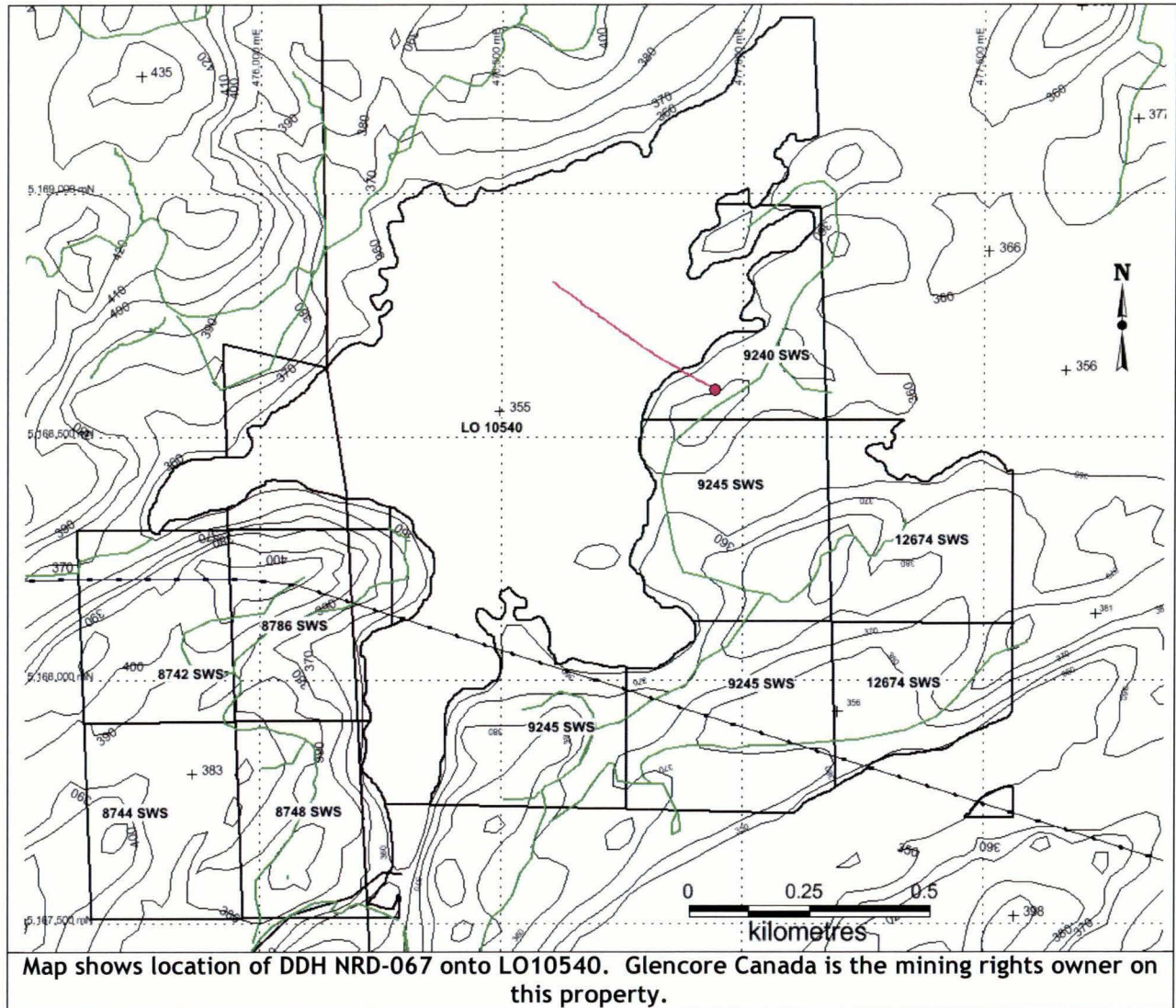
Date and nature of work

Program work, including planning, core logging and field logistical work, were conducted by Stephen Marshfield (P.Geo), Andrew Nyman (Contract Geologist), Collin Mecke (Contract Geologist), Paul Twilley (Field Services Technician) between (Aug 19/14 to Sept 03rd/14). One previously drilled hole was deepened:

- The program (NRD-067 deepening) targeted the prospective SIC footwall environment in an area of previous drilling;

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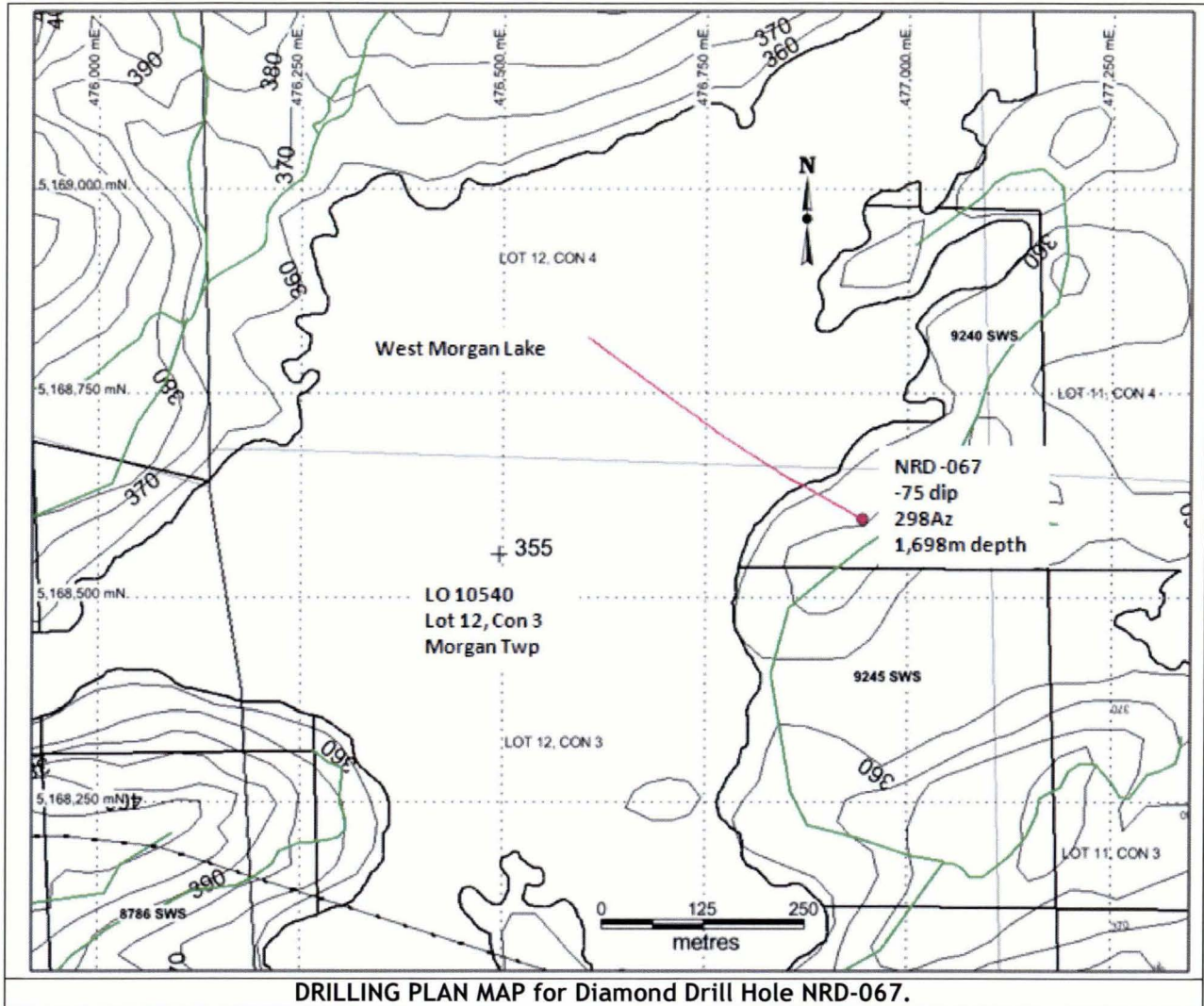
Report on Drilling Diamond Drill Hole NRD-067.

