ARIS SUMMARY SHEET

istrict Geologist, Kamloops — Off Confidential: 89.02.24

ASSESSMENT REPORT 17344 — MINING DIVISION: Kamloops

ROPERTY: Semco Option
LOCATION: LAT 51 20 19 LONG 119 54 33
UTM 11 5691280 297366
NTS 082M05W
LAIM(S): Bluff 1-2,Bluff 4
OPERATOR(S): Noranda Ex.
UTHOR(S): Shevchenko, G.
EPORT YEAR: 1988, 38 Pages
COMMODITIES
EARCHED FOR: Lead,Zinc,Silver,Copper
EOLOGICAL
SUMMARY: The claims are underlain by southwest dipping felsic to intermediate volcanic, volcaniclastic and sedimentary rocks belonging to the Devono-Mississippian Eagle Bay Formation. Sericite and chlorite alteration along with silica flooding are associated with sulphide mineralization. Sphalerite and galena occur mainly as disseminations and occasionally as massive pods associated with pyrite and pyrrhotite.

WORK
DONE: Drilling,Physical,Geochemical
LINE 4.7 km
ROTD 1054.0 m 9 hole(s)
Map(s) - 9; Scale(s) - 1:5000,1:250
SAMP 545 sample(s) ;CU,PB,ZN,AG,AU
INFILE: 082M 219

LOG NO: 0502	RD:
ACTION:	
FILE NO:	

ASSESSMENT REPORT

ON THE

BLUFF 1, 2, 4 and PERCY 1 MINERAL CLAIMS

KAMLOOPS MINING DIVISION

FILMED

Latitude 51°21'N Longitude 119°55'W

N.T.S. 82M/05W

Owner : Victoria Resources Corporation
Box 9, 10th. Floor,
609 West Hastings Street,
Vancouver. B.C. V6B 4W4

Operator : Noranda Exploration Company, Limited (no personal liability)
P.O. Box 2380,
Vancouver, B.C. V6B 3T5

Author : G. Shevchenko, Project Geologist
Noranda Exploration Company, Limited (n.p.l.)

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LIST OF DRAWINGS

1.0 INTRODUCTION

This assessment report encompasses the reverse circulation drilling that was conducted on the Semco Claim Group (Bluff 1, 2, 4 and Percy 1 mineral claims) located in the Kamloops Mining Division.

The work was done from September 21, 1987 to October 8, 1987.

The main purpose of the programme was to test various broad soil geochemical anomalies.

1.1 Location and Access

The property is located 80 kilometres north-northeast of Kamloops, British Columbia. It lies between Birk Creek and Harper Creek and has centre co-ordinates of 51°21'N latitude, 119°55'W longitude.

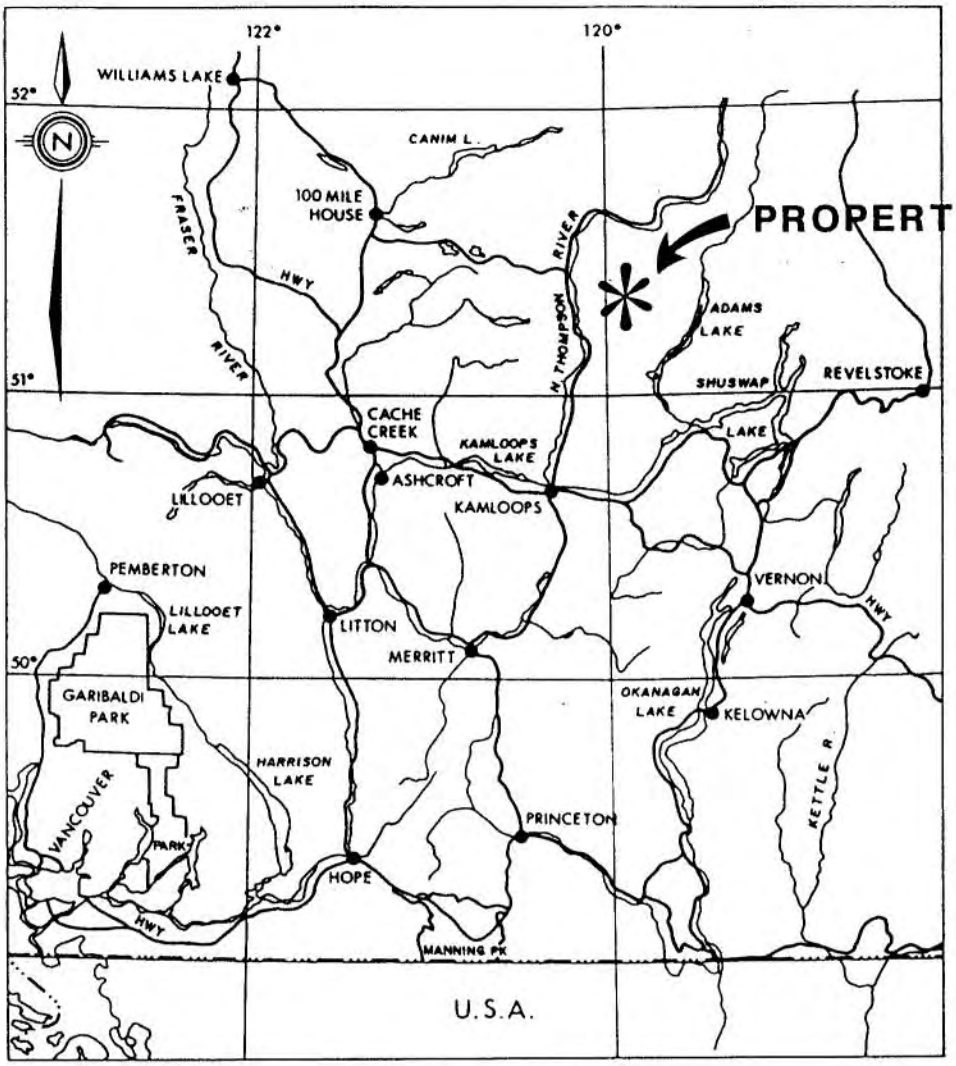
Road access to the property is excellent and it may be reached as follows: from Kamloops, north along Highway #5 to Barriere (63 km), then east along the paved East Barriere Lake Road to the North Barriere Lake turn off (16 km), then north along the unpaved North Barriere Lake Road for 9 kilometres to where the Mable Creek Logging Road takes off and provides the main access to the property.

1.2 Topography and Physiography

Relief on the property varies from 640 to 1550 metres above sea level. For the most part there are gentle to moderate southeast dipping topographic slopes with steep southwest slopes located in the deeply incised Birk Creek Valley at the west end of the property.

Vegetation consists of dense to open stands of douglas fir and spruce with occasional dense underbrush of devils club and alder.

There are numerous cut blocks on the property which improve access, and in one case has helped to uncover mineralization.



LOCATION MAP

REVISED	SEMCO OPTION
	PROPERTY LOCATION MAP
PROJ No.	SURVEY BY: DATE:
N.T.S.	DRAWN BY: SCALE:
DWG. No. 1	NORANDA EXPLORATION
	OFFICE: Vancouver

NCI - 774

1.3 Work History

"Prior to 1969, the area had been intermittently staked and prospected but had not undergone significant detailed investigations.

In 1969-70 Cambridge Mines bulldozed 600 m of trenches on the Percy claim exposing minor chalcopyrite in semi-massive and massive pyrrhotite and pyrite lenses in hornfelsed acid to intermediate volcanics. No record of sampling or assays are available.

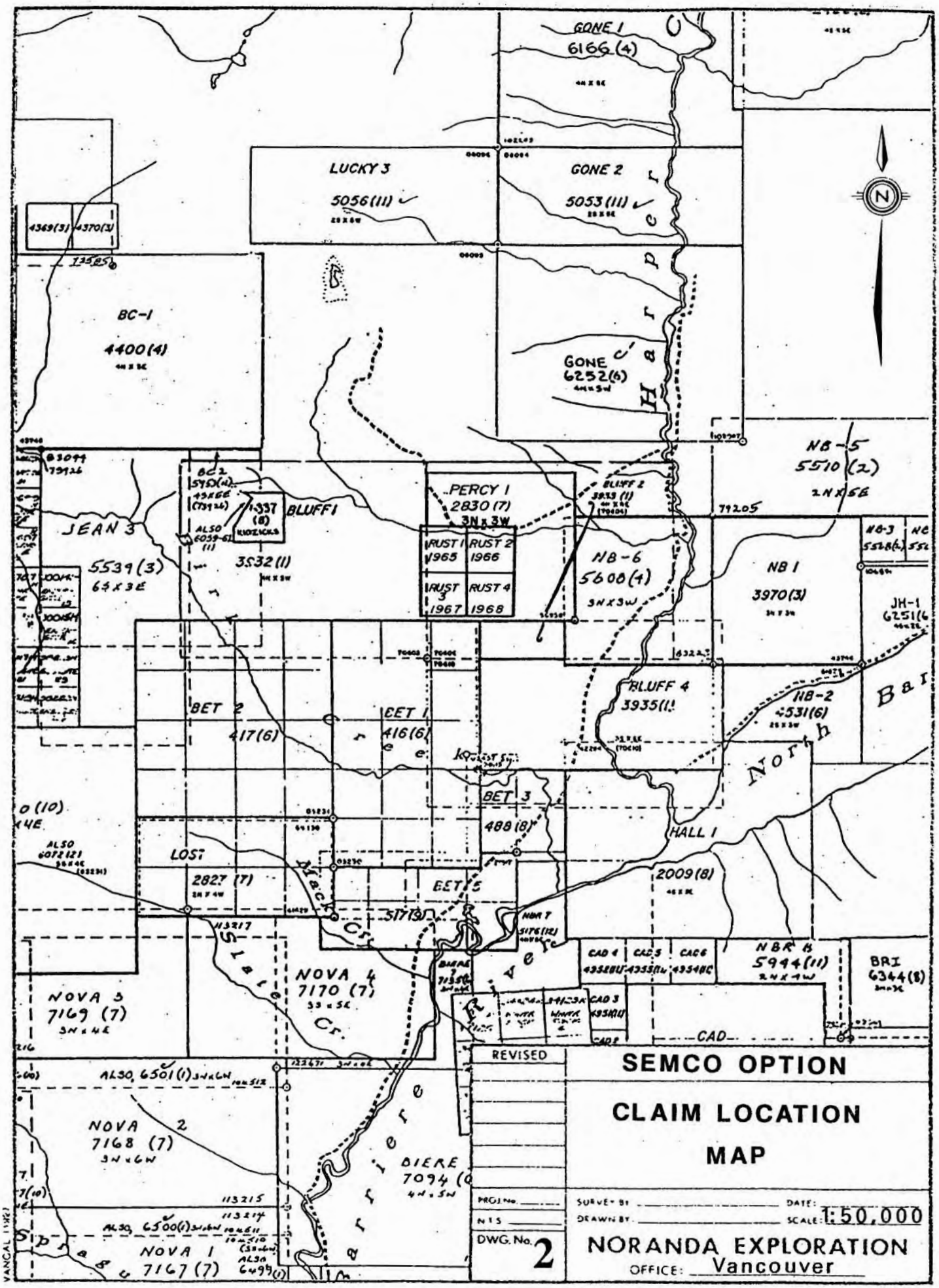
In 1971-72 geochem and geophysical surveys were supervised by J.R. Woodstock and Barringer Research respectively, on behalf of Ducanex Resources Limited. A north trending Cu-soil anomaly was found in the SE portion of the claim (max. 520 ppm Cu). A broad north trending low resistivity and high chargeability zone is coincident with the anomalous Cu trend.

In 1976 the Percy claim was held by Kennco Explorations as the Birk 1 claim. Kennco conducted a soil and rock geochem survey and resampled the 1969-70 trenches. A Cu-Zn soil anomaly correlated with known chalcopyrite-sphalerite mineralized meta-volcanics. A moderate Pb-Zn-Ag anomaly occurs southwest of the trenched area. The highest assay in resampling the trenches was 2.7% Cu over a 3 m width, with most samples assaying 0.3% Cu over 3 m.

In 1977, SEMCO acquired the ground now covering the Percy and Bluff 4 claims as the Ralph and Dark claims respectively. Minor exploration was done between 1977 and 1980. The Ralph claim was restaked as the Percy 1 claim in 1978 and again in 1980. The Dark claim was restaked as the BC-1 claim in 1979 which subsequently lapsed in 1981.

In 1980 J. Payne conducted a geological and geophysical programme on the Percy claim on behalf of SEMCO Ltd. Payne interpreted the geologic setting as analogous to a volcanogenic massive sulphide environment with stratabound base metal sulphides related to two expisodes of felsic volcanism. A MAG survey in the trenched area showed 3 small, intense dipole anomalies assumed to be related to increasing magnetite content."[1]

In 1982, Preussag Canada Limited entered into a joint venture agreement with Semco Mining Corp. Preussag was the operator and carried out geological mapping, HLEM surveys and diamond drilling (6 holes for a total of 962.3 metres) over a period of two years.


GONE 1
6166(4)
LUCKY 3
5056(11)
GONE 2
5053(11)
4369(3)
4370(3)
13585
BC-1
4400(4)
GONE
6252(6)
Harper Cr.
NB-5
5510(2)
2NX6E
79205
BC2
5950(4)
45X6E
(79326)
ALSO
6039-61
(11)
1337
(8)
BLUFF 1
PERCY 1
2830(7)
3N x 3W
BLUFF 2
3833(1)
JEAN 3
5539(3)
6E x 3E
3532(1)
RUST 1
1965
RUST 2
1966
RUST 3
1967
RUST 4
1968
NB-6
5600(4)
3NX3W
NB 1
3970(3)
NB-3
NB-4
JH-1
6251(6
BET 2
417(6)
BET 1
416(6)
Beaver Cr.
BLUFF 4
3935(11)
NB-2
4531(6)
North Bri
BET 3
488(8)
HALL 1
2009(8)
LOST
2827(7)
BET 5
Black Cr.
NOVA 4
7170(7)
3S x 5E
NOVA 3
7169(7)
3N x 4E
CAD 4
CAD 5
CAD 6
NBR 5
5944(11)
2NX4W
BRI
6344(8)
CAD 3
CAD
AL30 6501(1) 3N x 6W
NOVA 2
7168(7)
3N x 6W
BIERE
7094(
4N x 5W
113215
113217
AL30 6500(1) 3N x 6W
NOVA 1
7167(7)
AL30
6499(1)
Sipiwesk Lake
REVISED
SEMCO OPTION
CLAIM LOCATION
MAP
PROJ No.
N.T.S.
DWG. No. 2
SURVEY BY
DRAWN BY
DATE:
SCALE: 1:50,000
NORANDA EXPLORATION
OFFICE: Vancouver

In 1985, Noranda Exploration Company, Limited optioned the Bluff 1,2,4 and Percy 1 mineral claims from Semco Mining Corp. While working the property from 1985 to 1987 inclusive, Noranda conducted airborne and ground geophysical surveys, soil geochemistry, geological mapping, trenching, diamond drilling and reverse circulation drilling. The option was terminated in March 1988.

