APPENDIX B

Geological and Geotechnical

Drill Logs 1-44 - Volume 2 of 3

Noranda Minerals Wisconsin Corp.

LYNNE PROJECT

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(p. 141 – 210)

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
600.00											because of dacite inclusion in pRd @ 597.5								
	100	100																	
607.00																			
	100	95																	
608.50																			
	100	100																	
											Note: @ 611.5-615.0 Sheared Interval								
617.50										R1	^^ 615.0 705.0 Rhyolite Lapilli Tuff, altered like @ 574.0-592.8 in places								
	100	100																	
627.00																			
	99	95																	
631.50																			
	99	95																	
637.00																			
	99	95																	
645.00																			
	100	100																	
654.00																			
	100	100																	
662.00																			
	99	90																	
669.00											^^ 668.5 670.0 Plag-phyric Mafic								
	100	100																	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
677.00																			
	100	100																	
682.00																			
	100	100																	
684.50																			
	100	100																	
687.00																			
	100	100																	
691.00																			
	100	95									Note: @ 691.0-695.0 Fault Zone, with gouge and breccia								
693.80																			
	100	100																	
697.00																			
	99	70																	
700.00																			
	100	95																	
703.70																			
	100	95																	
707.00										RIb	^^ 705.0 721.5 Lithic Breccia								
	100	95																	
709.00																			
	100	95																	
710.00																			
	100	100																	
717.00																			
	100	100																	
718.00																			
	100	100							-20C	Md	^^ 721.5 736.8 Mafic Dike or Flow								
											Note: @ 723.0-732.0 Plag-phyric								
727.00																			
	100	100																	
727.60																			
	100	100																	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol -50C	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
736.60										Rcl	^^ 736.8 768.5 Rhyolite Crystal Lapilli Tuff								
	100	100																	
737.00																			
	100	100																	
742.10																			
	100	100																	
746.00																			
	100	100																	
747.00																			
	100	100																	
757.00																			
	100	95																	
767.00										IR	^^ 768.5 785.4 Rhyolite Porphyry Sill/ Intrusive Rhyolite, pinkish-grey, granophyric								
	100	95																	
777.00																			
	100	100																	
787.00										pR	** 785.4 796.0 PORPHYRITIC RHYOLITE, plag-phyric, with blue quartz eyes, and chilled margins								
	100	90																	
797.00										SL	** 796.0 850.6 SILTSTONE								
	100	95																	
803.00																			
	100	100																	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
813.00									-60B										
	100	100									^^ 815.0 835.0 Regularly laminated with chert interbeds								
817.00																			
	100	100																	
									-60B		Note: @ 819.0-821.5 Crystal-rich debris flow								
									-60B										
827.00																			
	100	100																	
837.00																			
	100	100																	
847.00																			
	100	100																	
847.50																			
	100	100								R	** 850.6 882.0 RHYOLITE, grey, granophyric, possible brecciated flow, top and crystal-rich base								
856.50																			
	100	100																	
857.00																			
	100	100																	
865.00																			
	100	100																	
867.00																			
	100	100																	
874.50																			
	100	100																	
877.00																			
	100	100																	
										SL,lm	** 882.0 914.5 SILTSTONE, laminated								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
883.50																				
	100	100										with magnetite								
887.00																				
	100	100																		
892.50																				
	100	100																		
897.00																				
	99	95																		
907.00																				
	100	95																		
											R	** 914.5 957.0 RHYOLITE TUFF								
											pR	^^ 914.5 922.0 Rhyolite Porphyry Sill or Flow, embayed upper contact								
917.00																				
	99	95																		
922.00																				
	100	100									Rl,ch	^^ 922.0 933.0 Rhyolite Flow, granophyric patches								
932.00																				
	100	100																		
933.50																				
	100	100										^^ 933.0 957.0 Flow, sericitic alteration, chert interbeds @ 955.0-957.0								
937.00																				
	100	90																		
947.00																				
	100	95	R3	b	5	3														
				b	20															
				c	40															
955.50				b																

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
	100	100	R3	a	5	2														
957.00					40						SL	** 957.0 989.0 SILTSTONE, with disseminated sulfides, alteration	b				2	5		7
	100	85	R3	a	5	2							b				2	5		7
				a	40								b				2	5		7
				a									b				2	5		7
965.80				a									b				2	5		7
	100	100	R3	b	5	2							b				2	5		7
967.00					40								b				2	5		7
	100	100	R3	a	10	3							b				2	5		7
				a	40								b				2	5		7
				a	60						BP	^^ 973.0 980.0 Bedded Pyrrhotite, with sulfides	b				2	5		7
976.00				c									b				2	5		7
	100	100	R2	c		0							d	3			5	25		33
977.00													d	3			5	25		33
	98	85	R2	c	40	2						Note: @ 980.0-989.0 Siltstone with disseminated sulfides, alteration	d	3			5	25		33
				c	60								d	3			5	25		33
				c									b				1	5		6
986.20				b									b				1	5		6
	100	100	R2	c	20	2							b				1	5		6
987.00					40								b				1	5		6
	100	95	R2	c	10	2					CS	** 989.0 993.5 "OOLITIC" CALCAREOUS SEDIMENT, with magnetite @ base	b				1	5		6
				c	40								b				1	5		6
				c																
				b							D	** 993.5 1036.5 DACITE								
				a																
997.00																				
	100	100	R4	a	10	3														
				b	30															
				b	50															
				a																
1007.00				b																
	100	100	R4	b	10	3														
				a	30															
				a	50															
				b																
1017.00				b																
	100	100	R4	a	20	3														
				a	40															
				b	60															
				a																

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T)

% A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	RF	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
1027.00				b																
	100	100	R4	b	15	3														
				b	40															
				c	60															
				c																
1037.00				c							BPM	** 1036.5 1053.5 BEDDED TO MASSIVE MAGNETITE & PYRRHOTITE							
	100	100	R3	c	5	2							d					30		30
				c	40								d					30		30
				c									d					30		30
				c									d					30		30
1047.00				c									d					30		30
	100	100	R3	c	5	2							d					30		30
				c									d					30		30
				b	30								d					30		30
1053.50				c									d					30		30
	100	100	R3	c	5	2					CS	** 1053.5 1076.5 CALCAREOUS SEDIMENT, contorted to chootic	d					30		30
				c	30															
				c																
				c																
1063.50				c																
	100	100	R3	c	5	2														
1067.00				c	30															
	100	100	R3	c	5	2														
				c	40															
				c																
				c																
1077.00				c							TS	** 1076.5 1093.5 TALCOSE SEDIMENT, with sulfide								
	100	95	R2	c	15	2							b	5				2		7
				c	50								b	5				2		7
				c									b	5				2		7
				c									b	5				2		7
1087.00				b									b	5				2		7
	99	85	R2	b	10	2							b	5				2		7
				a	30								b	5				2		7
1094.00				a									b	5				2		7
	100	100	R2	c	40	1					BP,1	** 1093.5 1107.0 BEDDED PYRRHOTITE, laminated, some talc	b	5				2		7
				c																
				c																
				c																
1103.50				c																
	100	100	R2	c	40	1														

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
1107.00				c							ChT,l	** 1107.0 1147.0 CHERTY TUFF, Laminated, with pyrite, and pyrrhotite								
	100	95	R2	b	25	2														
				b	45															
1113.00				b																
	100	90	R3	c	10	1														
				c																
				c																
1122.50				d																
	100	90	R3	d	5	2														
				c	25															
				b																
				c																
				d																
1133.00				d																
	100	95	R3	c	5	2														
1137.00				c	30															
	100	95	R3	b	5	2														
1141.60					40															
	100	85	R3	b	5	2														
				b	40															
1147.00				b																
	100	100	R2	b	10	2					W	** 1147.0 1172.0 WACKE								
1150.60				b	60															
	100	70	R2	c	5	2														
				c	60															
				b																
1157.00				b																
	100	100	R3	b	5	2														
1159.00					20															
	99	50																		
1160.60																				
	100	100																		
1167.40																				
	100	100																		
											Ra	** 1172.0 1203.0 RHYOLITE, ashy, silicified tuff with lapilli-rich base								
1177.00																				

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	% 99	RQD 40	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
1183.00																			
	99	crush																	
1184.10																			
	99	65																	
1187.00																			
	99	45									Note: @ 1187.0 Spherulitic Rhyolite								
1193.00																			
	99	65																	
1197.00																			
	99	40																	
1203.00																			
	99	crush								0	** 1203.0 1240.0 DACITE ?, no lithics, small plag crystals, but silicified, especially along fractures								
1205.00																			
	99	60																	
1208.00																			
	99	crush																	
1209.00																			
	99	50																	
1212.00																			
	99	crush																	
1212.60																			
	99	50																	
1216.00																			
	99	50																	
1222.00																			
	99	45																	
1227.50																			
	99	70																	
1230.00																			
	100	90																	
1233.50																			
	100	100																	
1237.00																			
	100	95																	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
1238.50																			
	100	100								R	** 1240.0 1445.0 RHYOLITE								
										R1	^^ 1240.0 1269.5 Rhyolite Lapilli Tuff, with blue quartz eyes and white cherty or porcelainite clasts								
1247.00																			
	100	95																	
1255.00																			
	99	90																	
1262.00																			
	99	90																	
										Rc	^^ 1269.5 1372.0 Predominantly Rhyolite Crystal Tuff, with broken blue quartz eyes and fragments, glassy matrix, looks spherulitic								
1272.00																			
	100	100																	
1274.00																			
	100	100																	
1277.00																			
	100	100																	
1278.60																			
	100	100																	
1279.50																			
	100	100																	
1287.00											Note: @ 1285.0-1295.0 Lapilli-sized clasts of chert/porcelainite								
	100	100																	
1288.50																			
	99	90																	
1297.50																			
	99	90																	