Diamond Drill Hole NRD-067 was collared at UTM Nad 27 Zone 17N coordinates 476943.0m E, 5,168596.8m N in west central Morgan Township on Patent S-31205 (PCL 9240 SWS, Lot 12, Con 3, Morgan Twp.). The original hole was drilled to a depth of 1,414m on an azimuth of 298.61 and an inclination of -75.29 degrees crossing onto LO10540 at approximately 125m. The hole was deepened to a final depth of 1,698m. NQ size core was recovered from 3.0m to 1,698m depth.

The purpose of the original hole was to explore for nickel-copper sulphides along the basal contact of the Sudbury Igneous complex. The first basal contact of the Sudbury Igneous complex was intersected between 930 m and 972m with minor sulphides intersected. A second unit of SIC stratigraphy (footwall breccias) was intersected between 972-1008m with minor sulphides. Footwall rocks including mafic to felsic gneisses, diabase and additional Sudbury breccias were drilled from 1008-1698m. From 1037-1078 a zone of Sudbury Breccia was intersected which included several narrow veins of chalcopyrite (5-55cm intervals). Assays from the initial hole included 1.42%Ni, 2.07%Cu over 0.55m; 1.41%Ni, 5.16%Cu over 0.30m and 0.59%Ni, 2.78%Cu over 0.30m. PGE's were slightly anomalous in these samples. (please see detailed log for further description and analytical results).

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DRILLING PLAN MAP for Diamond Drill Hole NRD-067.

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Glencore Rock Code Legend

CAS	CASING
DIA	DIABASE
DNBX	DARK NORITE BRECCIA
DNOR	DARK NORITE
FGN	FELSIC GNEISS
FNOR	FELSIC NORITE
GRPH	GRANOPHYRE
LGBX	LATE GRANITE BRECCIA
IGN	INTERMEDIATE GNEISS
MGN	MAFIC GNEISS
MNOR	MAFIC NORITE
PHYF	PYROXENE HORNFELS
SDBX	SUDBURY BRECCIA
SLN	SUBLAYER NORITE
SULP	SULPHIDE
TRZN	TRANSITION ZONE
FLT	FAULT

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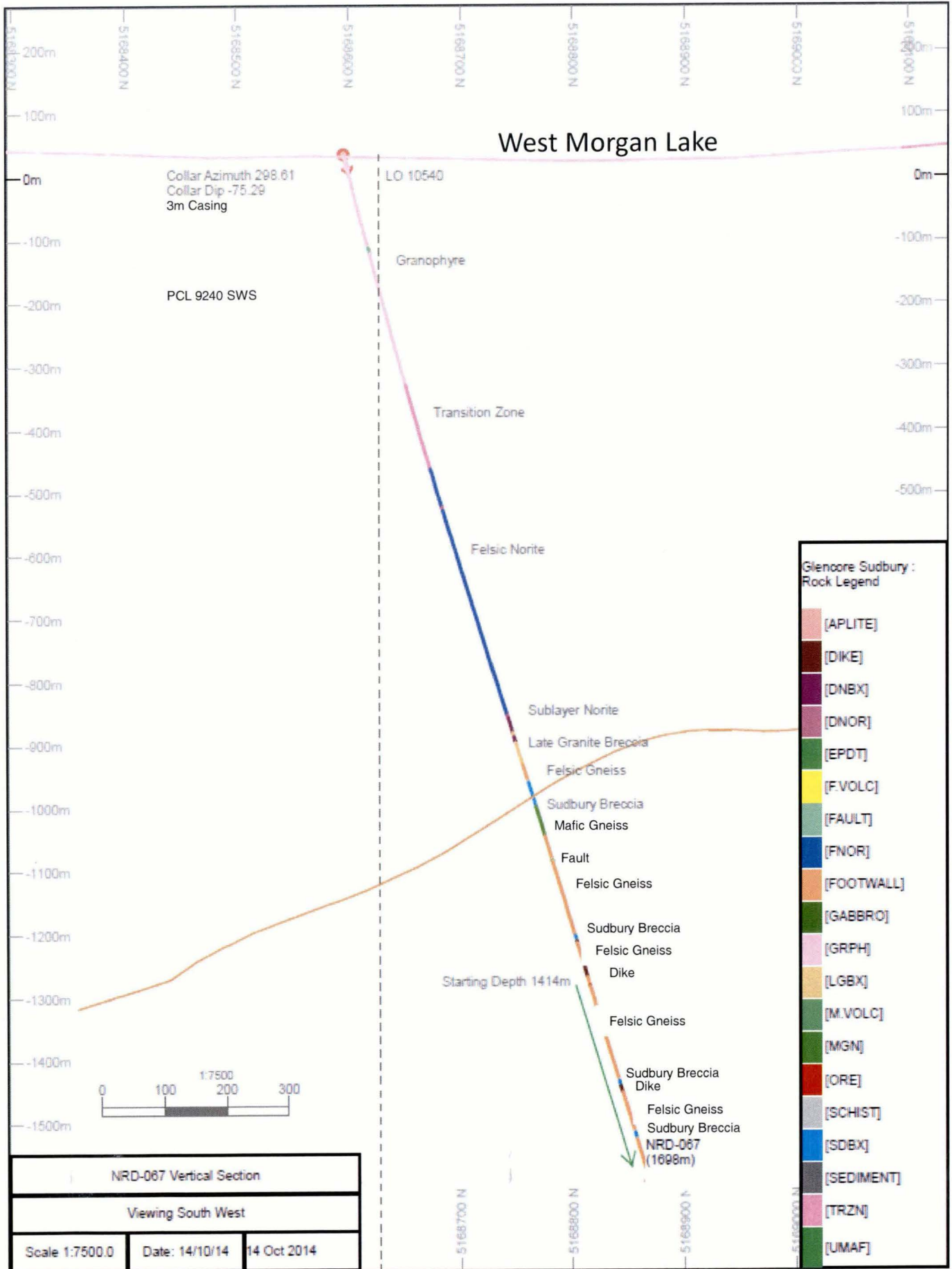
Xstrata Nickel Drill Log Abbreviations/Definitions		
Abbreviation	Word/Phrase	Alternates
alt'n	alteration	altn
amph	amphibole	
assoc	associated	
b/t	between	
bio	biotite	
bkn	broken	
bx	breccia	
bx'n	brecciation	
ca	core axis	
carb	carbonate	
chl	chlorite	
comp	composition	
cpx	clinopyroxene	cx
Cpy	chalcopyrite	Cp
CT	contact	
desc	describe(d)	
diss	disseminated	dis
DTCA	degrees to core axis	DCA, tca
EP	epidote	
FF	fracture filling	ff
flt	fault	
FR	fracture	fr
frags	fragments	
FSP	feldspar	
GN	gneissic	