On June 13, 1985 Semco Mining Corporation transferred its interest in the property to Victoria Resource Corporation of Vancouver, B.C.

1.4 Claim Status

The Semco Option is comprised of four mineral claims which are tabled below:

Claim Name	Record No.	Units	Record Date	Record Year	Due
Bluff 1	3932	20	January 25	1982	1991
Bluff 2	3933	20	January 25	1982	1991
Bluff 4	3935	18	January 22	1982	1991
Percy 1	2830	9	July 21	1980	1991

The claims are 100% owned by:

Victoria Resources Corporation
Box 9, 10th. Floor,
609 West Hastings Street,
Vancouver, B.C. V6B 4W4

and were operated by:

Noranda Exploration Company, Limited,
(no personal liability)
Box 2380,
Vancouver, B.C. V6B 3T5

1.5 Summary of Work Done

Nine reverse circulation drill holes for a total of 1054 metres were drilled on the property between September 21, 1987 and October 8, 1987.

1.6 Regional Geology

The property lies within the northwest/north-northwest trending Eagle Bay Formation which ranges in age from Early Cambrian to Late Mississippian.

The Eagle Bay Formation lies along the western margin of the Omineca Belt. It is bounded to the east by the high-grade Shuswap Metamorphic Complex and to the west by the clastic rocks of the Fennell Formation.

The Eagle Bay Formation is structurally complex and consists of parautochthonous volcanics and sediments that have been subjected to low grade metamorphism. Rapid facies changes occur both vertically and horizontally within the stratigraphic section.

"Four phases of mesoscopic structures have been reported in rocks of the Eagle Bay Formation. The earliest recognizable folds are generally tight, isoclinal mesoscopic structures with recumbent axial planes which are parallel to the schistosity and to the compositional layering of the various rock units. These structures usually have gentle to moderate plunges and trend anywhere from northwesterly to northeasterly. Although it is suspected that these folds may be related to larger nappe-like structures, none of these have yet been identified and only medium-scale structures a few hundred metres in maximum dimension, probably belonging to this generation, can be inferred by attempting to trace some local markers. A later phase of folds clearly warps the schistosity and has axes parallel to a pronounced and widespread crenulation lineation. These structures have been observed to range from a few centimetres to several scores of metres in maximum dimension and have generally upright axial planes parallel to a pronounced crenulation cleavage. Fold axes have gentle easterly and westerly plunges along Adams Lake and moderate northerly to northwesterly plunges elsewhere. Later, broad northerly to northeasterly trending warps, kinks, and faults occurred which were commonly followed by post-tectonic granitic dykes."[2]

[2] Preto, V.A. (1979): Barriere Lakes - Adams Plateau Area (82L/13E; 82M/04,05W; 92P/08E), B.C. Ministry of Energy, Mines & Petroleum Resources, Geological Fieldwork, 1978, Paper 1979-1, pp 35, lines 25 to 39.

2.0 DRILLING

The services of Western Hydro-Air Drilling Ltd., Calgary, Alberta were contracted for the reverse circulation drill programme.

The main purpose of the drill programme was to test broad soil geochemical anomalies for stratiform type sulphide mineralization.

The following table summarizes the collar details for each of the holes drilled:

Hole #	Field Co-ordinates Northings	Eastings	Elevation (Metres)	Azimuth (True)	Inclination	Length (Metres)
NRD-87-2	26710	31975	1145	058°	-60°	120.4
NRD-87-3	27500	31280	1350	058°	-64°	51.3
NRD-87-4	27700	31190	1425	056°	-65°	198.0
NRD-87-5	28300	31275	1485	058°	-60°	120.4
NRD-87-6	26637	31775	1125	058°	-60°	153.9
NRD-87-8	27503	31280	1350	058°	-64°	132.6
NRD-87-9	28402	31407	1495	060°	-65°	121.9
NRD-87-12	26340	31975	990	058°	-40°	108.2
NRD-87-13	26445	31825	1050	056°	-50°	47.2

2.1 Drilling Summary

NRD-87-02: This hole tested a broad zinc-in-soil anomaly that has values ranging from 1100 ppm to 2400 ppm.

The hole intersected an intercalated package of silica flooded muddy tuff and argillite. Disseminations of 1% to 5% pyrite and 1% pyrrhotite occur throughout the entire package of rock, along with occasional traces of fine grained sphalerite. Increased concentrations of pyrite are associated with sericite and talc alteration in the silica flooded muddy tuff.

The only significant anomalous section is located between the top of the hole and the 24.4 metre interval. Here, lead values range from 82 ppm to 1525 ppm and zinc values range from 192 ppm to 2918 ppm. These values explain the western third of the soil anomaly, however, the remaining two thirds remains unexplained.

NRD-87-03,08: Hole NRD-87-03 was forced to terminate at a depth of 51.3 metres due to the hammer bit being lost down the hole. Therefore, Hole NRD-87-08 was drilled adjacent to it in order to test the stratigraphy below 51.3 metres.

These holes tested a broad lead/zinc-in-soil anomaly with values ranging from 410 ppm to 480 ppm and 360 ppm to 490 ppm respectively.

The holes intersected a thick sequence of silica flooded muddy tuff with 5% to 10% chlorite alteration occurring in the upper 73 metres. The entire package is mineralized with fine grained disseminations of 1-5% pyrite and trace to 1% pyrrhotite. Trace to 1% fine grained sphalerite and galena occur between 27.4 and 77.7 metres downhole and are associated with the silica flooding. Within this mineralized zone there are local increases of sphalerite (up to 5%), galena (up to 3%), pyrite (up to 20%) and occasional chalcopyrite associated with areas of increased chlorite alteration and silica flooding. Significant silver (up to 16.9 ppm) and gold (up to 330 ppb) values are associated with the areas of increased mineralization. The lead/zinc values encountered within this mineralized section adequately explain the overlying soil geochemical anomaly.

NRD-87-04: This hole tested a broad lead/silver-in-soil geochemical anomaly that has values ranging from 190 ppm to 900 ppm and 2.2 ppm to 8.0 ppm respectively.

A thick package of silica flooded muddy tuff with local minor chlorite alteration was encountered in this hole. For the most part the rocks contain 3-5% fine grained disseminated pyrite with local increases of up to 10%. Trace amounts of fine grained sphalerite and galena are associated with the silica flooding between 48.8 and 193.5 metres downhole. Within this interval there are occasional increases in the concentration of sphalerite and galena of up to 3% and 1.5% respectively. These increases are associated with an increase in silica flooding and chlorite/sericite alteration. Silver values range up to 7.0 ppm, gold values range up to 136 ppb, lead values range up to 7068 ppm and zinc values range up to 13118 ppm.

The metal values encountered in these rocks adequately explain the overlying soil geochemical anomaly.

NRD-87-05: This hole tested a small lead/silver-in-soil geochemical anomaly that has values ranging from 210 ppm to 300 ppm and 2.4 ppm to 4.4 ppm respectively.

The hole intersected a package of grey phyllite with minor intercalations of muddy tuff. It is highly possible that the "so-called" grey phyllite is in reality a volcaniclastic.

The rocks contain 2 to 5% fine grained pyrite throughout. The pyrite concentration slowly decreases down the hole. From 39.6 metres to the end of the hole, fine grained sphalerite and galena are present in concentrations of trace to 2% and trace to 1% respectively.

For the above mentioned mineralized interval the following metal values were encountered; silver values range up to 7.8 ppm with increased values associated with increased sulphide content. Gold values range up to 190 ppb and are not necessarily associated with increased sulphide content (ie. from 19.8 to 24.4 metres gold values are weakly anomalous while base metal values remain subdued). The lead/zinc values range from 268 ppm to 11308 ppm and 393 ppm to 14132 ppm respectively.

The metal values that were intersected in the hole more than adequately explain the overlying soil anomaly.

NRD-87-06: This hole tested an area where a massive pyrite/sphalerite boulder was found as well as a broad zinc-in-soil geochemical anomaly with values ranging from 1100 ppm to 1900 ppm.

The hole encountered a package of muddy tuff with minor intercalations of dark grey phyllite. The upper half of the hole contains 5 to 10% chlorite alteration.

The entire package of rocks contain fine grained disseminations of pyrite (trace to 2%) along with occasional pyrrhotite. Occasional trace concentrations of sphalerite and galena occur in the muddy tuff. Gold and silver values in the hole are insignificant while the lead/zinc values locally increase to 1592 ppm and 2222 ppm respectively.

The origin of the massive sulphide boulder was not identified, and the soil geochemical anomaly is not entirely explained.

NRD-87-09: This hole tested a small lead/zinc/silver-in-soil geochemical anomaly with values ranging from 450 to 1400 ppm lead, 3360 to 5300 ppm zinc, and 2.6 to 3.8 ppm silver.

A package of muddy tuff with local silica flooding and chlorite alteration was encountered in this hole. Fine grained disseminations of pyrite (trace to 5%), the concentration of which decreases downhole, occurs throughout the entire package of rock. Trace to 1.5% sphalerite and trace to 2% galena which occur from the top of the hole to the 67.1 metre interval, and associated with the silica flooding. Silver values range up to 10.0 ppm, gold values are generally subdued with a high of 104 ppb, lead values range from 356 ppm to 9537 ppm and zinc values range from 354 ppm to 8613 ppm.

The metal values encountered adequately explain the overlying soil geochemical anomaly.

NRD-87-12: This hole tested a broad zinc-in-soil geochemical anomaly that has values ranging from 1200 ppm to 1900 ppm.

This hole intersected a thick sequence of dark grey to black phyllite with very minor intercalations of muddy tuff. From 24.4 metres to 82.3 metres the phyllite is siliceous and contains 5 to 15% silica flooding. From 82.3 metres to the end of the hole the phyllite is only silica flooded (5 to 10%). The entire sequence of rocks contains fine grained disseminations of pyrrhotite (1-2%). Fine grained pyrite (trace to 1%) only is present in the upper 40 metres of the hole.

All of the analytical values (Cu, Pb, Zn, Ag, Au) are low and thus do not adequately explain the overlying soil anomaly.

NRD-87-13: This hole tested a narrow north-south trending zinc-in-soil anomaly that has values ranging from 1000 to 2000 ppm.

The hole encountered a package of silica flooded muddy tuff with minor intercalations of dark grey phyllite. Fine grained disseminations of pyrite (1-5%) occur throughout the entire hole. Trace amounts of galena and trace to 1% sphalerite occur at the top of the hole and continue to the 27.4 metre interval. The sulphides are associated with silica flooding. The highest silver value of 11.2 ppm over 1.5 metres is associated with an increase in sulphides, gold values remain insignificant, lead values range from 520 ppm to 3276 ppm and zinc values range from 472 ppm to 9969 ppm.

3.0 CONCLUSIONS AND RECOMMENDATIONS

The various soil geochemical anomalies that were tested with the nine reverse circulation drill holes were adequately explained in all cases except for ones tested with Holes NRD-87-06 and 12.

Mineralization is associated with the silica flooding in muddy tuffs and is sub-economic in all cases.

The mineralization, for the most part, occurs over great thicknesses of muddy tuff.

There is a greater abundance of sedimentary rocks in the southern holes as opposed to the northern ones.

The thick overburden that was encountered in all of the holes along with the sloping topography are a major influence on ground water movement. As a result many of the soil geochemical anomalies have probably migrated a fair distance away from their source.

It is recommended that metal ratio and alteration studies be conducted on the various holes in order to define vectors where mineralization should increase.

4.0 BIBLIOGRAPHY

Daley, F. 1983 Geological, Geophysical and Drilling Report on the Bluff 1 Claim Group.

Preto, V.A. 1979 Barriere Lakes - Adams Plateau Area (82L/13E; 82M/04,05W; 92P/01E,08E), B.C. Ministry of Energy, Mines & Petroleum Resources, Geological Fieldwork, 1978, Paper 1979-1.

APPENDIX I

DRILL LOGS

LITHOLOGY LEGEND

FOR DRILL LOGS

3.2 Brownish-Grey Muddy Tuff: generally equigranular, phyllite, aphanitic to very fine grained - may contain talc and sericite - brownish colour due to biotite. May contain occasional quartz eyes.

3.1 Grey Muddy Tuff: light to medium grey, generally equigranular, aphanitic to very fine grained, may contain talc, sericite and occasional quartz eyes.