ORIGINAL

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T)
% A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
1306.00																			
	100	100																	
1307.00																			
	100	95																	
1315.00																			
	100	95																	
1317.00																			
	100	95																	
1319.00																			
	100	90																	
1323.50																			
	100	95																	
1327.00																			
	100	100																	
1333.00																			
	100	95																	
1337.00																			
	99	90									Note: @ 1339.0-1343.0 Lapilli-sized chert clasts								
1347.00																			
	99	80																	
1352.00																			
	95	10																	
1354.50																			
	95	10																	
1357.00																			
	100	85																	
1365.50																			
	99	90																	
										Ra	^^ 1372.0 1399.0 Predominantly fine-								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T)

% A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
1374.50											grained ash tuff, glassy matrix, tiny broken crystals, looks spherulitic								
	98	10																	
1377.00																			
	99	80																	
1382.00																			
	98	40																	
1387.00																			
	98	10																	
1388.50																			
	100	80																	
1393.00																			
	100	100																	
1397.00																			
	99	50								R1	^^ 1399.0 1445.0 Rhyolite Lapilli Tuff, white angular clasts (rhyolite), looks like a collapse breccia in places. Bedding at 70 degrees, graphite (?) in matrix								
1402.50																			
	100	90																	
1407.00																			
	99	95																	
1411.50																			
	100	95																	
1417.00																			
	100	100																	
1420.50																			
	100	100																	
1427.00																			
	100	100																	
1429.00																			
	99	95																	
1437.00																			
	100	100																	
1438.00																			

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T)

% A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	RF	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										D	** 1445.0 1461.5 DACITE, dark grey, fine-grained, no obvious crystals								
										R	** 1461.5 1492.0 RHYOLITE, fine-grained, ashy, looks spherulitic								
											** 1492.0 1525.6 DACITE, fracturing increasing toward base, fractures have pyrite and talc/serpentinite and are carb-filled toward base								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T)

% A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										Rc	** 1525.6 1535.4 RHYOLITE CRYSTAL TUFF, blue quartz eyes								
										D	** 1535.4 1564.0 DACITE								
											^^ 1547.3 1550.0 Carbonate Alteration, (brown)								
											^^ 1555.0 1561.0 Increased fracturing talc/serpentinite along fractures with amphibole alteration								
											** 1564.0 1600.0 RHYOLITE CRYSTAL TUFF, blue quartz eyes, glassy matrix, looks spherulitic in places								
										R	** 1600.0 1738.7 RHYOLITE OR QUARTZ								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
											DIORITE DIKELETS, granophyric, and hornfelsed rhyolite tuff								
										gQD	^^ 1600.0 1645.0 Quartz Diorite, Granophyric								
											^^ 1645.0 1651.0 Hornfelsed								
										gQD	^^ 1651.0 1657.0 Quartz Diorite, Granophyric								
											^^ 1657.0 1686.0 Hornfelsed Tuff, with some gQD material along fractures								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T)
% A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
									-20C		^^ 1686.0 1711.0 Predominantly Dike material, dike material is white, with some ghost quartz eyes, granophyric and fractured								
											^^ 1711.0 1738.7 Hornfelsed Tuff								
									-60C	QD	** 1738.7 1757.1 QUARTZ DIORITE								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
									-40C		** 1757.1 1841.0 PREDOMINANTLY HORNFELSED TUFF, with quartz diorite dikes								
									-30C		Note: @ 1764.0 Quartz Diorite Dike								
									-70C		Note: @ 1771.0 Quartz Diorite Dike-6"								
									-40C		Note: @ 1777.0 Quartz Diorite Dike-1'								
									-25C		Note: @ 1798.0 Quartz Diorite Dike-4'								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-56

SULFIDES: (T)
% A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
										QD	** 1841.0 1878.5 QUARTZ DIORITE								
											E.O.H. 1878.5' (total depth)								

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	176.1	-62.4
200'	175.9	-62.8
300'	175.9	-63.1
400'	177.7	-62.9
556'	179.1	-63.4

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: A. Zielinski/T. Harding
DATE COLLARED: 1-17-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-57 (WDNR #211)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 1-19-90

DATE: 11-8-91
PAGE 1 OF 9

BEARING: S178.3E INCLINATION: -62.7 T.D: 556'
COORDINATES: L10400 E, 10730 N
ELEV: 1560.2' SEC: 15 TWP: 37N RANGE: 4E

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
0.0 48.0			** 0.0 48.0 OVERBURDEN	
48.0 52.5	(not recovered)			
48.0 99.2		R	** 48.0 99.2 RHYOLITE	
48.0 65.0		IR	^^ 48.0 65.0 Intrusive Rhyolite	
65.0 99.2		Wq	^^ 65.0 99.2 Quartz Wacke	
99.2 123.0		Sk	** 99.2 123.0 CALCSILICATE ALTERATION	
123.0 211.0		CS	** 123.0 211.0 CALCAREOUS SEDIMENTS	99.2 123.0 3% Sulfides
211.0 231.0		Sks	** 211.0 231.0 CALCSILICATE ALTERATION, With Sulfides	
321.0 236.0		X	** 231.0 236.0 TUFFITE	211.0 231.0 6% Sulfides
236.0 247.0		Sks	** 236.0 247.0 CALCSILICATE ALTERATION, With Sulfides	
247.0 255.5		X	** 247.0 255.5 TUFFITE	
255.5 259.0		Skg	** 255.5 259.0 CALCSILICATE ALTERATION, With Graphite	

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	176.1	-62.4
200'	175.9	-62.8
300'	175.9	-63.1
400'	177.7	-62.9
556'	179.1	-63.4

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: A. Zielinski/T. Harding
DATE COLLARED: 1-17-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-57 (WDNR #211)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 1-19-90

BEARING: S178.3E INCLINATION: -62.7 T.D: 556'
COORDINATES: L10400 E, 10730 N
ELEV: 1560.2' SEC: 15 TWP: 37N RANGE: 4E

DATE: 11-8-91
PAGE 1 OF 9

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
259.0 285.0		X	** 259.0 285.0 TUFFITE	
285.0 296.0		MS	** 285.0 296.0 MASSIVE SULFIDE	
296.0 312.0		X	** 296.0 312.0 TUFFITE	
301.0 303.4		MS	^^ 301.0 303.4 Massive Sulfide	
312.0 323.5		Rtz	** 312.0 323.5 RHYOLITE TUFF, With Sulfide Stringers	
323.5 333.0		X	** 323.5 333.0 TUFFITE	
333.0 342.0		TS	** 333.0 342.0 TALCOSE SEDIMENTS	
342.0 375.0		Rt,tp	** 342.0 375.0 RHYOLITE TUFF, Talcose, Pyrrhotite Rich	
360.0 365.0		Chp	^^ 360.0 365.0 Chert, With Pyrrhotite	
375.0 445.8		D	** 375.0 445.8 DACITE	
445.8 451.0		TSp	** 445.8 451.0 TALC SEDIMENT, With Pyrrhotite	
451.0 457.0		D	** 451.0 457.0 DACITE	

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	176.1	-62.4
200'	175.9	-62.8
300'	175.9	-63.1
400'	177.7	-62.9
556'	179.1	-63.4

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: A. Zielinski/T. Harding
DATE COLLARED: 1-17-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-57 (WDNR #211)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 1-19-90

BEARING: S178.3E INCLINATION: -62.7 T.D: 556'
COORDINATES: L10400 E, 10730 N
ELEV: 1560.2' SEC: 15 TWP: 37N RANGE: 4E

DATE: 11-8-91
PAGE 1 OF 9

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
457.0 461.0		gQD	** 457.0 461.0 GRANOPHYRIC QUARTZ DIORITE	
461.0 467.0		TS	** 461.0 467.0 TALC SEDIMENT	
467.0 485.0		Rc	** 467.0 485.0 RHYOLITE CRYSTAL TUFF	
485.0 556.0		gQD	** 485.0 556.0 QUARTZ DIORITE	
			E.O.H. 556' (total depth)	

DRILL HOLE: LYN91-57

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
0.0 48.0											** 0.0 48.0 OVERBURDEN								
											^^ 0.0 2.0 Muskeg								
											^^ 2.0 30.0 Fine sand								
											^^ 30.0 40.0 Silty sand								
											^^ 40.0 43.0 Sand and gravel								
											^^ 43.0 45.0 Boulders								
											^^ 45.0 48.0 Sand, gravel, and cobbles								
										R	** 48.0 99.2 RHYOLITE								
50.00										IR	^^ 48.0 65.0 Intrusive Rhyolite, bleached base								
	99	90	R4	a	35	2													
53.00					75														
	99	95	R4	a	10	3													
				a	30														
				a	70														
				a															
63.00				a															
	99	90	R4	a	5	2				Wq	^^ 65.0 99.2 Quartz Wacke, blue quartz eyes, some clasts contain sulfides								
				b	35														
				c															
				b															
73.00				c															
	100	95	R3	c	5	2													
				b	40														
				d															
				c															
83.00				b															
	99	90	R3	b	5	2													
				b	30														
				b															
				b															
93.00				c															