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hem	hematite	
incip	incipient	
K	potassic	k
leuco	leucocratic	
loc'n	location	
M:F	mafic to felsic	
mins	minerals	
minz'd	mineralized	
minz'n	mineralization	
mod	moderate(ly)	
mov't	movement	
NDIA	"new" diabase	
NVS	no visible sulphides	
OD	olivine dyke	
ODIA	"old" diabase	
OGAB	"old" gabbro	
phenos	phenocrysts	
Pn	pentlandite	
Po	pyrrhotite	
prev	previous(ly)	
Py	pyrite	
remob	remobilizing, remobilization	
rextall'd	recrystallized	rextallz'd
rextall'n	recrystallization	rextallz'n
rx'n	reaction	
SGN	sedimentary gneiss	
SS	slickenside	
T.T.	true thickness	
tr	trace	
w	with	
xtls	crystals	xtals
vfg	very fine grained	
fg	fine grained	
mg	medium grained	
cg	coarse grained	
vcg	very coarse grained	

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DETAILED LOG XSTRATA NICKEL

Hole Number: **NRD-067**

Units: METRIC

Project Name: FL SURFACE	Primary Coordinates Grid: UTM:	Destination Coordinates Grid: MBS:	Collar Dip: -75.29
Project Number: 6077	North: 5168596.80	North: 462254.98	Collar Az: 298.61
Location: Surface	East: 476943.00	East: 335639.90	Length: 1,698.01
	Elev: 365.50	Elev: 1199.13	Start Depth: 0.00
Date Started: Apr 28, 2004	Collar Survey: N	Plugged: N	Contractor: MAJOR IDEAL DRILLING
Date Completed: Sep 03, 2014	Multishot Survey: Y	Hole Size: NQ	Final Depth: 1,698.01
Logged By: anyman	Pulse EM Survey: Y	Casing: Left in Hole	Core Storage: NIR

Comments: Condense core for GRPH-TRZN-FNOR (casing to 927 metres).
 keep all of epi alt trzn from 484.45-487.15m
 Cross-pile whole core from 927m to EOH.
 Hole was deepened from 1414-1698 in 2014 by Foraco Canada
 Lithogy was dominated by unmineralized FGN
 Geophysical surveying completed with no modeled anomalies.

Survey Data

Depth	Azimuth Decimal	Dip Decimal	Test Type	Flag	Comments	Depth	Azimuth Decimal	Dip Decimal	Test Type	Flag	Comments
0.00	298.61	-75.29	G	OK		10.00	298.60	-75.20	G	OK	
12.00	297.00	-75.30	EZ		mag 5887	20.00	298.61	-75.24	G	OK	
30.00	298.57	-75.28	G	OK		40.00	298.65	-75.27	G	OK	
42.00	300.30	-75.90	EZ		mag 5993	50.00	298.75	-75.30	G	OK	
60.00	298.79	-75.24	G	OK		70.00	298.86	-75.24	G	OK	
72.00	298.90	-75.60	EZ		mag 5820	80.00	298.91	-75.24	G	OK	
90.00	298.89	-75.22	G	OK		100.00	298.67	-75.22	G	OK	
102.00	299.90	-75.60	EZ		mag 5823	110.00	298.48	-75.14	G	OK	
120.00	298.35	-74.99	G	OK		130.00	298.25	-74.86	G	OK	
132.00	301.10	-75.20	EZ		mag 5984	140.00	298.24	-74.82	G	OK	
150.00	298.33	-74.84	G	OK		160.00	298.42	-74.86	G	OK	
162.00	299.90	-75.00	EZ		mag 5832	170.00	298.50	-74.75	G	OK	
180.00	298.62	-74.76	G	OK		190.00	298.69	-74.76	G	OK	
192.00	298.50	-75.10	EZ		mag 5816	200.00	298.65	-74.71	G	OK	
210.00	298.58	-74.60	G	OK		220.00	298.82	-74.53	G	OK	
222.00	299.80	-75.00	EZ		mag 5901	230.00	298.98	-74.63	G	OK	
240.00	299.00	-74.64	G	OK		250.00	298.77	-74.59	G	OK	
252.00	300.70	-74.70	EZ		mag 5827	260.00	298.96	-74.57	G	OK	
270.00	299.07	-74.53	G	OK		280.00	299.04	-74.53	G	OK	
282.00	300.20	-74.70	EZ		mag 5828	290.00	299.27	-74.57	G	OK	
300.00	299.37	-74.39	G	OK		310.00	299.39	-74.23	G	OK	
312.00	301.70	-74.60	EZ		mag 5851	320.00	299.39	-74.19	G	OK	



