42C08SW0026 63.5203 JACOBSON

010

CLINE LAKE PROJECT

REPORT ON

DIAMOND DRILLING

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

DECEMBER, 1987

ROBERT CALHOUN

OM87-7-C-241

TABLE (

42C08SW0026 63.5203 JACOBSON

010C

	PAGE NO.
SUMMARY	1
INTRODUCTION	4
LOCATION AND ACCESS	4
STATUS	6
DIAMOND DRILLING	6
DISCUSSION	15
CONCLUSIONS	16
RECOMMENDATIONS	17

APPENDICES

APPENDIX I SUMMARY DRILL LOGS AND ASSAY RESULTS

APPENDIX II STATEMENT OF EXPENDITURES

APPENDIX III 1988 DRILL PROPOSAL

DETAILED LOGS & SECTIONS UNDER SEPARATE COVER

SUMMARY

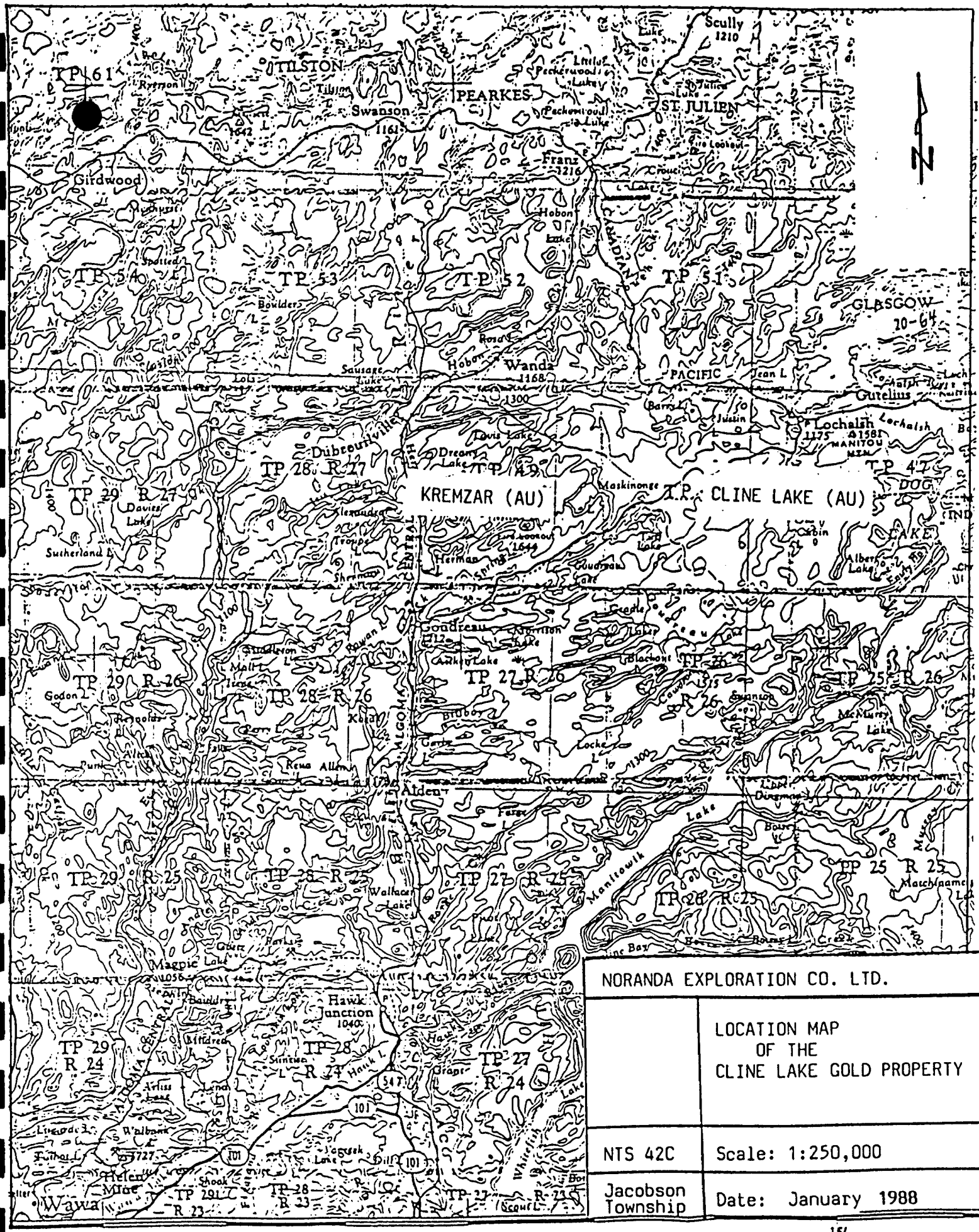
During the period of August to November of 1987, Noranda Exploration Company, Limited (no personal liability) undertook a third phase of diamond drilling on the Cline Lake property located east of Wawa, Ontario, in Jacobson township, Sault Ste. Marie Mining Division. The program was designed to satisfy two objectives: 1) to further evaluate the Lake Zone, 2) to evaluate other geochemical and/or geological targets not previously drill-tested.

During this phase of drilling numerous intercepts >.10 opt were located on both the Lake Zone and the previously untested areas. On the Lake Zone the more significant assays were: 0.116 opt/27.8 feet, 0.041 opt/18 feet and 0.147/15 feet from hole CL-87-33 and 0.057 opt/8.0 feet, 0.16 opt/18 feet and 0.081 opt/7.7 feet from hole CL-87-31. All of these intercepts display increases in grade and/or width compared with shallower intersections of the same zone.

To the east of and along trend of the Lake Zone, hole CL-87-43 intersected zones of 0.109 opt/3.0 feet, 0.255 opt/5.9 feet and 0.541 opt/6.0 feet. To the south, on the "Goudreau Shear", intercepts of 0.349 opt/3.0 feet and 0.541 opt/3.0 feet were located in holes CL-87-44 and CL-87-53 respectively.

In addition to these intercepts, numerous intersections of 0.03 to 0.15 opt were located in other holes drilled, especially on the Lake Zone.

The quartz porphyry unit which extends across the northern portion of the property is auriferous throughout and appears to be more highly auriferous down dip. In the area of the "Goudreau Shear" there are anomalous to ore grade zones which will require further investigation. Each of these ares will be detailed in the following report.



NORANDA EXPLORATION CO. LTD.

LOCATION MAP
OF THE
CLINE LAKE GOLD PROPERTY

NTS 42C

Scale: 1:250,000

Jacobson Township

Date: January 1988

INTRODUCTION

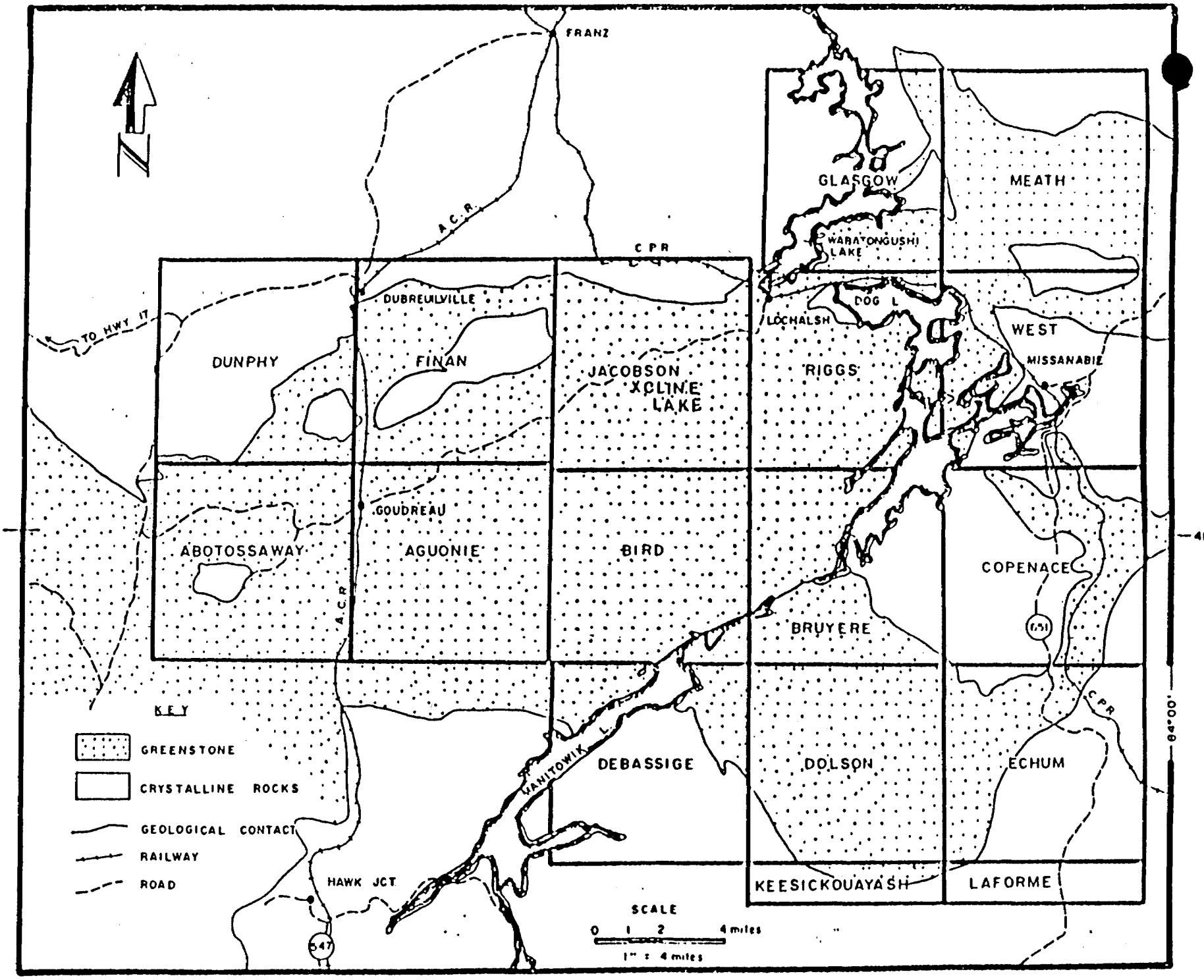
The following report details the results of diamond drilling on the Cline Lake property during period of August to November of 1987.

The Cline property is underlain by a sequence of mafic to intermediate volcanics which have been intruded by quartz porphyry sills, granodiorite plugs, and diabase dykes. Most of the drilling to date has been focused on the large quartz porphyry unit which strikes east-west across the northern portion of the property (Lake Zone).

Other targets have been a major shear zone in mafic volcanics hosting quartz-carbonate veining (Goudreau Shear) and numerous isolated soil geochemical anomalies.

LOCATION AND ACCESS

The Cline Lake property is located in Jacobson township in the Sault Ste. Marie Mining Division, approximately 50 kilometers northeast of Wawa, and 15 kilometers east southeast of the town of Dubreuilville. Access is provided to the property from Wawa via Highway 17 (north 40 kilometers), Highway 519 (east 30km) to Dubreuilville and by an all weather logging road from Dubreuilville (20 kilometers east-northeast).



CLINE LAKE - LOCATION MAP

Property access is by the old mine road and a powerline, owned by Great Lakes Power, which bisects the property.

STATUS

Presently, a perimeter survey is being done with a lease to be granted after its completion.

DIAMOND DRILLING

A total of 15,361.4 feet of drilling was completed in thirty (30) holes between August 4, 1987 and November 13, 1987. The reader is refered to Appendix I for summary logs of each hole which provide intersected lithologies, collar locations and a more complete listing of assay results. For a complete description of lithologies refer to diamond drill logs under separate cover.

The recent drill program was designed to test stratigraphy in all portions of the property where geochemical/geological targets warranted. Five areas were drilled: 1) the Lake Zone, 2) east of the Lake Zone, 3) the northwest corner of the property (west of the Lake Zone), 4) the "Goudreau Shear", 5) south of the Goudreau Shear. Each of these areas will be discussed separately.

AREA 1 - CL-87-30 to 35 incl, 40-42 incl., 45-47 incl.

A total of 12 holes were completed on the Lake Zone. As was noted in the 1986 program the Lake Zone is underlain by a sequence of mafic volcanics intruded by a quartz porphyry. This quartz porphyry is 200 feet ± thick and has been defined from Cline Lake to the east property boundary, approximately 4000 feet in strike length. Although the majority of drilling on this porphyry unit has been in the Lake Zone area the porphyry is auriferous throughout as evidenced by the drilling east of the Lake Zone.

Gold mineralization in the porphyry is wide spread with anomalous to ore grade sections being located over the width of the unit. Each of the twelve holes on the Lake Zone intersected ore grade mineralization in sections <1 foot to >6 feet. The most significant sections were found in holes CL-87-31, and CL-87-33. In CL-31 the following intercepts were located: 0.598/3 feet, 0.057/8 feet, 0.174/18 feet, 0.081/7.7 feet in the porphyry unit and 0.063/9 feet in the hangingwall mafic volcanics. In CL-33 the following intercepts were located: 0.116/27.8 feet, 0.044/18 feet, 0.03/12 feet in the porphyry unit and 0.058/3 feet, 0.172/12 feet in the hangingwall and footwall mafic volcanics respectively.

These intersections are significant improvements over mineralized intervals from holes drilled at higher elevations.

AREA 2 - DDH CL-87-43, 48, 49, 50, 55

Purpose: Area 2 is located to the east of the Lake Zone and represents the faulted strike extension of the main quartz porphyry unit.

CL-87-43

This hole was a step out hole from the Lake Zone (750′) to locate and evaluate the Lake Zone quartz porphyry unit. The unit was located but is bound by unusual hanging wall and footwall mafic volcanic sequences. Oxide iron formation units occur in both. These units have chert bands with small massive bands of pyrite and quartz veining. The upper unit carried only low gold values but the footwall iron formation carried a 6.0 foot section which assayed 0.542 opt. The quartz porphyry unit at the contact with the oxide iron formation assayed 0.255 across 5.9 feet.

CL-87-48

This hole was drilled one hundred feet west of 43. It passed into a diabase dyke at 110′ and was abandoned. There was one intercept located at 61.0 - 64.5 feet (3.5 feet) which assayed 0.127 opt.

CL-87-49

CL-87-49 was drilled 100 feet west of hole 48 in an attempt to obtain a complete section similar to hole 43. This hole intersected a similar sequence to 43 excepting the oxide iron formation. The most interesting aspect of this hole was an 8.2 foot quartz vein which assayed 0.264 opt located at 59.1 feet. Additional intercepts in this hole were 3.0 feet of 0.60 opt, 0.079 opt across 3.0 feet and 13.5 feet which assayed 0.035.

CL-87-50

Drilled 100 feet to the west of hole 43, CL-87-50 intersected a similar package of rock units including the oxide iron formation. The footwall unit contains a higher mafic volcanic component. Gold mineralization in hole 50 was more wide spread than in 43 but of lower grade. Intercepts in this hole were: 6.1 feet of 0.141, 1.5 feet of 0.075 opt in the porphyry unit and 6.5 feet of 0.120 opt, 3.0 feet of 0.039, 4.5 feet of 0.033, 3.0 feet 0.136 opt in the iron formation/mafic volcanic footwall.

CL-87-55

CL-87-55 was drilled 25 feet west and 100 feet north of hole 49 in an attempt to relocate the quartz vein found in 49. Unfortunantly no quartz vein equivalent to the vein in 49 was located although numerous smaller veins were found, with increased sulfide mineralization. Assay values were generally low with the best being 0.052 opt across 3.0 feet and 0.350 opt across 0.9 feet.

The purpose was more than adequately satisified in this area with the quartz porphyry located and shown to be auriferous. An unexpected oxide iron formation was also located and shown to be auriferous. The gold intercepts in this area are very good with minable grade/width values being intersected.

AREA 3 - DDH CL-87-28A, 29A, 39

Purpose: To evaluate the source of geochemical anomalies in an area of thick overburden along strike (west) from known gold bearing strata (Lake Zone).

CL-87-28A

This hole intersected mainly mafic volcanics with minor sulfides and quartz veining. There were two mineralized intersections which contained low gold values: i) 0.057 opt over 1.8′ at 156.3′ ii) 0.031 opt over 1.0′ at 303.0′. Each of these contained quartz veining with pyrite, minor chalcopyrite and tourmaline.

CL-87-29A

The sequence intersected included mafic volcanics, which were carbonatized and silicified over short sections and intruded by quartz porphyry which was sericitized and silicified. All units contained up to 5% pyrite. Although the sequence appeared more interesting then CL-87-28A very low gold values were located except for the section from 231.3-232.9 (1.6 feet) which returned 0.064 opt.

CL-87-39

This hole intersected a similar sequence of rock units as hole 29A with even lower gold values. The quartz porphyry unit intersected in this area is not the same as the Lake Zone porphyry and does not have the equivalent amount of gold mineralization.

The purpose has been satisified by these three holes in that sufficient gold mineralization was intersected to account for the geochemical anomalies.

AREA 4 - CL-87-38, 44, 51, 54

Purpose: To further explore the potential of a wide zone of quartz/quartz carbonate veining which had to date returned narrow width assay values.

Area 4 is defined as the "Goudreau Shear" which extends across the southern portion of the property at a strike of 070°. Drilling in 1986 on this zone intersected a wide zone of quartz/quartz carbonate veining but failed to located siginificant gold values across widths greater than 2 feet.

All 1987 holes intersected the same package of rock units. All located the shear with veining extending over widths of up to 61 feet. Unfortunately low values and/or short intercepts were found. Following are the best assays returned from each of the holes: 0.166/3.0 feet (38), 0.349/3.0 feet (54). As can be seen from the above assays the "Goudreau Shear" can carry good assays across narrow widths. The potential in this area is still good since the zone has not reduced in width with depth although further drilling in this area would depend on available footage.

AREA 5 - CL-87-36, 37, 52, 53

Purpose: To evaluate the cause of high geochemical values in an area of thick drift cover, south of the Goudreau Shear.

Four holes were drilled in a fence pattern under the geochemcial values.

CL-87-36

This hole was collarred 100 feet south of CL-86-11. Unfortunately CL-87-36 intersected a mafic dyke corresponding to the mafic dyke in CL-86-14 and was abandoned.

CL-87-37

This hole was drilled to the south of 36. The south contact of the mafic dyke intersected in 36 was located followed by granodiorite. The granodiorite appears similar to descriptions of the granodiorite stock associated with the "A" vein mineralization in the old mine workings. Assays from this hole were generally <100 ppb with some grouping of >100 ppb Au. The most significant assay was a 3.0 foot section of 0.053 opt.

CL-87-52

CL-87-52 was drilled to the south of CL-87-51. Mafic volcanics were intersected with minor carbonate and silica alteration. No significant assays were returned.

CL-87-53

CL-87-53 was drilled to the south of CL-87-52. This hole intersected a sequence of mafic volcanics and granodiorite. In addition quartz veins of 3 feet and 6 feet were intersected immediately before and after the granodiorite section. Significant shearing occurs in the hanging wall and footwall mafic volcanics. This shearing would be on the strike extension of the "A" vein of the old mine workings.

The most significant assays occurred in the hanging wall shear where a 3 foot section of 0.513 opt Au was followed by values ranging from 152 ppb to 680 ppb over 18 feet. Since there is a granodiorite stock to the west of this section and shearing in this hole a similarity exists between this area and the old workings.

The purpose for drilling in this area has not, in the opinion of the author, been satisfied since the mineralization located is not of high enough value to have caused the geochemical anomalies. Further drilling will have to be completed.

The reader is referred to Appendix I for detailed assay results for each hole and to the sections provided for a visual interpretation.

DISCUSSION

From drilling in 1986 and 1987 on the Lake Zone, the following has been found; 1) gold occurs as fine visible grains in quartz veins (31,33,23) 2) grade increases with depth, 3) alteration of the porphyry increases in areas of high mineralization, 4) the amount of sulfide mineralization does not seem to be an indicator of contained gold.

Although 28 holes have been completed along a strike length of approximately 1400 feet no clear indications exist as to what is controlling the gold mineralization. Individual well-mineralized intersections cannot, at this point, be correlated between holes with any confidence. Although the Lake Zone Porphyry appears to be a mineralized "stratigraphic" unit, individual intersections must be structurally controlled.

There are two prominant structural fabrics that are known to be gold-bearing, locally or regionally: (i) The structure striking at 290° to 300° which controlled the gold bearing vein in the No.4 shaft area (A vein). This structure can be seen in a surface trench in the area of the surface projection of the CL-33 intersection. (ii) Veining in the Lake Zone at a strike of 070° has been found to be auriferous in surface trenches. This strike direction is equivalent to the strike of a proposed major structure which extends from the Magino mine eastwards through a well mineralized zone recently located by Canamax and through Cline Lake to the west of the presently drilled area. This is also the direction of the "Goudreau Shear".

CONCLUSIONS

The following conclusions are drawn from available data;

1) The quartz porphyry unit extending across the northern portion of the property hosting the Lake Zone mineralization is auriferous throughout.

2) Hangingwall and footwall mafic volcanics associated with the auriferous porphyry unit contain gold mineralization associated with quartz veining/shearing.

3) Gold mineralization is possibly associated with two structureal fabrics striking at 300° and 070°.

4) although the "Goudreau Shear" contains extensive quartz veining and sulfide mineralization, gold mineralization located to date has been either low grade or narrow.

5) the area south of the "Goudreau Shear" contains extensive shearing with low gold values,

6) iron formation found in the area east of the lake zone contains ore grade intercepts across minable widths.

RECOMMENDATIONS

It is recommended that:

1) Five holes at a 200 foot spacing be completed across Cline Lake to test the western strike extension of gold mineralization in the Lake Zone.

2) Four deep holes be completed on the Lake Zone down dip from mineralization located in CL-87-31, 33 with two holes at 200 foot spacing between CL-31 and 33.

3) Further drilling east of the Lake Zone to test the down dip extension of gold mineralization located in hole CL-43, 49 and 50.

4) One deep and two shallow holes on the "Goudreau Shear" to further test its potential.

5) One additional hole south of the "Goudreau Shear" zone (deepen hole CL-52) to test the down dip extension of the shearing on hole CL-53.

6) Two deep holes are recommended to test the depth extent of the "A" vein which produced 331,000 tons grading 0.19 oz/ton. This vein was mined only to a vertical depth of approximately 500 feet. The two recommended holes will intersect the mineralized vein at approximately the 800 foot level.

7) Detailed studies of historical data, now in progress, should be completed prior to further drilling, except those holes to be drilled on Cline Lake itself (ice). This is imperative for planning further testing of the A Vein and may provide clues to controls or mineralization.

A proposed program for 1988 can be found in Appendix II.

Respectfully submitted

Robert Calhoun
Senior Project Geologist

APPENDIX I

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 01
INSTRUMENT: ACID TEST

DATE: AUG 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3211.000	630.000	1041.690
178.00	-48.00	180.00	3211.000	513.221	907.352
285.00	-48.00	180.00	3211.000	441.625	827.835
305.10	-48.00	180.00	3211.000	428.175	812.898

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 01

FROM	TO	WIDTH	Au opt
9.46	12.46	3.00	0.001
12.46	15.46	3.00	0.001
15.46	18.46	3.00	0.001
18.46	21.46	3.00	0.001
21.46	24.46	3.00	0.001
24.46	27.46	3.00	0.001
27.46	30.46	3.00	0.003
30.46	33.46	3.00	0.001
33.46	36.46	3.00	0.003
36.46	39.46	3.00	0.001
39.46	42.46	3.00	0.001
42.46	45.46	3.00	0.006
45.46	48.46	3.00	0.006
48.46	51.46	3.00	0.013
51.46	54.46	3.00	0.001
54.46	57.46	3.00	0.001
57.46	60.46	3.00	0.001
60.46	63.46	3.00	0.006
63.46	66.46	3.00	0.002
66.46	69.46	3.00	0.001
69.46	72.46	3.00	0.007
72.46	75.46	3.00	0.004
75.46	78.46	3.00	0.002
78.46	81.46	3.00	0.023
81.46	84.46	3.00	0.006
84.46	87.46	3.00	0.009
87.46	90.46	3.00	0.005
90.46	93.46	3.00	0.001
93.46	96.46	3.00	0.001
96.46	99.46	3.00	0.001
99.46	102.46	3.00	0.001
102.46	105.46	3.00	0.001
105.46	108.46	3.00	0.001
108.46	111.46	3.00	0.001
111.46	114.46	3.00	0.001
114.46	117.46	3.00	0.006
117.46	120.46	3.00	0.001
120.46	123.46	3.00	0.001
123.46	126.46	3.00	0.001
126.46	129.46	3.00	0.001
129.46	132.46	3.00	0.001
132.46	135.46	3.00	0.001
135.46	138.46	3.00	0.001
138.46	141.46	3.00	0.004
141.46	144.21	2.75	0.004
144.21	145.66	1.45	0.001
145.66	149.27	3.61	0.003
149.27	151.22	1.95	0.005
151.22	154.22	3.00	0.001
154.22	157.22	3.00	0.009

** BORSURV **

ASSAYLOG
PROPERTY: CL
HOLE No.: 01

FROM	TO	WIDTH	Au opt
157.22	159.38	2.16	0.001
159.38	162.38	3.00	0.001
162.38	165.38	3.00	0.001
165.38	168.38	3.00	0.003
168.38	171.38	3.00	0.002
171.38	174.38	3.00	0.006
174.38	177.38	3.00	0.001
177.38	180.38	3.00	0.008
180.38	183.38	3.00	0.007
183.38	186.38	3.00	0.001
186.38	189.38	3.00	0.001
189.38	192.38	3.00	0.005
192.38	195.38	3.00	0.006
195.38	198.38	3.00	0.001
198.38	201.38	3.00	0.001
201.38	204.38	3.00	0.001
204.38	209.38	5.00	0.003
234.34	238.34	4.00	0.012
254.73	257.73	3.00	0.003
273.52	277.52	4.00	0.007

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 02
INSTRUMENT: ACID TEST

DATE: AUG 6 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	2965.000	679.000	1048.485
148.00	-51.00	180.00	2965.000	584.860	934.285
265.70	-49.00	180.00	2965.000	509.204	844.121

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No. : 02

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
QUARTZ EYE P	161.82	2965.00	575.98	923.70	0
DIABASE DIKE	184.16	2965.00	561.62	906.58	0
QUARTZ EYE P	221.74	2965.00	537.46	877.80	0
SHEARED ANDE	236.15	2965.00	528.20	866.76	0
ANDESITE	265.70	2965.00	509.20	844.12	0

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE [illegible]. : 02

FROM	TO	WIDTH	Au opt
3.29	6.29	3.00	0.003
6.29	9.29	3.00	0.005
9.29	12.39	3.10	0.010
12.39	15.29	2.90	0.001
15.29	18.29	3.00	0.001
18.29	21.29	3.00	0.001
21.29	24.29	3.00	0.001
24.29	27.29	3.00	0.001
27.29	30.29	3.00	0.001
30.29	33.29	3.00	0.001
33.29	36.29	3.00	0.005
36.29	39.29	3.00	0.011
39.29	42.29	3.00	0.004
42.29	45.29	3.00	0.001
45.29	48.29	3.00	0.001
48.29	51.29	3.00	0.009
51.29	54.29	3.00	0.011
54.29	57.29	3.00	0.011
57.29	60.29	3.00	0.011
60.29	63.29	3.00	0.001
63.29	66.29	3.00	0.006
66.29	69.29	3.00	0.001
69.29	72.29	3.00	0.002
72.29	75.29	3.00	0.001
75.29	78.29	3.00	0.001
78.29	81.29	3.00	0.003
81.29	84.29	3.00	0.004
84.29	87.29	3.00	0.001
87.29	90.29	3.00	0.001
90.29	93.29	3.00	0.001
93.29	96.29	3.00	0.001
96.29	99.29	3.00	0.005
99.29	102.29	3.00	0.001
102.29	105.29	3.00	0.001
105.29	108.29	3.00	0.012
108.29	111.29	3.00	0.004
111.29	114.29	3.00	0.001
114.29	117.29	3.00	0.001
117.29	120.29	3.00	0.004
120.29	122.99	2.70	0.010
122.99	125.60	2.61	0.004
125.60	128.39	2.79	0.083
128.39	131.09	2.70	0.013
131.09	133.49	2.40	0.012
133.49	135.89	2.40	0.006
135.89	138.29	2.40	0.001
138.29	141.29	3.00	0.013
141.29	144.29	3.00	0.012
144.29	147.29	3.00	0.046
147.29	150.29	3.00	0.009

** BORSURV **

ASSAY LOG

PROPERTY: CL
HOLE No.: 02

FROM	TO	WIDTH	Au opt
150.29	153.29	3.00	0.008
153.29	156.29	3.00	0.002
156.29	159.29	3.00	0.001
159.29	162.82	3.53	0.035
184.14	187.16	3.02	0.001
187.16	190.16	3.00	0.001
190.16	192.16	2.00	0.001
192.16	196.16	4.00	0.001
196.16	199.16	3.00	0.005
199.16	202.16	3.00	0.001
202.16	205.16	3.00	0.001
205.16	208.16	3.00	0.006
208.16	211.16	3.00	0.001
211.16	214.16	3.00	0.001
214.16	217.16	3.00	0.123
217.16	220.16	3.00	0.001
220.16	221.74	1.58	0.003
221.74	224.72	2.98	0.010
224.72	227.44	2.72	0.001
227.44	230.74	3.30	0.001
230.74	233.74	3.00	0.005
233.74	236.74	3.00	0.003
259.60	262.60	3.00	0.001

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 03
INSTRUMENT: ACID TEST

DATE: AUG 7 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-51.00	180.00	3470.000	663.000	1035.830
148.00	-51.00	180.00	3470.000	569.861	920.812
226.00	-47.00	180.00	3470.000	518.688	861.945
226.40	-47.00	180.00	3470.000	518.415	861.653

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE NO.: 03

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	9.50	3470.00	657.02	1028.45	0
QUARTZ EYE P	160.70	3470.00	561.53	911.23	0
ANDESITE FLO	182.00	3470.00	547.55	895.15	0
ANDESITE FLO	191.80	3470.00	541.13	887.76	0
ANDESITE FLO	226.40	3470.00	518.42	861.65	0

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE [illegible]. : 03

FROM	TO	WIDTH	Au opt
9.50	12.50	3.00	0.001
12.50	15.50	3.00	0.001
15.50	18.50	3.00	0.001
18.50	21.50	3.00	0.001
21.50	24.50	3.00	0.001
24.50	27.50	3.00	0.005
27.50	29.30	1.80	0.001
29.30	32.30	3.00	0.001
32.30	35.30	3.00	0.001
35.30	38.80	3.50	0.001
38.80	41.80	3.00	0.001
41.80	44.80	3.00	0.001
44.80	47.80	3.00	0.003
47.80	50.80	3.00	0.001
50.80	53.80	3.00	0.001
53.80	56.80	3.00	0.001
56.80	59.80	3.00	0.001
59.80	62.80	3.00	0.001
62.80	65.80	3.00	0.001
65.80	68.80	3.00	0.001
68.80	71.80	3.00	0.001
71.80	74.80	3.00	0.001
74.80	77.80	3.00	0.001
77.80	80.80	3.00	0.001
80.80	83.80	3.00	0.001
83.80	86.80	3.00	0.000
86.80	89.80	3.00	0.013
89.80	92.80	3.00	0.014
92.80	95.80	3.00	0.028
95.80	98.80	3.00	0.000
98.80	101.80	3.00	0.028
101.80	104.80	3.00	0.000
104.80	107.80	3.00	0.000
107.80	110.80	3.00	0.000
110.80	113.80	3.00	0.000
113.80	116.80	3.00	0.015
116.80	119.80	3.00	0.000
119.80	122.80	3.00	0.000
122.80	125.80	3.00	0.000
125.80	128.80	3.00	0.021
128.80	131.80	3.00	0.018
131.80	134.80	3.00	0.011
134.80	137.80	3.00	0.031
137.80	140.80	3.00	0.000
140.80	143.80	3.00	0.000
143.80	147.30	3.50	0.000
147.30	149.80	2.50	0.000
149.80	152.80	3.00	0.000
152.80	154.90	2.10	0.023
154.90	157.10	2.20	0.023

** BORSURV **

ASSAY LOG

PROPERTY: CL
HOLE No.: 03

FROM	TO	WIDTH	Au opt
157.10	160.70	3.60	0.000
160.70	163.70	3.00	0.022
163.70	166.70	3.00	0.000
166.70	169.70	3.00	0.000
169.70	172.70	3.00	0.171
172.70	175.70	3.00	0.000
175.70	178.70	3.00	0.000
178.70	182.00	3.30	0.000
182.00	185.00	3.00	0.000
185.00	188.00	3.00	0.016
188.00	191.80	3.80	0.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 4
INSTRUMENT: ACID TEST

DATE: AUG. 86
SURVEY BY: PW

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	5300.000	700.000	1000.000
148.00	-48.00	180.00	5300.000	602.903	888.303
374.01	-42.00	180.00	5300.000	443.090	728.490

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No. : 4

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
ANDESITE	17.79	5300.00	688.33	986.57	90
CHL QTZ EYE	21.01	5300.00	686.22	984.14	90
ANDESITE	24.29	5300.00	684.06	981.67	90
CHL QTZ PORP	27.81	5300.00	681.75	979.01	90
ANDESITE	49.89	5300.00	667.27	962.35	90
OXIDE SULPHI	51.59	5300.00	666.15	961.06	90
QTZ EYE PORP	84.98	5300.00	644.25	935.86	90
ANDESITE	89.22	5300.00	641.47	932.66	90
QTZ EYE PORP	172.15	5300.00	585.83	871.23	90
CHERTY FELSI	180.43	5300.00	579.97	865.37	90
QTZ EYE PORP	260.94	5300.00	523.04	808.44	90
SHEARED ANDE	279.40	5300.00	509.99	795.39	90
SILICIFIED S	281.04	5300.00	508.83	794.23	90
ANDESITE	286.24	5300.00	505.15	790.55	90
FELSIC METAV	289.24	5300.00	503.03	788.43	90
ANDESITE	292.84	5300.00	500.49	785.89	90
FELSIC METAV	295.49	5300.00	498.61	784.01	90
ANDESITE	313.83	5300.00	485.64	771.04	90
QTZ EYE PORP	337.01	5300.00	469.25	754.65	90
ANDESITE	374.01	5300.00	443.09	728.49	90

** BORSURV **

ASSAY LOG

PROPERTY: CL
HOLE NO.: 4

FROM	TO	WIDTH	Au opt
9.82	12.82	3.00	0.042
42.81	45.81	3.00	0.036
45.81	48.81	3.00	0.000
48.81	51.59	2.78	0.009
57.54	60.59	3.05	0.032
110.22	113.22	3.00	0.028
125.22	128.22	3.00	0.022
128.22	131.22	3.00	0.022
131.22	134.22	3.00	0.000
134.22	137.22	3.00	0.012
137.22	140.22	3.00	0.008
140.22	143.22	3.00	0.001
143.22	146.22	3.00	0.020
161.22	164.22	3.00	0.023
167.22	170.22	3.00	0.018
178.15	180.83	2.68	0.010
184.43	186.43	2.00	0.046
186.43	189.43	3.00	0.113
225.43	228.43	3.00	0.013
228.43	231.43	3.00	0.012
240.43	243.43	3.00	0.008
243.43	246.43	3.00	0.018
246.43	249.43	3.00	0.028
249.43	252.43	3.00	0.013
252.43	255.93	3.50	0.004
255.93	258.43	2.50	0.003
266.94	269.94	3.00	0.093
269.94	272.94	3.00	0.000
272.94	275.94	3.00	0.004
301.49	304.49	3.00	0.009
304.49	307.49	3.00	0.000
307.49	310.49	3.00	0.017
310.49	313.83	3.34	0.001
325.83	328.83	3.00	0.004
328.83	331.83	3.00	0.002
343.01	346.01	3.00	0.021
346.01	367.01	21.00	0.003

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 5
INSTRUMENT: ACID TEST

DATE: AUG. 86
SURVEY BY: PW

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	5100.000	800.000	1000.000
148.00	-50.00	180.00	5100.000	704.867	886.625
334.65	-46.00	180.00	5100.000	579.974	747.917

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL
HOLE NO. : 5

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
ANDESITE	42.34	5100.00	772.78	967.57	90
CHL GRANODIO	170.36	5100.00	689.91	870.01	90
ALT ZONE	209.12	5100.00	663.97	841.20	90
CHERTY-FELSI	214.40	5100.00	660.44	837.28	90
SERICITIZED	251.00	5100.00	635.95	810.08	90
QTZ EYE PORP	264.19	5100.00	627.12	800.28	90
FELSIC METAV	269.89	5100.00	623.31	796.04	90
FELSIC METAV	273.10	5100.00	621.16	793.66	90
FELSIC METAV	277.00	5100.00	618.55	790.76	90
ANDESITE	334.65	5100.00	579.97	747.92	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 5

FROM	TO	WIDTH	Au opt
39.04	42.34	3.30	0.346
179.36	182.36	3.00	0.008
191.36	194.36	3.00	0.011
217.40	220.40	3.00	0.018
241.40	244.40	3.00	0.020
244.40	247.40	3.00	0.005
247.40	251.00	3.60	0.017
251.00	254.00	3.00	0.005
254.00	257.00	3.00	0.021
257.00	260.00	3.00	0.008
260.00	264.19	4.19	0.017
264.19	267.19	3.00	0.026
267.19	269.89	2.70	0.031
269.87	273.10	3.23	0.033
273.10	277.00	3.90	0.010
286.00	289.00	3.00	0.013
307.00	310.00	3.00	0.034
310.00	313.00	3.00	0.017
313.00	316.00	3.00	0.030

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 6
INSTRUMENT: ACID TEST

DATE: AUG. 86
SURVEY BY: PW

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	5500.000	640.000	1000.000
148.00	-49.00	180.00	5500.000	543.882	887.460
285.00	-46.00	180.00	5500.000	451.326	786.453
285.43	-46.00	180.00	5500.000	451.027	786.144

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL
HOLE No.: 6

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	12.61	5500.00	631.81	990.41	90
WELL LAMINAT	14.97	5500.00	630.28	988.62	90
ANDESITE	30.87	5500.00	619.95	976.53	90
QTZ EYE PORP	213.00	5500.00	499.97	839.54	90
CHERTY FELSI	217.57	5500.00	496.88	836.17	90
CHL SER QTZ	221.40	5500.00	494.29	833.34	90
RHYODACITE	223.36	5500.00	492.97	831.90	90
CHL SER QTZ	243.05	5500.00	479.67	817.38	90
CHERTY FELSI	255.70	5500.00	471.12	808.06	90
ANDESITE	264.80	5500.00	464.97	801.35	90
CHERTY FELSI	269.44	5500.00	461.84	797.92	90
SHEARED ANDE	280.48	5500.00	454.38	789.79	90
ANDESITE	285.43	5500.00	451.03	786.14	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No. : 6

FROM	TO	WIDTH	Au opt
17.97	20.97	3.00	0.004
33.87	36.87	3.00	0.006
48.87	51.87	3.00	0.004
51.87	54.87	3.00	0.008
54.87	57.87	3.00	0.000
57.87	60.87	3.00	0.014
60.87	63.87	3.00	0.037
63.87	66.87	3.00	0.006
66.87	69.87	3.00	0.000
69.87	72.87	3.00	0.013
72.87	75.87	3.00	0.049
114.87	117.87	3.00	0.007
138.87	141.87	3.00	0.007
141.87	144.87	3.00	0.009
144.87	147.87	3.00	0.012
147.87	150.87	3.00	0.008
150.87	153.87	3.00	0.025
153.87	156.87	3.00	0.019
156.87	159.87	3.00	0.015
159.87	162.87	3.00	0.003
162.87	165.87	3.00	0.012
165.87	168.87	3.00	0.002
168.87	171.87	3.00	0.006
171.87	177.87	6.00	0.000
177.87	180.87	3.00	0.171
180.87	189.87	9.00	0.000
189.87	192.87	3.00	0.017
207.87	210.87	3.00	0.016
221.40	223.36	1.96	0.021
223.36	226.36	3.00	0.000
226.36	229.36	3.00	0.005
229.36	232.36	3.00	0.000
232.36	235.36	3.00	0.001
235.36	238.36	3.00	0.000
238.36	241.36	3.00	0.005
241.36	243.05	1.69	0.000
243.05	246.05	3.00	0.048
246.05	250.48	4.43	0.035
250.48	253.48	3.00	0.010
253.48	255.70	2.22	0.016
255.70	258.70	3.00	0.000
258.70	261.70	3.00	0.006
261.70	264.80	3.10	0.015
264.80	267.80	3.00	0.005
267.80	269.44	1.64	0.000
269.44	272.44	3.00	0.017
272.44	278.44	6.00	0.000
278.44	281.44	3.00	0.017

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 7
INSTRUMENT: ACID TEST

DATE: AUG 86
SURVEY BY: RC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3843.000	-600.000	1000.000
148.00	-49.00	180.00	3843.000	-696.118	887.460
295.00	-47.00	180.00	3843.000	-794.481	778.218
364.20	-46.00	180.00	3843.000	-842.115	728.022

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE NO.: 7

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	6.23	3843.00	-604.05	995.26	90
ANDESITE	22.00	3843.00	-614.29	983.27	50
FELSIC DYKE	34.50	3843.00	-622.41	973.77	90
ANDESITE	93.00	3843.00	-660.40	929.28	90
FELSIC VOLC	147.20	3843.00	-695.60	888.07	90
ALT ZN	213.50	3843.00	-739.95	838.78	50
ANDESITE	221.90	3843.00	-745.57	832.54	90
QTZ EYE PORP	233.00	3843.00	-752.99	824.29	50
INT VOLC	260.00	3843.00	-771.06	804.23	90
FELSIC VOLC	265.70	3843.00	-774.87	799.99	90
INT VOLC	271.10	3843.00	-778.49	795.98	90
FELSIC VOLC	296.30	3843.00	-795.38	777.27	90
MAFIC VOLC	364.20	3843.00	-842.11	728.02	50

** BORSURV **

ASSAY LOG

PROPERTY: CL

HOLE No. : 7

FROM	TO	WIDTH	Au opt
31.00	34.50	3.50	0.011
55.00	58.00	3.00	0.005
195.90	198.50	2.60	0.028
260.00	262.70	2.70	0.077
290.50	293.50	3.00	0.041
293.50	296.50	3.00	0.021
296.50	299.30	2.80	0.000
299.30	303.30	4.00	0.040
341.50	343.30	1.80	0.020
343.30	346.30	3.00	0.056
346.30	348.50	2.20	0.136
348.50	350.70	2.20	0.051

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 8
INSTRUMENT: ACID TEST

DATE: AUG. 86
SURVEY BY: PW

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3070.000	87.000	1000.000
148.00	-50.00	180.00	3070.000	-8.133	886.625
246.00	-48.00	180.00	3070.000	-72.426	812.664
246.30	-48.00	180.00	3070.000	-72.627	812.441

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE NO.: 8

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	4.71	3070.00	83.97	996.39	90
CHL QTZ EYE	25.71	3070.00	70.47	980.30	90
ANDESITE	31.03	3070.00	67.05	976.23	90
CHL QTZ EYE	38.08	3070.00	62.52	970.83	90
ALT QTZ EYE	63.91	3070.00	45.92	951.04	90
FELSIC DYKE	68.90	3070.00	42.71	947.22	90
ANDESITE	78.74	3070.00	36.39	939.68	90
FELSIC DYKE	86.30	3070.00	31.53	933.89	90
ANDESITE	143.41	3070.00	-5.18	890.14	90
QTZ EYE PORP	164.02	3070.00	-18.64	874.53	90
SILICIFIED A	165.64	3070.00	-19.71	873.31	90
QTZ EYE PORP	174.04	3070.00	-25.22	866.97	90
ANDESITE	234.07	3070.00	-64.60	821.67	90
QTZ EYE PORP	240.95	3070.00	-69.11	816.48	90
ANDESITIC TU	243.21	3070.00	-70.60	814.77	90
QTZ EYE PORP	243.81	3070.00	-70.99	814.32	90
ANDESITE	244.25	3070.00	-71.28	813.98	56
QTZ EYE PORP	246.25	3070.00	-72.59	812.48	90
WELL FOLIATE	249.30	0.00	0.00	0.00	90

** BORSURV **

ASSAY LOG

PROPERTY: CL

HOLE No. : 8

FROM	TO	WIDTH	Au opt
31.03	34.03	3.00	0.024
34.03	38.08	4.05	0.010
38.08	41.08	3.00	0.021
41.08	44.08	3.00	0.016
44.08	50.08	6.00	0.000
50.08	53.08	3.00	0.005
53.08	56.08	3.00	0.026
56.08	63.91	7.83	0.000
63.91	66.91	3.00	0.014
66.91	68.90	1.99	0.017
165.64	168.64	3.00	0.022
189.34	202.39	13.05	0.015
202.39	206.39	4.00	0.011
224.53	229.03	4.50	0.014
229.03	232.03	3.00	0.045
232.03	237.07	5.04	0.000
237.07	240.95	3.88	0.011
240.98	243.21	2.23	0.023
243.21	246.25	3.04	0.041
246.25	249.34	3.09	0.065

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 9
INSTRUMENT: ACID TEST

DATE: AUG 86
SURVEY BY: PW

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	1700.000	-120.000	1000.000
148.00	-50.00	180.00	1700.000	-215.133	886.625
324.80	-46.00	180.00	1700.000	-333.435	755.237
324.80	-46.00	180.00	1700.000	-333.435	755.237

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE NO.: 9

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	24.57	1700.00	-135.79	981.18	90
QTZ EYE PORP	62.36	1700.00	-160.08	952.23	90
ALT GRANODIO	112.98	1700.00	-192.62	913.45	90
FELSIC DYKE	114.58	1700.00	-193.65	912.23	90
CHL FELDSPAR	135.85	1700.00	-207.32	895.93	90
HEAVILY ALT	154.27	1700.00	-219.33	881.97	90
QTZ EYE FELS	156.08	1700.00	-220.54	880.62	90
HEAVILY ALT	166.02	1700.00	-227.19	873.23	90
CHERTY SERIC	168.32	1700.00	-228.73	871.52	90
SHEARED HEAV	171.87	1700.00	-231.10	868.89	90
WELL FOLIATE	172.93	1700.00	-231.81	868.10	90
SHEARED DACI	207.75	1700.00	-255.11	842.22	90
FELSIC METAV	208.27	1700.00	-255.46	841.84	90
DACITE	243.55	1700.00	-279.07	815.62	90
MASSIVE SILI	246.54	1700.00	-281.07	813.40	90
DACITE	250.48	1700.00	-283.71	810.47	90
QTZ EYE PORP	296.02	1700.00	-314.18	776.63	90
ANDESITE	324.80	1700.00	-333.43	755.24	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE NO.: 9

FROM	TO	WIDTH	Au opt
99.74	102.74	3.00	0.003
120.58	123.58	3.00	0.009
172.93	175.93	3.00	0.019
246.04	250.98	4.94	0.009
274.48	277.48	3.00	0.024
305.11	310.11	5.00	0.003

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 10
INSTRUMENT: ACID TEST

DATE: AUG 86
SURVEY BY: PW

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	1920.000	-40.000	1000.000
148.00	-51.00	180.00	1920.000	-134.140	885.800
315.00	-50.00	180.00	1920.000	-240.365	756.938

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL
HOLE NO.: 10

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	15.42	1920.00	-49.81	988.10	90
QTZ EYE PORP	24.52	1920.00	-55.60	981.08	90
QTZ FELDSPAR	28.50	1920.00	-58.13	978.01	90
FELSIC INTER	32.09	1920.00	-60.41	975.24	90
QTZ EYE PORP	57.40	1920.00	-76.51	955.71	90
ANDESITE	88.58	1920.00	-96.34	931.65	90
FELSIC METAV	91.74	1920.00	-98.35	929.21	90
ANDESITE	111.25	1920.00	-110.76	914.16	90
CHL GRANODIO	117.94	1920.00	-115.02	908.99	90
ANDESITE	119.51	1920.00	-116.02	907.78	90
VERY SILICEO	121.63	1920.00	-117.37	906.15	90
ANDESITE	126.89	1920.00	-120.71	902.09	90
CHL SILICIFI	128.65	1920.00	-121.83	900.73	90
MAGNETITE IF	129.65	1920.00	-122.47	899.96	90
SILICIFIED A	132.36	1920.00	-124.19	897.87	90
QTZ EYE PORP	161.63	1920.00	-142.81	875.28	90
ANDESITE	167.22	1920.00	-146.36	870.97	90
ALTERED QTZ	167.92	1920.00	-146.81	870.43	90
SHEARED ANDE	168.52	1920.00	-147.19	869.97	90
QTZ CARB VEI	169.14	1920.00	-147.59	869.49	90
QTZ EYE PORP	201.18	1920.00	-167.97	844.76	90
CHL GRANODIO	218.61	1920.00	-179.05	831.32	90
SHEARED ANDE	232.67	1920.00	-188.00	820.47	90
ANDESITE	315.00	1920.00	-240.36	756.94	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE [illegible]o.: 10

FROM	TO	WIDTH	Au opt
132.36	135.36	3.00	0.016
224.61	227.61	3.00	0.008
227.61	230.61	3.00	0.004
241.67	244.67	3.00	0.006
244.67	253.67	9.00	0.000
253.67	256.67	3.00	0.011
256.67	262.67	6.00	0.000
262.67	264.67	2.00	0.002
264.67	267.09	2.42	0.000
267.09	272.09	5.00	0.011
272.09	275.09	3.00	0.000
275.09	277.09	2.00	0.010
277.09	278.75	1.66	0.007
278.75	283.75	5.00	0.028
283.75	288.18	4.43	0.000
288.18	293.18	5.00	0.016
293.18	294.78	1.60	0.000
294.78	296.22	1.44	0.014
296.22	301.62	5.40	0.035
301.62	302.94	1.32	0.000
302.94	305.94	3.00	0.027
305.94	308.47	2.53	0.004
308.47	312.47	4.00	0.016
312.47	314.96	2.49	0.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 11
INSTRUMENT: ACID

DATE: 09/30/87
SURVEY BY: RC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3843.000	-720.000	1000.000
256.00	-48.00	180.00	3843.000	-887.951	806.794
265.70	-48.00	180.00	3843.000	-894.442	799.586

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE NO. : 11

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	7.00	3843.00	-724.59	994.72	90
FELSIC TUFF	19.30	3843.00	-732.66	985.43	65
ANDESITE	39.80	3843.00	-746.11	969.96	80
FELSIC TUFF	57.90	3843.00	-757.99	956.30	55
QTZ VEIN	59.90	3843.00	-759.30	954.79	40
ALTERED ZONE	94.10	3843.00	-781.74	928.98	40
ANDESITE	152.00	3843.00	-819.72	885.28	50
QTZ PORPHYRY	160.20	3843.00	-825.10	879.10	60
ANDESITE	238.90	3843.00	-876.73	819.70	50
QTZ PORPH	252.00	3843.00	-885.33	809.81	50
ANDESITE	265.70	3843.00	-894.44	799.59	50

** BORSURV **

ASSAY LOG

PROPERTY: CL

HOLE NO.: 11

FROM	TO	WIDTH	AU OPT
7.70	10.70	3.00	0.001
59.90	62.80	2.90	0.024
74.60	76.60	2.00	0.246
92.00	94.10	2.10	0.004
197.30	198.50	1.20	0.011
212.10	214.70	2.60	0.036
214.70	216.50	1.80	0.018
216.50	219.50	3.00	0.009
219.50	222.40	2.90	0.006
232.60	235.60	3.00	0.036
235.60	238.90	3.30	0.033
238.90	241.90	3.00	0.000
241.90	244.90	3.00	0.011
244.90	247.90	3.00	0.008

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 12
INSTRUMENT: ACID TEST

DATE: AUG 86
SURVEY BY: PW

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	5300.000	800.000	1000.000
148.00	-46.00	180.00	5300.000	700.969	890.015
410.00	-45.00	180.00	5300.000	517.330	703.143
413.38	-45.00	180.00	5300.000	514.940	700.753

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 12

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	4.04	5300.00	797.30	997.00	90
WELL FOLIATE	20.69	5300.00	786.16	984.62	90
WKLY SER WEL	26.37	5300.00	782.36	980.40	90
ANEDESITE	27.52	5300.00	781.59	979.55	90
WKLY SERICIT	33.19	5300.00	777.79	975.34	90
MASSIVE QTZ	34.40	5300.00	776.98	974.44	90
ALT CONTACT	36.22	5300.00	775.76	973.08	90
ANDESITE	78.14	5300.00	747.71	941.93	90
CHL CGANODIO	78.64	5300.00	747.38	941.56	90
ANDESITE	79.44	5300.00	746.84	940.96	90
CHL GRANODIO	81.19	5300.00	745.67	939.66	90
ANDESITE	123.08	5300.00	717.64	908.53	90
CHL ZTZ EYE	143.78	5300.00	703.79	893.15	90
ANDESITE	191.05	5300.00	670.79	859.31	90
MAGNETITE QT	192.85	5300.00	669.53	858.03	90
ANDESITE	206.34	5300.00	660.08	848.40	90
QTZ EYE PORP	211.05	5300.00	656.78	845.04	90
ANDESITE	228.48	5300.00	644.56	832.61	90
QTZ EYE PORP	238.61	5300.00	637.46	825.39	90
FELSIC INTER	286.63	5300.00	603.80	791.14	90
QTZ EYE PORP	309.44	5300.00	587.81	774.87	90
FELSIC TO IN	311.96	5300.00	586.05	773.07	90
QTZ EYE PORP	314.36	5300.00	584.37	771.36	90
FELSIC TUFF	321.15	5300.00	579.61	766.52	90
QTZ EYE PORP	366.91	5300.00	547.53	733.88	90

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE NO. : 12

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
SHEARED ANDE	413.38	5300.00	514.94	700.75	90

** BORSURV **

ASSAY LOG

PROPERTY: CL

HOLE No. : 12

FROM	TO	WIDTH	Au opt
4.04	7.04	3.00	0.016
16.04	19.04	3.00	0.021
26.37	27.52	1.15	0.016
27.52	30.52	3.00	0.010
30.52	33.19	2.67	0.012
33.19	36.72	3.53	0.050
36.72	39.72	3.00	0.011
39.72	42.72	3.00	0.044
57.80	62.80	5.00	0.010
62.80	67.80	5.00	0.007
95.92	98.42	2.50	0.011
112.06	117.06	5.00	0.016
132.08	135.08	3.00	0.011
135.08	138.08	3.00	0.000
138.08	141.08	3.00	0.003
141.08	146.75	5.67	0.000
148.38	151.38	3.00	0.015
231.43	234.43	3.00	0.002
238.61	241.61	3.00	0.017
241.61	244.61	3.00	0.000
244.61	247.61	3.00	0.047
247.61	250.61	3.00	0.037
250.61	253.61	3.00	0.024
253.61	256.61	3.00	0.016
256.61	262.61	6.00	0.000
262.61	265.61	3.00	0.013
265.61	268.61	3.00	0.022
268.61	271.61	3.00	0.014
271.61	274.61	3.00	0.008
274.61	277.61	3.00	0.016
277.61	283.61	6.00	0.000
283.61	286.63	3.02	0.011
286.63	289.63	3.00	0.000
289.63	292.63	3.00	0.019
292.63	298.63	6.00	0.000
298.63	301.63	3.00	0.008
301.63	304.63	3.00	0.011
304.63	307.63	3.00	0.033
324.15	327.15	3.00	0.031
327.15	330.15	3.00	0.002
330.15	333.15	3.00	0.014
333.15	336.15	3.00	0.021
336.15	339.15	3.00	0.019
339.15	342.15	3.00	0.009
342.15	345.15	3.00	0.024
345.15	348.15	3.00	0.018
348.15	351.15	3.00	0.014
351.15	354.15	3.00	0.017
354.15	357.15	3.00	0.004
357.15	360.15	3.00	0.000

** BORSURV **

ASSAY LOG

PROPERTY: CL

HOLE No.: 12

FROM	TO	WIDTH	Au opt
360.15	362.15	2.00	0.013
363.15	366.91	3.76	0.027
366.91	369.91	3.00	0.056
369.91	372.91	3.00	0.019
372.91	375.91	3.00	0.022
375.91	378.91	3.00	0.033
390.91	393.91	3.00	0.009
393.91	396.91	3.00	0.015
396.91	399.91	3.00	0.007
399.91	402.91	3.00	0.007
402.91	405.91	3.00	0.010
405.91	408.91	3.00	0.016
408.91	411.91	3.00	0.007
411.91	413.38	1.47	0.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 13
INSTRUMENT: ACID TEST

DATE: AUG 86
SURVEY BY: DB

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3660.000	30.000	1000.000
131.00	-51.00	180.00	3660.000	-53.326	898.917
255.91	-49.00	180.00	3660.000	-133.617	803.231

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE [illegible]o.: 13

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	9.84	3660.00	23.74	992.41	90
FELSIC TUFF	21.69	3660.00	16.20	983.26	90
ANDESITE	45.92	3660.00	0.79	964.57	90
FELSIC	64.95	3660.00	-11.31	949.88	90
ANDESITE	135.53	3660.00	-56.24	895.45	90
IF	136.43	3660.00	-56.82	894.76	90
ANDESITE	151.00	3660.00	-66.18	883.60	90
FELSIC	167.00	3660.00	-76.47	871.34	90
FELSIC SCHIS	179.80	3660.00	-84.69	861.53	90
QTZ VEIN	188.00	3660.00	-89.97	855.25	90
QTZ SERICITE	191.95	3660.00	-92.50	852.23	90
ANDESITIC SC	198.92	3660.00	-96.98	846.89	90
QTZ EYE PORP	200.44	3660.00	-97.96	845.72	90
ANDESITIC SC	255.91	3660.00	-133.62	803.23	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 13

FROM	TO	WIDTH	Au opt
9.84	12.84	3.00	0.007
12.84	15.84	3.00	0.018
15.84	18.84	3.00	0.012
51.92	54.92	3.00	0.010
54.92	57.92	3.00	0.002
63.92	65.90	1.98	0.006
99.95	102.95	3.00	0.004
135.53	136.43	0.90	0.008
151.00	152.00	1.00	0.006
152.00	155.00	3.00	0.015
155.00	158.00	3.00	0.014
158.00	161.00	3.00	0.017
191.75	194.53	2.78	0.010
194.53	197.43	2.90	0.004
197.43	198.92	1.49	0.030
198.92	200.44	1.52	0.008
200.44	203.44	3.00	0.000
203.44	204.94	1.50	0.012
204.94	206.44	1.50	0.010
206.44	207.94	1.50	0.005
207.94	208.94	1.00	0.006
208.94	209.94	1.00	0.019
209.94	210.94	1.00	0.015
210.94	211.94	1.00	0.028
211.94	212.94	1.00	0.028
212.94	215.94	3.00	0.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 14
INSTRUMENT: ACID TEST

DATE: AUG 86
SURVEY BY: DB

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	360.00	3460.000	20.000	1000.000
148.00	-51.00	360.00	3460.000	114.140	885.800
187.01	-51.00	360.00	3460.000	138.689	855.483

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No. : 14

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	4.20	3460.00	22.67	996.76	90
ANDESITE/BAS	88.50	3460.00	76.29	931.71	90
DIABASE	187.01	3460.00	138.69	855.48	90

** BORSURV **

ASSAY LOG

PROPERTY: CL
HOLE No. : 14

FROM	TO	WIDTH	Au opt
11.10	14.00	2.90	0.010
14.00	16.40	2.40	0.020
16.40	19.20	2.80	0.042
54.10	57.10	3.00	0.009
57.10	58.10	1.00	0.010
58.10	61.10	3.00	0.005

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 15
INSTRUMENT: ACID TEST

DATE: AUG 27 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3484.000	812.000	1017.360
148.00	-47.00	180.00	3484.000	713.932	906.515
374.00	-44.00	180.00	3484.000	555.527	745.320
413.38	-42.00	180.00	3484.000	526.726	718.463

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE [illegible]o.: 15

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	13.20	3484.00	803.25	1007.47	0
MASSIVE ANDE	41.80	3484.00	784.30	986.05	0
SHEARED ANDE	72.38	3484.00	764.04	963.15	0
DACITE	78.80	3484.00	759.79	958.34	0
DIABASE	103.45	3484.00	743.45	939.88	0
ANDESITE	137.80	3484.00	720.69	914.15	0
FELSITE DYKE	147.64	3484.00	714.17	906.78	0
ANDESITE	157.80	3484.00	707.06	899.52	0
GRANODIORITE	159.57	3484.00	705.82	898.26	0
ANDESITE	186.20	3484.00	687.16	879.27	0
SHEARED ANDE	190.76	3484.00	683.96	876.02	0
QUARTZ PORPH	194.50	3484.00	681.34	873.35	0
HORBLENDE PO	196.95	3484.00	679.62	871.60	0
QUARTZ PORPH	370.10	3484.00	558.26	748.10	0
SHEARED ANDE	413.38	3484.00	526.73	718.46	0

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE NO.: 15

FROM	TO	WIDTH	Au opt
72.38	75.38	3.00	0.006
75.38	78.60	3.22	0.000
131.80	134.80	3.00	0.000
134.80	137.80	3.00	0.016
137.80	140.60	2.80	0.000
140.60	142.45	1.85	0.000
142.45	144.45	2.00	0.006
144.45	147.64	3.19	0.000
186.76	189.76	3.00	0.004
189.76	190.76	1.00	0.110
190.76	191.76	1.00	0.019
191.76	194.20	2.44	0.024
194.20	196.95	2.75	0.003
196.95	199.95	3.00	0.036
199.95	202.95	3.00	0.021
202.95	205.95	3.00	0.010
205.95	208.95	3.00	0.016
208.95	211.95	3.00	0.084
211.95	215.05	3.10	0.009
215.05	218.05	3.00	0.002
218.05	221.05	3.00	0.012
221.05	224.00	2.95	0.000
224.00	226.90	2.90	0.000
226.90	229.80	2.90	0.000
229.80	232.65	2.85	0.007
232.65	235.55	2.90	0.000
235.55	238.55	3.00	0.016
238.55	241.55	3.00	0.015
241.55	244.55	3.00	0.000
244.55	247.55	3.00	0.009
247.55	250.55	3.00	0.024
250.55	253.55	3.00	0.010
253.55	256.55	3.00	0.013
256.55	259.55	3.00	0.010
259.55	262.55	3.00	0.015
262.55	265.55	3.00	0.008
265.55	268.55	3.00	0.010
268.55	271.55	3.00	0.013
271.55	274.55	3.00	0.096
274.55	277.55	3.00	0.011
277.55	280.55	3.00	0.033
280.55	283.55	3.00	0.013
283.55	286.55	3.00	0.020
286.55	289.55	3.00	0.019
289.55	292.55	3.00	0.017
292.55	295.55	3.00	0.018
295.55	298.55	3.00	0.015
298.55	301.55	3.00	0.016
301.55	304.55	3.00	0.014
304.55	307.55	3.00	0.018

ASSAY LOG
PROPERTY: CL
HOLE NO.: 15

FROM	TO	WIDTH	Au opt
307.55	310.55	3.00	0.029
310.55	313.55	3.00	0.016
313.55	316.55	3.00	0.009
316.55	319.55	3.00	0.011
319.55	322.55	3.00	0.009
322.55	325.55	3.00	0.006
325.55	328.55	3.00	0.008
328.55	331.55	3.00	0.004
331.55	334.55	3.00	0.006
334.55	337.55	3.00	0.018
337.55	340.55	3.00	0.014
340.55	343.55	3.00	0.016
343.55	346.55	3.00	0.008
346.55	349.55	3.00	0.011
349.55	352.55	3.00	0.007
352.55	355.55	3.00	0.006
355.55	358.55	3.00	0.014
358.55	361.55	3.00	0.010
361.55	364.55	3.00	0.007
364.55	367.55	3.00	0.000
367.55	370.10	2.55	0.000
370.10	373.10	3.00	0.018
373.10	376.10	3.00	0.013
376.10	377.20	1.10	0.019
377.20	378.40	1.20	0.004
378.40	380.60	2.20	0.016
380.60	382.40	1.80	0.058
382.40	384.70	2.30	1.166
384.70	385.90	1.20	0.011
385.90	387.00	1.10	0.079
387.00	389.00	2.00	0.005
389.00	391.00	2.00	0.186
391.00	394.00	3.00	0.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

TY: CL
O: 16
MENT: ACID TEST

DATE: AUG 28 86
SURVEY BY: NOREX

TH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
00	-50.00	180.00	2768.000	679.000	1036.225
0	-49.00	180.00	2768.000	582.882	923.685
0	-48.00	180.00	2768.000	466.261	791.869
88	-48.00	180.00	2768.000	465.672	791.215

ASSAY LOG
PROPERTY: CL
HOLE NO.: 16

FROM	TO	WIDTH	Au opt
11.10	14.10	3.00	0.098
14.10	17.10	3.00	0.000
17.10	20.10	3.00	0.000
20.10	23.10	3.00	0.000
29.10	32.10	3.00	0.000
38.10	41.10	3.00	0.000
47.10	50.10	3.00	0.000
56.10	59.10	3.00	0.000
65.10	68.10	3.00	0.009
74.10	77.10	3.00	0.016
83.10	86.10	3.00	0.000
92.10	95.10	3.00	0.000
101.10	104.10	3.00	0.000
110.10	113.10	3.00	0.016
119.10	122.10	3.00	0.000
128.10	131.10	3.00	0.000
131.10	133.90	2.80	0.000
133.90	134.90	1.00	1.454
134.90	137.90	3.00	0.000
143.90	146.90	3.00	0.016
151.90	154.00	2.10	0.029
154.00	155.90	1.90	0.000
155.90	158.90	3.00	0.022
158.90	161.90	3.00	0.051
167.90	170.90	3.00	0.000
176.90	179.90	3.00	0.000
185.90	188.90	3.00	0.000
194.90	197.90	3.00	0.023
203.90	206.90	3.00	0.006
212.90	215.30	2.40	0.000
244.50	247.00	2.50	0.005
247.00	249.60	2.60	0.176
249.60	250.60	1.00	0.067
250.60	252.70	2.10	0.000
252.70	254.90	2.20	0.000
254.90	257.50	2.60	0.000
257.50	259.00	1.50	0.378
259.00	262.00	3.00	0.046
262.00	265.00	3.00	0.014
265.00	268.00	3.00	0.000
268.00	271.00	3.00	0.000
271.10	273.60	2.50	0.027
273.60	275.60	2.00	0.116
275.60	278.70	3.10	0.002
278.70	281.30	2.60	0.003
281.30	284.80	3.50	0.002
284.80	287.80	3.00	0.000
287.80	290.80	3.00	0.000
290.80	292.75	1.95	0.000
292.75	294.75	2.00	0.000

** BORSURV **

ASSAY LOG

PROPERTY: CL

HOLE NO.: 16

FROM	TO	WIDTH	Au opt
294.75	296.70	1.95	0.000
296.70	298.70	2.00	0.000
298.70	300.00	1.30	0.027
300.00	301.50	1.50	0.001
301.50	303.50	2.00	0.002
310.90	312.90	2.00	0.000
312.90	314.80	1.90	0.001

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 17
INSTRUMENT: ACID TEST

DATE: NOV 26 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3666.000	677.000	1016.670
164.00	-46.00	180.00	3666.000	567.263	894.794
296.90	-44.00	180.00	3666.000	473.288	800.820

** BORSURV **

SUMMARY LITHO LOG
PROPERTY: CL
HOLE No.: 17

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	7.60	3666.00	671.91	1011.02	0
QUARTZ PORPH	249.80	3666.00	506.59	834.12	0
GABBRO	256.00	3666.00	502.21	829.74	0
QUARTZ PORPH	261.90	3666.00	498.04	825.57	0
GABBRO	296.90	3666.00	473.29	800.82	0

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 17

FROM	TO	WIDTH	Au opt
7.60	10.00	2.40	0.000
10.00	13.00	3.00	0.000
13.00	16.00	3.00	0.000
16.00	19.00	3.00	0.021
19.00	22.00	3.00	0.017
22.00	25.00	3.00	0.000
25.00	28.00	3.00	0.014
28.00	31.00	3.00	0.029
31.00	34.00	3.00	0.007
34.00	37.00	3.00	0.000
37.00	40.00	3.00	0.025
40.00	43.00	3.00	0.007
43.00	46.00	3.00	0.000
46.00	49.00	3.00	0.023
49.00	52.00	3.00	0.012
52.00	55.00	3.00	0.006
55.00	58.00	3.00	0.011
58.00	61.00	3.00	0.011
61.00	64.00	3.00	0.021
64.00	67.00	3.00	0.003
67.00	70.00	3.00	0.001
70.00	73.00	3.00	0.001
73.00	76.00	3.00	0.000
76.00	79.00	3.00	0.000
79.00	82.00	3.00	0.000
82.00	85.00	3.00	0.007
85.00	88.00	3.00	0.000
88.00	91.00	3.00	0.000
91.00	92.90	1.90	0.000
92.90	93.60	0.70	0.005
93.60	96.10	2.50	0.022
96.10	98.40	2.30	0.000
98.40	101.40	3.00	0.000
101.40	104.40	3.00	0.000
104.40	107.40	3.00	0.000
107.40	110.40	3.00	0.000
110.40	113.40	3.00	0.000
113.40	116.60	3.20	0.000
116.60	118.60	2.00	0.017
118.60	120.80	2.20	0.000
120.80	123.80	3.00	0.000
123.80	126.80	3.00	0.000
126.80	130.00	3.20	0.000
130.00	133.00	3.00	0.011
133.00	136.00	3.00	0.000
136.00	138.50	2.50	0.008
138.50	140.60	2.10	0.000
140.60	143.60	3.00	0.000
143.60	146.00	2.40	0.000
146.00	149.00	3.00	0.000

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE [illegible]o.: 17

FROM	TO	WIDTH	Au opt
149.00	152.00	3.00	0.000
152.00	152.50	0.50	0.000
152.50	155.50	3.00	0.000
155.50	158.50	3.00	0.000
158.50	161.50	3.00	0.000
161.50	164.50	3.00	0.000
164.50	167.50	3.00	0.000
167.50	170.50	3.00	0.000
170.50	173.50	3.00	0.005
173.50	176.50	3.00	0.000
176.50	179.50	3.00	0.000
179.50	182.00	2.50	0.000
182.00	184.00	2.00	0.000
184.00	186.30	2.30	0.011
186.30	189.00	2.70	0.010
189.00	192.00	3.00	0.021
192.00	195.10	3.10	0.030
195.10	198.10	3.00	0.016
198.10	199.20	1.10	0.046
199.20	202.20	3.00	0.510
202.20	203.70	1.50	0.027
203.70	206.70	3.00	0.015
206.70	209.50	2.80	0.005
209.50	211.50	2.00	0.000
211.50	213.50	2.00	0.000
213.50	215.10	1.60	0.000
215.10	218.20	3.10	0.009
218.20	221.20	3.00	0.000
221.20	224.20	3.00	0.000
224.20	227.20	3.00	0.000
227.20	230.20	3.00	0.000
230.20	233.20	3.00	0.011
233.20	235.60	2.40	0.008
235.60	238.60	3.00	0.000
238.60	241.30	2.70	0.000
241.30	243.60	2.30	0.003
243.60	246.30	2.70	0.009
246.30	248.10	1.80	0.001
248.10	249.80	1.70	0.000
249.80	252.80	3.00	0.000
252.80	256.00	3.20	0.008
256.00	259.00	3.00	0.000
259.00	261.90	2.90	0.010
261.90	264.90	3.00	0.000
274.00	276.50	2.50	0.000
276.50	279.00	2.50	0.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 18
INSTRUMENT: ACID TEST

DATE: NOV 28 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3852.000	666.000	1021.670
167.30	-51.50	180.00	3852.000	560.148	892.114
246.10	-53.00	180.00	3852.000	511.906	829.808

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE NO.: 18

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	9.80	3852.00	659.80	1014.08	0
QUARTZ PORPH	92.80	3852.00	607.28	949.81	0
DIABASE	246.10	3852.00	511.91	829.81	0

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 18

FROM	TO	WIDTH	Au opt
9.80	12.80	3.00	0.000
12.80	15.80	3.00	0.000
15.80	18.80	3.00	0.000
18.80	21.80	3.00	0.000
21.80	24,80	3.00	0.000
24.80	27.80	3.00	0.000
27.80	30.80	3.00	0.000
30.80	33.80	3.00	0.008
33.80	36.80	3.00	0.007
36.80	39.80	3.00	0.011
39.80	41.80	2.00	0.016
41.80	44.80	3.00	0.011
44.80	47.80	3.00	0.011
47.80	50.80	3.00	0.004
50.80	53.80	3.00	0.000
53.80	56.80	3.00	0.017
56.80	59.80	3.00	0.015
59.80	61.80	2.00	0.024
61.80	63.50	1.70	0.032
63.50	66.50	3.00	0.000
66.50	69.50	3.00	0.005
69.50	72.50	3.00	0.000
72.50	75.50	3.00	0.010
75.50	78.50	3.00	0.004
78.50	81.50	3.00	0.002
81.50	84.50	3.00	0.004
84.50	87.50	3.00	0.003
87.50	89.80	2.30	0.001
89.80	92.80	3.00	0.001
92.80	94.30	1.50	0.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 19
INSTRUMENT: ACID TEST

DATE: NOV 30 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3213.000	728.000	1035.610
285.40	-47.00	180.00	3213.000	538.888	821.858
364.20	-47.00	180.00	3213.000	485.147	764.227

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE NO.: 19

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	12.80	3213.00	719.52	1026.02	0
ANDESITE	16.40	3213.00	717.13	1023.33	0
QUARTZ PORPH	19.70	3213.00	714.95	1020.86	0
DIABASE	220.80	3213.00	581.69	870.24	0
QUARTZ PORPH	279.40	3213.00	542.86	826.35	0
ANDESITE	305.10	3213.00	525.45	807.45	0
GABBRO	364.20	3213.00	485.15	764.23	0

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE NO.: 19

FROM	TO	WIDTH	Au opt
12.80	14.80	2.00	0.002
14.80	16.40	1.60	0.054
16.40	19.70	3.30	0.016
220.80	223.00	2.20	0.002
223.00	226.00	3.00	0.002
226.00	229.00	3.00	0.005
229.00	232.00	3.00	0.000
232.00	235.00	3.00	0.000
235.00	238.00	3.00	0.003
238.00	241.00	3.00	0.010
241.00	244.00	3.00	0.010
244.00	247.00	3.00	0.009
247.00	250.00	3.00	0.006
250.00	253.00	3.00	0.000
253.00	255.00	2.00	0.001
255.00	257.10	2.10	0.059
257.10	259.10	2.00	0.009
259.10	260.00	0.90	0.012
260.00	263.00	3.00	0.008
263.00	266.00	3.00	0.000
266.00	268.00	2.00	0.011
268.00	269.50	1.50	0.016
269.50	270.70	1.20	0.000
270.70	273.40	2.70	0.000
273.40	276.10	2.70	0.012
276.10	279.40	3.30	0.009
279.40	281.70	2.30	0.008
281.70	284.20	2.50	0.000
284.20	286.70	2.50	0.000
286.70	289.10	2.40	0.000
289.10	292.10	3.00	0.000
292.10	293.30	1.20	0.030
293.30	296.30	3.00	0.000
296.30	299.30	3.00	0.007
299.30	302.30	3.00	0.000
302.30	305.10	2.80	0.012
305.10	307.10	2.00	0.012
325.00	327.00	2.00	0.000
349.50	351.50	2.00	0.008

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 20
INSTRUMENT: ACID TEST

DATE: DEC 2 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	2571.000	700.000	1014.250
164.00	-48.00	180.00	2571.000	592.406	890.478
452.80	-43.00	180.00	2571.000	389.984	684.491

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE NO.: 20

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	10.40	2571.00	693.18	1006.40	0
QUARTZ PORPH	278.30	2571.00	512.29	808.95	0
DIABASE	295.00	2571.00	500.59	797.04	0
QUARTZ PORPH	353.00	2571.00	459.93	755.67	0
ANDESITE	452.80	2571.00	389.98	684.49	0

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 20

FROM	TO	WIDTH	Au opt
10.40	11.90	1.50	0.011
11.90	14.90	3.00	0.000
14.90	17.90	3.00	0.000
17.90	20.90	3.00	0.000
20.90	23.90	3.00	0.012
23.90	26.30	2.40	0.011
26.30	28.30	2.00	0.016
28.30	31.40	3.10	0.000
31.40	33.10	1.70	0.000
33.10	35.10	2.00	0.033
35.10	38.10	3.00	0.006
38.10	41.10	3.00	0.000
41.10	43.10	2.00	0.010
43.10	45.10	2.00	0.000
45.10	47.10	2.00	0.000
47.10	49.20	2.10	0.000
49.20	50.40	1.20	0.051
50.40	52.00	1.60	0.034
52.00	55.00	3.00	0.021
55.00	58.00	3.00	0.029
58.00	61.00	3.00	0.021
61.00	62.70	1.70	0.016
62.70	63.60	0.90	0.041
63.60	66.60	3.00	0.032
66.60	69.60	3.00	0.009
69.60	72.60	3.00	0.000
72.60	75.60	3.00	0.004
75.60	78.70	3.10	0.000
78.70	80.00	1.30	0.000
80.00	83.00	3.00	0.000
83.00	86.00	3.00	0.000
86.00	88.00	2.00	0.013
88.00	89.50	1.50	0.415
89.50	92.50	3.00	0.000
92.50	95.50	3.00	0.000
95.50	98.40	2.90	0.000
98.40	101.50	3.10	0.000
101.50	103.90	2.40	0.011
103.90	106.80	2.90	0.000
106.80	109.80	3.00	0.000
109.80	112.80	3.00	0.000
112.80	115.80	3.00	0.000
115.80	118.80	3.00	0.009
118.80	121.80	3.00	0.000
121.80	124.80	3.00	0.000
124.80	127.10	2.30	0.014
127.10	130.10	3.00	0.000
130.10	133.10	3.00	0.000
133.10	136.10	3.00	0.004
136.10	139.10	3.00	0.000