2.6 Carbonate: massive, medium grey, equigranular aphanitic, moderately to highly calcareous.

2.4 Grey Phyllite: light to medium grey, equigranular, aphanitic, well developed phyllitic schistosity.

2.3 Black Phyllite: dark grey to black, equigranular, aphanitic, well developed phyllitic schistosity.

Qtz V	Quartz vein
cb V	Carbonate vein
A	Sericite alteration (>5%)
B	Chlorite alteration (>5%)
D	Silica flooding (>5%) - occurs in small pods and lenses.
E	Siliceous
F	Spotted - up to 2 mm in diameter due to aggregates of very fine grained biotite.
I	Calcareous
J	Mylonitic

PROJECT : SEMCO PROJECT NO. : 137 NTS : 082M05 DATE COLLARED : SEPT 24,1987
HOLE NO.: NRD-87-2 DRILL TYPE : Reverse Circulation DATE COMPLETED : SEPT 25,1987

Depth	Inclination	Bearing	Eastings	Northings	Elevation
0.0	-60.0	58.0	31975.00	26710.00	1145.00
120.4	-60.0	58.0	32026.05	26741.90	1040.73

FROM	TO	LITHOLOGY	SAMPLE	WIDTH	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
3.1	4.6	OVBN	15205	1.5	207	1219	1552	1.2	1
4.6	6.1	"	15206	1.5	196	1117	1406	1.1	6
6.1	7.6	"	15207	1.5	179	305	861	0.8	2
7.6	9.1	2.4 D	15208	1.5	109	488	1001	1.1	1
9.1	10.7	3.2 B/2.4 D	15209	1.6	51	114	261	0.5	3
10.7	12.2	2.6/3.2	15210	1.5	82	719	1611	1.7	1
12.2	15.2	2.6/2.3	15211/12	3.0	87	200	620	0.8	1
15.2	16.8	2.3 I	15213	1.6	56	263	556	0.8	1
16.8	18.3	3.1 D/2.3 I	15214	1.5	43	82	192	0.5	1
18.3	19.8	3.1 D/Qtz v/2.3	15215	1.5	58	116	219	0.5	1
19.8	21.3	3.1 DB/2.3/Qtz v	15216	1.5	151	1525	2918	1.5	14
21.3	22.9	3.1 DB	15217	1.6	184	1209	1338	1.8	4
22.9	24.4	3.1 DB/3.1 D	15218	1.5	142	572	1231	0.9	5
24.4	25.9	3.1 D	15219	1.5	163	534	447	1.0	1
25.9	27.4	3.1/2.3/2.4	15220	1.5	78	92	283	0.4	1
27.4	29.0	2.3/3.1 D	15221	1.6	98	141	372	0.6	6
29.0	30.5	2.3 D	15222	1.5	49	122	112	1.1	8
30.5	32.0	2.3 D/3.1 D	15223	1.5	79	140	337	0.8	6
32.0	33.5	2.3 D/3.1 D	15224	1.5	63	191	198	0.9	1
33.5	36.6	2.3 D, minor 2.4	15225/26	3.1	75	76	212	0.5	5
36.6	38.1	2.3 DI/2.4	15227	1.5	85	78	171	0.9	1
38.1	39.6	2.3 DI/2.4	15228	1.5	72	232	888	1.1	1
39.6	41.2	3.1 DB/2.3 I	15229	1.6	81	369	371	1.4	25
41.2	44.2	3.1 DA	15230/31	3.0	53	132	110	1.2	6
44.2	45.7	3.1 DA	15232	1.5	48	88	188	0.9	3
45.7	47.2	3.1 DA	15233	1.5	101	160	264	1.4	10
47.2	48.8	3.1 DA	15234	1.6	80	101	200	1.3	14
48.8	50.3	3.1 DA	15235	1.5	75	37	253	0.3	4
50.3	51.8	3.1 DA	15236	1.5	69	92	163	0.5	15
51.8	53.3	3.1 DA	15237	1.5	65	106	303	0.5	45
53.3	54.9	3.1 D	15238	1.6	226	755	941	2.0	79
54.9	56.4	3.1 D/2.3	15239	1.5	197	268	393	1.6	70
56.4	57.9	3.1 D/2.3/2.4	15240	1.5	159	419	842	0.9	17
57.9	59.4	2.3/3.1 D	15241	1.5	149	280	908	0.9	13
59.4	61.0	3.1 D/3.2 D	15242	1.6	59	110	276	0.6	5
61.0	62.5	3.1 D/3.2 D	15243	1.5	62	50	273	0.4	1
62.5	64.0	3.1 D 1a	15244	1.5	23	66	197	0.4	1
64.0	67.1	3.1 D 1a	15245/46	3.1	46	343	117	0.6	1
67.1	70.1	3.1 D 1a/3.2 DF	15247/48	3.0	12	35	49	0.3	1
70.1	73.2	3.1 D 1a/3.2 DF	15249/50	3.1	14	24	63	0.2	1
73.2	74.7	3.1 DB/3.2 DF	15251	1.5	17	29	133	0.4	1
74.7	76.2	3.1 DB	15252	1.5	42	106	321	0.5	1
76.2	77.7	3.1 DB/3.2 D	15253	1.5	88	535	783	0.8	3
77.7	80.8	3.2 D	15254/55	3.1	15	31	105	0.5	1
80.8	82.3	3.2 D	15256	1.5	14	34	141	0.4	4

82.3	83.8	3.2 D/3.1 DB	15257	1.5	17	54	197	0.5	1
83.8	85.3	3.2 D/3.1 DB	15258	1.5	32	35	202	0.2	1
85.3	88.4	3.2 D/3.1 DB	15259/60	3.1	19	20	82	0.2	1
88.4	91.4	3.2 D/3.1 DB	15261/62	3.0	21	49	158	0.2	1
91.4	93.0	3.2 D/3.1 DB	15263	1.6	35	30	211	0.2	1
93.0	94.5	3.1 DB/3.2 D	15264	1.5	375	1161	1105	3.0	2
94.5	96.0	2.3 E/3.1 DB	15265	1.5	235	272	985	1.3	1
96.0	97.5	2.3 E/3.1 DB	15266	1.5	108	111	347	0.6	1
97.5	100.6	3.1 DB/2.3 E	15267/68	3.1	49	50	290	0.2	1
100.6	102.1	3.1 DB/3.2 D	15269	1.5	51	68	286	0.1	1
102.1	105.2	3.1 DB/3.2 D	15270/71	3.1	59	54	367	0.6	1
105.2	108.2	3.1 DB/3.2 D	15272/73	3.0	26	13	86	0.4	2
108.2	111.2	3.1 DB/3.2 D	15274/75	3.0	14	8	55	0.1	1
111.2	114.3	3.1 DB/3.2 D	15276/77	3.1	4	2	47	0.1	2
114.3	117.4	3.1 DB	15278/79	3.1	15	11	66	0.1	3
117.4	118.9	3.1 DB	15280	1.5	12	9	80	0.1	1
118.9	120.4	3.1 DB	15281	1.5	7	2	52	0.1	1

END OF HOLE

GEOLOGIST: 

PROJECT : SEMCO PROJECT NO. : 137 NTS : 082M05 DATE COLLARED : SEPT 25,1987
HOLE NO.: NRD-87-3 DRILL TYPE : Reverse Circulation DATE COMPLETED : SEPT 26,1987

Depth	Inclination	Bearing	Eastings	Northings	Elevation
0.0	-64.0	58.0	31280.00	27500.00	1350.00
51.30	-64.0	58.0	31299.07	27511.92	1303.89

FROM	TO	LITHOLOGY	SAMPLE	WIDTH	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
4.6	6.1	OVBN	15285	1.5	55	52	163	0.4	41
6.1	7.6	"	15286	1.5	54	46	255	0.2	45
7.6	9.1	"	15287	1.5	34	74	259	0.2	37
9.1	10.7	3.2 DB	15288	1.6	38	97	123	0.1	15
10.7	12.2	3.2 DB/3.1 DB	15289	1.5	75	81	153	0.2	12
12.2	13.7	3.2 DB/3.1 DB	15290	1.5	88	58	115	0.1	14
13.7	15.2	3.2 DB/3.1 DB	15291	1.5	634	28	131	0.6	22
15.2	16.8	"	15292	1.6	182	21	126	0.2	11
16.8	18.3	"	15293	1.5	159	24	244	0.2	24
18.3	19.8	"	15294	1.5	73	29	116	0.1	53
19.8	21.3	"	15295	1.5	48	284	150	0.9	42
21.3	22.9	"	15296	1.6	31	38	99	0.1	19
22.9	24.4	"	15297	1.5	35	107	139	0.1	11
24.4	25.9	"	15298	1.5	31	72	119	0.1	7
25.9	27.4	"	15299	1.5	38	65	105	0.1	10
27.4	29.0	3.1 DB	15300	1.6	1854	4246	5117	10.2	31
29.0	30.5	"	15301	1.5	1339	3083	6024	5.4	14
30.5	32.0	"	15302	1.5	1666	2332	3029	6.2	21
32.0	33.5	"	15303	1.5	236	503	923	0.9	6
33.5	35.1	"	15304	1.6	253	241	449	0.5	6
35.1	36.6	3.2 D	15305	1.5	110	69	189	0.1	2
36.6	38.1	3.2 BD	15306	1.5	126	76	238	0.1	1
38.1	39.6	3.2 DB	15307	1.5	942	166	319	1.4	4
39.6	41.2	"	15308	1.6	55	129	243	0.3	1
41.2	42.7	"	15309	1.5	72	507	460	0.9	13
42.7	44.2	3.2 DB/3.1 DB	15310	1.5	258	757	1577	1.6	27
44.2	45.7	3.1 DB/3.2 D	15311	1.5	384	1923	2875	2.1	24
45.7	47.2	3.1 DB	15312	1.5	782	4763	6212	3.8	30
47.2	48.8	"	15313	1.6	1024	12783	27108	9.9	60
48.8	50.3	"	15314	1.5	283	2791	3638	2.1	23
50.3	51.3	3.1 DB/3.2 D	15315	1.0	159	1641	2627	1.4	16

END OF HOLE

GEOLOGIST: G. Thomas

PROJECT : SEMCO PROJECT NO. : 137 NTS : 082M05 DATE COLLARED : SEPT 28,1987
HOLE NO.: NRD-87-4 DRILL TYPE : Reverse Circulation DATE COMPLETED : OCT 1,1987

Depth	Inclination	Bearing	Eastings	Northings	Elevation
0.0	-65.0	56.0	31190.00	27700.00	1425.00
198.0	-65.0	56.0	31259.37	27746.79	1245.55

FROM	TO	LITHOLOGY	SAMPLE	WIDTH	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1.5	3.1	OVBN	15316	1.6	83	460	248	0.5	6
3.1	4.6	"	15317	1.5	42	122	238	0.2	14
4.6	6.1	"	15318	1.5	29	80	133	0.1	25
6.1	7.6	"	15319	1.5	20	56	91	0.2	23
7.6	9.1	"	15320	1.5	20	50	93	0.1	19
9.1	12.2	3.2 D/OVBN	15321/22	3.1	29	36	88	0.1	19
12.2	15.2	3.2 D	15323/24	3.0	23	22	65	0.3	11
15.2	18.3	"	15325/26	3.1	22	20	80	0.2	136
18.3	21.3	"	15327/28	3.0	19	16	71	0.2	7
21.3	24.4	"	15329/30	3.1	16	25	88	0.1	11
24.4	27.4	"	15331/32	3.0	11	17	71	0.1	1
27.4	30.5	"	15333/34	3.1	19	21	91	0.1	8
30.5	33.5	"	15335/36	3.0	17	31	121	0.1	1
33.5	36.6	"	15337/38	3.1	16	43	154	0.1	13
36.6	38.1	3.2 DI	15339	1.5	11	39	65	0.3	11
38.1	39.6	3.2	15340	1.5	26	26	142	0.1	3
39.6	42.7	"	15341/42	3.1	17	29	97	0.2	7
42.7	45.7	"	15343/44	3.0	16	24	99	0.2	6
45.7	47.2	3.2 D	15345	1.5	15	26	69	0.1	1
47.2	48.8	"	15346	1.6	29	31	98	0.1	8
48.8	50.3	"	15347	1.5	24	121	159	0.5	51
50.3	51.8	3.2/2.4	15348	1.5	37	54	299	0.2	20
51.8	53.3	3.2 D/2.4	15349	1.5	33	43	182	0.1	9
53.3	54.9	"	15350	1.6	28	90	224	0.2	4
54.9	56.4	3.2 D	15351	1.5	86	613	1304	0.8	21
56.4	57.9	3.2	15352	1.5	232	120	326	0.7	30
57.9	59.4	3.2 DB	15353	1.5	959	52	203	1.3	61
59.4	61.0	3.2 D/3.1 D	15354	1.6	166	240	634	0.8	55
61.0	62.5	3.1	15355	1.5	69	129	271	0.4	39
62.5	64.0	"	15356	1.5	52	132	212	0.3	26
64.0	65.5	"	15357	1.5	189	924	1204	2.0	72
65.5	67.1	"	15358	1.6	86	678	983	1.3	55
67.1	68.6	3.1/3.2 D	15359	1.5	52	413	477	0.8	33
68.6	70.1	3.1	15360	1.5	101	541	1136	1.1	55
70.1	71.6	"	15361	1.5	279	1636	1300	2.7	60
71.6	73.2	3.1/3.2	15362	1.6	124	678	774	1.3	43
73.2	74.7	3.2	15363	1.5	43	124	103	0.1	45
74.7	76.2	"	15364	1.5	34	40	96	0.1	19
76.2	77.7	3.2 D	15365	1.5	32	36	109	0.1	1
77.7	79.3	"	15366	1.6	76	342	448	0.1	13
79.3	80.8	"	15367	1.5	41	137	485	0.1	11
80.8	82.3	3.2 D/3.1 D	15368	1.5	84	222	263	0.3	7
82.3	83.8	3.1 DB/3.2 DB	15369	1.5	54	434	731	0.9	12
83.8	85.3	"	15370	1.5	85	426	537	0.3	5
85.3	86.9	3.1 DB	15371	1.6	64	375	567	0.2	1