DETAILED LOG XSTRATA NICKEL

Hole Number: **NRD-067**

Units: METRIC

Survey Data

Depth	Azimuth Decimal	Dip Decimal	Test Type	Flag	Comments	Depth	Azimuth Decimal	Dip Decimal	Test Type	Flag	Comments
330.00	299.58	-74.07	G	OK		340.00	299.69	-74.05	G	OK	
342.00	300.60	-74.50	EZ		mag 5847	350.00	299.61	-74.02	G	OK	
360.00	299.55	-74.08	G	OK		370.00	299.55	-73.80	G	OK	
375.00	300.10	-74.40	EZ		mag 5825	380.00	299.54	-73.79	G	OK	
390.00	299.66	-73.86	G	OK		400.00	299.75	-73.70	G	OK	
405.00	297.90	-74.30	EZ		mag 5743	410.00	299.82	-73.74	G	OK	
420.00	299.98	-73.70	G	OK		430.00	300.20	-73.63	G	OK	
435.00	298.90	-74.20	EZ		mag 5628	440.00	300.38	-73.68	G	OK	
450.00	300.86	-73.61	G	OK		460.00	301.16	-73.51	G	OK	
465.00	302.20	-73.60	EZ		mag 5611	470.00	301.32	-73.35	G	OK	
480.00	301.49	-73.35	G	OK		490.00	301.54	-73.26	G	OK	
495.00	302.60	-73.60	EZ		mag 5678	500.00	301.71	-73.22	G	OK	
510.00	301.80	-73.20	G	OK		520.00	301.85	-73.30	G	OK	
530.00	302.00	-73.28	G	OK		540.00	302.10	-73.11	G	OK	
550.00	302.30	-73.18	G	OK		555.00	304.10	-73.40	EZ		mag 5863
560.00	302.58	-72.94	G	OK		570.00	302.76	-73.04	G	OK	
580.00	302.81	-73.00	G	OK		585.00	305.30	-73.30	EZ		mag 5982
590.00	302.97	-72.92	G	OK		600.00	303.04	-72.95	G	OK	
610.00	303.10	-72.78	G	OK		615.00	304.40	-73.40	EZ		mag 5855
620.00	303.50	-72.82	G	OK		630.00	303.49	-72.69	G	OK	
640.00	303.59	-72.78	G	OK		645.00	304.80	-72.90	EZ		mag 5794
650.00	303.61	-72.72	G	OK		660.00	303.64	-72.37	G	OK	
670.00	303.78	-72.53	G	OK		675.00	304.90	-73.20	EZ		mag 5830
680.00	303.76	-72.63	G	OK		690.00	303.80	-72.63	G	OK	
700.00	303.84	-72.49	G	OK		705.00	304.90	-72.70	EZ		mag 5777
710.00	303.79	-72.44	G	OK		720.00	303.93	-72.54	G	OK	
730.00	304.20	-72.40	G	OK		740.00	304.32	-72.51	G	OK	
750.00	304.50	-72.37	G	OK		760.00	304.62	-72.60	G	OK	
765.00	305.20	-72.70	EZ		mag 5707	770.00	304.68	-72.53	G	OK	
780.00	304.86	-72.43	G	OK		790.00	304.87	-72.39	G	OK	
795.00	305.80	-72.60	EZ		mag 5617	800.00	304.83	-72.50	G	OK	
810.00	305.08	-72.49	G	OK		820.00	305.09	-72.40	G	OK	
825.00	305.90	-72.30	EZ		mag 5984	830.00	305.16	-72.47	G	OK	
840.00	305.39	-72.57	G	OK		850.00	305.45	-72.65	G	OK	



DETAILED LOG XSTRATA NICKEL

Hole Number: **NRD-067**

Units: METRIC

Survey Data

Depth	Azimuth Decimal	Dip Decimal	Test Type	Flag	Comments	Depth	Azimuth Decimal	Dip Decimal	Test Type	Flag	Comments
855.00	304.60	-72.80	EZ		mag 5503	860.00	305.44	-72.55	G	OK	
870.00	305.49	-72.38	G	OK		880.00	305.79	-72.49	G	OK	
885.00	304.50	-72.80	EZ		mag 5500	890.00	305.77	-72.42	G	OK	
900.00	305.86	-72.31	G	OK		910.00	305.96	-72.40	G	OK	
915.00	305.80	-72.60	EZ		mag 5604	920.00	305.90	-72.48	G	OK	
930.00	305.81	-72.44	G	OK		940.00	305.74	-72.35	G	OK	
945.00	330.80	-72.30	EZ		mag error	950.00	305.75	-72.43	G	OK	
960.00	305.84	-72.30	G	OK		970.00	305.84	-72.27	G	OK	
975.00	308.40	-72.80	EZ		mag 5995	980.00	305.66	-72.49	G	OK	
990.00	305.69	-72.41	G	OK		1000.00	305.89	-72.35	G	OK	
1005.00	308.20	-72.60	EZ		mag 5599	1010.00	306.04	-72.32	G	OK	
1020.00	306.03	-72.31	G	OK		1030.00	306.22	-72.48	G	OK	
1035.00	305.10	-72.70	EZ		mag 5679	1040.00	306.19	-72.72	G	OK	
1050.00	306.19	-72.56	G	OK		1060.00	306.20	-72.42	G	OK	
1065.00	306.00	-72.70	EZ		mag 6061	1070.00	306.04	-72.46	G	OK	
1080.00	305.83	-72.51	G	OK		1090.00	305.52	-72.56	G	OK	
1095.00	303.10	-72.70	EZ		mag 5566	1100.00	305.29	-72.78	G	OK	
1110.00	305.18	-72.82	G	OK		1120.00	305.20	-72.83	G	OK	
1125.00	315.90	-73.20	EZ		mag 5754	1130.00	305.52	-73.11	G	OK	
1140.00	305.72	-73.08	G	OK		1150.00	305.82	-72.87	G	OK	
1155.00	301.10	-73.20	EZ		mag 5592	1160.00	306.00	-72.76	G	OK	
1170.00	306.13	-72.85	G	OK		1180.00	306.17	-73.13	G	OK	
1185.00	304.50	-73.30	EZ		mag 5897	1190.00	306.13	-73.20	G	OK	
1200.00	306.08	-73.10	G	OK		1210.00	306.06	-73.07	G	OK	
1215.00	306.90	-73.60	EZ		mag 5855	1220.00	306.05	-73.08	G	OK	
1230.00	306.05	-73.01	G	OK		1240.00	306.08	-73.09	G	OK	
1241.00	306.08	-73.13	G	OK		1245.00	305.70	-73.90	EZ		mag 5745
1275.00	308.90	-73.60	EZ		mag 5934	1305.00	306.30	-73.00	EZ	OK	mag 5850
1335.00	307.10	-73.50	EZ	OK	mag 5800	1365.00	307.60	-73.10	EZ	OK	mag 5766
1395.00	307.10	-73.30	EZ	OK	mag 5748	1467.00	305.00	-72.70	EZ	OK	mag 5533

Detailed Lithology			Assay Data					
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %
0.00	3.00	CAS, Casing						