ASSAY LOG
PROPERTY: CL
HOLE [illegible]o.: 20

FROM	TO	WIDTH	Au opt
139.10	142.10	3.00	0.000
142.10	145.10	3.00	0.000
145.10	147.00	1.90	0.000
147.00	149.20	2.20	0.009
149.20	150.60	1.40	0.000
150.60	152.00	1.40	0.006
152.00	155.00	3.00	0.000
155.00	158.00	3.00	0.000
158.00	161.00	3.00	0.009
161.00	164.00	3.00	0.000
164.00	167.00	3.00	0.000
167.00	170.00	3.00	0.000
170.00	173.00	3.00	0.000
173.00	176.00	3.00	0.013
176.00	179.00	3.00	0.000
179.00	182.00	3.00	0.000
182.00	184.60	2.60	0.000
184.60	186.20	1.60	0.043
186.20	189.00	2.80	0.027
189.00	192.00	3.00	0.008
192.00	195.00	3.00	0.000
195.00	198.00	3.00	0.000
198.00	201.00	3.00	0.000
201.00	204.00	3.00	0.000
204.00	207.00	3.00	0.000
207.00	210.00	3.00	0.000
210.00	213.00	3.00	0.000
213.00	216.00	3.00	0.000
216.00	219.00	3.00	0.000
219.00	221.00	2.00	0.048
221.00	223.00	2.00	0.049
223.00	226.00	3.00	0.000
226.00	227.80	1.80	0.000
227.80	229.50	1.70	0.000
229.50	231.30	1.80	0.026
231.30	233.20	1.90	0.000
233.20	236.20	3.00	0.000
236.20	239.20	3.00	0.000
239.20	242.20	3.00	0.000
242.20	244.50	2.30	0.000
244.50	247.00	2.50	0.000
247.00	249.10	2.10	0.000
249.10	252.10	3.00	0.005
252.10	255.10	3.00	0.004
255.10	258.10	3.00	0.016
258.10	261.10	3.00	0.000
261.10	264.10	3.00	0.009
264.10	267.10	3.00	0.113
267.10	270.10	3.00	0.000
270.10	273.10	3.00	0.000

ASSAY LOG
PROPERTY: CL
HOLE NO.: 20

FROM	TO	WIDTH	Au opt
273.10	275.60	2.50	0.000
275.60	278.20	2.60	0.000
295.00	298.00	3.00	0.001
298.00	301.00	3.00	0.002
301.00	304.10	3.10	0.008
304.10	307.00	2.90	0.001
307.00	310.00	3.00	0.001
310.00	313.00	3.00	0.001
313.00	316.00	3.00	0.001
316.00	319.00	3.00	0.001
319.00	322.00	3.00	0.001
322.00	325.00	3.00	0.001
325.00	328.00	3.00	0.001
328.00	331.00	3.00	0.001
331.00	334.00	3.00	0.001
334.00	337.00	3.00	0.001
337.00	340.00	3.00	0.001
340.00	343.00	3.00	0.001
343.00	344.80	1.80	0.001
344.80	346.00	1.20	0.001
346.00	348.40	2.40	0.001
348.40	350.50	2.10	0.001
350.50	353.00	2.50	0.043
353.00	354.00	1.00	0.004
354.00	357.00	3.00	0.001
357.00	360.00	3.00	0.008
360.00	362.00	2.00	0.001
362.00	364.20	2.20	0.001
364.20	366.20	2.00	0.077
366.20	368.70	2.50	0.033
368.70	369.90	1.20	0.020
369.90	373.20	3.30	0.001
373.20	375.70	2.50	0.001
375.70	378.20	2.50	0.004
378.20	381.20	3.00	0.014
381.20	384.60	3.40	0.012
384.60	387.20	2.60	0.047
387.20	390.20	3.00	0.005
390.20	393.20	3.00	0.006
393.20	396.20	3.00	0.004
396.20	399.20	3.00	0.003
399.20	400.20	1.00	0.006
400.20	403.50	3.30	0.004
403.50	405.50	2.00	0.001
405.50	407.20	1.70	0.001
407.20	409.80	2.60	0.025
409.80	412.50	2.70	0.001
412.50	413.40	0.90	0.001
413.40	416.40	3.00	0.001
423.40	426.40	3.00	0.001

ASSAY LOG
PROPERTY: CL
HOLE No.: 20

FROM	TO	WIDTH	Au opt
426.40	428.20	1.80	0.002
428.20	430.00	1.80	0.042
430.00	432.50	2.50	0.001
432.50	434.80	2.30	0.001
434.80	436.70	1.90	0.004
436.70	438.30	1.60	0.001
438.30	441.30	3.00	0.001
448.20	450.20	2.00	0.001

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 21
INSTRUMENT: ACID TEST

DATE: DEC 5 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	2967.000	793.000	1026.280
164.00	-49.00	180.00	2967.000	686.491	901.573
328.10	-45.00	180.00	2967.000	574.575	781.558
492.10	-42.00	180.00	2967.000	455.613	668.668
599.10	-40.00	180.00	2967.000	374.859	598.470

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE NO.: 21

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	8.40	2967.00	787.54	1019.89	0
ANDESITE	10.80	2967.00	785.99	1018.07	0
QUARTZ EYE P	18.90	2967.00	780.73	1011.91	0
GABBRO	98.40	2967.00	729.09	951.46	0
ANDESITE	118.20	2967.00	716.24	936.40	0
QUARTZ PORPH	299.90	2967.00	593.81	802.18	0
DIABASE	324.00	2967.00	577.37	784.56	0
QUARTZ PORPH	477.40	2967.00	466.28	678.79	0
GABBRO OR FA	599.10	2967.00	374.86	598.47	0

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE NO.: 21

FROM	TO	WIDTH	Au opt
8.40	10.80	2.40	0.001
10.80	13.80	3.00	0.001
13.80	16.80	3.00	0.001
16.80	18.90	2.10	0.001
94.00	97.00	3.00	0.001
97.00	98.40	1.40	0.001
98.40	101.00	2.60	0.006
101.00	103.00	2.00	0.011
103.00	105.00	2.00	0.022
105.00	108.00	3.00	0.001
108.00	111.30	3.30	0.001
111.30	113.30	2.00	0.013
113.30	116.30	3.00	0.000
116.20	118.20	2.00	0.000
118.20	121.00	2.80	0.008
121.00	123.40	2.40	0.008
123.40	126.40	3.00	0.012
126.40	129.40	3.00	0.013
129.40	130.30	0.90	0.009
130.30	133.60	3.30	0.012
133.60	136.60	3.00	0.006
136.60	139.60	3.00	0.006
139.60	142.60	3.00	0.006
142.60	145.60	3.00	0.010
145.60	148.60	3.00	0.005
148.60	151.60	3.00	0.001
151.60	154.60	3.00	0.014
154.60	157.60	3.00	0.001
157.60	160.60	3.00	0.001
160.60	163.60	3.00	0.002
163.60	165.70	2.10	0.001
165.70	168.70	3.00	0.002
168.70	171.70	3.00	0.007
171.70	174.70	3.00	0.006
174.70	176.20	1.50	0.001
176.20	177.20	1.00	0.013
177.20	178.20	1.00	0.001
178.20	180.40	2.20	0.008
180.40	181.90	1.50	0.001
181.90	182.90	1.00	0.002
182.90	184.50	1.60	0.006
184.50	186.10	1.60	0.006
186.10	188.00	1.90	0.012
188.00	190.00	2.00	0.000
190.00	192.90	2.90	0.012
192.90	195.90	3.00	0.009
195.90	198.90	3.00	0.032
198.90	201.20	2.30	0.050
201.20	203.00	1.80	0.163
203.00	204.80	1.80	0.064

ASSAY LOG
PROPERTY: CL
HOLE NO.: 21

FROM	TO	WIDTH	Au opt
204.80	206.70	1.90	0.109
206.70	207.70	1.00	0.088
207.70	208.70	1.00	0.095
208.70	211.70	3.00	0.013
211.70	214.70	3.00	0.003
214.70	216.50	1.80	0.008
216.50	218.10	1.60	0.005
218.10	219.70	1.60	0.025
219.70	221.90	2.20	0.007
221.90	224.90	3.00	0.006
224.90	226.40	1.50	0.006
226.40	228.40	2.00	0.001
228.40	231.40	3.00	0.007
231.40	233.60	2.20	0.004
233.60	236.20	2.60	0.012
236.20	239.10	2.90	0.012
239.10	241.80	2.70	0.012
241.80	244.00	2.20	0.012
244.00	246.10	2.10	0.001
246.10	248.60	2.50	0.001
248.60	250.00	1.40	0.001
250.00	253.00	3.00	0.001
253.00	256.00	3.00	0.001
256.00	259.00	3.00	0.001
259.00	262.00	3.00	0.010
262.00	265.00	3.00	0.004
265.00	268.00	3.00	0.001
268.00	271.00	3.00	0.006
271.00	274.00	3.00	0.008
274.00	277.00	3.00	0.006
277.00	280.00	3.00	0.006
280.00	283.00	3.00	0.011
283.00	286.00	3.00	0.003
286.00	289.00	3.00	0.006
289.00	292.00	3.00	0.004
292.00	295.00	3.00	0.002
295.00	297.30	2.30	0.001
297.30	299.90	2.60	0.000
324.00	327.00	3.00	0.021
327.00	328.60	1.60	0.020
328.60	330.60	2.00	0.016
330.60	331.90	1.30	0.000
331.90	334.90	3.00	0.000
334.90	337.90	3.00	0.005
346.20	348.20	2.00	0.058
351.30	354.30	3.00	0.001
363.00	364.20	1.20	0.001
364.20	366.00	1.80	0.001
373.70	376.70	3.00	0.001
376.70	378.70	2.00	0.001

ASSAY LOG
PROPERTY: CL
HOLE No.: 21

FROM	TO	WIDTH	Au opt
378.70	380.00	1.30	0.001
380.00	383.00	3.00	0.001
383.00	385.00	2.00	0.012
385.00	387.70	2.70	0.001
387.70	389.80	2.10	0.001
389.80	392.80	3.00	0.001
399.00	400.00	1.00	0.001
400.00	400.70	0.70	0.001
400.70	402.30	1.60	0.001
402.30	404.30	2.00	0.001
404.30	405.10	0.80	0.001
413.40	416.30	2.90	0.001
423.20	426.20	3.00	0.001
432.60	435.60	3.00	0.001
435.60	438.40	2.80	0.001
438.40	441.00	2.60	0.006
441.00	443.00	2.00	0.001
443.00	444.10	1.10	0.001
444.10	446.70	2.60	0.004
446.70	449.30	2.60	0.001
449.30	451.30	2.00	0.001
451.30	454.20	2.90	0.001
464.50	467.50	3.00	0.004
471.40	474.40	3.00	0.001
474.40	476.40	2.00	0.003
476.40	477.40	1.00	0.216
477.40	479.40	2.00	0.018
486.80	489.80	3.00	0.016
492.10	494.50	2.40	0.019
494.50	496.20	1.70	0.000
502.00	504.00	2.00	0.000
507.30	510.40	3.10	0.028
510.40	513.80	3.40	0.018
513.80	516.80	3.00	0.016
516.80	519.20	2.40	0.030
542.90	545.90	3.00	0.012
545.90	547.90	2.00	0.000
547.90	549.50	1.60	0.015
549.50	552.50	3.00	0.019
552.50	555.50	3.00	0.000
555.50	558.20	2.70	0.017
558.20	560.50	2.30	0.009
560.50	563.00	2.50	0.016
563.00	564.20	1.20	0.013
564.20	566.10	1.90	0.009
566.10	567.80	1.70	0.013
567.80	570.50	2.70	0.008
570.50	573.50	3.00	0.013

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 22
INSTRUMENT: ACID TEST

DATE: DEC 7 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	2767.000	793.000	1008.720
164.00	-48.00	180.00	2767.000	685.406	884.948
328.10	-43.00	180.00	2767.000	570.387	767.903
492.10	-41.00	180.00	2767.000	448.511	658.166
561.00	-40.00	180.00	2767.000	396.119	613.419

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 22

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	6.60	2767.00	788.67	1003.74	0
ANDESITE	138.50	2767.00	702.14	904.19	0
QUARTZ PORPH	367.20	2767.00	541.33	741.74	0
DIABASE	385.30	2767.00	527.88	729.63	0
QUARTZ PORPH	508.30	2767.00	436.19	647.64	0
GABBRO	561.00	2767.00	396.12	613.42	0

ASSAY LOG
PROPERTY: CL
HOLE No.: 22

FROM	TO	WIDTH	Au opt
20.90	24.10	3.20	0.001
24.10	25.70	1.60	0.001
25.70	26.60	0.90	0.001
32.00	33.10	1.10	0.053
34.60	37.60	3.00	0.009
44.90	45.50	0.60	0.020
65.70	66.30	0.60	0.023
73.30	74.20	0.90	0.005
101.00	102.20	1.20	0.062
106.40	109.40	3.00	0.045
109.40	112.40	3.00	0.034
112.40	115.40	3.00	0.014
115.40	118.40	3.00	0.016
118.40	121.10	2.70	0.018
125.70	128.70	3.00	0.010
128.70	131.70	3.00	0.006
131.70	134.70	3.00	0.001
134.70	137.00	2.30	0.006
137.00	138.50	1.50	0.002
138.50	141.10	2.60	0.001
141.10	144.10	3.00	0.001
144.10	144.60	0.50	0.001
144.60	147.60	3.00	0.005
157.50	159.90	2.40	0.017
178.40	181.10	2.70	0.009
181.00	182.80	1.80	0.001
187.00	190.00	3.00	0.001
200.00	203.00	3.00	0.016
203.00	206.00	3.00	0.006
226.60	229.60	3.00	0.001
229.60	232.60	3.00	0.002
232.60	233.30	0.70	0.084
233.30	236.50	3.20	0.002
236.50	239.00	2.50	0.001
239.00	242.00	3.00	0.006
242.00	245.00	3.00	0.001
245.00	247.00	2.00	0.001
247.00	249.30	2.30	0.001
249.30	251.10	1.80	0.012
257.70	258.70	1.00	0.008
261.60	263.60	2.00	0.006
276.90	280.30	3.40	0.909
280.30	284.20	3.90	0.009
284.20	285.70	1.50	0.020
302.40	302.90	0.50	0.041
312.00	314.00	2.00	0.001
314.00	315.60	1.60	0.001
315.60	316.90	1.30	0.042
316.90	317.70	0.80	17.908
317.70	319.10	1.40	0.086

ASSAY LOG
PROPERTY: CL
HOLE No.: 22

FROM	TO	WIDTH	Au opt
319.10	321.60	2.50	0.010
321.60	324.80	3.20	0.006
324.80	327.00	2.20	0.001
327.00	330.00	3.00	0.002
330.00	332.00	2.00	0.001
332.00	333.00	1.00	0.048
333.00	336.00	3.00	0.001
336.00	339.90	3.90	0.001
339.70	340.70	1.00	0.018
340.70	343.00	2.30	0.010
343.00	344.00	1.00	0.042
348.00	349.00	1.00	0.006
354.90	357.80	2.90	0.018
364.20	367.20	3.00	0.011
385.30	385.90	0.60	0.045
385.90	388.90	3.00	0.001
396.30	397.30	1.00	0.001
400.00	401.00	1.00	0.001
401.00	403.50	2.50	0.001
403.50	404.50	1.00	0.001
406.00	408.70	2.70	0.012
420.00	422.00	2.00	0.002
422.00	423.70	1.70	0.001
434.00	436.50	2.50	0.001
436.50	439.00	2.50	6.592
439.00	442.00	3.00	0.001
442.00	445.00	3.00	0.001
445.00	448.00	3.00	0.001
448.00	451.00	3.00	0.003
451.00	452.80	1.80	0.001
452.80	454.80	2.00	0.001
454.80	457.80	3.00	0.001
457.80	459.60	1.80	0.001
459.60	462.60	3.00	0.036
472.40	475.40	3.00	0.014
485.70	488.70	3.00	0.014
488.70	491.70	3.00	0.036
491.70	494.70	3.00	0.001
494.70	497.70	3.00	0.001
497.70	500.70	3.00	0.001
500.70	503.70	3.00	0.004
503.70	506.70	3.00	0.007
506.70	508.30	1.60	0.005
508.30	509.80	1.50	0.010
509.80	512.80	3.00	0.011
512.80	515.80	3.00	0.015
515.80	518.80	3.00	0.006
518.80	521.70	2.90	0.002
531.90	533.70	1.80	0.005
533.70	535.60	1.90	0.012

ASSAY LOG
PROPERTY: CL
HOLE No.: 22

FROM	TO	WIDTH	Au opt
541.70	543.20	1.50	0.012
543.20	544.20	1.00	0.005
555.60	557.30	1.70	0.003

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 23
INSTRUMENT: ACID TEST

DATE: DEC 10 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3484.000	912.000	1012.040
164.00	-49.00	180.00	3484.000	805.491	887.333
328.10	-43.00	180.00	3484.000	691.497	769.290
492.10	-41.00	180.00	3484.000	569.621	659.552
570.90	-39.00	180.00	3484.000	509.257	608.901

SUMMARY LITHO LOG
PROPERTY: CL
HOLE No.: 23

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	12.80	3484.00	903.69	1002.31	0
ANDESITE	182.40	3484.00	792.71	874.10	0
DIABASE	198.90	3484.00	781.25	862.23	0
ANDESITE	267.20	3484.00	733.80	813.10	0
QUARTZ PORPH	274.70	3484.00	728.59	807.70	0
ANDESITE	278.50	3484.00	725.95	804.97	0
QUARTZ PORPH	288.50	3484.00	719.01	797.78	0
AMPHIBOLE BE	290.80	3484.00	717.41	796.12	0
QUARTZ PORPH	497.40	3484.00	565.56	656.15	0
GABBRO	570.90	3484.00	509.26	608.90	0

ASSAY LOG
PROPERTY: CL
HOLE No.: 23

FROM	TO	WIDTH	Au opt
18.80	21.50	2.70	0.009
21.50	24.50	3.00	0.001
24.50	26.50	2.00	0.001
26.50	28.60	2.10	0.001
28.60	29.70	1.10	0.005
29.70	31.80	2.10	0.007
31.80	32.90	1.10	0.001
32.90	35.90	3.00	0.002
74.90	78.20	3.30	0.013
78.20	81.20	3.00	0.008
81.20	84.20	3.00	0.013
84.20	85.90	1.70	0.031
85.90	87.90	2.00	0.009
87.90	89.90	2.00	0.005
122.90	125.90	3.00	0.000
125.90	128.90	3.00	0.009
128.90	131.10	2.20	0.009
131.10	132.20	1.10	0.031
132.20	135.20	3.00	0.001
158.20	160.60	2.40	0.001
214.70	215.70	1.00	0.001
215.70	218.20	2.50	0.002
218.20	220.30	2.10	0.004
257.50	259.50	2.00	0.001
259.50	261.70	2.20	0.008
261.70	264.70	3.00	0.013
264.70	267.20	2.50	0.005
267.20	270.20	3.00	0.001
270.20	273.20	3.00	0.001
273.20	274.70	1.50	0.001
274.70	275.60	0.90	0.001
275.60	278.60	3.00	0.001
278.60	280.60	2.00	0.011
280.60	283.60	3.00	0.006
283.60	285.40	1.80	0.000
285.40	288.50	3.10	0.005
288.50	290.80	2.30	0.001
290.80	292.90	2.10	0.011
292.90	295.50	2.60	0.017
295.50	298.00	2.50	0.080
298.00	301.00	3.00	0.021
301.00	304.00	3.00	0.006
304.00	306.00	2.00	0.029
306.00	308.50	2.50	0.030
308.50	311.50	3.00	0.077
311.50	315.00	3.50	0.003
315.00	317.70	2.70	0.046
317.70	320.20	2.50	0.006
320.20	322.00	1.80	0.005
322.00	325.00	3.00	0.006

ASSAY LOG
PROPERTY: CL
HOLE No.: 23

FROM	TO	WIDTH	Au opt
325.00	326.30	1.30	0.004
326.30	327.20	0.90	0.007
327.20	330.60	3.40	0.007
330.60	333.60	3.00	0.003
333.60	336.60	3.00	0.001
336.60	339.60	3.00	0.000
339.60	342.60	3.00	0.004
342.60	345.60	3.00	0.004
345.60	347.60	2.00	0.008
347.60	350.60	3.00	0.017
350.60	353.60	3.00	0.018
353.60	357.50	3.90	0.009
357.50	359.50	2.00	0.016
359.50	362.50	3.00	0.006
362.50	365.50	3.00	0.008
365.50	368.00	2.50	0.013
368.00	370.00	2.00	0.053
370.00	373.00	3.00	0.005
373.00	375.00	2.00	0.012
375.00	376.00	1.00	0.012
376.00	379.00	3.00	0.015
379.00	382.00	3.00	0.008
382.00	385.00	3.00	0.015
385.00	388.00	3.00	0.009
388.00	390.00	2.00	0.007
390.00	391.50	1.50	0.030
391.50	394.50	3.00	0.008
394.50	397.50	3.00	0.011
397.50	404.00	6.50	0.007
400.00	401.00	1.00	0.014
404.00	407.60	3.60	0.035
406.60	407.60	1.00	0.016
407.60	410.60	3.00	0.007
410.60	413.60	3.00	0.009
413.60	416.60	3.00	0.007
416.60	419.60	3.00	0.004
419.60	422.60	3.00	0.018
422.60	425.60	3.00	0.007
425.60	428.60	3.00	0.001
428.60	431.60	3.00	0.001
431.60	433.80	2.20	0.001
433.80	435.90	2.10	0.000
435.90	438.90	3.00	0.001
438.90	441.00	2.10	0.001
441.00	442.90	1.90	0.002
442.90	443.70	0.80	0.255
443.70	446.70	3.00	0.002
446.70	449.50	2.80	0.005
449.50	451.60	2.10	0.004
451.60	455.80	4.20	0.009

ASSAY LOG
PROPERTY: CL
HOLE No.: 23

FROM	TO	WIDTH	Au opt
455.80	458.80	3.00	0.001
458.80	460.50	1.70	0.003
460.50	462.60	2.10	0.002
462.60	465.20	2.60	0.011
465.20	468.20	3.00	0.013
468.20	470.20	2.00	0.008
470.20	472.40	2.20	0.006
472.40	475.40	3.00	0.009
475.40	478.40	3.00	0.003
478.40	481.40	3.00	0.002
481.40	484.40	3.00	0.002
484.40	487.40	3.00	0.000
487.40	490.40	3.00	0.000
490.40	494.50	4.10	0.005
494.50	497.40	2.90	0.004
497.40	500.00	2.60	0.001
500.00	502.00	2.00	0.002
502.00	505.00	3.00	0.004
505.00	507.50	2.50	0.001
507.50	510.50	3.00	0.018
521.30	524.70	3.40	0.003
524.70	526.30	1.60	0.001
526.30	528.50	2.20	0.001
528.50	530.60	2.10	0.002
530.60	532.50	1.90	0.000
532.50	534.20	1.70	0.005
534.20	535.60	1.40	0.004
535.60	536.80	1.20	0.273
536.80	539.80	3.00	0.035
539.80	542.70	2.90	0.053
542.70	544.10	1.40	0.003

** BORSURV **

AVERAGED ASSAY INTERVALS

PROPERTY: CL

HOLE No: 23

==========

1. a2 (188.90 d.t. Core Angle: 90 188.90 t.t.)

		EASTINGS:	3484.00
FROM:	295.50 ----------	NORTHINGS:	714.14
		ELEVATION:	792.74
	0.013 Au opt		
		EASTINGS:	3484.00
TO:	484.40 ----------	NORTHINGS:	575.34
		ELEVATION:	664.70

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 24
INSTRUMENT: ACID TEST

DATE: DEC 12 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3661.000	777.000	1001.240
164.00	-44.00	180.00	3661.000	665.152	881.298
328.10	-42.00	180.00	3661.000	545.137	769.382
433.10	-41.00	180.00	3661.000	466.497	699.807

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 24

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	14.10	3661.00	767.38	990.93	0
ANDESITE	155.50	3661.00	670.95	887.51	0
QUARTZ PORPH	304.50	3661.00	562.40	785.48	0
GABBRO	361.70	3661.00	519.97	747.12	0
QUARTZ PORPH	382.50	3661.00	504.39	733.34	0
ANDESITE	384.00	3661.00	503.27	732.34	0
GABBRO	433.10	3661.00	466.50	699.81	0

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No. : 24

FROM	TO	WIDTH	Au opt
38.00	41.00	3.00	0.000
55.00	57.40	2.40	0.000
57.40	60.40	3.00	0.000
60.40	63.40	3.00	0.000
63.40	67.00	3.60	0.000
67.00	70.00	3.00	0.000
70.00	72.40	2.40	0.000
72.40	74.40	2.00	0.000
95.10	98.10	3.00	0.008
98.10	100.40	2.30	0.035
153.20	155.50	2.30	0.020
155.50	157.50	2.00	0.005
163.70	166.60	2.90	0.008
166.60	167.10	0.50	0.018
167.10	170.10	3.00	0.018
170.10	172.50	2.40	0.013
175.50	178.50	3.00	0.000
178.50	181.50	3.00	0.026
181.50	183.50	2.00	0.000
183.50	187.00	3.50	0.000
187.00	190.00	3.00	0.005
190.00	193.00	3.00	0.009
193.00	195.90	2.90	0.000
195.90	197.90	2.00	0.004
197.90	201.00	3.10	0.000
201.00	202.00	1.00	0.001
202.00	205.00	3.00	0.000
205.00	208.00	3.00	0.000
208.00	211.00	3.00	0.000
211.00	214.00	3.00	0.000
214.00	216.50	2.50	0.000
216.50	218.00	1.50	0.001
224.10	225.10	1.00	0.001
225.10	226.40	1.30	0.006
233.20	236.10	2.90	0.001
247.90	248.70	0.80	0.001
251.70	254.70	3.00	0.000
254.70	257.70	3.00	0.000
257.70	260.00	2.30	0.007
260.00	261.00	1.00	0.039
261.00	264.00	3.00	0.007
264.00	267.20	3.20	0.000
267.20	270.20	3.00	0.000
270.20	272.40	2.20	0.000
272.40	275.80	3.40	0.000
275.80	277.90	2.10	0.004
278.40	279.40	1.00	0.000
279.50	281.30	1.80	0.009
281.30	282.90	1.60	0.005
282.90	285.90	3.00	0.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 24

FROM	TO	WIDTH	Au opt
285.90	289.00	3.10	0.000
289.00	292.00	3.00	0.000
292.00	295.30	3.30	0.000
295.30	297.30	2.00	0.005
297.30	300.30	3.00	0.000
300.30	303.00	2.70	0.000
303.00	304.50	1.50	0.001
304.50	305.40	0.90	0.001
305.40	307.30	1.90	0.009
307.30	308.00	0.70	0.001
308.00	311.00	3.00	0.001
311.00	312.80	1.80	0.004
312.80	314.50	1.70	0.003
314.50	315.70	1.20	0.007
315.70	318.80	3.10	0.001
318.80	319.70	0.90	0.001
319.70	322.20	2.50	0.000
338.30	341.30	3.00	0.015
354.30	357.30	3.00	0.000
357.30	359.30	2.00	0.000
359.30	361.90	2.60	0.000
361.90	364.90	3.00	0.000
364.90	367.90	3.00	0.000
367.90	370.90	3.00	0.000
370.90	373.90	3.00	0.000
373.90	376.90	3.00	0.000
376.90	379.90	3.00	0.000
379.90	382.50	2.60	0.008
382.50	384.00	1.50	0.000
384.00	387.00	3.00	0.000
387.00	390.00	3.00	0.000
390.00	393.00	3.00	0.015
393.00	396.00	3.00	0.021
396.00	399.00	3.00	0.016
399.00	402.00	3.00	0.014
402.00	405.00	3.00	0.014
405.00	408.00	3.00	0.020
408.00	411.00	3.00	0.012
411.00	414.00	3.00	0.020

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 25
INSTRUMENT: ACID TEST

DATE: DEC 13 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3565.000	794.000	1009.750
164.00	-47.00	180.00	3565.000	685.330	886.921
328.10	-44.00	180.00	3565.000	570.311	769.877
413.40	-42.00	180.00	3565.000	507.927	711.702

** BORSURV **

SUMMARY LITHO LOG
PROPERTY: CL
HOLE No.: 25

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	13.10	3565.00	785.32	999.94	0
DIABASE	26.00	3565.00	776.77	990.28	0
ANDESITE	30.60	3565.00	773.72	986.83	0
FELDSPAR POR	37.20	3565.00	769.35	981.89	0
ANDESITE OR	171.10	3565.00	680.35	881.86	0
QUARTZ PORPH	201.80	3565.00	658.84	859.96	0
AMPHIBOLE BE	204.90	3565.00	656.66	857.75	0
QUARTZ PORPH	326.30	3565.00	571.57	771.16	0
ANDESITE	343.70	3565.00	558.90	759.24	0
QUARTZ PORPH	355.90	3565.00	549.98	750.92	0
ANDESITE	364.00	3565.00	544.06	745.39	0
GABBRO	413.40	3565.00	507.93	711.70	0

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 25

FROM	TO	WIDTH	Au opt
26.00	30.00	4.00	0.033
35.00	37.40	2.40	0.004
87.60	89.00	1.40	0.005
112.10	115.30	3.20	0.019
115.30	118.30	3.00	0.003
118.30	121.30	3.00	0.003
121.30	124.30	3.00	0.000
124.30	127.30	3.00	0.003
127.30	130.30	3.00	0.005
130.30	133.30	3.00	0.000
133.30	134.80	1.50	0.004
134.80	137.80	3.00	0.000
137.80	139.50	1.70	0.000
139.50	141.90	2.40	0.000
141.90	143.20	1.30	0.013
143.20	146.20	3.00	0.000
146.20	149.20	3.00	0.000
149.20	152.20	3.00	0.000
152.20	155.20	3.00	0.000
155.20	158.20	3.00	0.000
158.20	160.20	2.00	0.000
160.20	162.00	1.80	0.000
162.00	164.50	2.50	0.010
164.50	166.20	1.70	0.004
166.20	168.10	1.90	0.007
168.10	171.10	3.00	0.010
171.10	172.70	1.60	0.022
172.70	174.90	2.20	0.020
174.90	177.20	2.30	0.005
177.20	179.50	2.30	0.000
179.50	181.30	1.80	0.006
181.30	184.00	2.70	0.056
184.00	187.00	3.00	0.001
187.00	188.30	1.30	0.019
188.30	189.50	1.20	0.007
189.50	192.50	3.00	0.002
192.50	195.50	3.00	0.001
195.50	198.50	3.00	0.001
198.50	201.80	3.30	0.012
201.80	204.90	3.10	0.001
204.90	206.60	1.70	0.011
206.60	208.10	1.50	0.014
208.10	208.80	0.70	0.002
208.80	211.80	3.00	0.002
211.80	214.80	3.00	0.002
214.80	217.80	3.00	0.001
217.80	221.20	3.40	0.005
221.20	222.30	1.10	0.001
222.30	225.30	3.00	0.004
225.30	228.30	3.00	0.026

ASSAY LOG
PROPERTY: CL
HOLE No.: 25

FROM	TO	WIDTH	Au opt
228.30	231.30	3.00	0.004
231.30	232.00	0.70	0.001
232.00	235.00	3.00	0.006
235.00	238.00	3.00	0.005
238.00	241.00	3.00	0.011
241.00	243.40	2.40	0.004
243.40	244.10	0.70	0.001
244.10	246.10	2.00	0.010
246.10	247.00	0.90	0.049
247.00	249.80	2.80	0.002
249.80	252.30	2.50	0.007
252.30	254.40	2.10	0.013
254.40	257.40	3.00	0.009
257.40	260.40	3.00	0.006
260.40	263.40	3.00	0.008
263.40	265.70	2.30	0.013
265.70	268.70	3.00	0.006
268.70	271.70	3.00	0.003
271.70	274.70	3.00	0.003
274.70	277.70	3.00	0.007
277.70	279.50	1.80	0.002
279.50	280.50	1.00	0.006
280.50	283.50	3.00	0.009
283.50	286.50	3.00	0.004
286.50	289.50	3.00	0.002
289.50	291.50	2.00	0.004
291.50	294.50	3.00	0.001
294.50	295.60	1.10	0.003
295.60	297.80	2.20	0.023
297.80	300.00	2.20	0.034
300.00	302.50	2.50	0.041
302.50	304.40	1.90	0.012
304.40	306.80	2.40	0.058
306.80	309.80	3.00	0.017
309.80	312.80	3.00	0.027
312.80	313.90	1.10	0.005
313.90	315.50	1.60	0.002
315.50	318.80	3.30	0.001
318.80	321.80	3.00	0.004
321.80	324.80	3.00	0.006
324.80	326.30	1.50	0.026
326.30	327.50	1.20	0.008
327.50	329.20	1.70	0.027
329.20	330.90	1.70	0.044
330.90	332.90	2.00	0.013
332.90	335.00	2.10	0.016
335.00	337.70	2.70	0.006
337.70	339.10	1.40	0.004
339.10	340.40	1.30	0.048
340.40	342.20	1.80	0.032

**

.ATED CO-ORDINATES

DATE: DEC 15 86
SURVEY BY: NOREX

Au opt
0.020
0.001
0.002
0.001
0.164
0.005
0.001
0.006
0.004
0.003
0.000
0.008
0.007
0.008
0.025
0.003

EASTINGS	NORTHINGS	ELEVATION
3383.000	767.000	1031.460
3383.000	659.406	907.688
3383.000	548.542	786.700
3383.000	510.486	745.891

** BORSURV **

SUMMARY LITHO LOG
PROPERTY: CL
HOLE No.: 26

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	13.10	3383.00	758.41	1021.57	0
ANDESITE	52.20	3383.00	732.75	992.06	0
QUARTZ PORPH	54.70	3383.00	731.11	990.18	0
ANDESITE	69.70	3383.00	721.27	978.86	0
DIABASE	82.90	3383.00	712.61	968.89	0
ANDESITE	103.00	3383.00	699.43	953.72	0
QUARTZ PORPH	314.10	3383.00	558.00	797.02	0
ANDESITE	334.60	3383.00	544.11	781.95	0
GABBRO	383.90	3383.00	510.49	745.89	0

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No. : 26

FROM	TO	WIDTH	Au opt
18.00	21.00	3.00	0.000
21.00	24.00	3.00	0.000
24.00	26.60	2.60	0.010
26.60	28.50	1.90	0.060
28.50	31.00	2.50	0.044
31.00	32.90	1.90	0.025
32.90	35.20	2.30	0.035
35.20	36.50	1.30	0.008
36.50	38.50	2.00	0.001
38.50	40.00	1.50	0.001
40.00	43.00	3.00	0.007
43.00	45.50	2.50	0.007
45.50	48.00	2.50	0.000
48.00	50.80	2.80	0.000
50.80	52.20	1.40	0.006
52.20	54.70	2.50	0.000
54.70	57.70	3.00	0.000
57.70	60.70	3.00	0.000
60.70	62.50	1.80	0.000
62.50	63.50	1.00	0.001
63.50	67.00	3.50	0.000
67.00	69.70	2.70	0.007
82.90	84.50	1.60	0.008
84.50	86.90	2.40	0.010
86.90	88.90	2.00	0.013
88.90	91.90	3.00	0.013
91.90	95.80	3.90	0.000
95.80	97.40	1.60	0.006
97.40	100.40	3.00	0.001
100.40	103.00	2.60	0.009
103.00	105.30	2.30	0.032
105.30	106.70	1.40	0.005
106.70	108.70	2.00	0.005
108.70	111.70	3.00	0.018
111.70	114.70	3.00	0.005
114.70	117.90	3.20	0.014
117.90	120.90	3.00	0.013
120.90	122.00	1.10	0.006
122.00	124.70	2.70	0.006
124.70	128.00	3.30	0.001
128.00	129.60	1.60	0.001
129.60	130.60	1.00	0.001
130.70	133.70	3.00	0.009
133.70	136.70	3.00	0.020
136.40	138.40	2.00	0.001
138.40	141.40	3.00	0.009
141.40	144.40	3.00	0.013
144.40	147.60	3.20	0.013
147.60	150.60	3.00	0.012
150.60	153.60	3.00	0.011

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 26

FROM	TO	WIDTH	Au opt
153.60	157.20	3.60	0.027
157.20	158.20	1.00	0.001
158.20	161.50	3.30	0.028
161.50	164.50	3.00	0.004
164.50	168.70	4.20	0.003
168.80	170.80	2.00	0.010
170.80	172.50	1.70	0.008
172.50	175.50	3.00	0.003
175.50	176.50	1.00	0.159
176.50	178.50	2.00	0.000
178.50	180.50	2.00	0.000
178.50	180.50	2.00	0.004
180.50	182.40	1.90	0.000
182.40	183.40	1.00	0.001
183.40	186.40	3.00	0.002
186.40	189.50	3.10	0.000
189.50	190.50	1.00	0.006
190.50	193.50	3.00	0.002
193.50	196.50	3.00	0.000
196.50	199.50	3.00	0.004
199.50	202.50	3.00	0.003
202.50	205.50	3.00	0.031
205.50	208.50	3.00	0.013
208.50	211.50	3.00	0.025
211.50	213.50	2.00	0.019
213.40	214.40	1.00	0.019
214.50	217.50	3.00	0.032
217.20	218.20	1.00	0.011
218.20	220.50	2.30	0.009
220.50	223.50	3.00	0.014
223.50	225.50	2.00	0.020
225.50	227.20	1.70	0.037
227.20	228.20	1.00	0.001
228.20	231.40	3.20	0.008
231.40	232.70	1.30	0.051
232.70	234.50	1.80	0.009
234.50	236.30	1.80	0.013
236.30	238.30	2.00	0.008
238.30	240.30	2.00	0.009
240.30	241.30	1.00	0.018
241.30	243.90	2.60	0.010
243.90	246.10	2.20	0.013
246.10	249.10	3.00	0.007
249.10	250.50	1.40	0.005
250.50	251.50	1.00	0.002
251.50	254.00	2.50	0.010
254.00	256.10	2.10	0.000
256.10	258.70	2.60	0.000
258.70	260.70	2.00	0.005
260.70	262.70	2.00	0.011

ASSAY LOG
PROPERTY: CL
HOLE No.: 26

FROM	TO	WIDTH	Au opt
262.70	265.70	3.00	0.002
265.70	268.70	3.00	0.005
268.70	271.60	2.90	0.008
271.60	274.60	3.00	0.015
274.60	277.90	3.30	0.005
277.90	279.30	1.40	0.001
285.40	287.40	2.00	0.001
287.40	289.60	2.20	0.001
289.60	291.10	1.50	0.001
291.10	293.60	2.50	0.001
293.60	295.60	2.00	0.001
295.60	298.00	2.40	0.001
298.00	300.70	2.70	0.001
300.70	302.50	1.80	0.005
302.50	305.10	2.60	0.001
305.10	308.10	3.00	0.001
308.10	311.10	3.00	0.001
311.10	314.10	3.00	0.001
314.10	316.20	2.10	0.005
316.20	319.20	3.00	0.001
319.20	322.20	3.00	0.001
322.20	325.20	3.00	0.002
325.20	328.20	3.00	0.006
328.20	330.00	1.80	0.001
330.00	332.40	2.40	0.000
332.40	333.40	1.00	0.197
333.40	337.20	3.80	0.000
337.20	341.00	3.80	0.000
341.00	344.00	3.00	0.003
344.00	347.00	3.00	0.000
347.00	350.80	3.80	0.006
350.80	351.80	1.00	0.003
351.80	354.80	3.00	0.008
354.80	357.80	3.00	0.014
357.80	360.80	3.00	0.025
360.80	363.80	3.00	0.015
363.80	366.80	3.00	0.003
366.80	369.80	3.00	0.000
369.80	372.80	3.00	0.002
372.80	375.80	3.00	0.000
375.80	378.80	3.00	0.000
378.80	381.80	3.00	0.000
381.80	383.90	2.10	0.033

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 27
INSTRUMENT: ACID TEST

DATE: DEC 16 86
SURVEY BY: NOREX

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3758.000	718.000	1025.520
164.00	-47.00	180.00	3758.000	609.330	902.691
328.10	-48.00	180.00	3758.000	498.466	781.704
393.70	-48.00	180.00	3758.000	454.571	732.954

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 27

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	5.20	3758.00	714.55	1021.63	0
DIABASE	104.40	3758.00	648.82	947.33	0
QUARTZ PORPH	335.90	3758.00	493.25	775.91	0
ANDESITE	350.90	3758.00	483.21	764.76	0
GABBRO	357.60	3758.00	478.73	759.78	0
QUARTZ PORPH	368.90	3758.00	471.17	751.38	0
GABBRO	393.70	3758.00	454.57	732.95	0

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 27

FROM	TO	WIDTH	Au opt
104.40	107.40	3.00	0.009
107.40	111.40	4.00	0.007
111.40	114.40	3.00	0.005
114.40	117.40	3.00	0.000
117.40	120.40	3.00	0.000
120.40	123.40	3.00	0.010
123.40	126.40	3.00	0.000
126.40	129.40	3.00	0.005
129.40	132.40	3.00	0.003
132.40	135.40	3.00	0.003
135.40	138.40	3.00	0.000
138.40	142.10	3.70	0.003
142.10	143.70	1.60	0.018
143.70	146.80	3.10	0.016
146.80	147.80	1.00	0.011
147.80	150.20	2.40	0.006
150.20	153.20	3.00	0.000
153.20	155.20	2.00	0.002
155.20	157.50	2.30	0.006
157.50	159.50	2.00	0.052
159.50	162.50	3.00	0.020
162.50	165.50	3.00	0.008
165.50	168.50	3.00	0.007
168.50	171.50	3.00	0.002
171.50	174.50	3.00	0.000
174.50	177.50	3.00	0.000
177.50	179.20	1.70	0.000
179.20	182.20	3.00	0.005
182.20	185.20	3.00	0.004
182.20	185.20	3.00	0.004
185.20	188.20	3.00	0.067
185.20	188.20	3.00	0.068
188.20	190.20	2.00	0.002
188.20	190.20	2.00	0.002
190.20	192.30	2.10	0.006
192.30	194.40	2.10	0.001
194.40	197.80	3.40	0.001
197.80	200.80	3.00	0.017
197.80	200.80	3.00	0.010
200.80	203.80	3.00	0.000
200.80	203.80	3.00	0.000
203.80	206.80	3.00	0.001
206.80	209.80	3.00	0.000
209.80	212.80	3.00	0.000
212.80	215.80	3.00	0.017
215.80	218.80	3.00	0.004
218.80	221.80	3.00	0.017
221.80	224.80	3.00	0.000
224.80	227.80	3.00	0.005
227.80	230.80	3.00	0.038

ASSAY LOG
PROPERTY: CL
HOLE No.: 27

FROM	TO	WIDTH	Au opt
230.80	232.80	2.00	0.000
232.80	235.80	3.00	0.006
235.80	237.40	1.60	0.001
237.40	240.40	3.00	0.000
240.40	242.90	2.50	0.020
242.90	244.90	2.00	0.000
244.90	246.80	1.90	0.003
246.80	249.00	2.20	0.007
249.00	250.20	1.20	0.007
250.20	253.20	3.00	0.001
253.20	256.20	3.00	0.000
256.20	259.20	3.00	0.000
259.20	262.20	3.00	0.000
262.20	265.20	3.00	0.000
265.20	267.20	2.00	0.000
267.20	269.30	2.10	0.000
269.30	271.80	2.50	0.001
271.80	274.80	3.00	0.000
274.80	278.10	3.30	0.006
278.10	281.90	3.80	0.001
281.90	284.90	3.00	0.001
284.90	287.90	3.00	0.000
287.90	290.90	3.00	0.000
290.90	293.60	2.70	0.000
293.60	297.10	3.50	0.000
297.10	300.10	3.00	0.000
300.10	302.10	2.00	0.015
302.10	304.60	2.50	0.000
304.60	306.10	1.50	0.018
306.10	307.40	1.30	0.001
307.40	309.00	1.60	0.005
309.00	312.80	3.80	0.003
312.80	315.80	3.00	0.010
315.80	318.80	3.00	0.001
318.80	319.80	1.00	0.024
319.80	322.80	3.00	0.001
322.80	325.40	2.60	0.000
325.40	327.20	1.80	0.001
327.20	330.90	3.70	0.000
330.90	333.90	3.00	0.001
333.90	335.90	2.00	0.011
335.90	338.90	3.00	0.001
338.90	341.90	3.00	0.001
341.90	344.00	2.10	0.001
344.00	346.90	2.90	0.001
346.90	348.30	1.40	0.010
348.30	350.90	2.60	0.001
350.90	353.90	3.00	0.001
357.60	360.60	3.00	0.000
357.60	360.60	3.00	0.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 27

FROM	TO	WIDTH	Au opt
360.60	363.60	3.00	0.000
363.60	366.60	3.00	0.000
366.60	368.90	2.30	0.000
381.00	384.00	3.00	0.003
384.00	385.50	1.50	0.002
385.50	387.50	2.00	0.003
387.50	389.50	2.00	0.000
389.50	391.50	2.00	0.000
391.50	393.00	1.50	0.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 28
INSTRUMENT: NONE

DATE: AUG. 87
SURVEY BY: RC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	466.000	790.000	1000.000
59.00	-50.00	180.00	466.000	752.076	954.803

** BORSURV **

SUMMARY LITHO LOG
PROPERTY: CL
HOLE No.: 28

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	49.20	466.00	758.37	962.31	90
ANDESITE	59.00	466.00	752.08	954.80	90

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 28A
INSTRUMENT: ACID TEST

DATE: AUG. 87
SURVEY BY: RC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-52.00	180.00	466.000	800.000	1000.000
196.80	-48.00	180.00	466.000	673.499	849.242
354.00	-43.00	180.00	466.000	563.316	737.119
359.10	-43.00	180.00	466.000	559.587	733.641

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 28A

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	49.20	466.00	768.37	962.31	90
ANDESITE	359.10	466.00	559.59	733.64	90

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 29A
INSTRUMENT: TOPARI

DATE: SEPT 87
SURVEY BY: WC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	820.000	1028.000	1000.000
98.00	-46.00	173.50	823.718	962.531	927.172
295.00	-42.50	176.50	836.016	821.956	789.707
426.00	-38.00	179.50	839.506	722.034	705.065
433.10	-38.00	179.50	839.554	716.439	700.694

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No. : 29A

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	40.00	821.52	1001.28	970.27	90
ANDESITE	128.30	825.61	940.91	906.03	90
QTZ PORPH	152.50	827.12	923.64	889.14	60
MAFIC VOLC	225.30	831.66	871.69	838.34	70
QTZ PORPH	232.90	832.14	866.27	833.04	70
MAFIC VOLC	251.70	833.31	852.85	819.92	90
QTZ/SER/ANK	260.90	833.89	846.29	813.50	75
QTZ PORPH	291.00	835.77	824.81	792.50	90
MAFIC VOLC	310.00	836.42	810.51	780.02	60
QTZ PORPH	312.30	836.48	808.76	778.53	60
MAFIC VOLC	340.30	837.22	787.40	760.44	90
QTZ PORPH	352.90	837.56	777.79	752.30	90
MAFIC VOLC	358.20	837.70	773.75	748.87	60
QTZ VN	359.90	837.74	772.45	747.77	90
MAFIC VOLC	367.60	837.95	766.58	742.80	90
SIL CONT. ZN	368.60	837.98	765.82	742.15	90
QTZ PORPH	370.40	838.02	764.44	740.99	90
MAFIC VOLC	433.10	839.55	716.44	700.69	90

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 30
INSTRUMENT: ACID TEST

DATE: AUG 87
SURVEY BY: RC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	2967.000	918.000	1017.320
98.00	-48.00	180.00	2967.000	853.706	943.358
295.00	-48.00	180.00	2967.000	721.887	796.959
492.00	-45.00	180.00	2967.000	586.282	654.060
639.00	-43.00	180.00	2967.000	480.539	551.945
778.00	-37.00	180.00	2967.000	374.059	462.598

** BORSURV **

SUMMARY LITHO LOG
PROPERTY: CL
HOLE No.: 30

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	18.70	2967.00	905.73	1003.21	90
ANDESITE	110.00	2967.00	845.68	934.44	55
RHYOLITE	115.30	2967.00	842.13	930.50	55
ANDESITE	127.70	2967.00	833.83	921.29	55
FELSIC	132.00	2967.00	830.96	918.09	90
ANDESITE	265.00	2967.00	741.96	819.25	90
QTZ PORPH	422.70	2967.00	633.98	704.33	55
DIABASE	447.90	2967.00	616.64	686.05	85
QTZ PORPH	703.10	2967.00	431.44	510.74	55
MAFIC VOLC	778.00	2967.00	374.06	462.60	90

ASSAY LOG
PROPERTY: CL
HOLE No.: 30

FROM	TO	WIDTH	Au opt	Au ppb
69.00	72.00	3.00	0.000	3.000
72.00	75.00	3.00	0.000	2.000
75.00	78.00	3.00	0.000	1.000
78.00	80.50	2.50	0.000	1.000
80.50	82.10	1.60	0.002	85.000
82.10	85.60	3.50	0.000	2.000
85.60	88.60	3.00	0.005	186.000
88.60	91.60	3.00	0.000	3.000
91.60	93.50	1.90	0.006	205.000
93.50	95.10	1.60	0.001	36.000
95.10	97.50	2.40	0.004	130.000
97.50	99.30	1.80	0.002	54.000
99.30	104.10	4.80	0.000	2.000
104.10	105.80	1.70	0.000	5.000
105.80	108.00	2.20	0.012	410.000
108.00	110.00	2.00	0.000	1.000
110.00	112.30	2.30	0.000	2.000
112.30	115.30	3.00	0.000	1.000
115.30	118.30	3.00	0.000	2.000
125.70	127.70	2.00	0.007	255.000
127.70	129.70	2.00	0.000	3.000
129.70	132.00	2.30	0.000	2.000
132.00	135.00	3.00	0.002	55.000
135.00	138.00	3.00	0.000	3.000
161.00	164.00	3.00	0.000	2.000
164.00	166.00	2.00	0.017	585.000
166.00	168.80	2.80	0.000	8.000
168.80	170.60	1.80	0.000	3.000
170.60	173.60	3.00	0.000	2.000
173.60	175.00	1.40	0.000	9.000
175.00	179.20	4.20	0.004	145.000
179.20	180.20	1.00	0.020	675.000
187.70	190.00	2.30	0.000	10.000
190.00	192.00	2.00	0.000	12.000
192.00	196.50	4.50	0.000	5.000
196.50	198.00	1.50	0.027	915.000
198.00	200.60	2.60	0.069	1920.000
200.60	203.30	2.70	0.000	6.000
203.30	207.10	3.80	0.000	14.000
219.40	222.40	3.00	0.002	52.000
222.40	223.90	1.50	0.017	570.000
223.90	225.30	1.40	0.000	12.000
225.30	226.40	1.10	0.002	62.000
226.40	229.30	2.90	0.007	255.000
229.30	232.30	3.00	0.000	10.000
232.30	233.60	1.30	0.000	7.000
233.60	236.30	2.70	0.000	20.000
236.30	239.30	3.00	0.000	10.000
239.30	241.00	1.70	0.003	90.000
249.10	250.70	1.60	0.000	15.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 30

FROM	TO	WIDTH	Au opt	Au ppb
250.70	253.30	2.60	0.000	7.000
253.30	255.00	1.70	0.000	4.000
255.00	257.00	2.00	0.000	5.000
257.00	258.00	1.00	0.016	540.000
258.00	261.00	3.00	0.003	100.000
261.00	263.00	2.00	0.002	75.000
263.00	265.00	2.00	0.003	102.000
265.00	268.00	3.00	0.000	35.000
268.00	271.00	3.00	0.001	48.000
271.00	274.00	3.00	0.003	110.000
274.00	277.00	3.00	0.000	19.000
277.00	280.00	3.00	0.002	55.000
280.00	281.70	1.70	0.000	15.000
281.70	284.70	3.00	0.001	40.000
284.70	287.70	3.00	0.004	130.000
287.70	290.70	3.00	0.001	51.000
290.70	293.70	3.00	0.002	63.000
293.70	296.70	3.00	0.000	33.000
296.70	299.70	3.00	0.001	36.000
299.70	302.70	3.00	0.001	40.000
302.70	305.70	3.00	0.000	20.000
305.70	308.70	3.00	0.000	2.000
308.70	311.70	3.00	0.003	95.000
311.70	314.70	3.00	0.018	615.000
314.70	317.70	3.00	0.006	200.000
317.70	319.60	1.90	0.002	78.000
319.60	322.60	3.00	0.000	4.000
322.60	325.60	3.00	0.000	6.000
325.60	328.60	3.00	0.000	10.000
328.60	331.00	2.40	0.000	9.000
331.00	334.00	3.00	0.007	240.000
334.00	337.00	3.00	0.003	110.000
337.00	339.40	2.40	0.003	86.000
339.40	341.80	2.40	0.008	275.000
341.80	344.80	3.00	0.002	52.000
344.80	346.80	2.00	0.014	495.000
346.80	349.80	3.00	0.005	177.000
349.80	352.80	3.00	0.002	62.000
352.80	355.80	3.00	0.000	10.000
355.80	358.80	3.00	0.000	28.000
358.80	361.80	3.00	0.128	3300.000
361.80	364.80	3.00	0.003	115.000
364.80	367.80	3.00	0.005	187.000
367.80	370.80	3.00	0.001	46.000
370.80	373.80	3.00	0.000	26.000
373.80	376.80	3.00	0.002	68.000
376.80	379.80	3.00	0.000	22.000
379.80	382.80	3.00	0.002	55.000
382.80	385.80	3.00	0.001	43.000
385.80	388.80	3.00	0.004	138.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 30

FROM	TO	WIDTH	Au opt	Au ppb
388.80	391.80	3.00	0.000	28.000
391.80	394.80	3.00	0.009	295.000
394.80	397.80	3.00	0.004	134.000
397.80	400.80	3.00	0.001	47.000
400.80	403.80	3.00	0.007	225.000
403.80	406.80	3.00	0.004	120.000
406.80	409.80	3.00	0.003	105.000
409.80	412.80	3.00	0.041	1150.000
412.80	415.80	3.00	0.001	50.000
415.80	418.80	3.00	0.002	85.000
418.80	420.80	2.00	0.002	72.000
420.80	422.70	1.90	0.009	315.000
447.90	450.90	3.00	0.004	123.000
450.90	453.90	3.00	0.005	170.000
456.70	459.70	3.00	0.000	18.000
459.70	462.70	3.00	0.009	300.000
462.70	465.70	3.00	0.000	19.000
465.70	468.20	2.50	0.007	230.000
468.20	469.20	1.00	0.575	3200.000
469.20	472.00	2.80	0.000	12.000
472.00	475.00	3.00	0.016	545.000
475.00	478.00	3.00	0.002	60.000
478.00	481.00	3.00	0.008	280.000
481.00	484.00	3.00	0.002	52.000
484.00	487.00	3.00	0.000	10.000
487.00	490.00	3.00	0.000	4.000
490.00	493.00	3.00	0.002	54.000
493.00	496.00	3.00	0.001	36.000
496.00	499.00	3.00	0.012	415.000
499.00	501.00	2.00	0.004	146.000
501.00	503.00	2.00	0.000	6.000
503.00	505.60	2.60	0.000	5.000
505.60	508.60	3.00	0.003	104.000
508.60	510.50	1.90	0.003	113.000
510.50	513.50	3.00	0.001	40.000
513.50	516.50	3.00	0.000	8.000
516.50	519.50	3.00	0.000	9.000
519.50	522.50	3.00	0.000	5.000
522.50	525.50	3.00	0.000	2.000
525.50	528.50	3.00	0.000	13.000
528.50	531.50	3.00	0.004	127.000
531.50	534.50	3.00	0.000	13.000
534.50	537.50	3.00	0.001	40.000
537.50	540.50	3.00	0.002	60.000
540.50	543.50	3.00	0.000	4.000
543.50	546.50	3.00	0.000	5.000
546.50	549.50	3.00	0.000	7.000
549.50	551.50	2.00	0.000	3.000
551.50	554.50	3.00	0.000	3.000
554.50	557.50	3.00	0.000	25.000

DTH	Au opt	Au ppb
3.00	0.000	10.000
3.00	0.001	40.000
3.00	0.017	600.000
3.00	0.000	380.000
3.00	0.001	20.000
3.00	0.003	100.000
3.00	0.000	10.000
3.00	0.000	10.000
3.00	0.000	10.000
3.00	0.005	170.000
3.00	0.000	10.000
3.00	0.000	10.000
3.00	0.001	30.000
3.00	0.007	250.000
3.00	0.000	10.000
4.00	0.001	20.000
3.00	0.002	60.000
2.50	0.000	10.000
2.00	0.000	10.000
2.59	0.006	200.000
3.00	0.001	50.000
3.00	0.013	430.000
2.61	0.012	410.000
3.30	0.080	2730.000
3.00	0.007	230.000
2.00	0.001	50.000
2.20	0.004	150.000
3.00	0.000	10.000
3.00	0.001	20.000
3.00	0.006	200.000
3.00	0.003	100.000
3.00	0.003	120.000
3.00	0.000	10.000
3.00	0.000	10.000
3.00	0.006	210.000
2.30	0.006	220.000
2.40	0.007	230.000
2.40	0.006	200.000
1.60	0.005	180.000
3.00	0.000	10.000
3.00	0.001	20.000
3.00	0.000	10.000
3.00	0.001	20.000
3.00	0.000	10.000
3.00	0.000	10.000
3.00	0.000	10.000
2.70	0.001	20.000
3.00	0.000	10.000
3.70	0.000	10.000
2.70	0.003	110.000

Au ppb
250.000
50.000
50.000
890.000
10.000
10.000
20.000
20.000
10.000
00.000
50.000
00.000
10.000
70.000
00.000
50.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 31
INSTRUMENT: ACID TEST

DATE: AUG 87
SURVEY BY: RC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-55.00	180.00	2768.000	821.000	1007.370
196.00	-53.00	180.00	2768.000	705.794	848.803
394.00	-50.00	180.00	2768.000	582.536	693.846
561.00	-48.00	180.00	2768.000	472.974	567.810
689.00	-46.00	180.00	2768.000	385.679	474.196
791.00	-45.00	180.00	2768.000	314.186	401.445
856.30	-45.00	180.00	2768.000	268.012	355.271

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL
HOLE No.: 31

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	8.00	2768.00	816.30	1000.90	90
MAFIC VOLC	50.00	2768.00	791.61	966.92	50
ANDESITE	140.00	2768.00	738.71	894.11	50
MAFIC VOLC.	177.80	2768.00	716.49	863.53	70
ANDESITE FEL	229.80	2768.00	684.75	822.35	90
ANDESITE	248.50	2768.00	673.11	807.72	30
QTZ PORPH	454.40	2768.00	542.91	648.26	85
DIABASE	476.40	2768.00	528.48	631.66	40
QTZ PORPH	694.70	2768.00	381.68	470.13	37
DIABASE	743.00	2768.00	347.83	435.68	50
MAFIC VOLC	856.20	2768.00	268.08	355.34	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No. : 31

FROM	TO	WIDTH	Au opt	Au ppb
9.70	12.70	3.00	0.000	96.000
12.70	15.70	3.00	0.000	2.000
15.70	18.70	3.00	0.000	90.000
18.70	21.70	3.00	0.000	80.000
21.70	24.70	3.00	0.000	18.000
24.70	27.70	3.00	0.000	8.000
27.70	30.70	3.00	0.052	1200.000
30.70	33.70	3.00	0.000	300.000
33.70	36.70	3.00	0.000	20.000
36.70	39.70	3.00	0.000	18.000
39.70	43.30	3.60	0.000	7.000
57.00	60.00	3.00	0.000	36.000
60.00	63.00	3.00	0.069	1600.000
63.00	66.00	3.00	0.052	1050.000
66.00	69.00	3.00	0.067	1750.000
69.00	70.80	1.80	0.000	26.000
70.80	72.80	2.00	0.000	300.000
72.80	75.80	3.00	0.000	16.000
75.80	78.80	3.00	0.000	22.000
78.80	81.80	3.00	0.000	10.000
81.80	84.80	3.00	0.000	73.000
84.80	87.80	3.00	0.000	12.000
87.80	89.50	1.70	0.000	183.000
101.40	103.40	2.00	0.000	14.000
103.40	106.40	3.00	0.000	13.000
122.50	125.50	3.00	0.000	12.000
125.50	128.50	3.00	0.000	4.000
128.50	130.50	2.00	0.000	3.000
130.50	132.30	1.80	0.000	15.000
137.80	140.00	2.20	0.000	8.000
146.20	149.20	3.00	0.000	4.000
149.20	151.60	2.40	0.000	17.000
151.60	154.60	3.00	0.000	10.000
158.60	161.60	3.00	0.000	8.000
161.60	164.60	3.00	0.000	12.000
164.60	167.80	3.20	0.000	64.000
177.20	180.20	3.00	0.000	50.000
180.20	182.20	2.00	0.000	43.000
182.20	185.20	3.00	0.000	20.000
185.20	187.20	2.00	0.000	10.000
216.50	219.50	3.00	0.000	15.000
219.50	221.50	2.00	0.000	54.000
221.50	223.60	2.10	0.000	10.000
223.60	226.00	2.40	0.000	73.000
226.00	229.00	3.00	0.000	15.000
229.00	232.00	3.00	0.000	270.000
232.00	235.00	3.00	0.000	25.000
235.00	238.00	3.00	0.000	23.000
238.00	241.00	3.00	0.000	5.000
241.00	244.00	3.00	0.000	32.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 31

FROM	TO	WIDTH	Au opt	Au ppb
244.00	246.00	2.00	0.000	48.000
246.00	248.50	2.50	0.000	190.000
248.50	251.50	3.00	0.000	18.000
251.50	254.50	3.00	0.000	44.000
254.50	257.50	3.00	0.000	213.000
257.50	260.50	3.00	0.000	55.000
260.50	263.50	3.00	0.000	525.000
263.50	266.50	3.00	0.000	55.000
266.50	269.50	3.00	0.000	118.000
269.50	272.50	3.00	0.000	6.000
272.50	275.50	3.00	0.000	50.000
275.50	278.50	3.00	0.000	20.000
278.50	281.50	3.00	0.000	8.000
281.50	284.50	3.00	0.598	9200.000
284.50	287.50	3.00	0.000	285.000
287.50	290.50	3.00	0.000	5.000
290.50	293.50	3.00	0.000	4.000
293.50	296.50	3.00	0.000	15.000
296.50	299.50	3.00	0.000	10.000
299.50	302.50	3.00	0.000	2.000
302.50	306.40	3.90	0.000	3.000
315.00	318.00	3.00	0.000	1.000
318.00	321.00	3.00	0.000	3.000
321.00	324.00	3.00	0.000	57.000
324.00	327.00	3.00	0.000	2.000
327.00	330.00	3.00	0.000	1.000
330.00	333.00	3.00	0.000	250.000
333.00	336.00	3.00	0.000	7.000
336.00	339.00	3.00	0.000	4.000
339.00	342.00	3.00	0.000	14.000
342.00	345.00	3.00	0.000	125.000
345.00	348.00	3.00	0.000	205.000
348.00	351.00	3.00	0.000	145.000
351.00	354.00	3.00	0.000	360.000
354.00	357.00	3.00	0.000	18.000
357.00	360.00	3.00	0.000	3.000
360.00	363.00	3.00	0.000	4.000
363.00	366.00	3.00	0.000	143.000
366.00	369.00	3.00	0.000	26.000
369.00	372.00	3.00	0.000	2.000
372.00	374.00	2.00	0.000	55.000
374.00	377.00	3.00	0.076	1620.000
377.00	380.00	3.00	0.000	3.000
380.00	383.00	3.00	0.000	4.000
383.00	386.00	3.00	0.000	2.000
386.00	389.00	3.00	0.000	3.000
389.00	392.00	3.00	0.000	1.000
392.00	395.00	3.00	0.000	279.000
395.00	398.00	3.00	0.000	2.000
398.00	401.00	3.00	0.000	14.000

	WIDTH	Au opt	Au ppb	ppb
00	3.00	0.000	8.000	000
[redacted]	2.30	0.000	3.000	000
[redacted]	2.00	0.000	45.000	000
30	3.00	0.000	158.000	000
30	3.00	0.000	208.000	000
[redacted]	3.00	0.000	73.000	000
30	3.00	0.000	153.000	000
30	3.00	0.000	177.000	000
[redacted]	3.00	0.000	23.000	000
[redacted]	3.00	0.000	10.000	000
30	3.00	0.000	49.000	000
[redacted]	3.00	0.000	180.000	000
[redacted]	3.00	0.000	150.000	000
30	3.00	0.000	4.000	000
30	3.00	0.000	7.000	000
[redacted]	3.00	0.000	40.000	000
30	3.00	0.000	133.000	000
40	2.10	0.000	245.000	000
[redacted]	2.00	0.037	1050.000	000
[redacted]	3.00	0.000	12.000	000
40	3.00	0.000	4.000	000
[redacted]	3.00	0.000	2.000	000
[redacted]	3.00	0.000	8.000	000
40	3.00	0.000	4.000	000
[redacted]	3.00	0.000	2.000	000
[redacted]	3.00	0.000	4.000	000
40	3.00	0.000	8.000	000
40	3.00	0.000	130.000	000
[redacted]	3.00	0.000	340.000	000
[redacted]	3.00	0.000	45.000	000
40	3.00	0.000	160.000	000
[redacted]	3.00	0.000	130.000	000
[redacted]	3.00	0.000	18.000	00
00	1.60	0.000	19.000	000
[redacted]	2.70	0.052	1250.000	00
[redacted]	3.00	0.058	1500.000	00
00	2.30	0.061	1500.000	00
00	3.00	0.000	132.000	00
[redacted]	3.00	0.000	440.000	00
[redacted]	2.00	0.000	90.000	00
30	2.30	0.000	28.000	00
[redacted]	3.00	0.000	200.000	00
[redacted]	3.50	0.000	125.000	00
80	3.00	0.000	203.000	00
[redacted]	3.00	0.000	34.000	00
[redacted]	3.00	0.000	205.000	00
80	2.00	0.000	55.000	00
80	2.00	0.000	33.000	00
[redacted]	2.40	0.000	50.000	00
[redacted]	3.00	0.093	2600.000	00

ASSAY LOG
PROPERTY: CL
HOLE No.: 31

FROM	TO	WIDTH	Au opt	Au ppb
749.00	751.00	2.00	0.000	4.000
751.00	753.00	2.00	0.000	82.000
753.00	756.50	3.50	0.000	4.000
756.50	759.50	3.00	0.000	3.000
759.50	762.50	3.00	0.000	10.000
762.50	766.10	3.60	0.000	22.000
766.10	769.10	3.00	0.000	20.000
769.10	773.10	4.00	0.000	9.000
773.10	776.10	3.00	0.000	30.000
776.10	779.10	3.00	0.000	20.000
779.10	781.10	2.00	0.000	3.000
781.10	784.10	3.00	0.000	150.000
784.10	787.10	3.00	0.000	21.000
787.10	790.40	3.30	0.000	10.000
790.40	793.40	3.00	0.000	5.000
793.40	796.40	3.00	0.000	33.000
796.40	799.40	3.00	0.000	4.000
799.40	802.40	3.00	0.000	173.000
802.40	805.40	3.00	0.000	8.000
805.40	808.40	3.00	0.000	2.000
808.40	812.20	3.80	0.000	1.000
815.90	819.10	3.20	0.000	15.000
819.10	822.80	3.70	0.000	33.000
822.80	825.30	2.50	0.000	85.000
825.30	828.50	3.20	0.000	18.000
828.50	830.80	2.30	0.000	104.000
836.60	839.60	3.00	0.000	10.000
843.40	845.40	2.00	0.000	24.000
845.40	846.80	1.40	0.000	12.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 32
INSTRUMENT: ACID TEST

DATE: AUG 87
SURVEY BY: RC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3381.000	862.000	1026.350
98.00	-48.00	180.00	3381.000	797.706	952.388
295.30	-47.00	180.00	3381.000	664.412	806.924
531.50	-44.00	180.00	3381.000	498.857	638.454

ASSAY LOG
PROPERTY: CL
HOLE No. : 32

FROM	TO	WIDTH	Au opt	Au ppb
20.00	23.00	3.00	0.000	177.000
23.00	26.00	3.00	0.000	220.000
26.00	29.00	3.00	0.000	76.000
29.00	32.00	3.00	0.000	12.000
32.00	35.70	3.70	0.000	89.000
35.70	38.70	3.00	0.000	35.000
38.70	40.80	2.10	0.000	56.000
40.80	43.80	3.00	0.000	10.000
72.30	75.30	3.00	0.000	11.000
75.30	78.30	3.00	0.040	1340.000
78.30	81.30	3.00	0.000	18.000
81.30	84.30	3.00	0.000	12.000
84.30	87.30	3.00	0.000	11.000
87.30	89.20	1.90	0.000	26.000
89.20	92.20	3.00	0.000	89.000
105.40	108.40	3.00	0.000	7.000
108.40	111.40	3.00	0.000	15.000
111.40	114.40	3.00	0.000	38.000
114.40	116.50	2.10	0.000	10.000
116.50	118.60	2.10	0.000	6.000
118.60	121.60	3.00	0.000	8.000
156.00	159.60	3.60	0.000	8.000
159.60	162.60	3.00	0.000	76.000
162.60	165.60	3.00	0.000	7.000
189.50	192.50	3.00	0.000	98.000
192.50	194.50	2.00	0.000	180.000
194.50	197.50	3.00	0.000	285.000
197.50	199.50	2.00	0.000	75.000
199.50	201.80	2.30	0.000	850.000
201.80	204.30	2.50	0.000	10.000
204.30	206.20	1.90	0.000	16.000
206.20	208.10	1.90	0.000	270.000
208.10	211.10	3.00	0.000	13.000
211.10	214.10	3.00	0.000	17.000
214.10	216.50	2.40	0.000	23.000
216.50	218.60	2.10	0.000	8.000
218.60	221.60	3.00	0.000	31.000
221.60	224.60	3.00	0.011	240.000
224.60	227.60	3.00	0.017	335.000
227.60	230.00	2.40	0.012	310.000
230.00	233.00	3.00	0.006	182.000
233.00	236.00	3.00	0.009	200.000
236.00	238.00	2.00	0.013	245.000
238.00	241.00	3.00	0.012	320.000
241.00	244.00	3.00	0.036	1250.000
244.00	247.00	3.00	0.012	350.000
247.00	250.00	3.00	0.006	125.000
250.00	253.00	3.00	0.040	800.000
253.00	256.00	3.00	0.004	46.000
256.00	259.00	3.00	0.001	33.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 32

FROM	TO	WIDTH	Au opt	Au ppb
259.00	262.00	3.00	0.006	116.000
262.00	265.00	3.00	0.069	1450.000
265.00	268.00	3.00	0.018	215.000
268.00	271.00	3.00	0.152	4100.000
271.00	274.00	3.00	0.114	2300.000
274.00	277.00	3.00	0.015	305.000
277.00	280.00	3.00	0.001	34.000
280.00	283.00	3.00	0.023	325.000
283.00	286.00	3.00	0.001	40.000
286.00	289.00	3.00	0.042	1050.000
289.00	292.00	3.00	0.006	140.000
292.00	294.00	2.00	0.046	1050.000
294.00	296.00	2.00	0.005	134.000
296.00	297.30	1.30	0.344	8500.000
297.30	300.30	3.00	0.054	1520.000
300.30	303.30	3.00	0.011	255.000
303.30	306.30	3.00	0.006	180.000
306.30	309.30	3.00	0.005	108.000
309.30	312.30	3.00	0.041	1220.000
312.30	315.30	3.00	0.207	7000.000
315.30	318.30	3.00	0.006	87.000
318.30	321.30	3.00	0.042	1150.000
321.30	324.30	3.00	0.012	320.000
324.30	327.30	3.00	0.011	335.000
327.30	330.30	3.00	0.008	285.000
330.30	333.30	3.00	0.012	225.000
333.30	336.30	3.00	0.001	9.000
336.30	339.30	3.00	0.052	1080.000
339.30	342.00	2.70	0.001	12.000
342.00	345.00	3.00	0.023	860.000
345.00	348.00	3.00	0.012	380.000
348.00	351.00	3.00	0.006	178.000
351.00	354.00	3.00	0.001	8.000
354.00	357.00	3.00	0.029	1000.000
357.00	360.00	3.00	0.012	450.000
360.00	363.00	3.00	0.000	7.000
363.00	366.00	3.00	0.000	8.000
366.00	369.00	3.00	0.000	16.000
369.00	372.00	3.00	0.000	14.000
372.00	375.00	3.00	0.000	440.000
375.00	378.00	3.00	0.000	87.000
378.00	381.00	3.00	0.000	139.000
381.00	383.00	2.00	0.000	53.000
383.00	384.60	1.60	0.000	40.000
384.60	387.60	3.00	0.000	17.000
387.60	390.60	3.00	0.000	15.000
390.60	393.60	3.00	0.000	10.000
393.60	396.60	3.00	0.000	106.000
396.60	399.60	3.00	0.000	38.000
399.60	402.60	3.00	0.000	161.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 32

FROM	TO	WIDTH	Au opt	Au ppb
402.60	405.60	3.00	0.000	8.000
405.60	408.60	3.00	0.000	10.000
408.60	411.60	3.00	0.000	49.000
411.60	414.60	3.00	0.000	3.000
414.60	417.60	3.00	0.000	10.000
417.60	420.60	3.00	0.000	248.000
420.60	423.60	3.00	0.000	13.000
423.60	426.60	3.00	0.000	5.000
426.60	429.60	3.00	0.047	1050.000
429.60	431.60	2.00	0.000	12.000
431.60	433.50	1.90	0.000	30.000
433.50	436.50	3.00	0.004	120.000
436.50	439.50	3.00	0.001	40.000
439.50	442.50	3.00	0.002	83.000
442.50	445.30	2.80	0.000	25.000
445.30	448.30	3.00	0.001	50.000
448.30	450.80	2.50	0.000	23.000
450.80	452.30	1.50	0.000	18.000
452.30	455.30	3.00	0.002	76.000
455.30	458.30	3.00	0.000	28.000
508.00	511.00	3.00	0.000	20.000
511.00	513.00	2.00	0.029	1000.000
513.00	516.00	3.00	0.000	4.000

AVERAGED ASSAY INTERVALS

PROPERTY: CL
HOLE No: 32

==========

1. z1 (80.30 d.t. Core Angle: 90 80.30 t.t.)

		EASTINGS:	3381.00
FROM:	241.00 ----------	NORTHINGS:	701.10
		ELEVATION:	846.96
	0.041 Au opt		
	1071.171 Au ppb		
		EASTINGS:	3381.00
TO:	321.30 ----------	NORTHINGS:	646.19
		ELEVATION:	788.38

2. Z2 (12.00 d.t. Core Angle: 90 12.00 t.t.)

		EASTINGS:	3381.00
FROM:	262.00 ----------	NORTHINGS:	686.91
		ELEVATION:	831.47
	0.088 Au opt		
	2016.250 Au ppb		
		EASTINGS:	3381.00
TO:	274.00 ----------	NORTHINGS:	678.80
		ELEVATION:	822.63

3. 45 (12.00 d.t. Core Angle: 90 12.00 t.t.)

		EASTINGS:	3381.00
FROM:	241.00 ----------	NORTHINGS:	701.10
		ELEVATION:	846.96
	0.023 Au opt		
	631.250 Au ppb		
		EASTINGS:	3381.00
TO:	253.00 ----------	NORTHINGS:	692.99
		ELEVATION:	838.11

4. B0 (71.30 d.t. Core Angle: 90 71.30 t.t.)

		EASTINGS:	3381.00
FROM:	250.00 ----------	NORTHINGS:	695.02
		ELEVATION:	840.32
	0.044 Au opt		
	1133.801 Au ppb		
		EASTINGS:	3381.00
TO:	321.30 ----------	NORTHINGS:	646.19
		ELEVATION:	788.38

5. AB (59.30 d.t. Core Angle: 90 59.30 t.t.)

		EASTINGS:	3381.00
FROM:	262.00	NORTHINGS:	686.91
		ELEVATION:	831.47
	0.050 Au opt		
	1312.901 Au ppb		
		EASTINGS:	3381.00
TO:	321.30	NORTHINGS:	646.19
		ELEVATION:	788.38

6. PO (23.30 d.t. Core Angle: 90 23.30 t.t.)

		EASTINGS:	3381.00
FROM:	292.00	NORTHINGS:	666.64
		ELEVATION:	809.36
	0.065 Au opt		
	1899.871 Au ppb		
		EASTINGS:	3381.00
TO:	315.30	NORTHINGS:	650.39
		ELEVATION:	792.66

7. GO (19.30 d.t. Core Angle: 90 19.30 t.t.)

		EASTINGS:	3381.00
FROM:	296.00	NORTHINGS:	663.92
		ELEVATION:	806.42
	0.074 Au opt		
	2170.933 Au ppb		
		EASTINGS:	3381.00
TO:	315.30	NORTHINGS:	650.39
		ELEVATION:	792.66

8. LO (98.30 d.t. Core Angle: 90 98.30 t.t.)

		EASTINGS:	3381.00
FROM:	241.00	NORTHINGS:	701.10
		ELEVATION:	846.96
	0.037 Au opt		
	943.815 Au ppb		
		EASTINGS:	3381.00
TO:	339.30	NORTHINGS:	633.57
		ELEVATION:	775.54

AVERAGED ASSAY INTERVALS

PROPERTY: CL
HOLE No: 32

==========

9. KO (21.00 d.t. Core Angle: 90 21.00 t.t.)

		EASTINGS:	3381.00
FROM:	318.30	NORTHINGS:	648.29
		ELEVATION:	790.52
	0.020 Au opt		
	486.286 Au ppb		
		EASTINGS:	3381.00
TO:	339.30	NORTHINGS:	633.57
		ELEVATION:	775.54

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 33
INSTRUMENT: TROPARI

DATE: 09/24/87
SURVEY BY: R.C.