86.9	88.4	"	15372	1.5	37	340	1270	0.8	10
88.4	89.9	"	15373	1.5	22	131	298	0.1	8
89.9	91.4	3.1 DB/3.2 D	15374	1.5	15	145	393	0.2	1
91.4	93.0	"	15375	1.6	16	116	224	0.1	8
93.0	94.5	3.1 DB	15376	1.5	559	241	494	2.0	27
94.5	96.0	"	15377	1.5	277	157	339	0.8	16
96.0	97.5	3.1 DB/3.2 D	15378	1.5	170	254	1139	1.1	17
97.5	99.1	"	15379	1.6	554	1155	5509	3.5	23
99.1	100.6	"	15380	1.5	571	289	807	1.1	21
100.6	102.1	"	15381	1.5	781	188	822	0.8	26
102.1	103.6	"	15382	1.5	132	745	947	1.1	14
103.6	105.2	"	15383	1.6	108	519	1179	1.0	12
105.2	106.7	"	15384	1.5	87	155	530	0.5	4
106.7	108.2	"	15385	1.5	163	559	1469	1.0	1
108.2	109.7	"	15386	1.5	297	2102	4018	1.5	1
109.7	111.2	"	15387	1.5	189	820	2195	1.5	2
111.2	112.8	"	15388	1.6	463	1258	4057	2.2	23
112.8	114.3	"	15389	1.5	129	1199	2229	0.6	14
114.3	115.8	3.1 DB	15390	1.5	168	1314	1833	0.9	1
115.8	117.4	3.1 DB/3.2 D	15391	1.6	45	373	825	0.6	2
117.4	118.9	Qtz v/3.1 DB	15392	1.5	17	81	137	0.3	1
118.9	120.4	3.1 D/Qtz v	15393	1.5	552	1230	2725	2.8	3
120.4	121.9	3.1 D	15394	1.5	288	1367	2004	2.1	2
121.9	123.4	"	15395	1.5	511	652	1164	2.5	3
123.4	125.0	"	15396	1.6	496	1258	1680	2.3	9
125.0	126.5	"	15397	1.5	140	349	690	0.6	14
126.5	128.0	"	15398	1.5	615	1393	1779	2.9	1
128.0	129.5	3.1 DB	15399	1.5	425	2450	3622	3.6	33
129.5	131.1	"	15400	1.6	143	1065	1148	1.1	13
131.1	132.6	"	15401	1.5	248	450	931	0.5	18
132.6	134.1	3.1 D	15402	1.5	714	1525	1806	1.5	16
134.1	135.6	"	15403	1.5	661	4138	5835	3.9	19
135.6	137.2	"	15404	1.6	1422	4423	6655	4.6	30
137.2	138.7	3.1 DB	15405	1.5	824	4100	5657	3.1	19
138.7	140.2	"	15406	1.5	847	3766	3486	2.8	22
140.2	141.7	"	15407	1.5	1012	1404	2929	2.2	23
141.7	143.3	"	15408	1.6	2029	7068	13118	5.8	35
143.3	144.8	"	15409	1.5	1001	4348	9608	7.0	1
144.8	146.3	3.1 DB/3.2 D	15410	1.5	540	1486	2433	1.6	10
146.3	147.8	3.2 B/3.1 DB	15411	1.5	696	1881	2713	2.0	11
147.8	149.3	3.1 DB	15412	1.5	1620	1401	2350	3.6	1
149.3	150.9	"	15413	1.6	516	508	854	1.3	23
150.9	152.4	"	15414	1.5	234	462	845	1.0	19
152.4	153.9	"	15415	1.5	196	948	1887	1.0	31
153.9	155.4	"	15416	1.5	196	465	429	1.1	29
155.4	157.0	"	15417	1.6	540	2033	3186	3.2	33
157.0	158.5	3.1 D	15418	1.5	216	467	869	1.1	56
158.5	160.0	3.1 DB	15419	1.5	312	885	1031	1.8	42
160.0	161.5	3.1 DB/3.2 D	15420	1.5	170	191	613	0.6	23
161.5	163.1	3.2 D/3.1 DB	15421	1.6	242	282	977	1.2	45
163.1	164.6	3.2 D/3.1 D	15422	1.5	330	2047	2043	2.5	53
164.6	166.1	3.2 D	15423	1.5	73	658	1041	0.7	92

166.1	167.6	"	15424	1.5	63	250	400	0.5	39
167.6	169.2	3.2 DB	15425	1.6	69	525	1125	0.8	42
169.2	170.7	"	15426	1.5	63	357	468	0.4	32
170.7	172.2	3.1 D/3.2 D	15427	1.5	339	3201	4376	3.4	75
172.2	173.7	3.1 D	15428	1.5	62	367	799	0.5	56
173.7	175.3	3.1 D/3.2 D	15429	1.6	54	292	547	0.6	47
175.3	176.8	"	15430	1.5	178	1805	2159	2.9	65
176.8	178.3	"	15431	1.5	271	2487	2182	3.6	72
178.3	179.8	"	15432	1.5	124	1421	2058	2.2	86
179.8	181.3	"	15433	1.5	154	803	1341	1.8	172
181.3	182.9	3.2 D	15434	1.6	51	106	193	0.3	19
182.9	184.4	"	15435	1.5	76	402	688	1.1	62
184.4	187.4	"	15436/37	3.0	64	206	302	0.5	17
187.4	189.0	3.2 D/3.1 D	15438	1.6	103	431	379	1.5	28
189.0	190.5	"	15439	1.5	69	776	361	2.0	32
190.5	192.0	3.2 D	15440	1.5	46	301	274	1.4	28
192.0	193.5	"	15441	1.5	54	174	157	1.5	50
193.5	195.1	"	15442	1.6	45	80	127	0.8	21
195.1	198.0	"	15443/44	2.9	33	26	75	0.8	72

END OF HOLE

GEOLOGIST: G. Mochelle

PROJECT : SEMCO PROJECT NO. : 137 NTS : 082M05 DATE COLLARED : OCT 2,1987
HOLE NO.: NRD-87-5 DRILL TYPE : Reverse Circulation DATE COMPLETED : OCT 2,1987

Depth	Inclination	Bearing	Eastings	Northings	Elevation
0.0	-60.0	58.0	31275.00	28300.00	1485.00
120.4	-60.0	58.0	31326.00	28331.90	1380.73

FROM	TO	LITHOLOGY	SAMPLE	WIDTH	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
3.1	4.6	OVBN	15445	1.5	38	299	196	0.2	41
4.6	6.1	"	15446	1.5	39	259	349	0.1	46
10.7	12.2	2.4/3.2	15450	1.5	196	355	675	1.3	88
12.2	13.7	3.2/2.4	15451	1.5	115	674	1086	1.2	49
13.7	15.2	2.4 minor 3.2	15452	1.5	35	151	208	0.3	45
15.2	16.8	2.4	15453	1.6	25	129	606	0.4	42
16.8	19.8	2.4/3.2	15454/55	3.0	39	163	333	0.5	71
19.8	21.3	"	15456	1.5	33	145	262	0.9	140
21.3	22.9	"	15457	1.6	47	140	593	0.7	105
22.9	24.4	"	15458	1.5	56	118	1120	0.7	181
27.4	29.0	2.4	15461	1.6	325	98	257	1.2	91
29.0	30.5	"	15462	1.5	166	365	262	0.9	70
30.5	32.0	"	15463	1.5	48	304	325	0.4	33
36.6	38.1	"	15467	1.5	74	250	335	0.5	80
38.1	39.6	"	15468	1.5	508	1511	1262	1.6	131
39.6	41.2	"	15469	1.6	540	3544	3999	2.8	74
41.2	42.7	"	15470	1.5	163	1156	1678	1.0	45
42.7	44.7	"	15471	2.0	197	1625	2485	1.3	34
44.7	45.7	"	15472	1.0	224	2436	3891	1.6	37
45.7	47.2	"	15473	1.5	123	1915	2115	1.3	23
47.2	48.8	"	15474	1.6	138	1464	2121	1.0	27
48.8	50.3	2.4 minor 3.2	15475	1.5	145	2133	3464	1.5	19
50.3	51.8	2.4	15476	1.5	296	842	1102	1.7	36
51.8	53.3	2.4 minor 3.2	15477	1.5	340	1780	2551	3.2	49
53.3	54.9	"	15478	1.6	127	737	1333	1.2	30
54.9	56.4	2.4/3.2	15479	1.5	149	1240	1550	1.6	43
56.4	57.9	"	15480	1.5	251	2346	2675	2.3	55
57.9	59.4	"	15481	1.5	60	453	744	0.6	25
59.4	61.0	"	15482	1.6	67	549	898	0.6	24
61.0	62.5	"	15483	1.5	95	1038	1853	0.7	25
62.5	64.0	"	15484	1.5	746	6535	12148	5.4	117
64.0	67.1	"	15485/86	3.1	685	7120	9383	4.9	136
67.1	68.6	2.4 B/3.2	15487	1.5	100	1283	1225	0.6	37
68.6	70.1	"	15488	1.5	118	1102	1584	0.6	22
70.1	71.6	2.4 B minor 3.2	15489	1.5	42	957	1039	0.5	34
71.6	73.2	"	15490	1.6	133	2184	2666	1.1	21
73.2	74.7	2.4	15491	1.5	76	1491	1715	0.8	23
74.7	76.2	2.4 B	15492	1.5	173	2682	2556	2.9	28
76.2	77.7	2.4	15493	1.5	130	1992	1631	2.1	26
77.7	79.3	2.4 B	15494	1.6	59	2564	2214	1.9	18
79.3	82.3	2.4 B 5% Qtz v	15495/96	3.0	153	2424	2966	1.5	30
82.3	83.8	2.4 B/3.2	15497	1.5	410	2403	3334	1.8	63
83.8	85.3	"	15498	1.5	1024	3586	4029	2.8	60
85.3	86.9	2.4/3.2/Qtz v	15499	1.6	469	2803	3318	2.0	29
86.9	88.4	2.4/3.2	15500	1.5	3577	3902	5603	6.6	190

88.4	91.4	"
91.4	93.0	3.2
93.0	96.0	2.4/3.2
96.0	97.5	2.4
97.5	100.6	2.4 B
100.6	103.6	"
103.6	106.7	"
106.7	109.7	2.4 B/3.2
109.7	111.2	"
111.2	112.8	"
112.8	114.3	"
114.3	117.4	"
117.4	120.4	"

END OF HOLE

15501/02	3.0	673	3510	2310	3.0	36
15503	1.6	90	268	393	0.1	25
15504/05	3.0	98	540	744	0.2	14
15506	1.5	142	823	864	0.5	24
15507/08	3.1	125	1158	1284	0.6	23
15509/10	3.0	170	2293	2544	1.3	29
15511/12	3.1	369	1361	1079	0.8	13
15513/14	3.0	212	736	805	0.3	16
15515	1.5	265	2311	2597	1.8	9
15516	1.6	762	11308	14132	7.8	38
15517	1.5	236	2199	2878	1.5	16
15518/19	3.1	99	887	1174	0.6	6
15520/21	3.0	75	979	1781	1.1	12

GEOLOGIST: G. Steckler

PROJECT : SEMCO PROJECT NO. : 137 NTS : 082M05 DATE COLLARED : OCT 3,1987
HOLE NO.: NRD-87-6 DRILL TYPE : Reverse Circulation DATE COMPLETED : OCT 4,1987

Depth	Inclination	Bearing	Eastings	Northings	Elevation
0.0	-60.0	58.0	31775.00	26637.00	1125.00
153.9	-60.0	58.0	31840.26	26677.77	991.72

FROM	TO	LITHOLOGY	SAMPLE	WIDTH	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
1.5	3.1	OVBN	15523	1.6	198	424	593	0.6	16
3.1	4.6	"	15524	1.5	239	220	358	0.5	5
4.6	6.1	"	15525	1.5	237	319	387	0.6	38
6.1	7.6	"	15526	1.5	238	499	361	0.6	56
7.6	9.1	"	15527	1.5	152	123	192	0.2	14
9.1	10.7	"	15528	1.6	254	124	236	0.4	2
10.7	12.2	OVBN/3.1 B	15529	1.5	93	74	114	0.2	1
12.2	13.7	3.1 B	15530	1.5	32	17	71	0.3	5
13.7	15.2	"	15531	1.5	58	35	81	0.1	1
15.2	18.3	"	15533	3.1	18	14	45	0.2	1
18.3	19.8	"	15534	1.5	28	13	46	0.1	3
19.8	21.3	"	15535	1.5	22	8	52	0.1	1
21.3	22.9	"	15536	1.6	21	10	46	0.1	1
22.9	24.4	"	15537	1.5	24	8	46	0.1	3
24.4	25.9	"	15538	1.5	19	5	43	0.1	1
25.9	27.4	"	15539	1.5	22	10	40	0.1	1
27.4	29.0	"	15540	1.6	9	9	41	0.1	3
29.0	30.5	"	15541	1.5	9	9	44	0.1	1
30.5	32.0	3.1 B/3.2	15542	1.5	21	30	78	0.3	1
32.0	33.5	"	15543	1.5	26	19	77	0.1	3
33.5	35.1	"	15544	1.6	21	11	64	0.2	4
35.1	36.6	"	15545	1.5	38	328	598	0.1	9
36.6	38.1	3.1 B/OVBN	15546	1.5	32	171	232	0.2	11
38.1	39.6	3.1 B	15547	1.5	61	331	440	0.2	6
39.6	41.2	3.1 B (minor 3.2)	15548	1.6	57	597	627	0.2	7
41.2	42.7	3.1 B	15549	1.5	38	68	114	0.1	6
42.7	44.2	"	15550	1.5	36	57	104	0.1	1
44.2	45.7	3.1 B/10% Qtz cb v	15551	1.5	40	77	132	0.3	1
45.7	47.2	"	15552	1.5	26	11	58	0.4	1
47.2	48.8	3.1 B (minor qtz-cb)	15553	1.6	26	10	59	0.4	1
48.8	51.8	3.1 B	15554/55	3.0	42	33	111	0.4	3
51.8	53.3	3.1 B/3.2	15556	1.5	24	30	94	0.4	2
53.3	54.9	3.1 B	15557	1.6	78	587	480	1.4	5
54.9	56.4	3.1 B/3.2	15558	1.5	25	121	183	0.6	7
56.4	57.9	"	15559	1.5	27	52	115	0.4	1
57.9	59.4	"	15560	1.5	23	26	67	0.1	9
59.4	61.0	3.1 B	15561	1.6	49	67	132	0.5	15
61.0	64.0	3.1B/3.2	15562/63	3.0	36	24	80	0.2	1
64.0	67.1	3.1 B/Qtz v	15564/65	3.1	30	26	85	0.1	3
67.1	68.6	3.1 B/3.2	15566	1.5	31	20	71	0.3	1
68.6	70.1	"	15567	1.5	46	153	113	0.3	5
70.1	71.6	3.1 B	15568	1.5	82	352	445	0.7	8
71.6	73.2	3.1 B/ Qtz v	15569	1.6	140	417	404	0.9	10
73.2	74.7	3.1 B/2.3	15570	1.5	803	556	606	2.1	17
74.7	76.2	3.1/2.3	15571	1.5	129	801	1296	1.7	8