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-57

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	I
	99	95	R3	d	10	3														
				c	30															
				b	45						Sk	** 99.2 123.0 CALCSILICATE ALTERATION, garnet, epidote, diopside, magnetite, and pyrrhotite								
				b																
103.00				b																
	100	95	R3	b	35	2														
				b	50															
				b																
				b																
113.00				b																
	100	95	R2	b	20	2							c	1	2		7	3		13
				c	45								c	1	2		7	3		13
				b									c	1	2		7	3		13
				b									c	1	2		7	3		13
123.00				b									c	1	2		7	3		13
	99	100	R2	b	20	2					CS	** 123.0 211.0 CALCAREOUS SEDIMENTS, contorted bedding, short areas of tuffaceous texture	c	1	2		7	3		13
				b	40								a				2	1		3
				b									a				2	1		3
				b								Note: @ 123.0-139.0 Green mineralization	a				2	1		3
133.00				b									a				2	1		3
	99	90	R2	b	5	3							a				2	1		3
				b	20								a				2	1		3
				b	45							Note: @ 139.0-156.0 Brown/red mineralization	a				2	1		3
				b									a				2	1		3
143.00				b									a				2	1		3
	100	100	R2	a	25	2							a				2	1		3
				b	40								a				2	1		3
				b									a				2	1		3
				b									a				2	1		3
153.00				b									a				2	1		3
	100	100	R2	b	5	3						Note: @ 156.0-211.0 Brown/green/yellow mineralization, entire section hornfelsed sphalerite	a				2	1		3
				b	25								a				2	1		3
				b	45								a				2	1		3
				c									a				2	1		3
163.00				c									a				2	1		3
	100	100	R2	c	20	2							a				2	1		3
				c	50								a				2	1		3
				c									a				2	1		3
				c									a				2	1		3
173.00				c									a				2	1		3

DRILL HOLE: LYN91-57

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
	100	100	R2	c	10	2							a				2	1		3
				c	40								a				2	1		3
				c									a				2	1		3
				c									a				2	1		3
183.00				c									a				1	2		3
	100	100	R2	c	10	2							a				1	2		3
				c	40								a				1	2		3
				c									a				1	2		3
				c									a				1	2		3
193.00				c									a				1	2		3
	100	100	R2	c	30	2							a				1	2		3
				b	55								a				1	2		3
				b									a				1	2		3
				b									a				1	2		3
203.00				c									a				1	2		3
	100	100	R2	b	30	2							a				1	2		3
				c	60								a				1	2		3
				c									a				1	2		3
				c							Sks	** 211.0 231.0 CALCSILICATE ALTERATION,	a				1	2		3
213.00				b								highly fractured, amber sphalerite	c	3	2	1	3	4		13
	99	95	R2	a	10	2							c	3	2	1	3	4		13
				a	40								c	3	2	1	3	4		13
				a									c	3	2	1	3	4		13
				a									c	3	2	1	3	4		13
223.00				b									c	3	2	1	3	4		13
	98	80	R2	c	10	3							c	3	2	1	3	4		13
				c	30								c	3	2	1	3	4		13
				c	50								c	3	2	1	3	4		13
				c							X	** 231.0 236.0 TUFFITE, galena rich	c	3	2	1	3	4		13
233.00				c									d	9	4	10	3	4		30
	100	100	R2	c	10	2					Sk	** 236.0 247.0 CALCSILICATE ALTERATION,	d	9	4	10	3	4		30
				c	30							native silver, contorted bedding	b	4	1		2	2		9
				c									b	4	1		2	2		9
				c									b	4	1		2	2		9
243.00				c									b	4	1		2	2		9
	100	100	R2	c	10	2							b	4	1		2	2		9
				c	30						X	** 247.0 255.5 TUFFITE, amber sphalerite,	b	4	1		2	2		9
				c								galena at base	c	4	4	2		3		13
				c									c	4	4	2		3		13
253.00				c									c	4	4	2		3		13

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-57

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
	100	100	R2	c	30	2					Skg	** 255.5 259.0 CALCSILICATE ALTERATION,	c	4	4	2		3		13
				b	60							severely brecciated, graphite								
				b																
				b							X	** 259.0 285.0 TUFFITE, galena rich	c	4	4	6	3	4	21
				c									c	4	4	6	3	4	21
263.00													c	4	4	6	3	4	21
	98	80	R2	b	20	3							c	4	4	6	3	4	21
				b	40								c	4	4	6	3	4	21
				b	60								c	4	4	6	3	4	21
				a									c	4	4	6	3	4	21
273.00				a									c	4	4	6	3	4	21
	98	90	R2	a	20	3							c	4	4	6	3	4	21
				c	40								c	4	4	6	3	4	21
				b	60								c	4	4	6	3	4	21
				c									c	4	4	6	3	4	21
283.00				c									c	4	4	6	3	4	21
	100	90	R3	c	20	2					MS	** 285.0 296.0 MASSIVE SULFIDE, amber	c	4	4	6	3	4	21
				c	40							sphalerite	e	25	4	6	3	9	47
				c									e	25	4	6	3	9	47
				c									e	25	4	6	3	9	47
293.00				c									e	25	4	6	3	9	47
	99	85	R2	c	20	2					X	** 296.0 312.0 TUFFITE	e	25	4	6	3	9	47
				b	40								c	4	6	2	8	3	23
298.00				b									c	4	6	2	8	3	23
	99	90	R2	c	20	2					MS	^^ 301.0 303.4 Massive Sulfide, contorted	c	4	6	2	8	3	23
				c	40							bedding, amber sphalerite	e	26	3	9	2	6	46
				c									c	11	2	3	3	6	25
305.00				c									c	11	2	3	3	6	25
	99	75	R2	c	20	2							c	11	2	3	3	6	25
310.00				c	40								c	11	2	3	3	6	25
	100	95	R2	c	10	2					Rtz	** 312.0 323.5 RHYOLITE TUFF, sulfide	c	11	2	3	3	6	25
				c	40							stringers	c	4	3	1		2	10
				c									c	4	3	1		2	10
				c									c	4	3	1		2	10
320.00				c									c	4	3	1		2	10
	100	95	R2	c	10	2							c	4	3	1		2	10
				c	30						X	** 323.5 333.0 TUFFITE	c	4	3	1		2	10
				c									c	7	3	4	2	4	20
327.50				c									c	7	3	4	2	4	20
	99	90	R2	b	20	2							c	7	3	4	2	4	20

DRILL HOLE: LYN91-57

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: % (T)

A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				b	40								c	7	3	4	2	4		20
				b							TS	** 333.0 342.0 TALCOSE SEDIMENTS	c	7	3	4	2	4		20
				b									b	4			2			6
338.00				b									b	4			2			6
	100	95	R2	c	15	2							b	4			2			6
				c	40						Rt,tp	** 342.0 375.0 RHYOLITE TUFF, talcose,	b	4			2			6
343.00				c								with pyrrhotite	b					7		7
	100	100	R3	c	15	2							b					7		7
				c	30								b					7		7
				c									b					7		7
				c									b					7		7
353.00				c			TAH started logging						b					7		7
	100	100	R3	c	15	2 @ 353'							b					7		7
				c	30								b					7		7
				c							Chp	^^ 360.0 365.0 Chert, with pyrrhotite,	b					7		7
				c								laminated, withbedded sulfides	b					7		7
363.00				c									b					7		7
	100	95	R3	c	15	2							b					7		7
				c	50								b					7		7
				c									b					7		7
				c									b					7		7
373.00				b									b					7		7
	100	95	R2	b	15	2						** 375.0 445.8 DACITE, fine-grained	b					7		7
				c	50															
				c								Note: @ 375.0 389.0 Pyrite/Pyrrhotite,								
				b								rich in fracture, dark grey								
383.00				b																
	100	100	R3	a	15	2														
				a	55							Note: @ 389.0 410.0 Altered calcite and								
				b								chert in fractures, medium grey								
				b																
393.00				a																
	100	100	R3	a	25	2														
				a	55															
				a																
				a																
403.00				a																
	100	100	R3	a	20	3														

DRILL HOLE: LYN91-57

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				a	40															
				a	55							Note: @ 410.0 419.0 Fine-grained, medium grey								
				a																
413.00				a																
	100	100	R3	a	20	3														
				a	40															
				b	65							Note: @ 419.0 434.0 Plag-phyric, dark grey								
				a																
423.00				a																
	99	95	R3	a	20	3														
				a	40															
				a	60															
				a																
433.00				a								Note: @ 434.0 445.8 Dark grey, fine-grained								
	100	90	R3	a	20	3														
				a	40															
				a	60															
				a																
443.00				a																
	100	90	R2	b	15	2					TSp	** 445.8 451.0 TALC SEDIMENT, with pyrrhotite, and stringer sulfides	b	6	2		14		22
				c	30								b	6	2		14		22
				c									b	6	2		14		22
				c							D	** 451.0 457.0 DACITE, fine-grained	b	6	2		14		22
453.00				c																
	100	95	R2	b	15	2														
				b	30						gQD	** 457.0 461.0 GRANOPHYRIC QUARTZ DIORITE								
				c																
												Note: @ 457.0-458.0 Alteration zone								
				b						-42C	TS	** 461.0 467.0 TALC SEDIMENT								
463.00				b																
	100	95	R2	c	15	2														
				c	40						Rc	** 467.0 485.0 RHYOLITE CRYSTAL TUFF, hornfelsed, scattered quartz diorite sills								
				c																
				c																
473.00				c																
	100	90	R3	c	15	2														
				c	40															
				c																
				c																

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-57

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
483.00				b																
	100	95	R3	c	15	2					QD	** 485.0 556.0 QUARTZ DIORITE								
				c	40															
				c							gQD	^^ 485.0 491.0 Granophyric Quartz Diorite								
				c																
				c																
493.00																				
	100	95	R3	c	15	1														
				c																
				c																
				c																
503.00				c																
	100	100	R3	c	30	2														
				c	60															
				c																
				c																
513.00				c																
	100	100																		
523.00																				
	100	95																		
533.00																				
	100	100																		
543.00																				
	100	100																		
553.00																				
	100	100																		
556.00												E.O.H. 556' (total depth)								

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	180.7	-62.2
200'	181.5	-62.0
300'	181.8	-62.0
400'	182.4	-62.2
571'	184.0	-62.1

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: A. Zelinski/T. Harding
DATE COLLARED: 1-19-91
REMARKS: TAH started logging @ 375'
CORE SIZE: NQ

HOLE NO: LYN91-58 (WDNR #212)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 1-22-91