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3484.000	1012.000	1000.820
98.00	-46.00	185.00	3481.140	946.488	927.992
410.00	-41.00	183.00	3465.353	720.722	713.225
590.00	-39.00	189.50	3450.341	583.654	597.523
757.90	-37.00	191.50	3426.230	453.562	494.154

** BORSURV **

SUMMARY LITHO LOG
PROPERTY: CL
HOLE No. : 33

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVERBURDEN	27.50	3483.20	993.62	980.38	0
ANDESITE	234.20	3474.25	847.93	834.24	70
FELSIC DYKE	238.10	3474.05	845.11	831.55	70
ANDESITE	277.20	3472.07	816.82	804.64	75
DIABASE	289.80	3471.43	807.70	795.97	120
ANDESITE	369.20	3467.42	750.25	741.31	85
QTZ PORPHYRY	378.00	3466.97	743.88	735.25	85
AMPHIBOLE DY	380.20	3466.86	742.29	733.74	115
QTZ PORPHYRY	605.00	3448.19	572.03	588.29	50
MAFIC VOLCAN	699.80	3434.57	498.58	529.92	30
DIABASE	733.50	3429.73	472.47	509.18	83
MAFIC VOLCAN	757.90	3426.23	453.56	494.15	78

ASSAY LOG
PROPERTY: CL
HOLE No.: 33

FROM	TO	WIDTH	AU OPT	Au ppb
95.10	97.80	2.70	0.000	25.000
97.80	100.80	3.00	0.000	12.000
100.80	103.80	3.00	0.000	23.000
103.80	106.80	3.00	0.000	12.000
106.80	109.80	3.00	0.000	60.000
109.80	112.80	3.00	0.000	3.000
112.80	115.80	3.00	0.000	2.000
115.80	119.00	3.20	0.000	106.000
119.00	122.00	3.00	0.000	38.000
122.00	125.00	3.00	0.000	160.000
125.00	128.00	3.00	0.000	2.000
128.00	131.00	3.00	0.000	18.000
167.30	170.30	3.00	0.000	57.000
170.30	173.30	3.00	0.000	63.000
173.30	176.50	3.20	0.000	110.000
176.50	179.50	3.00	0.000	34.000
215.00	218.00	3.00	0.058	1200.000
305.10	308.10	3.00	0.000	20.000
308.10	311.10	3.00	0.000	28.000
311.10	314.10	3.00	0.000	12.000
314.10	317.10	3.00	0.000	67.000
317.10	319.00	1.90	0.000	4.000
344.50	347.50	3.00	0.000	6.000
347.50	350.50	3.00	0.000	49.000
350.50	353.50	3.00	0.000	275.000
353.50	356.50	3.00	0.000	2.000
356.50	359.50	3.00	0.000	11.000
359.50	362.50	3.00	0.000	56.000
369.20	371.80	2.60	0.000	16.000
371.80	374.80	3.00	0.000	225.000
374.80	378.00	3.20	0.000	190.000
378.00	380.20	2.20	0.000	29.000
380.20	382.50	2.30	0.000	93.000
382.50	383.50	1.00	0.000	3.000
383.50	386.60	3.10	0.000	225.000
386.60	389.60	3.00	0.000	30.000
389.60	392.80	3.20	0.000	34.000
392.80	396.00	3.20	0.000	27.000
396.00	399.00	3.00	0.000	195.000
399.00	402.00	3.00	0.022	465.000
402.00	405.00	3.00	0.009	375.000
405.00	407.90	2.90	0.023	700.000
407.90	410.50	2.60	0.030	900.000
410.50	413.40	2.90	0.011	290.000
413.40	417.00	3.60	0.087	1500.000
417.00	420.00	3.00	0.082	950.000
420.00	423.20	3.20	0.105	2950.000
423.20	426.20	3.00	0.012	345.000
426.20	429.20	3.00	0.021	430.000
429.20	432.20	3.00	0.001	56.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 33

FROM	TO	WIDTH	AU OPT	Au ppb
432.20	435.20	3.00	0.059	1600.000
435.20	438.20	3.00	0.002	79.000
438.20	441.20	3.00	0.729	23000.000
441.20	444.20	3.00	0.009	168.000
444.20	447.20	3.00	0.005	110.000
447.20	450.20	3.00	0.005	195.000
450.20	453.20	3.00	0.012	360.000
453.20	456.20	3.00	0.024	820.000
456.20	459.20	3.00	0.003	52.000
459.20	462.20	3.00	0.001	16.000
462.20	465.20	3.00	0.006	74.000
465.20	468.20	3.00	0.085	2300.000
468.20	471.20	3.00	0.006	150.000
471.20	474.20	3.00	0.016	155.000
474.20	477.20	3.00	0.064	1850.000
477.20	480.20	3.00	0.023	550.000
480.20	483.20	3.00	0.054	1400.000
483.20	486.20	3.00	0.005	220.000
486.20	489.20	3.00	0.012	260.000
489.20	492.20	3.00	0.026	830.000
492.20	495.20	3.00	0.012	265.000
495.20	498.20	3.00	0.001	13.000
498.20	501.20	3.00	0.001	28.000
501.20	504.20	3.00	0.001	9.000
504.20	507.20	3.00	0.051	1650.000
507.20	510.20	3.00	0.001	34.000
510.20	513.20	3.00	0.001	26.000
513.20	516.20	3.00	0.076	1550.000
516.20	519.20	3.00	0.000	24.000
519.20	522.20	3.00	0.000	340.000
522.20	525.20	3.00	0.000	10.000
525.20	528.20	3.00	0.000	25.000
528.20	531.20	3.00	0.000	28.000
531.20	534.20	3.00	0.000	30.000
534.20	537.20	3.00	0.000	21.000
537.20	540.20	3.00	0.000	43.000
540.20	543.20	3.00	0.000	17.000
543.20	546.20	3.00	0.000	165.000
546.20	549.20	3.00	0.000	9.000
549.20	552.20	3.00	0.000	4.000
552.20	555.20	3.00	0.000	155.000
555.20	558.20	3.00	0.000	850.000
558.20	561.20	3.00	0.000	12.000
561.20	564.20	3.00	0.000	700.000
564.20	566.20	2.00	0.000	225.000
566.20	568.90	2.70	0.000	110.000
568.90	572.30	3.40	0.000	92.000
572.30	575.30	3.00	0.000	21.000
575.30	578.30	3.00	0.000	22.000
578.30	581.30	3.00	0.000	225.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 33

FROM	TO	WIDTH	AU OPT	Au ppb
581.30	584.30	3.00	0.000	110.000
584.30	587.30	3.00	0.000	18.000
587.30	590.30	3.00	0.000	43.000
590.30	593.30	3.00	0.000	38.000
593.30	596.30	3.00	0.000	2.000
596.30	599.30	3.00	0.000	14.000
599.30	602.30	3.00	0.000	19.000
602.30	605.00	2.70	0.000	78.000
605.00	608.00	3.00	0.000	26.000
608.00	611.00	3.00	0.000	17.000
611.00	614.50	3.50	0.000	14.000
614.50	617.50	3.00	0.000	3.000
617.50	620.50	3.00	0.000	19.000
620.50	623.50	3.00	0.000	20.000
623.50	626.50	3.00	0.000	24.000
626.50	629.50	3.00	0.000	66.000
629.50	632.50	3.00	0.000	425.000
632.50	635.50	3.00	0.000	112.000
635.50	636.90	1.40	0.000	190.000
636.90	639.90	3.00	0.047	1150.000
639.90	642.90	3.00	0.226	4700.000
642.90	645.90	3.00	0.001	26.000
645.90	648.90	3.00	0.001	30.000
648.90	651.90	3.00	0.458	14000.000
651.90	654.90	3.00	0.000	26.000
654.90	656.90	2.00	0.000	34.000
656.90	658.80	1.90	0.000	38.000

** BORSURV **

AVERAGED ASSAY INTERVALS

PROPERTY: CL

HOLE No: 33

==========

1. z1 (117.20 d.t. Core Angle: 90 117.20 t.t.)

		EASTINGS:	3465.91
FROM:	399.00 ----------	NORTHINGS:	728.68
		ELEVATION:	720.80
	0.044 AU OPT		
	1204.829 Au ppb		
		EASTINGS:	3456.50
TO:	516.20 ----------	NORTHINGS:	639.85
		ELEVATION:	644.96

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: cl
HOLE NO: 34
INSTRUMENT: tropari

DATE: AUG.87
SURVEY BY: RC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3565.000	900.000	1001.320
98.00	-46.00	184.00	3562.711	834.465	928.492
295.00	-44.00	189.00	3546.942	696.061	789.192
393.00	-42.00	191.50	3534.189	625.532	722.356
528.00	-41.00	195.00	3511.014	527.114	632.902
541.30	-41.00	195.00	3508.416	517.419	624.177

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: c1

HOLE No.: 34

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	20.20	3564.53	886.49	986.31	90
ANDESITE	122.50	3560.75	817.25	911.17	90
DIABASE	143.20	3559.09	802.71	896.53	10
ANDESITE	176.00	3556.47	779.67	873.34	80
MAFIC VOLC	235.90	3551.67	737.58	830.98	90
ANDESITE	271.20	3548.85	712.78	806.02	90
QTZ PORPH	465.70	3521.71	572.53	674.18	60
MAFIC VOLC	541.30	3508.42	517.42	624.18	60

** BORSURV **

ASSAY LOG
PROPERTY: c1
HOLE No.: 34

FROM	TO	WIDTH	Au opt	Au ppb
33.70	37.30	3.60	0.000	290.000
37.30	40.30	3.00	0.000	34.000
40.30	42.30	2.00	0.000	30.000
42.30	45.30	3.00	0.000	190.000
45.30	48.30	3.00	0.000	4.000
48.30	51.40	3.10	0.000	38.000
78.60	81.60	3.00	0.000	6.000
81.60	84.60	3.00	0.000	67.000
84.60	87.60	3.00	0.000	115.000
87.60	89.80	2.20	0.000	7.000
144.70	147.70	3.00	0.000	570.000
147.70	150.70	3.00	0.000	26.000
150.70	154.00	3.30	0.000	21.000
154.00	156.00	2.00	0.000	52.000
156.00	158.60	2.60	0.000	38.000
221.60	224.40	2.80	0.000	27.000
236.70	239.70	3.00	0.040	1020.000
239.70	242.70	3.00	0.000	24.000
242.70	245.80	3.10	0.000	16.000
245.80	248.80	3.00	0.000	32.000
248.80	250.00	1.20	0.000	250.000
250.00	253.20	3.20	0.000	145.000
253.20	255.10	1.90	0.058	1550.000
255.10	258.10	3.00	0.000	93.000
258.10	261.10	3.00	0.000	60.000
261.10	264.10	3.00	0.000	23.000
264.10	266.10	2.00	0.000	18.000
266.10	268.20	2.10	0.000	10.000
268.20	271.10	2.90	0.000	17.000
271.10	274.10	3.00	0.000	250.000
274.10	277.10	3.00	0.000	300.000
277.10	280.10	3.00	0.042	1200.000
280.10	283.10	3.00	0.030	1000.000
283.10	286.10	3.00	0.037	1100.000
286.10	289.10	3.00	0.000	310.000
289.10	292.10	3.00	0.000	395.000
292.10	294.40	2.30	0.000	36.000
294.40	296.40	2.00	0.000	108.000
296.40	299.40	3.00	0.000	129.000
299.40	302.40	3.00	0.000	14.000
302.40	304.80	2.40	0.000	13.000
304.80	307.80	3.00	0.000	4.000
307.80	310.80	3.00	0.000	8.000
310.80	313.80	3.00	0.000	19.000
313.80	316.80	3.00	0.000	30.000
316.80	319.80	3.00	0.000	280.000
319.80	322.80	3.00	0.000	12.000
322.80	325.80	3.00	0.000	22.000
325.80	328.80	3.00	0.000	19.000
328.80	331.80	3.00	0.000	235.000

ASSAY LOG
PROPERTY: cl
HOLE No.: 34

FROM	TO	WIDTH	Au opt	Au ppb
331.80	334.80	3.00	0.000	6.000
334.80	337.80	3.00	0.000	8.000
337.80	340.80	3.00	0.000	4.000
340.80	343.80	3.00	0.000	46.000
343.80	346.80	3.00	0.040	1250.000
346.80	349.80	3.00	0.000	16.000
349.80	352.80	3.00	0.000	12.000
352.80	354.80	2.00	0.000	4.000
354.80	357.40	2.60	0.000	9.000
357.40	360.40	3.00	0.000	23.000
360.40	363.40	3.00	0.000	28.000
363.40	366.40	3.00	0.000	124.000
366.40	369.40	3.00	0.000	152.000
369.40	372.40	3.00	0.000	143.000
372.40	375.40	3.00	0.000	165.000
375.40	378.40	3.00	0.033	1050.000
378.40	381.40	3.00	0.000	48.000
381.40	384.40	3.00	0.000	35.000
384.40	387.40	3.00	0.000	40.000
387.40	390.40	3.00	0.000	72.000
390.40	393.40	3.00	0.000	11.000
393.40	396.40	3.00	0.000	235.000
396.40	398.10	1.70	0.000	400.000
398.10	401.10	3.00	0.000	145.000
401.10	404.10	3.00	0.000	365.000
404.10	407.10	3.00	0.000	86.000
407.10	410.10	3.00	0.000	255.000
410.10	413.10	3.00	0.029	1020.000
413.10	416.10	3.00	0.000	7.000
416.10	419.10	3.00	0.000	13.000
419.10	422.10	3.00	0.000	2.000
422.10	425.10	3.00	0.000	5.000
425.10	428.10	3.00	0.000	2.000
428.10	431.10	3.00	0.000	8.000
431.10	434.10	3.00	0.000	6.000
434.10	437.10	3.00	0.000	3.000
437.10	440.10	3.00	0.000	12.000
440.10	443.10	3.00	0.000	21.000
443.10	446.10	3.00	0.000	5.000
446.10	449.10	3.00	0.000	23.000
449.10	452.10	3.00	0.000	20.000
452.10	455.10	3.00	0.000	7.000
455.10	458.10	3.00	0.000	74.000
458.10	461.10	3.00	0.000	130.000
461.10	463.00	1.90	0.000	115.000
463.00	465.70	2.70	0.000	52.000
465.70	468.70	3.00	0.000	81.000
468.70	470.70	2.00	0.000	148.000
470.70	473.60	2.90	0.000	170.000
473.60	475.70	2.10	0.000	55.000

ASSAY LOG
PROPERTY: c1
HOLE No.: 34

FROM	TO	WIDTH	Au opt	Au ppb
475.70	478.70	3.00	0.000	250.000
478.70	481.70	3.00	0.000	196.000
481.70	484.70	3.00	0.000	178.000
484.70	487.00	2.30	0.000	92.000
487.00	489.10	2.10	0.000	495.000
489.10	492.10	3.00	0.000	73.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 35
INSTRUMENT: TOPARI

DATE: AUG 87
SURVEY BY: RC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-52.00	192.00	2664.000	800.000	1000.000
98.00	-50.00	192.50	2650.914	739.731	923.840
197.00	-46.00	191.50	2637.141	674.934	850.268
295.00	-42.00	195.00	2620.984	606.316	782.192
394.00	-40.00	193.00	2602.908	533.819	717.242
492.00	-39.50	194.50	2585.000	460.632	654.577
666.00	-37.00	196.50	2548.483	328.956	546.855
679.10	-37.00	196.50	2545.511	318.925	538.971

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 35

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	26.40	2660.47	783.76	979.48	90
ANDESITE	39.30	2658.75	775.83	969.46	50
MAFIC VOLC	192.60	2637.75	677.81	853.54	90
ANDESITE	209.30	2635.11	666.32	841.72	90
QTZ PORPH	215.30	2634.12	662.12	837.56	90
ANDESITE	242.60	2629.62	643.01	818.59	90
QTZ PORPH	406.70	2600.59	524.33	709.12	30
DIABASE	427.20	2596.84	509.02	696.01	90
QTZ PORPH	521.70	2578.77	438.16	636.19	80
MAFIC VOLC	679.10	2545.51	318.93	538.97	50

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 35

FROM	TO	WIDTH	Au opt	Au ppb
26.40	29.40	3.00	0.045	1250.000
29.40	31.10	1.70	0.003	101.000
31.10	33.00	1.90	0.039	1100.000
33.00	36.00	3.00	0.000	52.000
36.00	39.30	3.30	0.000	440.000
78.30	80.30	2.00	0.000	13.000
80.30	83.30	3.00	0.000	6.000
83.30	85.50	2.20	0.000	82.000
85.50	86.90	1.40	1.104	20000.000
86.90	89.90	3.00	0.000	310.000
113.50	116.50	3.00	0.000	300.000
116.50	119.50	3.00	0.000	106.000
119.50	122.50	3.00	0.000	34.000
122.50	125.00	2.50	0.000	39.000
125.00	128.00	3.00	0.117	2900.000
128.00	130.00	2.00	0.093	2350.000
130.00	132.60	2.60	0.000	690.000
132.60	135.60	3.00	0.000	26.000
135.60	138.60	3.00	0.000	37.000
138.60	141.60	3.00	0.000	21.000
141.60	144.60	3.00	0.000	22.000
144.60	147.60	3.00	0.000	13.000
147.60	150.60	3.00	0.000	190.000
150.60	153.60	3.00	0.000	8.000
153.60	157.00	3.40	0.000	3.000
192.60	195.60	3.00	0.000	2.000
195.60	198.60	3.00	0.000	2.000
198.60	201.30	2.70	0.000	3.000
201.30	204.30	3.00	0.000	55.000
204.30	207.30	3.00	0.000	83.000
207.30	209.30	2.00	0.000	50.000
209.30	212.30	3.00	0.000	60.000
212.30	215.30	3.00	0.000	10.000
215.30	218.30	3.00	0.000	40.000
218.30	221.30	3.00	0.000	21.000
221.30	224.30	3.00	0.000	32.000
224.30	227.30	3.00	0.000	20.000
227.30	230.30	3.00	0.000	17.000
230.30	233.30	3.00	0.000	148.000
233.30	236.30	3.00	0.000	60.000
236.30	239.30	3.00	0.000	140.000
239.30	242.60	3.30	0.000	65.000
242.60	245.60	3.00	0.000	50.000
245.60	248.60	3.00	0.000	116.000
248.60	251.60	3.00	0.000	250.000
251.60	254.60	3.00	0.000	67.000
254.60	257.60	3.00	0.000	335.000
257.60	260.60	3.00	0.000	650.000
260.60	263.60	3.00	0.000	455.000
263.60	266.60	3.00	0.000	78.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 35

FROM	TO	WIDTH	Au opt	Au ppb
266.60	269.60	3.00	0.000	50.000
269.60	272.60	3.00	0.000	405.000
272.60	275.60	3.00	0.000	120.000
275.60	278.60	3.00	0.000	33.000
278.60	281.60	3.00	0.000	4.000
281.60	284.60	3.00	0.000	6.000
284.60	287.10	2.50	0.000	15.000
287.10	290.60	3.50	0.000	10.000
290.60	293.60	3.00	0.000	9.000
293.60	296.60	3.00	0.000	18.000
296.60	299.60	3.00	0.000	340.000
299.60	302.60	3.00	0.000	34.000
302.60	305.60	3.00	0.000	15.000
305.60	308.60	3.00	0.000	16.000
308.60	311.60	3.00	0.000	10.000
311.60	314.60	3.00	0.000	17.000
314.60	317.60	3.00	0.000	6.000
317.60	320.60	3.00	0.000	20.000
320.60	323.60	3.00	0.000	10.000
323.60	326.60	3.00	0.000	5.000
326.60	329.60	3.00	0.000	95.000
329.60	332.60	3.00	0.000	136.000
332.60	335.60	3.00	0.000	126.000
335.60	338.60	3.00	0.000	75.000
338.60	341.60	3.00	0.000	70.000
341.60	344.60	3.00	0.000	23.000
344.60	347.60	3.00	0.000	5.000
347.60	349.60	2.00	0.000	8.000
349.60	351.50	1.90	0.000	9.000
351.50	354.50	3.00	0.031	1000.000
354.50	357.50	3.00	0.000	32.000
357.50	360.50	3.00	0.000	230.000
360.50	363.50	3.00	0.000	20.000
363.50	366.50	3.00	0.000	138.000
366.50	369.50	3.00	0.000	94.000
369.50	372.50	3.00	0.000	52.000
372.50	375.50	3.00	0.000	70.000
375.50	378.50	3.00	0.000	23.000
378.50	381.40	2.90	0.000	90.000
381.40	384.40	3.00	0.000	74.000
384.40	387.40	3.00	0.000	56.000
387.40	390.40	3.00	0.000	18.000
390.40	393.40	3.00	0.000	55.000
393.40	396.40	3.00	0.000	30.000
396.40	399.00	2.60	0.000	183.000
399.00	402.00	3.00	0.000	36.000
402.00	404.00	2.00	0.000	180.000
404.00	406.70	2.70	0.000	70.000
427.20	430.20	3.00	0.000	18.000
430.20	433.20	3.00	0.000	20.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 35

FROM	TO	WIDTH	Au opt	Au ppb
433.20	436.20	3.00	0.000	10.000
436.20	439.20	3.00	0.000	12.000
439.20	442.20	3.00	0.000	10.000
442.20	444.50	2.30	0.000	15.000
444.50	446.50	2.00	0.000	230.000
446.50	449.50	3.00	0.000	7.000
449.50	452.50	3.00	0.000	8.000
452.50	455.50	3.00	0.000	10.000
455.50	458.50	3.00	0.000	3.000
458.50	461.50	3.00	0.000	2.000
461.50	464.50	3.00	0.000	8.000
464.50	467.50	3.00	0.000	5.000
467.50	470.50	3.00	0.000	6.000
470.50	473.50	3.00	0.000	5.000
473.50	476.90	3.40	0.000	245.000
476.90	479.90	3.00	0.000	60.000
479.90	482.90	3.00	0.000	725.000
482.90	485.40	2.50	0.000	195.000
485.40	488.50	3.10	0.000	215.000
488.50	491.50	3.00	0.000	96.000
491.50	493.40	1.90	0.000	750.000
493.40	495.70	2.30	0.000	78.000
495.70	498.70	3.00	0.000	68.000
498.70	501.70	3.00	0.000	26.000
501.70	504.70	3.00	0.000	65.000
504.70	507.70	3.00	0.000	10.000
507.70	510.70	3.00	0.000	70.000
510.70	513.70	3.00	0.000	15.000
513.70	516.70	3.00	0.000	12.000
516.70	519.70	3.00	0.040	1400.000
519.70	521.70	2.00	0.000	52.000
521.70	524.70	3.00	0.000	198.000
524.70	527.70	3.00	0.000	32.000
527.70	530.70	3.00	0.000	210.000
530.70	533.70	3.00	0.000	81.000
533.70	536.70	3.00	0.000	495.000
536.70	539.70	3.00	0.000	46.000
539.70	542.70	3.00	0.000	24.000
542.70	545.70	3.00	0.000	9.000
545.70	548.70	3.00	0.000	12.000
548.70	551.70	3.00	0.000	34.000
551.70	554.70	3.00	0.000	28.000
554.70	557.70	3.00	0.000	13.000
557.70	560.70	3.00	0.000	4.000
560.70	563.70	3.00	0.000	8.000
563.70	566.70	3.00	0.000	27.000
569.70	572.70	3.00	0.000	5.000
572.70	575.70	3.00	0.000	17.000
575.70	578.70	3.00	0.000	62.000
578.70	581.70	3.00	0.000	57.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 35

FROM	TO	WIDTH	Au opt	Au ppb
581.70	584.70	3.00	0.000	8.000
584.70	587.70	3.00	0.000	3.000
587.70	590.70	3.00	0.000	12.000
590.70	593.70	3.00	0.000	13.000
593.70	596.70	3.00	0.000	32.000
596.70	599.70	3.00	0.000	16.000
599.70	602.70	3.00	0.000	50.000
602.70	605.70	3.00	0.000	153.000
605.70	608.70	3.00	0.000	105.000
608.70	611.70	3.00	0.000	68.000
611.70	614.70	3.00	0.000	5.000
614.70	617.70	3.00	0.000	53.000
617.70	620.70	3.00	0.000	24.000
620.70	623.70	3.00	0.000	44.000
623.70	626.70	3.00	0.000	65.000
626.70	629.70	3.00	0.000	47.000
629.70	632.70	3.00	0.000	23.000
632.70	635.70	3.00	0.000	405.000
635.70	638.70	3.00	0.000	50.000
638.70	641.70	3.00	0.000	21.000
641.70	644.70	3.00	0.000	17.000
644.70	647.70	3.00	0.000	37.000
647.70	650.30	2.60	0.000	67.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 36
INSTRUMENT: TOPARI

DATE: SEPT 87
SURVEY BY: RC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3814.000	-870.000	1000.000
150.00	-48.00	181.50	3812.712	-968.400	886.794
157.50	-48.00	181.50	3812.580	-973.417	881.220

** BORSURV **

SUMMARY LITHO LOG
PROPERTY: CL
HOLE No. : 36

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	20.00	3813.83	-883.12	984.91	90
DIABASE	157.50	3812.58	-973.42	881.22	90

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 37
INSTRUMENT: TOPARI

DATE: SEPT 1987
SURVEY BY: RC/SP

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3814.000	-1070.000	1000.000
100.00	-51.00	181.00	3813.445	-1133.605	922.838
353.30	-51.00	181.00	3810.663	-1292.988	725.986
354.30	-53.00	183.00	3810.641	-1293.603	725.198

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 37

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	22.00	3813.88	-1083.99	983.02	90
DIABASE	24.00	3813.87	-1085.27	981.48	90
GRANODIORITE	216.40	3812.17	-1206.85	832.38	20
FELSITE DYKE	223.10	3812.09	-1211.06	827.17	90
GRANODIORITE	354.30	3810.64	-1293.60	725.20	32

ASSAY LOG
PROPERTY: CL
HOLE No. : 37

FROM	TO	WIDTH	Au opt	Au ppb
29.50	32.50	3.00	0.000	26.000
32.50	35.50	3.00	0.000	105.000
39.80	42.80	3.00	0.000	13.000
42.80	46.40	3.60	0.000	172.000
46.40	49.40	3.00	0.000	17.000
53.90	56.90	3.00	0.000	170.000
72.50	75.50	3.00	0.000	58.000
75.50	78.50	3.00	0.000	16.000
83.00	86.00	3.00	0.000	54.000
88.00	91.00	3.00	0.000	24.000
109.00	112.00	3.00	0.000	93.000
118.00	121.00	3.00	0.000	150.000
128.00	131.00	3.00	0.000	164.000
131.00	134.00	3.00	0.000	175.000
134.00	137.00	3.00	0.000	210.000
137.00	140.00	3.00	0.000	63.000
140.00	143.00	3.00	0.000	76.000
145.00	148.00	3.00	0.000	98.000
159.00	162.00	3.00	0.000	305.000
169.80	172.80	3.00	0.000	122.000
172.80	175.80	3.00	0.000	87.000
175.80	178.80	3.00	0.000	230.000
178.80	181.80	3.00	0.000	107.000
191.40	194.40	3.00	0.000	81.000
194.40	197.40	3.00	0.000	37.000
206.70	209.70	3.00	0.000	129.000
209.70	212.70	3.00	0.053	1250.000
212.70	215.70	3.00	0.000	47.000
215.70	218.70	3.00	0.000	38.000
218.70	221.70	3.00	0.000	100.000
221.70	224.70	3.00	0.000	48.000
224.70	227.70	3.00	0.000	42.000
227.70	230.70	3.00	0.000	30.000
237.20	240.20	3.00	0.000	111.000
240.20	243.20	3.00	0.000	57.000
243.20	246.20	3.00	0.000	48.000
246.20	249.20	3.00	0.000	35.000
249.20	252.20	3.00	0.000	125.000
252.20	255.20	3.00	0.000	76.000
255.20	258.20	3.00	0.000	60.000
258.20	261.20	3.00	0.000	111.000
261.20	264.20	3.00	0.000	30.000
264.20	267.20	3.00	0.000	15.000
267.20	270.20	3.00	0.000	5.000
270.20	273.20	3.00	0.000	30.000
273.20	276.20	3.00	0.000	25.000
276.20	279.20	3.00	0.000	26.000
279.20	282.20	3.00	0.000	31.000
282.20	285.20	3.00	0.000	15.000
285.20	288.20	3.00	0.000	24.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 37

FROM	TO	WIDTH	Au opt	Au ppb
288.20	291.20	3.00	0.000	20.000
291.20	294.30	3.10	0.000	62.000
295.30	298.30	3.00	0.000	33.000
300.30	303.30	3.00	0.000	42.000
303.30	306.30	3.00	0.000	25.000
309.10	312.10	3.00	0.000	45.000
331.60	334.60	3.00	0.000	43.000
337.50	340.50	3.00	0.000	50.000
340.50	343.50	3.00	0.000	117.000
343.50	346.50	3.00	0.000	56.000
351.30	354.30	3.00	0.000	84.000

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 38

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	10.00	3842.84	-506.29	992.23	90
ANDESITE	35.30	3842.42	-522.21	972.57	90
QTZ PORPH	36.40	3842.40	-522.90	971.71	90
ANDESITE	127.30	3839.17	-580.69	901.68	90
QTZ PORPH	138.40	3838.28	-587.92	893.30	90
ANDESTIE	185.50	3834.52	-618.59	857.76	90
QTZ/SER/ANK	226.10	3831.27	-645.02	827.12	90
ANDESITE	261.90	3828.41	-668.33	800.10	90
QTZ/SER/ANK	279.90	3826.97	-680.06	786.51	90
ANDESITE	292.40	3825.97	-688.20	777.08	50
QTZ PORPH	295.20	3825.74	-690.03	774.97	90
QTZ VN	295.70	3825.67	-690.37	774.62	90
ANDESITE	298.20	3825.36	-692.10	772.83	90
QTZ/SER/ANK	299.40	3825.21	-692.92	771.98	90
QTZ PORPH/AL	313.20	3823.49	-702.44	762.14	90
ANDESITE	355.20	3818.25	-731.41	732.18	90
MAFIC VOLC	600.40	3786.64	-902.37	559.31	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No. : 38

FROM	TO	WIDTH	Au opt	Au ppb
8.50	11.50	3.00	0.000	2.000
11.50	14.50	3.00	0.000	8.000
14.50	17.50	3.00	0.000	2.000
30.50	33.50	3.00	0.000	7.000
33.50	35.30	1.80	0.000	6.000
36.40	39.40	3.00	0.000	5.000
39.40	42.40	3.00	0.000	2.000
42.40	45.40	3.00	0.000	24.000
45.40	48.40	3.00	0.000	1.000
48.40	51.20	2.80	0.000	3.000
74.20	77.20	3.00	0.000	1.000
77.20	80.20	3.00	0.000	3.000
80.20	83.20	3.00	0.000	2.000
85.40	88.40	3.00	0.000	6.000
88.40	91.40	3.00	0.000	7.000
91.40	94.20	2.80	0.000	3.000
98.40	101.40	3.00	0.000	8.000
101.40	104.40	3.00	0.000	10.000
107.00	110.00	3.00	0.000	2.000
110.00	113.00	3.00	0.000	2.000
113.00	116.00	3.00	0.000	3.000
116.00	119.00	3.00	0.000	1.000
119.00	122.00	3.00	0.000	10.000
127.30	130.30	3.00	0.000	76.000
130.30	133.30	3.00	0.000	57.000
133.30	136.30	3.00	0.000	17.000
136.30	138.40	2.10	0.000	108.000
138.40	141.40	3.00	0.000	13.000
170.50	173.50	3.00	0.000	15.000
173.50	176.50	3.00	0.000	4.000
176.50	179.50	3.00	0.000	6.000
185.50	188.50	3.00	0.000	103.000
188.50	191.50	3.00	0.000	63.000
191.50	194.50	3.00	0.000	35.000
194.50	197.50	3.00	0.000	5.000
197.50	200.50	3.00	0.000	42.000
200.50	203.50	3.00	0.000	7.000
203.50	206.50	3.00	0.000	13.000
206.50	209.50	3.00	0.000	9.000
209.50	212.50	3.00	0.000	6.000
212.50	215.50	3.00	0.000	27.000
215.50	218.50	3.00	0.000	4.000
218.50	221.50	3.00	0.000	16.000
221.50	224.50	3.00	0.000	3.000
224.50	226.10	1.60	0.000	390.000
226.10	228.30	2.20	0.000	270.000
228.30	230.50	2.20	0.000	23.000
230.50	233.50	3.00	0.000	226.000
233.50	253.70	20.20	0.000	13.000
255.90	258.90	3.00	0.000	21.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 38

FROM	TO	WIDTH	Au opt	Au ppb
258.90	261.50	2.60	0.000	58.000
261.50	263.40	1.90	0.000	90.000
263.40	267.90	4.50	0.000	250.000
267.90	270.90	3.00	0.000	16.000
270.90	273.90	3.00	0.000	30.000
273.90	276.90	3.00	0.000	33.000
276.90	279.90	3.00	0.000	27.000
279.90	282.90	3.00	0.000	32.000
282.90	285.90	3.00	0.000	40.000
285.90	288.90	3.00	0.000	34.000
288.90	292.40	3.50	0.000	305.000
292.40	295.70	3.30	0.063	1800.000
295.70	299.40	3.70	0.000	176.000
299.40	301.50	2.10	0.000	96.000
301.50	303.70	2.20	0.000	730.000
303.70	305.90	2.20	0.034	1000.000
305.90	309.90	4.00	0.000	550.000
309.90	312.90	3.00	0.166	3600.000
312.90	315.90	3.00	0.000	23.000
315.90	318.90	3.00	0.000	47.000
318.90	321.90	3.00	0.000	34.000
321.90	324.90	3.00	0.000	52.000
324.90	327.90	3.00	0.000	210.000
327.90	330.90	3.00	0.000	19.000
330.90	333.90	3.00	0.000	24.000
333.90	336.90	3.00	0.000	12.000
336.90	339.90	3.00	0.000	18.000
339.90	342.90	3.00	0.000	87.000
342.90	345.90	3.00	0.000	161.000
345.90	348.90	3.00	0.000	100.000
348.90	351.90	3.00	0.000	54.000
351.90	354.90	3.00	0.000	260.000
360.50	361.50	1.00	0.000	11.000
368.80	371.80	3.00	0.000	240.000
371.80	374.10	2.30	0.000	150.000
374.10	377.10	3.00	0.000	75.000
430.10	433.10	3.00	0.000	80.000
433.10	434.10	1.00	0.152	3800.000
434.10	437.10	3.00	0.000	13.000
440.10	443.10	3.00	0.000	45.000
472.60	475.10	2.50	0.000	1.000
475.10	476.10	1.00	0.041	1200.000
476.10	478.60	2.50	0.000	10.000
493.70	495.20	1.50	0.083	2000.000
543.70	545.20	1.50	0.000	160.000
559.90	561.90	2.00	0.000	5.000
561.90	564.90	3.00	0.000	27.000
564.90	566.90	2.00	0.000	29.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 39
INSTRUMENT: TOPARI

DATE: SEPT 87
SURVEY BY: WC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	987.000	1009.000	1000.000
98.00	-45.00	173.00	991.042	942.916	927.747
364.00	-37.00	183.00	998.048	742.285	753.235
383.90	-37.00	183.00	997.216	726.414	741.259

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 39

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	44.90	988.85	978.72	966.90	90
ANDESITE	108.20	991.31	935.22	921.06	50
QTZ PORPH	131.20	991.92	917.87	905.97	50
MAFIC VOLC	207.10	993.92	860.63	856.17	90
QTZ PORPH	208.20	993.94	859.80	855.45	90
MAFIC VOLC	238.60	994.75	836.87	835.50	60
QTZ PORPH	264.30	995.42	817.48	818.64	60
MAFIC VOLC	266.40	995.48	815.90	817.27	60
QTZ PORPH	269.60	995.56	813.49	815.17	55
MAFIC VOLC	290.30	996.11	797.87	801.59	90
QTZ SULP ANK	291.90	996.15	796.67	800.54	60
MAFIC VOLC	299.80	996.36	790.71	795.35	60
QTZ PORPH	318.30	996.84	776.75	783.22	80
MAFIC VOLC	383.90	997.22	726.41	741.26	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 39

FROM	TO	WIDTH	Au opt	Au ppb
44.90	48.80	3.90	0.000	2.000
48.80	52.70	3.90	0.000	5.000
105.20	108.20	3.00	0.000	1.000
108.20	111.20	3.00	0.000	2.000
111.20	114.20	3.00	0.000	1.000
114.20	117.20	3.00	0.000	2.000
117.20	120.20	3.00	0.000	1.000
120.20	123.20	3.00	0.000	2.000
123.20	126.20	3.00	0.000	2.000
126.20	129.20	3.00	0.000	1.000
129.20	131.20	2.00	0.000	6.000
131.20	134.20	3.00	0.000	4.000
134.20	138.20	4.00	0.000	10.000
170.70	172.70	2.00	0.000	3.000
201.60	204.10	2.50	0.000	18.000
204.10	207.10	3.00	0.000	20.000
207.10	210.10	3.00	0.000	25.000
210.10	213.10	3.00	0.000	12.000
213.10	216.10	3.00	0.000	8.000
216.10	219.10	3.00	0.000	3.000
219.10	222.10	3.00	0.000	72.000
222.10	223.40	1.30	0.000	85.000
223.40	225.90	2.50	0.000	16.000
238.60	241.60	3.00	0.000	5.000
241.60	244.60	3.00	0.000	2.000
244.60	247.60	3.00	0.000	2.000
247.60	250.60	3.00	0.000	1.000
250.60	253.60	3.00	0.000	3.000
253.60	256.60	3.00	0.000	20.000
256.60	259.60	3.00	0.000	8.000
259.60	262.60	3.00	0.000	18.000
262.60	264.30	1.70	0.000	10.000
264.30	266.40	2.10	0.000	20.000
266.40	269.60	3.20	0.000	3.000
269.60	272.60	3.00	0.000	2.000
290.30	291.90	1.60	0.000	110.000
299.80	302.80	3.00	0.000	2.000
302.80	305.80	3.00	0.000	17.000
305.80	308.80	3.00	0.000	10.000
308.80	311.80	3.00	0.000	183.000
311.80	314.80	3.00	0.000	86.000
314.80	318.30	3.50	0.000	102.000
318.30	320.30	2.00	0.000	3.000
354.80	357.90	3.10	0.000	40.000
357.90	360.90	3.00	0.000	10.000
360.90	363.90	3.00	0.000	50.000
363.90	366.90	3.00	0.000	108.000
366.90	369.90	3.00	0.000	2.000
369.90	372.90	3.00	0.000	2.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 40
INSTRUMENT: TOPARI

DATE: AUG 87
SURVEY BY: WC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3219.000	828.000	1034.510
364.00	-45.00	185.50	3207.201	582.368	766.141
502.00	-43.00	184.00	3198.981	483.440	670.278
531.50	-43.00	184.00	3197.476	461.918	650.159

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE NO.: 40

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	18.80	3218.39	815.31	1020.65	90
MAFIC VOLC	29.70	3218.04	807.96	1012.61	90
MAFIC VOLC	97.30	3215.85	762.34	962.77	50
ALT.ZONE QTZ	105.40	3215.58	756.87	956.80	90
MAFIC VOLC	108.40	3215.49	754.85	954.59	90
QTZ PORPHYRY	111.80	3215.38	752.56	952.08	90
MAFIC VOLC	128.80	3214.83	741.08	939.55	60
QTZ POPHYRY	148.70	3214.18	727.66	924.88	50
DIABASE	158.20	3213.87	721.24	917.87	90
QTZ PORPHYRY	172.50	3213.41	711.59	907.33	90
DIABASE	337.00	3208.08	600.59	786.05	90
QTZ PORPHYRY	401.20	3204.99	555.70	740.30	40
SH QTZ PORPH	421.30	3203.79	541.29	726.34	30
SH MAFIC VOL	450.90	3202.03	520.07	705.78	10
MAFIC VOLC	531.40	3197.48	461.99	650.23	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE [illegible]. : 40

FROM	TO	WIDTH	OPT	PPB
19.70	22.70	3.00	0.000	5.000
22.70	24.30	1.60	0.000	8.000
24.30	29.70	5.40	0.000	1.000
38.50	39.50	1.00	0.000	245.000
47.60	48.60	1.00	0.000	1.000
74.60	78.60	4.00	0.000	83.000
92.40	95.40	3.00	0.000	45.000
95.40	100.10	4.70	0.031	1000.000
100.10	102.60	2.50	0.624	11000.000
102.60	105.40	2.80	0.303	6500.000
105.40	108.40	3.00	0.001	54.000
108.40	109.80	1.40	0.017	580.000
109.80	111.90	2.10	0.030	1050.000
111.90	114.90	3.00	0.002	64.000
114.90	117.90	3.00	0.047	1250.000
117.90	120.90	3.00	0.000	86.000
120.90	123.90	3.00	0.000	200.000
123.90	126.90	3.00	0.000	28.000
126.90	128.80	1.90	0.000	630.000
128.80	131.80	3.00	0.000	265.000
131.80	134.80	3.00	0.000	245.000
134.80	137.80	3.00	0.000	21.000
137.80	140.80	3.00	0.000	97.000
140.80	144.70	3.90	0.029	1000.000
145.50	148.70	3.20	0.000	18.000
158.20	161.20	3.00	0.000	650.000
161.20	164.20	3.00	0.000	33.000
164.20	166.70	2.50	0.000	18.000
166.70	169.10	2.40	0.000	151.000
169.10	172.50	3.40	0.000	17.000
334.10	335.30	1.20	0.000	4.000
335.30	337.00	1.70	0.000	16.000
337.00	340.00	3.00	0.058	1630.000
340.00	343.00	3.00	0.000	300.000
343.00	346.00	3.00	0.000	72.000
346.00	349.00	3.00	0.000	26.000
349.00	352.00	3.00	0.000	54.000
352.00	355.00	3.00	0.000	17.000
355.00	358.00	3.00	0.000	8.000
358.00	361.00	3.00	0.000	6.000
361.00	364.00	3.00	0.000	19.000
364.00	368.00	4.00	0.000	28.000
368.00	369.00	1.00	0.000	86.000
369.00	372.00	3.00	0.000	23.000
372.00	375.00	3.00	0.000	22.000
375.00	378.00	3.00	0.000	26.000
378.00	381.00	3.00	0.000	22.000
381.00	384.00	3.00	0.000	6.000
384.00	387.00	3.00	0.000	27.000
387.00	390.00	3.00	0.000	70.000

ASSAY LOG
PROPERTY: CL
HOLE NO.: 40

FROM	TO	WIDTH	OPT	PPB
390.00	393.00	3.00	0.000	22.000
393.00	396.00	3.00	0.000	17.000
396.00	399.00	3.00	0.000	81.000
399.00	401.00	2.00	0.000	4.000
401.00	405.00	4.00	0.000	80.000
405.00	408.00	3.00	0.000	43.000
408.00	411.00	3.00	0.000	48.000
411.00	414.00	3.00	0.000	300.000
414.00	416.90	2.90	0.000	54.000
416.90	418.90	2.00	0.000	36.000
418.90	421.40	2.50	0.000	39.000
421.40	425.40	4.00	0.000	255.000
425.40	428.40	3.00	0.000	21.000
428.40	431.00	2.60	0.000	92.000
431.00	434.40	3.40	0.000	32.000
434.40	437.40	3.00	0.000	195.000
437.40	441.10	3.70	0.000	410.000
441.10	444.90	3.80	0.000	28.000
444.90	447.90	3.00	0.029	1050.000
447.90	450.90	3.00	0.053	1400.000
450.90	453.90	3.00	0.041	1150.000
453.90	456.90	3.00	0.000	29.000
466.70	470.80	4.10	0.000	46.000
475.30	476.30	1.00	0.000	700.000
526.70	531.50	4.80	0.000	62.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: cl
HOLE NO: 41
INSTRUMENT: tropari

DATE: 09/28/87
SURVEY BY: RC

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3669.000	883.000	1000.100
167.00	-49.00	180.00	3669.000	774.542	873.112
640.00	-49.00	182.00	3663.584	464.274	516.135
669.30	-49.00	182.00	3662.913	445.063	494.022

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: c1

HOLE No.: 41

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	18.70	3669.00	870.86	985.88	90
MAF.VOLC	32.20	3669.00	862.09	975.61	60
DIABASE	53.30	3669.00	848.38	959.57	40
MAF. VOLC	76.50	3669.00	833.32	941.93	90
QTZ. POR	81.00	3669.00	830.39	938.51	35
MAF.VOLC	92.70	3669.00	822.80	929.61	90
I.F.o	100.00	3669.00	818.06	924.06	40
QTZ POR	106.60	3669.00	813.77	919.04	50
I.F.o	113.30	3669.00	809.42	913.95	90
MAF. VOLC	117.50	3669.00	806.69	910.75	65
QTZ POR	118.60	3669.00	805.98	909.92	50
MAF. VOLC	129.60	3669.00	798.83	901.55	50
QTZ POR	130.40	3669.00	798.31	900.94	60
MAF. VOLC	219.30	3668.40	740.24	833.64	50
ANDESITE	291.00	3667.58	693.20	779.53	60
QTZ POR	489.00	3665.31	563.32	630.10	50
ANDESITE	590.00	3664.16	497.07	553.87	60
LAMP. DYKE	642.00	3663.54	462.96	514.63	90
ANDESITE	669.30	3662.91	445.06	494.02	60

** BORSURV **

ASSAY LOG
PROPERTY: cl
HOLE No. : 41

FROM	TO	WIDTH	Au opt	Au ppb
18.70	20.50	1.80	0.000	14.000
20.50	23.50	3.00	0.000	5.000
23.50	26.50	3.00	0.000	32.000
26.50	29.50	3.00	0.000	90.000
29.50	32.40	2.90	0.000	33.000
53.10	56.10	3.00	0.000	10.000
56.10	59.10	3.00	0.000	10.000
59.10	62.10	3.00	0.000	17.000
62.10	65.10	3.00	0.000	25.000
65.10	68.10	3.00	0.000	280.000
68.10	71.90	3.80	0.000	5.000
71.90	74.90	3.00	0.000	8.000
74.90	76.50	1.60	0.000	2.000
76.50	79.00	2.50	0.000	3.000
79.00	81.00	2.00	0.000	8.000
81.00	84.00	3.00	0.000	3.000
84.00	87.00	3.00	0.000	2.000
87.00	89.70	2.70	0.000	5.000
89.70	92.70	3.00	0.000	16.000
92.70	95.20	2.50	0.000	196.000
95.20	97.70	2.50	0.000	600.000
97.70	100.00	2.30	0.000	325.000
100.00	103.00	3.00	0.000	37.000
103.00	106.00	3.00	0.000	1500.000
106.00	107.40	1.40	0.000	185.000
107.40	108.20	0.80	0.000	63.000
108.20	108.90	0.70	0.000	70.000
108.90	111.00	2.10	0.000	55.000
111.00	112.50	1.50	0.000	360.000
112.50	115.50	3.00	0.000	6.000
115.50	117.50	2.00	0.000	8.000
117.50	118.60	1.10	0.000	7.000
118.60	121.60	3.00	0.000	12.000
121.60	129.60	8.00	0.000	10.000
129.60	130.40	0.80	0.000	5.000
146.60	147.60	1.00	0.000	8.000
154.50	157.50	3.00	0.000	8.000
165.40	167.40	2.00	0.000	26.000
187.00	190.00	3.00	0.000	9.000
201.00	204.00	3.00	0.000	14.000
219.30	222.30	3.00	0.000	22.000
222.30	225.30	3.00	0.000	15.000
230.90	233.90	3.00	0.000	15.000
233.90	236.90	3.00	0.000	10.000
236.90	239.90	3.00	0.000	4.000
239.90	242.20	2.30	0.000	60.000
242.20	245.20	3.00	0.000	20.000
245.20	248.20	3.00	0.000	160.000
248.20	251.20	3.00	0.000	33.000
262.70	265.70	3.00	0.000	24.000

ASSAY LOG
PROPERTY: c1
HOLE [illegible]o. : 41

FROM	TO	WIDTH	Au opt	Au ppb
273.00	276.00	3.00	0.000	94.000
285.00	288.00	3.00	0.000	20.000
288.00	291.00	3.00	0.000	21.000
291.00	294.00	3.00	0.000	68.000
294.00	297.00	3.00	0.000	264.000
297.00	300.00	3.00	0.030	1000.000
300.00	303.00	3.00	0.033	1050.000
303.00	306.00	3.00	0.071	1600.000
306.00	309.00	3.00	0.000	247.000
309.00	312.00	3.00	0.000	23.000
312.00	315.00	3.00	0.000	33.000
315.00	318.00	3.00	0.000	30.000
318.00	321.00	3.00	0.000	40.000
321.00	324.00	3.00	0.000	18.000
324.00	327.00	3.00	0.000	10.000
327.00	328.00	1.00	0.000	23.000
328.00	330.00	2.00	0.000	70.000
330.00	331.50	1.50	0.000	23.000
331.50	333.00	1.50	0.000	80.000
333.00	336.00	3.00	0.000	37.000
336.00	337.50	1.50	0.000	12.000
337.50	339.00	1.50	0.000	25.000
339.00	342.00	3.00	0.000	123.000
342.00	345.00	3.00	0.000	15.000
345.00	348.00	3.00	0.000	82.000
348.00	351.00	3.00	0.000	22.000
351.00	354.00	3.00	0.000	175.000
354.00	357.00	3.00	0.000	89.000
357.00	360.00	3.00	0.045	1150.000
360.00	361.50	1.50	0.000	650.000
361.50	363.00	1.50	0.000	675.000
363.00	366.00	3.00	0.000	210.000
366.00	369.00	3.00	0.000	23.000
369.00	372.00	3.00	0.000	13.000
372.00	376.00	4.00	0.000	10.000
376.00	379.00	3.00	0.000	160.000
379.00	380.50	1.50	0.000	120.000
380.50	383.00	2.50	0.000	135.000
383.00	386.00	3.00	0.000	90.000
386.00	389.00	3.00	0.000	340.000
389.00	392.00	3.00	0.000	6.000
392.00	395.00	3.00	0.000	20.000
395.00	398.00	3.00	0.000	4.000
398.00	401.00	3.00	0.000	23.000
401.00	404.00	3.00	0.000	173.000
404.00	407.00	3.00	0.000	190.000
407.00	410.00	3.00	0.000	375.000
410.00	413.00	3.00	0.000	55.000
413.00	416.00	3.00	0.000	260.000
416.00	419.00	3.00	0.000	25.000

ASSAY LOG
PROPERTY: c1
HOLE No.: 41

FROM	TO	WIDTH	Au opt	Au ppb
419.00	422.00	3.00	0.000	80.000
422.00	425.00	3.00	0.000	128.000
425.00	428.00	3.00	0.036	1100.000
428.00	431.00	3.00	0.042	1300.000
431.00	433.00	2.00	0.058	1250.000
433.00	434.50	1.50	0.065	1350.000
434.50	437.00	2.50	0.000	177.000
437.00	440.00	3.00	0.000	50.000
440.00	443.00	3.00	0.000	158.000
443.00	446.00	3.00	0.000	15.000
446.00	449.00	3.00	0.000	39.000
449.00	452.00	3.00	0.000	47.000
452.00	455.00	3.00	0.000	130.000
455.00	458.00	3.00	0.000	100.000
458.00	461.00	3.00	0.000	5.000
461.00	464.00	3.00	0.000	15.000
464.00	467.00	3.00	0.000	215.000
467.00	470.00	3.00	0.000	27.000
470.00	473.00	3.00	0.000	80.000
473.00	476.00	3.00	0.000	150.000
476.00	479.00	3.00	0.000	172.000
479.00	482.00	3.00	0.000	157.000
482.00	485.00	3.00	0.000	36.000
485.00	488.00	3.00	0.000	190.000
488.00	489.00	1.00	0.000	17.000
489.00	492.00	3.00	0.000	42.000
492.00	495.00	3.00	0.000	28.000
495.00	498.00	3.00	0.000	30.000
498.00	501.00	3.00	0.000	39.000
501.00	504.00	3.00	0.000	34.000
504.00	507.00	3.00	0.000	21.000
518.00	521.00	3.00	0.000	11.000
531.00	534.00	3.00	0.000	52.000
549.20	552.20	3.00	0.000	48.000
561.00	564.00	3.00	0.000	23.000
567.00	570.00	3.00	0.000	54.000
576.00	577.50	1.50	0.000	63.000
588.00	589.50	1.50	0.000	138.000
634.30	636.90	2.60	0.000	180.000
638.00	641.00	3.00	0.000	6.000
647.00	650.00	3.00	0.000	18.000
650.00	653.00	3.00	0.000	5.000
663.50	665.00	1.50	0.035	1000.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 42
INSTRUMENT: ACID TEST

DATE: SEPT 87
SURVEY BY: TN

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3561.000	676.000	1017.640
197.00	-45.00	180.00	3561.000	542.909	872.396
394.00	-42.00	180.00	3561.000	400.010	736.791
502.00	-40.00	180.00	3561.000	318.501	665.936

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 42

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	9.20	3561.00	669.78	1010.86	90
QTZ PORPH	192.40	3561.00	546.02	875.79	55
ANDESITE	502.00	3561.00	318.50	665.94	60

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No. : 42

FROM	TO	WIDTH	Au opt	Au ppb
9.20	12.00	2.80	0.000	250.000
12.00	15.00	3.00	0.000	400.000
15.00	18.00	3.00	0.000	610.000
18.00	21.00	3.00	0.000	460.000
21.00	24.00	3.00	0.000	280.000
24.00	25.50	1.50	0.000	580.000
25.50	27.00	1.50	0.000	340.000
27.00	29.50	2.50	0.000	365.000
29.50	31.00	1.50	0.000	48.000
31.00	32.50	1.50	0.000	430.000
32.50	34.00	1.50	0.000	690.000
34.00	37.00	3.00	0.000	57.000
37.00	40.00	3.00	0.000	13.000
40.00	43.00	3.00	0.000	180.000
43.00	46.00	3.00	0.000	175.000
46.00	49.00	3.00	0.000	78.000
49.00	52.00	3.00	0.000	37.000
52.00	55.00	3.00	0.000	93.000
55.00	56.50	1.50	0.000	143.000
56.50	59.00	2.50	0.000	18.000
59.00	60.50	1.50	0.000	39.000
60.50	63.00	2.50	0.000	74.000
63.00	66.00	3.00	0.000	53.000
66.00	69.00	3.00	0.000	8.000
69.00	72.00	3.00	0.000	4.000
72.00	75.00	3.00	0.000	4.000
75.00	78.00	3.00	0.000	2.000
78.00	79.50	1.50	0.000	3.000
79.50	81.00	1.50	0.000	6.000
81.00	84.00	3.00	0.000	52.000
84.00	87.00	3.00	0.000	4.000
87.00	90.00	3.00	0.000	76.000
90.00	93.00	3.00	0.000	24.000
93.00	96.00	3.00	0.000	500.000
96.00	99.00	3.00	0.000	600.000
99.00	102.00	3.00	0.000	13.000
102.00	105.00	3.00	0.000	7.000
105.00	108.00	3.00	0.000	68.000
108.00	109.50	1.50	0.000	160.000
109.50	112.00	2.50	0.000	15.000
112.00	115.00	3.00	0.000	22.000
115.00	118.00	3.00	0.000	223.000
118.00	121.00	3.00	0.000	17.000
121.00	124.00	3.00	0.000	150.000
124.00	127.00	3.00	0.000	53.000
127.00	128.50	1.50	0.000	25.000
128.50	130.00	1.50	0.000	43.000
130.00	133.00	3.00	0.000	15.000
133.00	136.00	3.00	0.000	12.000
136.00	137.50	1.50	0.000	16.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 42

FROM	TO	WIDTH	Au opt	Au ppb
137.50	140.00	2.50	0.000	13.000
140.00	143.00	3.00	0.000	10.000
143.00	144.50	1.50	0.000	90.000
144.50	146.00	1.50	0.000	20.000
146.00	147.50	1.50	0.000	8.000
147.50	150.50	3.00	0.000	10.000
150.50	153.00	2.50	0.000	10.000
153.00	156.00	3.00	0.000	12.000
156.00	159.00	3.00	0.000	6.000
159.00	162.00	3.00	0.000	118.000
162.00	163.50	1.50	0.000	150.000
163.50	166.00	2.50	0.000	15.000
166.00	169.00	3.00	0.035	1250.000
169.00	172.00	3.00	0.000	10.000
172.00	175.00	3.00	0.000	16.000
175.00	178.00	3.00	0.000	26.000
178.00	181.00	3.00	0.000	16.000
181.00	184.00	3.00	0.000	10.000
184.00	187.00	3.00	0.000	8.000
187.00	188.50	1.50	0.000	7.000
188.50	189.00	0.50	0.000	67.000
189.00	190.50	1.50	0.064	1050.000
190.50	192.40	1.90	0.000	115.000
192.40	195.00	2.60	0.000	42.000
195.00	198.00	3.00	0.000	148.000
198.00	201.00	3.00	0.000	12.000
201.00	204.00	3.00	0.000	10.000
204.00	207.00	3.00	0.000	6.000
207.00	210.00	3.00	0.000	158.000
210.00	213.00	3.00	0.000	30.000
227.00	230.00	3.00	0.000	10.000
230.00	233.00	3.00	0.000	6.000
233.00	236.00	3.00	0.000	96.000
236.00	239.00	3.00	0.000	14.000
274.00	276.50	2.50	0.000	12.000
286.00	289.00	3.00	0.000	12.000
303.00	306.00	3.00	0.000	125.000
379.00	380.50	1.50	0.000	10.000
388.00	389.50	1.50	0.000	15.000
393.50	395.00	1.50	0.000	48.000
402.00	403.50	1.50	0.000	10.000
405.00	408.00	3.00	0.000	13.000
412.00	413.50	1.50	0.000	11.000
457.00	458.50	1.50	0.000	8.000
470.50	472.00	1.50	0.064	1800.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 43
INSTRUMENT: TOPARI

DATE: SEPT 87
SURVEY BY: TN

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.50	180.00	4605.000	533.000	1000.000
88.00	-50.00	180.00	4605.000	476.729	932.342
225.00	-49.00	180.00	4605.000	387.755	828.166
475.00	-45.00	173.00	4615.409	217.573	645.328
580.70	-43.00	173.00	4624.675	142.106	571.902

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No. : 43

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	11.50	4605.00	525.65	991.16	90
QTZ FELD POR	100.70	4605.00	468.48	922.68	50
MAFIC VOLC	116.50	4605.00	458.22	910.67	50
CHILLED PORP	152.50	4605.00	434.84	883.30	50
MAFIC VOLC	170.00	4605.00	423.47	869.99	50
OXIDE IF	200.00	4605.00	403.99	847.18	50
MAFIC VOLC	216.80	4605.00	393.08	834.40	45
QTZ FELD POR	341.90	4609.87	308.18	742.67	40
OXIDE IF	510.00	4618.48	192.58	621.01	40
M.G.ANDESITE	541.30	4621.22	170.24	599.27	50
QTZ FELD POR	561.60	4623.00	155.74	585.17	50
F.G.ANDESITE	580.70	4624.67	142.11	571.90	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE [illegible]p.: 43

FROM	TO	WIDTH	Au opt	Au ppb
11.50	14.00	2.50	0.000	120.000
14.00	17.00	3.00	0.000	10.000
17.00	20.00	3.00	0.000	6.000
20.00	23.00	3.00	0.000	5.000
23.00	27.00	4.00	0.000	8.000
27.00	30.00	3.00	0.000	4.000
30.00	33.00	3.00	0.000	10.000
33.00	36.00	3.00	0.000	11.000
36.00	39.00	3.00	0.000	15.000
39.00	42.00	3.00	0.000	110.000
42.00	45.00	3.00	0.000	250.000
45.00	48.00	3.00	0.109	3500.000
48.00	51.00	3.00	0.000	16.000
51.00	54.00	3.00	0.000	230.000
54.00	57.00	3.00	0.000	70.000
57.00	60.00	3.00	0.000	24.000
60.00	63.00	3.00	0.000	65.000
63.00	64.50	1.50	0.000	10.000
64.50	66.00	1.50	0.000	6.000
66.00	69.00	3.00	0.064	1150.000
69.00	72.00	3.00	0.000	52.000
72.00	75.00	3.00	0.000	26.000
75.00	78.00	3.00	0.000	15.000
78.00	81.00	3.00	0.000	12.000
81.00	84.00	3.00	0.000	15.000
84.00	87.00	3.00	0.000	10.000
87.00	90.00	3.00	0.000	12.000
90.00	93.00	3.00	0.000	10.000
93.00	96.00	3.00	0.000	11.000
96.00	99.00	3.00	0.000	15.000
99.00	100.50	1.50	0.000	16.000
100.50	102.00	1.50	0.000	76.000
102.00	103.50	1.50	0.000	30.000
103.50	105.00	1.50	0.000	8.000
105.00	106.50	1.50	0.000	13.000
106.50	108.00	1.50	0.000	7.000
108.00	111.00	3.00	0.000	4.000
111.00	114.00	3.00	0.000	9.000
114.00	116.50	2.50	0.000	16.000
116.50	120.00	3.50	0.000	12.000
120.00	123.00	3.00	0.000	46.000
123.00	126.00	3.00	0.000	52.000
126.00	129.00	3.00	0.000	23.000
129.00	132.00	3.00	0.000	9.000
132.00	135.00	3.00	0.000	6.000
135.00	138.00	3.00	0.000	20.000
138.00	141.00	3.00	0.000	10.000
141.00	144.00	3.00	0.000	12.000
144.00	147.00	3.00	0.000	3.000
147.00	150.00	3.00	0.000	10.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 43

FROM	TO	WIDTH	Au opt	Au ppb
150.00	152.50	2.50	0.000	48.000
152.50	155.00	2.50	0.000	15.000
155.00	158.00	3.00	0.000	12.000
158.00	161.00	3.00	0.000	16.000
161.00	164.00	3.00	0.000	67.000
164.00	167.00	3.00	0.000	43.000
167.00	170.00	3.00	0.000	11.000
170.00	173.00	3.00	0.000	24.000
173.00	176.00	3.00	0.000	28.000
176.00	177.50	1.50	0.000	93.000
177.50	180.00	2.50	0.000	8.000
180.00	183.00	3.00	0.000	37.000
183.00	186.00	3.00	0.000	27.000
186.00	189.00	3.00	0.000	17.000
189.00	192.00	3.00	0.000	118.000
192.00	195.00	3.00	0.000	10.000
195.00	198.00	3.00	0.000	13.000
198.00	201.00	3.00	0.000	19.000
201.00	204.00	3.00	0.000	12.000
204.00	207.00	3.00	0.000	9.000
207.00	210.00	3.00	0.000	78.000
210.00	213.00	3.00	0.000	73.000
213.00	214.50	1.50	0.000	195.000
214.50	216.00	1.50	0.000	295.000
216.00	217.80	1.80	0.000	355.000
217.80	220.00	2.20	0.000	38.000
220.00	223.00	3.00	0.000	21.000
223.00	226.00	3.00	0.000	17.000
226.00	229.00	3.00	0.000	16.000
229.00	230.20	1.20	0.000	12.000
230.20	233.00	2.80	0.000	119.000
233.00	236.00	3.00	0.000	107.000
236.00	239.00	3.00	0.000	172.000
239.00	242.00	3.00	0.000	29.000
242.00	245.00	3.00	0.000	41.000
245.00	248.00	3.00	0.000	15.000
248.00	249.50	1.50	0.000	160.000
249.50	252.00	2.50	0.000	7.000
252.00	255.00	3.00	0.000	8.000
255.00	258.00	3.00	0.000	18.000
258.00	261.00	3.00	0.000	5.000
261.00	264.00	3.00	0.000	17.000
264.00	267.00	3.00	0.000	205.000
267.00	270.00	3.00	0.000	79.000
270.00	273.00	3.00	0.000	31.000
273.00	276.00	3.00	0.000	22.000
276.00	279.00	3.00	0.000	67.000
279.00	282.00	3.00	0.000	14.000
282.00	285.00	3.00	0.000	118.000
285.00	288.00	3.00	0.000	140.000

ASSAY LOG
PROPERTY: CL
HOLE NO.: 43

FROM	TO	WIDTH	Au opt	Au ppb
288.00	289.50	1.50	0.000	375.000
289.50	291.00	1.50	0.000	113.000
291.00	294.00	3.00	0.000	14.000
294.00	297.00	3.00	0.000	27.000
297.00	300.00	3.00	0.000	29.000
300.00	303.00	3.00	0.000	40.000
303.00	306.00	3.00	0.000	335.000
306.00	309.00	3.00	0.000	146.000
309.00	312.00	3.00	0.000	123.000
312.00	315.00	3.00	0.000	49.000
315.00	318.00	3.00	0.000	31.000
318.00	321.00	3.00	0.000	56.000
321.00	324.00	3.00	0.000	255.000
324.00	327.00	3.00	0.030	1050.000
327.00	330.00	3.00	0.000	510.000
330.00	332.00	2.00	0.000	380.000
332.00	334.00	2.00	0.000	360.000
334.00	336.00	2.00	0.000	330.000
336.00	339.00	3.00	0.333	8200.000
339.00	341.90	2.90	0.174	3800.000
341.90	344.00	2.10	0.000	400.000
344.00	347.60	3.60	0.000	127.000
347.60	348.50	0.90	0.000	51.000
348.50	350.00	1.50	0.000	142.000
350.00	352.30	2.30	0.000	98.000
352.30	355.00	2.70	0.000	26.000
355.00	358.00	3.00	0.000	29.000
358.00	361.00	3.00	0.000	255.000
361.00	364.00	3.00	0.000	620.000
364.00	366.40	2.40	0.000	44.000
366.40	368.00	1.60	0.000	135.000
368.00	371.00	3.00	0.000	163.000
371.00	374.00	3.00	0.000	84.000
374.00	377.00	3.00	0.035	1050.000
377.00	380.00	3.00	0.040	1300.000
380.00	383.00	3.00	0.029	1000.000
383.00	386.00	3.00	0.000	215.000
386.00	389.00	3.00	0.000	34.000
389.00	389.80	0.80	0.076	2400.000
389.80	390.30	0.50	0.000	67.000
390.30	392.00	1.70	0.000	80.000
392.00	394.10	2.10	0.000	46.000
394.10	396.00	1.90	0.000	84.000
396.00	399.00	3.00	0.000	7.000
399.00	403.40	4.40	0.000	19.000
403.40	407.40	4.00	0.000	63.000
407.40	410.00	2.60	0.000	59.000
410.00	413.00	3.00	0.000	38.000
413.00	416.00	3.00	0.000	67.000
416.00	419.00	3.00	0.000	32.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 43

FROM	TO	WIDTH	Au opt	Au ppb
419.00	422.00	3.00	0.000	16.000
422.00	423.60	1.60	0.000	133.000
423.60	424.70	1.10	0.000	650.000
424.70	426.40	1.70	0.000	38.000
426.40	427.80	1.40	0.000	212.000
427.80	429.50	1.70	0.000	69.000
429.50	432.60	3.10	0.000	57.000
432.60	435.50	2.90	0.000	234.000
435.50	438.00	2.50	0.000	81.000
438.00	441.00	3.00	0.000	96.000
441.00	444.00	3.00	0.000	33.000
444.00	447.00	3.00	0.000	195.000
447.00	450.40	3.40	0.000	60.000
450.40	452.00	1.60	0.000	42.000
452.00	454.00	2.00	0.000	11.000
454.00	456.30	2.30	0.000	32.000
456.30	459.30	3.00	0.000	58.000
459.30	463.70	4.40	0.000	280.000
463.70	466.70	3.00	0.000	167.000
466.70	469.70	3.00	0.000	290.000
469.70	472.40	2.70	0.000	48.000
472.40	475.50	3.10	0.000	38.000
475.50	478.50	3.00	0.000	53.000
478.50	481.50	3.00	0.000	330.000
481.50	484.50	3.00	0.000	77.000
484.50	487.50	3.00	0.000	29.000
487.50	490.50	3.00	0.000	34.000
490.50	493.50	3.00	0.000	193.000
493.50	496.50	3.00	0.205	5400.000
496.50	499.50	3.00	0.878	24000.000
499.50	502.50	3.00	0.000	36.000
502.50	505.50	3.00	0.000	18.000
505.50	508.00	2.50	0.000	38.000
508.00	510.00	2.00	0.000	74.000
510.00	512.70	2.70	0.000	43.000
512.70	513.70	1.00	0.000	12.000
513.70	516.70	3.00	0.000	31.000
524.00	525.00	1.00	0.000	13.000
536.30	539.30	3.00	0.000	46.000
539.30	542.30	3.00	0.000	27.000
542.30	545.30	3.00	0.000	108.000
545.30	548.30	3.00	0.000	187.000
548.30	551.30	3.00	0.000	49.000
551.30	554.30	3.00	0.000	142.000
554.30	557.30	3.00	0.000	71.000
557.30	561.60	4.30	0.000	100.000
561.60	564.60	3.00	0.000	27.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: cl
HOLE NO: 44
INSTRUMENT: tropari

DATE: 09/30/87
SURVEY BY: T.N.