76.2	77.7	"	15572	1.5	199	1099	1879	2.4	1
77.7	79.3	2.3 minor otz v	15573	1.6	143	446	1477	0.9	3
79.3	80.8	3.1/2.3	15574	1.5	92	123	208	0.3	1
80.8	82.3	"	15575	1.5	99	187	190	0.2	2
82.3	83.8	3.1	15576	1.5	61	50	117	0.1	3
83.8	85.3	3.1 B	15577	1.5	87	73	159	0.1	1
85.3	86.9	3.1 minor 2.3	15578	1.6	219	84	548	0.1	1
86.9	88.4	3.1/2.3	15579	1.5	95	68	588	0.1	2
88.4	89.9	2.3/3.1	15580	1.5	194	340	798	0.6	1
89.9	91.4	3.1 minor 2.3	15581	1.5	106	296	481	1.0	4
91.4	93.0	3.1/3.2	15582	1.6	160	594	860	1.2	5
93.0	94.5	3.2/3.1	15583	1.5	96	571	564	1.1	1
94.5	97.5	"	15584/85	3.0	76	189	442	0.3	1
97.5	99.1	"	15586	1.6	58	152	356	0.3	1
99.1	100.6	"	15587	1.5	99	790	881	1.3	3
100.6	102.1	"	15588	1.5	71	246	312	0.7	8
102.1	103.6	"	15589	1.5	221	1592	1618	1.2	1
103.6	105.2	"	15590	1.6	150	884	1051	0.9	1
105.2	106.7	3.1 minor 2.3	15591	1.5	144	862	1153	0.7	1
106.7	109.7	3.1	15592/93	3.0	51	140	140	0.1	1
109.7	112.8	"	15594/95	3.1	49	47	63	0.3	1
112.8	114.3	3.1 B	15596	1.5	39	46	77	0.1	1
114.3	115.8	3.1	15597	1.5	80	286	563	0.2	2
115.8	117.4	"	15598	1.6	128	1353	2222	1.3	3
117.4	118.9	"	15599	1.5	109	495	1281	0.9	2
118.9	120.4	3.1/2.3	15600	1.5	89	633	1213	0.6	3
120.4	123.4	"	15601/02	3.0	124	795	1219	1.2	1
123.4	125.0	"	15603	1.6	270	1064	1795	2.7	21
125.0	126.5	3.1 minor 3.2	15604	1.5	69	266	365	0.3	5
126.5	128.0	"	15605	1.5	66	438	349	0.6	1
128.0	129.5	3.1 minor 2.3/3.2	15606	1.5	121	305	643	0.5	8
129.5	131.1	3.1	15607	1.6	53	100	297	0.2	14
131.1	134.1	3.1/2.3	15608/09	3.0	59	107	282	0.3	8
134.1	137.2	3.1 minor 3.2	15610/11	3.1	55	31	130	0.3	1
137.2	138.7	3.1/3.2	15612	1.5	47	28	81	0.1	2
138.7	140.2	"	15613	1.5	60	46	76	0.6	1
140.2	141.7	3.1	15614	1.5	47	32	138	0.1	4
141.7	144.8	"	15615/16	3.1	38	47	116	0.1	1
144.8	147.8	2.3/3.1	15617/18	3.0	29	27	314	0.1	1
147.8	150.9	"	15619/20	3.1	32	34	117	0.1	1
150.9	152.4	"	15621	1.5	32	258	112	0.6	1
152.4	153.9	"	15622	1.5	15	74	477	0.2	1

END OF HOLE

GEOLOGIST: G. Meeker

PROJECT : SEMCO
HOLE NO.: NRD-87-8

PROJECT NO. : 137
DRILL TYPE : Reverse Circulation

NTS : 082M05

DATE COLLARED : OCT 4.1987
DATE COMPLETED :

Depth	Inclination	Bearing	Eastings	Northings	Elevation
0.0	-64.0	58.0	31280.00	27503.00	1350.00
132.6	-64.0	58.0	31329.30	27533.80	1230.82

FROM	TO	LITHOLOGY	SAMPLE	WIDTH	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
0.0	50.3	Refer to NRD-87-3							
50.3	51.8	3.1 BD/3.2 D	15742	1.5	297	1981	3116	2.1	25
51.8	53.3	"	15743	1.5	247	1554	1972	1.4	36
53.3	54.9	"	15744	1.6	820	3986	5426	3.4	29
54.9	56.4	"	15745	1.5	1988	11405	11972	9.1	62
56.4	57.9	3.1 BD	15746	1.5	2196	13602	15076	11.2	64
57.9	59.4	"	15747	1.5	3243	17549	20347	16.9	103
59.4	61.0	"	15748	1.6	539	5033	7718	3.9	39
61.0	62.5	3.1 D/3.2 D	15749	1.5	200	1564	1849	1.1	26
62.5	64.0	"	15750	1.5	291	2422	3055	1.7	28
64.0	65.5	"	89426	1.5	143	1376	1541	1.1	56
65.5	67.1	"	89427	1.6	159	1812	2268	1.5	54
67.1	68.6	3.1 BD/3.2 D	89428	1.5	172	2578	2667	2.1	21
68.6	70.1	3.1 DB	89429	1.5	3161	16344	15051	13.0	330
70.1	71.6	3.1 DB/3.2 D	89430	1.5	830	4473	5882	3.9	37
71.6	73.2	3.2 D/3.1 BD	89431	1.6	342	2962	3228	2.6	53
73.2	74.7	"	89432	1.5	332	2853	4196	2.7	67
74.7	76.2	3.2 D/3.1 D	89433	1.5	132	993	1039	1.2	86
76.2	77.7	"	89434	1.5	115	1359	1624	1.4	72
77.7	79.3	"	89435	1.6	68	426	560	0.3	48
79.3	80.8	3.2 D	89436	1.5	52	192	226	0.2	28
80.8	82.3	"	89437	1.5	53	103	148	0.2	24
82.3	83.8	3.2 D (minor 3.1 D)	89438	1.5	49	92	108	0.1	21
83.8	85.3	3.2 D	89439	1.5	53	112	186	0.3	14
85.3	86.9	3.2 D/3.1 D	89440	1.6	425	529	1011	2.7	22
86.9	88.4	"	89441	1.5	97	129	244	0.7	17
88.4	89.9	"	89442	1.5	110	275	1004	1.1	24
89.9	91.4	"	89443	1.5	69	203	208	0.5	31
91.4	93.0	"	89444	1.6	34	80	118	0.4	51
93.0	94.5	"	89445	1.5	34	308	616	1.2	62
94.5	96.0	"	89446	1.5	41	274	367	1.1	43
96.0	97.5	3.1 D (minor 3.2 D)	89447	1.5	37	163	157	0.9	48
97.5	99.1	3.1 D/3.2 D	89448	1.6	49	256	458	1.2	51
99.1	100.6	"	89449	1.5	49	181	301	1.1	46
100.6	102.1	3.1 D	89450	1.5	220	2445	2418	4.3	87
102.1	103.6	"	89451	1.5	209	2722	3940	2.7	123
103.6	105.2	"	89452	1.6	200	6245	8989	5.9	161
105.2	106.7	"	89453	1.5	150	2760	4617	2.8	189
106.7	108.2	"	89454	1.5	165	2626	3337	2.8	153
108.2	109.7	3.2 D	89455	1.5	112	1202	1484	1.4	79
109.7	111.2	3.1 D (minor 3.2 D)	89456	1.5	65	355	749	0.7	68
111.2	112.8	3.1 D	89457	1.6	109	1302	1510	1.7	92
112.8	114.3	"	89458	1.5	163	1845	2704	2.7	193
114.3	115.8	3.1 D/3.2 D	89459	1.5	56	557	802	1.1	106

115.8	117.4	3.1 D (minor 3.2 D)	89460	1.6	32	172	184	0.3	17
117.4	118.9	3.1 D White Qtz	89461	1.5	60	225	316	0.4	64
118.9	120.4	3.1/3.2/Qtz	89462	1.5	52	157	283	0.6	22
120.4	121.9	3.1 B/3.2/Qtz	89463	1.5	279	97	177	0.5	12
121.9	123.4	3.2 J/3.1	89464	1.5	52	229	319	0.3	24
123.4	125.0	"	89465	1.6	140	593	1124	0.6	18
125.0	126.5	"	89466	1.5	109	608	660	0.6	44
126.5	128.0	3.1/3.2	89467	1.5	88	371	466	0.5	38
128.0	129.5	3.2 J/3.1	89468	1.5	62	243	344	0.3	24
129.5	131.1	3.2/3.1/Qtz	89469	1.6	52	320	325	0.4	24
131.1	132.6	3.1/3.2/Qtz	89470	1.5	71	307	277	0.5	22

END OF HOLE

GEOLOGIST: G. Macdonald

PROJECT : SEMCO PROJECT NO. : 137 NTS : 082M05 DATE COLLARED : OCT 5,1987
HOLE NO.: NRD-87-9 DRILL TYPE : Reverse Circulation DATE COMPLETED :

Depth	Inclination	Bearing	Eastings	Northings	Elevation
0.0	-65.0	60	31407.00	38402.00	1495.00
121.9	-65.0	60	31451.62	28427.76	1384.52

FROM	TO	LITHOLOGY	SAMPLE	WIDTH	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
6.1	7.6	OVBN	89475	1.5	469	5087	13655	4.7	136
7.6	9.1	3.2 D/OVBN	89476	1.5	153	1382	1351	1.4	24
9.1	10.7	3.2 D	89477	1.6	281	1857	1674	2.3	25
10.7	12.2	"	89478	1.5	438	991	861	2.2	33
12.2	13.7	3.2 B	89479	1.5	608	1754	2193	5.7	38
13.7	15.2	"	89480	1.5	584	1251	1547	2.7	24
15.2	16.8	3.2 B/Qtz/Ovbn	89481	1.6	1694	14378	21575	19.6	51
16.8	18.3	3.2 B	89482	1.5	421	1415	1830	2.4	15
18.3	19.8	3.1/3.2	89483	1.5	1295	7608	4643	10.0	58
19.8	21.3	"	89484	1.5	206	1286	903	2.2	26
21.3	22.9	3.2	89485	1.6	259	1103	788	1.8	12
22.9	24.4	3.2 B	89486	1.5	116	601	392	0.9	8
24.4	25.9	3.1 D/3.2 D	89487	1.5	281	801	551	1.5	31
25.9	27.4	3.1	89488	1.5	255	871	809	3.7	22
27.4	29.0	3.2/3.1	89489	1.6	184	1843	644	4.7	34
29.0	30.5	3.2 D	89490	1.5	124	522	388	1.1	25
30.5	32.0	3.2 B	89491	1.5	135	516	360	0.9	5
32.0	33.5	"	89492	1.5	114	531	913	0.6	6
33.5	35.1	"	89493	1.6	128	394	557	0.5	10
35.1	36.6	3.2 D	89494	1.5	837	733	938	2.9	27
36.6	38.1	3.1 D/3.2	89495	1.5	195	400	786	1.2	14
38.1	39.6	3.1/3.2	89496	1.5	187	493	631	1.3	16
39.6	41.2	3.2/3.1	89497	1.6	175	499	500	1.8	27
41.2	42.7	3.2/3.1/Qtz	89498	1.5	470	1253	2184	4.2	37
42.7	44.2	3.2 B/3.1	89499	1.5	676	2314	4075	6.5	55
44.2	45.7	3.2/3.1 B	89500	1.5	1728	1447	6609	5.9	104
45.7	47.2	3.1	1110B	1.5	445	1556	2621	4.6	58
47.2	48.8	3.1/3.2	1111B	1.6	178	619	882	1.6	21
48.8	50.3	3.2 B/3.1	1112B	1.5	68	551	818	0.4	8
50.3	53.3	3.2 B	1113B/14B	3.0	133	1230	1765	0.4	42
53.3	54.9	3.2/3.1	1115B	1.6	63	449	546	0.3	16
54.9	56.4	3.2/3.1 B	1116B	1.5	49	356	455	0.3	23
56.4	57.9	"	1117B	1.5	714	2489	5164	2.7	54
57.9	59.4	"	1118B	1.5	298	1235	1287	0.9	70
59.4	61.0	3.1/3.2	1119B	1.6	1753	9537	8613	6.0	56
61.0	62.5	3.1 D/3.2	1120B	1.5	269	1947	1494	1.2	25
62.5	64.0	3.2 D/3.1 B	1121B	1.5	124	713	595	0.6	39
64.0	67.1	3.2 D/3.1	1122B/23B	3.1	95	368	354	0.3	35
67.1	68.6	3.2/3.1	1124B	1.5	67	99	166	0.2	13
68.6	71.6	3.1	1125B/26B	3.0	75	81	102	0.9	29
71.6	73.2	3.1/3.2	1127B	1.6	47	156	180	0.4	8
73.2	74.7	"	1128B	1.5	64	163	174	0.1	1
74.7	76.2	"	1129B	1.5	84	190	171	0.3	1
76.2	77.7	3.2 B/3.2/OTHER 10%	1130B	1.5	95	249	169	0.1	1
77.7	80.8	3.2 B	1131B/32B	3.1	29	72	106	0.1	1

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80.8	83.8	3.2 B	1133B/34B	3.0	14	27	71	0.3	1
83.8	86.9	"	1135B/36B	3.1	21	62	137	0.1	1
86.9	89.9	"	1137B/38B	3.0	19	40	113	0.1	1
89.9	93.0	3.2 B/3.1 B	1139B/40B	3.1	25	45	107	0.3	1
93.0	96.0	3.2	1141B/42B	3.0	43	37	111	0.5	3
96.0	99.1	3.1 B/3.2	1143B/44B	3.1	14	57	146	0.2	1
99.1	102.1	3.2/3.1 B	1145B/46B	3.0	23	25	92	0.1	9
102.1	105.2	"	1147B/48B	3.1	14	30	94	0.2	6
105.2	108.2	"	1149B/50B	3.0	8	20	62	0.3	7
108.2	111.2	3.1 B	1151B/52B	3.0	6	19	76	0.1	1
111.2	114.3	3.1 B/3.2	1153B/54B	3.1	7	16	64	0.4	1
114.3	115.8	"	1155B	1.5	17	76	97	0.2	4
115.8	117.4	"	1156B	1.6	5	25	68	0.1	12
117.4	118.9	"	1157B	1.5	7	31	71	0.4	5
118.9	120.4	3.2/3.1	1158B	1.5	8	35	78	0.3	6
120.4	121.9	3.2 B/3.1	1159B	1.5	9	28	82	0.4	1

END OF HOLE

GEOLOGIST: G. Hawkins

PROJECT : SEMCO PROJECT NO. : 137 NTS : 082M05 DATE COLLARED : OCT 8,1987
HOLE NO.: NRD-87-12 DRILL TYPE : Reverse Circulation DATE COMPLETED : OCT 8,1987