BEARING: S178.8E INCLINATION: -63.1 T.D: 571'
COORDINATES: L10400 E, 10840 N
ELEV: 1560.1' SEC: 15 TWP: 37N RANGE: 4E

DATE: 12-5-91
PAGE 1 OF 9

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
0.0 55.0			><< 0.0 55.0 OVERBURDEN	
55.0 57.0	(not recovered)			
55.0 112.3		R	><< 55.0 112.3 RHYOLITE	
55.0 72.0		pRd	^^ 55.0 72.0 Porphrytic Rhyolite Dike ?	
72.0 103.8		Wq	^^ 72.0 103.8 Quartz Wacke	
103.8 112.3		Wa	^^ 103.8 112.3 Agglomerate	
112.3 119.0		CS	><< 112.3 119.0 CALCAREOUS SEDIMENTS	
119.0 128.8		MS,p	><< 119.0 128.8 MASSIVE SULFIDE, Pyrrhotite Rich	
128.8 133.7		Xca	><< 128.8 133.7 TUFFITE, Calcareous	
133.7 188.5		R	><< 133.7 188.5 RHYOLITE	
133.7 166.5		Wq	^^ 133.7 166.5 Quartz Wacke	
166.5 183.5		Wl	^^ 166.5 183.5 Lapilli Wacke	
183.5 188.5		Rcb	^^ 183.5 188.5 Rhyolite Crystal Tuff, Brecciated	
188.5 207.0		X,Ch	><< 188.5 207.0 INTERBEDDED CHERT AND TUFFITE	
207.0 234.4		Rc,Ch	><< 207.0 234.4 INTERBEDDED CHERT, AND RHYOLITE CRYSTAL TUFF	

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	180.7	-62.2
200'	181.5	-62.0
300'	181.8	-62.0
400'	182.4	-62.2
571'	184.0	-62.1

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: A. Zielinski/T. Harding
DATE COLLARED: 1-19-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-58 (WDNR #212)

DATE: 11-8-91
PAGE 1 OF 9

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 1-22-91

BEARING: S178.8E INCLINATION: -63.1 T.D: 571'
COORDINATES: L10400 E, 10840 N
ELEV: 1560.1' SEC: 15 TWP: 37N RANGE: 4E

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
234.4 244.4		Sk	** 234.4 244.4 SKARN	
244.4 254.8		X,Sk	** 244.4 254.8 TUFFITE	
254.8 273.8		MSt	** 254.8 273.8 MASSIVE SULFIDE, Tuffaceous	
273.8 278.0		Rc	** 273.8 278.0 RHYOLITE CRYSTAL TUFF	
278.0 317.0		Xch	** 278.0 317.0 TUFFITE, Cherty	
317.0 325.8		Rc	** 317.0 325.8 RHYOLITE CRYSTAL TUFF	
325.8 337.2		Sks	** 325.8 337.2 SKARN, With Sulfides	
337.2 352.8		SL	** 337.2 352.8 SILTSTONE	
352.8 376.0		Wq	** 352.8 376.0 QUARTZ WACKE	
376.0 382.0		Ch	** 376.0 382.0 CHERT, With Pyrrhotite	

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	180.7	-62.2
200'	181.5	-62.0
300'	181.8	-62.0
400'	182.4	-62.2
571'	184.0	-62.1

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: A. Zielinski/T. Harding
DATE COLLARED: 1-19-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-58 (WDNR #212)

DATE: 11-8-91
PAGE 1 OF 9

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 1-22-91

BEARING: S178.8E INCLINATION: -63.1 T.D: 571'
COORDINATES: L10400 E, 10840 N
ELEV: 1560.1' SEC: 15 TWP: 37N RANGE: 4E

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
382.0 401.5		SS	** 382.0 401.5 SANDSTONE	
401.5 407.0		Ch	** 401.5 407.0 CHERT	
407.0 414.5		TS	** 407.0 414.5 TALC SEDIMENT	
414.5 436.0		SS	** 414.5 436.0 SANDSTONE	
436.0 437.0		Chp	** 436.0 437.0 CHERT	
437.0 472.0		SS	** 437.0 472.0 SANDSTONE	
472.0 476.0		Chp	** 472.0 476.0 CHERT	
476.0 496.0		R	** 476.0 496.0 RHYOLITE	
496.0 571.0		QD	** 496.0 571.0 QUARTZ DIORITE	
			E.O.H. 571' (total depth)	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-58

SULFIDES: (T)

% A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
0.0 55.0												** 0.0 55.0 OVERBURDEN								
												^^ 0.0 4.0 Muskeg								
												^^ 4.0 37.0 Fine sand								
												^^ 37.0 55.0 Sand, gravel, and cobbles								
											R	** 55.0 112.3 RHYOLITE								
											pRd	^^ 55.0 72.0 Porphyritic Rhyolite Dike?, epidote alteration above and below								
58.00																				
	99	75	R3	a	5	2														
				a	25															
64.00				a																
	99	65	R3	a	5	3														
				a	25															
				a	60															
				a							Wq	^^ 72.0 103.8 Quartz Wacke, fine-grained								
74.00				a																
	99	50	R3	a	5	3														
				a	45															
				a	65															
				a																
84.00				a																
	99	80	R3	b	5	3														
				b	40															
				b	60															
				b																
94.00				b																
	99	85	R3	b	30	2														

DRILL HOLE: LYN91-58

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: % (T)

A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				b	60															
				c																
				c																
104.00				c							Wa	^^ 103.8 112.3 Agglomerate, fining down-	b		2		4	13		19
	100	100	R3	b	5	3						ward into quartz wacke; sulfides between	b		2		4	13		19
				b	30							clasts, barren in center	b		2		4	13		19
				b	55								b		2		4	13		19
				b							CS	** 112.3 119.0 CALCAREOUS SEDIMENTS,	b		2		4	13		19
114.00				b								contorted bedding, tuffaceous bedding at					3			3
	100	100	R3	b	10	3						base					3			3
				b	45												3			3
				b	70						MSp	** 119.0 128.8 MASSIVE SULFIDE, pyrrhotite					3			3
				b								rich, serpentine and calcite in	f	24	7	4	19	21		75
124.00				b								fractures	f	24	7	4	19	21		75
	100	100	R3	b	5	3							f	24	7	4	19	21		75
				b	20						Xca	** 128.8 133.7 TUFFITE, calcareous	f	24	7	4	19	21		75
				c	60							matrix, contorted bedding	d	12	4	6	5	3		30
				c									d	12	4	6	5	3		30
134.00				b							Wq	** 133.7 166.5 QUARTZ WACKE, two	d	12	4	6	5	3		30
	99	65	R3	b	10	3						sequences of quartz wacke, containing								
				b	30							clasts of quartz and rhyolite, fining								
				a	60							upward to siltstones, dark grey to								
				a								black								
144.00				a																
	99	75	R3	b	5	3														
				b	45															
				a	65															
				a																
154.00				a																
	99	70	R3	a	20	3														
				a	45															
				a	70															
				a																
164.00				b																
	99	75	R3	b	5	3					Wl	** 166.5 183.5 LAPILLI WACKE, lt. grey,								
				b	45							feldspathic and quartz clasts								
				b	60															
				b																
174.00				b																
	99	75	R3	b	5	3														

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-58

SULFIDES: (T)
A:1-5,B:5-10
% C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				b	45															
				b	60															
				b																
184.00				b																
	100	70	R2	a	5	3					Rcb	** 183.5 188.5 BRECCIATED CRYSTAL TUFF, with chert alteration								
				a	30															
				a	60						X,Ch	** 188.5 207.0 INTERBEDDED CHERT AND TUFFITE	d	22	1	4		3		30
				a									d	22	1	4		3		30
194.00				a									d	22	1	4		3		30
	99	95	R2	a	5	2														
196.00					45															
	100	95	R3	a	5	3							c	6	1	4				11
				a	30								c	6	1	4				11
202.50				a	50															
	100	100	R3	a	10	3							d	20	4	2	1	2		29
				b	30								d	20	4	2	1	2		29
				b	60						Rc,Ch	** 207.0 234.4 INTERBEDDED CHERT, SILTSTONE AND LYNNE RHYOLITE	d	20	4	2	1	2		29
				b																
211.00				b																
	99	90	R3	b	10	2														
				b	45															
				b																
				b																
221.00				a																
	100	100	R3	a	10	2														
224.00				a	40															
	100	95	R3	a	10	2														
				a	40															
				a																
				a																
234.00				b							Sk	** 234.4 244.4 CALCSILICATE ALTERATION	a		3	1				4
	100	95	R3	b	10	3							a		3	1				4
				b	35								a		3	1				4
				a	50								a		3	1				4
				b									a		3	1				4
244.00				b							X,cs	** 244.4 254.8 TUFFITE, Calcsilicate alteration	a		3	1				4
	100	100	R3	b	25	2							c	6	2	3	2			13
				b	40								c	6	2	3	2			13
				b									c	6	2	3	2			13
				b									c	6	2	3	2			13

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-58

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
254.00				b							MSt	** 254.8 273.8 MASSIVE SULFIDE, in tuff, amber sphalerite abundant	c	6	2	3	2			13
	100	100	R3	b	20	3														
				c	40															
				b	60															
				b																
264.00				b																
	100	80	R3	b	30	2						Note: @ 265.0-269.0 Barren zone	e	32	7	6	7	2		54
268.00				b	50								e	32	7	6	7	2		54
	100	100	R3	b	30	1							e	32	7	6	7	2		54
270.00													e	32	7	6	7	2		54
	99	90	R3	c	15	2							e	32	7	6	7	2		54
				c	35								e	32	7	6	7	2		54
				a							Rc	** 273.8 278.0 RHYOLITE CRYSTAL TUFF	e	32	7	6	7	2		54
278.00				b																
	99	95	R3	a	20	3					Xch	** 278.0 317.0 TUFFITE, Skarn alteration, cherty intervals	c	11	3	2	4			20
				a	40								c	11	3	2	4			20
284.00				a	60								c	11	3	2	4			20
	100	95	R3	b	5	4							c	11	3	2	4			20
				b	20								c	11	3	2	4			20
				a	45								c	11	3	2	4			20
				b	65								c	11	3	2	4			20
294.00				a									c	11	3	2	4			20
	100	95	R3	a	5	4							c	11	3	2	4			20
				a	15								c	11	3	2	4			20
				b	45								c	11	3	2	4			20
				b	65								c	11	3	2	4			20
304.00				b									c	11	3	2	4			20
	100	80	R3	a	15	3							c	11	3	2	4			20
				a	30								c	11	3	2	4			20
				a	60								c	11	3	2	4			20
				a									c	11	3	2	4			20
314.00				a									c	11	3	2	4			20
	99	85	R3	b	5	3							c	11	3	2	4			20
				a	30						Rc	** 317.0 325.8 RHYOLITE CRYSTAL TUFF, minor sulfides	c	11	3	2	4			20
				a	60								c	11	3	2	4			20
				b									a	2	1	1				4
324.00				b									a	2	1	1				4
	100	95	R3	b	20	3					Sks	** 325.8 337.2 CALCSILICATE ALTERATION, sulfide stringers	a	2	1	1				4
				a	40															
				a	60								c	9	4		6	4		23