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	4492.000	-570.000	1022.490
197.00	-47.00	184.00	4487.444	-700.457	874.946
383.90	-44.00	173.00	4490.873	-831.412	741.639

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: cl

HOLE No. : 44

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	4.90	4491.89	-573.24	1018.82	90
MAF.VOLC.	5.90	4491.86	-573.91	1018.07	90
PORPHYRY	26.80	4491.38	-587.75	1002.42	30
MAF.VOLC	41.50	4491.04	-597.48	991.41	40
QTZ PORPHYRY	77.50	4490.21	-621.32	964.45	30
MAF.VOLC	88.60	4489.95	-628.67	956.13	30
Q/F PORPHYRY	102.00	4489.64	-637.55	946.10	40
SHEAR ZONE	125.00	4489.11	-652.78	928.87	50
MAF.VOLC	160.00	4488.30	-675.95	902.66	50
QTZ PORPH	166.50	4488.15	-680.26	897.79	50
MAF. VOLC	383.90	4490.87	-831.41	741.64	50

** BORSURV **

ASSAY LOG
PROPERTY: cl
HOLE No. : 44

FROM	TO	WIDTH	Au opt	Au ppb
4.90	5.90	1.00	0.000	6.000
5.90	9.00	3.10	0.000	840.000
9.00	12.00	3.00	0.000	600.000
12.00	15.00	3.00	0.000	290.000
15.00	18.00	3.00	0.000	335.000
18.00	21.00	3.00	0.000	150.000
21.00	24.00	3.00	0.000	36.000
24.00	26.80	2.80	0.000	48.000
26.80	30.00	3.20	0.000	50.000
30.00	33.00	3.00	0.000	3.000
33.00	36.00	3.00	0.000	5.000
36.00	39.00	3.00	0.000	54.000
39.00	41.50	2.50	0.000	45.000
41.50	44.00	2.50	0.000	580.000
44.00	47.00	3.00	0.349	7800.000
47.00	50.00	3.00	0.000	18.000
50.00	53.00	3.00	0.000	10.000
53.00	56.00	3.00	0.000	7.000
56.00	59.00	3.00	0.000	37.000
59.00	62.00	3.00	0.000	9.000
62.00	65.00	3.00	0.000	52.000
65.00	68.00	3.00	0.000	4.000
68.00	71.00	3.00	0.000	7.000
71.00	74.00	3.00	0.000	20.000
74.00	77.50	3.50	0.000	43.000
77.50	80.00	2.50	0.000	8.000
80.00	83.00	3.00	0.000	52.000
83.00	86.00	3.00	0.000	13.000
86.00	88.60	2.60	0.000	11.000
88.60	91.00	2.40	0.000	210.000
91.00	94.00	3.00	0.000	16.000
94.00	97.00	3.00	0.000	4.000
97.00	99.50	2.50	0.000	9.000
99.50	102.00	2.50	0.000	12.000
102.00	103.50	1.50	0.000	49.000
103.50	105.00	1.50	0.000	8.000
105.00	106.50	1.50	0.000	16.000
106.50	108.00	1.50	0.000	14.000
108.00	109.50	1.50	0.000	57.000
109.50	111.00	1.50	0.000	82.000
111.00	112.50	1.50	0.000	46.000
112.50	114.00	1.50	0.000	106.000
114.00	115.50	1.50	0.000	72.000
115.50	117.00	1.50	0.029	1050.000
117.50	119.00	1.50	0.000	34.000
119.00	120.50	1.50	0.000	13.000
120.50	122.00	1.50	0.000	12.000
122.00	123.50	1.50	0.000	8.000
123.50	125.00	1.50	0.000	13.000
125.00	128.00	3.00	0.000	10.000

ASSAY LOG
PROPERTY: c1
HOLE No.: 44

FROM	TO	WIDTH	Au opt	Au ppb
128.00	131.00	3.00	0.000	14.000
131.00	134.00	3.00	0.000	6.000
134.00	137.00	3.00	0.000	9.000
157.00	160.00	3.00	0.000	12.000
160.00	163.00	3.00	0.000	395.000
163.00	166.50	3.50	0.000	156.000
166.50	169.50	3.00	0.000	6.000
178.00	179.50	1.50	0.000	34.000
179.50	183.00	3.50	0.000	18.000
183.00	186.00	3.00	0.042	1350.000
186.00	188.50	2.50	0.000	5.000
188.50	191.50	3.00	0.000	8.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 45
INSTRUMENT: TROPARI

DATE: OCT. 87
SURVEY BY: TN

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	2863.000	813.000	1017.640
246.00	-48.00	181.00	2861.592	651.616	831.981
433.00	-45.00	184.00	2855.977	523.016	696.336
531.00	-41.00	188.00	2848.485	451.736	629.501
767.00	-38.00	193.00	2815.299	272.682	479.386
767.70	-38.00	193.00	2815.175	272.144	478.955

** BORSURV **

SUMMARY LITHO LOG
PROPERTY: CL
HOLE No.: 45

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	9.20	2862.95	806.96	1010.70	90
BASALT	143.00	2862.18	719.19	909.72	60
SILICIFIED Z	162.50	2862.07	706.39	895.00	90
PORPHYRY	374.20	2857.74	563.45	738.99	90
LAMPROPHYRE	396.50	2857.07	548.12	722.81	90
PORPHYRY	530.00	2848.56	452.46	630.18	50
SILICIFIED S	561.00	2844.27	428.97	610.42	90
SILICIFIED &	767.70	2815.18	272.14	478.96	90

ASSAY LOG
PROPERTY: CL
HOLE No.: 45

FROM	TO	WIDTH	Au opt	Au ppb
9.20	10.20	1.00	0.000	10.000
10.20	12.30	2.10	0.000	7.000
12.30	13.40	1.10	0.000	16.000
13.40	15.70	2.30	0.000	63.000
15.70	17.80	2.10	0.000	10.000
17.80	20.00	2.20	0.000	10.000
20.00	23.00	3.00	0.000	13.000
23.00	26.00	3.00	0.000	69.000
26.00	27.50	1.50	0.000	43.000
27.50	29.50	2.00	0.000	430.000
29.50	31.00	1.50	2.465	35000.000
31.00	34.00	3.00	0.000	18.000
34.00	37.00	3.00	0.000	6.000
37.00	40.00	3.00	0.000	4.000
40.00	43.00	3.00	0.000	9.000
43.00	46.00	3.00	0.000	12.000
46.00	49.00	3.00	0.000	16.000
49.00	52.00	3.00	0.000	8.000
52.00	55.00	3.00	0.000	13.000
55.00	58.50	3.50	0.000	83.000
58.50	60.00	1.50	0.000	109.000
60.00	62.00	2.00	0.060	1550.000
62.00	65.00	3.00	0.000	183.000
65.00	68.00	3.00	0.000	24.000
68.00	71.00	3.00	0.000	14.000
71.00	73.00	2.00	0.000	6.000
73.00	74.50	1.50	0.000	34.000
74.50	76.00	1.50	0.000	35.000
76.00	79.00	3.00	0.030	1000.000
79.00	82.00	3.00	0.000	9.000
82.00	85.00	3.00	0.000	18.000
85.00	88.00	3.00	0.000	20.000
88.00	90.00	2.00	0.000	7.000
90.00	92.00	2.00	0.000	12.000
92.00	93.50	1.50	0.000	163.000
93.50	96.50	3.00	0.000	24.000
96.50	99.50	3.00	0.000	9.000
99.50	102.50	3.00	0.000	11.000
102.50	105.00	2.50	0.000	14.000
105.00	108.00	3.00	0.000	120.000
108.00	111.00	3.00	0.000	18.000
111.00	114.00	3.00	0.000	27.000
114.00	117.00	3.00	0.000	23.000
117.00	120.00	3.00	0.000	14.000
120.00	123.00	3.00	0.000	64.000
123.00	126.00	3.00	0.000	20.000
126.00	129.00	3.00	0.126	3200.000
129.00	132.00	3.00	0.000	425.000
132.00	135.00	3.00	0.000	198.000
135.00	138.00	3.00	0.000	25.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 45

FROM	TO	WIDTH	Au opt	Au ppb
138.00	141.00	3.00	0.000	23.000
141.00	143.00	2.00	0.000	13.000
143.00	146.00	3.00	0.000	290.000
146.00	149.00	3.00	0.000	365.000
149.00	152.00	3.00	0.000	76.000
152.00	155.00	3.00	0.000	78.000
155.00	158.00	3.00	0.000	780.000
158.00	161.00	3.00	0.041	1500.000
161.00	162.50	1.50	0.029	1020.000
162.50	165.00	2.50	0.000	900.000
165.00	168.00	3.00	0.000	215.000
168.00	171.00	3.00	0.000	80.000
171.00	174.00	3.00	0.000	36.000
174.00	177.00	3.00	0.000	115.000
177.00	180.00	3.00	0.000	34.000
180.00	183.00	3.00	0.000	23.000
183.00	186.00	3.00	0.000	28.000
186.00	189.00	3.00	0.000	17.000
189.00	192.00	3.00	0.000	10.000
192.00	195.00	3.00	0.000	24.000
195.00	198.00	3.00	0.000	8.000
198.00	201.00	3.00	0.000	2.000
201.00	204.00	3.00	0.000	50.000
204.00	207.00	3.00	0.000	29.000
207.00	210.00	3.00	0.000	4.000
210.00	213.00	3.00	0.000	385.000
213.00	216.00	3.00	0.000	840.000
216.00	219.00	3.00	0.000	188.000
219.00	222.00	3.00	0.000	33.000
222.00	225.00	3.00	0.000	10.000
225.00	228.00	3.00	0.000	3.000
228.00	231.00	3.00	0.000	60.000
231.00	234.00	3.00	0.000	4.000
234.00	237.00	3.00	0.000	86.000
237.00	240.00	3.00	0.000	4.000
240.00	243.00	3.00	0.000	140.000
243.00	246.00	3.00	0.000	110.000
246.00	249.00	3.00	0.000	225.000
249.00	252.00	3.00	0.000	670.000
252.00	255.00	3.00	0.000	13.000
255.00	258.00	3.00	0.000	115.000
258.00	261.00	3.00	0.000	98.000
261.00	264.00	3.00	0.000	700.000
264.00	267.00	3.00	0.030	1000.000
267.00	270.00	3.00	0.000	600.000
270.00	273.00	3.00	0.000	175.000
273.00	276.00	3.00	0.000	72.000
276.00	279.00	3.00	0.000	210.000
279.00	282.00	3.00	0.000	4.000
282.00	285.00	3.00	0.000	34.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 45

FROM	TO	WIDTH	Au opt	Au ppb
285.00	288.00	3.00	0.000	14.000
288.00	291.00	3.00	0.000	3.000
291.00	294.00	3.00	0.000	5.000
294.00	297.00	3.00	0.000	75.000
297.00	300.00	3.00	0.000	20.000
300.00	303.00	3.00	0.000	42.000
303.00	306.00	3.00	0.000	340.000
306.00	309.00	3.00	0.000	48.000
309.00	312.00	3.00	0.000	210.000
312.00	315.00	3.00	0.000	114.000
315.00	318.00	3.00	0.000	50.000
318.00	321.00	3.00	0.000	25.000
321.00	324.00	3.00	0.000	46.000
324.00	325.50	1.50	0.000	181.000
325.50	327.00	1.50	0.000	3.000
327.00	330.00	3.00	0.000	14.000
330.00	333.00	3.00	0.000	195.000
333.00	336.00	3.00	0.000	285.000
336.00	339.00	3.00	0.000	42.000
339.00	342.00	3.00	0.058	1350.000
342.00	345.00	3.00	0.000	100.000
345.00	346.70	1.70	0.000	76.000
346.70	347.80	1.10	0.000	30.000
347.80	349.00	1.20	0.000	21.000
349.00	352.00	3.00	0.000	460.000
352.00	355.00	3.00	0.000	52.000
355.00	356.50	1.50	0.000	70.000
356.50	358.00	1.50	0.000	10.000
358.00	358.40	0.40	0.000	4.000
358.40	360.00	1.60	0.000	108.000
360.00	363.00	3.00	0.000	360.000
363.00	366.00	3.00	0.000	45.000
366.00	369.00	3.00	0.000	6.000
369.00	372.00	3.00	0.000	2.000
372.00	373.50	1.50	0.000	13.000
373.50	374.20	0.70	0.000	86.000
396.50	399.00	2.50	0.000	7.000
399.00	401.80	2.80	0.000	4.000
401.80	402.80	1.00	0.000	23.000
402.80	404.10	1.30	0.000	38.000
404.10	405.50	1.40	0.000	230.000
405.50	407.00	1.50	0.000	750.000
407.00	410.00	3.00	0.000	136.000
410.00	413.00	3.00	0.000	18.000
413.00	414.50	1.50	0.000	140.000
414.50	416.00	1.50	0.000	34.000
416.00	418.00	2.00	0.000	28.000
418.00	421.00	3.00	0.000	245.000
421.00	424.00	3.00	0.000	4.000
424.00	427.00	3.00	0.000	15.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 45

FROM	TO	WIDTH	Au opt	Au ppb
427.00	428.50	1.50	0.000	20.000
428.50	430.00	1.50	0.000	12.000
430.00	433.00	3.00	0.000	16.000
433.00	436.00	3.00	0.000	30.000
436.00	439.00	3.00	0.000	86.000
439.00	442.00	3.00	0.000	166.000
442.00	445.00	3.00	0.000	13.000
445.00	448.00	3.00	0.000	23.000
448.00	451.00	3.00	0.000	14.000
451.00	454.00	3.00	0.000	15.000
454.00	457.00	3.00	0.000	10.000
457.00	460.00	3.00	0.000	11.000
460.00	463.00	3.00	0.000	20.000
463.00	466.00	3.00	0.000	10.000
466.00	469.00	3.00	0.000	17.000
469.00	472.00	3.00	0.000	33.000
472.00	475.00	3.00	0.000	156.000
475.00	478.00	3.00	0.000	8.000
478.00	481.00	3.00	0.000	12.000
481.00	482.40	1.40	0.092	2200.000
482.40	483.10	0.70	1.353	25000.000
483.10	484.50	1.40	0.000	21.000
484.50	487.00	2.50	0.000	22.000
487.00	490.00	3.00	0.000	13.000
490.00	493.00	3.00	0.000	17.000
493.00	496.00	3.00	0.000	7.000
496.00	499.00	3.00	0.000	10.000
499.00	502.00	3.00	0.000	149.000
502.00	505.00	3.00	0.000	50.000
505.00	508.00	3.00	0.000	4.000
508.00	511.00	3.00	0.000	17.000
511.00	514.00	3.00	0.000	5.000
514.00	517.00	3.00	0.000	43.000
517.00	520.00	3.00	0.000	6.000
520.00	523.00	3.00	0.000	2.000
523.00	526.00	3.00	0.000	2.000
526.00	530.00	4.00	0.000	20.000
530.00	533.00	3.00	0.000	76.000
533.00	536.00	3.00	0.000	50.000
536.00	539.00	3.00	0.000	15.000
539.00	542.00	3.00	0.000	25.000
542.00	545.00	3.00	0.000	23.000
545.00	548.00	3.00	0.000	20.000
548.00	551.00	3.00	0.000	85.000
551.00	554.00	3.00	0.000	245.000
554.00	557.00	3.00	0.000	67.000
557.00	561.00	4.00	0.000	80.000
561.00	564.00	3.00	0.000	32.000
564.00	567.00	3.00	0.030	1050.000
567.00	570.00	3.00	0.000	345.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 45

FROM	TO	WIDTH	Au opt	Au ppb
570.00	573.00	3.00	0.000	15.000
573.00	576.00	3.00	0.000	75.000
576.00	579.00	3.00	0.000	106.000
579.00	582.00	3.00	0.000	37.000
582.00	585.00	3.00	0.000	79.000
585.00	588.00	3.00	0.000	82.000
588.00	591.00	3.00	0.000	310.000
591.00	594.00	3.00	0.000	151.000
594.00	597.00	3.00	0.000	54.000
597.00	600.00	3.00	0.000	37.000
600.00	603.00	3.00	0.000	20.000
607.00	610.00	3.00	0.000	43.000
618.00	621.00	3.00	0.000	510.000
621.00	623.00	2.00	0.000	110.000
625.00	627.50	2.50	0.000	31.000
627.50	629.00	1.50	0.000	30.000
629.00	632.00	3.00	0.000	15.000
632.00	635.00	3.00	0.000	33.000
635.00	638.00	3.00	0.000	265.000
656.50	658.00	1.50	0.000	45.000
659.00	660.50	1.50	0.000	76.000
664.40	667.50	3.10	0.000	650.000
670.00	673.00	3.00	0.000	139.000
678.00	681.00	3.00	0.000	870.000
681.00	684.00	3.00	0.030	4500.000
684.00	687.00	3.00	0.000	275.000
687.00	690.00	3.00	0.033	1100.000
690.00	693.00	3.00	0.000	215.000
693.00	696.00	3.00	0.000	56.000
696.00	698.00	2.00	0.000	24.000
698.00	701.00	3.00	0.000	38.000
737.00	740.00	3.00	0.000	35.000
740.00	743.00	3.00	0.000	40.000
761.00	763.00	2.00	0.000	220.000
765.00	767.70	2.70	0.034	1050.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 46
INSTRUMENT: TROPARI

DATE: OCT. 87
SURVEY BY: TN

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	3394.000	1020.000	1000.300
305.00	-41.00	183.00	3388.404	806.296	782.759
433.00	-38.00	182.50	3383.665	707.642	701.341
600.00	-36.00	187.00	3372.621	574.728	600.837
718.50	-36.00	187.00	3360.938	479.574	531.185

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No. : 46

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	17.00	3393.69	1008.09	988.17	90
BASALT	70.00	3392.72	970.95	950.37	55
QFP	80.20	3392.53	963.81	943.10	50
BASALT	193.30	3390.45	884.56	862.43	60
FELSITE	201.30	3390.31	878.96	856.72	90
BASALT	255.40	3389.31	841.05	818.14	55
QTZ POR	268.80	3389.07	831.66	808.58	90
BASALT	300.70	3388.48	809.31	785.83	50
LAMPROPHYRE	315.30	3388.02	798.36	776.21	90
BASALT	345.50	3386.90	775.08	757.00	50
ALTERED POR	592.00	3373.15	581.09	605.65	50
ALTERED BASA	717.80	3361.01	480.14	531.60	90
LAMPROPHYRE	718.50	3360.94	479.57	531.18	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No. : 46

FROM	TO	WIDTH	Au opt	Au ppb
65.00	67.50	2.50	0.000	24.000
67.50	70.00	2.50	0.000	26.000
70.00	73.00	3.00	0.000	11.000
73.00	76.00	3.00	0.000	10.000
76.00	79.00	3.00	0.000	14.000
79.00	80.20	1.20	0.000	95.000
80.20	83.00	2.80	0.000	34.000
83.00	86.00	3.00	0.000	13.000
86.00	89.00	3.00	0.000	55.000
89.00	92.00	3.00	0.000	36.000
92.00	95.00	3.00	0.000	3.000
95.00	98.00	3.00	0.000	141.000
111.00	114.00	3.00	0.268	6400.000
158.00	161.00	3.00	0.000	117.000
161.00	164.00	3.00	0.000	400.000
164.00	167.00	3.00	0.000	192.000
167.00	170.00	3.00	0.000	285.000
193.30	196.30	3.00	0.000	330.000
196.30	199.30	3.00	0.000	53.000
199.30	201.30	2.00	0.000	210.000
255.50	258.50	3.00	0.000	28.000
258.50	261.50	3.00	0.000	2.000
261.50	264.50	3.00	0.000	5.000
264.50	266.50	2.00	0.000	3.000
266.50	268.80	2.30	0.000	12.000
285.30	288.30	3.00	0.000	2.000
288.30	290.60	2.30	0.000	258.000
325.00	328.00	3.00	0.000	209.000
328.00	331.00	3.00	0.000	395.000
331.00	334.00	3.00	0.000	24.000
341.00	344.00	3.00	0.000	116.000
344.00	345.50	1.50	0.000	92.000
345.50	348.00	2.50	0.000	198.000
348.00	351.00	3.00	0.000	165.000
351.00	354.00	3.00	0.000	33.000
354.00	357.00	3.00	0.000	26.000
357.00	360.00	3.00	0.000	1.000
360.00	363.00	3.00	0.000	78.000
363.00	366.00	3.00	0.000	18.000
366.00	369.00	3.00	0.000	565.000
369.00	372.00	3.00	0.000	12.000
372.00	375.00	3.00	0.000	7.000
375.00	376.50	1.50	0.000	8.000
376.50	379.50	3.00	0.000	16.000
379.50	381.00	1.50	0.000	19.000
381.00	384.00	3.00	0.000	15.000
384.00	387.00	3.00	0.000	6.000
387.00	390.00	3.00	0.000	34.000
390.00	393.00	3.00	0.000	169.000
393.00	396.00	3.00	0.000	42.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 46

FROM	TO	WIDTH	Au opt	Au ppb
396.00	399.00	3.00	0.000	70.000
399.00	402.00	3.00	0.000	138.000
402.00	405.00	3.00	0.000	135.000
405.00	408.00	3.00	0.000	105.000
408.00	411.00	3.00	0.000	24.000
411.00	414.00	3.00	0.000	63.000
414.00	417.00	3.00	0.000	142.000
417.00	420.00	3.00	0.000	158.000
420.00	423.00	3.00	0.000	790.000
423.00	426.00	3.00	0.030	1000.000
426.00	429.00	3.00	0.000	67.000
429.00	432.00	3.00	0.000	350.000
432.00	435.00	3.00	0.046	1270.000
435.00	438.00	3.00	0.000	159.000
438.00	441.00	3.00	0.000	76.000
441.00	444.00	3.00	0.000	194.000
444.00	447.00	3.00	0.000	112.000
447.00	450.00	3.00	0.000	43.000
450.00	453.00	3.00	0.000	101.000
453.00	456.00	3.00	0.040	1250.000
456.00	459.00	3.00	0.000	90.000
459.00	462.00	3.00	0.000	300.000
462.00	465.00	3.00	0.000	103.000
465.00	468.00	3.00	0.000	425.000
468.00	471.00	3.00	0.000	500.000
471.00	474.00	3.00	0.028	1000.000
474.00	477.00	3.00	0.000	104.000
477.00	480.00	3.00	0.000	20.000
480.00	483.00	3.00	0.000	29.000
483.00	486.00	3.00	0.000	385.000
486.00	489.00	3.00	0.000	148.000
489.00	492.00	3.00	0.000	33.000
492.00	495.00	3.00	0.000	127.000
495.00	498.00	3.00	0.000	50.000
498.00	501.00	3.00	0.000	54.000
501.00	504.00	3.00	0.000	98.000
504.00	507.00	3.00	0.000	225.000
507.00	510.00	3.00	0.000	73.000
510.00	513.00	3.00	0.000	63.000
513.00	516.00	3.00	0.000	30.000
516.00	519.00	3.00	0.000	63.000
519.00	522.00	3.00	0.000	62.000
522.00	525.00	3.00	0.000	85.000
525.00	528.00	3.00	0.000	490.000
528.00	531.00	3.00	0.000	80.000
531.00	534.00	3.00	0.000	70.000
534.00	537.00	3.00	0.000	179.000
537.00	540.00	3.00	0.000	500.000
540.00	543.00	3.00	0.000	225.000
543.00	546.00	3.00	0.000	76.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 46

FROM	TO	WIDTH	Au opt	Au ppb
546.00	549.00	3.00	0.000	20.000
549.00	552.00	3.00	0.000	140.000
552.00	555.00	3.00	0.000	33.000
555.00	558.00	3.00	0.000	72.000
558.00	561.00	3.00	0.000	77.000
561.00	562.50	1.50	0.000	245.000
562.50	564.00	1.50	0.000	64.000
564.00	565.50	1.50	0.000	84.000
565.50	567.00	1.50	0.000	67.000
567.00	568.50	1.50	0.000	26.000
568.50	569.50	1.00	0.080	2100.000
569.50	572.00	2.50	0.000	27.000
572.00	575.00	3.00	0.000	67.000
575.00	578.00	3.00	0.000	20.000
578.00	581.00	3.00	0.000	17.000
581.00	584.00	3.00	0.000	35.000
584.00	587.00	3.00	0.000	56.000
587.00	590.00	3.00	0.000	24.000
590.00	592.00	2.00	0.000	37.000
592.00	595.00	3.00	0.000	15.000
595.00	598.00	3.00	0.000	5.000
598.00	601.00	3.00	0.000	10.000
601.00	604.00	3.00	0.000	11.000
604.00	607.00	3.00	0.000	4.000
607.00	610.00	3.00	0.000	10.000
610.00	613.00	3.00	0.000	5.000
613.00	616.00	3.00	0.000	7.000
616.00	619.00	3.00	0.000	13.000
619.00	622.00	3.00	0.000	25.000
622.00	625.00	3.00	0.000	15.000
625.00	628.00	3.00	0.000	4.000
628.00	631.50	3.50	0.000	3.000
631.50	634.50	3.00	0.000	19.000
634.50	637.90	3.40	0.000	15.000
637.90	641.00	3.10	0.000	34.000
641.00	642.80	1.80	0.000	16.000
642.80	645.80	3.00	0.000	30.000
645.80	647.80	2.00	0.000	27.000
647.80	651.20	3.40	0.000	95.000
651.20	654.20	3.00	0.000	43.000
654.20	655.70	1.50	0.000	52.000
655.70	658.00	2.30	0.000	60.000
658.00	661.00	3.00	0.000	340.000
661.00	664.00	3.00	0.000	58.000
664.00	667.00	3.00	0.000	64.000
667.00	670.00	3.00	0.000	30.000
670.00	673.50	3.50	0.000	135.000
673.50	676.50	3.00	0.000	38.000
676.50	679.50	3.00	0.000	120.000
679.50	682.50	3.00	0.000	71.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 46

FROM	TO	WIDTH	Au opt	Au ppb
682.50	685.50	3.00	0.000	34.000
685.50	688.00	2.50	0.000	63.000
688.00	691.00	3.00	0.000	16.000
691.00	694.00	3.00	0.000	27.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 47
INSTRUMENT: TROPARI

DATE: SP
SURVEY BY: TN

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-53.00	180.00	3678.000	1014.000	998.710
394.00	-53.00	178.00	3682.138	776.921	684.048
561.00	-49.00	184.00	3680.304	671.840	554.264
650.00	-47.00	188.00	3674.079	612.614	488.124
836.00	-45.00	186.00	3658.333	484.371	354.327
836.60	-45.00	186.00	3658.288	483.949	353.903

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 47

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	31.50	3678.33	995.05	973.55	90
LAMPROPHYRE	279.00	3680.93	846.12	775.89	90
PORPHYRY	285.00	3680.99	842.51	771.10	90
LAMPROPHYRE	320.00	3681.36	821.45	743.15	90
ALT PORPH	335.00	3681.52	812.42	731.17	45
BASALT	480.00	3681.19	722.81	617.21	50
QTZ PORPH	550.30	3680.42	678.57	562.58	70
DIABASE	583.60	3678.72	656.80	537.47	50
QTZ PORPH	676.00	3671.88	594.69	469.42	40
BASALT	836.60	3658.29	483.95	353.90	30

ASSAY LOG
PROPERTY: CL
HOLE No.: 47

FROM	TO	WIDTH		
279.00	282.00	3.00	0.000	7.000
282.00	285.00	3.00	0.000	15.000
317.00	320.00	3.00	0.000	38.000
320.00	323.00	3.00	0.000	37.000
323.00	326.00	3.00	0.000	72.000
326.00	329.00	3.00	0.000	24.000
329.00	330.50	1.50	0.000	30.000
330.50	332.00	1.50	0.000	26.000
332.00	333.50	1.50	0.000	33.000
333.50	335.00	1.50	0.000	500.000
335.00	338.00	3.00	0.000	39.000
369.00	371.00	2.00	0.000	74.000
389.50	391.50	2.00	0.000	76.000
414.00	417.00	3.00	0.000	19.000
417.00	420.00	3.00	0.000	25.000
420.00	423.00	3.00	0.000	31.000
433.00	436.00	3.00	0.000	19.000
436.00	439.00	3.00	0.000	32.000
439.00	442.00	3.00	0.000	26.000
442.00	445.00	3.00	0.000	31.000
445.00	448.00	3.00	0.000	34.000
457.00	458.90	1.90	0.000	104.000
458.90	461.10	2.20	0.000	305.000
461.10	463.00	1.90	0.000	20.000
472.80	475.80	3.00	0.000	650.000
475.80	476.30	0.50	0.000	420.000
476.30	480.00	3.70	0.000	670.000
480.00	483.00	3.00	0.105	3400.000
483.00	486.00	3.00	0.000	680.000
486.00	489.00	3.00	0.000	118.000
489.00	492.00	3.00	0.000	490.000
492.00	495.00	3.00	0.000	455.000
495.00	498.00	3.00	0.000	197.000
498.00	501.00	3.00	0.000	190.000
501.00	504.00	3.00	0.036	1200.000
504.00	507.00	3.00	0.292	7500.000
507.00	510.00	3.00	0.000	550.000
510.00	513.00	3.00	0.000	370.000
513.00	516.00	3.00	0.000	0.028
516.00	519.00	3.00	0.000	200.000
519.00	522.00	3.00	0.035	1250.000
522.00	525.00	3.00	0.000	650.000
525.00	528.00	3.00	0.000	680.000
528.00	531.00	3.00	0.028	1000.000
531.00	534.00	3.00	0.000	123.000
534.00	537.00	3.00	0.000	460.000
537.00	540.00	3.00	0.000	87.000
540.00	543.00	3.00	0.000	158.000
543.00	546.00	3.00	0.000	34.000
546.00	548.30	2.30	0.000	38.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 47

FROM	TO	WIDTH		
548.30	550.30	2.00	0.000	69.000
550.30	552.00	1.70	0.000	23.000
583.60	586.00	2.40	0.000	13.000
586.00	589.00	3.00	0.000	145.000
589.00	592.00	3.00	0.000	285.000
592.00	595.00	3.00	0.000	34.000
595.00	598.00	3.00	0.000	132.000
598.00	601.00	3.00	0.000	51.000
601.00	604.00	3.00	0.000	236.000
604.00	607.00	3.00	0.000	25.000
607.00	610.00	3.00	0.000	260.000
610.00	613.00	3.00	0.034	1050.000
613.00	616.00	3.00	0.000	205.000
616.00	619.00	3.00	0.000	128.000
619.00	622.00	3.00	0.000	70.000
622.00	625.00	3.00	0.000	39.000
625.00	628.00	3.00	0.000	62.000
628.00	631.00	3.00	0.000	120.000
631.00	633.70	2.70	0.000	335.000
633.70	635.10	1.40	0.000	3.000
635.10	636.40	1.30	0.000	8.000
636.40	637.50	1.10	0.043	1250.000
637.50	639.00	1.50	0.000	4.000
639.00	640.50	1.50	0.000	53.000
640.50	642.00	1.50	0.000	35.000
642.00	645.00	3.00	0.000	220.000
645.00	648.00	3.00	0.030	1050.000
648.00	651.00	3.00	0.029	1000.000
651.00	654.00	3.00	0.036	1100.000
654.00	657.00	3.00	0.000	480.000
657.00	658.50	1.50	0.000	660.000
658.50	661.50	3.00	0.032	1050.000
661.50	664.00	2.50	0.030	1000.000
664.00	667.00	3.00	0.000	295.000
667.00	670.00	3.00	0.000	84.000
670.00	673.00	3.00	0.000	610.000
673.00	676.00	3.00	0.000	90.000
676.00	679.00	3.00	0.000	146.000
679.00	682.00	3.00	0.000	13.000
682.00	685.00	3.00	0.000	100.000
685.00	688.00	3.00	0.000	151.000
688.00	691.00	3.00	0.000	430.000
691.00	692.50	1.50	0.000	600.000
692.50	695.00	2.50	0.000	320.000
695.00	698.00	3.00	0.000	156.000
698.00	701.00	3.00	0.035	1050.000
701.00	704.00	3.00	0.000	38.000
704.00	707.00	3.00	0.000	123.000
707.00	710.00	3.00	0.000	33.000
710.00	713.00	3.00	0.000	42.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 47

FROM	TO	WIDTH		
713.00	715.60	2.60	0.000	39.000
718.20	721.00	2.80	0.000	24.000
721.00	724.00	3.00	0.000	33.000
724.00	727.00	3.00	0.000	16.000
727.00	730.00	3.00	0.000	34.000
730.00	733.00	3.00	0.000	42.000
733.00	736.00	3.00	0.000	40.000
736.00	739.00	3.00	0.032	1000.000
739.00	742.00	3.00	0.000	40.000
742.00	745.00	3.00	0.000	87.000
745.00	748.00	3.00	0.000	48.000
748.00	751.00	3.00	0.000	24.000
751.00	754.00	3.00	0.000	65.000
754.00	757.00	3.00	0.000	27.000
757.00	760.00	3.00	0.000	23.000
760.00	763.00	3.00	0.000	11.000
763.00	766.00	3.00	0.000	14.000
766.00	769.00	3.00	0.000	19.000
769.00	772.00	3.00	0.000	9.000
772.00	775.00	3.00	0.000	13.000
775.00	778.00	3.00	0.000	19.000
778.00	781.00	3.00	0.000	12.000
781.00	784.00	3.00	0.000	4.000
784.00	787.00	3.00	0.000	12.000
787.00	790.00	3.00	0.000	11.000
790.00	792.50	2.50	0.000	7.000
792.50	795.50	3.00	0.000	26.000
804.00	807.00	3.00	0.000	21.000
807.00	810.00	3.00	0.000	12.000
814.00	816.00	2.00	0.000	10.000
816.00	818.00	2.00	0.000	4.000
831.00	833.00	2.00	0.000	48.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 48
INSTRUMENT: TROPARI

DATE: OCT. 87
SURVEY BY: TN

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	4505.000	610.000	1019.870
265.00	-50.00	181.00	4503.514	439.668	816.868
377.00	-50.00	177.00	4504.770	367.687	731.071
492.00	-51.00	179.00	4507.323	294.582	642.334
492.10	-51.00	179.00	4507.324	294.519	642.257

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No. : 48

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	10.20	4504.94	603.44	1012.06	90
ALT PORPH	35.40	4504.80	587.25	992.75	40
BASALT	47.70	4504.73	579.34	983.33	90
ALT PORPH	81.00	4504.55	557.94	957.82	30
BASALT	110.60	4504.38	538.91	935.15	70
DIABASE	492.10	4507.32	294.52	642.26	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 48

FROM	TO	WIDTH	Au opt	Au ppb
10.20	13.00	2.80	0.000	13.000
13.00	16.00	3.00	0.000	16.000
16.00	19.00	3.00	0.000	14.000
19.00	22.00	3.00	0.000	27.000
22.00	25.00	3.00	0.000	13.000
25.00	28.00	3.00	0.000	25.000
28.00	31.00	3.00	0.000	10.000
31.00	34.00	3.00	0.000	17.000
34.00	35.40	1.40	0.000	15.000
47.70	50.00	2.30	0.000	24.000
50.00	53.00	3.00	0.000	13.000
53.00	56.00	3.00	0.000	28.000
56.00	59.00	3.00	0.000	33.000
59.00	61.00	2.00	0.000	141.000
61.00	62.30	1.30	0.280	7500.000
62.30	64.50	2.20	0.036	1100.000
64.50	67.00	2.50	0.000	86.000
67.00	70.00	3.00	0.000	67.000
70.00	73.00	3.00	0.000	65.000
73.00	76.00	3.00	0.000	91.000
76.00	79.00	3.00	0.000	54.000
79.00	81.00	2.00	0.000	109.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 49
INSTRUMENT: TROPARI

DATE: OCT. 87
SURVEY BY: TN

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	4400.000	635.000	1016.260
166.00	-50.00	185.00	4395.346	528.399	889.097
393.70	-50.00	187.00	4380.047	382.838	714.668
640.00	-47.00	190.00	4355.924	221.427	530.201
738.00	-45.00	186.00	4346.449	154.013	459.705
738.20	-45.00	186.00	4346.434	153.873	459.564

** BORSURV **

SUMMARY LITHO LOG
PROPERTY: CL
HOLE No.: 49

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	17.70	4399.50	623.63	1002.70	90
BASALT	59.10	4398.34	597.05	970.99	90
QTZ VEIN	67.30	4398.11	591.78	964.71	20
BASALT	182.50	4394.24	517.85	876.46	50
PORPHYRY	202.00	4392.93	505.39	861.52	90
BASALT	306.30	4385.92	438.71	781.62	80
PORPHYRY	310.30	4385.65	436.15	778.56	90
BASALT	333.70	4384.08	421.19	760.63	90
DIORITE	338.90	4383.73	417.87	756.65	90
BASALT	389.00	4380.36	385.84	718.27	90
PORPHYRY	484.70	4371.13	323.20	646.51	90
SHEAR ZONE-B	529.50	4366.75	293.84	612.96	90
BASALT	597.00	4360.14	249.61	562.41	50
DIABASE LAMP	646.20	4355.32	217.16	525.74	90
BASALT	683.80	4351.69	191.30	498.69	40
PORPHYRY	698.30	4350.29	181.32	488.26	90
BASALT	738.20	4346.43	153.87	459.56	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 49

FROM	TO	WIDTH	Au opt	Au ppb
56.10	59.10	3.00	0.000	45.000
59.10	60.60	1.50	0.309	3400.000
60.60	62.10	1.50	0.211	4500.000
62.10	63.60	1.50	0.086	2950.000
63.60	65.10	1.50	0.090	2100.000
65.10	66.60	1.50	0.712	15000.000
66.60	67.30	0.70	0.082	2350.000
67.30	70.30	3.00	0.000	85.000
137.00	140.00	3.00	0.000	52.000
145.00	148.00	3.00	0.000	18.000
177.00	180.00	3.00	0.000	9.000
180.00	183.00	3.00	0.000	6.000
183.00	186.00	3.00	0.000	14.000
186.00	189.00	3.00	0.000	11.000
189.00	192.00	3.00	0.000	23.000
192.00	195.00	3.00	0.000	4.000
195.00	198.00	3.00	0.000	27.000
198.00	202.00	4.00	0.000	54.000
202.00	205.00	3.00	0.000	600.000
249.00	252.00	3.00	0.000	6.000
252.00	255.00	3.00	0.000	4.000
255.00	256.50	1.50	0.000	26.000
256.50	258.00	1.50	0.000	116.000
258.00	259.50	1.50	0.000	575.000
259.50	261.00	1.50	0.000	40.000
261.00	264.00	3.00	0.000	24.000
264.00	265.70	1.70	0.000	8.000
265.70	267.20	1.50	0.000	6.000
267.20	270.00	2.80	0.000	14.000
299.00	301.00	2.00	0.000	7.000
304.00	306.30	2.30	0.000	9.000
306.30	308.00	1.70	0.000	5.000
308.00	310.30	2.30	0.000	8.000
310.30	313.00	2.70	0.000	10.000
332.00	333.70	1.70	0.000	4.000
333.70	336.70	3.00	0.000	5.000
336.70	338.90	2.20	0.000	5.000
338.90	341.00	2.10	0.000	7.000
386.00	389.00	3.00	0.000	15.000
389.00	392.00	3.00	0.000	40.000
392.00	395.00	3.00	0.000	64.000
395.00	398.00	3.00	0.000	129.000
398.00	401.00	3.00	0.000	53.000
401.00	404.00	3.00	0.000	28.000
404.00	406.00	2.00	0.000	79.000
406.00	409.00	3.00	0.000	52.000
409.00	412.00	3.00	0.000	470.000
412.00	415.00	3.00	0.000	700.000
415.00	418.00	3.00	0.600	18000.000
418.00	421.00	3.00	0.000	43.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 49

FROM	TO	WIDTH	Au opt	Au ppb
421.00	424.00	3.00	0.000	8.000
424.00	427.00	3.00	0.000	182.000
427.00	430.00	3.00	0.000	3.000
430.00	433.00	3.00	0.000	56.000
433.00	436.00	3.00	0.000	14.000
436.00	438.00	2.00	0.000	9.000
438.00	441.00	3.00	0.000	6.000
441.00	442.50	1.50	0.000	100.000
442.50	445.00	2.50	0.000	13.000
445.00	448.00	3.00	0.000	24.000
448.00	451.00	3.00	0.079	1600.000
451.00	454.00	3.00	0.000	295.000
454.00	457.00	3.00	0.000	220.000
457.00	4600.00	4143.00	0.000	104.000
460.00	463.00	3.00	0.000	360.000
463.00	466.00	3.00	0.000	260.000
466.00	469.00	3.00	0.000	52.000
469.00	472.00	3.00	0.000	18.000
472.00	475.00	3.00	0.000	7.000
475.00	478.00	3.00	0.000	138.000
478.00	481.00	3.00	0.000	11.000
481.00	483.20	2.20	0.000	27.000
483.20	484.70	1.50	0.000	137.000
484.70	486.50	1.80	0.000	29.000
486.50	489.00	2.50	0.000	43.000
489.00	492.00	3.00	0.000	33.000
492.00	495.00	3.00	0.000	24.000
495.00	498.00	3.00	0.000	9.000
498.00	501.00	3.00	0.000	16.000
501.00	504.00	3.00	0.000	3.000
504.00	507.00	3.00	0.000	185.000
507.00	510.00	3.00	0.000	66.000
510.00	513.00	3.00	0.000	255.000
513.00	516.00	3.00	0.000	500.000
516.00	519.00	3.00	0.033	1100.000
519.00	522.00	3.00	0.023	800.000
522.00	525.00	3.00	0.010	360.000
525.00	528.00	3.00	0.030	1000.000
528.00	529.50	1.50	0.123	4100.000
529.50	532.00	2.50	0.000	23.000
532.00	535.00	3.00	0.000	48.000
540.00	543.00	3.00	0.000	19.000
543.00	546.00	3.00	0.000	61.000
546.00	549.00	3.00	0.000	53.000
549.00	552.00	3.00	0.000	87.000
552.00	555.00	3.00	0.000	52.000
555.00	558.00	3.00	0.000	23.000
558.00	561.00	3.00	0.000	38.000
561.00	564.00	3.00	0.000	26.000
564.00	567.00	3.00	0.000	47.000

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 49

FROM	TO	WIDTH	Au opt	Au ppb
567.00	570.00	3.00	0.075	2500.000
570.00	573.00	3.00	0.028	1000.000
573.00	577.40	4.40	0.000	36.000
577.40	580.40	3.00	0.000	210.000
580.40	583.80	3.40	0.000	99.000
583.80	587.00	3.20	0.000	16.000
587.00	590.00	3.00	0.000	90.000
590.00	593.00	3.00	0.000	32.000
593.00	596.00	3.00	0.000	28.000
596.00	597.30	1.30	0.000	188.000
597.30	600.00	2.70	0.000	9.000
646.20	649.20	3.00	0.000	13.000
649.20	652.20	3.00	0.000	18.000
652.20	653.40	1.20	0.000	16.000
653.40	655.00	1.60	0.000	7.000
655.00	658.00	3.00	0.000	13.000
673.50	674.90	1.40	0.000	9.000
683.80	686.80	3.00	0.000	32.000
686.80	689.80	3.00	0.000	37.000
689.80	692.80	3.00	0.000	33.000
692.80	695.80	3.00	0.000	12.000
695.80	698.30	2.50	0.000	10.000
698.30	700.40	2.10	0.000	7.000
700.40	702.60	2.20	0.000	75.000
702.60	705.60	3.00	0.000	12.000
705.60	708.60	3.00	0.000	28.000
708.60	711.60	3.00	0.000	9.000
711.60	714.60	3.00	0.000	40.000
714.60	717.60	3.00	0.000	167.000
717.60	720.60	3.00	0.000	9.000
720.60	723.60	3.00	0.000	7.000
723.60	726.60	3.00	0.000	8.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 50
INSTRUMENT: TROPARI

DATE: NOV 87
SURVEY BY: TN

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	4750.000	600.000	1000.000
207.00	-49.00	172.00	4759.378	465.892	842.596
639.70	-47.00	170.00	4804.671	179.924	521.037

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No. : 50

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	7.50	4750.34	595.14	994.30	90
BASALT	8.30	4750.38	594.62	993.69	90
PORPHYRY	18.90	4750.86	587.76	985.63	90
BASALT	28.30	4751.28	581.67	978.48	90
PORPHYRY	32.20	4751.46	579.14	975.51	90
BASALT	144.90	4756.56	506.12	889.82	90
PORPHYRY	193.00	4758.74	474.96	853.24	90
MAFIC DYKE	239.30	4762.76	444.54	818.59	90
PORPHYRY	364.50	4775.86	361.80	725.55	90
MAFIC VOLC +	563.00	4796.64	230.61	578.04	90
PORPHYRY	581.00	4798.53	218.72	564.66	90
BASALT	639.70	4804.67	179.92	521.04	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 50

FROM	TO	WIDTH	Au opt	Au ppb
8.30	11.30	3.00	0.000	7.000
11.30	14.30	3.00	0.000	28.000
14.30	16.90	2.60	0.000	19.000
16.90	18.90	2.00	0.000	23.000
18.90	21.30	2.40	0.000	17.000
21.30	23.40	2.10	0.000	183.000
23.40	25.40	2.00	0.000	2.000
25.40	28.30	2.90	0.000	240.000
28.30	30.30	2.00	0.000	15.000
30.30	32.20	1.90	0.000	84.000
32.20	35.20	3.00	0.000	1.000
35.20	38.20	3.00	0.000	18.000
38.20	41.20	3.00	0.000	14.000
41.20	44.20	3.00	0.000	10.000
44.20	47.20	3.00	0.000	20.000
47.20	50.20	3.00	0.000	17.000
50.20	53.20	3.00	0.000	10.000
53.20	56.20	3.00	0.000	14.000
56.20	59.20	3.00	0.000	60.000
59.20	62.20	3.00	0.000	22.000
62.20	65.60	3.40	0.000	40.000
106.00	108.00	2.00	0.000	18.000
112.00	114.00	2.00	0.000	4.000
115.00	118.00	3.00	0.000	17.000
122.50	125.50	3.00	0.000	12.000
125.50	128.00	2.50	0.000	14.000
128.00	131.00	3.00	0.000	18.000
131.00	134.00	3.00	0.000	17.000
134.00	137.00	3.00	0.000	18.000
137.00	140.00	3.00	0.000	20.000
140.00	143.00	3.00	0.000	12.000
143.00	144.90	1.90	0.000	85.000
144.90	148.00	3.10	0.188	3600.000
148.00	151.00	3.00	0.093	2000.000
151.00	152.50	1.50	0.000	590.000
152.50	154.00	1.50	0.000	580.000
154.00	155.50	1.50	0.000	205.000
155.50	157.00	1.50	0.000	680.000
157.00	158.50	1.50	0.075	1650.000
158.50	160.00	1.50	0.000	68.000
160.00	161.50	1.50	0.000	44.000
161.50	164.00	2.50	0.000	17.000
164.00	167.00	3.00	0.000	2.000
167.00	170.00	3.00	0.000	30.000
170.00	173.00	3.00	0.000	8.000
173.00	176.00	3.00	0.000	3.000
176.00	178.60	2.60	0.000	218.000
181.10	184.60	3.50	0.000	7.000
184.60	186.00	1.40	0.000	12.000
239.30	242.00	2.70	0.000	42.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 50

FROM	TO	WIDTH	Au opt	Au ppb
242.00	245.00	3.00	0.000	155.000
245.00	248.00	3.00	0.000	102.000
248.00	251.00	3.00	0.000	22.000
251.00	254.00	3.00	0.000	35.000
254.00	257.00	3.00	0.000	22.000
257.00	260.00	3.00	0.000	18.000
260.00	263.00	3.00	0.000	43.000
263.00	266.00	3.00	0.000	15.000
266.00	269.00	3.00	0.000	30.000
269.00	272.00	3.00	0.000	7.000
272.00	275.00	3.00	0.000	230.000
275.00	278.00	3.00	0.000	3.000
278.00	281.00	3.00	0.000	5.000
281.00	284.00	3.00	0.000	2.000
284.00	287.00	3.00	0.000	41.000
287.00	290.00	3.00	0.000	152.000
290.00	293.00	3.00	0.000	80.000
293.00	296.00	3.00	0.000	7.000
296.00	299.00	3.00	0.000	50.000
299.00	302.00	3.00	0.000	2.000
302.00	305.10	3.10	0.000	7.000
306.90	310.00	3.10	0.000	14.000
310.00	313.00	3.00	0.000	22.000
313.00	316.00	3.00	0.000	490.000
316.00	319.00	3.00	0.000	22.000
319.00	322.00	3.00	0.000	12.000
322.00	325.00	3.00	0.000	15.000
325.00	328.00	3.00	0.000	18.000
328.00	331.00	3.00	0.000	25.000
331.00	334.00	3.00	0.000	17.000
334.00	337.00	3.00	0.000	22.000
337.00	340.00	3.00	0.000	15.000
340.00	343.00	3.00	0.000	110.000
343.00	346.00	3.00	0.000	38.000
346.00	349.00	3.00	0.000	35.000
349.00	352.00	3.00	0.000	36.000
352.00	355.00	3.00	0.000	145.000
355.00	358.00	3.00	0.000	80.000
358.00	361.00	3.00	0.000	60.000
361.00	364.50	3.50	0.000	430.000
364.50	367.00	2.50	0.000	72.000
367.00	370.00	3.00	0.030	1000.000
370.00	373.00	3.00	0.000	24.000
373.00	376.00	3.00	0.000	6.000
376.00	379.00	3.00	0.000	5.000
379.00	382.00	3.00	0.000	50.000
382.00	385.00	3.00	0.000	700.000
385.00	388.00	3.00	0.000	63.000
388.00	391.00	3.00	0.000	193.000
391.00	394.00	3.00	0.000	167.000

ASSAY LOG
PROPERTY: CL
HOLE [illegible]. : 50

FROM	TO	WIDTH	Au opt	Au ppb
394.00	397.00	3.00	0.000	280.000
397.00	400.00	3.00	0.000	720.000
400.00	403.00	3.00	0.163	3950.000
403.00	406.50	3.50	0.083	2250.000
407.50	410.00	2.50	0.000	137.000
410.00	413.00	3.00	0.000	530.000
413.00	416.00	3.00	0.000	700.000
416.00	419.00	3.00	0.000	730.000
419.00	422.00	3.00	0.039	1250.000
422.00	424.00	2.00	0.000	200.000
430.50	433.00	2.50	0.000	160.000
433.00	436.00	3.00	0.035	1150.000
436.00	437.50	1.50	0.029	1000.000
446.50	448.00	1.50	0.000	42.000
448.00	451.00	3.00	0.000	375.000
451.00	454.00	3.00	0.000	750.000
454.00	457.00	3.00	0.000	9.000
457.00	460.00	3.00	0.000	170.000
460.00	463.00	3.00	0.000	81.000
463.00	466.00	3.00	0.000	74.000
466.00	469.00	3.00	0.000	280.000
469.00	472.00	3.00	0.000	43.000
484.00	487.00	3.00	0.000	76.000
487.00	490.00	3.00	0.000	25.000
490.00	493.00	3.00	0.000	315.000
493.00	496.00	3.00	0.000	113.000
496.00	502.00	6.00	0.000	134.000
502.00	505.00	3.00	0.000	160.000
505.00	508.00	3.00	0.000	15.000
508.00	511.00	3.00	0.000	46.000
511.00	514.00	3.00	0.000	58.000
514.00	517.00	3.00	0.000	54.000
517.00	520.00	3.00	0.000	27.000
520.00	523.00	3.00	0.000	56.000
523.00	526.00	3.00	0.000	50.000
526.00	529.00	3.00	0.136	4100.000
529.00	532.00	3.00	0.000	210.000
532.00	535.00	3.00	0.000	29.000
535.00	538.00	3.00	0.000	54.000
548.00	551.00	3.00	0.000	47.000
551.00	554.00	3.00	0.000	93.000
560.00	563.00	3.00	0.000	52.000
563.00	566.00	3.00	0.000	9.000
566.00	567.50	1.50	0.000	16.000
567.50	570.20	2.70	0.000	37.000
570.20	573.20	3.00	0.000	32.000
573.20	576.20	3.00	0.000	37.000
576.20	579.20	3.00	0.000	275.000
579.20	581.00	1.80	0.000	66.000
581.00	584.00	3.00	0.000	34.000

ASSAY LOG
PROPERTY: CL
HOLE [illegible]o.: 50

FROM	TO	WIDTH	Au opt	Au ppb
584.00	587.00	3.00	0.000	48.000
623.00	626.00	3.00	0.000	29.000
626.00	629.00	3.00	0.000	20.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 51
INSTRUMENT: TROPARI

DATE: 11/08/87
SURVEY BY: R.C.

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	4140.000	-620.000	1000.000
140.00	-51.00	180.00	4140.000	-709.051	891.973
344.50	-50.00	185.00	4134.326	-839.005	734.175

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No. : 51

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
BASALT	42.00	4140.00	-646.72	967.59	60
BASALT/alt.	97.60	4140.00	-682.08	924.69	50
SULPHIDE ZON	101.80	4140.00	-684.75	921.45	90
BASALT/alt.	112.70	4140.00	-691.69	913.04	70
SHEAR ZONE	166.50	4139.26	-725.89	871.52	90
BASALT/alt.	191.00	4138.58	-741.46	852.62	60
BASALT	344.50	4134.33	-839.01	734.18	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 51

FROM	TO	WIDTH	Au opt	Au ppb
39.00	42.00	3.00	0.000	4.000
42.00	45.00	3.00	0.000	12.000
45.00	48.00	3.00	0.000	5.000
48.00	51.00	3.00	0.000	30.000
51.00	54.00	3.00	0.000	72.000
54.00	57.00	3.00	0.000	63.000
57.00	60.00	3.00	0.000	31.000
60.00	63.00	3.00	0.000	47.000
63.00	66.00	3.00	0.000	24.000
66.00	69.00	3.00	0.000	30.000
69.00	72.00	3.00	0.000	36.000
72.00	75.00	3.00	0.000	37.000
75.00	78.00	3.00	0.000	18.000
78.00	81.00	3.00	0.000	10.000
81.00	84.00	3.00	0.000	11.000
84.00	87.00	3.00	0.000	9.000
87.00	89.40	2.40	0.000	32.000
89.40	91.00	1.60	0.000	24.000
91.00	94.00	3.00	0.000	10.000
94.00	97.60	3.60	0.000	21.000
97.60	99.00	1.40	0.000	285.000
99.00	100.50	1.50	0.000	121.000
100.50	101.80	1.30	0.000	73.000
101.80	104.00	2.20	0.000	26.000
104.00	107.00	3.00	0.000	34.000
107.00	110.00	3.00	0.000	11.000
110.00	112.70	2.70	0.000	36.000
112.70	115.00	2.30	0.000	8.000
115.00	117.00	2.00	0.000	8.000
117.00	119.00	2.00	0.000	19.000
119.00	120.50	1.50	0.000	9.000
120.50	122.00	1.50	0.000	2.000
122.00	123.50	1.50	0.000	58.000
123.50	125.00	1.50	0.000	4.000
125.00	128.00	3.00	0.000	6.000
128.00	130.00	2.00	0.000	3.000
130.00	132.00	2.00	0.116	2700.000
132.00	134.00	2.00	0.000	325.000
134.00	136.00	2.00	0.000	47.000
136.00	138.00	2.00	0.000	415.000
138.00	140.00	2.00	0.000	106.000
140.00	142.00	2.00	0.000	21.000
142.00	144.00	2.00	0.000	84.000
144.00	146.00	2.00	0.000	105.000
146.00	148.00	2.00	0.000	285.000
148.00	150.00	2.00	0.000	28.000
150.00	152.00	2.00	0.000	15.000
152.00	154.00	2.00	0.046	1030.000
154.00	156.00	2.00	0.053	1200.000
156.00	158.00	2.00	0.029	660.000

ASSAY LOG
PROPERTY: CL
HOLE No.: 51

FROM	TO	WIDTH	Au opt	Au ppb
158.00	160.00	2.00	0.000	250.000
160.00	162.00	2.00	0.000	33.000
162.00	164.00	2.00	0.000	305.000
164.00	166.50	2.50	0.000	390.000
166.50	168.00	1.50	0.000	12.000
168.00	170.00	2.00	0.000	15.000
170.00	173.00	3.00	0.000	16.000
173.00	176.00	3.00	0.000	13.000
176.00	179.00	3.00	0.000	10.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 52
INSTRUMENT: TROPARI

DATE: 11/08/87
SURVEY BY: R.C.

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	4140.000	-850.000	1000.000
138.00	-50.00	182.00	4138.452	-938.691	894.286
393.70	-48.00	187.00	4125.290	-1105.928	701.307

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE [illegible]o. : 52

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	28.30	4139.68	-868.19	978.32	90
BASALT	356.60	4127.20	-1081.66	729.31	90
BASALT/alt.	385.80	4125.70	-1100.76	707.27	50
BASALT	393.70	4125.29	-1105.93	701.31	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE [illegible]o.: 52

FROM	TO	WIDTH	Au opt	Au ppb
47.00	48.50	1.50	0.000	13.000
119.00	120.50	1.50	0.000	1.000
146.00	147.50	1.50	0.000	7.000
147.50	149.00	1.50	0.000	6.000
152.00	153.50	1.50	0.000	10.000
189.50	192.50	3.00	0.000	12.000
352.00	354.00	2.00	0.000	69.000
354.00	356.60	2.60	0.000	23.000
356.60	359.00	2.40	0.000	22.000
359.00	362.00	3.00	0.000	32.000
362.00	365.00	3.00	0.000	37.000
365.00	368.00	3.00	0.000	218.000
368.00	371.00	3.00	0.000	395.000
371.00	374.00	3.00	0.000	28.000
374.00	377.00	3.00	0.000	90.000
377.00	380.00	3.00	0.000	66.000
380.00	383.00	3.00	0.000	28.000
383.00	385.80	2.80	0.000	57.000
385.80	387.00	1.20	0.000	44.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 53
INSTRUMENT: TROPARI

DATE: 11/08/87
SURVEY BY: R.C.

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	4140.000	-1090.000	1000.000
147.00	-49.00	186.00	4135.004	-1185.338	888.220
325.00	-47.00	194.00	4114.321	-1302.634	755.941
521.70	-44.00	202.00	4071.717	-1433.755	615.644

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 53

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	23.00	4139.22	-1104.92	982.51	50
BASALT	201.50	4128.67	-1221.25	847.72	50
BASALT/alt.	254.00	4122.57	-1255.85	808.70	50
BASALT/sh	271.50	4120.54	-1267.38	795.70	50
QTZ VEIN	274.90	4120.14	-1269.62	793.17	50
PORPHYRY	312.30	4115.80	-1294.26	765.38	50
QTZ VEIN	318.20	4115.11	-1298.15	760.99	50
BASALT/alt.	350.00	4108.91	-1319.30	738.11	50
BASALT/sh	424.00	4092.88	-1368.63	685.33	50
BASALT	521.70	4071.72	-1433.75	615.64	50

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 53

FROM	TO	WIDTH	Au opt	Au ppb
61.00	62.50	1.50	0.000	13.000
71.00	72.10	1.10	0.000	14.000
93.00	94.00	1.00	0.000	12.000
118.00	119.00	1.00	0.000	25.000
131.00	133.00	2.00	0.000	10.000
235.00	238.00	3.00	0.000	16.000
238.00	239.20	1.20	0.000	29.000
239.20	242.20	3.00	0.000	21.000
242.20	244.00	1.80	0.000	13.000
244.00	247.00	3.00	0.513	9700.000
247.00	250.00	3.00	0.000	680.000
250.00	253.00	3.00	0.000	300.000
253.00	256.00	3.00	0.000	445.000
256.00	259.00	3.00	0.000	153.000
259.00	262.00	3.00	0.000	295.000
262.00	265.00	3.00	0.000	152.000
265.00	268.00	3.00	0.000	24.000
268.00	271.60	3.60	0.000	67.000
271.60	273.10	1.50	0.000	73.000
273.10	274.90	1.80	0.000	52.000
274.90	277.90	3.00	0.000	55.000
277.90	280.90	3.00	0.000	55.000
280.90	283.90	3.00	0.000	16.000
283.90	286.90	3.00	0.000	30.000
286.90	289.90	3.00	0.000	18.000
289.90	292.90	3.00	0.000	16.000
292.90	295.90	3.00	0.000	29.000
295.90	298.90	3.00	0.000	19.000
298.90	301.90	3.00	0.000	22.000
301.90	304.90	3.00	0.000	37.000
304.90	307.90	3.00	0.000	72.000
307.90	310.90	3.00	0.000	33.000
310.90	312.50	1.60	0.000	82.000
312.50	314.00	1.50	0.000	39.000
314.00	315.50	1.50	0.000	18.000
315.50	317.00	1.50	0.000	34.000
317.00	318.20	1.20	0.000	45.000
318.20	321.20	3.00	0.000	44.000
321.20	324.20	3.00	0.000	43.000
324.20	327.00	2.80	0.000	15.000
327.00	330.00	3.00	0.000	300.000
330.00	331.50	1.50	0.000	35.000
331.50	333.00	1.50	0.000	18.000
333.00	336.00	3.00	0.000	5.000
336.00	339.00	3.00	0.000	10.000
339.00	341.00	2.00	0.000	9.000
341.00	342.50	1.50	0.000	30.000
342.50	345.00	2.50	0.000	5.000
345.00	346.50	1.50	0.000	22.000
346.50	348.50	2.00	0.000	8.000

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No.: 53

FROM	TO	WIDTH	Au opt	Au ppb
348.50	350.00	1.50	0.000	16.000
350.00	352.50	2.50	0.000	42.000
352.50	355.00	2.50	0.000	24.000
355.00	358.00	3.00	0.000	118.000
358.00	361.00	3.00	0.000	76.000
361.00	364.00	3.00	0.000	245.000
364.00	367.00	3.00	0.000	45.000
367.00	370.00	3.00	0.000	23.000
370.00	373.00	3.00	0.000	50.000
373.00	376.00	3.00	0.000	24.000
376.00	379.00	3.00	0.000	8.000
379.00	382.00	3.00	0.000	15.000
382.00	385.00	3.00	0.000	18.000
385.00	388.00	3.00	0.000	9.000
388.00	391.00	3.00	0.000	10.000
391.00	394.00	3.00	0.000	2.000
394.00	397.00	3.00	0.000	2.000
397.00	400.00	3.00	0.000	3.000
400.00	403.00	3.00	0.000	7.000
403.00	406.00	3.00	0.000	9.000
406.00	409.00	3.00	0.000	2.000
409.00	412.00	3.00	0.000	5.000
412.00	415.00	3.00	0.000	4.000
415.00	418.00	3.00	0.000	2.000
418.00	421.00	3.00	0.000	11.000
421.00	424.00	3.00	0.000	5.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 54
INSTRUMENT: TROPARI

DATE: NOV. 87
SURVEY BY: TN

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	4310.000	-410.000	1000.000
115.00	-50.00	183.00	4308.065	-483.895	911.905
328.00	-46.00	177.00	4308.065	-626.420	753.615
393.70	-46.00	177.00	4310.454	-671.997	706.354

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 54

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	16.40	4309.72	-420.54	987.44	90
ALT BASALT P	224.90	4308.06	-557.43	830.23	60
ALT PORPH	238.90	4308.06	-566.80	819.83	40
BASALT	257.80	4308.06	-579.45	805.78	90
SHEAR ZONE	302.60	4308.06	-609.42	772.49	50
ALT BASALT	330.20	4308.14	-627.95	752.03	50
BASALT	393.70	4310.45	-672.00	706.35	90

** BORSURV **

ASSAY LOG
PROPERTY: CL
HOLE No. : 54

FROM	TO	WIDTH	Au opt	Au ppb
16.40	19.00	2.60	0.000	8.000
19.00	22.00	3.00	0.000	14.000
22.00	25.00	3.00	0.000	5.000
25.00	28.00	3.00	0.000	33.000
28.00	31.00	3.00	0.000	5.000
31.00	34.00	3.00	0.000	18.000
34.00	37.00	3.00	0.000	5.000
37.00	40.00	3.00	0.000	2.000
40.00	43.00	3.00	0.000	8.000
43.00	46.00	3.00	0.000	7.000
46.00	49.00	3.00	0.000	15.000
76.50	78.00	1.50	0.000	10.000
85.50	88.50	3.00	0.000	28.000
88.50	91.00	2.50	0.000	3.000
91.00	93.00	2.00	0.000	3.000
93.00	95.10	2.10	0.000	12.000
95.10	98.00	2.90	0.000	10.000
98.00	100.10	2.10	0.000	45.000
100.10	101.50	1.40	0.000	7.000
101.50	104.00	2.50	0.000	2.000
150.00	152.40	2.40	0.000	9.000
152.40	154.00	1.60	0.000	10.000
154.00	156.80	2.80	0.000	17.000
156.80	159.00	2.20	0.000	9.000
159.00	162.40	3.40	0.000	2.000
162.40	164.00	1.60	0.000	3.000
164.00	166.00	2.00	0.000	4.000
166.00	168.00	2.00	0.000	2.000
168.00	170.60	2.60	0.000	4.000
170.60	172.00	1.40	0.000	30.000
172.00	175.00	3.00	0.000	4.000
194.00	195.00	1.00	0.000	7.000
208.00	210.00	2.00	0.000	15.000
210.00	211.90	1.90	0.000	5.000
211.90	212.50	0.60	0.000	2.000
212.50	215.00	2.50	0.000	5.000
219.00	220.50	1.50	0.000	23.000
220.50	222.50	2.00	0.000	10.000
222.50	224.90	2.40	0.000	2.000
224.90	228.00	3.10	0.000	9.000
228.00	231.00	3.00	0.000	26.000
231.00	234.00	3.00	0.000	7.000
234.00	237.00	3.00	0.000	2.000
237.00	238.90	1.90	0.000	3.000
238.90	242.00	3.10	0.000	2.000
255.00	257.80	2.80	0.000	5.000
257.80	259.20	1.40	0.000	2.000
259.20	262.00	2.80	0.000	108.000
262.00	264.00	2.00	0.000	56.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 55
INSTRUMENT: TROPARI

DATE: NOV. 87
SURVEY BY: TN

DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	4380.000	735.000	1000.000
79.00	-49.00	182.50	4378.881	683.706	939.928
334.70	-48.00	174.00	4384.055	514.353	748.420

** BORSURV **

SUMMARY LITHO LOG

PROPERTY: CL

HOLE No.: 55

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	9.50	4379.87	728.83	992.78	90
MAFIC DYKE	52.00	4379.26	701.24	960.46	90
BASALT	107.20	4379.45	665.03	918.81	90
PORPHYRY	112.20	4379.55	661.72	915.06	90
BASALT	193.70	4381.20	607.74	854.02	90
ALT BASALT	290.70	4383.16	543.49	781.37	90
PORPHYRY	295.40	4383.26	540.38	777.85	90
BASALT	320.00	4383.76	524.09	759.43	90
SHEAR ZONE	334.70	4384.05	514.35	748.42	90

** BORSURV **

ASSAY LOG

PROPERTY: CL
HOLE [illegible]. : 55

FROM	TO	WIDTH	OPT	PPB
104.00	107.20	3.20	0.000	92.000
107.20	110.20	3.00	0.000	195.000
110.20	112.20	2.00	0.000	39.000
112.20	115.20	3.00	0.000	18.000
141.00	193.70	52.70	0.000	16.000
193.70	197.00	3.30	0.000	379.000
197.00	200.00	3.00	0.000	9.000
238.00	241.00	3.00	0.029	1000.000
241.00	242.50	1.50	0.000	270.000
246.00	249.00	3.00	0.052	1185.000
249.00	250.40	1.40	0.000	520.000
250.40	253.00	2.60	0.000	6.000
253.00	255.00	2.00	0.000	27.000
262.00	264.00	2.00	0.000	29.000
264.00	266.40	2.40	0.000	310.000
266.40	269.40	3.00	0.000	30.000
272.00	274.90	2.90	0.000	128.000
274.90	275.80	0.90	0.350	10000.000
275.80	278.00	2.20	0.000	49.000
289.00	290.70	1.70	0.000	295.000
290.70	293.00	2.30	0.000	41.000
293.00	295.40	2.40	0.000	64.000
295.40	297.00	1.60	0.000	26.000
318.60	320.00	1.40	0.000	290.000
320.00	323.00	3.00	0.000	92.000
323.00	326.00	3.00	0.000	25.000
326.00	329.00	3.00	0.000	16.000
329.00	332.00	3.00	0.000	24.000
332.00	334.70	2.70	0.000	107.000

APPENDIX II

STATEMENT OF EXPENDITURES

CLINE LAKE PROJECT

FOR THE PERIOD MARCH 18, 1986 TO DECEMBER 31, 1987

	1986 EXPENDITURES	1987 EXPENDITURES		TOTAL
Technical Studies	2,443.39	0	=	2,443.39
Property Maintenance	733.90	0	=	733.90
Geology	11,524.89	0	=	11,524.89
Geophysics	17,097.14	17,374.06	=	34,471.20
Geochemistry	6,627.53	0	=	6,627.53
Trenching	46,079.39	36,019.21	=	82,098.60
Diamond Drilling	216,248.54	417,943.90	=	634,192.44
Camp Costs	0	3,744.84	=	3,744.84
Total Expenditures	300,754.78	475,082.01		775,836.79
Management Fees				116,375.58
Total Project Expenditures				$892,212.37

		EXPENDITURES	MANAGEMENT FEE	YEARLY EXPENDITURES	TOTAL PROJECT EXPENDITURES
Norex	1986	180,837.32	27,125.60	207,962.92	
	1987	0	0	0	$207,962.92
Freewest	1986	119,917.46	17,987.62	137,905.08	
	1987	303,877.74	45,581.72	349,459.46	$487,364.54
Cline	1986	0	0	0	
	1987	171,204.27	25,680.64	196,884.91	$196,884.91
					$892,212.37

APPENDIX III

CLINE PROJECT

1988 PROPOSAL

Drilling on the Cline Lake property to date has identified an auriferous quartz porphyry unit in contact with mafic volcanics. This porphyry unit has been traced across the northern portion of the property. To the south of this area a mineralized shear zone containing pyrite, chalcopyrite, sphalerite and extensive quartz veining has been located. This shear zone contains anomalous to ore grade intercepts of gold over short sections. Recent geophysical surveys and trenching have identified further untested geologically interesting areas which also require drill testing in 1988.

The following proposals are made in the light of findings to date, each area will be treated separately for convenience.

Lake Zone - Auriferous Quartz Porphyry

Location	Azimuth	Dip	Depth	Purpose
2768E/970N	180°	-50°	1100'	to test depth extension of high grade intercept
2960E/1050N	180°	-50°	1100'	to test porphyry at depth
3220E/1050N	180°	-50°	1100'	as above
3480E/1150N	180°	-50°	1100'	to test high grade intercept at depth
			4400'	

All holes on the lake zone will test auriferous porphyry unit at depth.

Cline Lake - West of Lake Zone

The following holes are to test western extension of lake zone under Cline Lake.

Location	Azimuth	Dip	Depth	Purpose
1960E/790N	180°	-50°	700	To test western extension of Lake Zone
2160E/790N	180°	-50°	700	
2360E/790N	180°	-50°	700	
2560E/790N	180°	-50°	700	
			2800'	

East of Lake Zone

Location	Azimuth	Dip	Depth	Purpose
4605E/670N	180°	-50°	800'	To test dip extension of high grade gold intercepts
4705E/705N	180°	-50°	800'	As above
4380E/735N (#55)	180°	-50°	600'	As above
			2200'	

"Goudreau Shear"

4800E/400S	180°	-50°	500'	To check strike extension of Goudreau Shear quartz veining
5050E/300S	180°	-50°	500'	As above
4140E/850S (CL-87-52)	180°	-50°	400'	Extend hole 52 to test high grade intercept down dip
4140E/320S	180°	-50°	700'	To test Goudreau Shear at depth, and test down dip extension of good grade gold
			2100'	

Total allocated footage 11,500 feet.

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. _____ OF _____

LATITUDE 7 + 90N

DEPARTURE 4 + 66E

ELEVATION SURFACE 1000 ft

DIP AT COLLAR -50° BEARING 180° (T)

TOTAL DEPTH 59' CORE SIZE BQ

CORE STORAGE TIMMINS

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing

Project No. 291 Hole No. CL-87-28

Property CLINE LAKE

NTS. _____ TWP. JACOBSON Claim No. SSM 2185

Date started AUGUST 4, 1987 completed AUGUST 4, 1987

Contractor ST. LAMBERT

Logged by ROBERT CALHOUN

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-Surface 49.2 Overburden	Heavy boulder till, 1-2' boulders, sand.			
59.0 Andesite	Fine grained, dk green, fractured numerous voids in drilling, amygdules. Lineations 60 deg. to core axis.	Chlorite Qtz veining - white bull qtz veining. Qtz with minor associated carbonatism-ankerite?	Py 1-5% associated with	
59 EOH	Hole lost due to broken corebarrel.			

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 2

LATITUDE: 8 + 00N
DEPARTURE: 4 + 66E
ELEVATION: SURFACE 1000 ft
DIP AT COLLAR: -52° BEARING: 180°
TOTAL DEPTH: 359.1 CORE SIZE: BQ
CORE STORAGE: TIMMINS
REMARKS:

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
196.8	-48°		
354.0	-43°		

Project No. 291 Hole No. CL-87-28A
Property: CLINE LAKE
NTS. TWP. JACOBSON Claim No. SSM 2185
Date started: AUGUST 4, 1987 completed: AUGUST 7, 1987
Contractor: ST. LAMBERT DRILLING
Logged by: ROBERT CALHOUN

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-Surface 49.2-359.1 Overburden Andesite	Boulders, 1-2'.Sand Fine to med. grained, light to dark green, lineated, -60 deg. to C.A., amygduloidal, calcite filled minor calcite "layering". 78.7-84.3 : light green grey, silicified harder groundmass - qtz eye porphyry, sericitized, qtz eyes to 2mm blue overcast, minor andesite bands.	Chlorite, carbonatized, minor silicification as noted- 78.7-84.3	generally 1-3% pyrite as euhedral grains minor veinlets. 78.7-84.3 : pyrite to 10% associated with qtz veining especially 83.0-84.3 possible cpy?	
	84.3-110 : slightly coarser grained lighter green. 110 -231 : dk green, med. grained varying grain size, concentrated amygdules. 135 -140.5 : give core dappled appearance. Qtz carbonate veining to 10-15% with minor pyrite sulfides, various angles mainly 70-80 deg. to core axis. 156.3-158.1 : qtz vein, upper contact 70 deg. to core axis, bottom crushed.	Chlorite-carbonated/ qtz veining 15% / 5% Chloritized more heavy Chlorite, minor epidote	Pyrite slightly less <1-2% Pyrite minor generally 110 Pyrite,cpy,po, minor sph. mainly py to 157.3, po cpy blebs to 158.1-sulphides 25% of section, fine to med. grained cpy blebs 5mm	3 foot section taken either side of vein
	231-232 : felsic porphyry - med. grey green minor chlorite/sericite. Lower contact 30 deg. to core axis. - Small black qtz eyes.		section, fine to med. grained. cpy blebs 5mm	
	234.8-237.6 : Intermediate felsic tuff- intercolated at upper contact with andesite tuffs for 6" . Contact 70 deg. to core axis minor to 3% qtz veining.	Chlorite/sericite	Pyrite 1-2% overall with small veinlets 1-2" wide associated with qtz veining in 234.8 to 235.4	

A.P. 14084

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 2

LATITUDE 8 + 00N

DEPARTURE 4 + 66E

ELEVATION SURFACE 1000 ft

DIP AT COLLAR -52° BEARING 180°

TOTAL DEPTH 359.1 CORE SIZE BQ

CORE STORAGE TIMMINS

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
196.8	-48°		
354.0	-43°		

Project No. 291 Hole No. CL-87-28A

Property CLINE LAKE

NTS. TWP. JACOBSON Claim No. SSM 2185

Date started AUGUST 4, 1987 completed AUGUST 7, 1987

Contractor ST. LAMBERT DRILLING

Logged by ROBERT CALHOUN

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-Surface 49.2-359.1 Overburden Andesite	Boulders, 1-2'.Sand Fine to med. grained, light to dark green, lineated, -60 deg. to C.A., amygduloidal, calcite filled minor calcite "layering". 78.7-84.3 : light green grey, silicified harder groundmass - qtz eye porphyry, sericitized, qtz eyes to 2mm blue overcast, minor andesite bands.	Chlorite, carbonatized, minor silicification as noted- 78.7-84.3	generally 1-3% pyrite as euhedral grains minor veinlets. 78.7-84.3 : pyrite to 10% associated with qtz veining especially 83.0-84.3 possible cpy?	
	84.3-110 : slightly coarser grained lighter green. 110 -231 : dk green, med. grained varying grain size, concentrated amygdules. 135 -140.5 : give core dappled appearance. Qtz carbonate veining to 10-15% with minor pyrite sulfides, various angles mainly 70-80 deg. to core axis.	Chlorite-carbonated/ qtz veining 15% / 5% Chloritized more heavy Chlorite, minor epidote	Pyrite slightly less <1-2% Pyrite minor generally 110	
	156.3-158.1 : qtz vein, upper contact 70 deg. to core axis, bottom crushed.		Pyrite,cpy,po, minor sph. mainly py to 157.3, po cpy blebs to 158.1-sulphides 25% of section, fine to med. grained cpy blebs 5mm section, fine to med. grained. cpy blebs 5mm	3 foot section taken either side of vein
	231-232 : felsic porphyry - med. grey green minor chlorite/sericite. Lower contact 30 deg. to core axis. - Small black qtz eyes.			
	234.8-237.6 : Intermediate felsic tuff-intercolated at upper contact with andesite tuffs for 6" . Contact 70 deg. to core axis minor to 3% qtz veining.	Chlorite/sericite	Pyrite 1-2% overall with small veinlets 1-2" wide associated with qtz veining in 234.8 to 235.4	

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 9

LATITUDE: 10+28N
DEPARTURE: L8+20E
ELEVATION: Surface
DIP AT COLLAR: -50° BEARING: 180°
TOTAL DEPTH: 433.1' CORE SIZE: BQ
CORE STORAGE: Aunor Minesite - Timmins
REMARKS:

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
98'	-46°	180½°	173½
~~295'~~	~~-42½°~~	~~183½°~~	~~176½~~
426'	-38°	186½°	179½

Project No.: 291 Hole No.: CL87-29A
Property: Cline Lake
NTS.: TWP.: Jacobson Claim No.: SSM 2185
Date started: Sept. 8/87 completed: Sept. 10/87
Contractor: St. Lambert
Logged by: W. Corstorphine

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-40.00 **Overburden**	32.0-40.0 - cored boulders, bedrock at 40.0'			
40.0-128.3 **Andesite**	-foliated, fine-grained medium to dark green with faint pale flecking; weathered look in upper part -near schistose; frequent limonitic stains on fractures. Core quite blocky			This volcanic is mafic Basalt rather than andesite
	40.0-46.2: foliated andesite			Fol'n 70 deg at 44.0'
	46.2-47.4: silicified andesite, shear banded, altered to medium grey colour with numerous pale whitish grey quartz/carbonate veinlets in plane of shearing	Carbonatized, silicified	Sparse py, heavy lins. of limonite at 46.9 Possibly massive sulphide	Fol'n/banding/shearing 50-55 at 46.8'
	47.4-50.4: white to pink quartzo-feldspathic veining. Coarse, massive quartz and feldspar (hard) 47.4-47.9: quartz-feldspar with trace py 47.9-49.2: heavily silicified andesite, quartz-feldspar vein running subparallel to C.A. 49.2-49.8: quartz vein as at 47.4-47.9 49.8-50.0: andesite, buffish cast	Silicification	Tr py locally in vein material	
	50.0-50.4: finely laminated blackish grey schist with quartz/carb lenses and veinlets		1% diss py in adjacent andesite at L.C.	Banding/shearing 85 deg at 50.3'

P.A.P. - 14064

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 2 OF 9

Project No. 291 Hole No. CL87-29A

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	50.5-62.9: foliated andesite, minor narrow qtz/carb veinlets, homogeneous			
	62.9-64.8: Zone of shearing and alteration with narrow altered quartz porphyry			Fol'n 70 deg @ 59.3'
	62.9-63.5: shear banded andesite with several smsv po bands 2 to 3mm thick -Green to grey colour, some quartz/carb vein material	silicified	10% smsv and diss po	banding,fol'n 70 deg at 63.2'
	63.5-63.8: grey to greenish and buff grey, fine-grained groundmass. Qtz "eyes" augen shaped, appear altered. U.C. sharp 70 deg LC. indistinct			
	63.8-64.8: altered andesite, medium greenish grey. Limonitic shearing at LC	sericitized, silicified	tr -2% po	
	65.1-69.6: foliated andesite as 50.5-62.9			
	69.6-72.3: Quartz/ankerite veins, altered andesite	silicification, sericitization		
	69.6-72.3: multiple qtz/ankerite veinlets averaging 5 to 10mm separated by darker, py and po rich bands up to 2cm thick. Banding 70 deg to C.A.		20% diss and smsv po and py	
	70.1-71.6: finely laminated, altered andesite. Banding due to alteration and shear effects -colour medium to dark grey, becomes more andesitic in appearance towards 71.6		nil - tr py	
	71.6-72.3: quartz veins, white quartz with buff white ankerite -Initial .3' banded with andesite		nil - tr py	

PAP - E1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 3 OF 9

Project No. 291 Hole No. CL87-29A

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	72.3-128.3: foliated andesite as 50.5-62.9 etc -homogeneous with green ground mass and pale carbonate flecking of variable intensity		nil to tr sulphides	
	84.0-87.0: increase in thin qtz/carb lenses, with qtz/carb vein at 86.8		nil py	
	87.0-128.3: foliated andesite grading into more massive texture after 113.0' -Magnetite develops in groundmass at about 95.0 and continues to 128.3			
	-lower contact of andesite unit is sharp at 40 deg to C.A.			
128.3-152.5 **Quartz Porphyry**	-grey to greenish grey, fine-grained to aphanitic groundmass of massive to foliated fabric -dark green chlorite grains fleck porphyry within .5' of contacts		tr py	
	-quartz phenocrysts blend into groundmass; have slight bluish tinge and range up to 3mm in size -texture of groundmass is finely mottled green/grey			porphyry has high chlorite component
	-minor qtz-carb veinlets 1% -one 1cm thick white qv at 131.0 with hosting porphyry altering to pale grey at contacts, trace py		tr py	
	-q.v. at 150.5, heavy green chlorite patches, trace py		tr py	

PAP - E-1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 4 OF 9

Project No. 291 Hole No. CL87-29A

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	-L.C. sharp 60 deg to C.A.			groundmass aphanitic at UC and LC
152.5-225.3 Mafic Volcanics (pillowed flows)	-fine-grained, generally massive -dark green with pistachio green cast from epidote in groundmass -inhomogeneous through section due to periodic development of amygdules?, flow structures and local foliation -normal compliment of thin qtz - qtz/carb veinlets; no associated sulphides -magnetic throughout; distinct magnetite crystals -some sections appear to have selvage-like structures suggesting pillowed flows 196.7-198.6: andesite dyke -fine, even texture, massive -medium greyish green 198.6-208.5: mafic volcanic flows(?) 208.5-209.9: andesite dyke as 196.7-198.6 209.9-214.0: mafic volcanic flow(s)	epidote	tr py, local.-spks	This volcanic is distinctly different in appearance from that above the porphyry although both are magnetite bearing
	214.0-215.1: sericitic, silicified shear -grey and green cloudy banding of silica and chloritic volcanic grading into pale green buff sericitic schist	sericitic shear	1-3% diss py, smsv lens.	
	215.1-217.5: foliated mafic volcanic 217.5-225.3: mafic volcanic, finely textured -L.C. sharp 70 deg to C.A.			