Depth	Inclination	Bearing	Eastings	Northings	Elevation
0.0	-40.0	58.0	31975.00	26340.00	990.00
108.2	-40.0	58.0	32045.29	26383.92	920.45

FROM	TO	LITHOLOGY	SAMPLE	WIDTH	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
4.6	6.1	OVBN	4536B	1.5	415	180	248	0.6	1
6.1	7.6	"	4537B	1.5	293	80	187	0.5	1
7.6	9.1	"	4538B	1.5	400	499	735	0.6	1
9.1	10.7	"	4539B	1.6	331	58	246	0.6	1
10.7	12.2	"	4540B	1.5	378	157	346	0.6	1
12.2	13.7	"	4541B	1.5	267	59	200	0.3	2
13.7	15.2	"	4542B	1.5	299	67	188	0.5	1
15.2	16.8	"	4543B	1.6	279	101	223	0.4	3
16.8	18.3	"	4544B	1.5	233	243	238	0.4	1
18.3	19.8	2.3/3.1	4545B	1.5	53	8	48	0.1	1
19.8	21.3	2.3 E/3.1	4546B	1.5	55	20	51	0.3	1
21.3	22.9	"	4547B	1.6	36	20	46	0.4	2
22.9	24.4	2.3 E	4548B	1.5	61	22	101	0.1	1
24.4	25.9	2.3 ED	4549B	1.5	72	26	178	0.4	1
25.9	27.4	"	4550B	1.5	76	18	107	0.3	1
27.4	29.0	2.3 E (minor 3.2)	4551B	1.6	85	9	92	0.2	2
29.0	30.5	2.3 E	4552B	1.5	91	13	124	0.4	1
30.5	32.0	2.3 DE (minor 3.1)	4553B	1.5	107	17	104	0.2	1
32.0	33.5	2.3 DE	4554B	1.5	65	10	85	0.3	1
33.5	35.1	2.3 DE/Qtz	4555B	1.6	77	13	58	0.3	1
35.1	38.7	2.3 DE	4556B/57B	3.6	75	9	76	0.2	1
38.7	41.2	2.3 DE/3.1 D/Qtz	4558B/59B	2.5	50	11	45	0.3	1
41.2	44.2	2.3 DE	4560B/61B	3.0	118	135	784	0.5	1
44.2	47.2	"	4562B/63B	3.0	87	19	165	0.2	2
47.2	50.3	"	4564B/65B	3.1	85	14	90	0.2	1
50.3	53.3	"	4566B/67B	3.0	77	13	58	0.2	1
53.3	56.4	2.3 E	4568B/69B	3.1	68	13	68	0.2	1
56.4	59.4	2.3 DE	4570B/71B	3.0	73	20	67	0.1	1
59.4	62.5	2.3 E	4572B/73B	3.1	84	37	64	0.4	1
62.5	65.5	2.3 DE/3.2 D	4574B/75B	3.0	80	28	52	0.2	1
65.5	67.1	2.3 DE (minor 3.2)	4576B	1.6	84	20	66	0.3	1
67.1	68.6	"	4577B	1.5	106	20	80	0.2	2
68.6	70.1	2.3 E	4578B	1.5	75	20	77	0.4	1
70.1	71.6	"	4579B	1.5	83	21	64	0.2	1
71.6	73.2	"	4580B	1.6	78	27	99	0.3	2
73.2	76.2	2.3 ED	4581B/82B	3.0	69	12	80	0.3	1
76.2	79.3	2.3 D	4583B/84B	3.1	86	17	86	0.1	1
79.3	82.3	2.3 DE	4585B/86B	3.0	56	19	80	0.2	2
82.3	85.3	2.3 D (minor 3.1)	4587B/88B	3.0	72	24	97	0.5	1
85.3	88.4	2.3 D	4589B/90B	3.1	84	15	50	0.4	2
88.4	91.4	"	4591B/92B	3.0	76	16	77	0.2	1
91.4	94.5	"	4593B/94B	3.1	47	14	58	0.3	1
94.5	97.5	"	4595B/96B	3.0	66	26	103	0.4	1
97.5	100.6	"	4597B/98B	3.1	52	34	50	0.3	1
100.6	102.1	"	4599B	1.5	28	20	77	0.2	1

102.1	103.6	3.2 D/2.3 D	4600B	1.5	69	19	64	0.2	2
103.6	106.7	2.3 D (minor 3.2 D)	4601B/02B	3.1	96	27	79	0.1	1
106.7	108.2	3.2 D	4603B	1.5	85	9	55	0.1	1

END OF HOLE

GEOLOGIST: G. Hearle

PROJECT : SEMCO PROJECT NO. : 137 NTS : 082M05 DATE COLLARED : OCT 10,1987
HOLE NO.: NRD-87-13 DRILL TYPE : Reverse Circulation DATE COMPLETED : OCT 10,1987

Depth	Inclination	Bearing	Eastings	Northings	Elevation
0.0	-50.0	56.0	31825.00	26445.00	1050.00
47.2	-50.0	56.0	31850.15	26461.97	1013.84

FROM	TO	LITHOLOGY	SAMPLE	WIDTH	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
4.6	6.1	OVBN	4605B	1.5	118	947	2800	1.8	5
6.1	7.6	3.1	4606B	1.5	162	1209	1801	2.3	1
7.6	9.1	3.1 D	4607B	1.5	147	826	1767	1.7	9
9.1	10.7	"	4608B	1.6	152	1569	2686	2.7	2
10.7	12.2	"	4609B	1.5	209	2307	4498	3.1	1
12.2	13.7	"	4610B	1.5	295	1020	2326	1.8	1
13.7	15.2	3.1 D minor 2.3 D	4611B	1.5	282	1248	1492	3.2	2
15.2	16.8	3.1 D/2.3 D	4612B	1.6	406	2601	4348	6.9	1
16.8	18.3	3.1 D minor 2.3 D	4613B	1.5	551	3276	9969	11.2	2
18.3	19.8	3.1 D	4614B	1.5	171	1047	2120	2.1	4
19.8	21.3	3.1 D/2.3	4615B	1.5	555	2774	4210	5.2	9
21.3	22.9	3.1 D	4616B	1.6	292	1900	2865	4.5	8
22.9	24.4	3.1 D (minor 2.3)	4617B	1.5	189	895	1356	1.7	15
24.4	25.9	3.1 D	4618B	1.5	89	2869	472	5.4	29
25.9	27.4	3.2 D	4619B	1.5	107	656	502	1.0	3
27.4	29.0	3.2 D/3.1 D	4620B	1.6	468	520	645	1.5	10
29.0	30.5	3.1 D (minor 3.2 D)	4621B	1.5	60	391	371	1.2	9
30.5	32.0	"	4622B	1.5	99	1086	1664	3.8	12
32.0	33.5	3.1 D	4623B	1.5	109	807	1116	3.2	17
33.5	35.1	2.3 D	4624B	1.6	62	334	702	0.9	3
35.1	36.6	2.3 D/3.1 D	4625B	1.5	55	120	505	0.7	5
36.6	38.1	3.1 DF (minor 2.3D)	4626B	1.5	44	65	166	0.2	4
38.1	39.6	3.1 DF	4627B	1.5	34	10	76	0.1	3
39.6	41.2	"	4628B	1.6	39	9	74	0.1	2
41.2	42.7	"	4629B	1.5	90	356	615	1.1	4
42.7	44.2	"	4630B	1.5	50	153	303	0.6	1
44.2	45.7	"	4631B	1.5	63	454	1042	1.8	3
45.7	47.2	"	4632B	1.5	80	402	952	0.5	1

END OF HOLE

GEOLOGIST: G. Abercrombie

APPENDIX II

STATEMENT OF COST

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COSTS

PROJECT: Semco Option DATE: April 1988

TYPE OF REPORT: Reverse Circulation Drilling

a) Wages:

No. of Days	36 Mandays	
Rate per Day	$130.00/manday	
Dates From:	Sept. 21/87 to Oct.8/87	
Total Wages	36 x $130.00	4,680.00

b) Food & Accomodations:

No. of Days	13 days	
Rate per Day	$80.00	
Dates From:	Sept. 21/87 to Oct. 8/87	
Total Costs	13 x $80.00	1,040.00

c) Transportation: Two Trucks

No. of Days	18 truck days	
Rate per Day	$60.00	
Dates From:	Sept. 21/87 to Oct. 8/87	
Total Costs	18 x $60.00	1,080.00

d) Instrument Rental:

Type of Instrument
No. of Days
Rate per Day $
Dates From:
Total Costs x $

Type of Instrument
No. of Days
Rate per Day $
Dates From:
Total Costs x $

e) Analysis: $6,250.00
(See attached schedule)

f) Cost of preparation of Report

Author:	300.00
Drafting:	100.00
Typing:	100.00

g) Other:

Contractor	
Western Hydro-Air Drilling	38,610.00
Van Kam (sample shipping)	750.00
Can-Am Contracting Ltd. (road building)	4,000.00

Total Cost $56,910.00

h) Unit costs for Drilling

No. of Days		
No. of Units	1054 metres	
Unit costs	$53.99 / metre	
Total Cost	1054 x $53.99	$56,910.00

NORANDA EXPLORATION COMPANY, LIMITED

(WESTERN DIVISION)

DETAILS OF ANALYSES COSTS

PROJECT:

ELEMENT	NO. OF DETERMINATIONS	COST PER DETERMINATION	TOTAL COSTS
Rock			
Cu, Pb, Zn, Ag	537	4.25	2282.25
Au	537	4.25	2282.25
			4564.50
	Sample preparation	537 x 3.00	1611.00
			6175.50
Soil			
Cu, Pb, Zn, Ag	8	4.25	34.00
Au	8	4.25	34.00
			68.00
	Sample preparation	8 x 0.75	6.00
			74.00
		Grand Total	$6249.50

APPENDIX III

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Glenn Shevchenko, with a business address at P.O. Box 2380, 1050 Davie Street, Vancouver, British Columbia, do hereby certify that:

1) I am presently employed with Noranda Exploration Company, Limited, as a Project Geologist, and have been since May 1984.

2) I have worked in the mineral exploration industry since 1977.

3) I graduated (1982) from Concordia University with a B.Sc. in geology.

4) I am a member of the Geological Association of Canada.

Glenn Shevchenko

305+00E.

321+00E.

L.284+00N.

L.280+00N.

L.276+00N.

L.272+00N.

L.268+00N.

L.264+00N.

L.260+00N.

L.256+00N.

L.254+00N.

NRD-87-09

NRD-87-05

NRD-87-04

NRD-87-03,08

NRD-87-02

NRD-87-06

NRD-87-13

NRD-87-12

LCP
BLUFF 1,2,4

RUST 1 to 4

SEMCO OPTION (Bluff 1,2,4 & Percy 1 Mineral Claims)

Creek

LEGEND

NRD-87-02 — Reverse Circulation Drill Hole Location and Direction

CUT BLOCK TREES — Perimeter of Cut Block

Road

Stream

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,344

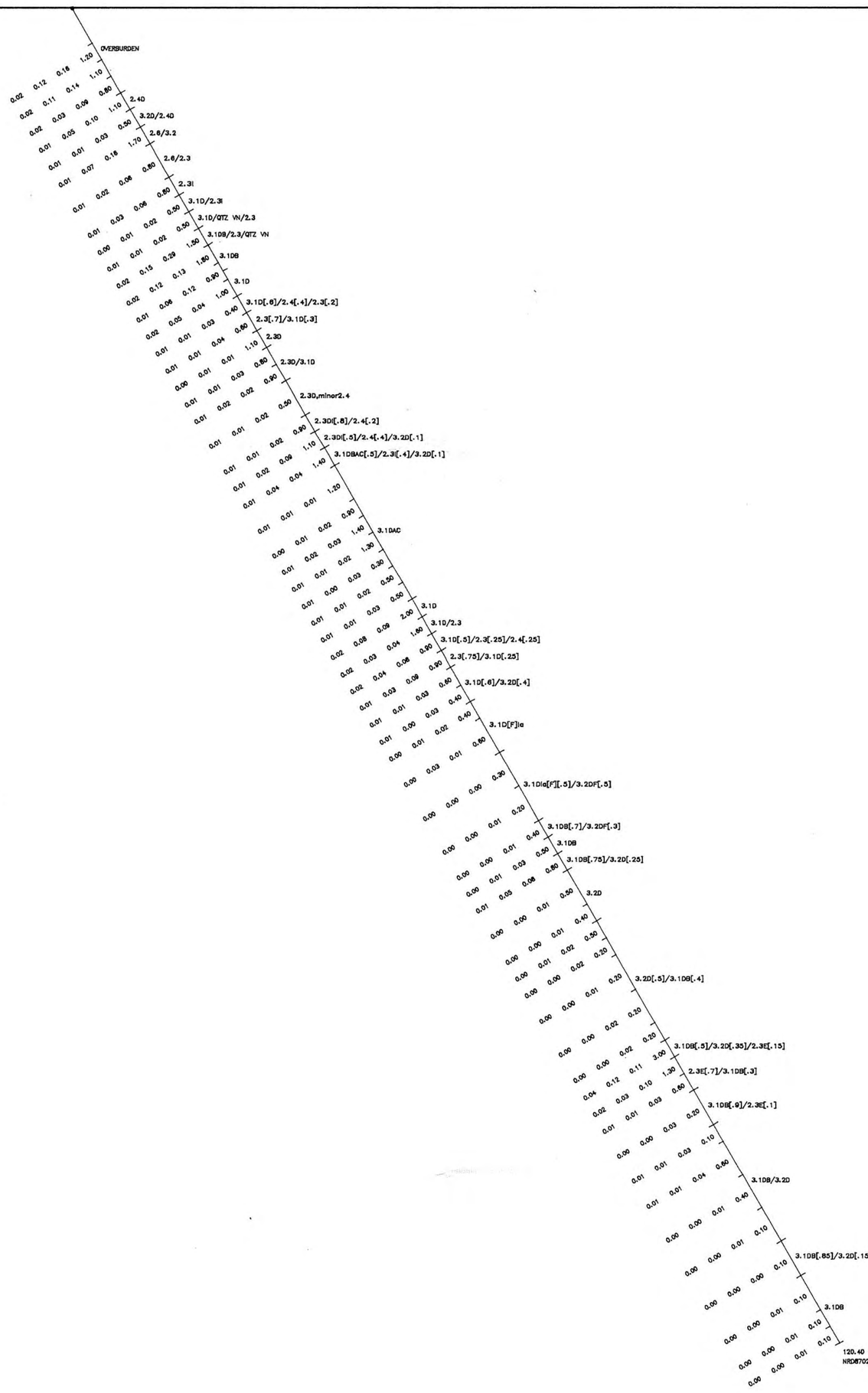
Metres 100 0 100 200 300 400 500 Metres

REVISED	BIRK CREEK - South
	DRILL HOLE LOCATION MAP
PROJ. No. 137/150	SURVEY BY: G.S., B.L., DATE: March/88
N.T.S. 82M/05W	DRAWN BY: J.Arthur, J.Serwin SCALE: 1:5000
DWG. No. 3	NORANDA EXPLORATION
	OFFICE: Vancouver