DRILL HOLE: LYN91-58

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				a									c	9	4		6	4		23
334.00				b									c	9	4		6	4		23
	100	95	R2	b	15	3							c	9	4		6	4		23
				a	30						SL,t	** 337.7 352.8 INTERBEDDED SILTSTONE AND	c	9	4		6	4		23
				b	75							CHERTY SILTSTONE, talcose alteration,								
				c								large chert clasts, bedding @ 46 degrees,								
344.00				b								pyrrhotite and pyrite disseminated								
	100	95	R2	c	5	3						throughout, calcite filled fractures								
				b	25															
				b	75															
				b							Wq	** 352.8 381.0 QUARTZ WACKE, interbedded								
354.00				c								with fine-grained dacite, few stringer								
	99	95	R2	b	5	4						sulfides at top								
				c	25															
				b	45															
				b	60															
364.00				b																
	99	95	R3	a	10	3														
				a	35															
				b	60															
				b																
374.00				b			TAH started logging													
	99	95	R3	a	10	3	@ 375'				Chp	** 376.0 382.0 CHERT, with pyrrhotite,								
				c	35							laminated, withcherty clasts. Some talc								
				c	60							in matrix								
				b																
				b																
											SS	** 382.0 401.5 SANDSTONE, subtle blue								
384.00												quartz, looks like reworked crystal tuff								
	100	95	R3	b	10	3														
				b	30							Note: @ 380.0-381.0 Fracture zone								
				b	60															
				a																
394.00				a																
	100	95	R3	b	20	3														
				a	40															
399.00				b	60															
	100	95	R3	b	20	2														
				b	40						Ch	** 401.5 407.0 CHERT	a				1	2		3
404.00				a									a				1	2		3

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-58

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
	100	95	R3	a	20	2							a				1	2		3
				a	40						TS	** 407.0 414.5 TALC SEDIMENT	a				1	2		3
				b																
				c																
414.00				c							SS	** 414.5 436.0 SANDSTONE								
	100	95																		
424.00																				
	100	100																		
434.00																				
	100	95									Cht	** 436.0 437.0 CHERT, with talcose base								
											SS	** 437.0 472.0 SANDSTONE								
444.00																				
	100	95																		
454.00																				
	100	95																		
464.00																				
	100	95																		
474.00											Chp	** 472.0 476.0 CHERT, with pyrrhotite,	b		1			5		6
	100	95										cherty clasts with stringery pyrrhotite	b		1			5		6
												and chalcopyrite @ margins	b		1			5		6
													b		1			5		6
											R	** 476.0 496.0 RHYOLITE, medium grey,	b		1			5		6
												faint blue quartz, could be hornfelsed.								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-58

SULFIDES: (T)

% A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
											Not same as above.								
484.00	100	100																	
											Note: @ 496.0-499.0 Alteration zone								
494.00	100	100								QD	>< 496.0 571.0 QUARTZ DIORITE								
										gQd	^^ 496.0 499.0 Granophyric Quartz Diorite								
504.00	100	100																	
514.00	100	100																	
524.00	100	100																	
534.00	100	100																	
544.00	100	100																	
554.00	100	100																	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-58

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
564.00	100	100																	
571.00											E.O.H. 571' (total depth)								

Noranda Exploration Inc.
Eastern Divison'

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	177.9	-58.1
200'	178.1	-58.1
300'	178.3	-58.3
400'	179.1	-58.3
580'	181.1	-58.5

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: J. Schaff
DATE COLLARED: 1-19-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-59 (WDNR #200)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 1-22-91

BEARING: S180.3E INCLINATION: -58.9 T.D: 580'
COORDINATES: L10100 E, 11170 N
ELEV: 1560.0' SEC: 15 TWP: 37N RANGE: 4E

DATE: 7-18-91
PAGE 1 OF 9

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
0.0 49.0			** 0.0 49.0 OVERBURDEN	
49.0 54.0	(not recovered)			
49.0 341.0		R	** 49.0 341.0 RHYOLITE	
54. 57.0		Sk	~~ 54.0 57.0 Calcsilicate Altered Rhyolite	
57.0 104.0		pIR	~~ 57.0 104.0 Porphyritic Intrusive Rhyolite	
104.0 125.0		Rd#	~~ 104.0 125.0 Rhyolite Dike, Altered	
125.0 150.0		SS	~~ 125.0 150.0 Sandstone	
150.0 193.5		W	~~ 150.0 193.5 Wacke	
193.5 201.0		SS	~~ 193.5 201.0 Sandstone	
201.0 203.0		W	~~ 201.0 203.0 Wacke	
203.0 266.0		SL	~~ 203.0 266.0 Siltstone	
266.0 284.0		Wf	~~ 266.0 284.0 Feldspathic Wacke	
284.0 290.0		SLch	~~ 284.0 290.0 Siltstone, Cherty	
290.0 314.0		Wch	~~ 290.0 314.0 Interbedded Wacke And Cherty Wacke	
314.0 333.0		SS	~~ 314.0 333.0 Sandstone	
		Wq,Ch	~~ 333.0 341.0 Interbedded Chert And Quartz Wacke	
341.0 382.0		Wq	** 341.0 382.0 QUARTZ WACKE	
382.0 420.5		Xch	** 382.0 420.5 TUFFITE, Cherty	
411.0 417.5		MSch	~~ 411.0 417.5 Massive Sulfide, Cherty	
420.5 444.0		Ch	** 420.5 444.0 CHERT	
444.0 446.0		TS	** 444.0 446.0 TALCOSE SEDIMENT	

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	177.9	-58.1
200'	178.1	-58.1
300'	178.3	-58.3
400'	179.1	-58.3
580'	181.1	-58.5

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: J. Schaff
DATE COLLARED: 1-19-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-59 (WDNR #200)

DATE: 7-18-9
PAGE 1 OF 9

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 1-22-91

BEARING: S180.3E INCLINATION: -58.9 T.D: 580'
COORDINATES: L10100 E, 11170 N
ELEV: 1560.0' SEC: 15 TWP: 37N RANGE: 4

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
446.0 468.0		X	** 446.0 468.0 TUFFITE	
468.0 506.0		MS,t	** 468.0 506.0 MASSIVE SULFIDE, Talcose	
506.0 517.5		TS	** 506.0 517.5 TALCOSE SEDIMENT	
517.5 529.5		X,t	** 517.5 529.5 TUFFITE	
529.5 580.0		QD	** 529.5 580.0 QUARTZ DIORITE	
529.5 531.0		gQD	^^ 529.5 531.0 Quartz Diorite, Granophyric	
			E.O.H. 580' (total depth)	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-59

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
0.0 49.0											** 0.0 49.0 OVERBURDEN								
											^^ 0.0 25.0 Fine sand								
											^^ 25.0 38.0 Silty sand								
											^^ 38.0 49.0 Sand, gravel, and boulders								
										R	** 49.0 341.0 RHYOLITE, dark gray-black to occasionally red brown, porphyritic to aphanitic								
54.00										Sk	^^ 54.0 57.0 Calcsilcate Altered Rhyolite, moderate diopside alteration								
	99	95	R4	c	20	2													
				b	50														
				b						pIR	^^ 57.0 104.0 Porphyritic Intrusive Rhyolite, (plag-quartz phyric)								
				c															
				c															
63.00																			
	99	95	R4	b	30	2													
65.00					45														
	99	90	R4	a	5	3													
				a	20														
69.00					60														
	100	100	R4	a	5	4													
					20														
					40														
71.00					60														
	100	100	R4	a	20	2													
				b	70														
				a															
				a															
80.00				a															
	100	100	R4	a	10	2													
				a	50														
85.00				b															

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-59

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
	100	100	R4	b	10	2														
				c	50															
				b																
				b																
95.00				c																
	100	100	R3	b	15	2														
				b	50															
				c																
				b							Rd#	^^ 104.0 125.0 Rhyolite Dike, Altered reddish-brown iron (?) alteration, abundant fractures							
105.00				b																
	100	100	R3	b	15	3														
				b	30															
				b	60															
				c																
115.00				a																
	100	95	R3	a	10	3														
				a	30															
				a	50															
				a																
125.00				a																
	100	85	R3	a	5	3					SS	^^ 125.0 150.0 Sandstone, black, very fine-grained								
				a	30															
				a	50							Note: @ 130.5-131.5 Quartz Wacke, abundant blue quartz eyes								
				a																
135.00				b																
	100	95	R3	a	10	3						Note: @ 135.0-137.0 Weakly altered zone								
				a	30															
				a	50															
				a																
145.00				a																
	100	100	R3	a	5	3														
				a	20						W	^^ 150.0 193.5 Wacke								
				b	55															
				b																
155.00				a																
	99	95	R3	a	5	3														
					30															
157.50					55															
	100	100	R3	a	5	3														
				a	30															