Hole Number: **NRD-067**

Units: METRIC

Detailed Lithology		Assay Data						
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %
3.00	152.30	<p>GRPH, Granophyre</p> <p>Typical medium to coarse-grained pink and green GRPH. Non-magnetic, Unmineralized. HEM and CHL on breaks. Several 2-4cm wide disseminate EPI haloes on fractures and thin qtz-carb veinlets. GRound strongly broken over lower 4m of interval. Gradational lower contact with brittle FLT zone in GRPH.</p> <p>RQD</p> <p>12.00 - 22.50 : 60.00 % RQD 100.00 % Core hem and chl on breaks</p> <p>32.00 - 42.00 : 70.00 % RQD 100.00 % Core hem on breaks</p> <p>64.50 - 137.00 : 80.00 % RQD 100.00 % Core hem on breaks</p> <p>137.00 - 140.35 : 60.00 % RQD 100.00 % Core hem and chl on breaks</p> <p>144.00 - 162.55 : 40.00 % RQD 100.00 % Core strong broken hem brittle flt zone</p>						
152.30	162.55	<p>FLT, Fault</p> <p>Brittle FLT in strongly HEM altered GRPH. Predominantly brittle deformation with <4% thin bands of green-grey gouge. Strongly broken ground with HEM and CHL coating all breaks. 0.5-1cm wide CAL veins throughout. Unmineralized. Non-magnetic. Gradational lower contact over several metres with GRPH.</p>						
162.55	182.20	<p>GRPH, Granophyre</p> <p>Coarse-grained medium-grey coloured GRPH. Non-magnetic. Unmineralized. Patches of 2-4cm diameter pink-grey spots in predominantly grey GRPH. Gradational lower contact over 1m with typical looking pink and green GRPH.</p>						
182.20	252.35	<p>GRPH, Granophyre</p> <p>Typical looking coarse-grained pink and green GRPH. Strongly broken section between 209.4 and 210.7m with CHL on breaks. Non-magnetic. Unmineralized. Several 10-30cm patches of splotchy grey altn as in previous section. Sharp lower contact with brittle FLT and ground core.</p> <p>RQD</p> <p>209.40 - 210.70 : 30.00 % RQD 100.00 % Core strongly broken, chl on all breaks</p>						
252.35	253.65	<p>FLT, Fault</p> <p>Intensely broken brittle FLT in typical GRPH. HEM and CHL on breaks but core has also been twisted and stretched. Non-magnetic. Unmineralized. Sharp lower contact with GRPH.</p> <p>RQD</p> <p>252.35 - 253.65 : 0.00 % RQD 100.00 % Core intense broken, twisted core, hem and chl breaks</p>						
253.65	257.70	<p>GRPH, Granophyre</p> <p>Coarse-grained grey altered GRPH. Splotchy grey altn similar to earlier GRPH unit. 2-4cm circular patches of bleaching. Non-magnetic. Unmineralized. Gradational lower contact with typical looking GRPH.</p>						
257.70	311.00	<p>GRPH, Granophyre</p> <p>Typical coarse-grained pink and green GRPH. 2-10cm patches of strong disseminated HEM and EPI altn. EPI also forms 1-2cm wide disseminated haloes on some fractures. Non-magnetic. Unmineralized. Gradational lower contact with GRPH.</p>						

Hole Number: **NRD-067**Units: **METRIC**

Detailed Lithology		Assay Data						
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %
311.00	378.25	<p>GRPH, Granophyre Coarse-grained green and white GRPH. Euhedral 4-20mm long PLAG lathes are mantled by sub-ophitic qtz, all in a medium to fine-grained dark green Px/amph and OL matrix. Non-magnetic. Unmineralized. Slowly begins to look more noritic. Looks identical to TRZN below but has sharp magnetic contact.</p> <p>RQD 364.70 - 375.00 : 70.00 % RQD 100.00 % Core chl on breaks</p>						
378.25	517.00	<p>TRZN, Transition Zone Coarse-grained white and green TRZN. Moderatly magnetic over 15m but gradually become strongly magnetic. PLAG<PX/AMPH<OL<QTZ, no longer any KSPAR. PLAG form clusters of euhedral 2-8mm lathes, often with qtz intergrowths, in a mafic matrix. TRZN is more noritic than granophyric in appearance. Unmineralized. several broken zones with chl on breaks.</p> <p>Several 20-40cm patches of moderatly disseminated EPI and one zone at 485.8-487.2m of strong disseminated EPI with coarse granular PY and EPI along a series of fractures sub-parallel to c.a.</p> <p>TRZN resembles FNOR in colour, mineralogy, and texture over much of the interval but has a sharp magnetic contact that coincides with a decrease in grain size over 4m from coarse-grained TRZN to medium-grained FNOR.</p> <p>RQD 417.00 - 420.40 : 70.00 % RQD 100.00 % Core chl on breaks</p>						
517.00	580.95	<p>FNOR, Felsic Norite Typical medium-grained blue-grey and white salt-and-pepper textured FNOR. PLAG form 2-3mm blocky lathes in a Px/AMPH and OL matrix, with minor qtz intergrowths and mantles on the plag xtals. Non-magnetic. Unmineralized. Several small broken zones with CHL on breaks.</p>						
580.95	585.00	<p>LC, Lost Core One box of cre missing, FNOR is same on either side of missing interval.</p>						
585.00	608.60	<p>FNOR, Felsic Norite Typical medium-grained blue-grey and white salt-and-pepper textured FNOR. PLAG form 2-3mm blocky lathes in a Px/AMPH and OL matrix, with minor qtz intergrowths and mantles on the plag xtals. Non-magnetic. Unmineralized. Several small broken zones with CHL on breaks.</p> <p>FNOR is bleached to a light grey-blue from 591.0-608.60. Gradational lower contact over 1m with NOR/MNOR.</p> <p>RQD 588.00 - 594.10 : 60.00 % RQD 100.00 % Core chl on breaks, some twisted core</p>						
608.60	629.20	<p>FNOR, Felsic Norite NOR to fnor, slightly more mafic in composition than FNOR above. Medium- to coarse-grained dark grey blue. Clusters of 2-4mm stubby plag lathes with trace qtz intergrowths, all in a PX/AMPH and OI matrix. Non-magnetic. Unmineralized.</p>						