31975E | 32000E | 32025E | 32050E

26710N NRD8702

1145 | 1125 | 1100 | 1075 | 1050 | 1025



LEGEND

LITHOLOGIES

Cambro–Mississippian

3 Volcaniclastic Rocks

- 1 Grey muddy tuff
- 2 Brown–grey muddy tuff

2 Sedimentary Rocks

- 3 Dark grey to black phyllite
- 4 Light to medium grey phyllite
- 6 Carbonate

ALTERATION FACIES

- A Sericite (>5%)
- B Chlorite (>5%)
- C Talc (>5%)
- D Silica flooding (>5%)
- E Siliceous
- I Calcareous

ROCK TEXTURES

- Ia Lapilli tuff

ANALYTICAL VALUES: Cu(%), Pb(%), Zn(%), Ag(g/t)

Drawing #4

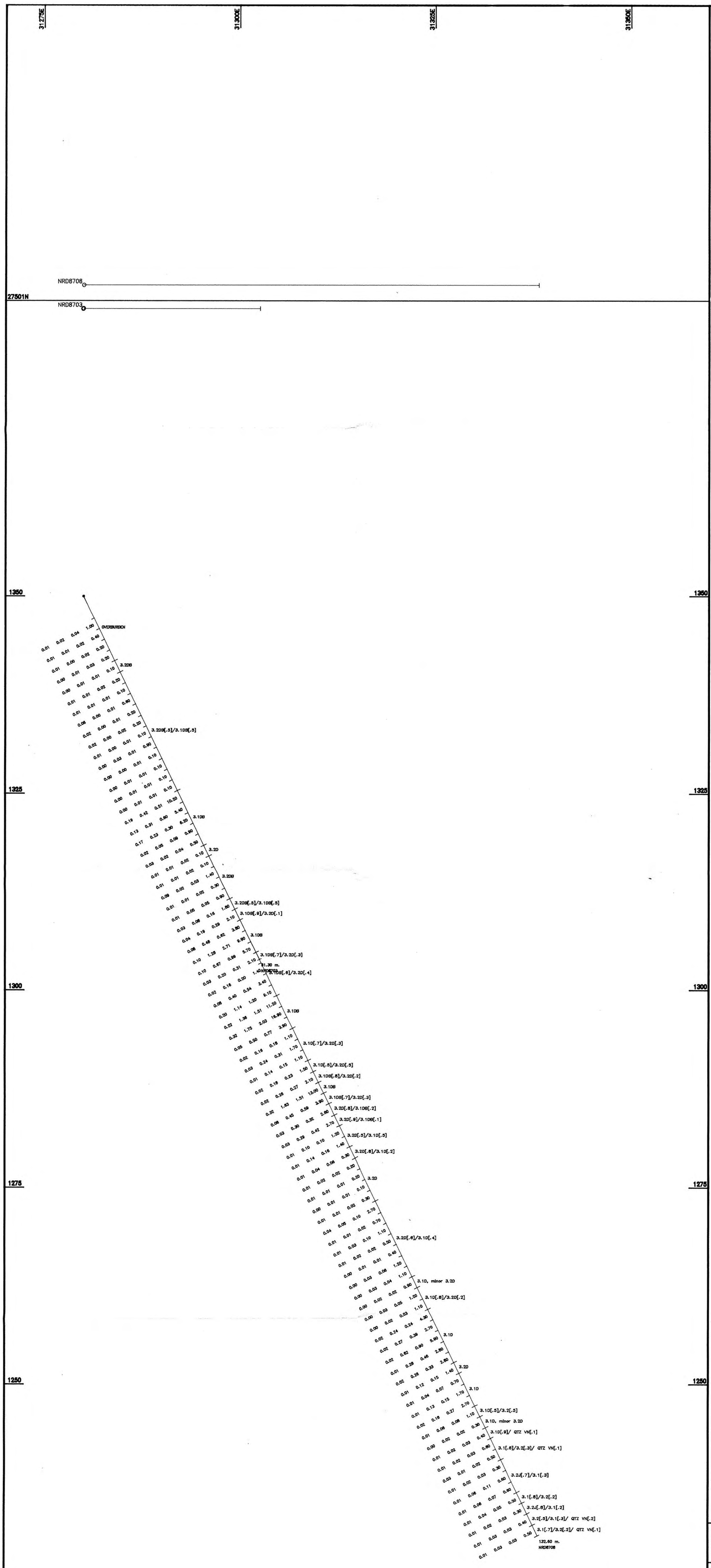
BABIY OPTION

DRILL SECTION: 26710N (LOOKING NORTH)

NRD–87–02

SCALE: 1/250	DATE: October 1987
NTS: 82M/05W	GEOL: G. Shevchenko

Noranda Exploration Company Limited
Vancouver, B.C.



LEGEND

LITHOLOGIES

Cambro–Mississippian

3 Volcaniclastic Rocks

1 Grey muddy tuff

2 Brown–grey muddy tuff

2 Sedimentary Rocks

3 Dark grey to black phyllite

4 Light to medium grey phyllite

ALTERATION FACIES

B Chlorite (> 5%)

D Silica flooding (> 5%)

E Siliceous

ANALYTICAL VALUES: Cu(%), Pb(%), Zn(%), Ag(g/t)

Drawing #5

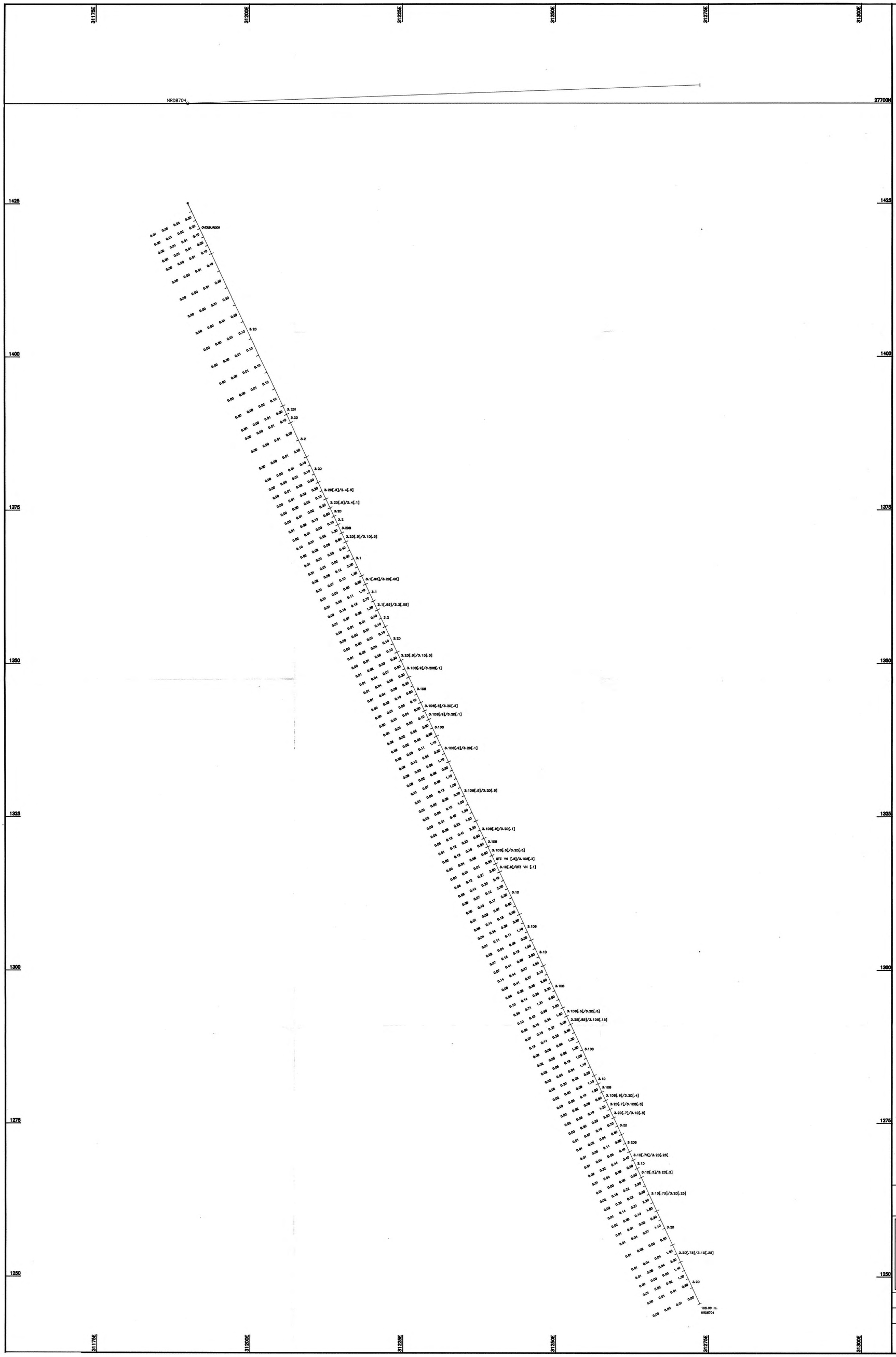
SEMCO OPTION

DRILL SECTION: 27501N (LOOKING NORTH)

NRD–87–03,08

SCALE: 1/250	DATE: October 1987
NTS: 82M/05W	GEOL: G. Shevchenko

Noranda Exploration Company Limited
Vancouver, B.C.



LEGEND

LITHOLOGIES
Cambro–Mississippian

- 3 **Volcaniclastic Rocks**
  - 1 Grey muddy tuff
  - 2 Brown–grey muddy tuff
- 2 **Sedimentary Rocks**
  - 3 Dark grey to black phyllite
  - 4 Light to medium grey phyllite

ALTERATION FACIES

- B Chlorite (> 5%)
- D Silica flooding (> 5%)
- E Siliceous

ANALYTICAL VALUES: Cu(%), Pb(%), Zn(%), Ag(g/t)

Drawing #6

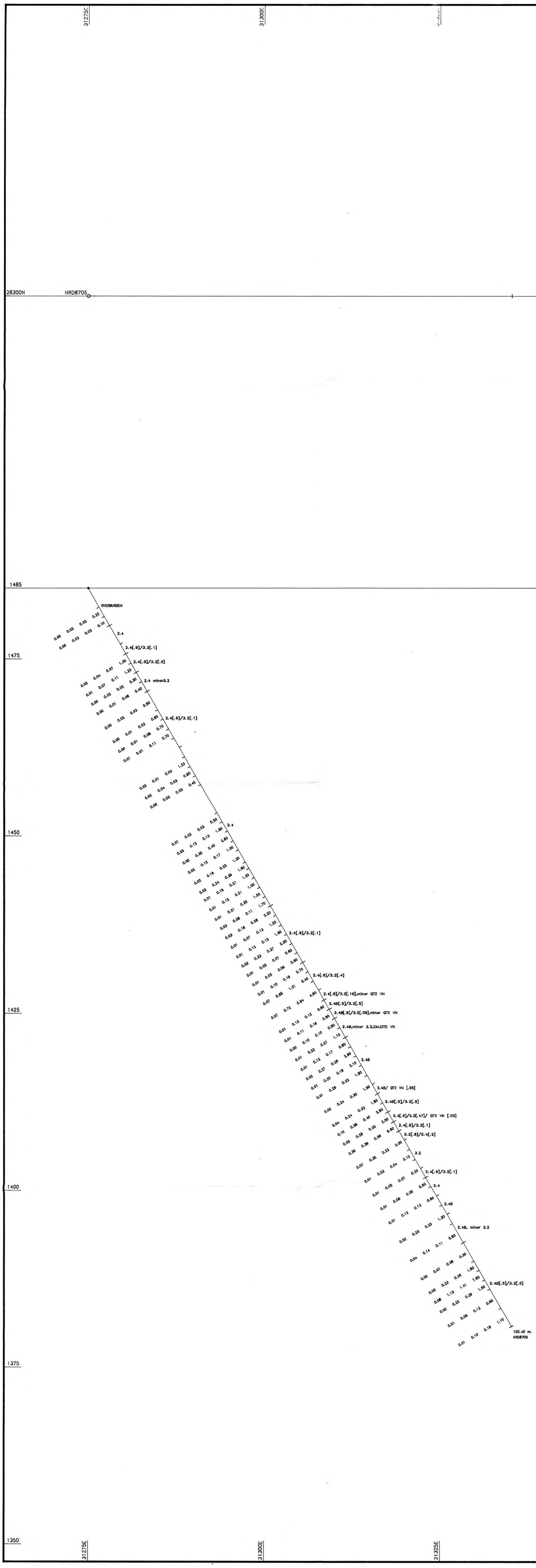
SEMCO OPTION

DRILL SECTION: 27700N (LOOKING GRID NORTH)

NRD–87–04

SCALE: 1/250	DATE: October 1987
NTS: 82M/05W	GEOL: G. Shevchenko

Noranda Exploration Company Limited
Vancouver, B.C.