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-59

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				a	50															
165.00				b																
	100	100	R3	a	10	3														
				b	30															
				b	50															
				c																
175.00				a																
	100	100	R4	b	15	3														
				b	30															
				a	50															
				a																
185.00				b																
	100	100	R4	b	15	3														
				a	30															
				a	50															
				b							SS	^^ 193.5 201.0 Sandstone, numerous calcite filled fractures								
195.00				a																
	100	100	R3	a	15	3														
				a	30															
				a	50						W	^^ 201.0 203.0 Wacke to Lapilli Wacke, medium-grained								
				a																
				a																
				a							SL	^^ 203.0 266.0 Siltstone, laminated (possibly ash), with occasional 1-2" non-laminated zones, interbedded siltstone and sandstone								
205.00				a																
	100	100	R3	a	15	3														
				a	30															
				a	60															
				a																
215.00				a																
	100	100	R3	a	15	3														
				a	30															
				a	50															
				a																
225.00				a																
	100	95	R3	a	10	3														
				a	30															
				a	60															
234.00				a																
	100	90	R3	a	10	3														
				a	30															

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-59

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				a	60															
				a																
244.00				a																
	100	95	R3	a	15	3														
				a	30															
250.50				b	60															
	100	100	R3	b	10	3														
				a	30															
				a	50															
				b																
260.00				c																
	100	95	R3	b	15	3														
				a	45															
				b	60						Wf	^^ 266.0 284.3 Feldspathic Wacke, well sorted with abundant blue quartz eyes								
				c																
270.00				c																
	100	100	R3	c	30	1														
				c																
				c																
				c																
280.00				c																
	100	100	R3	c	30	2														
				c	60															
285.00				c							SLch	^^ 284.3 290.0 Siltstone, cherty, black, cherty or silicic								
	100	95	R3	a	10	3														
				a	40															
				a	60						W	^^ 290.0 314.0 Interbedded Cherty Wacke and Wacke, possible turbidity flow or resedimented tuff								
				a																
295.00				a																
	99	85	R3	a	10	3														
				a	40															
				b	60															
				b																
305.00				a																
	99	90	R3	a	10	3														
				a	30															
309.00					60															
	99	75	R3	b	20	2														
313.00				a	50															
	100	95	R3	a	15	2					SS	^^ 314.0 333.0 Sandstone, black, very fine-grained, occasional cherty or more								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-59

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
316.00				a	50							silicic zones								
	99	95	R3	b	5	3														
				b	20															
				b	40															
				b																
325.00				b																
	100	95	R3	a	25	3														
				a	40															
				a	70															
				a																
335.00				b							Wq,Ch	^^ 333.0 341.0 Interbedded Chert and Quartz Wacke								
	99	70	R4	a	5	3														
				b	30															
				a	60						Wq	^^ 341.0 382.0 Quartz Wacke, coarse-grained, blue quartz eyes								
				b																
345.00				c																
	100	95	R4	c	5	3														
				c	25															
				c	60															
				c																
355.00				c																
	100	100	R4	c	5	3														
				c	20															
				c	60															
				c																
365.00				c																
	99	90	R3	b	5	2														
				b	55															
				b																
				b																
375.00				b																
	100	95	R3	c	10	3														
				c	30															
				c	50						Xch	** 382.0 420.5 TUFFITE, cherty, moderate diopside alteration, amber sphalerite	b	6	2	1		1		10
				b									b	6	2	1		1		10
385.00				a									b	6	2	1		1		10
	100	100	R3	a	5	2							b	6	2	1		1		10
				a	40								b	6	2	1		1		10
				b									b	6	2	1		1		10
				b									b	6	2	1		1		10

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-59

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
395.00				b								b	6	2	1		1		10
	100	100	R3	b	30	2						b	6	2	1		1		10
				b	60							b	6	2	1		1		10
				b								b	6	2	1		1		10
				b								b	6	2	1		1		10
405.00				b								b	6	2	1		1		10
	100	95	R3	a	10	3						b	6	2	1		1		10
				a	30							b	6	2	1		1		10
				a	60					MSch	^^ 411.0 417.85 Massive Sulfide, cherty, amber sphalerite	b	6	2	1		1		10
				b								b	6	2	1		1		10
415.00				b								f	70		10	1	2		83
	100	100	R3	b	10	3						f	70		10	1	2		83
				b	30							f	70		10	1	2		83
				b	60					Ch	** 420.5 444.0 CHERT, strong diopside alteration	b	6	2	1		1		10
				a								b	6	2	1		1		10
425.00				b															
	100	100	R2	a	10	3													
				b	20														
				b	60														
433.60				b															
	100	100	R3	b	70	1													
435.00																			
	100	90	R3	b	40	2													
				b	60														
				b															
			R1	a						TS	** 444.0 446.0 TALCOSE SEDIMENT, strong diopside alteration	c	11	1	1		1		14
				a								c	11	1	1		1		14
445.00												c	11	1	1		1		14
	99	85	R1	b	5	2				X	** 446.0 468.0 TUFFITE, weakly bedded	c	11	1	1		1		14
				b	30							c	11	1	1		1		14
			R3	b								c	11	1	1		1		14
				c								c	11	1	1		1		14
455.00				b								c	11	1	1		1		14
	99	90	R2	b	30	2						c	11	1	1		1		14
				b	60						Note: @ 458.5-468.0 Strong talc alteration	c	11	1	1		1		14
				b								c	11	1	1		1		14
				b								c	11	1	1		1		14
465.00				b								c	11	1	1		1		14
	100	100	R2	b	40	2				MS,t	** 468.0 506.0 MASSIVE SULFIDE, talcose,	c	11	1	1		1		14
												c	11	1	1		1		14

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-59

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				c	60							amber sphalerite	e	47				1		48
				d									e	47				1		48
				d								Note: @ 469.0-472.0 Amber Sphalerite	e	47				1		48
475.00				d									e	47				1		48
	100	100	R2	c	5	1							e	47				1		48
477.00													e	47				1		48
	100	100	R2	c	10	1							e	47				1		48
				c									e	47				1		48
				c									e	47				1		48
485.00				c									e	47				1		48
	100	95	R2	c	10	2							e	47				1		48
				c	30								e	47				1		48
				c									e	47				1		48
				c								Note: @ 492.0-496.0 Amber Sphalerite	e	47				1		48
495.00				c									e	47				1		48
	99	90	R2	c	10	2							e	47				1		48
				b	40								e	47				1		48
				b									e	47				1		48
				c									e	47				1		48
505.00				c							TS	** 506.0 517.5 TALCOSE SEDIMENT, strong,	e	47				1		48
	99	90	R2	c	10	3						(light green) epidote alteration	a	2						2
				c	30								a	2						2
				b	60								a	2						2
				b									a	2						2
515.00				c									a	2						2
	99	90	R2	b	10	2					X,t	** 517.5 529.5 TUFFITE, talcose, moderate	c	10				4		14
				b	25							epidote alteration	c	10				4		14
				b									c	10				4		14
				c								Note: @ 528.0-529.0 Pyrite and Pyrrhotite	c	10				4		14
525.00				c								rich zone with angular to rounded clasts	c	10				4		14
	100	90	R2	c	10	3						(agglomerate?)	c	10				4		14
				a	25								c	10				4		14
				b	60						QD	** 529.5 580.0 QUARTZ DIORITE	c	10				4		14
				b																
				b								^^ 529.5 531.0 Quartz Diorite, Granophyric								
535.00																				
	100	100	R3	c	20	2														
				c	50															

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-59

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
				c																
				c																
545.00				c																
	100	100	R3	c	25	1														
				b																
				c																
				c																
555.00				c																
	100	100	R3	c	25	1														
				c																
				c																
				c																
565.00				c																
	100	100	R3	c	25	1														
				c																
				c																
				c																
				c																
				c																
580.00				c								E.O.H. 580' (total depth)								

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	181.5	-61.8
200'	182.0	-61.8
300'	183.8	-61.7
400'	184.3	-61.3
520'	186.2	-61.0

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: T. Harding
DATE COLLARED: 1-19-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-60 (WDNR #215)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 1-22-91

BEARING: S180.8E INCLINATION: -62.6 T.D: 520'
COORDINATES: L10400 E, 11165 N
ELEV: 1559.8' SEC: 15 TWP: 37N RANGE: 4E

DATE: 7-18-91

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
0.0 46.0			** 0.0 46.0 OVERBURDEN	
46.0 49.0	(not recovered)			
46.0 93.8		R	** 46.0 93.8 RHYOLITE	
93.8 136.0		SL,D	** 93.8 136.0 SILTSTONE, DACITE	
136.0 192.3		R	** 136.0 192.3 RHYOLITE	
192.3 211.5		D	** 192.3 211.5 DACITE	
2111.5 313.5		R	** 211.5 313.5 RHYOLITE	
313.5 343.0		D	** 313.5 343.0 DACITE	
343.0 439.7		R	** 343.0 439.7 RHYOLITE	
439.7 445.6		MScH	** 439.7 445.6 MASSIVE SULFIDE, Cherty	439.7 445.6 70% Sp
445.6 450.4		Xch	** 445.6 450.4 TUFFITE, Cherty	445.6 450.4 10% Sp

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	181.5	-61.8
200'	182.0	-61.8
300'	183.8	-61.7
400'	184.3	-61.3
520'	186.2	-61.0

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: T. Harding
DATE COLLARED: 1-19-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-60 (WDNR #215)

DATE: 7-18-91
PAGE 1 OF 8

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 1-22-91

BEARING: S180.8E INCLINATION: -62.6 T.D: 520'
COORDINATES: L10400 E, 11165 N
ELEV: 1559.8' SEC: 15 TWP: 37N RANGE: 4E

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
450.4 465.0		Ch	** 450.4 465.0 CHERT	
465.0 520.0		R	** 465.0 520.0 RHYOLITE	
			E.O.H. 520' (total depth)	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-60