Hole Number: **NRD-067**Units: **METRIC**

Detailed Lithology		Assay Data						
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %
629.20	752.00	<p>FNOR, Felsic Norite</p> <p>Typical looking medium-grained blue-grey to light blue-grey FNOR. Non-magnetic. Unmineralized. Very massive, very few breaks.</p> <p>Becomes slightly more mafic in composition and finer-grained from 698.0-700.8m, but then returns to typical FNOR.</p> <p>Rare 2-4cm angular mafic fragments between 715-735m.</p> <p>Several 10-20cm wide aplite bands between 726-3-728.90m. Patchy moderate disseminated EPI and weak pink KSPAr altn in same zone. Unmineralized.</p> <p>RQD</p> <p>652.00 - 659.85 : 50.00 % RQD 100.00 % Core chl, some hem on breaks</p>						
752.00	926.35	<p>FNOR, Felsic Norite</p> <p>Medium-grained NOR, locally grading towards MNOR. Non-magnetic. Unmineralized. Broken ground from 652.0-659.85m, CHL and some HEM on breaks (no gouge, no FLTS). Several other 50cm zones of broken ground, also with CHL on breaks.</p> <p>Gradational lower contact over 1m with MNOR</p>						
926.35	930.85	<p>DNOR, Dark Norite</p> <p>Medium grained, dark blue-grey DNOR. Weak to non-magnetic. Unmineralized. Gradational lower contact over 1m with DNBX rich in DIA fragments.</p>						
930.85	956.20	<p>DNBX, Dark Norite Breccia</p> <p>Moderate to weakly developed DNBX. 10-15% medium-grained MNOR with 80% 5-30cm fragments of DIA. Almost appears to be MNOR veins cutting a DIA body. Moderate to strongly magnetic. 3% 1-2cm blebs of medium brown Po and Py. CHL on breaks. Sharp lower contact 60c.a. with LGBX.</p> <p>RQD</p> <p>948.20 - 952.05 : 60.00 % RQD 100.00 % Core chl on breaks</p>						
956.20	961.45	<p>LGBX, Late Granite Breccia</p> <p>Moderate to well developed LGBX. Coarse-grained mesocratic matrix, GD in composition, with 10% 4-8mm fuzzy plag eyes. 25% 5-10cm mafic fragments. Trace blebby Po-Py. Several 10-20cm patches of moderate disseminated EPI altn. Sharp lower contact 60c.a. with LGBX.</p>	NRD-067-001	957.00	958.50	1.50	0.03	0.03
			NRD-067-002	958.50	960.00	1.50	0.03	0.03
			NRD-067-003	960.00	961.45	1.45	0.03	0.03
961.45	972.20	<p>DNBX, Dark Norite Breccia</p> <p>Well developed DNBX. Medium grained, dark blue-grey NOR to MNOR matrix with 80% 2-10cm mafic fragments. 10-15% patchy medium brown Po with 5% blebby Py and 2% wispy to blebby Cp. Sharp lower contact 70c.a. with LGBX.</p> <p>Mineralization</p> <p>961.45 - 972.20 : POPNCP Pyrrhotite/Pentlandite/Chalcopyrite, BL Blebby, 12.00%</p>	NRD-067-004	961.45	963.00	1.55	0.49	0.11
			NRD-067-005	963.00	964.50	1.50	0.39	0.23
			NRD-067-006	964.50	966.00	1.50	0.33	0.17
			NRD-067-007	966.00	967.50	1.50	0.21	0.09
			NRD-067-008	967.50	969.00	1.50	0.29	0.29
			NRD-067-009	969.00	970.50	1.50	0.24	0.22
			NRD-067-010	970.50	972.20	1.70	0.41	0.37

Hole Number: **NRD-067**

Units: METRIC

Detailed Lithology		Assay Data						
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %
972.20	1008.50	LGBX, Late Granite Breccia Well developed LGBX. Coarse-grained leucocratic matrix, GRAN to GD in composition, with 15% 3-10mm fuzzy plag eyes. 30% 5-25cm mafic fragments. Non to weakly magnetic. Unmineralized. Weak to moderate pink-orange KSPAR altn of most felsic components while mafic components show weak EPI altn. Sharp lower contact with FGN/IGN. RQD 977.00 - 987.00 : 70.00 % RQD 100.00 % Core chl on breaks	NRD-067-011	972.20	973.50	1.30	0.03	0.03
			NRD-067-012	973.50	975.00	1.50	0.03	0.03
			NRD-067-013	975.00	976.50	1.50	0.03	0.03
			NRD-067-014	976.50	978.00	1.50	0.03	0.03
			NRD-067-015	978.00	979.50	1.50	0.03	0.03
1008.50	1037.85	IGN, Intermediate Gneiss Medium-grained IGN to FGN. Moderatly developed GN banding 40-70c.a. Cut by 3% grey SDBX veins 1-3cm wide. Felsic bands have moderate disseminated pink KSPAR altn and mafic bands have weak disseminated EPI altn. Weak to moderate magnetic. Unmineralized. Gradational lower contact over 1m with SDBX. Structure 1008.50 - 1032.00 : GN Gneissic, 70.00 Deg to CA mod gn banding	NRD-067-016	1035.50	1036.50	1.00	0.03	0.03
			NRD-067-017	1036.50	1037.85	1.35	0.03	0.06
1037.85	1078.55	SDBX, Sudbury Breccia Moderate to well developed SDBX. 15% grey-green to smokey grey aphanitic matrix with 50% 2-400cm FGN fragments/blocks and 35% 2-200cm mafic fragments, predominantly MGN and DIA. Weak to non-magnetic. Several 5-25cm wide Py-Cp veins between 1038.3-1045.3m. Veins are typically at high angles to the c.a., have semi-sharp boundaries, and are generally 60% Py to 40% Cp, although a few veins have 10% Po. Several 50-200cm patches of moderate disseminated pink KSPAR alteration of felsic fragments and EPI altn of mafic fragments and matrix. Gradational lower contact over several metres with IGN/MGN. Mineralization 1038.30 - 1038.40 : CP Chalcopyrite, Mass Massive, 40.00% 1043.85 - 1043.90 : PO Pyrrhotite, Mass Massive, 10.00% 1044.70 - 1045.00 : CP Chalcopyrite, Mass Massive, 45.00% 1045.25 - 1045.30 : CP Chalcopyrite, Mass Massive, 35.00%	NRD-067-018	1037.85	1038.40	0.55	1.42	2.07
			NRD-067-019	1038.40	1040.00	1.60	0.03	0.03
			NRD-067-020	1040.00	1041.50	1.50	0.03	0.03
			NRD-067-020PD	1040.00	1041.50	1.50	0.03	0.03
			NRD-067-021	1041.50	1043.00	1.50	0.24	0.12
			NRD-067-022	1043.00	1043.70	0.70	0.03	0.10
			NRD-067-023	1043.70	1044.00	0.30	0.03	0.03
			NRD-067-024	1044.00	1044.70	0.70	0.03	0.06
			NRD-067-026	1044.70	1045.00	0.30	1.41	5.16
			NRD-067-027	1045.00	1045.30	0.30	0.59	2.78
			NRD-067-028	1045.30	1046.80	1.50	0.03	0.17
NRD-067-029	1046.80	1047.90	1.10	0.03	0.16			
1078.55	1126.95	MGN, Mafic Gneiss MGN to IGN. Medium-grained green-grey in colour. Moderate to well developed GN banding 60c.a. Weak disseminated EPI altn throughout interval. Felsic fragments have strong pink-white bleaching. Strongly magnetic. Unmineralized. Sharp lower contact with IGN. RQD 1126.60 - 1127.00 : 20.00 % RQD 100.00 % Core chl on breaks, 2-4cm spaced breaks						
1126.95	1168.20	IGN, Intermediate Gneiss IGN, locally grades into FGN and MGN. Cut by 5% drk grey SDBX. Felsic components display moderate disseminated pink KSPAR altn while mafic components are weakly EPI altered. Moderatly magnetic. Unmineralized. Several 20-50cm patches of moderate to strong disseminated EPI and HEM altn. Several small zones of broken ground with chl on most breaks. Gradational lower contact over 75cm with FLT. RQD 1161.40 - 1164.70 : 70.00 % RQD 100.00 % Core chl on breaks 1164.70 - 1168.20 : 50.00 % RQD 100.00 % Core chl and hem on breaks						