LEGEND

LITHOLOGIES

Cambro–Mississippian

3 **Volcaniclastic Rocks**

2 Brown–grey muddy tuff

2 **Sedimentary Rocks**

4 Light to medium grey phyllite

ALTERATION FACIES

B Chlorite (> 5%)

ANALYTICAL VALUES: Cu(%), Pb(%), Zn(%), Ag(g/t)

Drawing #7

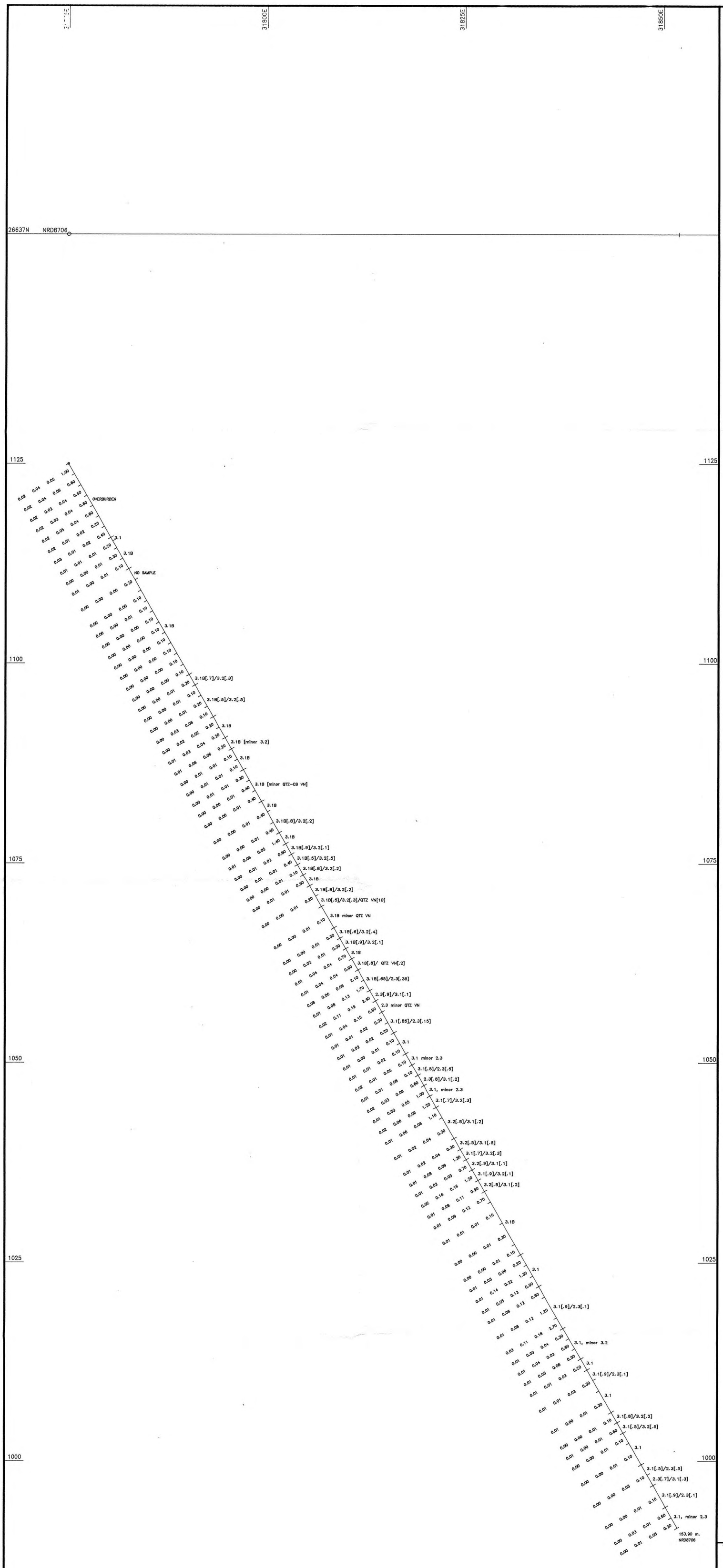
SEMCO OPTION

DRILL SECTION: 28300N (LOOKING GRID NORTH)

NRD–87–05

SCALE: 1/250	DATE: October 1987
NTS: 82M/05W	GEOL: G. Shevchenko

Noranda Exploration Company Limited
Vancouver, B.C.



LEGEND

LITHOLOGIES

Cambro–Mississippian

3 Volcaniclastic Rocks

1 Grey muddy tuff

2 Brown–grey muddy tuff

2 Sedimentary Rocks

3 Dark grey to black phyllite

ALTERATION FACIES

B Chlorite (> 5%)

ANALYTICAL VALUES: Cu(%), Pb(%), Zn(%), Ag(g/t)

Drawing #8

SEMCO OPTION

DRILL SECTION: 26637N (LOOKING GRID NORTH)

NRD–87–06

SCALE: 1/250	DATE: October 1987
NTS: 82M/05W	GEOL: G. Shevchenko

Noranda Exploration Company Limited
Vancouver, B.C.

31400E

31425E

31450E

31475E

28402N

NRD8709

1500

1475

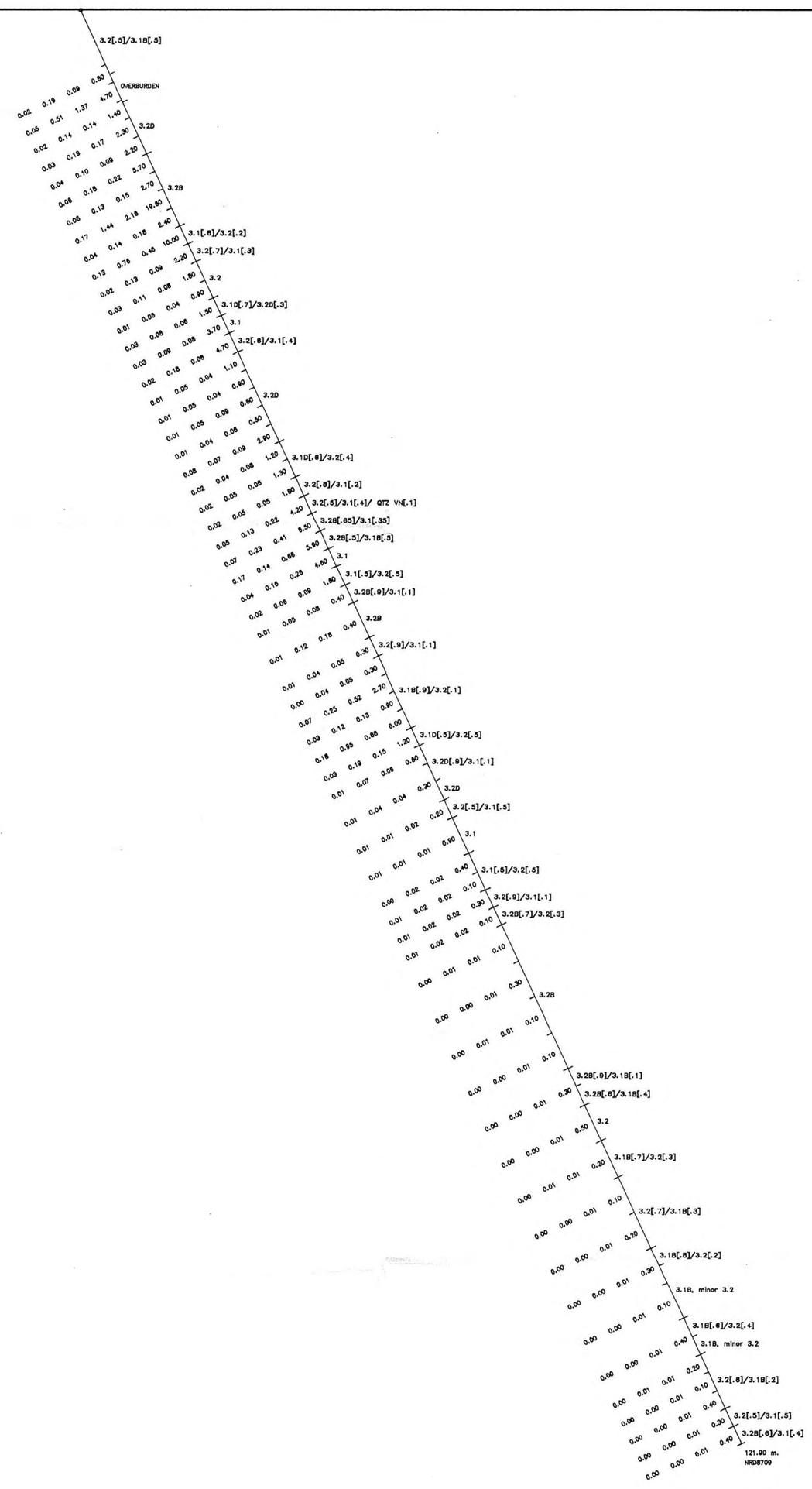
1450

1425

1400

1375

1350



LEGEND

LITHOLOGIES

Cambro–Mississippian

3 **Volcaniclastic Rocks**

1 Grey muddy tuff

2 Brown–grey muddy tuff

ALTERATION FACIES

B Chlorite (> 5%)

D Silica flooding (> 5%)

ANALYTICAL VALUES: Cu(%), Pb(%), Zn(%), Ag(g/t)

Drawing #9

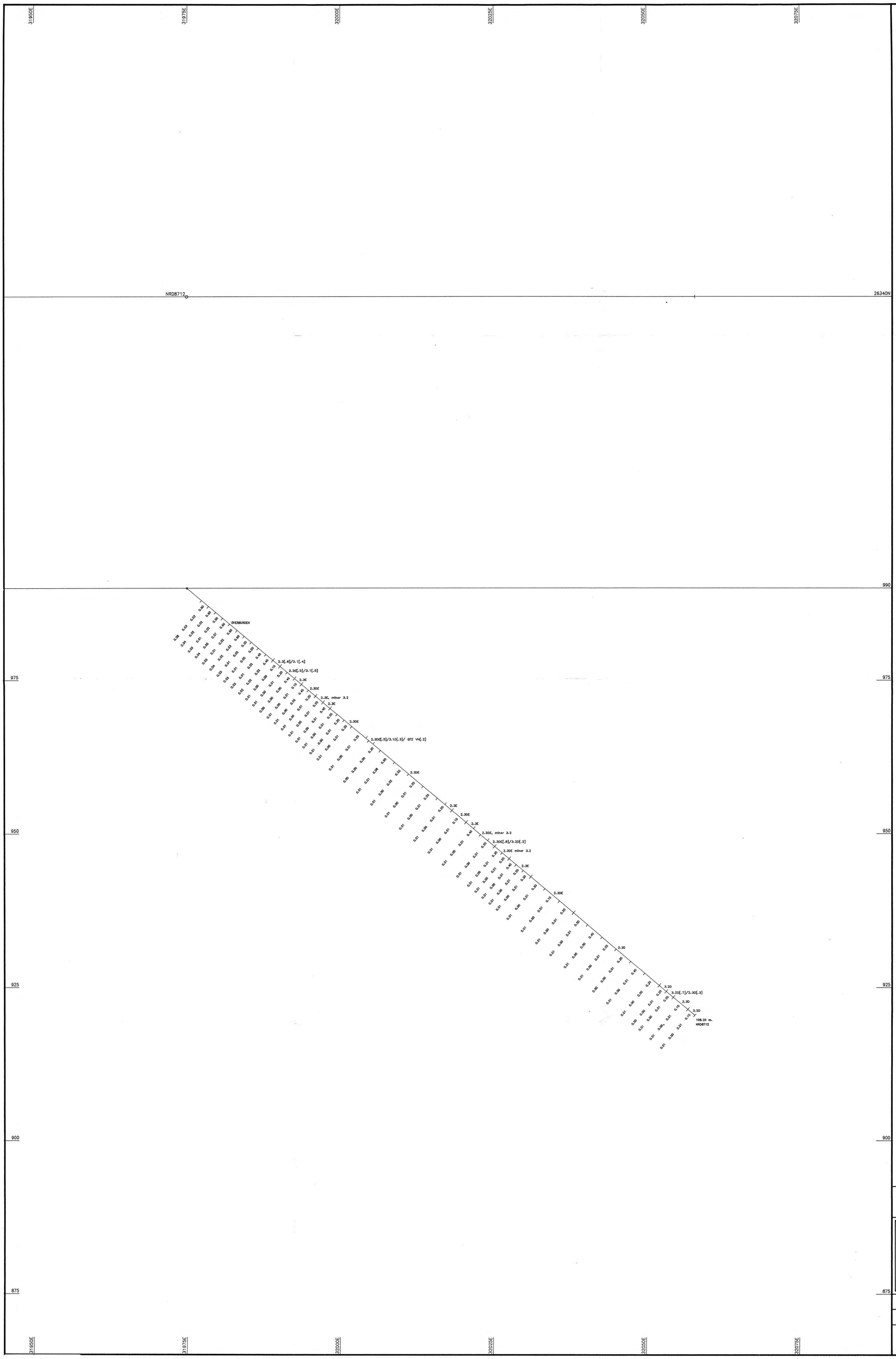
SEMCO OPTION

DRILL SECTION: 28402N (LOOKING GRID NORTH)

NRD–87–09

SCALE: 1/250	DATE: October 1987
NTS: 82M/05W	GEOL: G. Shevchenko

Noranda Exploration Company Limited
Vancouver, B.C.



LEGEND

LITHOLOGIES
Cambro—Mississippian

3 **Volcaniclastic Rocks**

- 1 Grey muddy tuff
- 2 Brown—grey muddy tuff

2 **Sedimentary Rocks**

- 3 Dark grey to black phyllite

ALTERATION FACIES

- D Silica flooding (>5%)
- E Siliceous

ANALYTICAL VALUES: Cu(%), Pb(%), Zn(%), Ag(g/t)

Drawing #10

SEMCO OPTION

DRILL SECTION: 26340N (LOOKING GRID NORTH)

NRD-87-12

SCALE: 1/250	DATE: October 1987
NTS: 82M/05W	GEOL: G. Shevchenko

Noranda Exploration Company Limited
Vancouver, B.C.

31800E 31825E 31850E 31875E

26445N NRD8713

1050 1025 1000 975 950

LEGEND

LITHOLOGIES

Cambro—Mississippian

3 **Volcaniclastic Rocks**

- **1** Grey muddy tuff
- **2** Brown—grey muddy tuff

2 **Sedimentary Rocks**

- **3** Dark grey to black phyllite

ALTERATION FACIES

- D Silica flooding (>5%)
- F Spotted (biotite & pyrrhotite)

ANALYTICAL VALUES: Cu(%), Pb(%), Zn(%), Ag(g/t)

Drawing #11

SEMCO OPTION

DRILL SECTION: 26445N (LOOKING GRID NORTH)

NRD-87-13

SCALE: 1/250	DATE: October 1987
NTS: 82M/05W	GEOL: G. Shevchenko

Noranda Exploration Company Limited
Vancouver, B.C.