PAP-E1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 5 OF 9

Project No. 291 Hole No. CL87-29A

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
225.3-232.9 **Quartz Porphyry (altered)**	-medium grey to buff grey where sericitic -fine-grained to very fine-grained groundmass -subrounded to subangular quartz phenocrysts 5%, up to 3mm in size strongly foliated to schistose fabric -no strong shear in husting volcanic -L.C. 70% to C.A., f-8 py in contact zone	sericitic	trace diss py	schistosity 60° to C.A. at 232.5
232.9-251.7 **Mafic Volcanic**	-dark green, fine-grained, even texture -weakly magnetic locally -finely foliated to massive -occasional white feldspar phenocryst/ amygdule -water seam 246.0 -L.C. distinct		tr py	
251.7-260.9 **Alteration Zone Quartz/ Sericite/ Ankerite**	-grades from shear banded volcanic with quartz veinlets parallel to fabric into grey, sericitized and silicified, sheared volcanic -short pale grey band of sediment @ 252.5, sharp contacts, banded, minor magnetite. Core angles 65 deg. Band about .15' thick. 254.0-255.9: 20% quartz veining with py	sericitized, carbonatized	1-5% diss py 5-8% diss py overall	 py mainly in volcanic lenses. between qtz lense
	255.9-259.0: shear banded, silicified volcanic 259.0-260.9: 25% quartz veining with py		tr py	 py mainly in volcanic lenses between qtz lens

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 6 OF 9

Project No. 291 Hole No. CL87-29A

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	-L.C. of altered zone is sharp at 75 deg			
260.9-291.0 **Quartz Porphyry**	-medium grey, very fine-grained groundmass of massive to locally foliate texture -grey quartz phenocrysts are subrounded, 1-3mm in size and 3-5% concentration -occasional, narrow quartz/carb veinlets with pale sericitic or bleaching alteration of porphyry ± black, irregular microlaminae of tourmaline or chlorite -major veinlets as follows. 262.9: 0.1 qtz/carb/tourmaline? veinlet 283.3: 0.1 qtz/carb/tourmaline? veinlet 288.6: 0.15 qtz/carb/chlorite veinlet -L.C. broken core		tr py nil - tr py nil - tr py nil - tr py	essentially unaltered porphyy
291.0-310.0 **Mafic Volcanic**	-fine-grained, green, weakly foliated -non magnetic 292.5-295.5: sheared, silicified volcanic -irregular qtz/ankerite vein from 292.5-293.5 -remaining section lenses and blebs of grey white qtz/carb in foliated volcanic 292.3-292.5: quartz porphyry, contacts sharp 297.1-297.5: aphanitic, foliated quartz porphyry (rhyolitic), medium grey. Distinct green 1-2mm chlorite blebs throughout - 10% -Contacts sharp 60 deg to C.A. 306.9: qtz/carb veinlet with 5-8% diss py across 0.3'		tr-2% diss py, mainly as small crystals 5-8% diss py	

PAP - E1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 7 OF 9

Project No. 291 Hole No. CL87-29A

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	309.3-309.5: msv py lens of irregular form - Associated with qtz/carb vein		50% msv py	
310.0-312.3 Quartz Porphyry	-dark to light grey, aphanitic groundmass -3%, 1mm rounded to subangular quartz phenocrysts -foliated -paler section possibly sericitic -U.C. sheared, L.C. sharp 60 deg to C.A.		nil - tr py	
312.3-340.3 Mafic Volcanic	-dark green, fine-grained, foliated, locally sheared -occasional white carbonate blebs up to 1cm			
	315.3-315.7: 1" quartz vein with paler greenish grey to grey alteration borders with 10-15% po. Thin, black, msv magnetite lenses set in altered border		10-15% po	
	315.8-317.8: <u>quartz porphyry</u> -medium grey, fine-grained -weakly to strongly foliated -sparse bluish quartz phenocrysts up to 2mm		nil to tr py	
	317.8-323.2: fine-grained volcanic			
	323.2-323.8: silicified quartz porphyry -foliated, hard -dark pinkish grey groundmass -3% green chlorite blebs -2% quartz phenocrysts - <1mm -cross cutting quartz/carbonate veinlets		nil to tr py	similar to 297.1-297.5
	323.8-340.3: mafic volcanic			

P.A.P. - E-1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 8 OF 9

Project No. 291 Hole No. CL87-29A

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	-foliated, fine-grained -L.C. sharp, minor diss py over last 0.5'. 70 deg to C.A.			
340.3-352.9 **Quartz Porphyry**	-medium grey, aphanitic groundmass with heavy microfracturing giving foliated -quartz phenocrysts average 1mm		tr - 1% diss py as 1-2mm crystals	
352.9-358.2 **Mafic Volcanic**	-foliated, fine-grained dark green groundmass streaked with thin grey/white quartz/carbonate veinlets giving banded look to core -core angles 60 deg at 356.0'		1-3% diss py as local concentrations	
358.2-359.9 **Quartz Vein**	-50% medium to dark grey quartz, white quartz veining at lower contact -grey quartz is highly fractured/ fragmented with sericitized, ankeritic volcanic of beige to greenish grey	silicification	1-3% diss py, some heavy concentrations over narrow widths	
359.9-367.6 **Mafic Volcanic**	-foliated to banded fabric -fine-grained, medium to dark green 359.9-363.1: banded section, inter-fingering grey green and dark green lenses -some qtz/carb veinlets	weak sericitization strong carbonatization	nil - tr py	
367.6-368.6 **Silicified Contact Zone**	-coarsely banded by white quartz, dark green chlorite, semi massive py and po, quartz/ankerite and some black magnetite -L.C. sharp	silicification	20% semimassive po and py overall	

PAP-E-1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 9 OF 9

Project No. 291 Hole No. CL87-29A

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
368.6-370.4 Quartz Porphyry	-medium to light grey to buffish grey (not strong) -foliated to sheared -some dark lensing within porphyry -3-5%, subrounded drk grey qtz phenocrysts up to 2-3mm -L.C. sheared over .2', water seam (limonite)	sericitic	nil to tr py	
370.4-433.1 Mafic Volcanic	-variably textured, from semi banded to foliated to massive. Locally magnetic. -grey green to green depending on visible carbonate in groundmass 370.4-380.0: grading from well banded to foliated, 5-8% carbonate -376.2-376.6 - silicified shear	qtz veinlets	5-8% smsv py	
	380.0-417.0: foliated volcanic			
	417.0-433.1: massive volcanic, some epidote in groundmass. Local shear banding over <1.0' intervals			
433.1	END OF HOLE			

PAP-E-1588

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 5

LATITUDE 9 + 18N

DEPARTURE 29 + 67E

ELEVATION SURFACE

DIP AT COLLAR -50° BEARING 180°

TOTAL DEPTH 778 CORE SIZE BQ

CORE STORAGE TIMMINS

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
98'	-48°		
295'	-45°		
492'	-43°		
639'	-41°		
778'	-37°		

Project No. 291 Hole No. CL-87-30

Property CLINE LAKE

NTS. TWP. JACOBSON Claim No. SSM 2186

Date started AUGUST 9, 1987 completed AUGUST 14, 1987

Contractor ST. LAMBERT

Logged by ROBERT CALHOUN

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0	Surface			
0-18.7	OB - Coarse boulders, sand.			
18.7-82.1	Andesite - dk green, fine to med. grained, massive in appearance, becoming layered banded towards end of section at 50 deg. to 60 deg. to core axis, qtz veining minor overall increasing slightly toward bottom of section. 81.8-82.1 :bleached, silicified section with limonate stain at 81.8 to 82.1.	Carbonated matrix and minor amygdules. Chlorite throughout.	Py <1% overall. Py 2-3% - 80.5 to 82.1, associated with qtz veining (white), pyrites as euhedral grains small veinlets.	
82.1-110	Andesite - Dk green, med. to coarse grained, containing stretched amygdules of calcite, with sections of bleached light grey silicified as 93.5-95.1, 97.5-99.3,104.1-105.8, with intercalated fine andesite as above.	Chlorite, carbonated matrix, silicified as noted.	Py- 1-2% overall with sections to 5% as noted. 91.6-95.1, 105.8-106.8	
110-115.3 Rhyolite	Very fine grained. Light grey, minor green overcast due to sericite in fractures, massive upper contact 55 deg. to core axis, small mafic section 113-113.7 - soft dark green, contact 35 deg. (lower) to core axis. Qtz/ankerite/calcite vein from 114.5-115.3, fractured.	Sericite/possibly silicified.	Py- minor to 1%.	
115.3-127.7 Andesite	Dk green, fine to med. grained. Core has speckled appearance with calcite amygdules. 125.7-127.7 : Banded with qtz carb veinlets @ 55 deg. to core axis.	Carb/Chlorite	125.7-127.7. Py 1-3% euhedral grains small veinlets.	

PAP. 14064

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-30

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
127.7-132 Felsic	Fine grained green (sericite) with reddish overcoat (rusty colour) layered, chlorated "metacrysts", minor qtz veining.		Minor py.	
132-265 Andesite	Fine to med. grained alternating, dk green with minor greyer sections where slightly to moderately siliceous, layered at top of section becoming massive qtz carbonate veining increased over previous sections random with main vein directions 60 to 90 deg. to core axis, some parallel, where layering banding increases mineralization increases. Mainly pyrite with very minor cpy, rock magnetic in coarse massive sections, banding @ 55 deg. to 60 deg. to core axis. 173.6 - 175 -siliceous section 187.7 - 192.0 -slightly to moderately siliceous. 196.5 - 200.6 -slightly siliceous with qtz veining. 210 - 222.4 -massive, med. green to light green, epidotized, fractures filled with hematite harder than above section slightly to moderately siliceous. Moderately to strongly magnetic. 222.4 - 229.3 -highly mineralized section contained in light grey (as above) to dk green andesite - qtz veining frequent. 229.3 - 241 - dk to med. green, with small siliceous layers qtz veining 5% ankerite/calcite -rock continues moderately magnetic. 241 - 257 - massive to banded -containing leucoxene blebs or calcite. Sulfides minor to 3% layering 55 deg. to core axis.	Chlorite, minor sericite. Minor epidotization. Carbonatized (calcite mainly). Chlorite/epidote/silica Siliceous: 223.9-229.3 Chlorite/silica/sericite Carb	Pyrite 1-2% overall with higher sections as follows: 161 -166, 2-3% py 170.6-175, 3-4% py 179.2-180.2 5% py 187.7-192.0 2-3% py 196.5-200.6 5-10% py minor flecks of cpy. 203.3-207.1 5% as small veinlets. 210-222.4 1-3% as euhedral grains and small veinlets. 222.4-223.1 -large blebs of chalcopyrite with pyrite possible po. 224.3-225.3- magnetite 70% with qtz veining. 225.3-229.3- 10% + py possible mag. 229.3-241.1- 1-3% py 241-257 -minor to 3%	As veinlets and euhedral grain associates with qtz veins.

PAP-E1888

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 3 OF 3

Project No. 291 Hole No. CL-87-30

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	257 - 265 - section becomes increasingly siliceous, with matrix silicified and qtz carb. veining . 257 - 258 - extensive ankerite.		257-265 - 10-15% py	
265-281.7 QTZ Porphyry	Fine grained, light to med. grey containing small qtz tourmaline veinlets with ankerite in the matrix. Tourmaline on fracture planes bleached at contact.	Siliceous, carb.	265-281.7 -1-3% py.	
281.7-319.6 QTZ Porphyry	Fine grained, light grey to whitish, massive appearance but where altered by ground water appears like porphyry. On surface, rusty red grainy and has small qtz/qtz tourmaline with small tourmaline lathes, sulfides 1%.	Siliceous, ankerite in matrix especially at contact 281.7-284.7.		
319.6-331 QTZ Porphyry	Fine grained, med. grey, qtz eyes to 3mm, not bleached. Ankerite in matrix, small infrequent qtz veins with sulfides, fractures filled with qtz possible tourmaline. Chlorite; some ankerite with qtz veins, main fracture direction 30 deg. to core axis.	Carb/silica/sericitic	Py -1-2% overall with minor increase with qtz veins.	
331-422.7. QTZ Porphyry	Fine grained light grey to greenish, with massive appearance, with qtz eyes inconspicuous bleached as above. Wisps of fuchsite small 1-2mm infrequent, numerous qtz veins main veining direction 45 deg. to 50 deg., fracturing as above. Lower contact: 55 deg. to core axis.	Carb/Sil/Sericite Minor chlorite or fractures.	Sulfides 2-3%.	
422.7-447.9 Diabase	Fine grained, med. to dk (blackish) fresh minor qtz/carb veining. 1/4" chilled margin bottom contact, 85 deg. to core axis.			

PAP-E-1858

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. ____ of ____

Project No. 291 Hole No. CL-87-30

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
447.9-503.6 QTZ Porphyry	Fine grained, light grey with light green overcast, sericite qtz veining frequent mainly white qtz with tourmaline edges. Fractures 55-60 deg. tourmaline fillings, minor fuchsite wisps. Lost core diabase - 453.9-456.7 few pieces porphyry massive in appearance.	Carb/Sil/Sericite Minor chlorite in fractures with tourmaline.	Sulfides mainly py with minor cpy at 468.2. Visible gold at 468.2- Tourmaline qtz vein 1/2 mm width.	
503.6-519.5 QTZ Porphyry	Fine grained, light to med. grey, sericitic; unit becomes increasingly layered or banded with dark chloritic/tourmaline veinlets at 45-50 deg. to core axis. Main qtz veining direction parallel to layering, minor fuchsite wisps, ankerite in matrix increased over previous section.	Sericite/Carb.	Sulfides 1-3% mainly pyrite.	
519.9-596.5 QTZ Porphyry	Fine grained, med. grey green to light grey green. Massive with fracture filling of chlorite tourmaline, qtz veining fractures and veins mainly 55 deg. to core axis. Infrequent wisps of fuchsite; sections of layered porphyry as above. ie 564-569.5.	Sericite/Carb.	Pyrite 1-3%. Slightly increased in layered sections.	
596.5-703.1 QTZ Porphyry	Fine grained, light to med. grey, green overcast. Ankerite increases in matrix and associated with qtz veining. Layered appearance somewhat chaotic from 60 deg. to core axis to sub parallel; silicified section. Silicified section highly fractured bleached to creamy white grey overcast.	Sericite/Carb/Siliceous	Pyrite + 3% overall section of 3-5%.	
	667.0 - 703.1 : intercalated with coarse mafic volcanic contacts 60 deg. to core axis to sub parallel. Ankerite in felsics increases towards bottom of section.		Pyrite increases to 5% plus as euhedral grains and small veinlets.	

PAP-E-1858

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. ___ OF ___

Project No. 291 Hole No. CL-87-30

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	692.1 - 698.5 : silicified section creamy white, fractured. Fractures filled with ankerite minor pyrite.			
703.1-747 Mafic Volc.	Fine to med. grained, med. green, layered. Qtz carb. veining 10-15% of section 65 deg. to core axis. Some qtz veining to 4". 733-740.2 : coarse mafic volcanic.Minor qtz veining. MInor pyrite.	Chlorite/Sericite Minor silicification.	Pyrite 5% overall with sections of 10% plus.	
747-778 Mafic Volc.	Fine to med. grained dk green, chloritic. Magnetite crystals. Very minor qtz. Minor sulfide.		Minor pyrite.	
778	End of Hole.			

PAP-E-1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 6

LATITUDE 8 + 21N

DEPARTURE 27 + 68E

ELEVATION SURFACE

DIP AT COLLAR -55° BEARING 180°

TOTAL DEPTH 856.3 CORE SIZE BQ

CORE STORAGE TIMMINS

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
196	-53°		
394	-50°		
561	-48°		
689	-46°		
791	-45°		

Project No. 291 Hole No. CL-87-31

Property CLINE LAKE

NTS. TWP. JACOBSON Claim No. SSM 2186

Date started AUGUST 14, 1987 completed AUGUST 19, 1987

Contractor ST. LAMBERT DRILLING

Logged by ROBERT CALHOUN

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-8	Overburden.			
8-140.3 Andesite	Fine grained, light green to dk green. Banded to massive. Contains varying amounts of qtz veining, chloritized, minor silicification.			
	8-43.3 :dk green to light green at 9.7' containing qtz veining 10% overall. Banded. 50 deg. to core axis :9.7-15.6. 70% qtz veining, ankerite.	Chlorite, ankerite Carbonatization.	9.7-15.7 pyrite 10-15% minor chalcopyrite. Pyrite 25% @ 9.7-12.7.	
	43.3-57 :massive dark green. Fine grained with extensive amygdules of calcite. Minor qtz veining, minor pyrite. Qtz vein tourmaline blow out at 37.2-37.5.			
	57-72.8 :gradational from above to light green, bleached, containing qtz veining. Minor silicification. Ankerite veinlets banded @ 50 deg. to core axis.	Chlorite, silicification Carbonatization.	57-72.8 pyrite as small veinlets. Disseminations to 15% in some sections.	
	72.8-140.3 :dk green. Fine grained, massive, with minor qtz veining, intercalated with silicified sections. Dk grey hard with sulfides, with small bands of epidotized fine grained mafic light epidote green. Silicified sections, contacts low angle to core axis, contacted. Silicified sections. (cherty):			
	72.8 - 89.5 :moderately silicified with bands of dk green andesite.	Chloritization. Epidotization. Silicification. Carbonatization.		
	101.4 - 106.4 :cherty section dk grey.			
	106.4 - 122.5 :small 2-6" sections.		Pyrite 1% with minor increases around silicified section.	
	122.5 - 132.3 :silicified with small bands of chloritized andesite.			

AP-14084

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 2 OF 6

Project No. 291 Hole No. CL-87-31

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
140.3-177.8 Mafic Volc.	Dk to med. green, massive, epidotized. Med. grained, with epidote varying percentages.			
	149.2 - 151.6 :qtz, magnetite, pyrite band Lower contact 70 deg. to core axis.		Pyrite 10%. Mag. 10% Cpy minor.	
	158.6 - 167.8 :massive mafic with siliceous sections and magnetite/pyrite, contacted.	Silicification. Carbonatization.	Pyrite 3-5% Chloritization.	
177.2-200.8 Andesite Felsic Volcanics	Dk green, fine grained. Slightly layered mafics intercolated with bands of felsic volcanics, cherty, med. grey and dykes of felsic porphyry, felsic component decreases in % towards bottom of section.		Pyrite to 5% over short sections.	
200.8-229.8	Fine grained, dk green. Beige where highly bleached, becoming increasingly layered towards botttom of section. Bleached sections have spotted chloritic "phenocrysts." 205 - 215 :core highly fractured. Crushed possible fault zone. 216.5 - 221.5 :bleached, altered.			
	223.6 - 226.0 :andesite gradational into layered qtz, mag.,pyrite IF.		Pyrite 15% 225-226 Mag. 10%, qtz 20%	
229.8-248.5 Andesite	Fine to med. grained, light green, bleached. Moderately layered; containing qtz ankerite veins and ankerite in matrix. Felsic component towards bottom of section. Core is spotted with chlorite. Lower contact 30 deg. to core axis.	Carb/Chlorite. Minor Silicification.	Pyrite disseminated 1-5% with blotches around qtz veinlets.	

P.A.P. - E-1851

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-31

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
248.5-306.4 QTZ Porphyry	Fine to med. grained. Light grey with green overcast, ankerite yellowish abundant. Massive with bands or lineations of dark chlorite and/or tourmaline. Section becomes harder and smoother cherty towards bottom . Qtz veining infrequent.	Sericite, carb. Minor chlorite. Minor sil.	Pyrite generally 1-2% with minor areas of concentrations to 5%.	
306.4-314.8 QTZ Porphyry	Fine grained, cherty, grey brown. Minor qtz tourmaline, core crushed, contacts ground.			
314.8-454.4 QTZ Porphyry	Fine to med. grained, light to med. grey, containing infrequent qtz veining, with ankerite. Fractures with sericite/chlorite possible tourmaline, qtz veining increases slightly 356-376. Associated tourmaline chlorite (as 373.3-373.7), alteration more intense below 344, increase in ank. and sericite qtz.	Sericite, ankerite, carb	Py 1% generally increasing to 2-3% towards bottom.	
	373 - 434.5 :increase in ankerite qtz veining with tourmaline, angles varing 50 deg. to core axis main direction.		Pyrite 1-2% overall fine to euhedral minor veinlets.	
	434.5 - 454.4 :porphyry becomes finer grained to near aphanitic ,towards diabase contact -@ 85 deg. to core axis.			
	452.4 - 454.4 :magnetite with bands of qtz ankerite 50 deg. to core axis.		452.4-454.4 py 1-3% fine.	
454.4-476.4 Diabase	Fine grained dk blackish, minor qtz.Lower contact @ 40 deg. to core axis.			
476.4-520.0 QTZ Porphyry	Fine to med. grained, dk to med. grey. Host infrequent qtz veining. Contact is welded for 6-8". Mineralization minor overall increasing towards bottom of section.	Ankerite/sericite	Pyrite minor to 1-2%.	

PAP-E1550

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 4 OF 6

Project No. 291 Hole No. CL-87-31

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
520-694.7 QTZ Porphyry	Fine grained, light to med. grained. Highly altered, ankerite/qtz veining. Some qtz veins have green overcast, fractured, veining sub parallel to 25 deg. to core axis.			
	520 - 528.0 :ankerite/qtz vein calcite hosting fine grained pyrite. Tourmaline on fracture surfaces. Sulfides fine grained disseminated - VG at 522' 3-4 individual pieces.	Ankerite	Pyrite 5% fine. VG at 522 - 4 grains in grey qtz.	
	528 - 531.1 :med. grey porphyry ankerite alteration.			
	531.1 - 537.5 :porphyry becomes fine grained. Individual qtz eyes abundant becomes increasingly ankeritic. Carbonated core becomes quite soft. Contains blade, radiating crystals and small grains of tourmaline. Contact @ 531.1 at 40 deg.		Pyrite 2-3% fine grains.	
	537.5 - 544.8 :banded parallel to core axis, carbonated as above. Light, creamy to greenish cast with dark bands containing tourmaline. Tourmaline crystals present in high ankerite (carb.) bands, qtz veining.		Pyrite fine dissemination 2-5%.	
	544.8 - 560.2 :light to med. grey. Fine to med. grained with 10-15% qtz veining infrequent wisps of fuchsite.		Pyrite 1-2%.	
	560.2 - 575.0 : mixture of light creamy ankerite rich as above with small specks of tourmaline with hard dark layered qtz/ankerite bands.		Pyrite-highly increased to 10-15%	
	575.0 - 580.7 :becomes very qtz rich, hard.			
	580.7 - 584.9 :porphyry becomes increasingly green. Qtz/ankerite veins sub parallel to core axis 580.7-582.4.		Pyrite minor. Pyrite 1-2% overall	

PAP.-E-18

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 5 OF 6

Project No. 291 Hole No. CL-87-31

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	584.9 - 654.0 :contact with above 40 deg. to core axis. Banded porphyry with light ankerite rich bands and dark chloritic, possible tourmaline bands. Qtz vein 619.8-622.6.		with infrequent higher concentrations. Pyrite 2-5% as fine disseminations and infrequent small veinlets	
	584.9 - 654.0 cont'd. Some qtz veins have associated tourmaline on the edges as at 590.9, 638.5, 650.2.	Ankerite, carb, sil. Sericite.		
	654.0 - 661.7 :intercalated porphyry and coarse mafic volcanic - ankerite veins in both, light to cream.	Carb	Minor pyrite.	
	661.7 - 684.2 :fine grained, light, creamy grey to dark grey, greenish. Fractured from 661.7-672 - with dark chloritic tourmaline in fractures, lighter grey.	Carb, sil., ser.	Pyrite 1-3%.	
	672 - 684.2 :finer grained; contact 30 deg. to core axis, creamy grey.			
	684.0 - 694.4 :very fine grained, creamy grey, appears welded, ankerite bands, has speckled sulfides.		Fine py 1-2%	
	692.3 - 694.4 :porphyry becomes discoloured iron stained, due to diabase. Contact lower crushed, upper gradational.			
694.4-743 Diabase	Dk green blackish, med. grained. Minor carb veins. Magnetic (moderately), has chilled contact at 733 in contact with porphyry.			
	733 - 737 :porphyry welded fine pyrite. Qtz veining <5% - diabase continues.		Pyrite 733-737 2-3% Fine disseminations.	
	737 - 743 :chilled margins, 2"- @ 50 deg to core axis.			

P.A.P. - E-1658

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-31

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
743-856.3 Mafic Volc.	Fine to med. grained becoming coarser down hole, dark green to med. green, siliceous in some sections, chloritic. Welded from :			
	743 - 746.5			
	743 - 766.1 :section siliceous weakly to strongly, with qtz veining ranging from 5% to		Pyrite 1%.	
	766.1 - 773.2 :less siliceous, dk green.		Pyrite minor.	
	773.2 - 812.2 :siliceous with increased qtz veining to 10 to 15% over short sections; chloritic, tourmaline associated with some qtz veins.	Chlorite/silica	Pyrite to 10% generally. <5%.	
	812.2 - 819.1 :decreased qtz veining.		Sulfides <1%.	
	819.1 - 822.8 :felsic dyke/qtz vein. Tourmaline, chlorite in fractures, dyke creamy to dk greenish.		Pyrite 1-2%.	
	822.8 - 825.3 :mafic volcanic, 5% qtz veining.		Pyrite 1%.	
	825.3 - 828.5 :felsic dyke as above.		Pyrite <1%	
	828.5 - 836.6 :mafic volcanics, with abundant magnetite crystals.		Mag. 2-5%, py <1%	
	836.6 - 839.6 :felsic dyke mafic volcanic contact sub parallel to core axis.			
	839.6 - 843.4 :mafic volcanics.			
	843.4 - 846.8 :felsic dyke as above.		Pyrite 1-2%.	
	846.8 - 856.3 :mafic volcanics.			
856.3	End of Hole.			

PAP - E-1658

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 4

LATITUDE 8 + 62N

DEPARTURE 33 + 81E

ELEVATION SURFACE

DIP AT COLLAR -50° BEARING 180°

TOTAL DEPTH 531.5 ft. CORE SIZE BQ

CORE STORAGE TIMMINS

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
98'	-48°		
295.3'	-47°		
531.5'	-44°		

Project No. 291 Hole No. CL-87-32

Property CLINE LAKE

NTS. TWP. JACOBSON Claim No. SSM 2186

Date started AUGUST 19, 1987 completed AUGUST 21, 1987

Contractor ST. LAMBERT

Logged by ROBERT CALHOUN

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-18	Overburden.			
18-35.7 Andesite	Fine-grained, dk green to light green, bleached. Banded 60 deg. to core axis with qtz carbonate veins. Ground water alteration in fractures. Lower contact @ 50 deg. to core axis.	Carb.	Pyrite to 10% over short sections 1-2% overall.	
35.7-40.8 QTZ Porphyry	Fine grained, light to med. grey, siliceous. Minor qtz veining, sericitic.	Sericite, sil., minor carb.	1-2%	
40.8-75.3 Andesite	Fine to med. grained dk green, massive to weakly banded @ 55 deg. to core axis, with infrequent qtz carb veinlets. Minor epidote.	Chlorite, carb, epidote.	<1%	
75.3-89.2 QTZ Porphyry	Fine to med. grained, med. grey to light grey, infrequent qtz veining numerous qtz eyes. Minor carbonate, tourmaline with qtz veins, very siliceous- 87.3-89.2.		Pyrite 2-3% as fine dissemination and euhedral grains.	
89.2-108.4 Andesite	Fine to med. grained, dk green, banded to massive, carbonate qtz veinlets. Lower contact at 50 deg. to core axis.		Minor pyrite.	
108.4-118.6 Chert/chert porphyry.	Fine grained, med. grey, massive to weakly banded 108.4 - 110, hard, smooth surface, fractured various angles.	Sil.	Pyrite 2-3% in fractures. Minor specks in chert.	
118.6-165.6 Mafic Volc.	Med. to coarse mafic volcanics, med. green. Epidotized light green/dark green matrix, minor infrequent qtz veining, magnetic. Lower contact @ 70 deg. to core axis.		Minor pyrite.	

AP - 14084

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 2 OF 4

Project No. 291 Hole No. CL-87-32

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	156 - 165.6 :mafics become fine grained. Colour becomes darker towards bottom of section due to welding from diabase veining increased slightly.		Pyrite 1-2%.	
165.6-186.9 Diabase	Fine to med. grained. Dk blackish, massive 1/2" chilled margin. Lower contact 75 deg. to core axis.			
186.9-194.5 Andesite	Fine grained, dk green, appears slightly welded, med. hard. 189.5 - 194.5 :becomes weakly banded, qtz veining.		Pyrite -5%	
194.5-201.8 QTZ Porphyry	Fine grained, dk grey to light grey, weakly layered. Becomes reddish at contact - 60 deg. to core axis.	Silicified.	Pyrite 1-3%.	
201.8-206.2 Jasper/ Andesite	Fine grained, grey with red overcast. Jasper massive red with minor qtz veining. 201.8 - 202.7 :with Jasper decreasing down section contact (lower) at 60 deg. to core axis. Magnetite crystals 10%, as individual crystals.		Pyrite 1-3% Mag.10% +	
206.2-208.1 QTZ Porphyry	Fine grained, light grey, red overcast, weakly layered.		Pyrite 1-5%.	
208.1-218.5 Andesite	Fine grained, dk green, massive to well banded, with carb/qtz veins. 212.8 - 214.6 :fractured zone rusty red. 214.8 - 218.5 :well banded.		Pyrite <1-2%.	

PAP-E-1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-32

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
218.5-230.0 QTZ Porphyry	Fine grained, light grey to creamy white. Highly carbonatized, with dk tourmaline bands and ankerite bands, minor qtz veining, highly altered.	Carbonated.	Pyrite 1-3%.	
230-244 QTZ Porphyry	Fine to med. grained, light grey, green overcast, sericitic, fractured. Fractures filled with qtz and/or tourmaline, qtz vein extensive.	Sericite, siliceous, minor carbonate.	Pyrite 1-3%.	
244-277.0 QTZ Porphyry	Fine grained, light grey, minor green overcast, qtz veining infrequent, with fractures tourmaline, filled, weakly banded appearance carbonated, some fractures rusted.	Carb, sil., sericite.	Pyrite 1-3%.	
277.0-297.3 QTZ Porphyry	Med. grained massive, light grey; green overcast, sericitic, infrequent wisps of fuchsite, core fractured with rusty limonite stain on fractures, tourmaline on fracture planes as needles, and as infrequent fracture fillings. Ankerite as large blebs in qtz; rusted forming vugs in qtz veins, qtz veins 15% of section.	Sericite, carbonated.	Py 1-3% as fine disseminations and euhedral grains	
297.3-342.0 QTZ Porphyry	FIne grained, light grey green, carbonated moderately, fractures filled with tourmaline sericitic, infrequent fractures limonite stained (weathered ankerite) qtz veining infrequent, massive appearance.	Sericitized,carbonatized	Py 1-2% generally minor sections of 2-3%.	
342-384.6 QTZ Porphyry	Fine grained, med. grey green, darker than above section, probably due to tourmaline abundance, qtz/qtz tourmaline veining more abundant than in above section infrequent wisps of fuchsite.	Ser, sil, carb.	Pyrite 2-3%.	

PAP-E-1858

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-32

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
384.6-433.5 QTZ Porphyry	Fine to med. grained; light grey green, less less frequent qtz/qtz tourmaline veins, more massive appearance, carbonate veining infrequent, carbonated matrix, fractures filled with tourmaline/chlorite.	Carb, sil, sericite.	Pyrite 1-2%.	
433.5-452.3 Andesite	Fine grained, dk green to light green where slightly siicified. Contains qtz vein/qtz carb veining to 20% overall with veins to 0.6 ft., banded @ 55 deg. to core axis. Lower contact @ 55 deg. to core axis, green muscovite with qtz.	Chlorite, siliceous slightly, carbonated	Pyrite 1-5% overall with fine dis-seminations and small veinlets parallel to banding.	
452.3-531.5 Gabbro	Fine to coarse grained, dk green, massive, grain size fairly consistent coarse to 502, fine 502-531, infrequent qtz vein. 511 - 513 :qtz carb vein which bleaches the gabbro to whitish.		Pyrite <1% overall to 15% 511-513.	
531.5	E.O.H.			

PAP-E-1858

LATITUDE 10 + 12N

DIAMOND DRILL CORE LOG

DEPARTURE 34 + 84E

ELEVATION 10ft below 86-23

DIP AT COLLAR -50° BEARING 180°

TOTAL DEPTH 757.9 CORE SIZE BQ

CORE STORAGE TIMMINS

REMARKS

	Test Depth	Dip	Magnetic Bearing	Corrected Bearing
ACID	98.4'	-46°		
	295'	-46°		
	492'	-42°		
TROPARI	98'	-46°	192°	185°
	410'	-41°	190°	183°
	590'	-39°	196.5°	189.5°
	757.9'	-37°	198.5°	191.5°

Project No. 291 Hole No. CL-87-33

Property CLINE LAKE

NTS. TWP. JACOBSON Claim No. 2186

Date started Aug. 21/87(PM) completed Aug. 26/87(AM)

Contractor ST. LAMBERT

Logged by R. CALHOUN/S. PARKER

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-27.5	Overburden			
27.5-234.2 Andesite	Fine grained, dk green to light green grey, where carbonate extensively qtz/carb veining. Carbonate veining more extensive @70 deg. to core axis.			
	27.5 - 95.1 :carb/qtz veining 10-15% of section, carbonated matrix (calcite).		Pyrite <1%.	
	95.1 - 130 :qtz veining increases, 70 deg. to core axis, medium grained to fine grained, dk green to light green grey. White to light grey locally where qtz/carb veining is extensive. Qtz/carb veining 60 deg. - 70 deg. to core axis. Carbonated matrix (calcite), qtz/carbonate veins highly irregular and contorted (folded, faulted).	Chlorite alteration.	Pyrite 5% + associated with qtz carb veining. Minor diss. pyrite. Pyrite up to 5%, in association with qtz/carb veining. Trace chalcopyrite.	
	130 - 146 :Medium grained, light green to light grey. Qtz/carb veining 5-10% of section, mostly smaller veins, largest vein 3/5" wide. Qtz/carb veining approx. 65 deg. to core axis. Carbonated matrix (calcite).	Chlorite alteration.	Pyrite <1%. Pyrite 5-10% in association with the qtz/carb veining. Trace magnetite.	
	146 - 178.5 :Medium grained, light green to dark green to greyish. High percentage of qtz/carbonate, epidote veining.			
	146 - 156 :epidote veining (green mineral) and veinlets. At 154.4, qtz/carb/epidote vein highly deformed (folded). Carbonate matrix, finer grained (calcite) core ground up at 170.6 - fault zone. High Fe - staining at 173.8. Veining approx. 75 deg. to core axis. Epidote veining decreases slightly towards 178.5	Chlorite alteration. Ground water alteration @ 158.	Pyrite <1%. Locally-5-10%, associated with qtz/carb veining. Magnetite blebs.	

PAP-14064

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-33

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	178.5 - 234.2 :dk grey to dark green andesite.			
	178.5 - 197 :dk greenish/grey, fine grained andesite. 1% epidote/carbonate veining, very irregular. Fine grained carbonate (calcite) matrix.	Chlorite.	Pyrite <1%. Locally, high py concentrated veins. Magnetite (f.g.)	
	197 - 234.2 :dk green to grey medium grained andesite. Epidote/calcite veining approx. 1-2% qtz veining, approx. 1 1/2" wide.		Pyrite <1%. 5-10% pyrite associated with qtz/calcite veining.	
234.2-238.1 Felsic dyke	Light grey, medium grained felsic dyke. Minor tourmaline veinlets. Trace carbonate (calcite).		Magnetite blebs (up to 1%) <1% cubic pyrite.	
238.1-277.2 Andesite	Dk green to dark grey, medium grained. Light green where qtz/carb veining is more extensive. Fine grained carbonate matrix (calcite). White calcite veins throughout. Calcite/qtz veins, with calcite the most predominant mineral. Trace epidote veinlets. Veining varies from approx. 65 - 80 deg. to core axis, to very irregular.	Chlorite	<1% pyrite. Magnetite bearing.	
277.2-289.8 Diabase Dyke	Black to dark grey, fine grained. Highly magnetic. Minor calcite/quartz veinlets. Gradational contact between diabase and andesite.		Trace pyrite.	
289.8-369.2 Andesite	289.8 - 298.1 :dk grey to light green andesite. Not as strongly magnetic as diabase. Qtz/carb veining increases away from diabase (calcite in matrix).		<1% pyrite.	
	298.1 - 302 intercalated grey and light green andesite. Qtz/carb veining.			
	302 - 333.7 :light grey/dark grey to	Chloritization.	<1% pyrite.	

PAP-E-1558

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-33

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	light green, medium grained andesite. Carbonate matrix (calcite). Irregular qtz/carbonate veining.		1-2% pyrite locally. Magnetite blebs.	
	333.7 - 335.6 :light grey, fine grained int. vol. dyke. Qtz/carb veining with minor chlorite, (trace tourmaline?).		<1% pyrite. 2-3% pyrite associated with veining.	
	335.6 - 369.2 :light green to greyish white, medium grained andesite. Qtz/carb veining, calcite matrix. Green colour turns to greyish white as qtz/carb veining increases. Veining increases at approx. 348'. Qtz/carb veining highly deformed (folded) at 355.5.(minor tourmaline? in this section).	Chlorite.	<1% py cubic. Locally, large clusters 1" by 1/2" of cubic py. Trace chalcopyrite.	
369.2-378 QTZ Porphyry	Andesite/porphyry contact approx. 85 deg. core axis. Light grey, locally rusty coloured due to alteration. Medium grained to coarse grained. 3/4" qtz vein, heavily stained, approx. 30 deg. to core axis. Minor black tourmaline veins?, with varying angles to core axis. Staining due to ground water alteration. Andesite matrix.	Ground water alteration which produces a rusty coloured halo around fractures and veins.	Sericite. <1% pyrite. Cubic pyrite and disseminated.	
378-380.2 Amphibole Bearing Dyke	Light green to greyish, fine grained matrix, with dirty brown blotches of qtz, dk green m.g. phenocryst of amphibole. 2-3% amphiboles		Magnetite cubes <1%. Amphibole phenocrysts. <1% pyrite.	
380.2-382.5 QTZ Porphyry	Qtz porphyry, similar in colour and appearance as above porphyry. 369.2 - 378 :no large qtz veins. Ankerite matrix.	Ground water alteration.	1% pyrite.	

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-33

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
382.5-383.5 Amphibole Bearing Dyke	Similar to the amphibole dyke from 378-380.2, although a higher percentage of medium grained amphibole crystals- approx. 10%			
383.5-386.6 Highly veined qtz porphyry	Light grey to yellowish, fine to medium grained. Carbonate in fractures (ankerite). Qtz/carb veining, ankerite matrix.	Ground water alteration- rusty halo effect.	1-2% disseminated pyrite.	
386.6-568.9 QTZ Porphyry	386.6 - 467.6 :greyish white, medium grained to coarse grained with sporadic blue qtz eyes. Core highly sericitized and broken up from 409.5' to 416', fault zone. Qtz/ tourmaline veining. Veining 45 deg.- 65 deg. to core axis. Ground water alteration produced vugs in core at 437.5'.	Ground water alteration- rusty halo effect. Sericite.	Chalcopyrite bleb beside qtz vein. Trace cpy. Cubic pyrite, locally massive pyrite 1-5%. Pyrite blebs up to 5%.	
	467.6 - 473.9 :greyish, white, medium grained, highly sericitized and broken up qtz porphyry, (core broken in pieces) Up to 1% blue qtz eyes. From 472.6 to 473.9, core is a rusty, yellowish colour due to extensive ground water alteration.	Sericite, ground water alteration.	1-3% pyrite blebs.	
	473.9 - 508.8 :light greyish white, med. grained qtz porphyry with white qtz/ankerite veining and black tourmaline veins. Trace fuchsite (green). Trace black blebs.-?	Sericite, ground water. Extensive ground water alteration from 500.4 to 501.7'-rusty colour.	<1% disseminated pyrite	
	508.8 - 518.7 :slightly darker grey, more irregular crystal structure and veining, med. grained qtz porphyry.	Sericite.	<1% pyrite blebs.	
	518.7 - 568.9 :light grey, med. grained qtz porphyry. Qtz veining up to 6" wide. Qtz/ankerite veining with smaller tourmaline veinlets. Very irregular veining patterns. More regular veining (unidirectional) from 566-567.5', 40 - 60 deg. angle to core axis.	Sericite.	Trace po. <1% pyrite blebs. 1-3% pyrite blebs near qtz/ankerite veins.	

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-33

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
9 568.5-572.3 Felsic Dyke	Fine grained to aphantic, light greyish brown to reddish brown, very hard, cherty.		1-2%.	
572.3-605.0 QTZ Porphyry	Fine to med. grained, light grey to creamy with ankerite abundant, many small qtz veins white with tourmaline edges. 597.3 - 605.0 :intercalated porphyry and mafic volcanic, contacts between bands @ 40 deg. to core axis, bands 1-2 ft.	Ankerite, calcite bands sericite.	1-3% pyrite.	
605-699.8 Mafic Volcanics	Fine to med. grained dk green, soft, highly altered, containing abundant carbonate/qtz. Carbonate veins, minor tourmaline veinlets. The mafic volcanics have been altered as per the following: 611.2 - 614.6 :fine grained, grey green, slightly silicified. Qtz carb. veinlets. 614.6 - 629 :dk green containing abundant qtz carbonate veining. 629 - 635.5 :light grey, with green overcast, fine grained weakly banded, sub-parallel to core axis. Carbonate veins 10-15% with qtz veining. Green (grass) mica on foliation planes. 635.5 - 636.9 :mafic volcanic contacts 20-30 deg. to core axis. 636.9 - 639.7 :qtz vein fractured with carbonate in fractures. 639.7 _ 658.9 :med. grained, dk green, containing qtz/qtz carbonate veining sulfides. Pyrite, VG at 649.5 in qtz vein, 4-5 starbursts, 20 grains. 658.9 - 672.6 :light grey, green overcast slightly to moderately silicified mafic volc	Carbonate, sericitic, Chloritic. Siliceous, carbonated, chlorite, sericite.	Py 1-2%. Pyrite 3-5%. Pyrite 5% + as fine disseminations. Pyrite 1-3%. Gold 4-5 starbursts, 20 grains. Pyrite 2-5% as fine disseminations and	

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-33

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	Bleached, with extensive carbonate/qtz carbonated veining, minor tourmaline with veins. Veining discontinuous, sub parallel to core axis 10 to 15 deg., veining increases 668.7 - 672.6.		small blebs.	
	672.6 - 699.8 :mafic volcanic with 10-20% veining decreasing towards end of section. Appears brecciated 672.6-679.0, volcanics have been moderately welded due to diabase 696-699.8.		Pyrite 1-5% decreasing towards bottom of section.	
699.8-733.5 Diabase	Med. grained, blackish green, with well developed diabase texture. Chilled margins top and bottom of section 1ft, 3ft respectively; moderately magnetic.			
733.5-757.9 Mafic Volc.	Fine to med. grained dk green, welded appearance to 738.2. Minor qtz/carbonate veins.	Chlorite.	Py minor.	
757.9	E.O.H.			

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 3

LATITUDE 9 + 00N

DEPARTURE 35 + 65E

ELEVATION 12' below CL-86-26

DIP AT COLLAR -50° BEARING 180°

TOTAL DEPTH 541.3' CORE SIZE BQ

CORE STORAGE TIMMINS

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
98'	-46°	191°	184°
295'	-44°	196°	189°
393'	-42°	198.5°	191.5°
528'	-41°	195°*	188°

* was affected by magnetite

Project No. 291 Hole No. CL-87-34

Property CLINE LAKE

NTS. TWP. JACOBSON Claim No. SSM 2188

Date started AUGUST 26, 1987 completed AUGUST 28, 1987

Contractor ST. LAMBERT

Logged by ROBERT CALHOUN

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-20.2	O.B.			
20.2-122.5 Andesite	Fine grained, med. to dk green, banded to massive, contains varying amounts of qtz carbonate veining. 22.1 - 33.7 :2-5% qtz carbonate veining. 33.7 - 37.2 :60% qtz veining at 85 deg. to core axis. 37.2 - 51.4 :5% qtz/carbonate veining with bands of qtz porphyry- 42.3 - 43, 50 to 51.4 @ 85 deg. to core axis. 51.4 - 78.6 :massive med. grained dk green infrequent qtz veining. 78.6 - 89.8 :qtz carb veining increases to 10%, @ 65 - 85 deg. to core axis. 89.8 - 122.5 :dk green, med. grained becoming finer towards diabase appears welded harder. Contact crushed.	Carbonated matrix (calcite)	1-4% pyrite 20% pyrite minor po. Pyrite to 10% with white qtz veining.	Core highly fractured, fragmented 53 to 93.4
122.5-143.2 Diabase	Fine grained, dk green to blackish, fractured hard, lower contact 10 deg. to core axis.			
143.2-176.0 Andesite	Fine to med. grained, grey to green, massive with minor qtz veining. Mafic containing blue qtz eyes porphryoblasts to 3mm sub rounded. Lower contact area welded to 144.7. 154 - 158.6 :dk green weakly banded, qtz veined. Upper lower contact area 80 deg. to core axis. Contacts gradational.	Chloritic, sericitic, carb	Pyrite 1-5% as fine disseminations and euhedral grains.	

PAP - 14064

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-34

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
176-235.9 Mafic Volcanic	Fine to med. grained, light to med. green, epidotized matrix. Infrequent qtz veining, white, magnetic contains crystals of magnetite. Chert band from 221.6 to 224.4. Minor pyrite.	Epidotized, carbonated chloritic	Pyrite minor	
235.9-271.2 Andesite	Fine grained, light green, massive, with qtz veining at 65 deg. to core axis. Weakly epidotized, chloritic, minor bands of porphyry: 245.8 to 250.0, with high mafic component, small porphyry: 235.9 to 236.7. 253.2 - 255.1 :qtz/carbonate vein with 15-20% pyrite bands at 60 deg. to core axis.	Carb, chlorite.	Py 1-2% generally.	
271.2-465.7 QTZ Porphyry	Fine to med, light to med. grey greenish overcast, abundant qtz eyes. Qtz veining various percentage with tourmaline edges, weakly banded, 60 deg. to 80deg. to core axis, carbonated matrix.	Sericite, carb,		
	271.2 - 296.4 :light grey with dark tourmaline rich bands, infrequent qtz veins.		Pyrite 1-3%	
	296.4 - 304.8 :amphibole rich dyke, highly carbonated matrix. Upper contact at 50 deg. to core axis. Bottom at 70 deg. to core axis.	Carbonated	Pyrite 1-2%	
	304.8 - 325.8 :fine to med. grained, light grey porphyry infrequent qtz veining, carbonated.	Carbonated	1-5% pyrite as fine disseminations and blotches.	
	325.8 - 357.4 :fine to med. grained, med. grey, sericitic, carbonated, tourmaline on fractures with infrequent qtz veining.			
	357.4 - 465.7 :fine to med. grained, light grey greenish, sericitic, carbonated, fractures with tourmaline infrequent qtz veining.	Carbonate, sericitic	1-2% pyrite.	

PAP-E-1858

NORANDA EXPLORATION COMPANY LIMITED

Sheet No. 3 OF 3

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-34

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	398.1 - 401.1 :qtz veining fracturing of core increased. Groundwater alteration to rusty red; infrequent fractured sections. 418.0 - 457.6 :porphyry becomes moderately banded 461.0-465.7.			
465.7-489.1 Mafic Volcanic	Med. grained, dark green, bleached in small sections to lt. grey. Carbonate/qtz veining 50% plus, banded 60 deg. to core axis, dk green chloritic grains, possible magnetite crystals.	Carbonated,chloritized	Sulfides pyrite to 10% possible po.	
489.1-541.3 Mafic Volcanic	Med. grained, dk green as above, banding with qtz/carbonate veining very reduced, to infrequent, calcite in matrix and small veinlets. Mineralization minor to nil., magnetic due to magnetite crystals.		Py minor, magnetite 5%.	
541.3	E.O.H.			

PAP-E1888

DIAMOND DRILL CORE LOG

LATITUDE: 8+00N
DEPARTURE: 26+64E
ELEVATION: Lake Level
DIP AT COLLAR: -52° BEARING: 192°
TOTAL DEPTH: 679.1 CORE SIZE: BQ
CORE STORAGE: Timmins
REMARKS:

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
98'	-50°	199.5	192.5
~~197'~~	-46°	198.5	191.5
295'	-42°	202.0	195.0
394'	-40°	200.0	193.0
492'	-39.5°	201.5	194.5
666'	-37°	203.5	196.5

Sheet No. 1 OF 2
Project No. 291 Hole No. CL87-35
Property: Cline Lake
NTS. TWP. Jacobson Claim No. 2186
Date started: Aug. 28/87 completed
Contractor: St. Lambert
Logged by: R. Calhoun

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-26.4	Overburden			
26.4-39.3 **Andesite**	-fine grained, light grey to dark green, banded @ 50° to core axis, bands are qtz carb and sulfides, 20% of rock to 33.0	chlorite		
39.3-192.6 **Mafic Volcanic**	-fine grained, dk green to light green (epidote) -highly altered, epidotized along fractures and in fine bands, rock is massive generally, with infrequent carbonate veins, minor qtz veins, contains magnetite crystals and minor bands of magnetite ie. 68.0-68.1	epidote, chlorite possibly slightly siliceous		
	78.3-79.0 - qtz vein containing 50% magnetite		1-2% py	
	79.0-85.5 - rock dk green to blackish, contains magnetite, highly magnetic		1% py increases towards bottom contact	
	85.5-86.9 - medium grey to brownish tint, 10% quartz with sulfides. Contact 45° to core axis		20-25% pyrite	
	86.9-113.5 - light to medium green, epidotized, minor calcite veining, minor hematite on some fractures, med. hard	epidote		

PAP 14064

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. _____ OF _____

Project No. 291 Hole No. CL87-35

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	113.5-125.0 - dk green, fine grained, massive, soft, minor to infrequent calcite -minor qtz veining	chloritic	sulfides as 1-2mm euhedral grains	
	125.0-132.6 - qtz, minor carbonate with highly altered mafic and sulfides. Qtz 40%, mafic 30%, sulfide 30%	siliceous	3% pyrite as small veinlets, and euhedral grains	
	132.6-157.0 - med to dk green, epidotized chloritized hosting veins of qtz/magnetite. 1-3" frequent up to 10% of section	epidote, chlorite	magnetite, sulfides with veins minor to 3%	
	157.0-192.6 - dk green, chloritic massive -minor to infrequent carbonate (calcite) veining - possible fault zone at 186.0-190			
192.6-201.3 **Andesite**	-fine grained, med to dark grey green, siliceous, chloritic, weakly banded at 50 deg to core axis, lighter bands siliceous -carbonated weakly to moderately (calcite) -small clacite veins, minor quartz - bottom contact gradational at 40 deg to core axis	siliceous, chloritic carbonated	pyrite 1-2%	
201.3-209.3 **Andesite**	-fine grained, light grey greenish, highly altered, ankerite, qtz/carbonate veining -banding chaotic, at 30 deg to core axis and contorted, minor chloritoid "spots", faulted contact, rusty groundwater alteration	ankerite, siliceous	sulfides pyrite diss small veins 1-5% +	
209.3-215.3 **QTZ Porphyry**	-fine to med grained, massive with qtz eyes to 2-3mm, grey blue; minor qtz veining	carbonated, siliceous	<1% pyrite	

PAP - E 1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 3 OF 5

Project No. 291 Hole No. CL87-35

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
215.3-242.6 **Andesite**	-fine grained, light grey creamy, slight green overcast, highly altered as above with ankerite, qtz/ankerite veins, 10-15% of section		sulfides 2-5% pyrite as fine diss. and small veins - minor po, very minor cpy	
242.6-278.6 **QTZ Porphyry**	-fine to med grained, light grey, greenish overcast sericitic, with darker bands of chlorite, tourmaline; qtz veining infrequent, weakly banded, where banded 30 deg to core axis, contact gradational		py 1-2% as fine dusting	
278.6-406.7 **QTZ Porphyry**	-fine to med grained, med to dk grey green, porphyry has changed character - becomes less carbonate and more siliceous, with darker green chlorite?, sericite in matrix and small bands, carbonate/ankerite in veins with qtz veining, qtz veins infrequent to 3-4", carbonate weathered rusty brown, tourmaline with some qtz veins	Siliceous, weakly carbonated, sericitic, chloritic	sulfides 2-3% more than above. Porphyry again as fine dusting	
	278.6-319.8 - carbonate bands, veins frequent, with qtz veins, porphyry massive, siliceous		molybdenite at 292'	
	319.8-351.5 - qtz veining becomes much less frequent		sulfides pyrite 2-3% as fine dusting	
	351.5-381.4 - qtz veining becomes more frequent, porphyry still massive in appearance			
	381.4-399.0 - porphyry becomes banded moderately to strongly, qtz carbonate bands, and tourmaline bands, banding at 40 deg to core axis, siliceous, increased tourmaline with qtz veining	slightly more carbonate siliceous		

PAP-E-1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 4 OF 5

Project No. 291 Hole No. CL87-35

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	399.0-406.7 - porphyry becomes more massive towards diabase contact, contact 80 deg to core axis, minor qtz veining		pyrite - 2-4%	
406.7-427.2 **Diabase**	-fine grained, dk blackish, chilled contact top and bottom, magnetic lower contact 75 deg to core axis		none	
427.2-446.5 **QTZ porphyry**	-fine to med grained, med to light grey, slightly to moderately carbonated, with qtz veining 1-6" wide, with carbonate, tourmaline, qtz 10% of section	sericitic, carbonated weakly to moderately	sulfides 1-3% as fine dusting and small euhedral grains	
446.5-476.9 **QTZ Porphyry**	-fine to med grained, med to dk green, grey, sericitized minor chlorite, qtz veining infrequent, qtz eyes numerous, siliceous, granular, contact at 10 deg to core axis	sericite, chlorite, siliceous	pyrite 1-2%	
476.9-521.7 **QTZ Porphyry**	-fine to med grained, light to med grey green, hosting 10-15% qtz/carbonate veining at various angles from 10 deg to core axis to 80 deg to core axis, upper contact 10 deg to core axis with qtz /carb tourmaline vein 476.9-478.5	sericite/carbonate		
	476.9-485.4 - 10-15% qtz/carbonate/ tourmaline veining sub parallel to core axis		pyrite 2-3%	
	485.4-495.7 - 10-20% qtz veining minor carbonate, qtz greyish, fractured with minor tourmaline in fracture, qtz veins to 2.3 ft (493.4-495.7)	sericite, siliceous	pyrite 1-2%	

PAP - E-1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 5 OF 5

Project No. 291 Hole No. CL87-35

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	495.7-521.7 - QTZ porphyry with less veining, siliceous matrix to 502 ft becoming more carbonate to 521.7 and banding becomes stronger towards bottom contact, banding 40 deg and 55 deg to core axis -Lower contact at 55 deg to core axis	siliceous, carbonate	pyrite 2-5%	
521.7-679.1 Mafic Volcanic	-fine to med grained, dk green grey, slightly silicified with chloritic grains and magnetite, with varying amounts of qtz carbonate veining from 10-25%, banded at 50 deg to core axis, magnetite weakly to moderately, qtz veins vary in length from <1" to 1.5 ft 650.3-679.1 - veining greatly reduced, sulfide content minor to 1%. Veining 40 deg to core axis	chlorite, silicified slightly	sulfides pyrite mainly as fine disseminations and small veinlets 10-20%	
679.1	END OF HOLE			

PAP-E-1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 1

LATITUDE 8+50S

DEPARTURE 38+14E

ELEVATION Surface

DIP AT COLLAR -50° BEARING 180°

TOTAL DEPTH 157.5 CORE SIZE BQ

CORE STORAGE Timmins

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
150'	-48	188.5	181.5

Project No. 291 Hole No. CL87-36

Property Cline Lake

NTS. TWP. Jacobson Claim No. 2189

Date started Sept. 1/87 completed Sept. 2/87

Contractor St. Lambert

Logged by R. Calhoun

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-20.0	Overburden			
20.0-157.5 Diabase	-fine med grain, dk blackish green, hard good diabase texture, fractured blocky ground, minor qtz on lower fractures, minor epidote			
157.5	END OF HOLE			

P-14064

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 4

LATITUDE 10+70S

DEPARTURE 38+14E

ELEVATION Surface

DIP AT COLLAR -50° BEARING 180°

TOTAL DEPTH 354.3 CORE SIZE BQ

CORE STORAGE Timmins

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
100'	-51°	188°	181°
353.3'	-53°	190°	183°

Project No. 291 Hole No. CL87-37

Property Cline Lake

NTS. TWP. Jacobson Claim No. SSM 2189

Date started Sept. 2/87 completed Sept. 4/87

Contractor St. Lambert

Logged by S. Parker/B Calhoun

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-22.0	Overburden			
22.0-24.0 Diabase	-fine grained, dk blackish green, weakly magnetic			
24.0-216.4 Granodiorite	-med grained, med grey green, with blue overcast from blue qtz eyes, chlorite possible pyroxenes make up mafic green component, minor qtz veining infrequent		sulfide pyrite content 1-2% generally with increases around qtz veins, disseminated as fine dust	
	42.8-46.4 - fine grained band of sericitized qtz veining and altered granodiorite at 20 deg to core axis			
	46.4-316.4 - nature of granodiorite varies from coarse to fine grained, med to dk depending on mafic content, blue qtz eyes vary in abundance, qtz veins remain small 2-6" generally		sulfides py 1-2% as fine dust	
	-small calcite veins, varying in abundance, 2-3mm wide -weakly magnetic	sericite		
	-minor clacite/qtz/chlorite/sericite veining with trace tourmaline avg 1/4" - 1/2" wide		py 1-2% as fine dust and occasionally cubic	

PAP-14064

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 2 OF 4

Project No. 291 Hole No. CL87-37

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	-still a blue overcast colour from blue qtz eyes -minor ankerite veining within dominantly calcite/qtz veins -veining is very irratic with no definite direction			
216.4-223.1 Felsite Dyke (qtz porphyry Dyke)	-fine grained light grey matrix (felsic) with dark grey qtz eyes -small ankerite veinlets, 1-2mm wide with no definite trend -very hard and siliceous, similar in appearance to qtz eye porphyry	sericite/chlorite	2-3% disseminated py with minor py/ tourmaline veining locally trace tourmaline	
223.1-~~354.3~~ 226.5 Granodiorite	223.1-226.2 - medium grained, light greyish to greenish with a blue overcast due to blue qtz eyes -chlorite causes the greenish colour -qtz/calcite/tourmaline/chlorite veining -qtz veins up to 3/4" wide	chlorite/sericite	locally 2-3% cubic py, associated with qtz/calcite veins	
	226.2-226.5 - medium grained, greenish with blue overcast granodiorite, all broken up! -core is ground up into pebble size pieces			
226.5-280.4 Granodiroite	-medium grained, dark greyish green, weakly magnetic, with a blue overcast colour due to blue qtz eyes -qtz/ankerite veining with minor tourmaline - infrequent			

PAP-E 1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 3 OF 4

Project No. 291 Hole No. CL87-37

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	-at 230.3', ankerite vein 2-3mm wide, approx 35 deg to core axis with pink to red feldspar (plag) on both sides of qtz/ ankerite vein -the whole vein is approx. 2" wide -pink colour may be due to ground water alteration? -tourmaline vein at 237.8', approximately 20 deg to core axis -core is generally very massive and homogeneous -chlorite gives core a slight greenish colour -colour varies from dark grey to light greyish green -at 273.2' - light greenish grey colour, with up to 10% ankerite disseminated in small veins and wisps - fabric is approx 35-40 deg to core axis -qtz/ankerite/tourmaline veining with minor chlorite	chloritization/ sericitization	2-3% disseminated py and py blebs 2-3% py blebs and	
	280.0 - approximately 282.2' - felsic unit still very siliceous -aphanitic to fine grained, greyish to milky in colour -blue qtz eyes, qtz/ankerite veining, trace tourmaline and minor chlorite -white halos around qtz/ankerite veins		2-3% py blebs and cubes	
	282.2 to 354.3 - grades into less siliceous, coarser grained granodiorite, with blue qtz eyes and minor qtz/ankerite veins and wisps	chloritization		

P.A.P. - E 1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 4 OF 4

Project No. 291 Hole No. CL87-37

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	-greyish to green in colour with a blue overcast -veining is multidirectional -trace magnetite blebs		1-2% py blebs	
Granodiorite	303.3 to 354.3 - medium grained, dark greyish/green to light greyish locally granodiorite with overcast blue colour due to blue qtz eyes -qtz/anketite veining (minor chlorite) 2-5%, very irregular, averaging several mm wide -trace tourmaline in some of the veins -qtz veins up to 1/4" wide -core is generally very homogeneous and massive, with relatively minor veining and little structure -ankerite also occurs in small wisps	chloritization/ sericitization	trace disseminated py locally 1-2% py blebs associated with qtz/ ankerite veins	
354.3	END OF HOLE			

PAP-E 1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 12

LATITUDE 8+00S

DEPARTURE L38+43E

ELEVATION Surface

DIP AT COLLAR -51° BEARING 180°

TOTAL DEPTH 600.4' CORE SIZE BQ

CORE STORAGE Timmins, Aunor Minesite

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
100	-51	190°	183°
295	-47	198°	191°
492	-44°	196½°	189½°
600	-44	199°	192°

Project No. 291 Hole No. CL87-38

Property Cline Lake

NTS. 42 c/8 TWP. Jacobson Claim No. SSM 2189

Date started Sept. 5/87 completed Sept. 8/87

Contractor St. Lambert

Logged by S. Parker/Wayne Corstorphine

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-10.0 **Casing**	-bedrock at 8.5'			
0-8.5 **Overburden**	8.5-12.5 - dark green to light green, with black wisps (magnetite), locally white (ankerite) and clear (qty) veining	cloritization	2-4% py cubes (up to 4mm wide) in massive andesite and around qtz/ank veins	
8.5-35.3 **Andesite**	-fine to medium grained andesite -qtz/ankerite veining up to 1" wide near end of section -2-3% small black magnetite wisps and magnetite cubes around perimeter of qtz/ankerite veins - moderately magnetic -abundant chlorite around qtz/ankerite veins -veining is irregular			
	12.5-32.5 - dark green, locally light green (epidote), fine to medium grained andesite -increased epidote veining, primarily as veinlets 1-3mm in width, very irregular veining patterns -up to 10% fine black to grey magnetite crystals - moderately magnetic -minor qtz/ankerite veining -fine grained ankerite also occurs within matrix - giving the rock a white spotted appearance	chloritization	1-2% cubic and disseminated py	

PAP 14064

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL87-38

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	32.5-35.3 - fine to medium grained, dark greenish-grey andesite with qtz/ankerite veining 1/2" wide and as small faulted veinlets -magnetite cubes	chloritization	1-2% disseminated pyrite	
35.3-36.4 Quartz Porphyry	35.3-36.4 - milky blue coloured, aphanitic porphyry dyke with qtz eyes -chlorite veining and trace magnetite	silicification	minor pyrite in veins and disseminated	
36.4-127.3 Andesite	36.4-50.4 - fine grained, dark green andesite with qtz/ankerite veining and cubic magnetite -qtz/ankerite veins are offset by many small faults -minor epidote	chloritization	locally 5% po minor chalcopyrite as blebs - at 43.7' pyrrhotite bleb 1/4 by 1/2" -2% cubic pyrite	
	50.4-77.2 - light green, fine to medium grained andesite with increased epidote veining and decreased qtz/ankerite veining -up to 10% magnetite cubes, making core strongly magnetic -up to 15% light green epidote crystals	chloritization	1-2% cubic pyrite	
Andesite	77.2-127.3 - varying in shades of green, fine grained andesite with white ankerite in matrix and a general increase in qtz/ankerite veining averaging 1/10" in width -up to 5% epidote veinlets and blebs, locally up to 10% epidote -minor magnetite wisps -veining is irregular with minor offset faulting	chloritization	1-2% disseminated pyrite locally 2-5% pyrite associated with veining minor pyrite cubes	

PAP - E-1551

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 3 OF 12

Project No. 291 Hole No. CL87-38

Property Cline LaKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
127.3-138.4 **Quartz Porphyry**	127.3-138.4 - grey, medium grained qtz porphyry with grey qtz eyes -minor calcite/qtz veining -trace tourmaline -minor epidote veinlets	chloritization	2-3% pyrite blebs and cubes disseminated pyrite in veins	
138.4-185.5 **Andesite**	138.4-185.5 - dark green, locally light green (due to increased epidote) -greyish towards 185.5 -fine to medium grained -minor, weakly faulted qtz/ankerite veining at beginning of section, grading into more homogeneous andesite with decreased qtz/ank veining, minor epidote veinlets - grades into greyish andesite with another increase in qtz/ankerite veining	chloritization	1-2% disseminated pyrite and pyrite blebs	
185.5-226.1 **Quartz/ Sericite/ Ankerite Alteration Zone**	185.5-226.1 - light grey to greenish grey grading into undulatory banding of greys whites and light greens -fine grained -up to 5% small ankerite/qtz veinlets with minor chlorite -pyrite and pyrrhotite occurs as blebs and in veins	sericitization/ chloritization	1-2% po blebs and pyrite blebs po blebs weakly magnetic tr cpy in upper contact area	
	-increased qtz/ankerite veining with trace tourmaline at end of felsic dyke	chlorite/sericite	locally 2-5% po blebs high po concentration at the end of unit	
226.1-261.9 **Andesite**	226.1-261.5' - dark green to greyish, medium grained andesite with up to 30% white ankerite blebs and wisps within matrix -infrequent qtz/ankerite veining	chloritization	<1% py in middle of section locally (associated with contacts) 2-5% py and po as veins and blebs	

PAP-E 1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 4 OF 12

Project No. 291 Hole No. CL87-38

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	-qtz/and veining increases at the contacts on both ends -qtz veining and the mineralization of py, po and magnetite increases at upper contact - approx at 227.5' -at 261.0', increase in py veining and blebs			
261.9-279.9 **QTZ/Sericite/ Ankerite Alteration**	-fine grained, light grey green, banded to massive appearing, sericite, qtz, ankerite, med hard, white qtz veining is qtz/sericite matrix			
	261.5-263.4 - banded, with qtz veining, tourmaline, sericite bands	sericite, carbonate	pyrite 2-5%	
	263.4-275.6 - qtz/sericite ankerite massive appearing with white qtz veins, sulfide, possibly a highly altered mafic volcanic	sericite, carbonate	pyrite 1-2% as fracture fillings and small masses	
	275.6-279.9 - appears like 261.5-263.4 - banded with qtz tourmaline veining less altered than above section (263.4-275.6) volcanic component preserved, possible fuchsite -lower contact gradational	carbonate, sericite	pyrite 1-3% locally 1% overall	
279.9-292.4 **Andesite**	-variable section of sheared, altered and veined andesite (alteration zone)			
	279.9-290.8 - dark green to pale grey green with numerous white grey narrow qtz/carb veins. Latter, usually concordant. Dark blackish seams of tourmaline common	3% q/c veining	280.6-281.9: 5-8% diss py otherwise tr-2% locally	c.a. 30 deg @ 283.3 c.a. 40 deg @ 287.0

P.A.P. - E-1550

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL87-38

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	on both ends -qtz veining and the mineralization of py, po and magnetite increases at upper contact - approx at 227.5' -at 261.0', increase in py veining and blebs			
261.9-279.9 **QTZ/Sericite/ Ankerite Alteration**	-fine grained, light grey green, banded to massive appearing, sericite, qtz, ankerite, med hard, white qtz veining is qtz/sericite matrix			
	261.5-263.4 - banded, with qtz veining, tourmaline, sericite bands	sericite, carbonate	pyrite 2-5%	
	263.4-275.6 - qtz/sericite ankerite massive appearing with white qtz veins, sulfide, possibly a highly altered mafic volcanic	sericite, carbonate	pyrite 1-2% as fracture fillings and small masses	
	275.6-279.9 - appears like 261.5-263.4 - banded with qtz tourmaline veining less altered than above section (263.4-275.6) volcanic component preserved, possible fuchsite -lower contact gradational	carbonate, sericite	pyrite 1-3% locally 1% overall	
279.9-292.4 **Andesite**	-variable section of sheared, altered and veined andesite (alteration zone)			
	279.9-290.8 - dark green to pale grey green with numerous white grey narrow qtz/carb veins. Latter, usually concordant. Dark blackish seams of tourmaline common	3% q/c veining	280.6-281.9: 5-8% diss py otherwise tr-2% locally	c.a. 30 deg @ 283.3 c.a. 40 deg @ 287.0

PAP-E 1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 6 OF 12

Project No. 291 Hole No. CL87-38

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	along margins of some of the qtz/carb veinlets. Largest vein/vein zone 0.3'. Lower contact 35 deg			
	290.8-292.4 - alteration zone as 263.4-275.6. Buffish grey colour with thin dark irregular seams of chlorite/tourmaline, parallel to fabric. Frequent grey quartz/carb veinlets throughout - tend to blend into massive textured alteration. Lower contact sharp at 50 deg with multiple black tourmaline bearing microseams.	quartz, sericite, ankerite	local py grains, 1-2% overall	
292.4-295.2 **Quartz Porphyry**	-sericitized type -medium grey, faint greenish cast -groundmass is foliated, very f-g, inhomogeneous appearance -qtz phenocrysts subrounded to subangular up to 4mm; 3%. Greyish colour -grades into shear banded section at 294.0' with heavier pyrite mineralization. Pyrite almost exclusively in dark shear laminae as opposed to paler carb/qtz bands -lower contact discordant, sharp at q.v.	sericitized	292.4-294.0 - 3-5% diss f-8 py 294.0-295.2 - 10% vf-g py grains up to 1mm	 c.a. 40 deg @ 294.2
295.2-295.7 **Quartz Vein**	white grey with distinct white ankerite crystals along internal margin -no visible sulphides -contacts very sharp, discordant to both hosting rock types			

PAP-E1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 7 OF 12

Project No. 291 Hole No. CL87-12

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
295.7-298.2 **Andesite**	-medium to dark grey green, fine grained, foliated -faint pinkish cast to fine stringy seams -numerous, irregular pale, greysih qtz/carb masses and veinlets (10%) -lower contact gradational over .1' into altered zone	qtz/carb veinlets	5% diss py o.a., locally up to 15%	
298.2-299.4 **Quartz-Sericite Ankerite Alteration Zone**	-similar to 209.8-292.4 mix of pale buff and grey components -lower contact sharp	qtz/ser/ank	tr - 2% py	
299.4-313.2 **Quartz Porphyry/ Alteration Zone**	-interval is not homogeneous, rapidly changing through following sections 299.4-300.5: near massive, f-g grey qtz porphyry grading into darker green and grey to white (q/c veining) banded section (similar to 294.0-295.2)			
	300.5-301.5: inhomogeneous section of aphanititc pinkish grey felsite irregularly mixed with ankerite, interstices of greenish grey colour. Overall texture is breccia-like. Lower contact is very sharp. 40 deg to C.A.	ankerite	nil - tr py	
	301.5-305.9: alteration zone - qtz-sericite-ankerite. Buff grey colour. Same as 298.2-200.4. Fairly homogeneous with occasional dark to to blackish grey micro seam	qtz/ser/ank	tr to 2% loc diss py	internal contact at 302.2 where buff q/s/a alteration changes only to resume again at 302.7

PAP-E-1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 8 OF 12

Project No. 291 Hole No. CL87-38

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	-Qtz phenocrysts not distinctive possibly due to alteration -Lower contact abrupt			
	305.9-313.2 - of banded appearance similar to 294.0-295.2 section which is shear banded -strong fabric, pale grey lens-like slivers of porphyry separated by dark grey py - rich matrix -shear zone		5-8% o.a., locally to 10-15% across .5'	ca 35 deg @ 306.0 increasing to 55 deg after 308.0'
	307.8-308.6 - 1 cm qv 20 deg to C.A.		nil -tr py	
	311.5: 0.3' grey white q.v., conformable		nil -tr py	
	-lower contact marked by close spaced banding with distinct black tourmaline bearing laminae. Contact is 50 deg to C.A.			
313.2-355.2 **Andesite**	-medium grey green with numerous paler grey to whitish grey laminae and masses of carb/qtz over initial 20.0'. Volcanic is fine-grained and of massive texture in groundmass, even in shear zone	qtz/carb veining	nil to tr py except as noted 326.6-327.2: 10% diss pyrite	c.a. 50 deg throughout
	313.2-332.9: <u>Shear Banded Andesite</u> Banding relatively uniform at 10-15% -Occasional seam of blackish tourmaline, usually where qtz/carb -veining is heavier -weakly mineralized -lower contact gradational			

PAP-E 1550

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 9 OF 12

Project No. 291 Hole No. CL87-38

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	332.9-355.2: Andesite -more homogeneous with scattered irregular qtz/carb veining -lower contact gradational over 3' with heavier contorted and fragmented pale grey qtz/carb component from 351.9-353.1 and coarsened texture from 353.1 to 355.2	carb/qtz veining	nil to tr py	
355.2-600.4 Mafic Volcanic	-dark green, medium to fine-grained -texture is generally massive with some short section foliated -5% pale, greyish to white qtz, qtz/carb veinlets and occasional irregular masses throughout -groundmass is chloritic with intervals containing secondary white carbonate crystals or altered feldspar approx 10-15% -Crystal average 1mm, and are subhedral. Some buff leucoxene noted locally. Estimate 80-85% ferromagnesians (chlorite) -no magnetite noted, but black 1/2mm flecks noted locally - chloritoid crystals?		tr diss py throughout, local concentrations at: 360.8-361.5 surrounding 30 deg white qtz seam	
	357.0-357.6: andesite dyke -very thin unit -grey green, very fine-grained -massive -sharp upper and lower contact			
	357.6-364.6: mafic volcanic as previous 364.6-365.3: andesite dyke as above 365.3-366.0: mafic volcanic as previous 366.0-366.1: andesite dyke as above			

PAP-E 1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 10 OF 12

Project No. 291 Hole No. CL87-38

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	366.1-371.8: mafic volcanic as previous -370.5-371.8 - contact alteration/shear zone. dislocated qtz/carb veins in coarsely foliated volcanic -lower contact sharp 75 deg to C.A.		5-8% py overall	
	371.8-374.1: Quartz Porphyry -greenish to buff grey, aphanitic to to very fine-grained -faint dark lattice through core -3-5% subangular quartz phenocrysts up to 3mm -lower contact 40 deg to C.A.		nil to tr py but thin concentration in contact volcanic	
	374.1-375.1 - weak contact alteration/ shear zone, bearly notable except for pyrite content		5-8% py overall	
	375.1-535.3 - mafic volcanic -similar to previous sections -dark green, fine to coarsely fine-grained -massive to locally foliated -5% pale qtz/carb veinlets			
	433.1-434.0: diss py 5-8% within short interval of slightly heavier qtz/carb veining (15%)		5-8% f.g. diss py	
	@ 438.1: diss py over 0.1' approx 5%		5% diss py	
	@ 442.0: diss py over 0.1' approx 5% in volcanic matrix to pale aphanitic grey fragmented felsite		5% diss py	

PAP - E 1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 11 OF 12

Project No. 291 Hole No. CL87-38

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	@ 452.8: 15% diss py over 0.2' -no significant veining		15% diss py	
	@ 457.8: mafic volcanic becomes magnetic (weak). Magnetite content gradually increases. No noticable change in volcanic groundmass. -Weak epidote alteration (of plagioclase) becomes evident about 479; change is very gradational, grain size increases. Some very thin epidote bearing fractures, occasional very thin reddish hematite bearing seams.	epidote visible magnetite crystals		
	@ 476.5: qtz vein 40 deg, 10% diss py in volcanic for .1 to .2'			
	@ 494.2: irregular qtz veining, coarse diss py 10% over 0.9'			
	535.3-538.8: <u>andesite dyke</u> -similar to 357.0-357.6 -very fine grained, even texture -massive, hare, FS med green, cored surface grey green -sharp straight fractures -contacts sharp, somewhat finer, of chilled appearance. Lower contact 50 deg -siliceous, veined upper contact with coarse vein py			
	538.8-575.9: <u>mafic volcanic</u> -has become non magnetic			

PAP-E 1550

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 12 OF 12

Project No. 291 Hole No. CL87-38

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	-@ 548.5 -possible flow breccia over 1.0' with finer textured mafic flow below, as far as 562.4			
	-544.0-544.9 - several quartz veins .1' to 2' thick, at various angles to core axis		coarse to finely diss py in bordering volcanic	
	-561.9-564.0 - several qtz veins		coarse to diss f-8 py, po	
	-562.4-575.9 - coarsely textured mafic volcanic			
	575.9-579.7: andesite dyke -same as 535.3-538.0 -contacts sharp U.C. 30 deg; L.C. 30 deg -very fine massive texture			
	579.7-600.4; mafic volcanic -coarsely textured, massive, even grain size -distinct blades of chlorite (hornblende) supported by greyish green, feldspathic groundmass			
600.4	END OF HOLE casing left in hole			

PAP-E1558

DIAMOND DRILL CORE LOG

Sheet No. 1 OF

LATITUDE 10+09N
DEPARTURE L9+87E
ELEVATION Surface
DIP COLLAR -50° BEARING 180°
TOTAL DEPTH 383.9 ft. CORE SIZE BQ
CORE STORAGE Aunor Minesite Timmine
REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
98'	-45°	180°	173°
364'	-37°	190	183°

Project No. 291 Hole No. CL87-39
Property Cline Lake
NTS. TWP. Jacobson Claim No. SSM 218
Date started Sept. 10/87 completed Sept. 12/87
Contractor St. Lambert
Logged by W. Corstorphine

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-45.9 casing	~~bedrock~~			
0-44.9 Overburden				
44.9-108.2 Mafic volcanic	-dark green grading into olive green, epidote bearing colour after 85' -fine-grained, foliated to occasionlly massive after 85' -1-3% fine white quartz/carb veinlets and carbonate blebs			
	44.9-52.7: strong shear banding, green volcanic bands 1mm to 10m thick alternating with pale grey carbonatized laminae. Infrequent grey/white quartz veins. @ 48.5: .2' quartz vein -very schistose, splits into "nickle core" -limonite staining, weathered over initial 5-7' -L.C. sharp at 50 deg to C.A.			shearing 80 deg to C.A.
108.2-131.2 Quartz Porphyry	-medium grey to greenish grey groundmass -chlorite flecking 2-5%, 1mm -fine fracture foliation -<1mm qtz phenocrysts, rare 2-3mm -quite uniform -L.C. sharp 50 deg to C.A.			significant interstitial chlorite

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 2 OF 6

Project No. 291 Hole No. CL87-39

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
131.2-207.1 Mafic Volcanic	-dark green grading through 139.0-141.0 into medium green, epidote tinged volcanic -all fine-grained foliated to massive 131.2-139.0: moderate qtz/carb veinlets parallel to fabric 139.0-162.5: distinctly flow volcanics, possible pillow structures. Magnetic. Large vescicle-like structures locally. 162.5-199.7: darker green, similar to 131.2-139.0 with short intervals as 139.0-162.5, usually as local, large paler epidote bearing patches 166.9-167.3: andesite dyke, f-g grey green 172.2: quartz vein, broken core over .3'		tr - 1% py	
	199.7-207.1: coarsely laminated mafic volcanic tuff. or sheared flow. Distinct internal contacts often marked by pale greyish bands with sharp upper contact and gradational lower contact, typically <1cm thick. Core angles. 60 deg at 202.9 70 deg at 203.5 -strong streaky banding 204.9-207.1, quartz/carb streaks and bands, occasional .1 to .2 qtz/carb vein -Lower contact sharp, ragged outline	shearing, carbonate-qtz veining	tr - 2% diss py, rare cluster of grains	

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 3 OF 6

Project No. 291 Hole No. CL87-39

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
207.1-208.2 **Quartz Porphyry**	-light grey, faint cream cast gradually becoming totally creamy white over lower half of unit -fine grained to aphanitic groundmass with dark grey slivers accentuating foliate fabric -last .15' intermediated with qv and blackish, tourmaline lenses -Lower contact sharp against quartz vein	sericitization, pale discolouration	nil to tr py	
208.2-238.6 **Mafic Volcanic**	-initial 1.7' brecciated with qtz/carb matrix estimate 20% vein material	vein silicification, carbonatization	nil to tr py	
	209.9-223.4 - shear banded volcanic with 10-15% silicification/carbonatization as veinlets and lenses parallel to fabric -dark green and pale grey to whitish grey bands, some of diffuse nature others distinct veinlets 214.5-215.7 - heavy veining, tr py 222.1-223.4 - heavy veining, contorted quartz breccia , tr-2% diss py overall, heavier over last .3' approx 8%		tr py	
	223.4-234.0: foliated, dark green volcanic			
	234.0-235.2: andesite dyke as 166.9-167.3 -sharp contacts			
	235.2-238.6: massive to weakly foliated dark green volcanic		tr-1% pyrite crystal	
	L.C. sharp, 60_o to C.A.			