Hole Number: **NRD-067**

Units: METRIC

Detailed Lithology		Assay Data						
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %
1168.20	1168.75	<p>FLT, Fault Brittle FLT in IGN. Strongly KSPAR, CHL, EPI, KSPAR altered IGN cut by brittle FLT, only minor gouge. Unmineralized. Gradational lower contact over 50cm with FGN. Strongly broken ground.</p> <p>RQD 1168.20 - 1168.85 : 10.00 % RQD 100.00 % Core brittle fit zone</p>						
1168.75	1291.75	<p>FGN, Felsic Gneiss Medium-grained pink and grey leucocratic FGN, GRAN in composition. Moderate GN banding 25c.a. Cut by 6% 1-8cm wide dark grey SDBX veins. Weak to non-magnetic. Trace blebs of Cp from 1277.15-1279.7m, remainder is unmineralized. Sharp lower contact with MDIA.</p> <p>RQD 1168.85 - 1172.00 : 60.00 % RQD 100.00 % Core chl, epi on breaks 1172.00 - 1175.15 : 100.00 % RQD 100.00 % Core</p>						
1291.75	1293.00	<p>MDIA, Matachewan Diabase Fine-grained smokey grey MDIA. Only a few 1-2cm anhedral plag phenos but still are characteristic of MDIA. Moderate to strongly magnetic. Unmineralized. Sharp lower contact with SDBX/FGN.</p>						
1293.00	1301.00	<p>SDBX, Sudbury Breccia Well developed SDBX. 30% dark grey aphanitic matrix with 5-100cm FGN fragments. Unmineralized. Moderately magnetic. Sharp lower contact with MDIA.</p>						
1301.00	1305.35	<p>MDIA, Matachewan Diabase MDIA, same as MDIA above. Fine-grained smokey grey groundmass with a few 1-2cm anhedral plag phenos. Moderate to strongly magnetic. Unmineralized. Contains several 10-40cm FGN fragments. Sharp lower contact with FGN.</p>						
1305.35	1342.30	<p>FGN, Felsic Gneiss Typical looking coarse-grained leucocratic FGN, cut by 5% 1-10cm dark grey sdbx veins. Unmineralized. 1320-1321.1 core is twisted and stretched (little to no alteration on breaks). Sharp lower contact 25c.a. with DIA.</p>						
1342.30	1361.80	<p>DIA, Diabase Fine to medium-grained grey-black DIA. Moderate to strongly magnetic. Unmineralized. Sharp lower contact 30c.a. Several thin EPI stringers parallel to contact.</p>						
1361.80	1374.75	<p>FGN, Felsic Gneiss Medium to coarse-grained FGN to IGN. Moderate developed GN banding 10-50c.a. Cut by 3% 1-4cm wide SDBX veins. Unmineralized. Weak to non-magnetic. Sharp lower contact 30c.a. with DIA.</p>						
1374.75	1377.10	<p>DIA, Diabase Fine-grained green-black DIA. Strongly magnetic. Unmineralized. Sharp lower contact 45c.a. with FGN.</p>						

Hole Number: **NRD-067**

Units: METRIC

Detailed Lithology		Assay Data						
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %
1377.10	1532.90	<p>FGN, Felsic Gneiss</p> <p>Medium to coarse-grained FGN. Cut by 3% 1-4cm wide grey SDBX veins. Several 10-70cm DIA fragments. Weak to non-magnetic. Unmineralized. Weak to moderate disseminated pink KSPAR altn throughout. Strong salmon pink disseminated KSPAR and QTZ altn from 1385.3 to 1395.3m. Patchy disseminated EPI and thin EPI stringers throughout.</p> <p>Alteration</p> <p>1414.40 - 1487.90 :EP Epidote, H Patchy, W Weak</p> <p>1446.40 - 1475.90 :CHL Chlorite, F Fracture Controlled, W Weak</p> <p>RQD</p> <p>1413.00 - 1421.00 : 100.00 % RQD 100.00 % Core</p> <p>1421.00 - 1424.00 : 80.00 % RQD 100.00 % Core</p> <p>1424.00 - 1533.00 : 100.00 % RQD 100.00 % Core</p>						
1532.90	1541.10	<p>SDBX, Sudbury Breccia</p> <ul style="list-style-type: none"> - matrix comprises 10% - clasts dominated by FGN, minor - no sulphides visible - lower contact with DIA is gradational over 10cm <p>Texture</p> <p>1532.90 - 1541.10 : BX Brecciated</p> <p>Alteration</p> <p>1532.90 - 1541.10 :CHL Chlorite, F Fracture Controlled, W Weak</p> <p>RQD</p> <p>1533.00 - 1534.00 : 30.00 % RQD 100.00 % Core</p> <p>1534.00 - 1546.00 : 100.00 % RQD 100.00 % Core</p>						
1541.10	1552.50	<p>DIA, Diabase</p> <ul style="list-style-type: none"> - grey to black - moderately magnetic - no sulphides visible - lower contact with FGN was undulose at 70 DTCA <p>Texture</p> <p>1541.10 - 1552.50 : MG Medium Grained</p> <p>Alteration</p> <p>1541.10 - 1552.50 :CHL Chlorite, F Fracture Controlled, S Strong</p> <p>RQD</p> <p>1546.00 - 1552.00 : 80.00 % RQD 100.00 % Core</p> <p>1552.00 - 1565.00 : 100.00 % RQD 100.00 % Core</p>						