SULFIDES: % (T)

A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
0.0 46.0											** 0.0 46.0 OVERBURDEN								
											^^ 0.0 4.0 Muskeg								
											^^ 4.0 28.0 Fine sand								
											^^ 28.0 46.0 Sand, gravel, cobbles, and boulders								
										R	** 46.0 93.8 RHYOLITE								
										gR	^^ 49.0 56.5 Pinkish, granophyric								
										pR	^^ 60.0 80.0 Plag-phyric, with quartz, white								
										R1b	^^ 80.0 93.8 Lapilli Breccia								
										SL	** 93.8 112.0 SILTSTONE, laminated								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-60

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
											Note: @ 102.3 104.0 Ashy, "Cherty"								
										D	** 112.0 136.0 DACITE								
126.00	100	95																	
136.00	100	100								Rt	** 136.0 192.3 RHYOLITE TUFF								
										SL	^^ 136.0 143.0 Laminated, "cherty" ash flow or siltstone								
146.00	100	95							-40C	gR	^^ 143.0 182.0 Rhyolite Sill, pinkish-grey, granophyric								
156.00	100	100																	
166.00	100	95																	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-60

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
173.00																			
	100	100																	
175.00																			
	100	100																	
176.00																			
	99	80																	
									-40C	Rl	^^ 182.0 186.0 Debris flow, lapilli tuff, cherty								
186.00																			
	100	100								Rcl	^^ 186.0 192.3 Rhyolite Crystal Lapilli Tuff								
										D	** 192.3 211.5 DACITE								
196.00																			
	100	95																	
204.50																			
	100	100																	
206.00																			
	100	95																	
211.50																			
	99	80								Rcl	** 211.5 220.4 RHYOLITE CRYSTAL TUFF, alternating coarse/fine-grained crystal tuffs								
216.00																			
	99	80																	
222.50										ChT	** 220.4 256.0 CHERTY TUFF, ashy, flow top with rhyolite porphyry patches								
	100	90																	
226.00																			
	100	90																	
229.00																			
	99	90																	
232.00																			
	99	95																	
236.00																			
	100	100																	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-60

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
											Note: @ 240.0-256.0 Pyrite along fractures								
246.00																			
	100	95																	
251.00																			
	99	85																	
256.00										D	** 256.0 258.0 DACITE								
	99	70																	
										Rc	** 258.0 261.5 RHYOLITE CRYSTAL TUFF								
262.50										Rc,W	** 261.5 268.8 INTERBEDDED RHYOLITE CRYSTAL/WACKE								
	99	70																	
										Rt	** 268.8 306.0 RHYOLITE TUFF								
										gR	^^ 268.8 278.0 Granophyric, greyish								
270.50																			
	100	100																	
											Note: @ 275.0 Possible fault								
276.00																			
	100	95								Rc	^^ 278.0 306.0 Predominantly Rhyolite Crystal Tuff								
294.00																			
	100	100																	
304.00																			
	100	100								W	** 306.0 313.5 WACKE ?, dacitic								

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-60

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
314.00																			
	100	95								pD	** 313.5 343.0 DACITE OR ANDESITE PLAG-PHYRIC								
322.00																			
	100	95																	
326.00																			
	100	100																	
336.00																			
	100	95																	
345.00										Rcl	^^ 343.0 349.0 Rhyolite Crystal Lapilli Tuff								
	100	100																	
										ChT	^^ 349.0 380.3 Cherty/Ash Tuff								
355.00																			
	100	100																	
358.00																			
	100	90																	
362.00																			
	100	100																	
364.00																			
	100	95																	
										pD	Note: @ 370.0-375.0 Plag-phyric Dacite								
374.00																			
	100	95																	
376.00																			
	100	100																	
										Rcl	^^ 380.3 388.0 Rhyolite Crystal Lapilli Tuff								
386.00																			

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-60

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%		Sp	Cp	Ga	Py	Po	As	T
	100	65									ChT	^^ 388.0 396.3 Cherty Tuff									
391.00																					
	99	70																			
394.50																					
	100	65																			
396.00											Rcl	^^ 396.3 415.0 Rhyolite Crystal Lapilli Tuff									
	100	95																			
406.00																					
	100	95																			
416.00											ChT	^^ 415.0 439.7 Cherty Tuff, silicified, fractured, apparently rhyolitic or ashy									
	100	100																			
426.00																					
	100	95	R2	b	10	3						Note: @ 428.0-430.0 Fracture Zone									
				b	50																
				b	70																
				b																	
436.00				b																	
	100	95	R2	b	20	3															
				a	40						MS	** 439.7 445.6 MASSIVE SULFIDE		f	70		2			72
				b	60									f	70		2			72
				c										f	70		2			72
446.00				c							Xch	** 445.6 450.4 TUFFITE, cherty		f	70		2			72
	99	65	R2	b	10	2							c		10					10
				a	60						Ch	** 450.4 465.0 CHERT, black, translucent	c		10					10
				a																	
454.60				a																	
	99	70	R3	a	10	3															
				a	35																
				a	45																
				a																	

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-60

SULFIDES: % (T)

A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
464.60				a																
	99	50	R3	a	10	2					W1,Rc	** 465.0 520.0 LITHIC WACKE, CRYSTAL TUFF, matrix with chert clasts >5 cm								
469.00				a	45															
	99	95																		
476.00																				
	99	100																		
482.00																				
	99	95																		
												Note: @ 485.0-520.0 Predominantly quartz wacke, with blue quartz eyes, foliated, fractured								
492.00																				
	100	95																		
496.00																				
	100	100																		
501.00																				
	100	95																		
506.00																				
	99	80																		
516.00																				
	100	95																		
520.00												E.O.H. 520' (total depth)								

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	177.4	-63.8
200'	177.2	-64.1
300'	177.7	-64.3
400'	177.6	-64.1
500'	178.8	-64.2
580'	178.6	-64.3

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: A. Zielinski/T. Harding
DATE COLLARED: 1-21-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-61 (WDNR #213)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 1-25-91

BEARING: S178.9E INCLINATION: -64.2 T.D: 580'
COORDINATES: L10400 E, 10950 N
ELEV: 1560.3' SEC: 15 TWP: 37N RANGE: 4E

DATE: 11-8-91
PAGE 1 OF 9

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
0.0 48.0			** 0.0 48.0 OVERBURDEN	
48.0 312.0		R	** 48.0 312.0 RHYOLITE	
48.0 69.7		pRd	^^ 48.0 69.8 Porphryitic Rhyolite Dike ?	
69.8 104.8		Wl	^^ 69.8 104.8 Lapilli Wacke	
104.8 128.0		pRd	^^ 104.8 128.0 Porphyritic Rhyolite Dike	
128.0 131.0		Wf	^^ 128.0 131.0 Feldspathic Wacke	
131.0 181.5		Wf,SL	^^ 131.0 181.5 Feldspathic Wacke, Siltstone	
181.5 220.8		SL	^^ 181.5 220.8 Siltstone	
220.8 242.2		gIR	^^ 220.8 242.2 Intrusive Rhyolite, Granophyric	
242.2 252.8		Wf	^^ 242.2 252.8 Feldspathic Wacke	
252.8 265.0		gIR	^^ 252.8 265.0 Intrusive Rhyolite, Granophyric	
265.0 312.0		Wq	^^ 265.0 312.0 Quartz Wacke	
312.0 331.5		Sk	** 312.0 331.5 SKARN	
331.5 348.5		Rt,p	** 331.5 348.5 RHYOLITE TUFF, Pyrrhotite Rich	
348.5 360.0		Xz,t	** 348.5 360.0 TUFFITE, Talcose	
360.0 369.0		*R	** 360.0 369.0 SPHERULITIC RHYOLITE AND GRANOPHYRIC TUFF	
369.0 422.0		SLch	** 369.0 422.0 SILTSTONE, Cherty	

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	177.4	-63.8
200'	177.2	-64.1
300'	177.7	-64.3
400'	177.6	-64.1
500'	178.8	-64.2
580'	178.6	-64.3

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: A. Zielinski/T. Harding
DATE COLLARED: 1-21-91
REMARKS:
CORE SIZE: NQ

HOLE NO: LYN91-61 (WDNR #213)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 1-25-91

BEARING: S178.9E INCLINATION: -64.2 T.D: 580'
COORDINATES: L10400 E, 10950 N
ELEV: 1560.3' SEC: 15 TWP: 37N RANGE: 4E

DATE: 11-8-91
PAGE 1 OF 9

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
422.0 428.0		Rc	** 422.0 428.0 GRANOPHYRIC QUARTZ DIORITE	
428.0 462.0		TSp	** 428.0 462.0 TALC SEDIMENT, With Pyrrhotite	
462.0 524.0		D	** 461.0 524.0 DACITE	
524.0 580.0		QD	** 524.0 580.0 QUARTZ DIORITE, TONALITE	
524.0 528.0		gQD	^^ 524.0 528.0 Granophyric Quartz Diorite	

E.O.H. 580' (total depth)

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-61

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
0.0 48.0											** 0.0 48.0 OVERBURDEN								
											^^ 0.0 4.0 Muskeg								
											^^ 4.0 28.0 Fine sand								
											^^ 28.0 48.0 Sand, gravel, cobbles, and boulders								
										R	** 48.0 312.0 RHYOLITE								
										pRd	^^ 48.0 69.8 Rhyolite, fine-grained larger feldspar and quartz laths, dike ?								
51.00																			
	99	85																	
54.00																			
	100	85																	
64.00																			
	100	95																	
										Wl	^^ 69.5 104.8 Lapilli Wacke, minor feldspars, chert prominant, fining up to siltstone and crystal tuffs								
74.00																			
	99	80																	
84.00																			
	100	90																	