PAP-E1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 4 OF 6

Project No. 291 Hole No. CL87-39

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
23~~9~~.6-264.3 Quartz Porphyry	-greenish grey, fine grained groundmass -massive to locally foliated -1-2% quartz phenocrysts up to 3-4mm, bluish cast -groundmass contains 5-8% green chlorite -sparse veining 254.4-256.5: silicified volcanic -L.C. sharp 60 deg to C.A., contacts aphanitic		tr py as specks and crystals	
264.3-266.4 Mafic Volcanic	-foliated, semibanded mafic volcanic very thin qtz/carb veinlets and lenses parallel to fabric, 60 deg to C.A. 265.0-265.2: black msv magnetite 50% pale grey qtz/carb 30%, coarse pyrite grains 20% 266.2-266.4: 15-20% heavily diss py -L.C. sharp 60 deg to C.A.			
266.4-269.6 Quartz Porphyry	-fine, even textured, greenish grey groundmass -foliated -1% bluish quartz phenocrysts, rounded to obliqure, some poorly defined -L.C. sharp 55 deg to C.A.			
269.6-290.3 Mafic Volcanic	-very fine grained, even textured -dark green, masive to foliated -similar to 235.2-238.6 -scattered qtz/carb veinlets parallel to local fabric			

PAP-E1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 5 OF 6

Project No. 291 Hole No. CL87-39

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	@ 270.1: black magnetite lens, discontinuous, 3mm thick			
290.3-291.~~0~~ 9 **Quartz Magnetite Sulphide Ankerite Zone (Iron Formation)**	290.3-291.0: sulphide/ankerite zone 20% py + po as heavy disseminations and smsv stringers. -80% slivered, carbonatized volcanic and green chlorite 291.0-291.9: banded white quartz/chert? and black magnetite -40% magnetite, very fine-grained massive laminae up to 4cm -60% quartz up to 1cm		5-10% stringer py,po	primary OIF? with chert?
291.9-299.8 **Mafic Volcanic**	-fine grained, dark green foliated to massive groundmass -very uniform, even texture -minor qtz carb veinlets of 1-2mm width -L.C. sharp 60 deg to C.A.	chalky fault zone, core fractured up	net sulphides	
299.8-318.3 **Quartz Porphyry**	-medium to light grey colour, fine grained to aphanitic groundmass -massive to foliated texture -moderately fractured, stained fracture zones not uncommon, brittle net-like fracture pattern discernable in some sections -quartz phenocrysts 1-2%, subrounded; up to 2 or 3m 299.8-302.0: curved, shear/qtz lenses with tr-2% py, low angle to C.A. -core badly fractured			

PAP-E1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 6 OF 6

Project No. 291 Hole No. CL87-39

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	302.0-307.6: grey quartz porphyry, faint greenish cast in places -Sharp L.C.			
	307.6-308.5: Volcanic; altered to pale grey green, carbonatized. Sharp L.C.	carbonatized	nil to tr sulphide	
	308.5-318.3: grey quartz porphyry, .2' section buff discolouration at 312.7 314.5-314.8 - volcanic wedge 314.8-315.8 - quartz/carbonate veining 315.8-316.6 - grey porphyry 316.6-317.5 - leached, broken core, fault? 317.5-318.3 - glassy white quartz vein in broken limonite stained porphyry		nil to tr sulphide nil to tr sulphide	50 deg to C.A. vein crosscuts fabric
	-Lower contact 80 deg to C.A.			
318.3-383.9 Mafic Volcanic	-dark green, fine-grained 5% white carbonate veinlets to 324.0. Gradational change to slightly coarser, magnetic phase from 324.0-354.9 354.9-356.2: dark grey, silicified zone some chlorite bands, white quartz veins at either margin. 10-25% diss py, magnetite? quite magnetic over initial .6 ft 356.2-363.0: crudely banded volcanic 5-8% white qtz/carb veinlets and irregular masses. Sparse pyrite as crystals 363.3-363.6: quartz vein silicification 1-2% diss py 363.0-383.9: foliated volcanic with coarsely fine-grained texture	silicification	5% diss py overall tr diss py as crystals rare f-8 py mass 1-2% diss py in vein area	
383.9	END OF HOLE			

PAP-E1558

DIAMOND DRILL CORE LOG

Sheet No. ____ OF ____

DEPARTURE :32+19E

ELEVATION Surface

DIP COLLAR -50° BEARING 180°

TOTAL DEPTH 531.5' CORE SIZE BQ

CORE STORAGE Aunor Minesite - Timmine

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
364'	-45	192½	185½
502'	-43	191	184

Project No. 291 Hole No. CL87-40

Property Cline Lake

NTS. ____ TWP. Jacobson Claim No. SSM 2186

Date started Sept. 13/87 completed Sept. 15/87

Contractor St. Lambert

Logged by W. Corstorphine

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-26.2 **casing**	bedrock at 18.8			
0-18.8 **Overburden**				
18.8-29.7 **Mafic Volcanic**	-initial 11.0' variable 18.8-19.7: fine-grained, msv, medium to dark green volcanic similar to uniform section below 29.7. Faint yellow green cast from epidote development in groundmass			
	19.7-24.3: dark greyish green volcanic with strong shear fabric subparallel to core axis. Much white carb/qtz parallelling fabric. Local pyrite concentration in carbonate rich veinlets.		tr to 10% py, as local concentrations assoc'd with carb/qtz veinlets	
	24.3-29.7: mixture of msv green volcanic similar to initial 10' of following uniform section, and broken, leached and oxidized (weathered), cabonate/qtz veinlet bearing volcanic		tr py	
29.7-97.3 **Mafic Volcanic**	-fine-grained, generally massive to locally foliated groundmass of dark green to grey green colour. Faint epidote green cast in many locations. Frequently magnetic - diss magnetite crystals			

P.A.P. 14084

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 2 OF 10

Project No. 291. Hole No. CL87-40

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	@ 39.0: 0.2' thick qtz/carb vein with minor py		tr py blebs	
	@ 48.1: 0.1' thick qtz/carb vein with minor py		tr py blebs	
	-locally, fine whitish grey crystallites of carbonate fleck the groundmass -minor white carb/qtz veinlets/masses random orientation			
	71.3-71.7: finer texture, grey to grey-green ankerite dyke with distinct contacts. 40 deg Upper 50 deg lower		nil sulphide	
	71.7-72.1: magnetite-rich, foliated, fine-grained green, mafic volcanic			
	72.1-74.6: greyish-green andesite dyke as 71.3-71.7. Sharp upper and lower contact at 40 deg		nil sulphide	
	74.6-97.3: foliated, finely textured mafic volcanic, sometimes quazi-banded, sometimes grades into carbonate-rich greyish green phase. Magnetite varies, sometimes heavy 75.6-78.8: fractured, core, minor limonite, 5% carb/qtz veining			fol'n/banding 50 deg to C.A. throughout
	92.6-93.0: pale grey to buff grey <u>altered zone</u>; trace to 2% py, and 2-3% magnetite		2% diss py	

PAP-E 1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 3 OF 10

Project No. 291 Hole No. CL87-40

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
97.3-105.4 **Quartz/ Ankerite/ Sericite Alteration Zone**	-light to dark grey, crudely banded structure -streaked with thin pale grey carb/qtz lenses and stringers and occasional qtz vein all parallel to strong 45-50 deg fabric	carbonatized, local silicification, sericitization		
	97.3-100.1: relatively homogeneous, 5-8% diss py as local concentration		5-8% diss py	
	100.1-105.4: more intense alteration pale grey, sparse grey qtz veining; lensoid breccia fabric -very heavy diss to smsv py. Some crystalline, some very fine small masses, estimate 20% py - 104.6: largest vein .2'		20% diss py	
105.4-108.4 Mafic Volcanic	-very dark, greyish to greenish black colour -comprised of very small (<1mm up 1cm by <mm to 3mm thick) dark greyish lenses tightly packed and separated by dark green chlorite foliated matrix. Pale component carbonate bearing -strong foliated to schistose, fine-grained -very homogeneous -quite magnetic -altered mafic volcanic -lower contact interbanded, dark altered volcanic d(as 105.4-108.4) and cherty to fine-grained siliceous/ankeritic bands with green-buff altered volcanic patches up to several cm in size		tr - 1% py spks	

PAP-E1558

NORANDA EXPLORATION COMPANY LIMITED

Sheet No. ____ OF ____

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL87-40

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
108.4-111.8 Quartz Porphyry	-fine-grained, dark greenish grey, some pale streaks and shading -quartz phenocrysts, sparse, difficult to pick out approx 1% up to 2mm -prominant greenish component, f-g, poss volcanic comtamination -does not stand out from other sections in "altered zone"		5-8% diss py throughout	
11~~8~~.8-128.8 Banded Mafic Volcanic	-very fine grained, dark rosy-green grey due to bright chlorite? - very subtle -foliated groundmass -banding caused by paler veinlets of carb/qtz, and bands of cherty dyke? material up to 2cm thick -weakly magnetic -relatively uniform overall -L.C. distinct about 60 deg to C.A. -cherty bx across .1' at contact	altered seams	tr-1% diss py overall local concentrations of py 10% over 2mm-20mm widths, every .5' or so 10-15% diss py over last .4'	115.0' banding 60 deg 125.0' banding 55 deg
128.8-148.7 Quartz Porphyry	-coarse, elongate, patchy shading of green and pale grey colour aprox 50:50 ratio -strong foliate texture with 1-2mm quartz grains of bluish cast are surrounded by a foliated, fine-grained greenish grey matrix -Fine whitish traces of microfracturing in groundmass -initial 4.5' are paler, more massive in appearance, groundmass more aphanitic: light grey, with cloudy green chlorite mottling -very weakly mineralized with fine py		2-3% diss py + po	fol'n 50 deg to C.A. throughout

PAP-E 1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 5 OF 10

Project No. 291 Hole No. CL87-40

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	128.8-133.0: pale grey porphyry, altered -quartz not really in evidence -gradational change		2-3% diss py + po	
	133.0-144.7: green-grey quartz porphyry -strongly foliated -quartz eye-rich 5-8% -L.C. 60 deg to C.A.		2-3% diss py + po	
	144.7-145.5: diabase -black, fine-grained, massive -magnetic -occasional 1mm greyish feldspar phenocrysts -LC. 80 deg to C.A.			
	145.5-148.7: quartz porphyry similar to 133.3-144.7 -coarsely foliated to near massive -slight buff brown cast -medium grain size -L.C. sharp, irregular		nil to tr sulphide	feldspars of groundmass are coarse, almost feldsparphyric
148.7-158.2 **Diabase**	-black, massive fine-grained groundmass -matted, felt-like texture -magnetic -very even textured			
158.2-172.5 **Quartz Porphyry**	-porphyry as 145.5-148.7 -coarsely textured, 2mm grain size -mottled pale grey/dark green -coarse, foliate to massive texture	ankerite in groundmass	nil - tr py	

PAP-E 1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 6 OF 10

Project No. 291 Hole No. CL87-40

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	-quartz of bluish cast - lost in coarse groundmass 169.1-170.0: diabase			
172.5-337.0 Diabase	-dark, black, faint brownish cast -massive, even, fine-grained texture -fractured throughout -magnetic, black flecking in magnetite-rich intervals approx 5% magnetite xlls -L.C. gradational, changing into carbonatized buff coloured phase at 334.1			
	334.1-335.3: uniform, moderately fractured, minor thin qtz carbonate veinlets <1mm thick	carbonatized		
	335.3-337.0: brecciated, buff carbonatized diabase. White carbonate-qtz veining and breccia infilling 10-12% -L.C. 337.0 sharp at 30 deg	carbonatized	local spks of cpy in carb/qtz veinlets otherwise tr S. only	
337.0-401.2 Quartz Porphyry	-light grey/buff to dark grey and greenish grey -aphanitic, qtz/feld. groundmass with sparse dark chlorite fleckings and spottings as an interstitial mineral. Groundmass becomes fine-grained after 361.3. -texture somewhat variable from foliated to massive texture and minor colour variation -buffish brown alteration extends from 337.0 to 347.7. Brownish alteration does not stain	weak carbonate	1-2% diss py in groundmass, occasional short .2' section with up to 5% py	

PAP-E 1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 7 OF 10

Project No. 291 Hole No. CL87-40

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	-weak to moderate carbonatization, little if any sericitization -qtz phenocrysts bluish cast. 1-3% -quartz, quartz/carb veining sparse at:			
	338.2: 2-4cm qtz vein, discordant nil - tr sulphide		nil - tr sulphide	
	346.5: 1cm qtz vein, discordant to foliate fabric, nil - tr sulphide		nil to tr sulphide	
	359.9: 2cm qtz vein, discordant, nil-tr sulphide		nil - tr sulphide	
	368.4: 4cm qtz vein with cpu, sph, po		5% cpy, tr sphalerite 1% po in vein	
	376.8: 1cm carb/qtz vein		nil - tr sulphide	
	379.0-379.5: series of thin qtz veinlets in in shear banded section; 40 deg core angle		3% very fine diss py	
	388.4: .2' with 3% diss py in short weakly banded section of porphyry			
	398.7: 1cm qtz vein		tr py	
	-lower contact distinct 40 deg to C.A., following zone is sheared qtz prophyry			

PAP-E 1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 8 OF 19

Project No. 291 Hole No. CL87-40

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
401.2-450.9 Shear Zone (Quartz) Porphyry Mafic Volcanic	-strong shear fabric marked by foliate texture of affected rock and banding created by numerous pale grey carbonate/ qtz veinlets paralleling fabric -original lithologies includes sections of grey to greenish grey porphyry (quartz phenocrysts not discernable) and darker grey green mafic volcanic which is of F-G texture with paler groundmass than usual (carbonatized). Often, volcanic seems silicified -very difficult to separate out the original lithologies:			
	401.2-402.4: sheared, carbonatized, veined	heavy carbonate/qtz veining	1-2% diss py	shearing: 30 deg @ 402.3
	402.4-403.4: mafic volcanic, LC 30 deg to C.A.	diss carb/qtz	tr py	30 deg @ 405.8
	403.4-405.0: sheared porphyry. LC 25 deg to C.A.	streaky lenses carb/ qtz in shear slips, several veins	tr py	50 deg @ 410.0
	405.0-407.8: sheared, grey green mafic volcanic -strong foliation of groundmass -L.C. distinct 30 deg to C.A.	shear slip carb/qtz and small veinlets	locally 1-2% py otherwise tr py	30 deg @ 415.0
	407.8-408.5: pale grey aphanitic porphyry LC 25 deg to C.A.			
	408.5-416.9: strongly sheared and veined porphyry, local bands may be mafic volcanic (5-10%)	carb/qtz lenses, veinlets 20% +	1-3% very fine py, occasional local concentrations up to 8%	spotted volcanic begins at about 411.5' as thin
	-L.C. 25 deg to C.A.		over .1'-.2'	lenses in porphyy

PAP-E1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 9 OF 10

Project No. 291 Hole No. CL87-40

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	416.9-418.7: spotted mafic volcanic -medium grey-green fine-grained, foliated groundmass with 5-8%, 1/2 mm flecks of magnetite			
	418.7-421.3: pale grey quartz porphyry with greenish, pyritic intersticies to coarse blotchy fabric of cherty porphyry -contacts are undulatory subparallel to C.A.		1-3% diss py	
	421.3-450.9: sheared mafic volcanic, variable concentration of carb/qtz lenses and veinlets paralleling fabric. Estimate 10-20% carb/qtz -grey-green, fine to medium textured volcanic groundmass -spotted 8% with black magnetite flakes	carbonatized	5-10% diss po + py locally, up to 20% some msv po bands paralleling fabric 423.0-425.0 - heaviest po concentration approx 15%	
	441.2-444.9: strong buff carbonatization zone has distinct contacts, upper is undulatory at low core angle, lower is 20 deg to C.A. -Protolith possibly porphyry - no visible q.e. but groundmass siliceous, very fine, even texture			
450.9-531.5 **Mafic Volcanic**	-medium to dark grey-green, fine to coarsely fine textured massive to foliated groundmass -spotted, 8% with black magnetite grains			
	450.9-456.4: carbonate/qtz veining 20%		tr sulphide	

PAP-E1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 10 OF 10

Project No. 291 Hole No. CL87-40

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	466.7-470.4: carbonatized as 441.2-444.9, fine-grained, even textured, streaked with buff grey carb/qtz -contacts gradationally sharp	strong carbonatization	tr sulphide (py)	
	-minor white quartz veins .1' thick in unaltered volcanic between 526.7-531.5 -518.6 - water seam -some disseminated py in groundmass of volcanic		nil to 8% diss py in groundmass	
531.5	END OF HOLE			

P.A.P. - E-1558

DIAMOND DRILL CORE LOG

LATITUDE L 877N

DEPARTURE 3668E

ELEVATION

DIP AT COLLAR 50 BEARING 180.0

TOTAL DEPTH 669.5 CORE SIZE BQ

CORE STORAGE Timmins

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
Acid 167	Apparent 49		
634.8	49.0	189	182

Sheet No. ____ OF ____

Project No. 291 Hole No. CL87-41

Property Cline Lake

NTS. 42C68 TWP. Jacobson Claim No. SSM2186

Date started ____ completed 18 Sept. 1987

Contractor St. Lambert

Logged by W. Corstorphine / T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-18.7	Overburden			
18.7-32.2 **Black Mafic Volcanic (Iron Formation?)**	-very hard, some free qtz noted in groundmass -dark blackish green: dense, very fine-grained groundmass to foliated fabric -local concentrations of pale green alteration spots - very irregular shapes <1mm up to 3mm - numerous veinlets, of pale greenish white colour. Calcite rich (HCL reactions) -moderately magnetic, pyrrhotite prominant no visible magnetite -vein banding attitude 40 deg - 50 deg -lower contact distinct 60 deg to C.A. parallelling banding/foliation		3-5% diss po up to 8-10% locally	cannot scratch unit may be related to local iron formation core very blocky, broken up
32.2-53.3 **Diabase**	-dark greyish black -even, fine-grained msv texture -highly fracture, blocky core -moderately magnetic throughout -L.C. sharp 40 deg to C.A.			
53.3-76.5 **Black Mafic Volcanic (Iron Formation?)**	-same as 18.7-32.2 -scattered withish grey carb/qtz veinlets up to 2cm at varioius angles to C.A. -L.C. marked by white glassy quartz vein, diabase brecciated		3-5% diss po, locally to 10%	

PAP 14064

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. ____ OF ____

Project No. 291 Hole No. CL87-41

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
76.5-81.0 **Quartz Porphyry**	-highly brecciated in coarse fashion. Coarse white quartz/carb open space filling. About 15% veining -medium grey to faint buff grey, 1% dark lenticles -aphanitic groundmass with mottled overprint 2mm scale -quartz phenocrysts sparse <1mm		<1% very fine py	
81.0-92.7 **Mafic Volcanic**	-same as 53.3-76.5 etc, very hard -foliated groundmass, crude secondary banding caused mainly by carbonate/qtz lenses etc - not very well developed. Local brownish cast possibly from ~~5-8~~ fine-grained biotite -occasional greyish white veins 1-4cm thick, only trace sulphide noted with these -lower contact distince over 1-2cm		scattered po blebs and small masses	
92.7-100.0 **Iron Formation**	-dark blackish grey with minor paler greenish, fine-grained texture lenses, prominant po throughout as smsv and heavily disseminated bands and lenses -magnetite and pyrrhotite rich, minor cpy, sph -very hard groundmass -occasional grey qtz vein mass -sulphide rich sections exhibit primary layering -L.C. distinct 40 deg to C.A.		10-20% po, 1-2% cpy 10-15% magnetite, tr-1% sphalerite assoc with qtz mass at 97.8' and 98.5'	
100.0-106.6 **Quartz Porphyry**	-medium grey, shear foliation and micro fracturing in groundmass -matrix is siliceous, aphanitic with micro interstitial chlorite/minor sulphide		tr-1% diss py, rare coarse py aggregates	

PAP-E 1558

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL87-41

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	-occasional qtz masses and veinlets up to 4cm 101.3-102.3: dark brownish grey, fine-grained even texture zone in porphyry -U.C. gradational over 1cm - LC sharp 50 deg to C.A. -possible andesite dyke or part of I.F. -possibly ~~f-8~~ fine-grained biotite in groundmass L.C. indistinct, associated with mosaic of quartz veins			
106.6-108.2 **Quartz Vein in Iron Formation**	-50% white qtz vein material, fine-grained grey green volcanic matrix - overall, a coarse massive mosaic pattern, note traces of sphalerite and cpy with local po concentration -some I.F. with po, magnetite and silicates from 107.4-107.6 107.6-108.2: a more uniform section of white quartz vein material		5% po, tr sph, cpy	
108.2-108.8 **Massive Pyrrhotite Zone**	-75% massive pyrrhotite, 3-5% py -L.C. gradional into green chlorite phase of I.F.			
108.8-113.3 **Iron Formation**	-dark greyish black, initial paler section section from 108.7-110.0 exhibiting crude banding and containing 15% coarse white vein material of patchy character -still magnetite bearing as dense near aphanitic black lenses which blend into bordering silicates, mainly chlorite, silica		5-15% diss to stringer po, 2-3% py tr cpy 10-15% magnetite	

P.A.P. - E 1558

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL87-41

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	108.7-110.0: 3% diss po, 10% magnetite 110.0-113.3: 15% diss po, minor py, and 15% magnetite -L.C. indistinct, gradational			
113.3-117.5 **Mafic Volcanic**	-dark, very fine dense texture -brownish green, contain fine biotite -same as 81.0-92.7 -fractured; thin irregular carb/qtz veinlets fracture filling and lens -essentially non magnetic -L.C. sharp 65 deg to C.A.		nil-tr sulphides	
117.5-118.6 Quartz Porphyry	-light to medium grey qtz porphyry -similar to 100.0-106.6 -irregular thin white micro fractures lace unit, some coarse breccia with 1-2cm qtz vein material -minor blue quartz eyes up to 1mm -Contacts sharp 1cm, po along L.C., @ 50 deg to CA	30% silicification 5% sericite	nil to tr sulphides	
118.6-129.6 **Mafic Volcanic**	-medium grey, fine-grained, no calcite except in fractures (3/ft) parallel to schistosity @ 50 deg to C.A.	30% chlorite		
129.6-130.4 **Quartz Porphyry**	-light grey, fine-grained matrix, quartz and chlorite phenocrysts - stretched parallel to schistosity -sugary quartz veinlet parallel to schistosity @ 60 deg to C.A.	20% silicification		

PAP-E1558

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL87-41

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
130.4-219.3 **Mafic Volcanic**	-dark to light grey, fine-grained; hardness <5; calcite only in fractures mainly parallel to schistosity @ 50 deg, fracturing 1 per foot; overall strongly magnetic though no obvious magnetite (or phyrrhotite), magnetite occurs as disseminations up to 15% and in fine <5mm wide fractures 154.5-157.5 - qtz carbonate fractures, 15% of rock 187.0-190.0 - qtz carbonate fractures, 5% of rock 201.0-204.0 - qtz carbonate fractures, 5% of rock	146.8-147.5 - 30% epidote alteration with with specs of pyrite and 30% quartz		magnetite probably primary feature and has not been affected by alteration magnetite should be obvious in magnetic survey
	166.7-167.4 - prophyry sill, contacts parallel to schistosity	5% sericite 30% silicification	specs of pyrite	
219.3-291.0 **Andesite**	-light to medium grey; fine-grained; harder than mafic volcanics, disseminated magnetite in unaltered sections - 285.0-291.0 more silicified, non-magnetic, less than 1% pyrite along schistose planes -lower contact at 060 deg, gradational over last 0.5 feet	242.0-250.0 silicified mottled section 5% sericite	dissemination cubic pyrite, <1%	andesite maybe altered mafic volcanics (basalt)
	233.9-242.2: medium-grained, chloritic and carbonated	30% chlorite		

P.A.P. - E 1558

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL87-41

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
291.0-489.0 Quartz Porphyry	-light grey, fine-grained, hard, slightly schistose, core angle 50 deg to C.A., no quartz phenocrysts except at bottom of section.	dark grey chlorite(?) stringers- 1mm wide, parallel to schistosity silicified sections: 325.5-325.8, 334.6-336.0 Quartz Veins: 327.7 -1.5" wide, 0 deg to sch. 329.8 -0.5" wide 0 deg to sch. 330.8 -1.5" wide 90 deg to sch. 337.5 -2" wide, 0 deg to sch. 361.0 -2" wide, 90 deg to sch. 310/90 371.9 -1" wide, 30 deg to sch. 381.3 -3" wide, 0 deg to sch. 392.0 -1" wide, 90 deg to sch. 330/90 399.7 -1" wide, 90 deg to sch. 330/90	disseminated pyrite <1%	

PAP-E1558

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL87-41

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
291.0-489.0 con'd **Qtz Porphyry**	-increase in magnetite towards contact from 467.0 to 480.0 480.0-484.0: blue quartz eye augen up to 3mm in diameter 485.0-489.0: fragmental -Lower contact gradational @ 60 deg to C.A.	Quartz Veins: 433.9 -2" 0 deg to sch. 434.3 -2: 0 deg to sch. 438.5 -3" chlorite alter'n (5%) Potassic alteration: 469.0-472.2 478.0-478.5	1% pyrite - 466.0-469.5 478.0-478.2	
489.0-590.0 **Andesite**	-medium green, fine-grained, contains 10% disseminated magnetite, massive, more schistose towards upper contact -minor carbonate in fractures, fractures 60 deg to C.A.	489.0-510.0: weakly silicified (lighter green colour) Quartz Veins: 518.0-521.0: 20% fract filling, 60 deg to C.A. 577.0: 3", 60 deg to C.A., 60% chlorite	1% pyrite: 531.0-534.0 549.2-552.2 561.0-564.0 567.0-570.0	basalt flow
590.0-642.0 **Lamprophyre**	-Black, fine to medium grained, massive 639.0-640.0 - qtz-carbonate vein, 10% to C.A. -pink calcite, green carbonate, possibly fuchsite 634.3-636.9: inclusion of qtz prophyry with pyrite chilled sections: 590.0-602.0, 620.8-625.0, 631.0-634.3			

P.A.P.-E1558

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL87-41

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
642.0-669.3 **Andesite**	-light green, fine to medium grained, massive as from 489.0 to 590.0, schistosity: 60 deg to C.A.	quartz-carb veins: 664.0 -3", 60 deg to C.A. 588.5 -3", 60 deg to C.A.	pyrite, 1% 647.0-653.0	coarse-grained basalt
669.3	END OF HOLE			

PAP-E1550

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 2

LATITUDE 676N

DEPARTURE 3561E

ELEVATION

DIP AT COLLAR 50° BEARING 180

TOTAL DEPTH 502 CORE SIZE BQ

CORE STORAGE Timmins

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
197	45°		
394	42	196	189

Project No. 291 Hole No. CL87-42

Property Cline Lake

NTS. 42C TWP. Jacobson Claim No. 2188

Date started 19 Sept. 1987 completed 21 Sept. 1987

Contractor St. Lambert

Logged by T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-9.2	overburden			
9.2-192.4 **Quartz Porphyry**	-light grey to light beige with dark grey quartz rich areas -schistose: 44.0-48.0 - to deg to C.A. surface weathering: 45.0-46.0; 47.0-48.0; 49.0-52.0; 66.5-68.0; 69.5-73.0; 74.0-81.0 quartz phenocrysts: 63.0-69.0 -core angles: @ 100.0' - 60 deg @ 150.0' - 55 deg -lower contact @ 60 deg -possible fault 187.0-192.4, 2% pyrite 17.0: slickensides, mylonite, shear parallel to core, rock totally bleached by silicification with specs of fuchsite 73.5: slickensides, 30 deg to C.A.	5% sericite (minor) overall 10% sericite - 147.0 chlorite: 10% - 130.0 no carbonatizations Quartz Veins: 29.7 -2" wide, 70 deg to C.A. 1% py 1% tourmaline 50.8 -2-2" wide q.v. 70 deg to C.A. 55.2 -1" wide, 60 deg to C.A. 59.2 -2' wide, 60 deg to C.A. 78.7 -2" wide, 70 deg to C.A. 80.0 -2" wide, 90 deg to C.A. chert silicification 108.3 -1" wide, 60 deg to C.A. 137.0 -2' wide, 60 deg to C.A. 146.0 -0.7' wide, 15% sericite alteration halo	1% py: as disseminations and fine lamillae, no concentrations	

PAP-14064

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL87-42

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
192.4-502.0 **Andesite**	-dark green -10% disseminated magnetite, as crystals up to 3mm -disseminated magnetite sections 192.0-216.0: 5% carbonate in matrix and fractures -schistose @ 60 deg, 192.4-202.0 -from 300.0 to 502.0, massive medium-grained and unaltered	163.0 -2" q.v., 60 deg to schistosity, 60 deg to C.A. silicified sections: 274.0 - 276.5 286.0-289.0 quartz veining: 304.9 - 1" 379.0 -1/2", 20 deg to C.A., 2% po 389.0 -1/2", 20 deg to C.A., 5% po 394.0 -3x1/2:, 20 deg to C.A., 1% po chloritic alteration: 5-10% down to 300.0 carbonate (calcite): 3% overall: in schistose zones 5-10% 406.0 -1" q.v., 90 deg to C.A. 407.0 -2" q.v., 90 deg to C.A. 413.0 -1/2" qv, 60 deg to C.A. 458.2 -1/2" qv, 90 deg to C.A. 471.0 -1/2" qv, 25 deg to C.A.	305.0-306.0, 2% po	
502.0	END OF HOLE			

PAP-E-1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 5

LATITUDE

DEPARTURE 4605E

ELEVATION

DIP AT COLLAR 50.5 BEARING 180

TOTAL DEPTH CORE SIZE BQ

CORE STORAGE Timmins, Ontario

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
88	50	-	-
225	49	180	173
475	45	180	173

Project No. 291 Hole No. CL-87-43

Property Cline Lake

NTS. 42C8 TWP. Jacobson Claim No. SSM 2188

Date started 21 Sept. 87 completed 24 Sept. 87

Contractor St. Lambert

Logged by T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-11.5 **Overburden**				
11.5-100.7 **Quartz Feldspar Porphyry**	Medium grey colour, medium-grained feldspar crystals less than 1mm, non-schistose non-carbonatized, non-magnetic	g.v.s.: 54.5-1/2" 60° to C.A. 63.3-1" 70° to C.A. 64.0-1" 70° to C.A.	11.5-100.5 no sulphides	
	Andesit inclusions:(30.0-31.0 U.C. - 30°, opposite direction) 32.0-33.5 (fragmented) rhyolitic - chilled sections: 40.0-55.0 Core Angles: 50°	sericite: less than 1%		
100.7-116.5 **Mafic Volcanic**	Dark green, schistose, fine-grained carbonate in fractures: 2 per foot; 1/2" wide	Epidote: 101.2-103.7, Chlorite: 20-30%	5% pyrite 106.5-108.0 15% py,	Inclusion(?)
	Core angles: 50° lower contact sharp @ 60° to C.A.	Quartz veins: 100.7-101.2, 1/2" band of pyrrhotite, chlorite and epidote along contact 90° to C.A.		

P.A.P. 14064

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-43

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
116.5-152.5 **Chilled Porphyry**	Medium to light grey, aphanitic with crackled appearance, massive and mottled Core Angle: 50° to C.A.	107.6-2", 60° to C.A. 1% sericite, bleaching along fractures is present and sericite content increases towards lower contact	<1% pyrite	
152.5-170.0 **Mafic Volcanic**	Dark green to grey, altered, silicified from 161.0 to 165.0 schistosity at 50° to C.A., upper contact. Sharp and irregular, lower contact sharp at 50° to C.A. 157.5-157.8 lamprophyre dyke, U.C. at 70° to core axis, black, fine-grained magnetic	Epidote: 178.5-179.8 - 70%	2% pyrite 166.4-167.4: 15% py as diss. cubes,	
170.0-200.0 **Oxide Iron Formation**	Dark grey to black, fine grained, 177.2 - fold with epidote and quartz vein 172.0-178.0, 10% magnetite and chert beds 170.0-200.0 strongly magnetic 176.0-176.5 light brown skarn (?) mineral (80%) and magnetite (18%) and pyrite (2%)	3-10% epidote as wisps and along fractures	5% pyrite as dissemination fine-grained	
200.0-216.8 **Mafic Volcanic**	As from 152.5 - 170.0 non-magnetic Core angles 55°	Quartz Veins 209.4 - 1", 60° to C.A. folded, 1% pyrite		

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 3 OF 5

Project No. 291 Hole No. CL-87-43

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
216.8-341.9 Quartz Feldspar Porphyry	Light grey, medium-grained, massive (no blue quartz eyes) becoming fine-grained and schistose in silicified sections which are more mottled than schistose Core angles: 285 - 40°	Sericite: 3% overall 293.0-315.0 - 5% 328.0-333 - 7% Chlorite: 288.5-289.0 50% (possible shear) Silicification: 5% overall quartz veins 216.8-217.5 230.5-3" 249.0-2" milky, 45° to C.A., specs of py 303.5 - 1" grey, 50° to C.A. 323.6 - 1", 60° to C.A. gray quartz 331.0-332.0 milky, with 20% porphyry fragments and 1% py/po 332.5, 333.2, 334.0 - 1/2" @ 60 to C.A.	<1% pyrite in silicified sections 336.0-341.9 15% py 336.0-341.9 15% py	
341.9-510.0 Oxide Iron Formation	Dark Black, fine-grained, chert and magnetite with quartz porphyry sills. Host is black argillite.			3% pyrite overall

PAP-E1668

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-43

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	389.0-389.8 - chert bands fractured parallel to core filled with magnetite and pyrite. (magnetite appears to rim pyrite) Core Angles: 40-50 deg Lower contact gradational @ 50 deg Sills - 347.5-348.3 - core angles 60 deg (U and L.C.) 350.0-352.2 - core angles 60 deg (U. and L.C.) 366.3-368.0 - core angles 50 deg (U. and L.C.) 392.0-394.1 - core angles 60 deg (U.C.) 70 deg (L.C.) 403.4-407.4 - core angles 60 deg, lower contact 60 deg Sills: 420.0-432.6 - with inclusions of black argillite (426.4-427.8, 428.7-429.5) 450.4-452.0 456.3-463.7 - 10% qtz phenocrysts 472.5-478.5 Contacts are altered and gradational	Quartz + Chert: 360.1 = 2% py, 1" wide 361.0 = 5% py, 2" wide 362.0-363.0 = 5% py 369.0-383.0 = 20% chert 15% quartz, 5% pyrite 389.0-389.8 - 80% chert, 15% quartz, 5% pyrite	423.6-424.7 - 40% py 60% quartz 497.5-489.5 - 30% py	346.0-347.0 - 1% py with chert bands and magnetite
510.0-541.3 **Andesite**	Dark green, medium-grained, schistose, 5% cherty quartz in fractures parallel to schistosity, magnetite as 10% disseminations. Sills: 512.6-513.6, 60 deg to C.A. 524.0-535.0, 60 deg to C.A.		5% pyrite at lower contact over 2"	

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 5 OF 5

Project No. 291 Hole No. CL-87-43

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
541.3-561.6 Quartz-feldspar Porphyry	Medium-grey, medium-grained, quartz phenocrysts <4mm, slightly schistose, core angles at 50 deg.	<1% sericite	no sulphides	
561.6-580.7 Andesite	Medium to dark green, fine-grained, massive, 1% magnetite as disseminations.		5% pyrite at upper contact over 0.5". - <1% pyrrhotite as individual grains.	
580.7	END OF HOLE			

P.A.P.-E-1668

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 3

LATITUDE 5705

DEPARTURE 4492E

ELEVATION

DIP AT COLLAR 50 BEARING 180

TOTAL DEPTH 383.9 CORE SIZE BQ

CORE STORAGE Timmins

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
197	47	191	184
383.9	44	180	173

Project No. 291 Hole No. CL-87-44

Property Cline Lake

NTS. 42C/8 TWP. Jacobson Claim No. SSM2189

Date started 29 Sept. 87 completed 25 Sept. 1987

Contractor St. Lambert

Logged by T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-4.9 Overburden				
4.9-5.9 Mafic Volcanic	Dark green, fine-grained, massive			Flow Basalt
5.9-26.8 Altered Porphyry	Beige (weathered) to light grey colour becoming more grey towards lower contact, fine-grained, 10% quartz phenocrysts less than 2mm, slightly schistose with core angles at 30 deg. Lower contact at 45 deg to C.A.		<1% pyrite	
26.8-41.5 Mafic Volcanic	Dark green, fine-grained, schistosity parallel to C.A. in first 4', Magnetite associated with silicified zones. Lower contact @ 90 deg to C.A.	Silicified towards lower contact. -Carbonate in fractures as calcite	26.8-27.8, 3% pyrite 29.7, 3", 60 deg to C.A., 1% pyrite	
41.5-77.5 Quartz Porphyry	Light grey, fine-grained, 15% quartz phenocrysts, schistosity parallel to and at 30 deg to C.A. Lower contact at 20 deg is irregular and sharp.	Silicified sections: 41.5-44.0 74.0-77.5 5% sericite	1% pyrite and tourmaline(?) in fractures.	
77.5-88.6 Mafic Volcanic	Dark green, fine-grained, slightly schistose at 20-30 deg to C.A., Calcite filled fractures at 45 deg and 30 deg, slightly magnetic. 82.0-83.0 - weathered		1% pyrite	

PAP - 14064

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-44

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
88.6-102.0 **Quartz and Feldspar Porphyry**	Light grey, medium-grained, schistosity @ 40 deg to C.A., increaseing to 50 deg near lower contact, phenocrysts up to 4mm in diameter. Lower contact @ 90 deg 196.5-102.0 - weathered	Silicified 88.6-93.6 Qtz Vein: 93.0 - 1", 2" @ 45 deg to C.A. 101.8 - 1" wavy, 90 deg to C.A.	2% pyrite in 3mm wide fractures	
102.0-125.0 **Shear Zone (Gondreau)**	Silicified mafic volcanic with schistosity @ 50 deg to C.A. Quartz vein angles vary from 30 deg to 90 deg C.A. Quartz veins are generally wavy milky quartz with less than 10% calcite and approximately 30% ankerite Near upper contact weathered and limonitic.	Silicification - 35% Quartz Veins: 102.3 - 30 deg to C.A. 103.8 - 2, 1" 90 deg to C.A. 105.0 - 2, 1" 60 deg to C.A. 107.0-108.5, 30 deg to C.A. 113.5-114.0, 10% sericite, 10% rock fragments, 50 deg to C.A. 116.0-117.5: sugary quartz Chlorite: mafic volcanics altered Sericite: 5%	1% pyrite 115.8 - 1" of 100% pyrite 116.0-117.0 - 5% py, 5% po, 1% magnetite	
125.0-160.0 **Mafic Volcanic**	Dark green, fine-grained, schistose @ 50 deg to C.A., non-magnetic. Lower contact @ 50 deg to C.A.	Silicification: 131.0-137.0, 10% narrow qtz veinlets parallel to schistosity Carbonate: 5% as calcite in disseminations and along fractures.		Flow basalt

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-44

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
160.0-166.5 Porphyry	Light grey, medium-grained, slightly schistose @ 50 deg to C.A., soft black mineral(?) as disseminations - 10%, 10% quartz phenocrysts <2mm diameter.		3% pyrite disseminated throughout.	
166.5-383.9 Mafic Volcanic	Dark green, fine-grained, massive, calcite in fractures, 1 per foot, mainly at 50 deg to C.A., weakly magnetic. Porphyry sill: 183.0-188.5 - chilled and crackled, unaltered	Weakly carbonatized as as a primary feature. Quartz vein - 178.4 - 4" @ 45 deg to C.A.		
383.9	END OF HOLE			

PAP-E1668

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. ____ OF ____

LATITUDE 822N

DEPARTURE 2861E

ELEVATION

DIP AT COLLAR 50 BEARING 180

TOTAL DEPTH 767.7 CORE SIZE BQ

CORE STORAGE Timmins, Ontario

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
246	48	188	181
433	45	191	184
531	41	195	188
767	38	200	193

Project No. 291 Hole No. CL-87-45

Property Cline Lake

NTS. 42C/8 TWP. Jacobson Claim No. SSM 2186

Date started 6 October 1987 completed 9 October 1987

Contractor St. Lambert

Logged by T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-9.2 **Overburden**				
9.2-143.0 **Basalt**	Dark green, becoming grey as alteration increases towards lower contact, fine-to medium-grained, schistose. Core angles: 20' - 20 deg; 25' - 55 deg; 75' - 45 deg. Possible chert beds at 59.0, 61.0, 64.7 which are light grey and banded. 10.3-12.3: Altered porphyry sill, 10% quartz eyes, <3mm, beige to grey colour, schistosity @ 60 deg to C.A.	Carbonate: 10% calcite in schistose planes and fractures Quartz Veins: 12.8-13.4 - 50 deg to to C.A., grey colour, 5% ankerite 14.8-15.7 - Upper contact folded, lower contact sharp. 15% ankerite, 1% pyrite. 16.4-17.8 - upper contact 30 deg to C.A., lower contact faulted @ 50 deg to C.A.	92.0-93.5 - 3% py 105.0-107.0 - 5% py associated with silicification and quartz veins. 1% pyrite in prophyry concentrated at lower contact.	Flow
143.0-162.5 **Silicified Zone**	Contorted quartz veins with ankerite. Contact between mafic volcanic and porphyry at 157.5. Schistosity varies from 50 deg to 30 deg.	Silicification: 30% Quartz veining - 20%	10% pyrite as veinlets. Grains are less than 2mm in diameter.	

PAP-14084

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-45

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
162.5-374.2 "porphyry"	Grey to beige (with increase in sericite) fine-grained, schistosity varies between 5 deg to 45 deg, tourmaline in random fractures from 300-374.2 - 1% 355.0-374.2 - coarse grained. Visible gold at 358.0	Chloritization: 355.0-374.2, 5% Sericitization: 3% increases down hole and in vicinity of quartz veins exs. 162.5-168.5, 200 deg-215.0 deg. Quartz veins: 186.5 -1/2" - 70 deg to C.A. 186.9 -2" - 70 deg to C.A. 188.0 -1" - 90 deg to C.A. 188.7 -1/2" - 70 deg to C.A. 191.5 -1" - 70 deg to C.A. 197.0 -1" - 90 deg to C.A. 198.5 -1" - 70 deg to C.A. 199.0 -1" - 90 deg to C.A. 201.0-202.5 -(4) 1" wide 80-90 deg to C.A. bleb - po/cpy: 8:1 206.8 -1", 45 deg to C.A. 208.8 -1", 50 deg to C.A. 210.3 -1", 90 deg to C.A.	2% pyrite in sericitized sections. 1% pyrite overall	Felsite sill

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-45

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
162.5-374.2 "porphyry" (continued)		212.0 -1", 70 deg to C.A. 239.7 -1", 70 deg to C.A. 316.0 -1", 50 deg to C.A. -bleb of py 320.5 -1/2", 45 deg to C.A. 324.7 -1" irregular 325.4 -2", 70 deg to C.A. bleb of cpy, tourmaline at shear 80 deg to C.A. 340.8 -1", 30 deg to C.A. 5% smoky quartz 342.0 -1/2", 30 deg to C.A. 346.7-347.8, 45 deg to C.A. 358.0-358.4, bleb of cpy with speck of V.G. 50 deg to C.A. 372.0 -1", milky, with bleb of cpy + tourmaline 50 deg to C.A.		
374.2-396.5 Lamprophyre Sill	Dark black, fine-grained, fresh crystaline texture, magnetic. Upper and lower contacts sharp.			

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-45

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
396.5-530.0 "porphyry"	Beige, fine-grained, slightly schistose, wide angles mainly at 50 deg to C.A. Visible gold at 482.5. Lower contact altered as silicified - shear zone (530.0-561.0)	Sericitization: 3% Fuchsite: speck @ 427.0, 473.0 Quartz Veins: 402.8-404.1 - sericite + tourmaline + quartz 405.7 -1", irregular 406.2 -1", 50 deg to C.A. 414.5-415.5, 70% QVs 50 deg to C.A. 417.0-418.0 -30% silicification @ 50 deg to C.A. 419.7 -1", 70 deg to C.A. 424.4 -2" smoky @ 80 deg to C.A. 425.0 -3", 65 deg to C.A., 10% tourmaline 427.3-428.0, 50% quartz, 70 deg to C.A. 440.2 -2", 70 deg to C.A. 442.8 -1" 445.8 -1/2", 80 deg to C.A. 482.4-483.1, bleb of cpy, speck of V.G., 50 deg to C.A.	2% pyrite Minor chalcopyrite as specks disseminated in porphyry. 515.0 - speck of molybdenite	Felsite sill

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-45

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
530.0-561.0 Silicified-Shear Zone	Beige to grey, fine-grained, banded, mottled and smoke-like texture becoming more schistose towards lower contact. Grey colour due to muscovite in unaltered porphyry. Schistosity is @ 30 deg near upper contact and varies from 0 deg to 30 deg.	Sericitization -5% Silicification -15% no quartz veins.	1% pyrite as small stringers, blebs and disseminations	
561.0-767.7 Silicified Pyritic Basalt	Light green to light grey (due to quartz content and silicification) fine-grained, granular texture due to secondary chlorite crystals in quartz and host rock. Composition (42% feldspar, 20% quartz, 3% ankerite, 30% chlorite (as clots - 15%) Quartz occurs as veins and fragments. Veins are contorted and less than 2" wide. Chlorite clots are less than 1mm in diameter and may in part be hornblende produced by contact metamorphism. Rock is not magnetic which may be attributed to alteration. 2 fractures per foot mainly parallel to schistosity.	Silicification and pyritization is greatest from 561.0 to 650.0 Silicification is asssociated with pyritization and composes up to 70% of of rock as white quartz. Pyrite occurs in mineralized sections. Chlorite alteration decreases away from contact. Minor calcite.	Pyrite: 3% overall occurs as bands, veins and disseminations <3mm in diameter. 10% 586.0-593.5 609.0 -3" (30% py) 619.0-622.0 635.0-637.0 656.7-657.5 666.4-667.0 670.0-673.0 5% 679.0-680.0 683.0-685.5 687.5-689.0 692.0-694.5 698.0-699.0 737.0-741.0	"Andesite"
767.7	END OF HOLE			

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 4

LATITUDE 1020 N
1020N

DEPARTURE 3394.E

ELEVATION

DIP AT COLLAR 50 BEARING 180

TOTAL DEPTH 719.0 CORE SIZE BQ

CORE STORAGE Timmins, Ontario

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
305	41	190	183
433	38	189.5	182.5
600	36	194.0	187.0

Project No. 291 Hole No. CL-87-46

Property Cline Lake

NTS. 42C/8 TWP. Jacobson Claim No. SSM 2186

Date started 9 October 1987 completed 12 October 1987

Contractor St. Lambert

Logged by T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-17.0 Overburden				
17.0-70.0 **Basalt**	Dark green, fine-grained, schistose core angles: 55 deg, weakly magnetic	Carbonate alteration: 10% calcite Quartz Vein: 67.5-70.0: 40% quartz 70 deg to C.A., 3% py		
70.0-80.2 **Quartz-Feldspar Porphyry**	Grey, coarse-grained, massive, crystalline; quartz crystals up to 3mm diameter, numerous fractures parallel to schistosity. Lower contact 50 deg to C.A.		2% pyrite	
80.2-193.3 **Basalt**	Dark green, fine-grained, schistose, 60 deg to C.A., weakly magnetic	80.2-96.0 -15% carbonatized, in fractures and matrix. 133.0: epidote as veins Quartz Veins: 159.5 -5", 50 deg to C.A. 161.0-165.0, 50% qtz 30% pyrite, 2% chalcopyrite, 18% rock fragments, 50 deg to C.A. 164.0-166.0; 30% qtz 5% ankerite x 162.0 -2", 50 deg to C.A., 3% pyrite	Pyrite: 80.2-115.0: 3% pyrite associated with quartz-carbonate veining. 112.0-114.0: 15% py 159.0-163.0: 10% py 1% chalcopyrite, banded 163.5-165.0: 5% py	

P.A.P. 14064

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 2 OF 4

Project No. 291 Hole No. CL-87-46

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
193.3-201.3 **Felsite Dyke**	Light grey, fine-grained (chilled). Upper contact @ 50 deg to C.A., Lower contact @ 30 deg.			
201.3-255.4 **Basalt**	Dark green, fine-grained, massive to schistose, 1 fracture/foot, core angles: 55 deg to C.A. 241.0 - Surface fracture			
255.4-268.8 **Quartz Porphyry**	Grey medium-grained, 10% phenocrysts up to 4mm in diameter, slightly schistose @ 55 deg to C.A.			
268.8-300.7 **Basalt**	Dark green, fine-grained, 2 fractures/ foot.			
300.7-315.3 **Lamprophyre Dyke**	Black, fine-grained, massive, minor fracturing, moderate strength of magnetism.			
315.3-345.5 **Basalt**	Light green, fine-grained, schistose @ 50 to C.A. First 8 feet altered, contains magnetite and hornblende. Fault: 326.0-331.0, breccia, quartz and rock fragments, 50 deg to C.A.	10% silicification as milky quartz veins. 10% calcite in fractures and matrix. Quartz Vein: 344.5-345.0: milky, 3% pyrite, contacts @ 70 deg and 40 deg to C.A.	2% pyrite associated mainly with quartz veinlets less than 1" wide.	

PAP-E-1064

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 3 OF 4

Project No. 291 Hole No. CL-87-46

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
345.5-592.0 **Altered Quartz Feldspar Porphyry**	Light beige, fine-grained, massive 1 foot of core lost between 384 and 394, and 389. Deep weathering fractures @ 444, 454, 459 @ 50 deg to C.A.; 489, 45 deg to to C.A.; 502.5, 505.5, 521.0 50 deg to C.A. 501.0-505.5, 5% tourmaline along schistosity planes @ 50 deg to C.A. Lower contact @ 30 deg to C.A.	Silicification as narrow quartz veins: 370.0 -2", 60 deg to C.A., milky, speck of pyrite 380.2 -2", mikly 70 to C.A. 385.0 -1", grey, 60 deg to C.a. 424.0 -1", 50 deg to C.A. 425.0 -1", 50 deg to C.A. 428.0 -1", pyrite, bleb of sphalerite, 50 deg to C.A. 476.0 -1/2", smoky qtz 20 deg to C.A. 481.8 -2% py, 3% ankerite, 45 deg to C.A. 512.8-514.5: Silicified K-spar (20%) quartz veining 30%, 5% sericite, 5% ankerite 520.4 -1", 50 deg to C.A. 538.8 -1", 10% tourmaline, 70 deg to C.A. 557.9 -1", 10% tourmaline, 15% ankerite, 1% pyrite, 90 deg to C.A.	1% pyrite as disseminations	

PAP - E-1660

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 4 OF 4

Project No. 291 Hole No. CL-87-46

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
345.5-592.0 **Altered Quartz Feldspar Porphyry (continued)**		Silicification: 561.0-569.5 - 20% mottled quartz, 10% K-spar alteration, 10% tourmaline in lower 6" Sericitation: 3% 390.0-592.0 - 5% Minor tourmaline in hairline fractures, erratic core angles.		
592.0-717.8 **Altered Basalt with Porphyry Sills**	Green, fine-to medium grained, core angles: 40 deg (35 deg to 45 deg) to C.A., schistose in upper portion with narrow (1cm) wide quartz-ankerite veinlets parallel to schistosity, lower contact 45 deg to C.A., non-magnetic. 695.0-717.8 - slightly altered, massive, slightly crackled, weakly magnetic. Porphyry sills: 616.6-619.5, 631.5-637.9, 642.8-651.2, 655.7-658.0, 664.5-667.0, 673.5-674.5, 677.0-688.0, contacts sheared.	Silicification: 5% quartz veinlets Carbonatization: 5% ankerite Quartz Veins: 595.0 -4", quartz-ankerite, 1% pyrite, 40% to C.A. 597.5-597.9, porphyry dyke, 50 deg to C.A. K-spar alteration - 600.0		
717.8-718.5 **Lamprophyre Dyke**	Black, fine-grained, massive			
719.0	END OF HOLE			

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 4

LATITUDE 10+14N

DEPARTURE 36+78E

ELEVATION

DIP AT COLLAR 53 BEARING 180

TOTAL DEPTH 836.6 CORE SIZE BQ

CORE STORAGE Timmins, Ontario

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
394	53	185	178
561	49	191	184
650	47	195	188
836	45	193	186

Project No. 291 Hole No. CL-87-47

Property Cline Lake

NTS. 42C/8 TWP. Jacobson Claim No. SSm 2188

Date started 12 October 1987 completed 20 October 1987

Contractor St. Lambert

Logged by T. Neelands & S. Parker

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-31.5 Overburden				
31.5-279.0 **Lamprophyre**	Black, fine-grained, massive, moderately magnetic	Calcite increases to 10% towards bottom in fractures Epidote - 5%, rimming calcite in fractures.		
279.0-285.0 **Porphyry**	Medium-grey, medium-grained, altered, no distinct crystal shapes.		1% pyrite, secondary crystals, 1mm diameter	
X 285.0-320.0 Lamprophyre	Black, fine-grained, massive			
320.0-335.0 **Altered porphyry**	Medium grey, medium-grained, massive, (core badly broken)	Quartz veins: 330-333 - 40% quartz milky, 45 deg to C.A.		This may be altered basalt
335.0-480.0 **Basalt**	Dark green, fine-grained, slightly schistose and fractured at 40 deg and 60 deg to C.A. with minor porphyry sills/ dykes.	10% calcite in fractures	422.2': pyrrhotite blebs 414.6, 419.2 - blebs of chalcopyrite on thin quartz-carbonate fracture.	

PAP. 14064

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-47

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	369.0-370.0; highly schistose and badly broken	369.0-370.0: increase in chlorite 15% 370.0 - quartz-calcite vein.		
	371.0-441.6: becoming more grey, slightly schistose and fractured at 50 deg to C.A. Locally strongly magnetic.	371.6 - quartz vein, 30 deg to C.A.	371.0-441.0: minor (<1%) pyrite as blebs and cubes.	
		459.0 - quartz vein, 1.2" wide with tourmaline crystals	443.4-458.9: 1% disseminated pyrrhotite, weakly magnetic	
	461.0-480.0: Fractures and veining vary from 30 deg-60 deg to C.A. 433.4 - smear of graphite at contact of thin (vertical) quartz vein and basalt.	461.1-480.0: 15% quartz-carbonate	461.1-480.0: <1% pyrite	
	Porphyry sill/dykes and inculsions(?) 370.0-371.0: grey, medium-grained, lower contact approx 20 deg to C.A., upper contact gradational			
	441.6-443.4: grey, medium-grained, massive schistosity @ 70 deg to C.A.		441.6-443.4: 1% pyrite as veinlets and blebs increasing towards lower contact.	
	458.9-461.1: Light grey, medium-grained, massive, altered, 2-3mm quartz eyes, contacts at 40 deg to C.A.			
480.0-550.3 **Quartz Porphyry**	Light grey, medium-grained, blue and clear quartz phenocrysts (2-8mm) varies from massive to highly schistose and fractured.	Silicification: 484.9-486.3, 495.0-501.9 Sericitization: 5% Quartz Veins: 481.7 -3/4", 60 deg to C.A.		

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-47

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
		494.4 -1", speck of pyrite. 494.6, 497.6, 498, 498.8, 500.0 -milky quartz veins; 1/4"-3/4" wide, 70-80 deg to C.A.		
550.3-583.6 **Diabase**	Black, medium-grained to fine-grained, massive, weakly magnetic, 570.0 - core is slightly lighter in colour due to increase in plagioclase content (20%) Upper contact @ 50 deg to C.A. and lower contact @ 40 deg to C.A.	568.2-568.3: altered quartz/ankerite/chlorite vein, 35 deg to C.A. 573.5-574.2: chlorite/ quartz/ankerite vein		
583.6-676.0 **Quartz Porphyry**	Light grey, medium-grained, massive to slightly schistose, quartz phenocrysts 2-10mm in diameter, minor specks of fuchsite, fracture and veining 35 deg to 70 deg to C.A., 584.6'-586.9': is pink colour due to K.spar alteration. Minor tourmaline veinlets.	583.6-583.8 quartz vein at contact 583.8-584.6: highly schistose qtz vein/ porphyry Quartz ankerite veins: 612.1-612.2; 616.0-616.1; 628.5-628.6 633.7-634.0; 634.5-635.1 636.4-626.6; 641.7-641.8	2% cubic pyrite at quartz vein - porphyry 619.5 - trace of chalcopyrite	
676.0-836.~~0~~6 **Basalt**	Light-green, medium-grained becoming dark green and fine-grained down hole. Extensively altered and schistose (676.0 to 792.0). Weakly to strongly magnetic. More chlorite rich from 792.0 to 836.6. Core angles: 676.0-682.2, 30 deg to C.A. Lamprophyre dykes: 713.6-714.0, 715.6 718.2	Silicification: 5% as quartz veins, 739.0-743.0, 90 deg quartz 691.1-691.4, 50 deg to C.A., 2% py 737.4-737.9, 50 deg to C.A., 3% py	Pyrite: 10% - 676.0-700.0	

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-47

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
836.6	END OF HOLE	Clay Alteration: 90%, 718.5-720.0, 787.0-792.5, basalt is bleached to white colour. Disseminated magnetite 718.5-720.0 section.		

PAP-E1188

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 1

LATITUDE 625N

DEPARTURE 4505E

ELEVATION 1019.87

DIP AT COLLAR 50 BEARING 180

TOTAL DEPTH 492.1 CORE SIZE BQ

CORE STORAGE Timmins, Ontario

REMARKS Hole Stopped because of Diabase

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
265	50	188	181
377	50	184(?)	177
492	51	186	179

Project No. 291 Hole No. CL-87-48

Property Cline Lake

NTS. 42C/8 TWP. Jacobson Claim No. SSM 2188

Date started 20 October 1987 completed 22 October 1987

Contractor St. Lambert

Logged by T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-10.2 Overburden				
10.2-35.4 **Altered Porphyry**	Medium grey, fine-grained, fractured "crackled", calcite in fractures, 3 per foot, no definite schistosity, lower contact 40 deg to C.A.	1% sericite	1% pyrite	
35.4-47.7 **Basalt**	Dark grey to black, fine-grained, massive 2 fractures/foot, irregular angles, non magnetic.	Calcite in fractures, unaltered.		
47.7-81.0 **Altered Porphyry**	Beige colour, fine-grained, crackled, lower contact 30 deg to C.A.	3% sericite Quartz vein: 60.8-62.3, white, 50 deg to C.A.	2% pyrite overall 63.0-64.5: 2% pyrite 1% pyrrhotite	This section more altered than from 10.2-35.4.
81.0-110.6 **Basalt**	As from 35.4 to 47.7, slightly magnetic, weakly schistose, 70 deg to C.A., fragments of porphyry @ 84.7.	5% chlorite		
110.6-492.1 **Diabase**	Black, fine-grained to medium-grained, massive, minor fracturing filled with calcite. Ophitic texture more prevalent in medium-grained portions.			
492.1	END OF HOLE			

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 4

LATITUDE 625N

DEPARTURE 4400E

ELEVATION

DIP AT COLLAR 50 BEARING 180

TOTAL DEPTH 738.2' CORE SIZE BQ

CORE STORAGE Timmins, Ontario

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
166	50	192	185
394	50	194	187
640	47	197	190
738	45	193	186

Project No. 291 Hole No. CL-87-49

Property Cline Lake

NTS. 42C/8 TWP. Jacobson Claim No. SSM 2188

Date started 23 October 1987 completed 26 October 1987

Contractor St. Lambert

Logged by T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-17.7 **Overburden**				
17.7-59.1 **Basalt**	Black to dark green, fine-grained, massive 3 thin (1-2mm) fractures/foot with irregular core angles. 17.7-40.0 - moderately magnetic 40.0-59.1 - non-magnetic	10% chlorite sections- 32.0-80.0 47.0-54.0 Fractures filled with quartz and calcite.		
59.1-67.3 **Quartz Vein**	Milky white, cherty quartz; mottled Upper contact 20 deg Lower contact 20 deg	30% sericite	5% pyrite 1% pyrrhotite Speck of chalcopyrite at upper contact.	Quartz vein may parallel drill hole
67.3-182.5 **Basalt**	Dark green and light green (125.0-180.0) fine-grained, fractured @ 20 deg to C.A. 3 fractures/foot; (140-160) more massive (166.0-177.0) moderately magnetic, weakly schistose @ 50 deg to C.A.	Fractures filled with calcite and quartz, minor epidote. Silicified 177.0-182.5		
182.5-202.0 **Porphyry**	Beige to grey, aphanitic, crackled, with light green inclusions of basalt. Lower contact @ 50 deg to C.A. Inclusions of basalt: 188.0-190.0; 191.0-192.0; schistose, chloritic and calcite fractures @ 60 deg to C.A.	More sericitized at lower contact (5%) Overall 2% sericite	Disseminated pyrite <1% up to 3mm in diameter.	

14064

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 2 OF 4

Project No. 291 Hole No. CL-87-49

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
202.0-306.3 **Basalt**	Light green, fine-grained: massive - 202.0-251.0; 223-226.8, aphanitic, chilled Schistose - 251.0-263.0 @ 80 deg to C.A. Massive and fractured @ 4 fracts/foot Moderately magnetic.	Quartz veining: 256.0-260.0, 20% milky 5% ankerite, @ 60 deg to C.A. 265.8-267.2, 65% quartz and 30% K-spar and 5% sericite	Pyrite: <1% overall 256.0-260.0: 5% 258.0: specks of chalcopyrite	
306.3-310.3 **Porphyry**	Light grey, fine-grained, massive, quartz-calcite fractures @ 20 deg to C.A. Lower contact @ 80 deg to C.A.	5% chlorite 1% quartz in hairline fractures.	1% disseminated pyrite	
310.3-333.7 **Basalt**	Medium-green to dark-green: fine grained quartz-carbonate fractures @ 35 deg to C.A.		1% pyrite as disseminated cubes up to 2mm in diameter.	
333.7-338.9 **Quartz-Diorite**	Beige, medium-grained, massive to fractured, massive to fractured, 3" basalt inclusion @ 336.8; fractures @ 50 deg to C.A., 20% mafic minerals, 70% white feldspar, 10% quartz			
338.9-389.0 **Basalt**	Light green, fine-grained, chilled, 374.0-376.0 - chlorite rich.	2% quartz in hairline fractures @ 30 deg to C.A.	1% pyrite as thin stringers.	
389.0-484.7 **Altered Porphyry**	Beige to light grey, fine-grained to medium grained. 395.0-409.0: Sericite, beige, massive with chlorite in irregular hairline fractures. 409.0-481.0: Light grey, less altered massive and schistose. 389.0-395.0: schistose, 50 deg to C.A.; 10% chlorite.	Silicification in sericite sections and as quartz veins. Medium-grained sections are less altered.	1% pyrite, disseminated	

PAP - E 1058

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-49

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
389.0-484.7 (continued		Quartz veins and silicified sections: 404.5-406.0: 30% quartz @ 80 deg to C.A., 1% pyrite. 436.8 -1/2" @ 80 deg to C.A. 437.0 -1/2" @ 30 deg to C.A., 5% pyrite 441.2 -3", 10% ankerite, 70 deg to C.A. 442.0 -1", 20% pyrite 452.1 -1", 5% pyrite, 5% sericite, 2% chlorite 462.0-463.0, 45 deg to C.A., 5% pyrite 463.0-467.5, 2% pyrite, 5% K-spar, no quartz 481.4-482.4, k-spar 483.2-484.7, 10% ankerite, 80 deg to C.A., 5% mylonite, 5% pyrite		
484.7-529.5 **Shear Zone**	Sheared basalt: light green to grey with quartz-ankerite veins parallel to schistosity @ 50 deg to C.A. Veins - 5 per foot, composing 15% of rock	488.0-489: K-spar alteration	Pyrite zones: 489.0-496.0 - 5% 515.0-521.8 - 10% 524.5-529.5 - 5%	
529.5-597.3 **Basalt**	Light green to grey, fine-grained, schistosity @ 50 deg to C.A., fractures parallel to schistosity @ 2 per foot - filled with quartz and calcite, weakly	5% leucoxene 533.0-541.0 Silicified (15%) 544.0-571.0 No calcite in matrix	3% pyrite 544.0-571.0	

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-49

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
597.3-646.2 Mafic Dyke	Black, fine to medium grained, contacts chilled @ 45 deg to C.A. Soft and hard. Magnetic, slightly ophitic texture.			
646.2-683.8 Basalt	Medium to dark green, fine-grained, massive. Spotted with 5% magnetite 646.2-660.0: 5% quartz veining, weakly schistose. Lower contact @ 40 deg to C.A. Porphyry sills/dykes: 653.4-655.0: medium grey "crackled", contact @ 50 deg to C.A. 673.5-673.9: contacts @ 65 and 80 deg to C.A.	Quartz veins: 648.4-648.6, 90 deg to C.A. 650.2-650.4, 45 deg to C.A. 652.0, 10 deg to C.A. Orange K-spar 5% weak to moderately Sericitic in prophyry	Overall less than 1% pyrite. 2-3% pyrite in porphyry.	
683.8-698.3 Porphyry	Light to medium grey, very crackled in upper section 683.8-687.4.	Weak to moderately sericitic.	Up to 1% pyrite Trace of pyrrhotite.	
698.3-738.2 Basalt	Medium to light green, fine-grained, slightly schistose at 50 deg to C.A., 2% magnetite (698.3-700.4) Porphyry sill: 700.4-702.1: medium grey with yellow sericite on fracture planes	Chloritic: 15% - 698.3-700.4 - 702.1-703.6	Less than 1% pyrite and pyrrhotite	
738.2	END OF HOLE			

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 3

LATITUDE 600N
600N
DEPARTURE 4705E
ELEVATION
DIP AT COLLAR 50 BEARING 180
TOTAL DEPTH 640.7 CORE SIZE BQ
CORE STORAGE Timmins, Ontario
REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
207.0	50		
394.0	45	192.5	185.5
639.0	41	191.0	184.0

Project No. 291 Hole No. CL-87-50
Property Cline Lake
NTS. 42C/8 TWP. Jacobson Claim No. SSM 2188
Date started 27 October 1987 completed 2 November 1987
Contractor St. Lambert
Logged by T. Neelands/ D. MacLean

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-7.5 Overburden				
7.5-8.3 **Basalt**	Medium green, massive, foliaiton @ 40 deg to C.A.			
8.3-18.9 **Quartz Porphyry**	Medium grey, cherty appearance with 5% quartz phenocrysts; 5 iron stained fractures; 18.6-18.9 - 20% phenocrysts, qtz 3mm	Silicified	Less than 1% pyrite	
18.9-28.3 **Basalt**	Light to medium green 21.3-23.4 - "porphyry" sill with narrow chlorite bands		<1% pyrrhotite	
28.3-32.2 **Porphyry**	Light to medium grey, equigranular, medium-grained: inclusions of chlorite basalt, schistosity at 25 deg to C.A.	Weakly schistose, 1% sericite	<1% phrrhotite	
32.2-144.9 **Basalt**	Light green to dark green, fine-grained, massive, foliation 40-50 deg to C.A. Weakly magnetic in upper half to non-magnetic in lower half. 5% magnetite crystals around pyrite zones. 58.5-58.8: silica flooding, 45% quartz 127.9-128.5: silicified porphyry, 15%; altered feldspar crystals 129.4-129.9: porphyry, K-spar alteration	Epidote: as hairline erratic veins concentrated from 32.2 to 65.0. Silicification: 119.8-123.2 130.1-130.8, smoky, chalco. bleb 130.8-144.9: quartz and 5% pyrite	Pyrite zones: 88.4-91.7: up to 15% pyrite in fractures and sugary quartz minor calcite. 106.4-106.5: 25% pyrite, 40% magnetite band 3mm wide. 106.8-107.0: smoky quartz and 5% pyrite Specks of chalcopyrite: 37.4, 38.4, 49.8, 54.2, 130.4	

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 2 OF 3

Project No. 291 Hole No. CL-87-50

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
144.9-193.0 **Porphyry**	Light grey, fine to medium grained, crystalline (161.5-168.0, 181.1-184.6) schistose and crackled (168.0-176.8). Lower contact with mafic dyke @ 30 deg to C.A. 152.5-161.5: Shear zone, 20% quartz veins, 10% ankerite, 5% chlorite, 50% pyrite, 1% chalcopyrite. Basalt inclusions: 178.6-181.0: contacts 70 deg to C.A. 186.0-192.5: contact 90 deg to C.A.	Silicified: 152.5-161.5, quartz veins, smoky, 50 deg to C.A. Quartz vein: 151.0 -1", 45 deg to C.A. Chlorite alteration or altered inclusion 148.6-152.5.	Pyrite: 148.6-156.0, 5% disseminated, slightly schistose.	
193.0-239.3 **Mafic Dyke**	Black, fine-grained, moderate magnetism, masive, lower contact 60 deg to C.A.			
239.3-364.5 **"Porphyry"**	Dark grey, medium-grained, schistose, 50 deg to C.A.; 45 deg to C.A. (300.0-325.0) fine-grained; 330.0-335.0: mottled, fine-grained 350.0-363.0: light grey, more altered 305.1-306.9: Mafic dike - black, fine-grained, contacts @ 30 deg to C.A. (lamprophyyre)	5% calcite in fractures and along foliation planes, 5%	1% disseminated pyrite	
364.5-563.0 **Mafic Volcanic and intercalated Sulphide Oxide Iron**	Black, dark green to light green, altered sections. Silicification and sulphide (pyrrhotite) alteration. Unaltered sections are fine-grained, massive. Altered sections are more schistose. Chloritic sections may be altered mudstone beds or flows. Core angles 45-50 deg to C.A.	Quartz veins: 406.4 -milky, 1/2", 50 deg to C.A., 90 deg to schistosity. 412.0, 413.0: 1/2" milky, 90 deg to schistosity.	Pyrrhotite: 3% - 379.0-380.0 382.0-383.0 5% - 394.0-421.5 Pyrite: 10% 417.0-421.5 456.5-461.0 492.0-494.2	Bedded sections difficult to separated schistose section from 514.0-554.0.

PAP-E1554

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-50

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	Altered: 383.2-385.5, silicified, light grey 393.4-404.0, silicified, light grey	416.8: milky, 1", 50 deg to C.A., 90 deg to schistosity.		
	Bedded: 404.0-421.5, 445.5-472.0, 491.0-499.0, 501.0-505.0, 514.0-537.6, 549.0-554.0: Composed of hard, dark grey to black argillite.			
	Chert beds; With tension fractures perpendicular to bedding, 1-3cm thick: 437.0, 453.0, 454.0, 454.8, 484.0-485.0, 488.0-492.0, 517.0, 521.0, 550.0	Chloritic sections are are intercalated with bedded sections.		
563.0-581.0 "Porphyry"	Light grey, fine-grained, 15% phenocrysts of quartz 567.5-570.2: Basalt inclusion, schistose and 10% sugary quartz veins.	1% sericite		
581.0-640.7 Basalt	Medium green, fine-to medium-grained, massive, fractured (4 per foot) filled with quartz and calcite, 10% magnetite disseminated.	1% calcite	1% pyrite	
640.7	END OF HOLE			

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 3

LATITUDE 6205

DEPARTURE 4140E

ELEVATION

DIP AT COLLAR -50 BEARING 180

TOTAL DEPTH 344.5 CORE SIZE BQ

CORE STORAGE Timmins, Ontario

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
140	51	-	-
344	50	192	185

Project No. 291 Hole No. CL-87-51

Property Cline Lake

NTS. 42C/8 TWP. Jacobson Claim No. SSM 2188

Date started 2 November 1987 completed 4 November 1987

Contractor St. Lambert

Logged by T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-6.6 Overburden				
6.6-42.0 Basalt	Medium green, medium-grained, massive, lower contact chilled from 35.0-40.0 and as a result a lighter green colour. Foliations @ 60 deg to C.A., 1 fracture/ foot increasing towards lower contact.	Calcite increases towards lower contact 5-10%		
42.0-97.6 Altered Basalt	Dark greenish grey, fine-grained to medium-grained, massive with slight schistosity @ 45 deg to C.A., 5 fractures per foot mainly between 50 deg and 80 deg to C.A.	15% calcite Silicification and quartz veins: 45.5-46.2: silicified, 45 deg to C.A. 52.8: 3", 30 deg to 60 deg to C.A. 20% pyrrhotite, specks of chalcopyrite 53.3-53.8: smoky quartz 3% pyrrhotite 72.2: calcite and quartz, 1/2", 45 deg to C.A. 74.9: 2", 90 deg to C.A. 76.6: smoky quartz and calcite, 2", 20% pyrrhotite 81.2: 2", 80 deg to C.A., black chlorite stringers.	1% pyrrhotite overall with specs of chalco-pyrite . Pyrrhotite as blebs and disseminations associated with calcite. Chalcopyrite: 57.2, 62.0, 70.3	Section is extensively carbonatized.

PAP - 14064

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. ____ of ____

Project No. 291 Hole No. CL-87-51

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
42.0-97.6 (continued)		89.4-90.2: 5% pyrite 2% pyrrhotite, specks of chalcopyrite. 91.0: 2", 80 deg to C.A.		
97.6-101.8 **Sulphide Zone**	25% pyrrhotite in ground mass of quartz, black chlorite, 5% calcite, specks of chalcopyrite.			
101.8-112.7 **Altered Basalt**	Greenish grey, fine-grained, massive, 2 fractures/foot, lower contact @ 70 deg to to C.A.	10% calcite	101.8-104.0: 3% pyrrhotite 103.3: bleb of chalcopyrite	
112.7-116.5 **Shear Zone**	80% quartz, 10% sericite (grey and light green) 3% rock fragments, 2% ankerite, 3% chlorite, 2% pyrrhotite and pyrite. 112.7-120.0: mottled, light green quartz, grey sericite in fractures, 1/2" band of pyrrhotite at contact with speck of chalcopyrite. 120.0-122.0: milky quartz, grey sericite, 1% pyrite/pyrrhotite, specks of chalcopyrite 122.0-123.5: rock fragment. 123.0: 2", 40% pyrite, 5% chalcopyrite 123.5-124.0: milky quartz 124.0-126.5: 60% sericite and quartz 126.5-131.0: milky quartz, 3% ankerite 131.0-142.5: 50% milky quartz, 40% light green sericite, 5% pyrrhotite and pyrite. 133.5: 1" band pyrrhotite 137.5: 6" band pyrrhotite, qtz with 5% py		Sulphides occur in bands, blebs, fragments and disseminations. Ratio of Po:Py:Cpy is 100:5:1. Further down hole 140.0-166.6 pyrite content dominates over pyrrhotite; 100:1	

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-87-51

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
112.7-166.5 (continued)	142.5-153.5: Milky and smoky quartz, 60%, grey-green sericite, 30%, ankerite, 5% and specks of chalcopyrite. 142.8: 1" fragment pyrite 40 deg to C.A. 143.5: 1" fragment pyrite 40 deg to C.A. 140.0-140.6: band of pyrite, 30 deg to C.A. 150.5-152.0: Sericite schist parallel to C.A. 153.5-158.3: 70% milky quartz and 30% pyrite 153.5-154.0: 70% pyrite 155.0-156.5: 70% pyrite 158.3-166.5: 65 rock fragments, 25% quartz 10% pyrite.			
166.5-191.0 **Altered Basalt**	Greenish grey becoming more green towards lower contact, fine-grained, schistose @ 60 deg to C.A. 167.3-175.0: fine grained, grey colour, massive, possibly silicified	20% calcite		
191.0-344.5 **Basalt**	Dark green, fine-grained, massive	10% calcite		
344.5	END OF HOLE			

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 2

LATITUDE 850S

DEPARTURE 4140E

ELEVATION

DIP AT COLLAR 50 BEARING 180

TOTAL DEPTH 393.7 CORE SIZE BQ

CORE STORAGE Timmins, Ontario

REMARKS

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
138	-50	189	182
393	-48	202	187

Project No. 291 Hole No. CL-87-52

Property Cline Lake

NTS. 42C/8 TWP. Jacobson Claim No. SSM 2189

Date started 5 November 1987 completed 6 November 1987

Contractor St. Lambert

Logged by T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-28.3 **Overburden**				
28.3-356.6 **Basalt**	Medium green, fine-grained, massive, quartz-carbonate fractures, 1/foot. Magnetic, 119.0-120.5: Schistose: 20 deg to C.A. 205.5-210.6: Silicified, light grey, fine-grained, contacts 30 deg to C.A., massive no fractures	Quartz-calcite vein: 48.0: 1", 30% epidote 40 deg to C.A. 147.0: 2", 20% epidote 85 deg to C.A. 148.0: 1", 30% epidote 153.0: 2", 20% epidote 190.0-191.0: 20% epidote 90 deg to C.A. 352.4-353.0: 30% quartz-calcite, 50 deg to C.A. 353.6: 3", 90 deg to C.A.		
356.6-385.8 **Altered Basalt**	Light greenish grey; fine-grained; silicified; schistose @ 50 deg to C.A. 367.0-369.0: schistosity parallel to core, Flowing nature of mineralogy suggests silica flooding.	Silicified in sections with ankerite: 356.6-361.0: 15% quartz 363.5-370.0: 10% quartz 373.5-374.5: 15% quartz 376.0-377.2: 5% quartz, 2% ankerite 380.0-381.5: 5% quartz, 5% ankerite 383.9: 2" quartz vein, 45 deg to C.A.	2-3% pyrite as ameboid blebs up to 3" and disseminations.	