Hole Number: **NRD-067**

Units: METRIC

Detailed Lithology		Lithology	Assay Data					
From	To		Sample #	From	To	Length	Ni %	Cu %
1552.50	1618.30	FGN, Felsic Gneiss -white to grey - non-poorly magnetic - poorly developed fabric - no sulphides visible - minor patches of Qtz-He alteration 1570-1593m - lower contact with SDBX is undulose at 50 DTCA Texture 1552.50 - 1610.50 : GNS Gneissic 1552.50 - 1610.50 : MG Medium Grained Alteration 1563.00 - 1566.00 :HE Hematite, F Fracture Controlled, S Strong 1584.00 - 1593.00 :HE Hematite, H Patchy, S Strong 1566.00 - 1581.00 :HE Hematite, F Fracture Controlled, M Moderate Structure 1566.00 - 1570.00 : BLKY Blocky RQD 1565.00 - 1566.50 : 70.00 % RQD 100.00 % Core 1566.50 - 1570.00 : 10.00 % RQD 100.00 % Core 1570.00 - 1575.00 : 80.00 % RQD 100.00 % Core 1575.00 - 1698.00 : 100.00 % RQD 100.00 % Core						
1618.30	1629.20	SDBX, Sudbury Breccia - matrix comprises 12-15% - clasts dominated by FGN, minor DIA - sizes range 0.5-40cm - no sulphides visible - lower contact with FGN is gradational over 10cm Texture 1618.30 - 1629.20 : BX Brecciated Alteration 1618.30 - 1629.20 :HE Hematite, H Patchy, S Strong where present 1618.30 - 1629.20 :EP Epidote, FF Fracture Filling, M Moderate						

Hole Number: **NRD-067**

Units: METRIC

Detailed Lithology		Assay Data						
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %
1629.20	1698.00	FGN, Felsic Gneiss - white to grey - non-poorly magnetic - poorly developed fabric - no sulphides visible Texture 1629.20 - 1698.00 : GNS Gneissic 1629.20 - 1698.00 : MG Medium Grained Alteration 1645.00 - 1650.00 :K K-Feldspar, H Patchy, M Moderate						
1698.00	1698.01	EOH, End of Hole						

Samples

Sample #	From	To	Po %	Pn %	Cp %	Ni %	Cu %	Pt Gpt	Pd Gpt	Au Gpt	Ag Gpt	S %	Co %	Pb %	Rh Gpt	Ru Gpt	Os Gpt	Ir Gpt	Ni S %	Ni Eq	Cu Eq
Sample Type	ASSAY																				
NRD-067-001	957.00	958.50				0.03	0.03	0.01	0.01	0.01	0.25	0.11	.010						0	0.05	0.17
NRD-067-002	958.50	960.00				0.03	0.03	0.01	0.01	0.01	0.25	0.16	.010						0	0.05	0.17
NRD-067-003	960.00	961.45				0.03	0.03	0.02	0.01	0.01	0.25	0.81	.010						0	0.06	0.20
NRD-067-004	961.45	963.00				0.49	0.11	0.03	0.04	0.01	0.25	9.48	.040						0	0.57	1.94
NRD-067-005	963.00	964.50				0.39	0.23	0.06	0.04	0.02	0.90	7.72	.040						0	0.54	1.84
NRD-067-006	964.50	966.00				0.33	0.17	0.03	0.05	0.03	0.25	6.41	.040						0	0.44	1.49
NRD-067-007	966.00	967.50				0.21	0.09	0.03	0.05	0.01	0.25	3.81	.010						0	0.29	0.97
NRD-067-008	967.50	969.00				0.29	0.29	0.04	0.04	0.01	0.70	5.27	.030						0	0.43	1.48
NRD-067-009	969.00	970.50				0.24	0.22	0.03	0.05	0.01	0.60	4.04	.010						0	0.36	1.22
NRD-067-010	970.50	972.20				0.41	0.37	0.06	0.06	0.02	1.00	7.36	.020						0	0.61	2.07
NRD-067-011	972.20	973.50				0.03	0.03	0.01	0.01	0.01	0.25	0.42	.010						0	0.05	0.17
NRD-067-012	973.50	975.00				0.03	0.03	0.01	0.01	0.01	0.25	0.07	.010						0	0.05	0.17
NRD-067-013	975.00	976.50				0.03	0.03	0.01	0.01	0.01	0.25	0.06	.010						0	0.05	0.17
NRD-067-014	976.50	978.00				0.03	0.03	0.01	0.01	0.01	0.25	0.10	.010						0	0.05	0.17
NRD-067-015	978.00	979.50				0.03	0.03	0.01	0.01	0.01	0.25	0.04	.010						0	0.05	0.17
NRD-067-016	1035.50	1036.50				0.03	0.03	0.01	0.02	0.02	0.25	0.32	.010						0	0.06	0.20
NRD-067-017	1036.50	1037.85				0.03	0.06	0.01	0.01	0.01	0.25	0.53	.010						0	0.06	0.21
NRD-067-018	1037.85	1038.40				1.42	2.07	0.10	0.43	0.04	5.00	7.07	.010						0	2.31	7.89
NRD-067-019	1038.40	1040.00				0.03	0.03	0.01	0.01	0.01	0.25	0.15	.010						0	0.05	0.17
NRD-067-020	1040.00	1041.50				0.03	0.03	0.01	0.01	0.01	0.25	0.07	.010						0	0.05	0.17
NRD-067-021	1041.50	1043.00				0.24	0.12	0.01	0.01	0.01	0.25	0.26	.040						0	0.29	1.00
NRD-067-022	1043.00	1043.70				0.03	0.10	0.01	0.01	0.01	0.25	0.38	.010						0	0.07	0.25
NRD-067-023	1043.70	1044.00				0.03	0.03	0.03	0.07	0.01	0.25	3.63	.010						0	0.09	0.30
NRD-067-024	1044.00	1044.70				0.03	0.06	0.01	0.01	0.04	0.25	0.62	.010						0	0.07	0.25

Hole Number: **NRD-067**

Units: METRIC

Samples

Sample #	From	To	Po %	Pn %	Cp %	Ni %	Cu %	Pt Gpt	Pd Gpt	Au Gpt	Ag Gpt	S %	Co %	Pb %	Rh Gpt	Ru Gpt	Os Gpt	Ir Gpt	Ni S %	Ni Eq	Cu Eq
Sample Type ASSAY																					
NRD-067-026	1044.70	1045.00				1.41	5.16	0.33	0.90	0.07	15.90	29.10	.060						0	3.65	12.47
NRD-067-027	1045.00	1045.30				0.59	2.78	0.07	0.12	0.02	8.00	5.13	.010						0	1.57	5.36
NRD-067-028	1045.30	1046.80				0.03	0.17	0.03	0.04	0.02	1.00	0.46	.010						0	0.13	0.44
NRD-067-029	1046.80	1047.90				0.03	0.16	0.02	0.03	0.03	0.90	0.37	.010						0	0.12	0.41
Sample Type PULP_DUI																					
NRD-067-020PD	1040.00	1041.50				0.03	0.03	0.02	0.01	0.01	0.25	0.08	.010							0.06	0.20