DRILL HOLE: LYN91-61

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
94.00																			
	100	90																	
104.00										pRd	^^ 104.8 128.0 Porphyritic Rhyolite Dike or Sill, feldspar and quartz laths								
	99	80																	
114.00																			
	99	95																	
124.00																			
	100	100																	
										Wf	^^ 128.0 131.0 Feldspathic Wacke, quartz clasts								
134.00										Wf,SL	^^ 131.0 181.5 Wacke, Siltstone, feldspathic wacke at base fining upward into siltstones and crystal tuff, some chert inclusions and interbedded cherty layers in siltstones								
	99	95																	
144.00																			
	100	100																	
153.00																			
	100	95																	
163.50																			
	99	20																	
166.00																			

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-61

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
	100	95																	
174.00																			
	99	75																	
175.50																			
	100	95																	
184.00										SL	^^ 181.5 220.8 Siltstone, interlayered siltstones and cherty sandstones, occasional beds of feldspathic clasts. Some cherty clasts 5-42 mm								
	100	95																	
194.00																			
	100	95																	
204.00																			
	99	70																	
214.00											Note: @ 212.8-220.8 Rhyolite Crystal Tuff								
	100	90																	
224.00										gIR	^^ 220.8 242.2 Intrusive Rhyolite, granophyric, feldspathic clasts and matrix								
	100	100																	
234.00																			
	100	80																	
244.00										Wf	^^ 242.2 252.8 Feldspathic Wacke, clasts of chert and feldspar, bedded								

DRILL HOLE: LYN91-61

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
	100	95																		
											gIR	^^ 252.8 265.0 Intrusive Rhyolite (Swamp), granophyric								
254.00																				
	99	75																		
262.00																				
	100	90									Wq	^^ 265.0 312.0 Quartz Wacke, quartz wacke at base, fining up to siltstones, upper altered zone (@ 265.0 282.0) of diopside altered veins and feldspar phenocrysts								
272.00																				
	100	95																		
282.00																				
	100	100																		
292.00																				
	100	85																		
302.00																				
	100	90	R3	b	5	3														
				b	35															
				b	60															
				b																
312.00				b							Sk	** 312.0 331.5 CALCSILICATE ALTERATION, silicate, calcareous at base								
	100	80	R3	a	5	2														
314.00					20															
	100	100	R3	a	5	3														
				a	30															
				a	60															
				a																

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

DRILL HOLE: LYN91-61

SULFIDES: % (T)
A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
324.00				a																
	100	90	R2	a	5	3														
				a	30															
				a	70															
				a							Rt,p	** 331.5 348.5 RHYOLITE TUFF, with bedded	b	3			6		9
334.00				a								pyrrhotite	b	3			6		9
	100	90	R4	b	10	3							b	3			6		9
				b	30								b	3			6		9
				a	70								b	3			6		9
				a									b	3			6		9
344.00				a									b	3			6		9
	100	90	R4	a	10	3							b	3			6		9
				a	30		TAH started logging				Xz,t	** 348.5 360.0 TUFFITE, talcose, stringery,	b	3			6		9
349.00				a	70		@ 350'					hi-angle carbonate filled fractures	d	19	4		7		30
	100	95	R2	a	30	2							d	19	4		7		30
				b	50								d	19	4		7		30
				b									d	19	4		7		30
				b									d	19	4		7		30
359.00				a							xR	** 360.0 369.0 SPHERULITIC RHYOLITE AND	d	19	4		7		30
	99	90	R2	a	10	3						GRANOPHYRIC TUFF								
				a	30															
364.00				a	50															
	98	50	R3	b	10	3														
367.00				b	30															
					50															
	99	60	R3	b	5	3														
369.00					30						SLch	** 369.0 422.0 CHERTY SILTSTONE, more	a				1	2	3
					70							massive chert at top, laminated at base.	a				1	2	3
	100	90	R2	a	10	3						Less than 5% iron sulfides.	a				1	2	3
374.00				a	30								a				1	2	3
					70								a				1	2	3
	100	90	R3										a				1	2	3
													a				1	2	3
													a				1	2	3
													a				1	2	3
384.00													a				1	2	3
	100	80											a				1	2	3
													a				1	2	3
													a				1	2	3
													a				1	2	3

ROCK QUALITY: FRACTURE FREQ. A:0-3,B:3-10 C:10-30,D:30-100 E:>100 cm.

DRILL HOLE: LYN91-61

SULFIDES: % (T) A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
394.00												a				1	2		3
	100	95										a				1	2		3
												a				1	2		3
												a				1	2		3
404.00												a				1	2		3
	99	90										a				1	2		3
												a				1	2		3
												a				1	2		3
												a				1	2		3
												a				1	2		3
414.00												a				1	2		3
	100	90										a				1	2		3
												a				1	2		3
												a				1	2		3
												a				1	2		3
424.00										gQD	** 422.0 428.0 GRANOPHYRIC QUARTZ DIORITE, quartz eyes interbedded to disseminated sulfides	a				1	2		3
	100	90																	
										TSp	** 428.0 461.0 TALC SEDIMENT, with pyrrhotite, in fine-grained tuff, minor galena, chalcopyrite	c		1	2	3	5		11
434.00												c		1	2	3	5		11
	99	90										c		1	2	3	5		11
												c		1	2	3	5		11
												c		1	2	3	5		11
												c		1	2	3	5		11
444.00												c		1	2	3	5		11
	100	90										c		1	2	3	5		11
												c		1	2	3	5		11
												c		1	2	3	5		11
												c		1	2	3	5		11
454.00												c		1	2	3	5		11
	98	70	R2	a 10	2							c		1	2	3	5		11
				b 40								c		1	2	3	5		11
				b								c		1	2	3	5		11
				b								c		1	2	3	5		11
				b						D	** 462.0 524.0 DACITE	c		1	2	3	5		11
464.00											^^ 461.0 475.0 Feldspar Phyric								

DRILL HOLE: LYN91-61

ROCK QUALITY: FRACTURE FREQ. A:0-3,B:3-10 C:10-30,D:30-100 E:>100 cm.

SULFIDES: (T) % A:1-5,B:5-10 C:10-25,D:25-40 E:40-60,F:>60

Run	%	RQD	Rf	ABCDE		Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	I
	100	100	R3	b	10	3														
				a	30															
				a	50															
				a																
474.00				a																
	100	100																		
484.00																				
	100	100																		
494.00																				
	100	100																		
504.00																				
	100	95																		
514.00																				
	100	100																		
524.00											QD	>< 524.0 580.0 QUARTZ DIORITE								
	100	100																		
											gQD	^^ 524.0 528.0 Granophyric Quartz Diorite								
528.00																				
	100	100																		
												Note: @ 524.0-528.0 Chill zone, dis-								
534.00												seminated crystals, chilled veins								
	100	100																		

DRILL HOLE: LYN91-61

ROCK QUALITY:

FRACTURE FREQ.
A:0-3,B:3-10
C:10-30,D:30-100
E:>100 cm.

SULFIDES: % (T)

A:1-5,B:5-10
C:10-25,D:25-40
E:40-60,F:>60

Run	%	RQD	Rf	ABCDE	Jn	Jrc	Ja	SpG	Fol	CODE	Lithology	Total%	Sp	Cp	Ga	Py	Po	As	T
544.00																			
	100	100																	
554.00																			
	100	100																	
564.00																			
	100	95																	
574.00																			
	100	100																	
580.00											E.O.H. 580' (total depth)								

Noranda Exploration Inc.
Eastern Divison

HOLE SURVEY DATA

Footage	Bearing	Inclination
100'	180.0	-60.1
200'	179.9	-60.0
300'	181.2	-59.9
400'	181.4	-59.7
510'	181.6	-59.3

PROJECT: LYNNE P.D. 1876
CONTRACTOR: Midwest Drilling Co.
LOGGED BY: T. Harding
DATE COLLARED: 1-22-91
REMARKS: Log checked against assays
CORE SIZE: NQ

HOLE NO: LYN91-62 (WDNR #225)

CO./STATE: Oneida, WI
SCALE: 1"=10'
DATE COMPLETED: 1-25-91

DATE: 10-10-91
PAGE 1 OF 8

BEARING: S181.06E INCLINATION: -60.4 T.D: 510'
COORDINATES: L10500 E, 10625 N
ELEV: 1560.4' SEC: 15 TWP: 37N RANGE: 4E

DRILL HOLE SUMMARY

FOOTAGE	ROCK QUALITY	CODE	GEOLOGIC UNITS	MINERALIZATION & ALTERATION
0.0 58.0			** 0.0 58.0 OVERBURDEN	
58.0 63.5	(not recovered)			
58.0 164.9		R	** 58.0 164.9 RHYOLITE	
164.9 181.0		Sk	** 164.9 181.0 VOLCANICLASTIC SEDIMENT, With Skarn Alteration	164.9 181.0 Ep-Gt-Mt Alteration
164.9 171.0		FZ	~~ 164.9 171.0 Fault Zone	
181.0 198.0		Rc	** 181.0 198.0 RHYOLITE CRYSTAL TUFF	
198.0 200.5		SS	** 198.0 200.5 SANDSTONE	
200.5 212.6		Rc	** 200.5 212.6 RHYOLITE CRYSTAL TUFF	
212.6 251.2		CS	** 212.6 251.2 CALCAREOUS SEDIMENT	
249.0 251.2		CSs	~~ 249.0 251.2 Calcareous Sediment, With Sulfides	249.0 251.2 8% Sp
251.2 276.0		VCS	** 251.2 276.0 VOLCANICLASTIC SEDIMENT	
251.2 253.5		VCSs	~~ 251.2 253.5 Volcaniclastic Sediment, With Sulfide	251.2 253.5 8% Sp
253.5 258.0		XVCS	~~ 253.5 258.0 Tuffite	253.5 258.0 15% Sp
276.0 295.0		TS	** 276.0 295.0 TALC SEDIMENT	
276.0 283.0		TSs	~~ 276.0 283.0 Talc Sediment, With Sulfides	276.0 283.0 8% Sp