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 2 OF 2

Project No. 291 Hole No. CL-87-52

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
		384.5: 3" quartz vein 385.4: 3" quartz-ankerite vein, 20% chlorite Chlorite Alteration: 15%		
385.8-393.7 Basalt	Dark green, medium grained, 393.0-393.7: Altered basalt	386.0: 5", 20% quartz and 5% ankerite and basalt Chlorite alteration: 5%	<1% disseminated pyrite	
393.7	END OF HOLE			

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 3

LATITUDE: 1090 S
DEPARTURE: 4140 E
ELEVATION:
DIP AT COLLAR: -50 BEARING: 180
TOTAL DEPTH: 521.7 CORE SIZE: BQ
CORE STORAGE: Timmins, Ontario
REMARKS:

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
147	-49	193	186
325	-47	201	194
521	-44	209	202

Project No. 291 Hole No. CL-87-53
Property: Cline Lake
NTS. 42C/8 TWP. Jacobson Claim No. SSM 2189
Date started: 7 November 1987 completed: 9 November 1987
Contractor: St. Lambert
Logged by: T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-23.0 **Overburden**				
23.0-201.5 **Basalt**	Medium green, fine-grained, massive, fractures @ 30 deg to C.A., 1 per foot, magnetism (strong to moderate)	Quartz-calcite veinlets: 61.5: 1", 30% calcite, 90 deg to C.A. 62.5: 1/2", 30% calcite 5% epidote, 30 deg to C.A., 5% epidote 71.5-72.1: 30 deg to C.A. 5% epidote 93.0-94.0: 10 deg to C.A. 20% epidote 118.0-119.0: 80% calcite 10% epidote 132.0: 1" bordered by epidote, 45 deg to C.A. Epidote veining - 1%		
201.5-254.0 **Altered Basalt**	Dark green, medium-grained, schistose @ 50 deg to C.A., 2 quartz-calcite fractures per foot. 235.0-254.2, more schistose, 5 fractures per foot.	Calcite - 5% in matrix 15% chlorite		
254.0-271.5 **Shear Zone**	Greenish grey, medium-grained, schistose: 254.0-261.0 - 50 deg to C.A. 261.0-266.5 - 0 deg to C.A. 266.5-271.0 - 30 deg to C.A.	Silicification: 10% Colloform small quartz veinlets, contorted and ragged	3% pyrite along shear planes.	

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 2 OF 3

Project No. 291 Hole No. CL-87-53

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	There are 2 angles of schistosity over printed on the shear zone- the regional schistosity @ 50 deg to C.A. and the ones @ 0 deg and 30 deg, represented by quartz veining, narrow and broken.	Quartz Vein: 246.1-246.5: milky, 50 deg to C.A., 5% sericite. 1% calcite.		
271.5-274.9 Quartz Vein	Milky quartz, 10% sericite, black mylonite on shear planes with sericite.		1% very fine pyrite (1mm) grains: disseminated and along fractures - 2mm wide.	
274.9-312.3 Altered Felsic Intrusive	Light grey, medium-grained, 10% chlorite minor quartz veinlets (<1cm wide). Slightly schistose.	Silicified	Pyrite on fractures - less than 1%	This unit is comparable to porphyry but does not have quartz phenocrysts.
312.3-318.0 Quartz Vein	Greenish white, with 5% sericite, soft. Milky quartz vein: 314.7-315.4: 60 deg to C.A., contact @ 50 deg to C.A.		1% very fine-grained disseminated pyrite	
X 318.0-350.0 Altered Basalt	Light green, medium-grained, schistose, quartz and ankerite veins, non-magnetic	Quartz-calcite veins: 331.5-332.0: 50 deg to C.A., 2% pyrite, 3% ankerite 341.6-342.5: 50 deg to C.A., 1% pyrite, 3% ankerite.		
350.0-424.0 Shear Zone	Sheared basalt, 15% quartz-chert veins as broken, chloritized veins.	10% calcite Quartz Veins: 345.5-345.9, 1% pyrite smoky 350.0-352.5, 2% sericite 1% pyrite		

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. _____ OF _____

Project No. 291 Hole No. CL-87-53

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
350.0-424.0 (continued)		363.0: 3" sugary, 50 deg to C.A. 365.0-365.9: 20% ankerite, 10% black mylonite, smoky 369.0: 3", 50 deg to C.A.		
424.0-521.7 **Basalt**	Fine-grained, medium-grained, schistose to massive, non-magnetic 423.2-472.4: 4 fractures/foot, 5mm quartz calcite.	5% calcite		
521.7	END OF HOLE			

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 3

LATITUDE: 410S
DEPARTURE: 4310E
ELEVATION:
DIP AT COLLAR: -50 BEARING: 180
TOTAL DEPTH: 393.7 CORE SIZE: BQ
CORE STORAGE: Timmins, Ontario
REMARKS:

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
115	-50	190	183
328	-46	184	177

Project No. 291 Hole No. CL-87-54
Property: Cline Lake
NTS. 42C/8 TWP. Jacobson Claim No. SSM 2189
Date started: 10 Nov. 87 completed: 11 Nov. 87
Contractor: St. Lambert
Logged by: T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-16.4 **Overburden**				
16.4-224.9 **Altered Basalt and Minor Porphyry**	Medium-grey to dark greenish grey, fine-grained, massive, weakly schistose in altered sections: 16.4-49.2, 35 deg to C.A., non magnetic, 2 fractures/foot; magnetic: 163.0-197.0 Porphyry: Medium grained, massive 1% pyrite 88.5-95.1: Upper contact, 30 deg to C.A. Lower contact 45° to C.A. 100.1-100.5: fine-grained/chilled: contacts 70 deg to C.A. 152.4-154.0: crackled, upper contact 30 deg to C.A. Lower contact 60 deg to C.A., 1% pyrite 156.8-162.5: pyrite @ upper contact, 30% quartz phenocrysts 170.6-172.0: contacts @ 70 deg to C.A.	3% Sericite: 36.0-48.3 5% Calcite in matrix and fractures Quartz-calcite veining: 25.0-25.5: wispy veins 194.5 - 4", 70 deg to C.A.; 5% pyrite 195.0-224.9: increase in calcite Quartz Veins: 208.5 - 2", 80 deg to C.A.; 1% pyrrhotite and pyrite 211.9-212.5 - 60° to C.A. milky 219.8-220.0: 80° to C.A., 1% chalcopyrite, 5% pyrrhotite 3% sericite	Pyrite Beds 19.0-19.3: 50%, 60 deg to C.A. 19.8-19.9: 40% 60 deg to C.A. 25.7-26.0: 50%, 60 deg to C.A. 32.2-32.6: 30%, 40% quartz 33.8-34.0: 20%, 80% quartz + calcite 35.1-35.4: 20%, specs of chalcopyrite	
224.9-238.9 **Altered porphyry**	Greyish beige, fine-grained matrix (altered) medium-grained, 20% quartz phenocrysts. Upper contact 30 deg to C.A., Lower contact 40 deg to C.A.			
238.9-257.8 **Basalt**	Dark green, fine-grained, schistose from 250.0-257.8 @ 65 deg to C.A., non-magnetic. 4 fractures per foot in schistose zone	10% calcite in matrix and shear planes, minor ankerite		

PAP-11064

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 2 OF 3

Project No. 291 Hole No. CL-87-54

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
257.8-302.6 **Shear Zone**	Sheared porphyry and basalt + quartz veins- Basalt very schistose @ 50 deg to C.A. Silicification: 15% as quartz veins and silica flooding. Porphyry: green to beige, fine-grained, weakly schistose: 257.8-268.9; 275.5-283.5; 285.4-287.4 Basalt altered to light grey with up to 50% silica in some sections.	5% sericite mainly in porphyry Quartz Vein: 257.8-259.2: 65 deg to C.A., 20% sericite, 5% chlorite 262.5: 1", 60 deg to C.A., 90 deg to schistosity 272.3-273.3: 60% quartz, 10% ankerite 9% pyrite, 20% pyrrhotite, 1% chlorite 288.0-288.4: milky quartz 293.2: 2", 30% ankerite 294.2: 2", 20% ankerite	1% pyrite and pyrrhotite in most porphyry -Sulphides mainly in quartz veins and altered basalt. 265.7 - 2", 50% pyrrhotite, 20% pyrite 272.7-275.5 - 30% pyrrhotite, 5% pyrite 1% chalcopyrite, 1% sphalerite 280.0-280.7: 10% pyrrhotite, 10% pyrite 288.0-289.1: 10% pyrite, 10% pyrrhotite specs of chalcopyrite 299.6-300.5: 10% pyrite, 5% pyrrhotite 300.9-301.9: 30% pyrrhotite Sulphides occur as wispy veinlets along shear planes up to 1cm wide	

PAP-E1558

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 3 OF 3

Project No. 291 Hole No. CL-87-54

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
302.6-330.2 **Altered Basalt**	Light grey, fine-grained, massive, weakly schistose: 402.6-307.0; 317.0-321.0 @ 50 deg to C.A.			
330.2-393.7 **Basalt**	Dark green, massive, fine-grained, 1 fracture/3 feet, weakly magnetic.			
393.7	END OF HOLE			

PAP-E-1550

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 1 OF 2

LATITUDE 735N

DEPARTURE 4380E

ELEVATION

DIP AT COLLAR -50 BEARING 180

TOTAL DEPTH 334.7 CORE SIZE BQ

CORE STORAGE Timmins, Ontario

REMARKS Hole to be extended if results encouraging

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
79'	-49		182.5
334	-48		174.0

Project No. 291 Hole No. CL-87-55

Property Cline Lake

NTS. 42C/8 TWP. Jacobson Claim No.

Date started 12 Nov. 87 completed 13 Nov. 87

Contractor St. Lambert

Logged by T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-9.5 **Overburden**				
9.5-52.0 **Mafic Dyke**	Dark grey, medium-grained, slightly ophitic, massive, no fractures. Moderately magnetic.			
52.0-107.2 **Basalt**	Black with minor dark green sections hard (breaKs with conchoidal fracture) aphanitic to fine-grained, massive, irregular hairline fractures filled with calcite, minor epidote, magnetic.			
107.2-112.2 **Porphyry**	Medium-grey, fine-grained, aphanitic "crackled"		1% pyrite	
112.2-193.7 **Basalt**	As from 52.0 to 107.2			
193.7-290.7 **Altered Basalt**	Greenish grey, soft, fine-grained, massive, hairline fracturing, 20 deg to C.A. and erratic angles, filled with calcite, schistosity at 60-70 deg to C.A. 193.7-197.0: Shear zone, 2% pyrite, 10% quartz and calcite, remainder altered basalt with specks of chalcopyrite	5% calcite Quartz-calcite veinlets: 239.0: 1", 5% tourmaline, 20 deg C.A. 240.9: 1/2", 3% pyrite and pyrrhotite 246.1-248.8: 0 deg to C.A., 1% pyrite 249.8-250.4: Contacts (upper contact 25 deg, lower contact 30 deg) parallel to schistosity at 70 deg to C.A.	241.1: Blebs of chalcopyrite, 2% over 1 inch	

P.A.P. - 14084

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 2 OF 2

Project No. 291 Hole No. CL-87-55

Property Cline Lake

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
		252.7: 1" band, with 30% pyrrhotite 253.77-258.2: 5% pyrrhotite, 30% quartz 70 deg to C.A. 256.0-256.5: 70 deg to C.A., 10% quartz, 5% ankerite, 1% pyrite. 274.9-275.8: 5% pyrite, contacts 25 deg to C.A., schistosity parallel to contacts at 60 deg to C.A.		
290.7-295.4 **Porphyry**	Pinkish grey, fine-grained, "crackled" with minor quartz veinlet.	K-spar alteration	1% pyrite	
295.4-320.0 **Basalt**	Medium-green, medium-grained, massive 1 fracture/3 feet, magnetic	10% calcite		Coarse-grained flow
320.0-334.7 **Shear Zone**	Porphyry + basalt + quartz vein + 1% pyrite - schistose @ 70 deg to C.A. Porphyry: 322.7-323.5 - light grey, 50% sericite, contacts @ 70 deg to C.A.	Quartz Veins: 325.2-326.0: 30% quartz, milky 329.0: 1/2", 70 deg to C.A. 331.0: 1/2", 70 deg to C.A., milky 332.0-332.9: milky quartz		
334.7	END OF HOLE			

P.A.P. E-1558

63.5203
2 of 3

42C08SW0026 63.5203 JACOBSON

020

REPORT ON
GROUND MAGNETOMETER
AND V.L.F. SURVEYS
CLINE LAKE AREA
NORTHERN ONTARIO

BRIAN GROVES

SENIOR GEOPHYSICIST

NORANDA EXPLORATION COMPANY, LIMITED

TIMMINS, ONTARIO

JULY 27, 1988

42C08SW0026 63.5203 JACOBSON

020C

TABLE C

1. Introduction

2. Location of Survey Area

3. Survey Equipment and Specifications

4. Data Presentation

5. Discussion of Results

6. Conclusions

List of Maps

Map 1 Total Field Magnetometer Data

Map 2 V.L.F. E.M. Data

1. Introduction

During the period October, 1987 to February, 1988, ground magnetometer and very low frequency (V.L.F.) E.M. surveys were completed over the Cline Lake property.

2. Location and Access

The Cline Lake grid is located approximately 30 miles northeast of Wawa, Ontario in central Jacobson Township.

Access to the property is via Highway 17 from Wawa to Highway 519 to Dubreuilville and then by all-weather logging road for a distance of 12 miles.

3. Survey Specifications

The ground surveys were performed along cut grid lines spaced 200 feet apart. Station spacings were 100 feet and 50 feet for the V.L.F. and magnetometer surveys respectively.

An EDA OMNI-IV proton precession magnetometer system was employed to measure the earth's total magnetic field with an accuracy of 1nT. A dedicated base station magnetometer monitored the diurnal variation of the magnetic field during the survey. Diurnal corrections to the field data were applied automatically by the internal software of the micro-processor controlled magnetometers.

A Crone RADEM V.L.F. unit was employed to measure the dip angle component of the secondary E.M. field induced in sub-surface conductive sources by the magnetic field produced by distant, low frequency, maritime navigation transmitters. Station NAA Cutler, Maine operating at a frequency of 24 k Hz was employed for this survey and the dip angle component measured with an accuracy of 1%.

A total of 12.3 line miles of magnetometer surveying and 11.2 line miles of V.L.F. surveying were completed over the grid.

4. Data Presentation

Total field magnetometer data were presented in contoured plan form in Map 1 at a scale of 1 inch = 200 feet. A contour interval of 100 nT has been employed in the presentation.

Profiles of the V.L.F. dip angle component are presented in Map 2. An amplitude scale of 1 inch = 20% has been employed.

5. Discussion of Results

a) Magnetometer Data

The magnetometer data are characterized by sub-circular to lenticular shaped highs over most of the property. The steep gradients associated with the magnetic highs are suggestive of very shallow or outcropping causative sources. Available geological information indicates the presence of four major lithological units on the property intermediate to mafic intrusives, felsic intrusives (quartz porphyry), mafic volcanics and diabase dykes.

In order of decreasing magnetic responses, the following magnetic characters are inferred for each of the preceding rock types.

- Intermediate to mafic intrusives are characterized by oval-shaped areas of elevated magnetic relief typically exceeding 4,000 nT above local background. Two areas are suggested as having this rock type as the source of the response. Both areas are centred at approximately 200N and extend between Lines 400E and 1200E and Lines 2200E and 3000E respectively. It is also suggested that the area of high relief at approximately 700-750N on Lines 5400E to 6000E may have this rock type as the source.

- Mafic volcanics and diabase dykes are difficult to differentiate on the basis of magnetic expressions. Most of the lenticular, east-west oriented magnetic highs with reliefs in the range of 500 to 1500 nT above background are suggested as having mafic flows as their source.

The predominantly northwest trending dykes are poorly oriented relative to survey line orientation and are inferred to have insufficient magnetic contrast to enable a unique identification.

- Felsic intrusives appear to possess low magnetic reliefs within the area and are best portrayed over the extreme southwestern portion of the grid between Lines 800E and 1800E. A narrow magnetic low at 450N between Lines 2400E and 4600E may also represent a felsic unit.

Dislocations and discontinuities in magnetic trends are noted along the plane between 1550S on Line 2600E and 850N on Line 5000E. This may represent a northeasterly oriented fault.

b) V.L.F. Data

These data are dominated by the interference due to the power line over the eastern portion of the property.

Only one conductive trend can be identified elsewhere on the property and is labelled A on Map 2. Conductor A^1 is a weaker doubtful feature nd may represent the extension of conductor A. However, the possibility of an overburden source or the effect of topography on the response associated with A^1 cannot be discounted.

Conductor A lacks a direct magnetic expression and previous drilling in this area intersected pyrite stringers which are the probable source of the response.

6. Conclusions

The magnetometer data have aided in broad-scale lithological interpretations on the property and have enabled the definition of a possible NE trending fault.

One VLF conductor, defined by the survey, appears to have a sulphide causative source that has been intersected in previous drilling.

Respectfully submitted,

B G Groves

63.5203
3 of 3

42C08SW0026 63.5203 JACOBSON

030

REPORT ON AN INDUCED POLARIZATION SURVEY CLINE LAKE AREA NORTHERN ONTARIO

BRIAN GROVES
DIVISION GEOPHYSICIST
NORANDA EXPLORATION COMPANY LIMITED

TIMMINS, ONTARIO
JANUARY 26,1987

OM87-7-C-241

42C08SW0026 63.5203 JACOBSON

030C

TABLE OF CONTENTS

1. Introduction

2. Location of Survey Area

3. Survey Specifications

4. Data Presentation

5. Discussion of Results

6. Conclusions

LIST OF MAPS

Section 1 - 16 I.P. Pseudosections

Map 1 Summary of I.P. Data

1. INTRODUCTION

During the period December 6 to 12, 1986, limited induced polarization (I.P.) surveying was completed over the Cline Lake property.

A total of approximately 6 line miles of I.P. was completed during the above period.

2. LOCATION AND ACCESS

The Cline Lake grid is located approximately 30 miles northeast of Wawa, Ontario, in central Jacobson Township.

Access to the property is via Highway 17 from Wawa to highway 519 to Dubreuilville and then by all-weather logging road for a distance of 12 miles.

The I.P. survey was completed over Lines 100E to 1900E and Lines 3300E to 4300E.

3. SURVEY SPECIFICATIONS

Remy Belanger of Evain, Quebec was contracted to perform the survey for Noranda Exploration Company Limited.

A Phoenix IPT-1 transmitter and an IPV-1 receiver were operated in the frequency domain utilizing frequencies of 0.25 and 4.0 Hz.

A dipole-dipole electrode configuration was employed with an electrode sparation ('a') of 50 feet and dipole separations ('n') of 1 to 4.

Apparent resistivity in ohm-feet and frequency effect (F.E.) in percent were calculated from voltage and current measurements at the two frequencies.

4. DATA PRESENTATION

Calculated apparent resistivity and F.E. are presented for each line in the standard pseudo-section format in Sections 1-16.

Map 1 summarizes the results of the survey in plan form with areas of anomalous apparent resistivity and F.E. being outlined.

5. DISCUSSION OF RESULTS

A brief discussion of the results from each survey line will be presented with a final discussion of the summary map, Map 1.

Line 100E

Three major electrical regimes are observed on this line.

Two areas of low apparent resistivity and moderate (approximately twice background level) F.E. are noted in the vicinity of 1050N to 1100N and 1450N respectively. The southern feature would appear to extend further to the south beyond the present I.P. coverage.

An area of elevated apparent resistivity is noted between the two lows. Higher resistivities are also noted at the extreme northern end of the surveyed line.

Line 300E

The patterns of electrical responses on this line are similar to those on Line 100E.

However, there is an offset in the locations of resistivity lows and F.E. highs such that the responses are not directly coincident.

Increasing apparent resistivities are noted at both ends of the line.

Line 500E

The two major areas of higher F.E. values are again present on this line, associated with lower apparent resistivities.

The northernmost anomalous area lies within a broad area of generally high apparent resistivities (>5000 ohm-ft). Towards the southern end of the line a higher F.E. background level is observed, probably suggesting an increase in disseminated sulphide content in this area. Due to the width of the higher F.E. zone, a change in rock type with attendant change in sulphide content, is the probable source of this feature.

Between 1150N and 1250N, an increase in F.E. with a corresponding resistivity low is noted, suggesting a narrow source. A second localized increase in F.E. is noted between 1350N and 1400N. This feature lacks a corresponding discrete resistivity response, but it is located close to a change in resistivity values within the high resistivity zone mentioned previously. The change in resistivities (from 2000-3000 ohm-feet to 5000-10000 ohm-feet) may reflect a change in rock type.

Line 1300E

The area of high resistivities observed over the northern portions of the previous lines continue on this line with a southern limit at 1250N. Coinciding with this area of high resistivity are elevated F.E. values suggesting a broad rock type response.

At the southern end of the survey line, lower apparent resistivities are noted with corresponding increases in F.E. values.

Line 1500E

Four zones of varying apparent resistivity are noted on this line. From the southern end of the line to approximately 1150N, resistivities are in the range of 200 ohm feet or less. This area of low resistivities corresponds to the location of Cline Lake.

Line 700E

Similar I.P. zones are noted on this line as on the previous line.

Within the wide area of higher F.E. values over the southern half of the line, two discrete, narrow features can be defined at 1200N to 1300N and 1000N to 1100N respectively.

South from 1000N, higher F.E. and apparent resistivities are noted.

Line 900E

This line is characterized by a high F.E. background level over most of the section. The northern anomalous response defined on previous lines is present near 1600N to 1650N. The southern feature is now poorly defined with a weak indication of the zone in the vicinity of 1300N to 1350N.

An area of higher apparent resistivity is noted to the north of station 1350N.

Line 1100E

The area of high resistivity observed on the previous line, continues on this line with the southern limit being in the vicinity of 1300N. To the south of this station, lower resistivities are noted (being in the range of 100 to 500 ohm-feet).

The second zone extends from 1150N to 1300N with resistivities in the range of 300 to 800 ohm feet. A corresponding increase in F.E. values is noted in this area.

The third zone is characterized by resistivities in the range of 1000 to 5000 ohm feet and extends from 1300N to 1500N. To the north of 1500N, resistivities drop to 400 to 500 ohm-feet. A slight increase in F.E. values at depth is noted with the final resistivity zone.

Bulk rock type changes are the probable cause of the I.P. response. Slight, localized increases in F.E. values are noted in the vicinity of 1300N and 1450N to 1500N, coinciding with the limits of the high resistivity zone.

Line 1700E

Low apparent resistivities dominate most of the results on this line and are due to the presence conductive lake bottom sediments. An increase in F.E. values between 1300N and 1400N would suggest a deep source probably centered on 1300-1350N.

To the north of 1400N, resistivities increase to 1000 to 1800 ohm feet.

Line 1900E

This line is dominated by low apparent resistivity responses. As with the previous line, the very low resistivities can be directly attributable to conductive lake bottom sediments which limited depth penetration with the present electrode spacings. Very low F.E. values correspond with the low resistivities and suggest non-metallic (i.e. clay) conductivity sources.

To the north of 1600N, resistivities and F.E. values increase to generally normal background levels.

Line 3300E

High apparent resistivities dominate most of this section. To the north of 1500N, resistivities are less than 1000 ohm feet. South of this station, resistivities typically exceed 2000 ohm feet, reaching a maximum of 10000 to 15000 ohm feet. Despite the broad differentiation of resistivity zones, the discrete patterns of resistivities are complex.

The high resistivity zone defined at 1100N may be the southern limb of the typical "pant-leg" pattern of responses due to a shallow, near vertical, dyke-like body. The northern limb is poorly defined but the high resistivity (>9000 ohm feet) at n=4 below 1250N may be part of this feature. Coinciding with the high resistivities are elevated (2 to 3 time background) F.E. values. The source for this anomalous response is located between 1100N and 1200N.

Between 1475N and 1525N, a zone of anomalous F.E. values was recorded without a discrete resitivity signature. The location of this F.E. response appears to coincide with the position of a contact between two areas of varying apparent resistivities. It is suggested that the source of the F.E. response may be due to increased sulphides along the contact between two rock types.

Line 3500E

The northern F.E. high defined on Line 3300E continues on to this line and is located between 1400N and 1450N. As with the previous line, no clearly defined resistivity feature coincides with this anomalous F.E. zone. However, a resistivity contrast is noted in the vicinity of the F.E. zone which would suggest a localized increase in sulphide content along a geological contact.

Towards the south, another rock type change is suggested by increasing apparent resistivities and a high F.E. background level approaching 7%. The change in rock types is suggested in the vicinity of 1150N.

Line 3700E

The geological unit responsible for the wide zone of high apparent resistivities and elevated F.E. values appears to extend to this line with a northern contact defined in the vicinity of 1100N.

Another rock type change is suggested near 1500N with the unit extending to 1700N or 1750N. In this area resistivities lie in the range of 2000 to 5000 ohm-feet with elevated F.E. values also noted.

An area of lower resistivities and increased F.E. values is noted between 1400N and 1500N.

Line 3900E

The northern rock unit characterized by high resistivities and elevated F.E. values continues to this line with a southern limit in the vicinity of 1400N or 1450N.

The southern geological unit is not as clearly defined on this line.

Line 4100E

As with the previous line, the northern rock unit is again present with the southern limit in the vicinity of 1400N or 1450N.

An area of high resistivity is defined in the vicinity of 1250N to 1300N but lacks a corresponding F.E. signature.

The southern geological unit is now characterized by low to moderate resistivities and only slightly elevated F.E. values.

An additional geological unit typified by higher resitivities and increasing F.E. values is defined to the south of 900N.

Line 4300E

The northern geological unit is again defined on this line to the north of 1400N. Similar I.P signatures to those on the previous lines are noted on this line.

Similar signatures are also noted for the southern geological unit, although F.E. values are higher than on the previous line.

The central resistivity high between 1250N and 1300N is now lower in magnitude.

Map 1 presents, in plan format, a summary of the I.P. survey results. Areas of high resistivity, low resistivity and high frequency effect have been defined on the map.

Several general comments can be made about the mapped electrical properties in this area.

Firstly, the zones of high F.E. responses probably reflect increasing concentrations of disseminated metallic (sulphides or magnetite) mineralization. In areas where high F.E. values coincide with low resistivities, a more massive style of metallic mineralization or graphite may be the causative source. One such area occurs west of Cline Lake between Lines 500E and 1100E.

Secondly, broad differentiation of rock types may be reflected in the patterns of resistivity. Areas of high resistivity may have more felsic rock types as their causative sources. Lower resistivities may reflect the presence of mafic rocks. These latter rock types may have associated F.E. responses due to increasing sulphide or magnetite content.

Finally, areas of high resistivity coinciding with high F.E. values may represent felsic rocks with increased sulphide content or increased content along the felsic contacts with other rock types. An example of this type of response is centred at 1050N on Line 3300E.

6. CONCLUSIONS

The I.P. survey has aided in broad-scale geological mapping in the area. Three broad rock type categories are suggested by the data. They are:

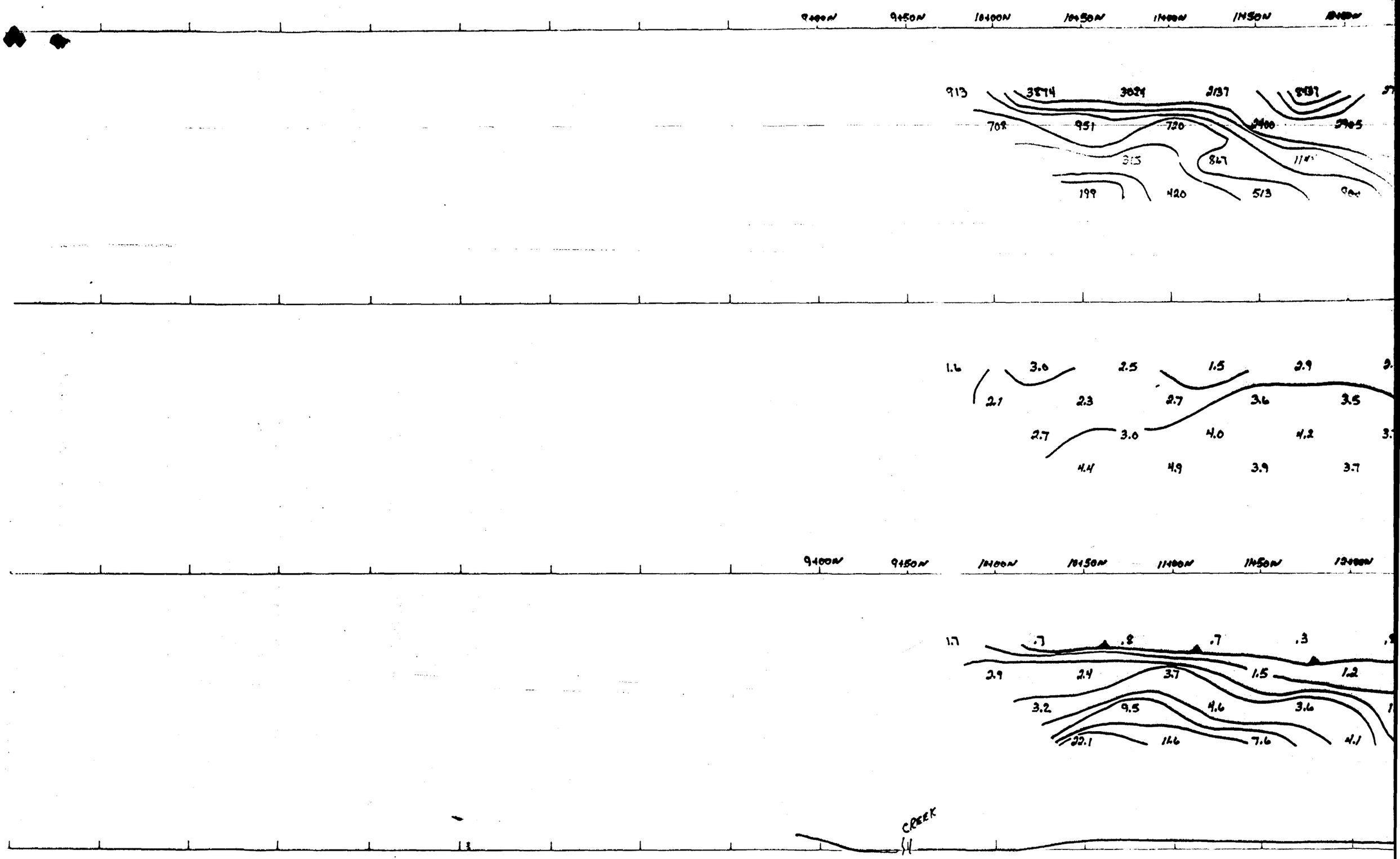
1) Mafic rocks typified by low to intermediate resistivities with variable F.E. associations reflecting changes in disseminated sulphide or magnetite content. Discrete conductive sources (very low resistivities and high F.E.) may reflect the presence of a more massive style of mineralization (pyrite or possibly graphite). One such discrete source has been defined by the survey west of Cline Lake and apparently coinciding with a previously defined V.L.F. E.M. response.

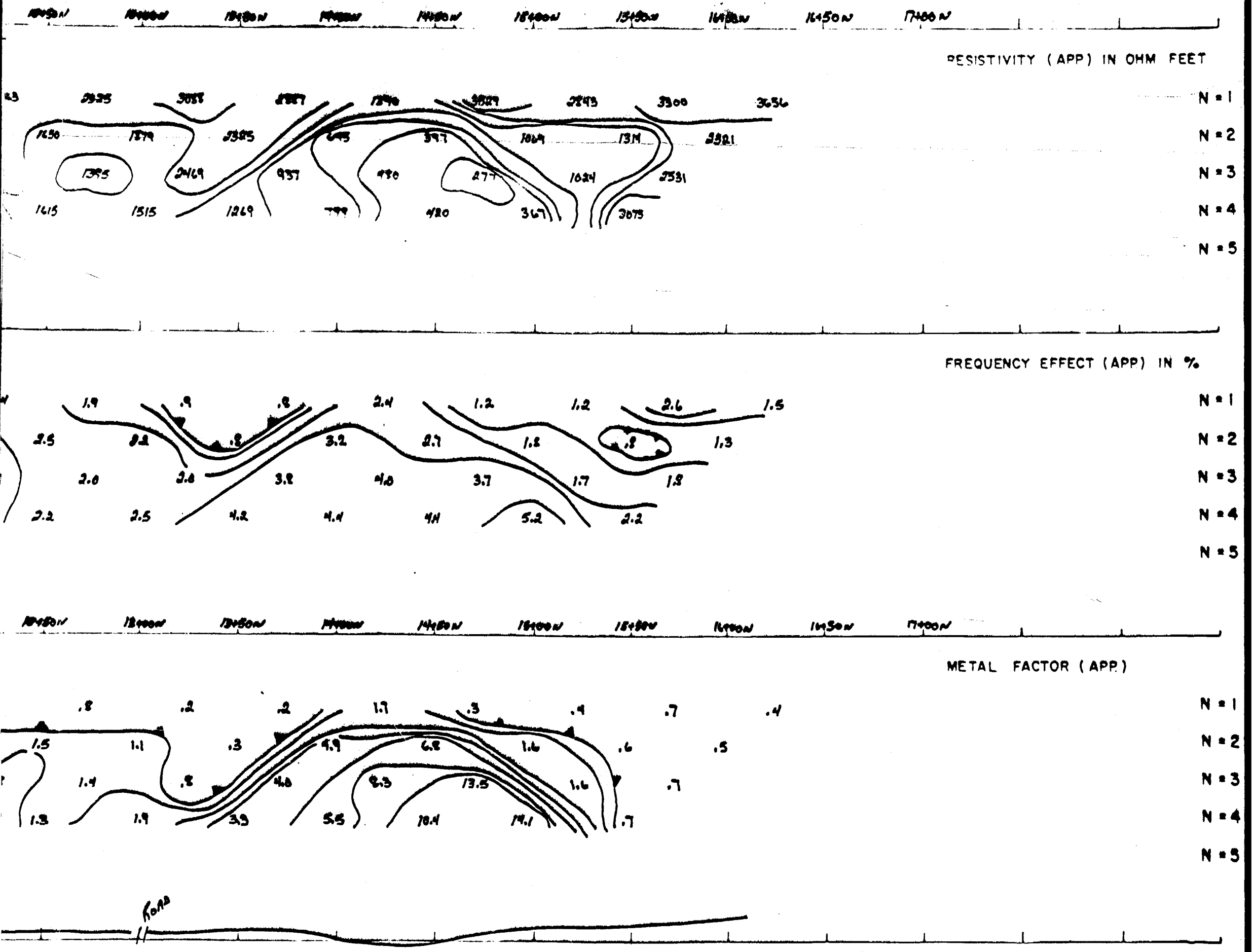
2) Felsic rocks characterized by high apparent resistivities and low F.E. values and,

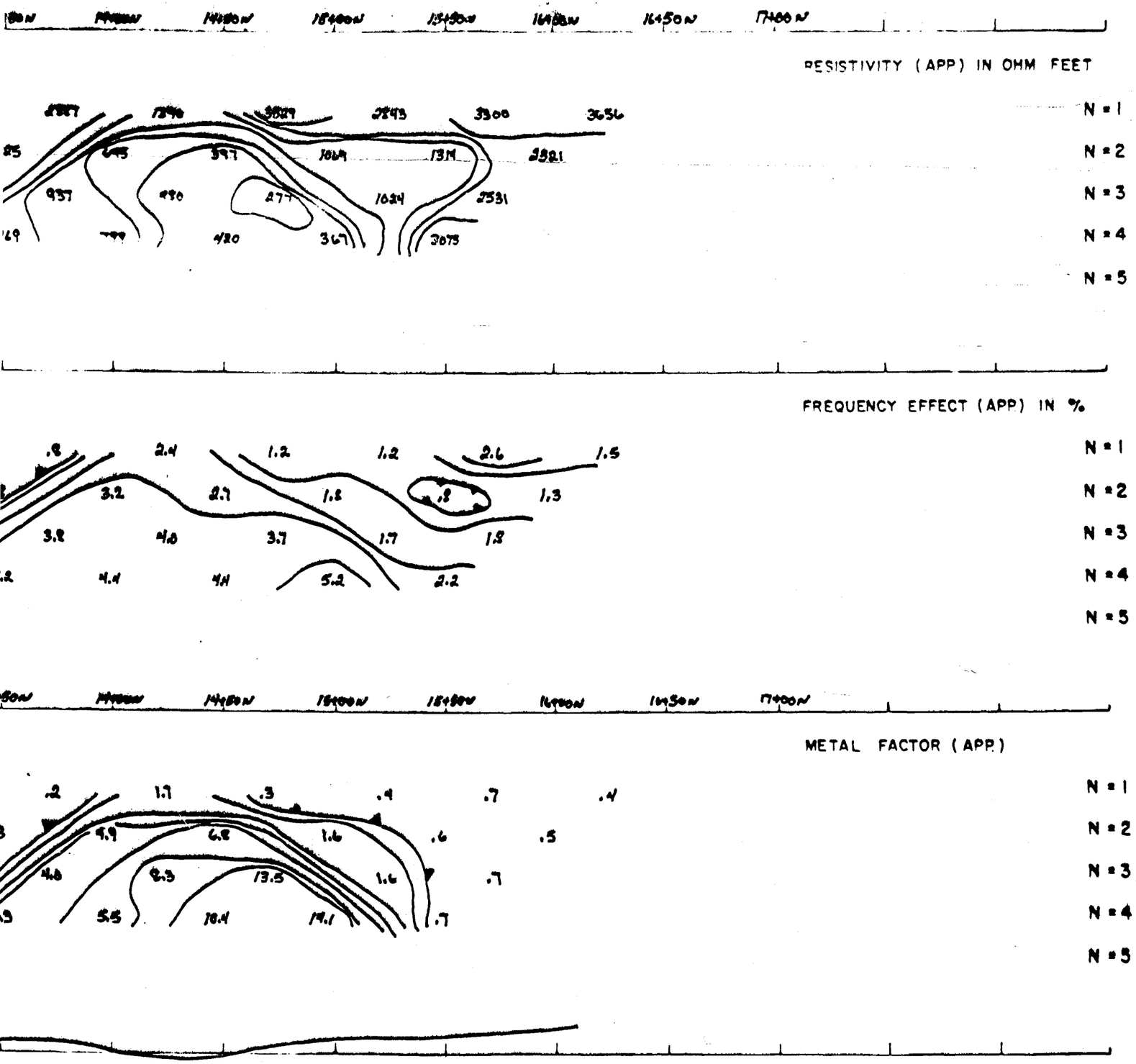
3) Felsic rocks with increased disseminated sulphide content throughout the unit or locally concentrated along the felsic contacts.

This latter category may present the best targets for evaluation for precious metal potential. However, areas of apparent increase in sulphide content close to other geophysically inferred contacts should also be favourably considered for further evaluation.

Brian Groves
Division Geophysicist


9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
913
3874
3024
2137
2437
768
951
720
2400
2765
315
867
199
420
513
1.6
3.0
2.5
1.5
2.9
2.1
2.3
2.7
3.6
3.5
2.7
3.0
4.0
4.2
4.4
4.9
3.9
3.7
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
1.7
.7
.8
.7
.3
2.9
2.4
3.7
1.5
1.2
3.2
9.5
4.6
3.6
22.1
14.6
7.6
4.1
CREEK


RESISTIVITY (APP) IN OHM FEET
N = 1
N = 2
N = 3
N = 4
N = 5
FREQUENCY EFFECT (APP) IN %
N = 1
N = 2
N = 3
N = 4
N = 5
METAL FACTOR (APP.)
N = 1
N = 2
N = 3
N = 4
N = 5
ROAD



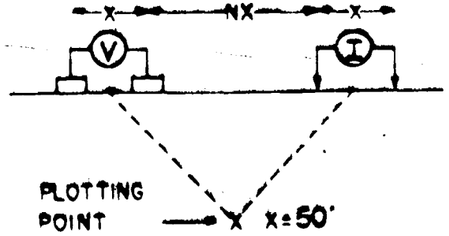
COMPANY: NORANDA EXPLORATION CO LTD.

PROPERTY: CLINE LAKE PROPERTY

JACOBSON TWP. ONTARIO

LINE NO – 1+00 E

ELECTRODE CONFIGURATION



SECTION 1

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: .25 & 4.0 HZ.

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT : PHOENIX IPV-1 IPT-1

CONTRACTOR REMY BELANGER ENRG.

DATE SURVEYED Dec. 12 1984

APPROVED

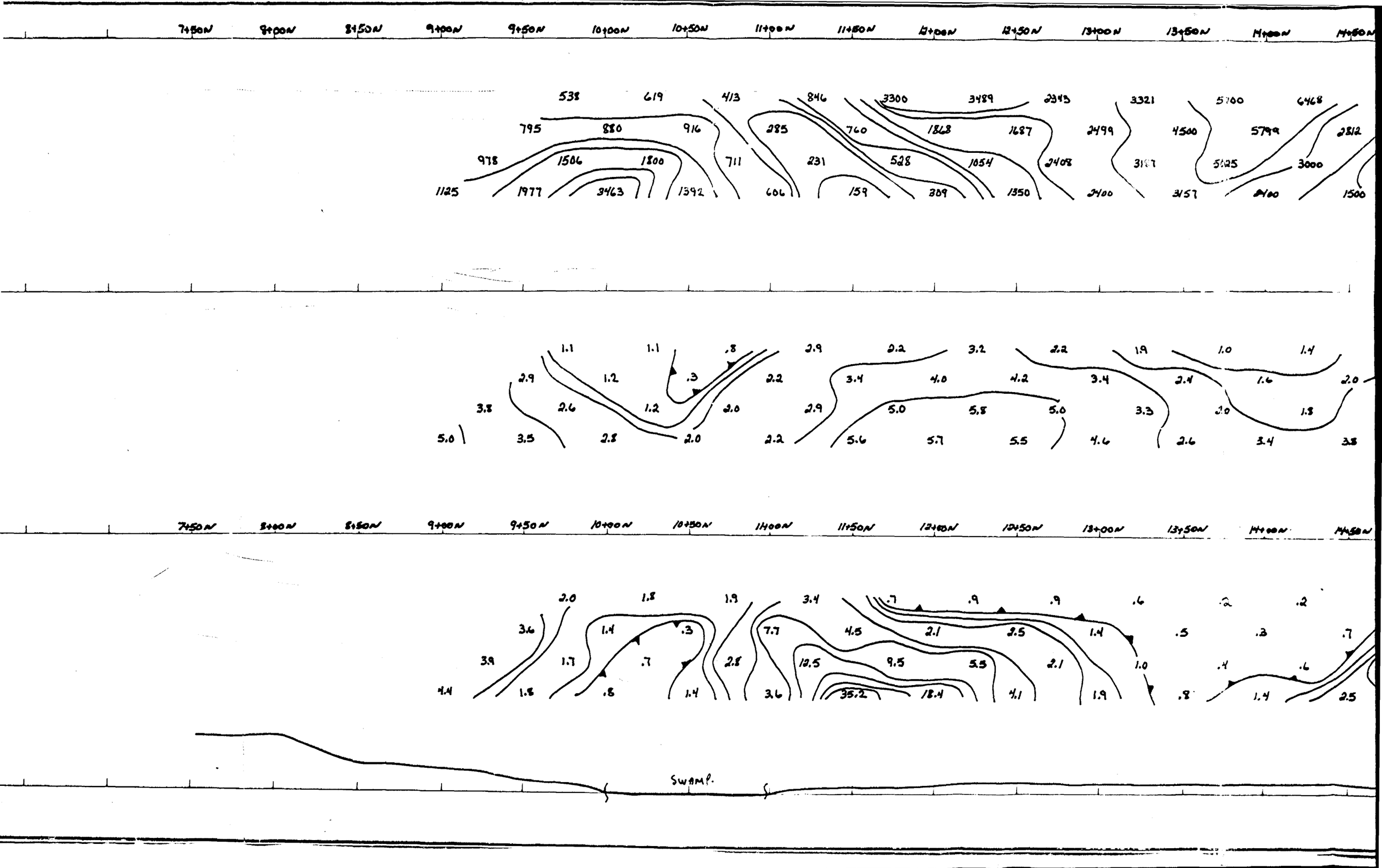
OPERATOR R. BELANGER

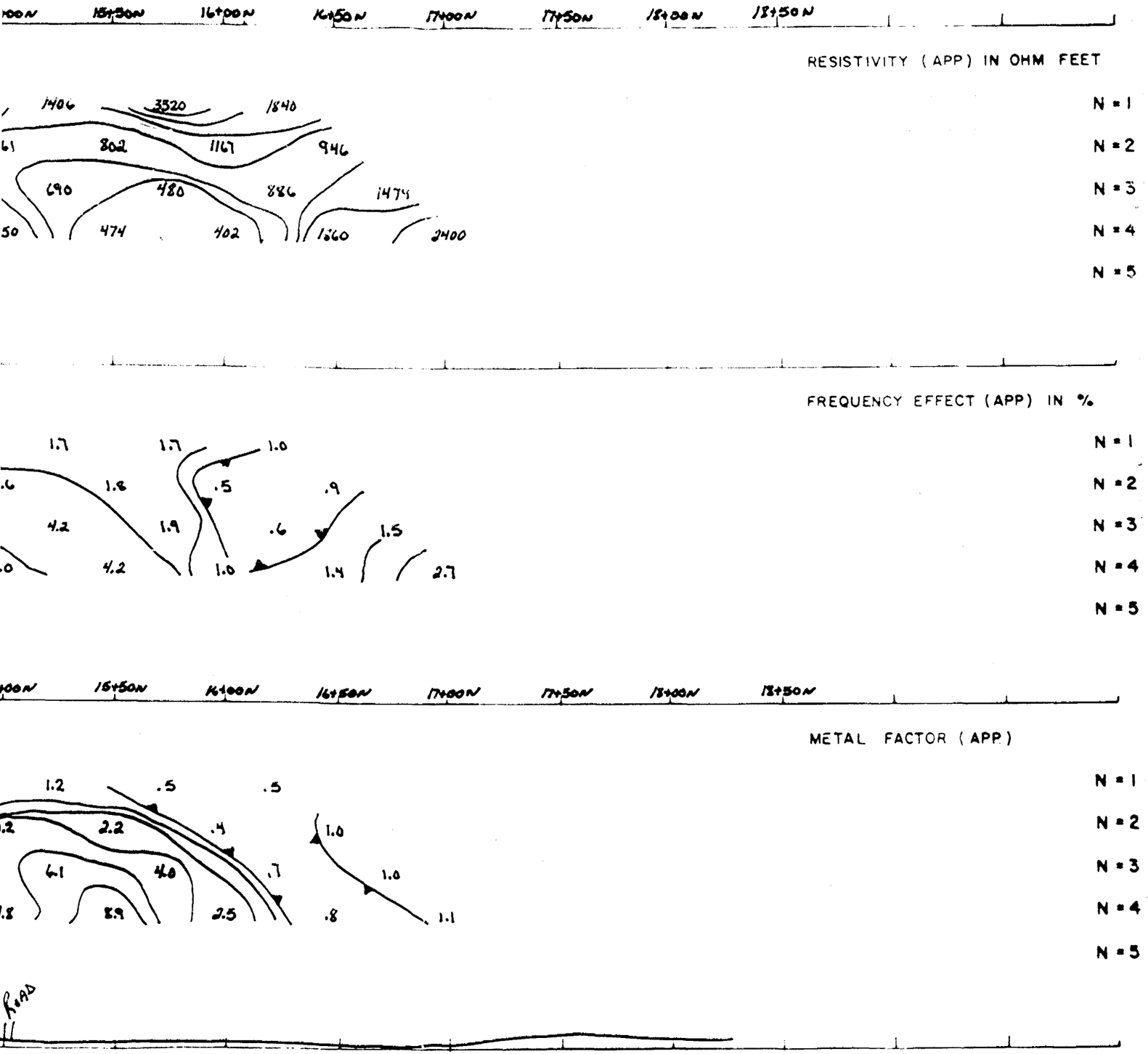
DATE:

INDUCED POLARIZATION AND RESISTIVITY SURVEY

OM87-7-C-241

63.5203


7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
14+50N
538 619 413 846 3300 3489 2343 3321 5700 6468
795 880 916 285 760 1868 1687 2499 4500 5799 2812
978 1506 1800 711 231 528 1054 2408 3100 5125 3000
1125 1977 3463 1392 606 159 309 1350 2400 3157 2400 1500
1.1 1.1 .8 2.9 2.2 3.2 2.2 1.9 1.0 1.4
2.9 1.2 .3 2.2 3.4 4.0 4.2 3.4 2.4 1.6 2.0
3.8 2.6 1.2 2.0 2.9 5.0 5.8 5.0 3.3 2.0 1.8
5.0 3.5 2.8 2.0 2.2 5.6 5.7 5.5 4.6 2.6 3.4 3.8
2.0 1.8 1.9 3.4 .7 .9 .9 .6 .2 .2
3.6 1.4 .3 7.7 4.5 2.1 2.5 1.4 .5 .3 .7
3.9 1.7 .7 2.8 12.5 9.5 5.5 2.1 1.0 .4 .6
4.4 1.8 .8 1.4 3.6 35.2 18.4 4.1 1.9 .8 1.4 2.5
SWAMP.



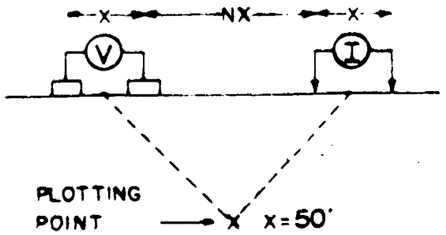
COMPANY: NORANDA EXPLORATION CO LTD.

PROPERTY: CLINE LAKE PROPERTY

JACOBSON TWP. ONTARIO

LINE NO – 3+00 E

ELECTRODE CONFIGURATION



SECTION 2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: .25 & 4.0 HZ.

NOTE CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT PHOENIX IPV-1 IPT-1

CONTRACTOR REMY BELANGER ENRG.

DATE SURVEYED DEC. 12 1986

APPROVED

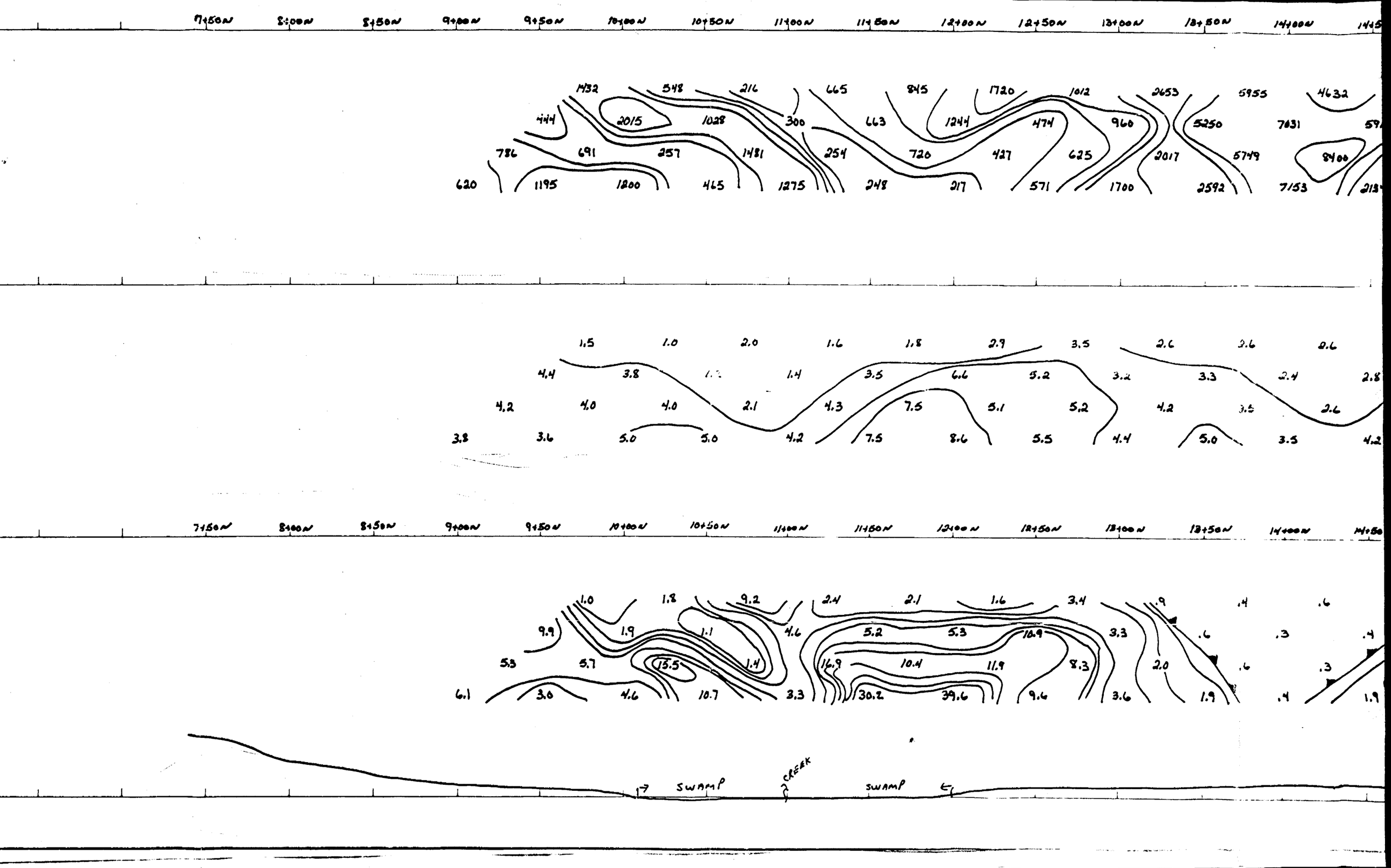
OPERATOR R. BELANGER

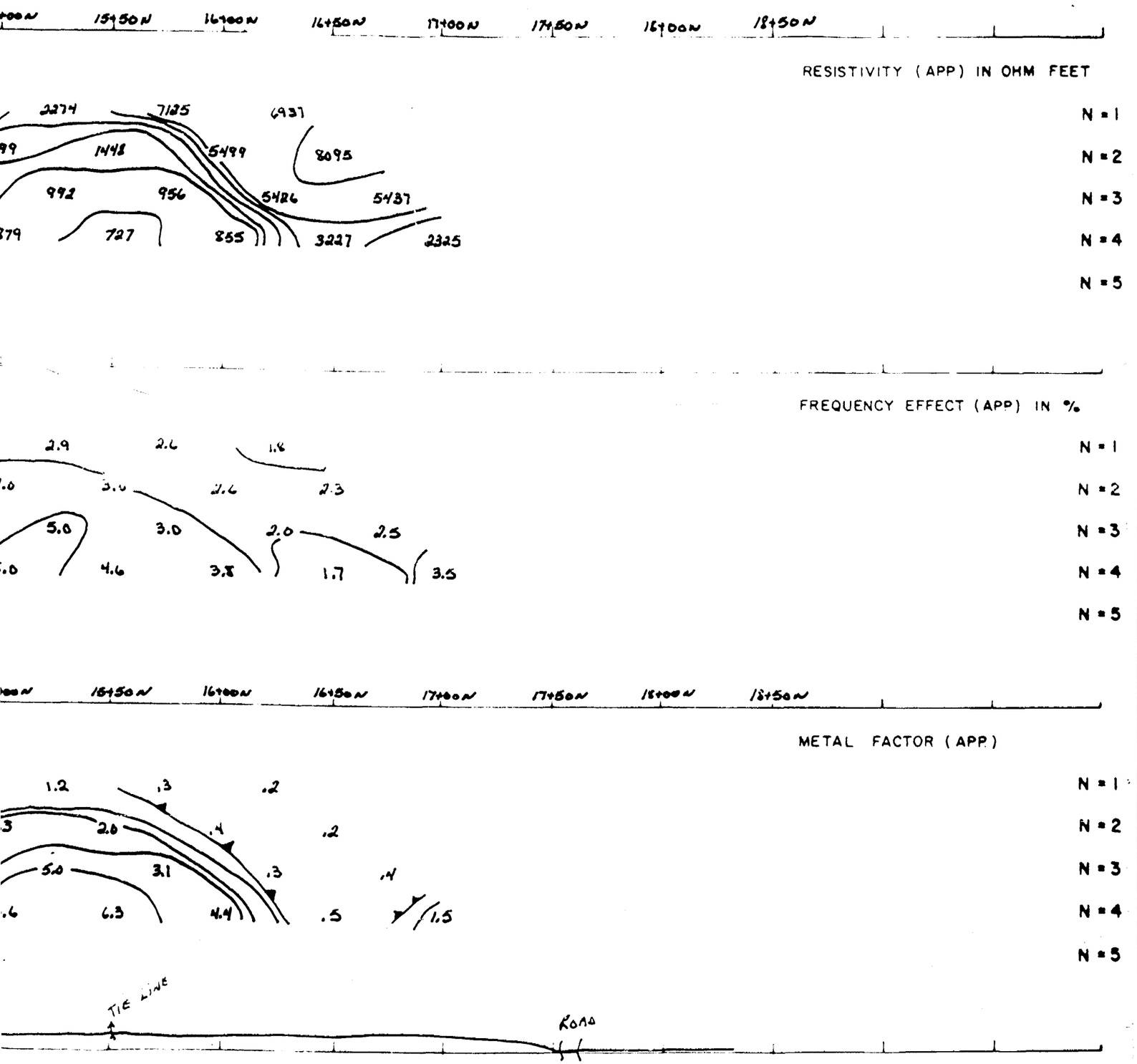
DATE:

INDUCED POLARIZATION AND RESISTIVITY SURVEY

OM87-7-C-241

63.5203


7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
1432
548
216
665
845
1720
1012
2653
5955
4632
444
2015
1028
300
663
1244
474
960
5250
7031
786
691
257
1481
254
720
427
625
2017
5749
8400
620
1195
1800
465
1275
248
217
571
1700
2592
7153
1.5
1.0
2.0
1.6
1.8
2.9
3.5
2.6
2.6
2.6
4.4
3.8
1.4
3.5
6.6
5.2
3.2
3.3
2.4
2.8
4.2
4.0
4.0
2.1
4.3
7.5
5.1
5.2
4.2
2.6
3.8
3.6
5.0
5.0
4.2
7.5
8.6
5.5
4.4
5.0
3.5
4.2
7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
1.0
1.8
9.2
2.4
2.1
1.6
3.4
.9
.4
.6
9.9
1.9
1.1
4.6
5.2
5.3
18.9
3.3
.6
.3
.4
5.3
5.7
15.5
1.4
16.9
10.4
11.9
8.3
2.0
.6
.3
6.1
3.0
4.6
10.7
3.3
30.2
39.6
9.6
3.6
1.9
.4
1.9
SWAMP
CREEK
SWAMP



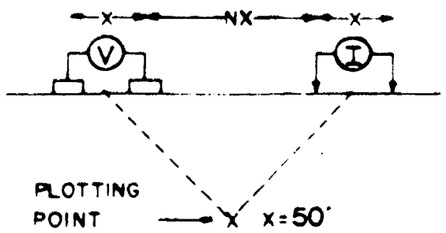
COMPANY: NORANDA EXPLORATION CO LTD.

PROPERTY: CLINE LAKE PROPERTY

JACOBSON TWP. ONTARIO

LINE NO – 5+00 E

ELECTRODE CONFIGURATION



SECTION 3

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ———

PROBABLE IIIIIIIIII

POSSIBLE / / / / /

FREQUENCIES .25 & 4.0 HZ.

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT: PHOENIX IPV-1 IPT-1

CONTRACTOR: REMY BELANGER ENRG.

DATE SURVEYED: DEC. 11 - 1986

APPROVED

OPERATOR: R. BELANGER

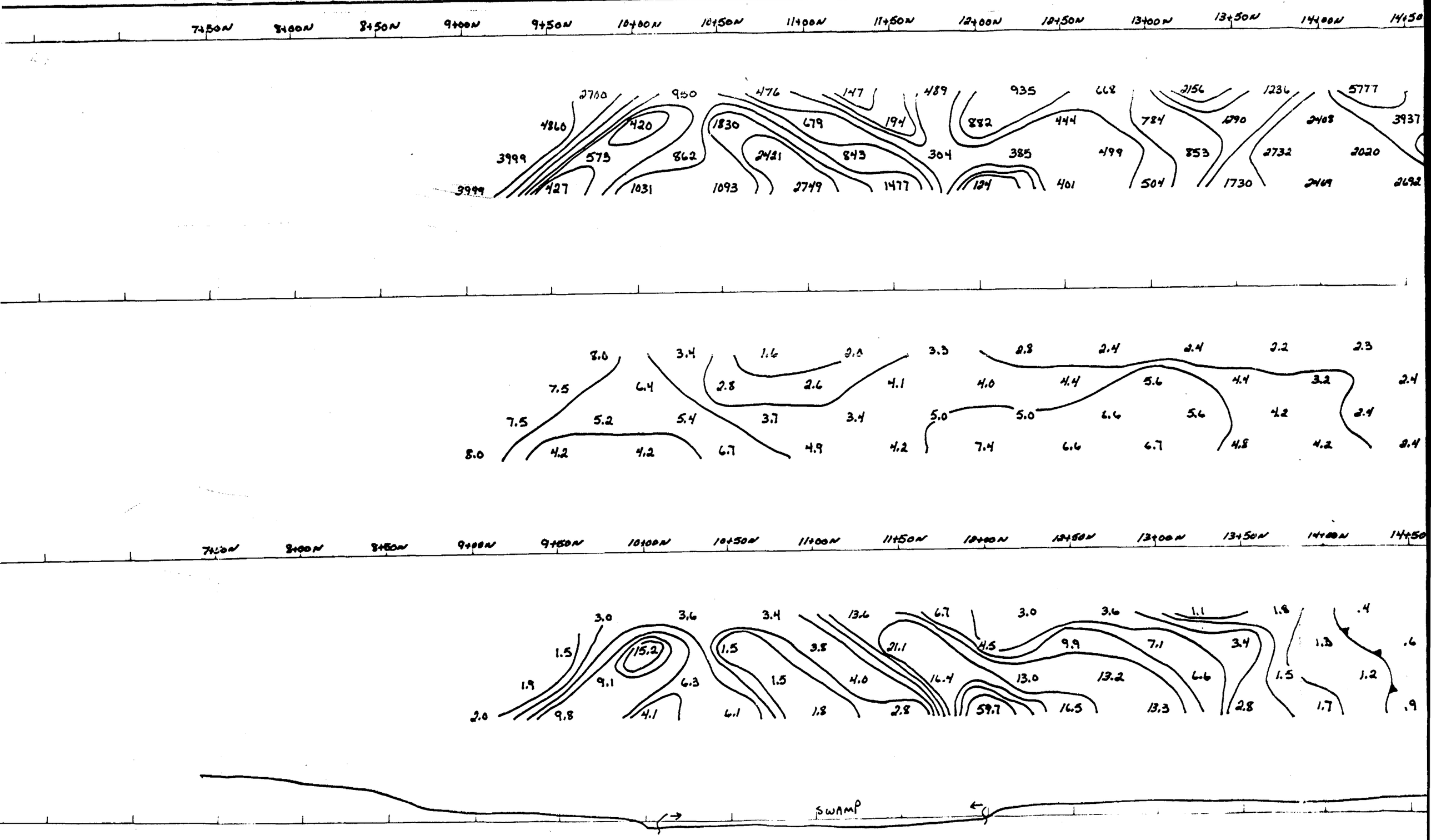
DATE:

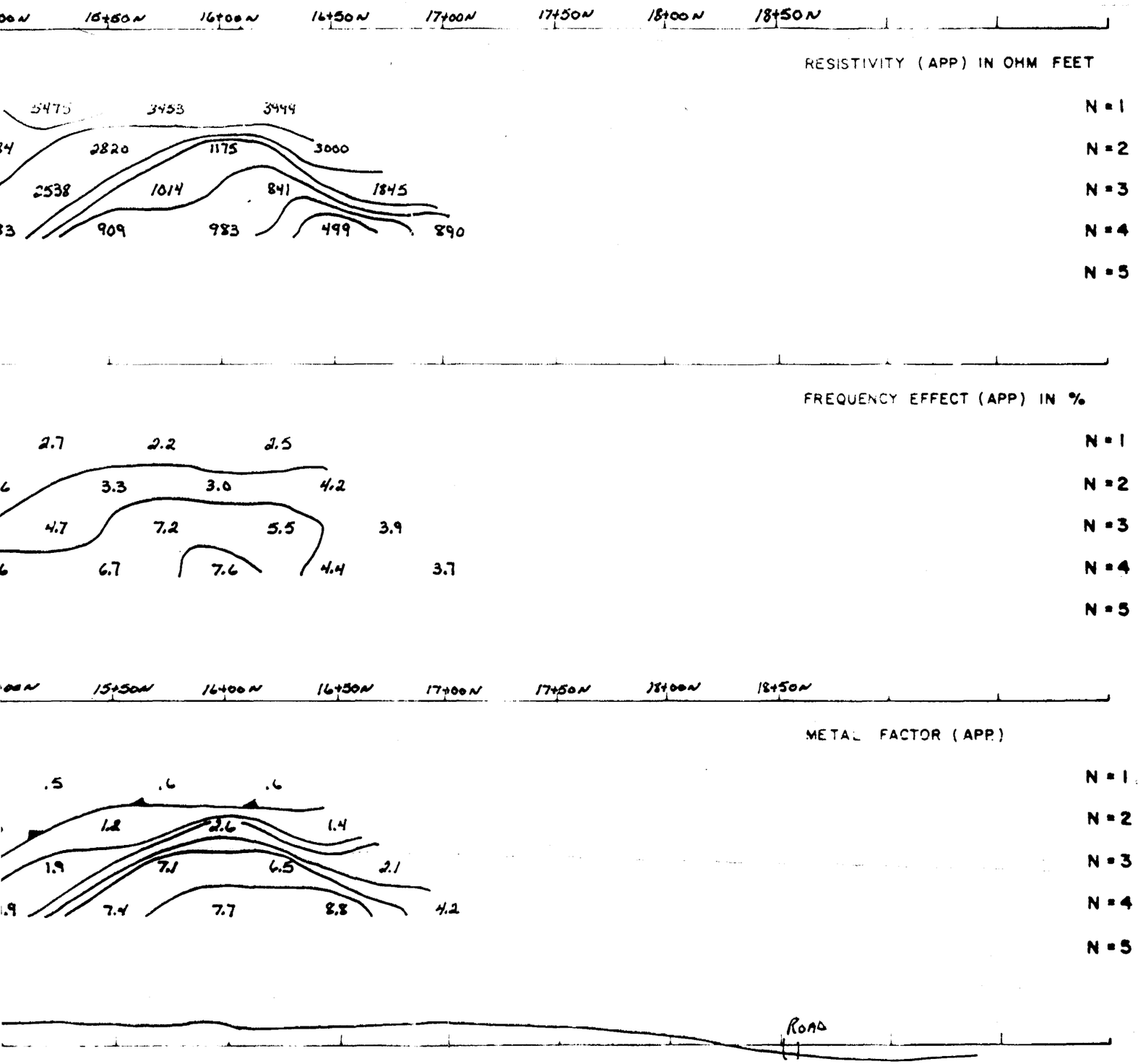
B.G. Grove

INDUCED POLARIZATION AND RESISTIVITY SURVEY

OM87-7-C-241

63.5203


7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
14+50
2700
950
476
147
489
935
668
2156
1236
5777
4860
420
1830
679
194
882
444
784
1290
2408
3937
3999
573
862
2421
843
304
385
499
853
2732
2020
3999
427
1031
1093
2749
1477
124
401
504
1730
2469
2692
8.0
3.4
1.6
2.8
3.3
2.8
2.4
2.4
2.2
2.3
7.5
6.4
2.8
2.6
4.1
4.0
4.4
5.6
4.4
3.2
2.4
7.5
5.2
5.4
3.7
3.4
5.0
5.0
6.6
5.6
4.2
2.4
8.0
4.2
4.2
6.7
4.9
4.2
7.4
6.6
6.7
4.8
4.2
2.4
7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
14+50
3.0
3.6
3.4
13.6
6.7
3.0
3.6
1.1
1.8
.4
1.5
15.2
1.5
3.8
21.1
4.5
9.9
7.1
3.4
1.3
.6
1.9
9.1
6.3
1.5
4.0
16.4
13.0
13.2
6.6
1.5
1.2
2.0
9.8
4.1
6.1
1.8
2.8
59.7
16.5
13.3
2.8
1.7
.9
SWAMP

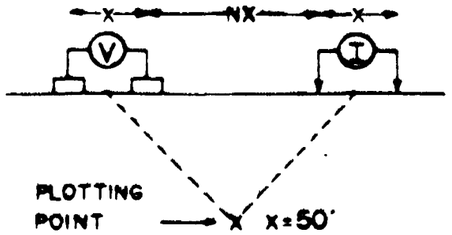


COMPANY: NORANDA EXPLORATION CO LTD.

PROPERTY: CLINE LAKE PROPERTY
JACOBSON TWP. ONTARIO

LINE NO. – 7+00 E

ELECTRODE CONFIGURATION



SECTION 4.

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: .25 & 4.0 HZ.

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT : PHOENIX IPV-1 IPT-1

CONTRACTOR : REMY BELANGER ENRG.

DATE SURVEYED: DEC. 11 - 1986

APPROVED:

OPERATOR: R. BELANGER

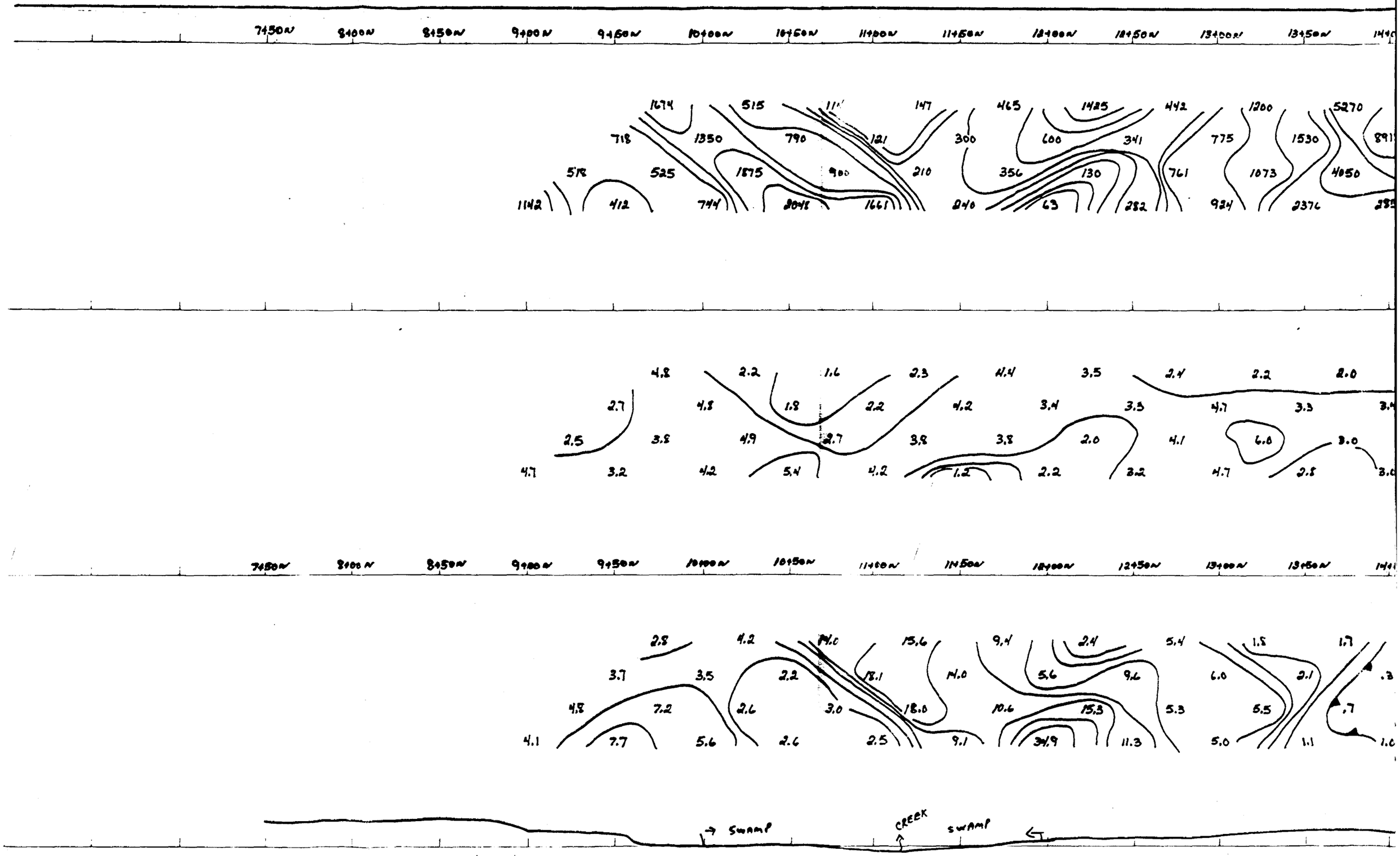
DATE:

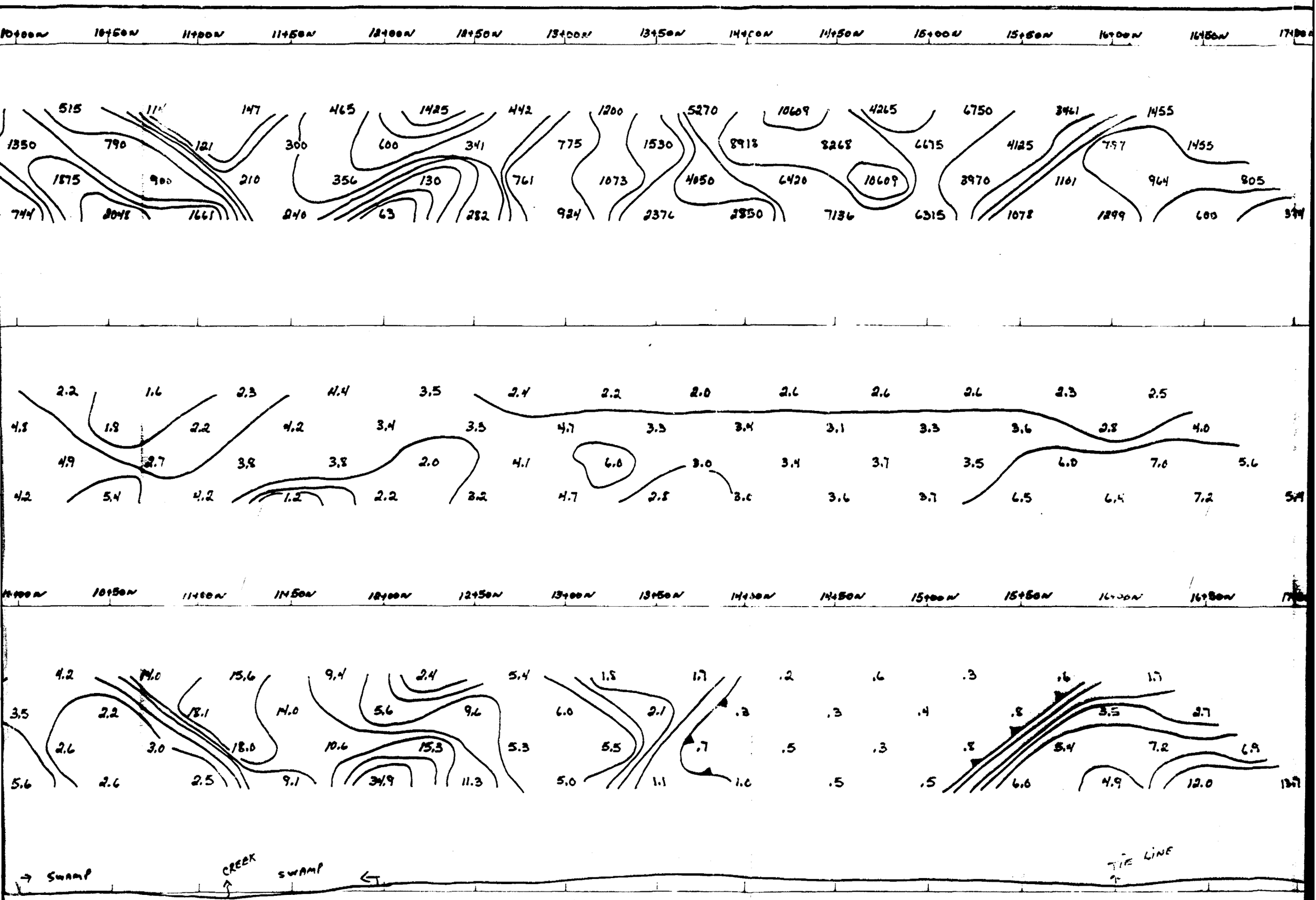
B. J. Groves

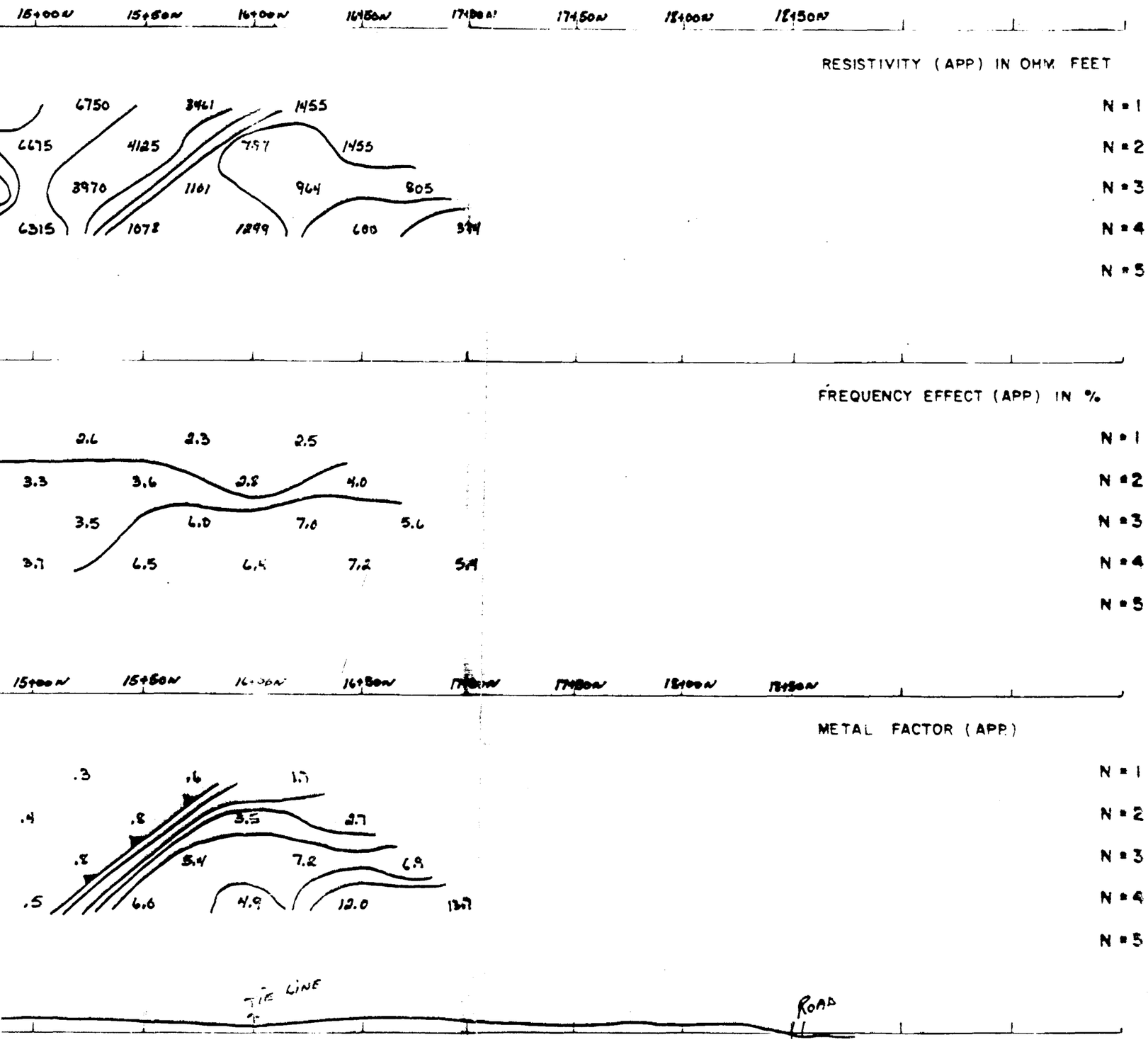
INDUCED POLARIZATION AND RESISTIVITY SURVEY

0087-7-C-241

63.5203


7450N
8400N
8450N
9400N
9450N
10400N
10450N
11400N
11450N
12400N
12450N
13400N
13450N
swamp
creek
swamp


10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
14+50N
15+00N
15+50N
16+00N
16+50N
515
147
465
1425
1200
5270
10609
4265
6750
3461
1455
1350
790
121
300
600
341
775
1530
8918
8268
6675
4125
797
1455
1875
900
210
356
130
761
1073
4050
6420
10609
3970
1161
964
805
744
8048
1661
240
63
282
924
2376
2850
7136
6315
1078
1299
600
2.2
1.6
2.3
4.4
3.5
2.4
2.2
2.0
2.6
2.6
2.6
2.3
2.5
4.8
1.8
2.2
4.2
3.4
3.5
4.7
3.3
3.4
3.1
3.3
3.6
2.8
4.0
4.9
2.7
3.8
3.8
2.0
4.1
6.0
3.0
3.4
3.7
3.5
6.0
7.0
5.6
4.2
5.4
4.2
1.2
2.2
3.2
4.7
2.8
3.6
3.6
3.7
6.5
6.4
7.2
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
14+50N
15+00N
15+50N
16+00N
16+50N
4.2
14.0
15.6
9.4
2.4
5.4
1.5
1.7
.2
.6
.3
.6
1.7
3.5
2.2
18.1
14.0
5.6
9.6
6.0
2.1
.3
.3
.4
.8
3.5
2.7
2.6
3.0
18.0
10.6
15.3
5.3
5.5
.7
.5
.3
.8
8.4
7.2
6.9
5.6
2.6
2.5
9.1
34.9
11.3
5.0
1.1
1.6
.5
.5
6.6
4.9
12.0
SWAMP
CREEK
SWAMP
TIE LINE



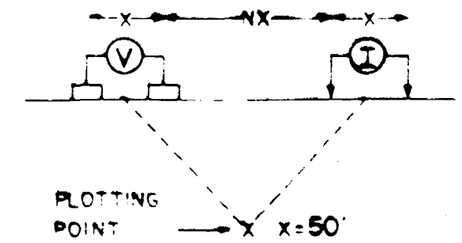
COMPANY: NORANDA EXPLORATION CO. LTD.

PROPERTY: CLINE LAKE PROPERTY

JACOBSON TWP. ONTARIO

LINE NO – 9+00 E

ELECTRODE CONFIGURATION



Section 5

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES 25 & 40 HZ

NOTE CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT PHOENIX IPV-1 IPT-1

CONTRACTOR REMY BELANGER ENRG.

DATE SURVEYED Dec. 11 1986

APPROVED

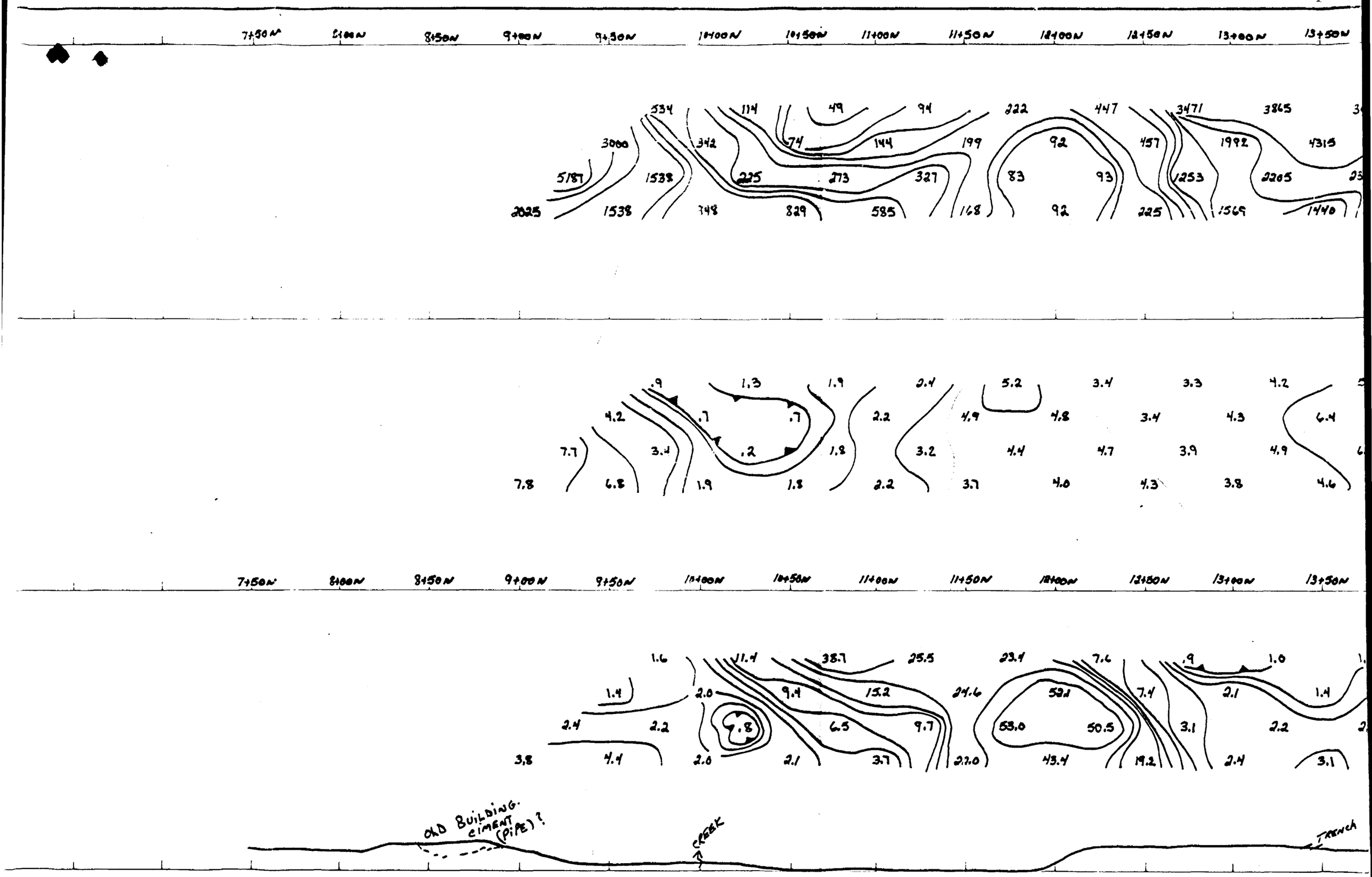
OPERATOR R. BELANGER

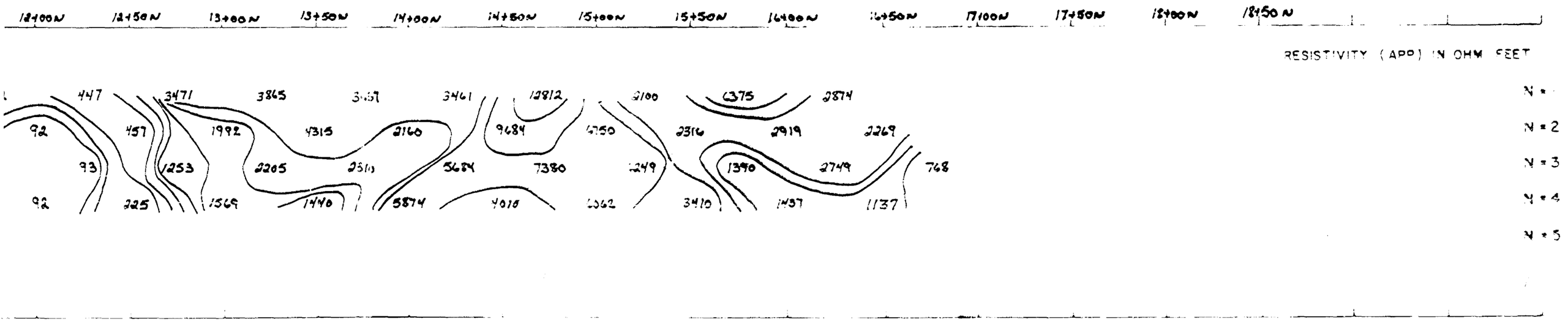
DATE

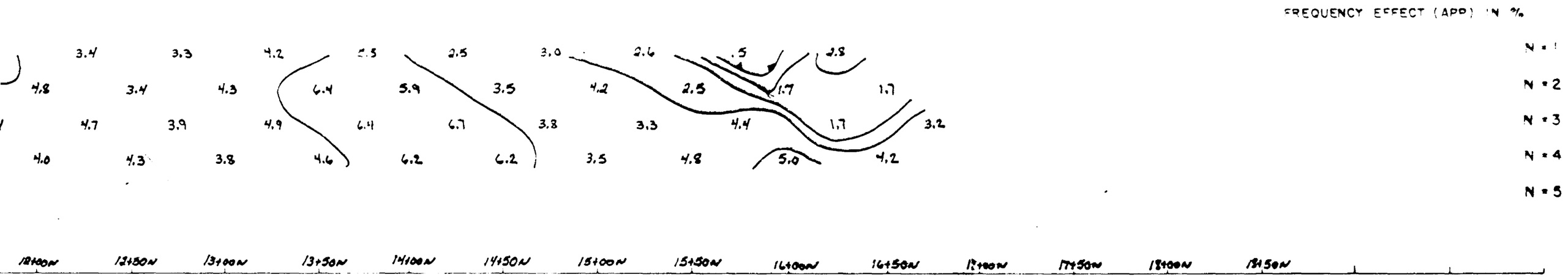
INDUCED POLARIZATION AND RESISTIVITY SURVEY

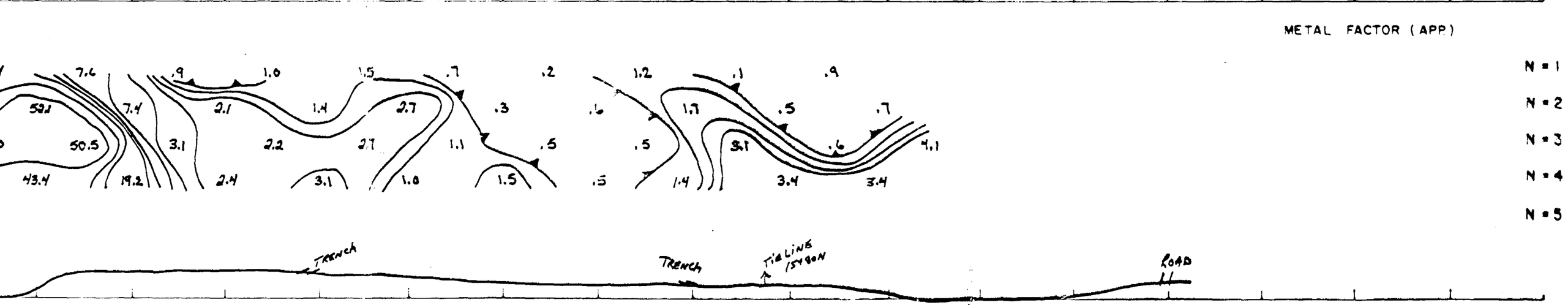
OM87-7-C-241

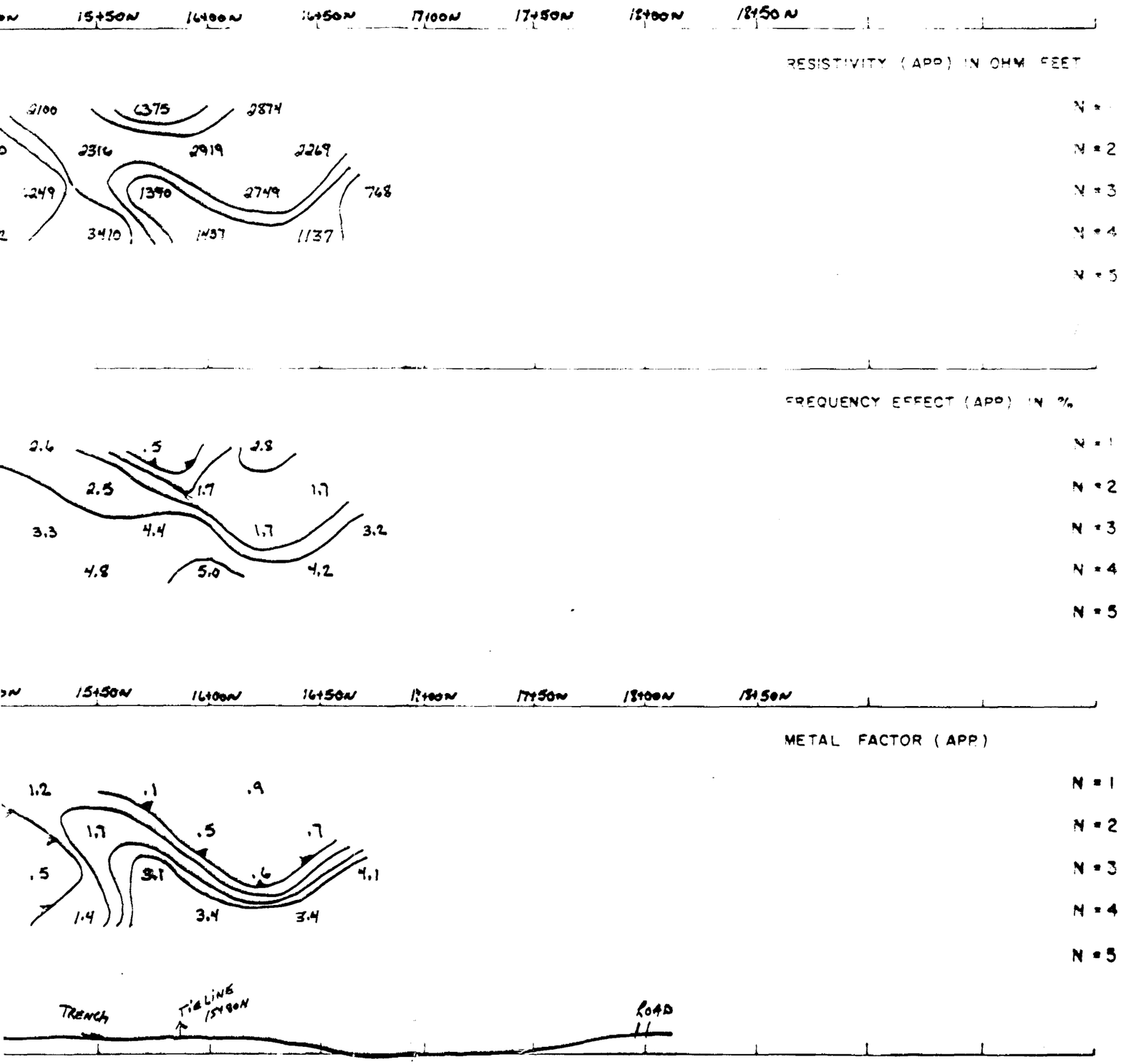
63.5203


7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
534
114
49
94
222
447
3471
3865
3000
342
74
144
199
92
457
1992
4315
5187
1538
225
273
327
83
93
1253
2205
2025
1538
348
829
585
168
92
225
1569
1440
.9
1.3
1.9
2.4
5.2
3.4
3.3
4.2
4.2
.7
.7
2.2
4.9
4.8
3.4
4.3
6.4
7.7
3.4
.2
1.8
3.2
4.4
4.7
3.9
4.9
7.8
6.8
1.9
1.8
2.2
3.7
4.0
4.3
3.8
4.6
7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
1.6
11.4
38.7
25.5
23.4
7.6
.9
1.0
1.4
2.0
9.4
15.2
24.6
52.1
7.4
2.1
1.4
2.4
2.2
.8
6.5
9.7
53.0
50.5
3.1
2.2
3.8
4.4
2.0
2.1
3.7
27.0
43.4
19.2
2.4
3.1
OLD BUILDING.
CIMENT
(PIPE)?
CREEK
TRENCH


12+00N
12+50N
13+00N
13+50N
14+00N
14+50N
15+00N
15+50N
16+00N
16+50N
17+00N
17+50N
18+00N
18+50N
RESISTIVITY (APP) IN OHM FEET
N = 1
N = 2
N = 3
N = 4
N = 5


FREQUENCY EFFECT (APP) IN %
N = 1
N = 2
N = 3
N = 4
N = 5


12+00N
12+50N
13+00N
13+50N
14+00N
14+50N
15+00N
15+50N
16+00N
16+50N
17+00N
17+50N
18+00N
18+50N
METAL FACTOR (APP)
N = 1
N = 2
N = 3
N = 4
N = 5
TRENCH
TRENCH
TIE LINE 15+80N
ROAD



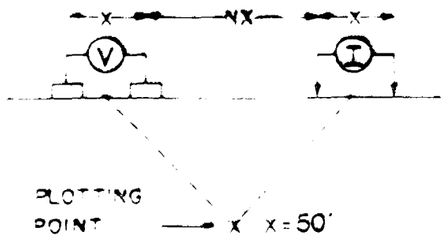
COMPANY: NORANDA EXPLORATION CO LTD.

PROPERTY: CLINE LAKE PROPERTY

JACOBSON TWP. ONTARIO

LINE NO – 11+00 E

ELECTRODE CONFIGURATION



SECTION 6

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES .25 & 4.0 HZ.

NOTE CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT PHOENIX IPV-1 IPT-1

CONTRACTOR REMY BELANGER ENRG.

DATE SURVEYED Dec./0 1986

APPROVED

OPERATOR R. BELANGER

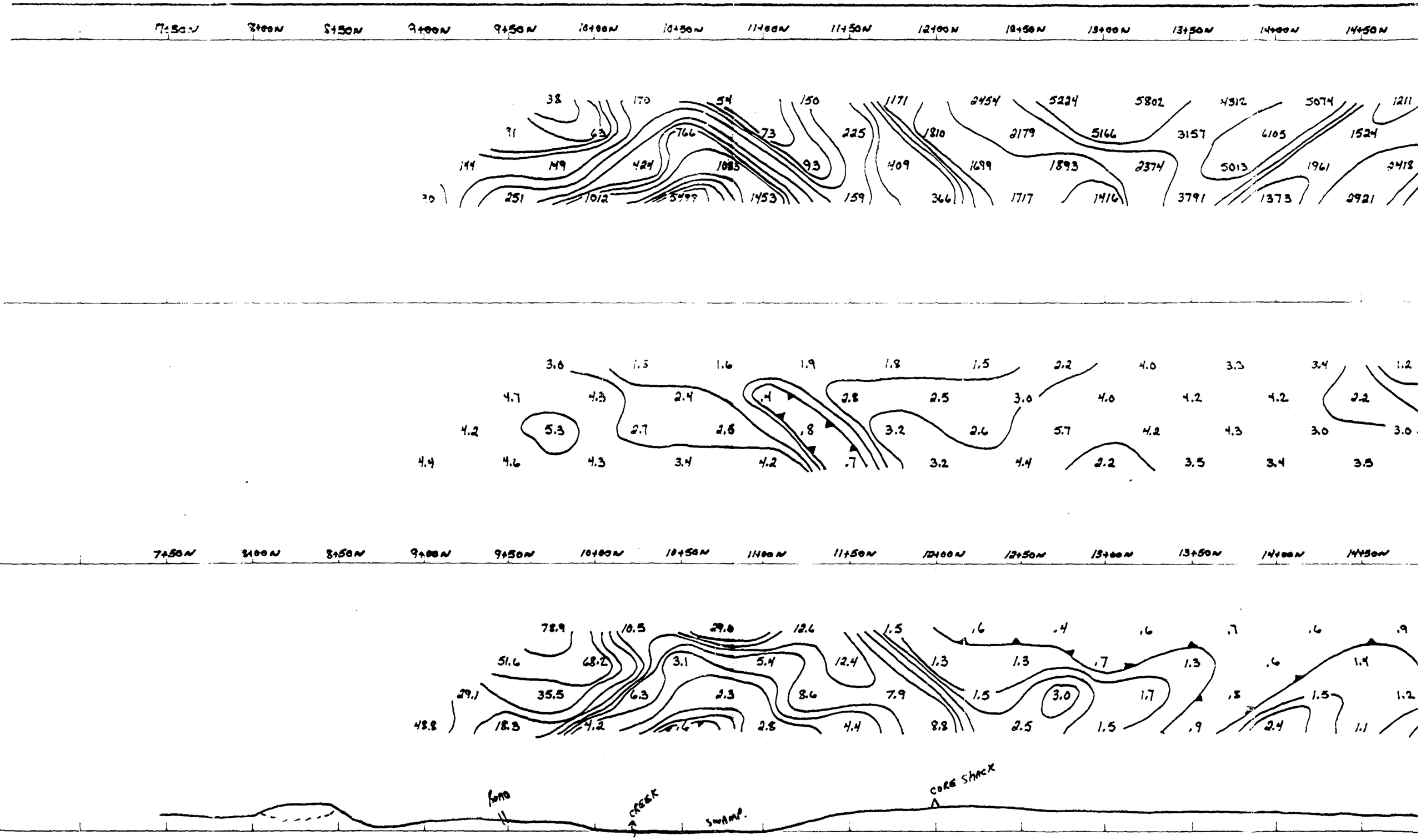
DATE

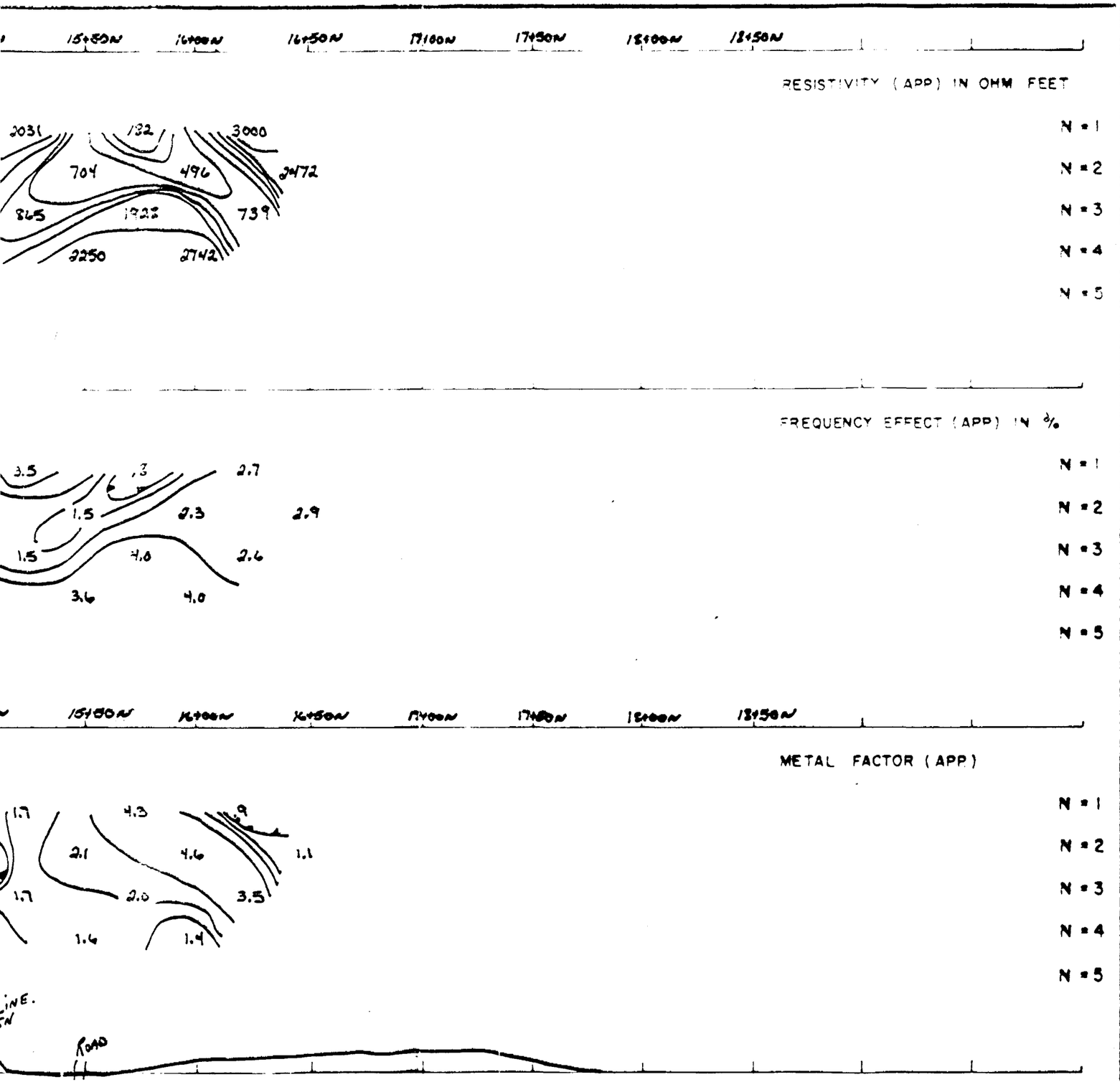
15 figures

INDUCED POLARIZATION AND RESISTIVITY SURVEY

OM 87-7-C-241

63.5203


7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
14+50N
38
170
54
150
1171
2454
5224
5802
4312
5074
1211
91
63
766
73
225
1810
2179
5166
3157
6105
1524
144
149
424
1083
93
409
1699
1893
2374
5013
1961
2418
251
1012
5499
1453
159
366
1717
1416
3791
1373
2921
3.6
1.3
1.6
1.9
1.8
1.5
2.2
4.0
3.3
3.4
1.2
4.7
4.3
2.4
.4
2.8
2.5
3.0
4.0
4.2
4.2
2.2
4.2
5.3
2.7
2.6
.8
3.2
2.6
5.7
4.2
4.3
3.0
3.0
4.4
4.6
4.3
3.4
4.2
.7
3.2
4.4
2.2
3.5
3.4
3.5
78.9
10.5
29.0
12.6
1.5
.6
.4
.6
.7
.6
.9
51.6
68.2
3.1
5.4
12.4
1.3
1.3
.7
1.3
.6
1.4
29.1
35.5
6.3
2.3
8.6
7.9
1.5
3.0
1.7
.8
1.5
1.2
48.8
18.3
4.2
.6
2.8
4.4
8.8
2.5
1.5
.9
2.4
1.1
ford
creek
swamp.
core shack



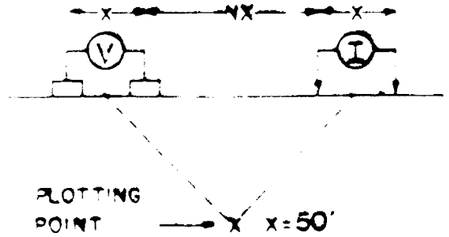
COMPANY: NORANDA EXPLORATION CO LTD.

PROPERTY: CLINE LAKE PROPERTY

JACOBSON TWP. ONTARIO

LINE NO – 13+00 E

ELECTRODE CONFIGURATION



SECTION 7

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: .25 & 4.0 HZ.

NOTE CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT PHOENIX IPV-1 IPT-1

CONTRACTOR REMY BELANGER ENRG.

DATE SURVEYED Dec. 19 1986

APPROVED

OPERATOR R. BELANGER

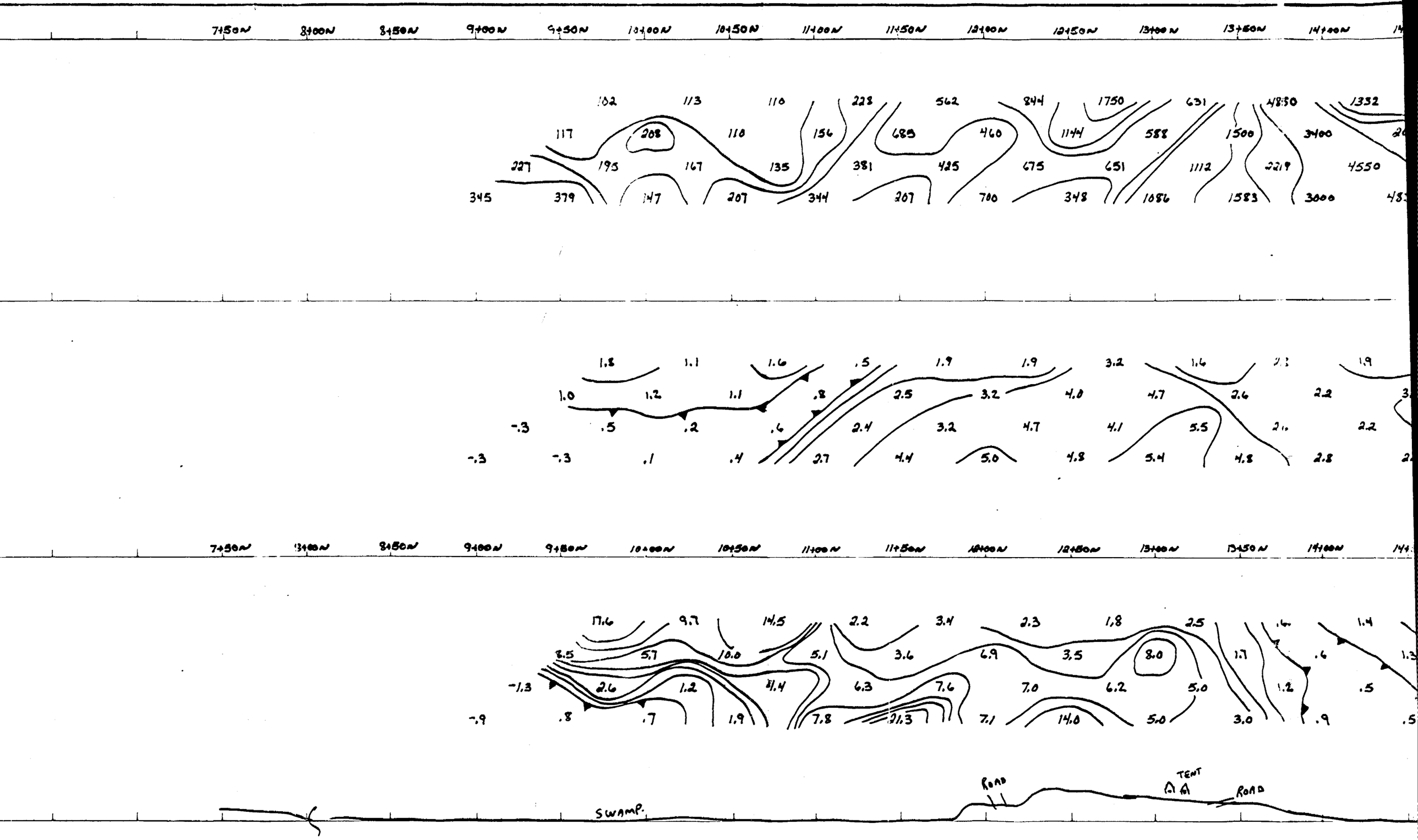
DATE

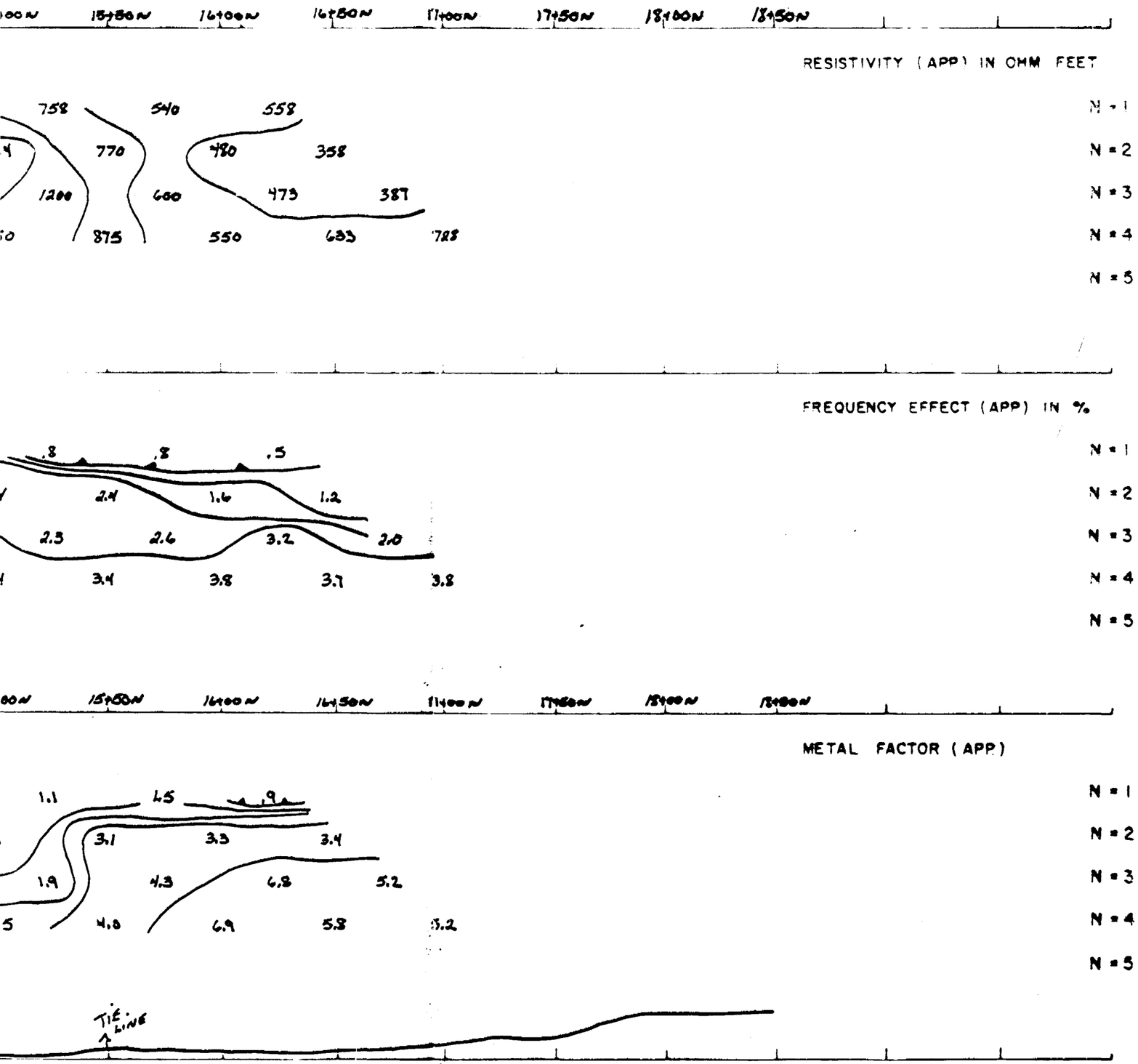
15 frames

INDUCED POLARIZATION AND RESISTIVITY SURVEY

OM87-7-C-241

63.5203


7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
102 113 110 228 562 844 1750 631 4850 1332
117 208 110 156 685 460 1144 588 1500 3400
227 195 167 135 381 425 675 651 1112 2219 4550
345 379 147 207 344 207 700 348 1086 1583 3000
1.8 1.1 1.6 .5 1.9 1.9 3.2 1.6 1.9
1.0 1.2 1.1 .8 2.5 3.2 4.0 4.7 2.6 2.2
-.3 .5 .2 .6 2.4 3.2 4.7 4.1 5.5 2.2
-.3 -.3 .1 .4 2.7 4.4 5.0 4.8 5.4 4.8 2.8
7+50N
13+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
17.6 9.7 14.5 2.2 3.4 2.3 1.8 2.5 1.4
8.5 5.7 10.0 5.1 3.6 6.9 3.5 8.0 1.7 .6
-1.3 2.6 1.2 11.4 6.3 7.6 7.0 6.2 5.0 1.2 .5
-.9 .8 .7 1.9 7.8 21.3 7.1 14.0 5.0 3.0 .9
SWAMP.
ROAD
TENT
ROAD

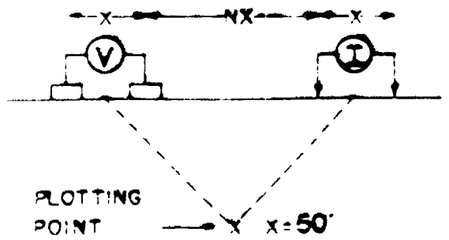


COMPANY: NORANDA EXPLORATION CO LTD.

PROPERTY: CLINE LAKE PROPERTY
JACOBSON TWP. ONTARIO

LINE NO - 15+00 E

ELECTRODE CONFIGURATION



SECTION 8

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES .25 & 4.0 HZ.

NOTE CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT PHOENIX IPV-1 IPT-1

CONTRACTOR REMY BELANGER ENRG.

DATE SURVEYED DEC. 09-10-1986

APPROVED 63.5203

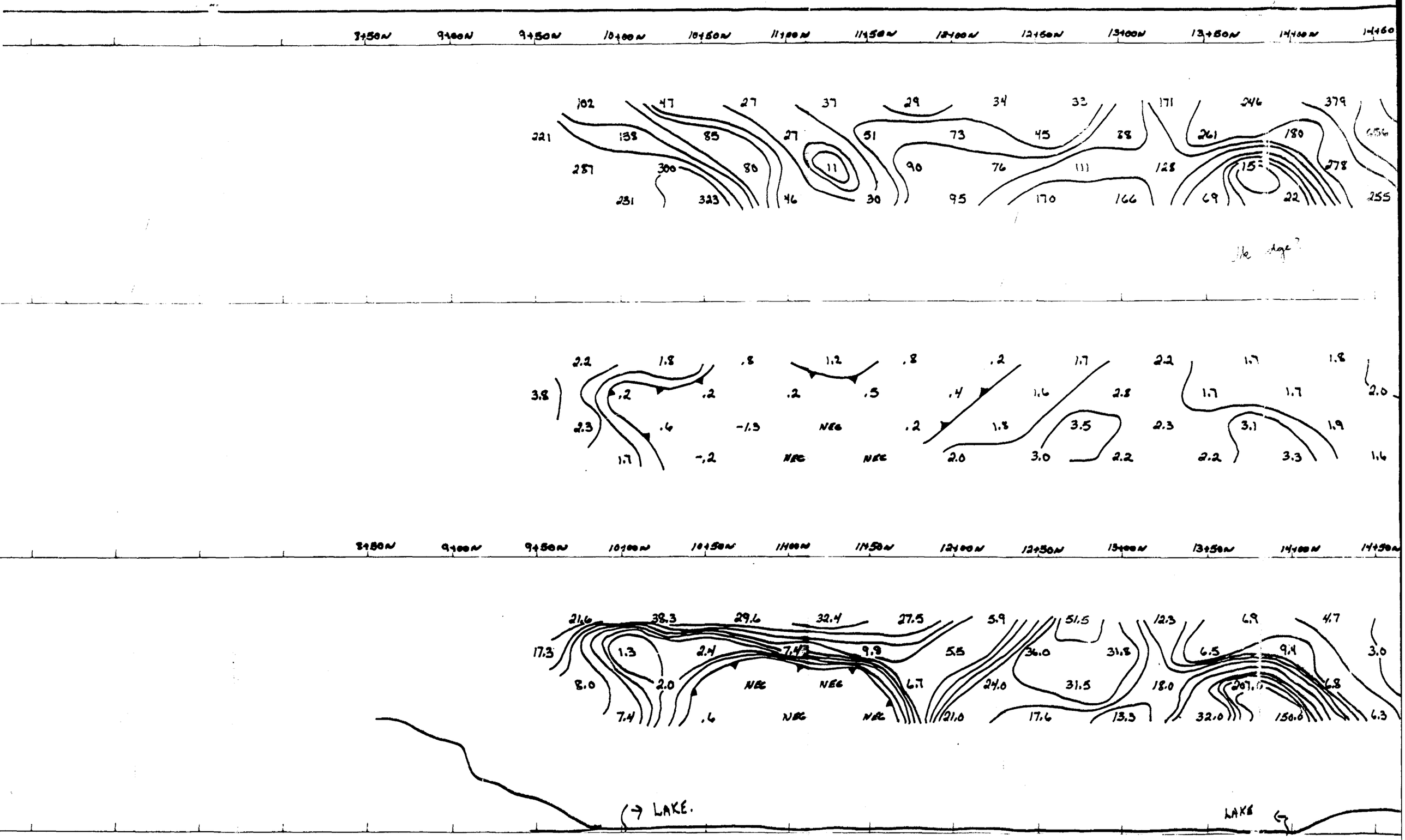
OPERATOR R. BELANGER

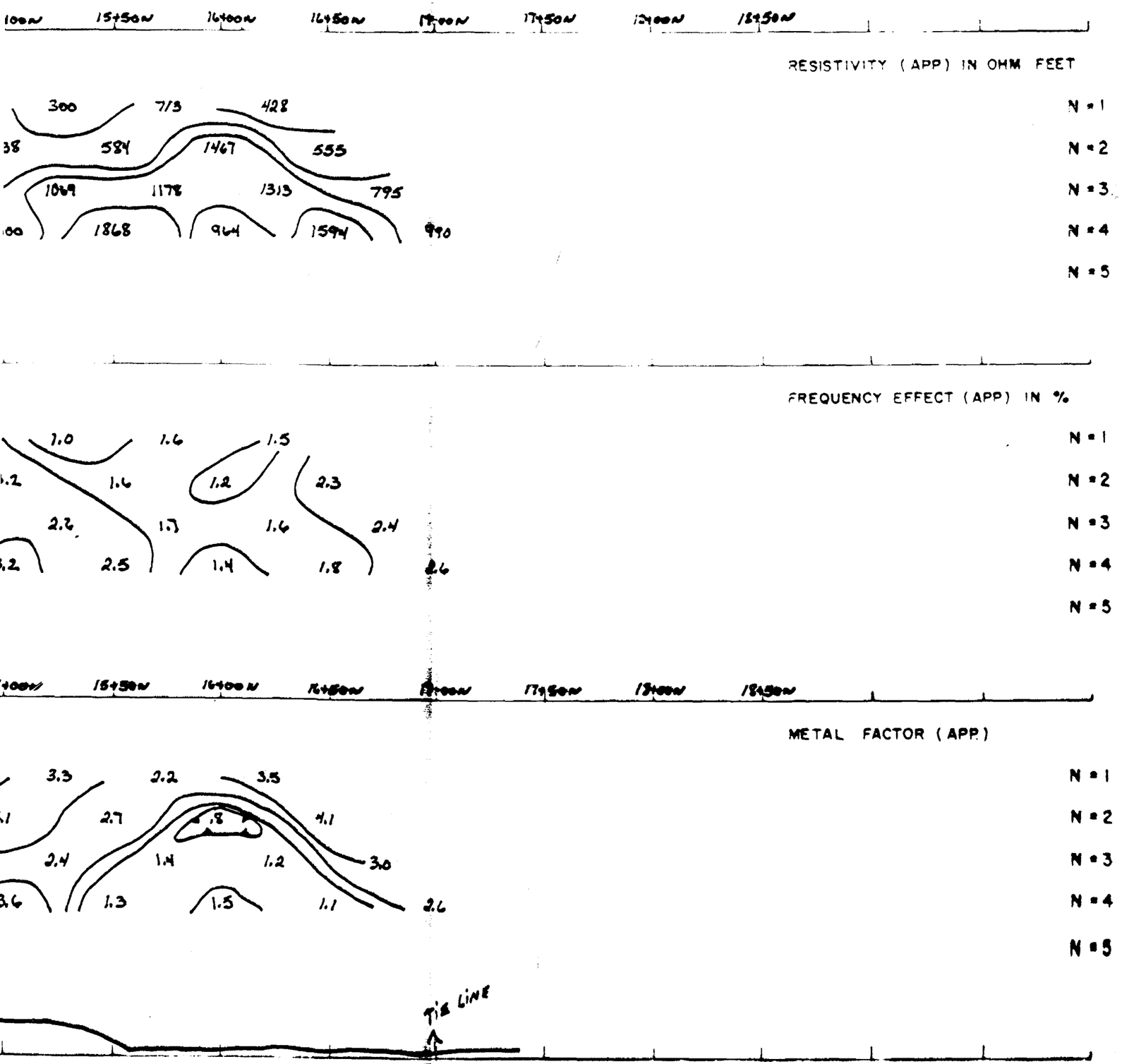
DATE:

B. Groves

INDUCED POLARIZATION AND RESISTIVITY SURVEY

OM87-7-C-241


8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
14+50N
102 47 27 37 29 34 33 171 246 379
221 138 85 27 51 73 45 88 261 180 656
287 300 80 11 90 76 111 128 15 278
231 323 46 30 95 170 166 69 22 255
2.2 1.8 .8 1.2 .8 .2 1.7 2.2 1.7 1.8
3.8 .2 .2 .2 .5 .4 1.6 2.8 1.7 1.7 2.0
2.3 .6 -1.3 NEG .2 1.8 3.5 2.3 3.1 1.9
1.7 -.2 NEG NEG 2.0 3.0 2.2 2.2 3.3 1.6
21.6 38.3 29.6 32.4 27.5 5.9 51.5 12.3 6.9 4.7
17.3 1.3 2.4 7.4 9.9 5.5 36.0 31.8 6.5 9.4 3.0
8.0 2.0 NEG NEG 6.7 24.0 31.5 18.0 207.0 6.8
7.4 .6 NEG NEG 121.0 17.6 13.3 32.0 150.0 6.3
LAKE.
LAKE



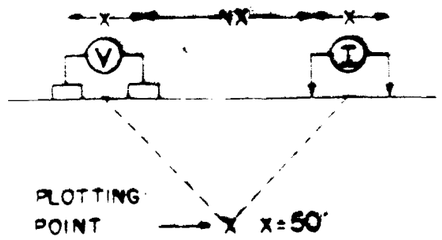
COMPANY: NORANDA EXPLORATION CO. LTD.

PROPERTY: CLINE LAKE PROPERTY

JACOBSON TWP. ONTARIO

LINE NO – 17+00S

ELECTRODE CONFIGURATION



SECTION 9

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: .25 & 4.0 HZ

NOTE CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT: PHOENIX IPV-1 IPT-1

CONTRACTOR: REMY BELANGER ENRG.

DATE SURVEYED: Dec. 09-1986

APPROVED: 63.5203

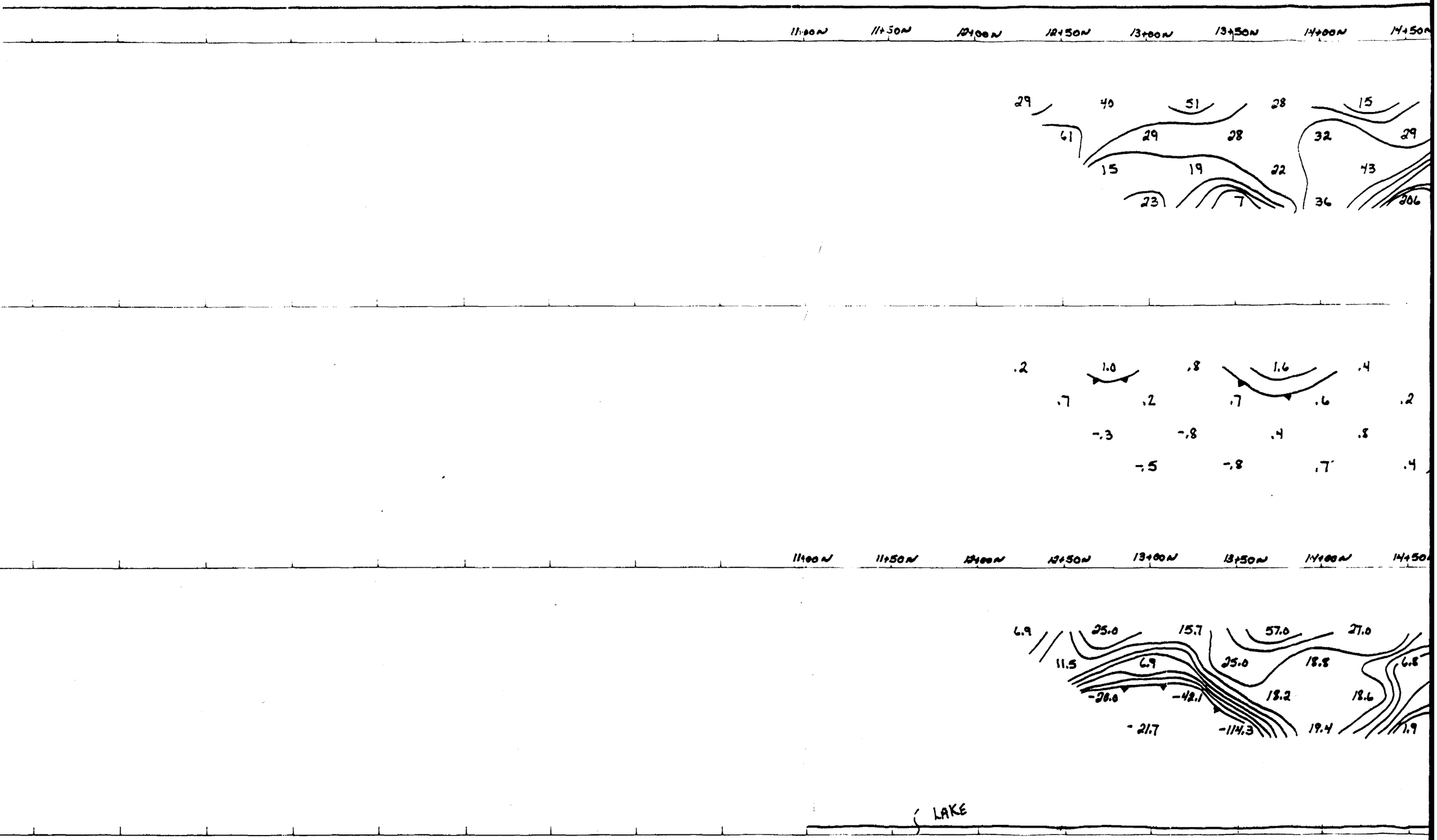
OPERATOR: R. BELANGER

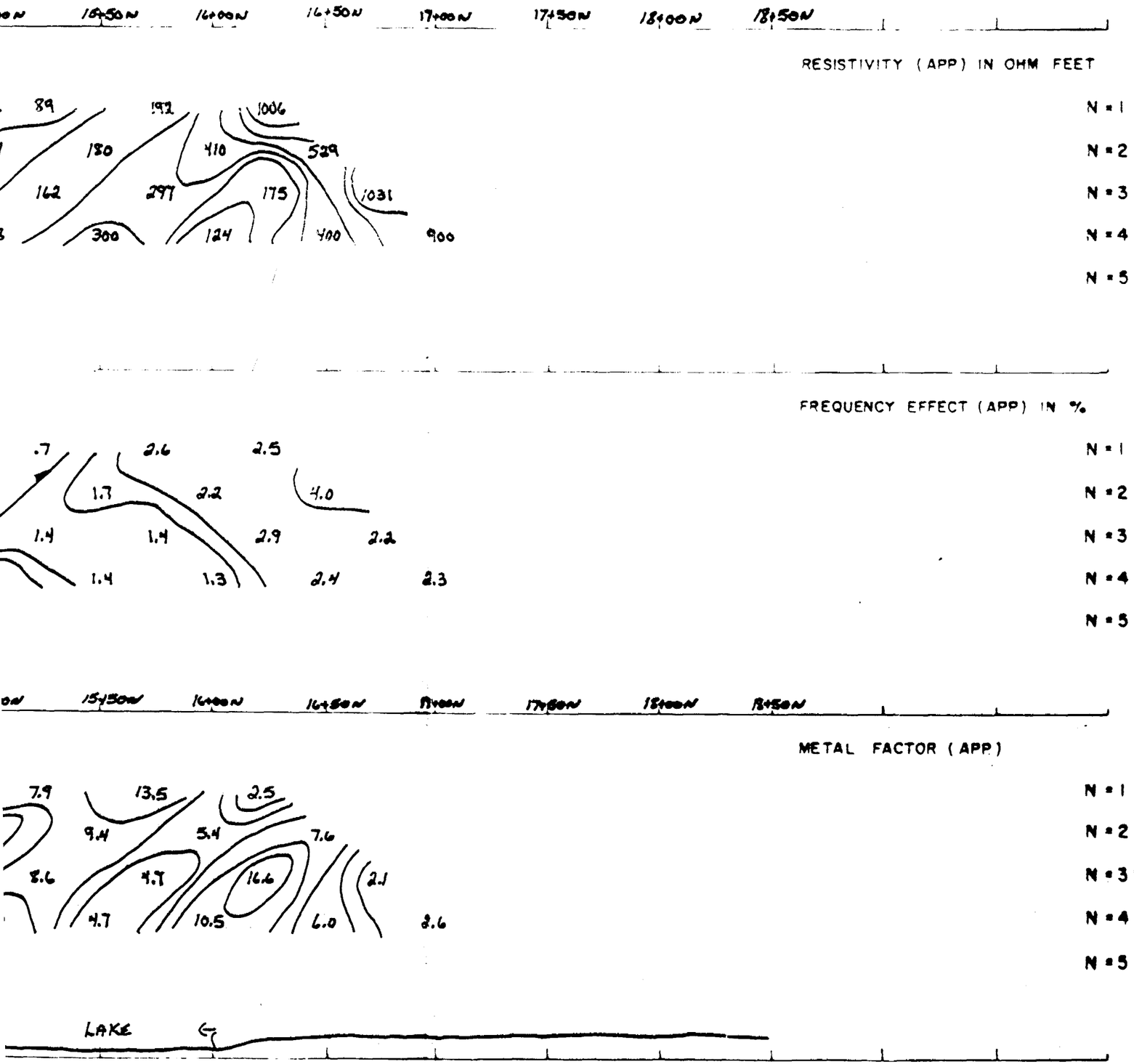
DATE:

Approves

INDUCED POLARIZATION AND RESISTIVITY SURVEY

OM87-7-C-241


11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
14+50N
29
40
51
28
15
61
29
28
32
29
15
19
22
43
23
7
36
206
.2
1.0
.8
1.6
.4
.7
.2
.7
.6
.2
-.3
-.8
.4
.8
-.5
-.8
.7
.4
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
14+50N
6.9
25.0
15.7
57.0
27.0
11.5
6.9
25.0
18.8
6.8
-28.0
-42.1
18.2
18.6
-21.7
-114.3
19.4
1.9
LAKE



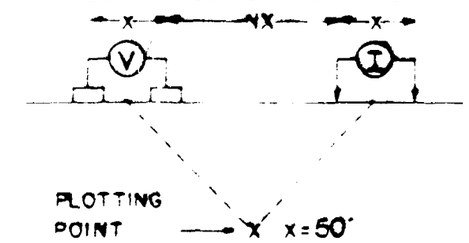
COMPANY: NORANDA EXPLORATION CO LTD.

PROPERTY: CLINE LAKE PROPERTY

JACOBSON TWP. ONTARIO

LINE NO – 17+00 E

ELECTRODE CONFIGURATION



SECTION 10

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES .25 & 4.0 HZ

NOTE CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT PHOENIX IPV-1 IPT-1

CONTRACTOR REMY BELANGER ENRG.

DATE SURVEYED Dec. 9 - 1986

APPROVED 63.5203

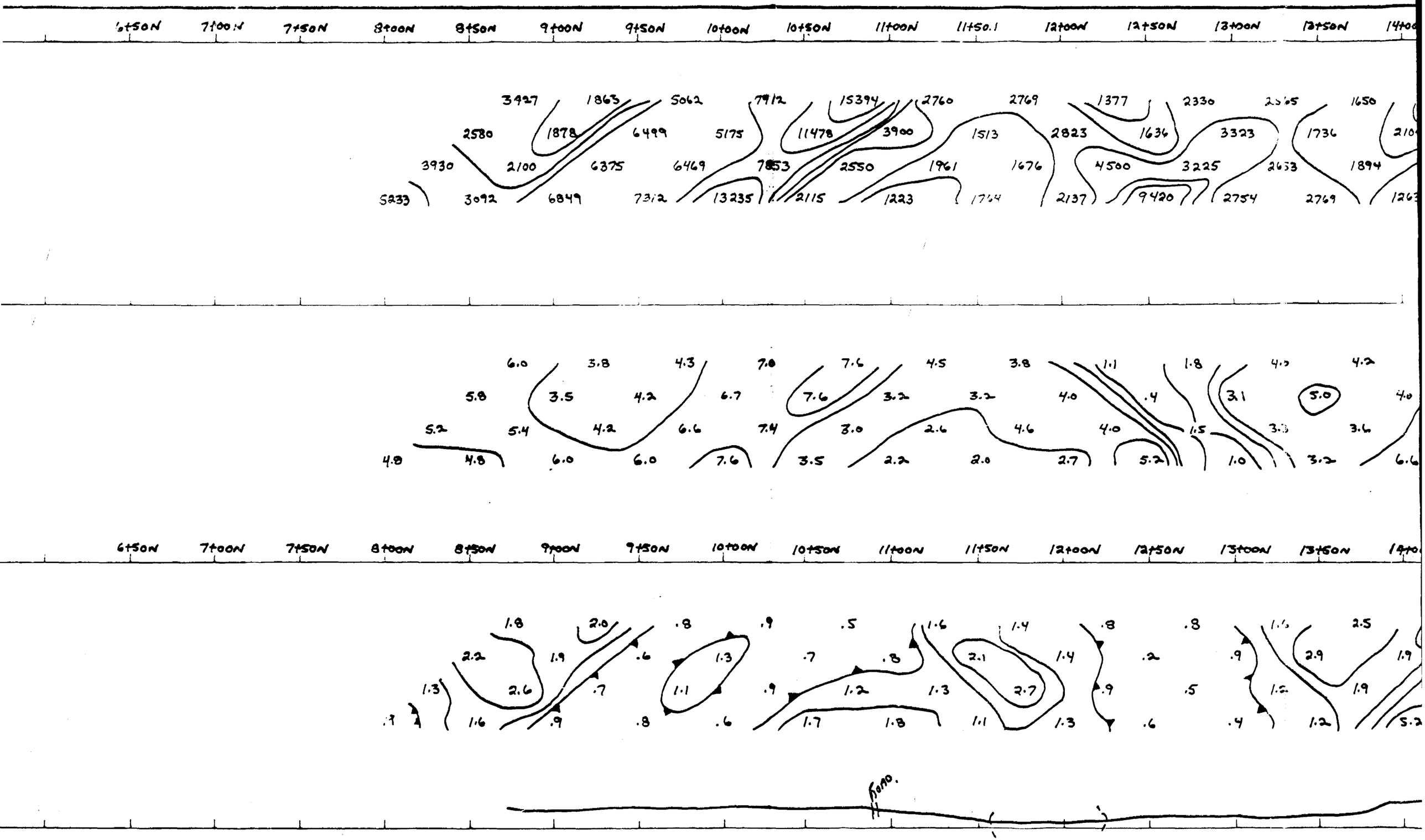
OPERATOR R. BELANGER

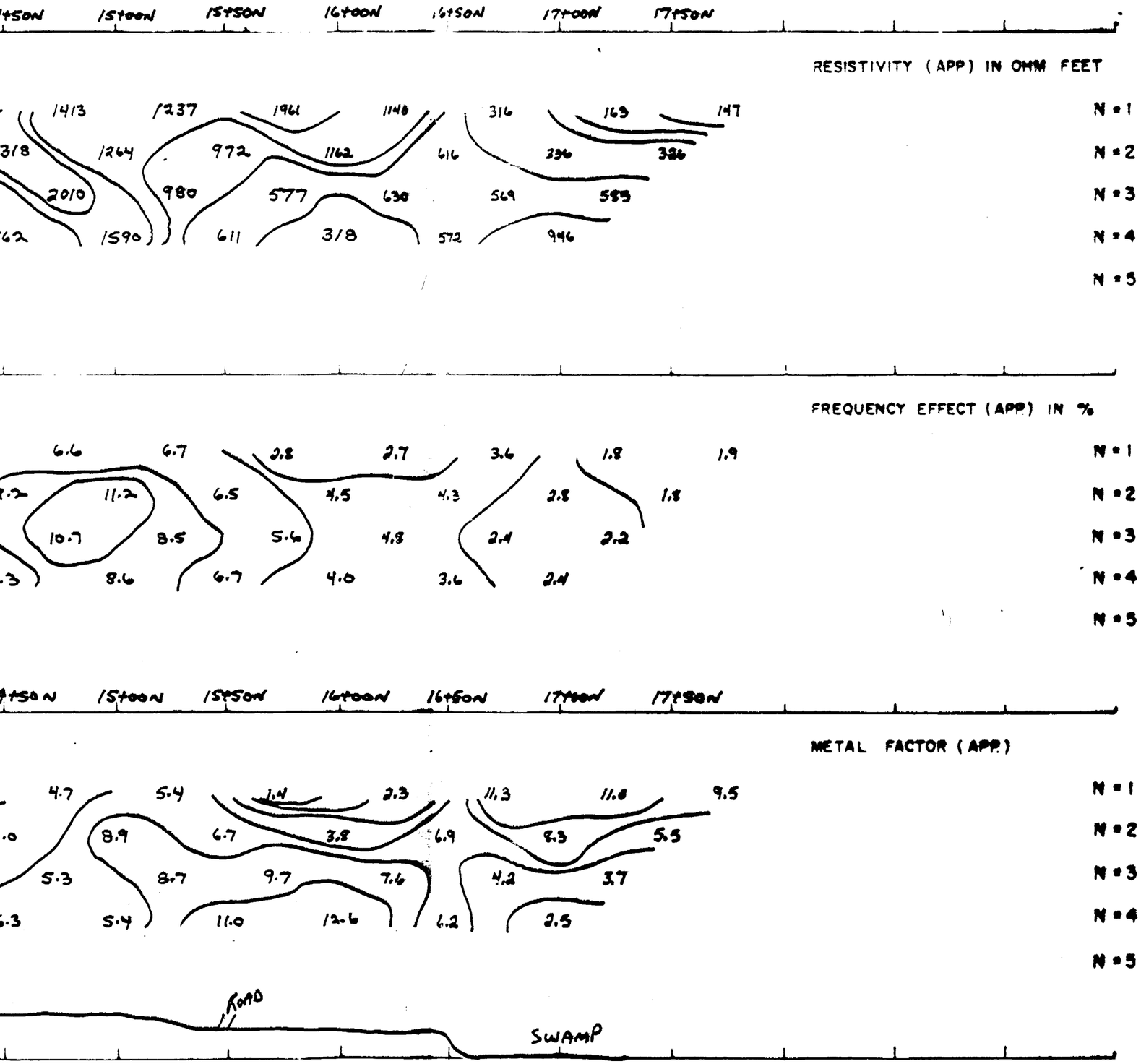
DATE

B. Groves

INDUCED POLARIZATION AND RESISTIVITY SURVEY

OM87-7-C-241


6+50N
7+00N
7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50.1
12+00N
12+50N
13+00N
13+50N
14+00
3427 1863 5062 7912 15394 2760 2769 1377 2330 1650
2580 1878 6499 5175 11478 3900 1513 2823 1636 3323 1736
3930 2100 6375 6469 7853 2550 1961 1676 4500 3225 2653 1894
5233 3092 6849 7312 13235 2115 1223 1764 2137 9420 2754 2769
6.0 3.8 4.3 7.0 7.6 4.5 3.8 1.1 1.8 4.0 4.2
5.8 3.5 4.2 6.7 7.6 3.2 3.2 4.0 .4 3.1 5.0 4.0
5.2 5.4 4.2 6.6 7.4 3.0 2.6 4.6 4.0 1.5 3.3 3.6
4.8 4.8 6.0 6.0 7.6 3.5 2.2 2.0 2.7 5.2 1.0 3.2 6.6
6+50N
7+00N
7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+0
1.8 2.0 .8 .9 .5 1.6 1.4 .8 .8 2.5
2.2 1.9 .6 1.3 .7 .8 2.1 1.4 .2 .9 2.9 1.9
1.3 2.6 .7 1.1 .9 1.2 1.3 2.7 .9 .5 1.2 1.9
.9 1.6 .9 .8 .6 1.7 1.8 1.1 1.3 .6 .4 1.2 5.2
Road.



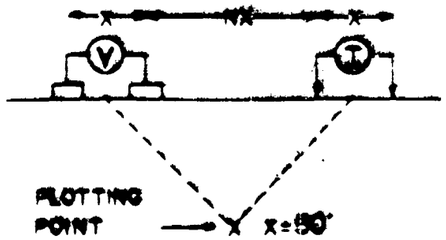
COMPANY: NORANDA EXPLORATION CO. LTD.

PROPERTY: CLINE LAKE PROPERTY

JACKSON TWP. ONTARIO

LINE NO. - 33+00 E

ELECTRODE CONFIGURATION



SECTION 11

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 2.5 & 0.25

NOTE: CONTOURS ARE LOGARITHMIC INTERVALS 1, 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 9, 10

INSTRUMENT : PHOENIX IPV-1 IPT-1

CONTRACTOR : REMY BELANGER ENRG.

DATE SURVEYED: DEC. 86

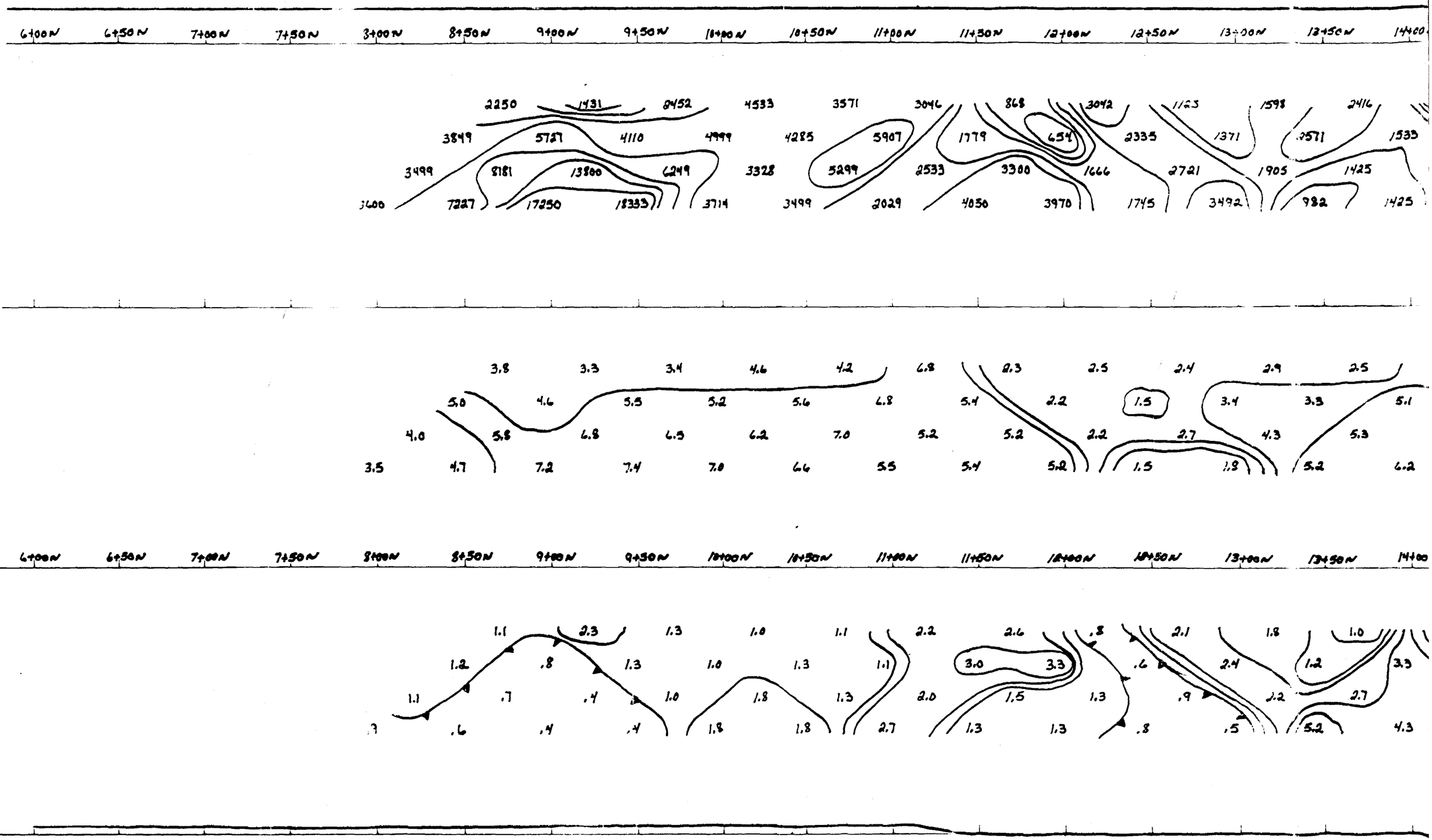
APPROVED: 63.5203

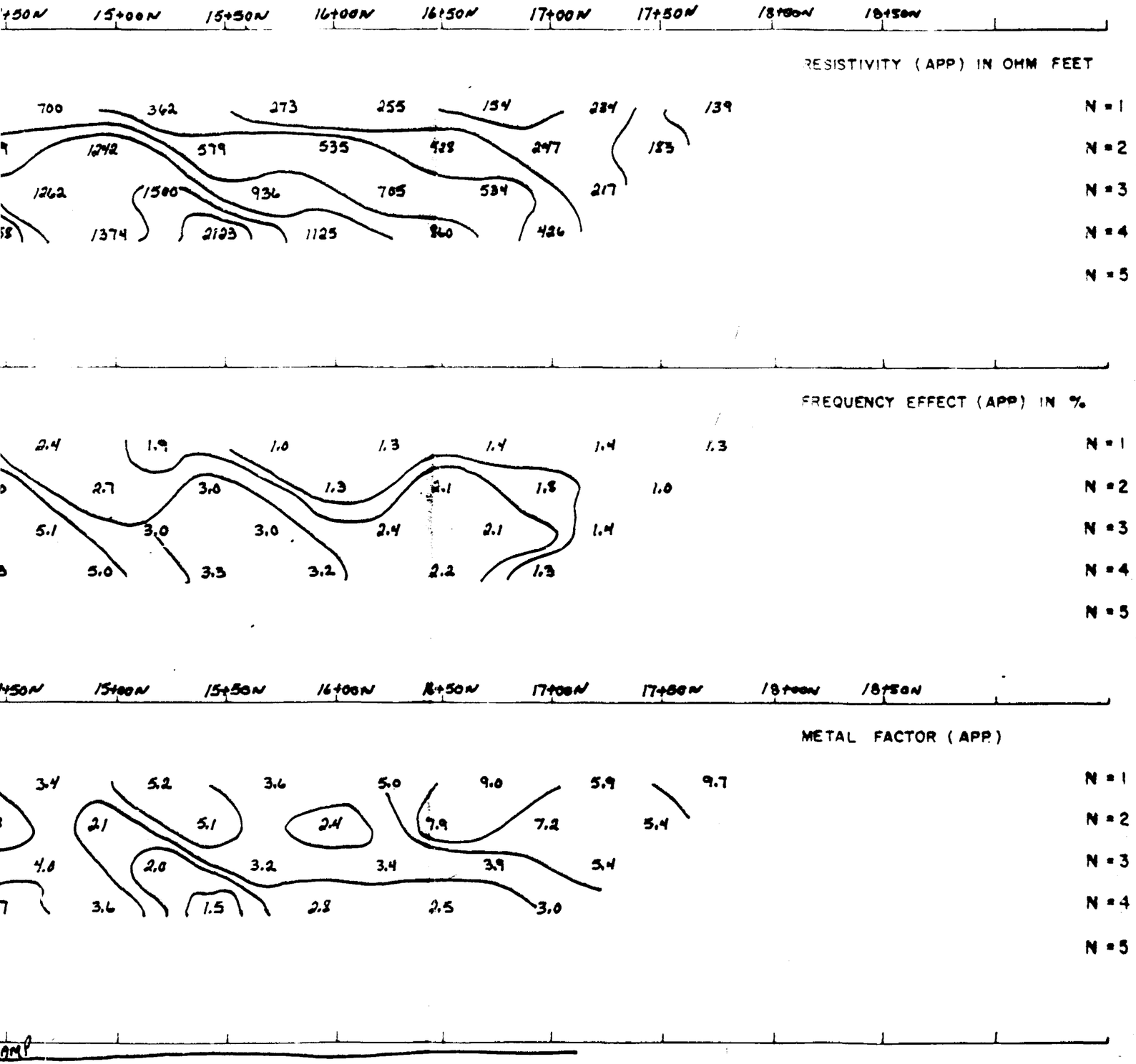
OPERATOR: R. BELANGER

DATE:

INDUCED POLARIZATION AND RESISTIVITY SURVEY

OM87-7-C-241


6+00N
6+50N
7+00N
7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00
2250 1431 8452 4533 3571 3046 868 3042 1123 1598 2416
3849 5727 4110 4999 4285 5907 1779 654 2335 1371 2571 1533
3499 8181 13800 6249 3328 5299 2533 3300 1666 2721 1905 1425
3600 7227 17250 18333 3714 3499 2029 4050 3970 1745 3492 982 1425
3.8 3.3 3.4 4.6 4.2 6.8 2.3 2.5 2.4 2.9 2.5
5.0 4.6 5.5 5.2 5.6 6.8 5.4 2.2 1.5 3.4 3.3 5.1
4.0 5.8 6.8 6.5 6.2 7.0 5.2 5.2 2.2 2.7 4.3 5.3
3.5 4.7 7.2 7.4 7.0 6.6 5.5 5.4 5.2 1.5 1.8 5.2 6.2
1.1 2.3 1.3 1.0 1.1 2.2 2.6 .8 2.1 1.8 1.0
1.2 .8 1.3 1.0 1.3 1.1 3.0 3.3 .6 2.4 1.2 3.3
1.1 .7 .4 1.0 1.8 1.3 2.0 1.5 1.3 .9 2.2 2.7
.9 .6 .4 .4 1.8 1.8 2.7 1.3 1.3 .8 .5 5.2 4.3



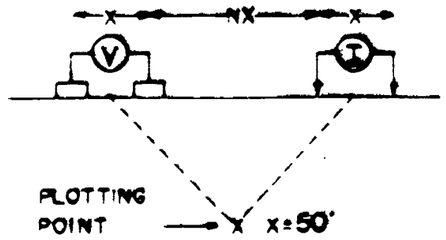
COMPANY: NORANDA EXPLORATION CO. LTD.

PROPERTY: CLINE LAKE PROPERTY

JACOBSON TWP. ONTARIO

LINE NO – 35+00-E

ELECTRODE CONFIGURATION



SECTION 12

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 25 & 40 HZ.

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT: PHOENIX IPV-1 IPT-1

CONTRACTOR: REMY BELANGER ENRG.

DATE SURVEYED: DEC. 06-08-1986

APPROVED

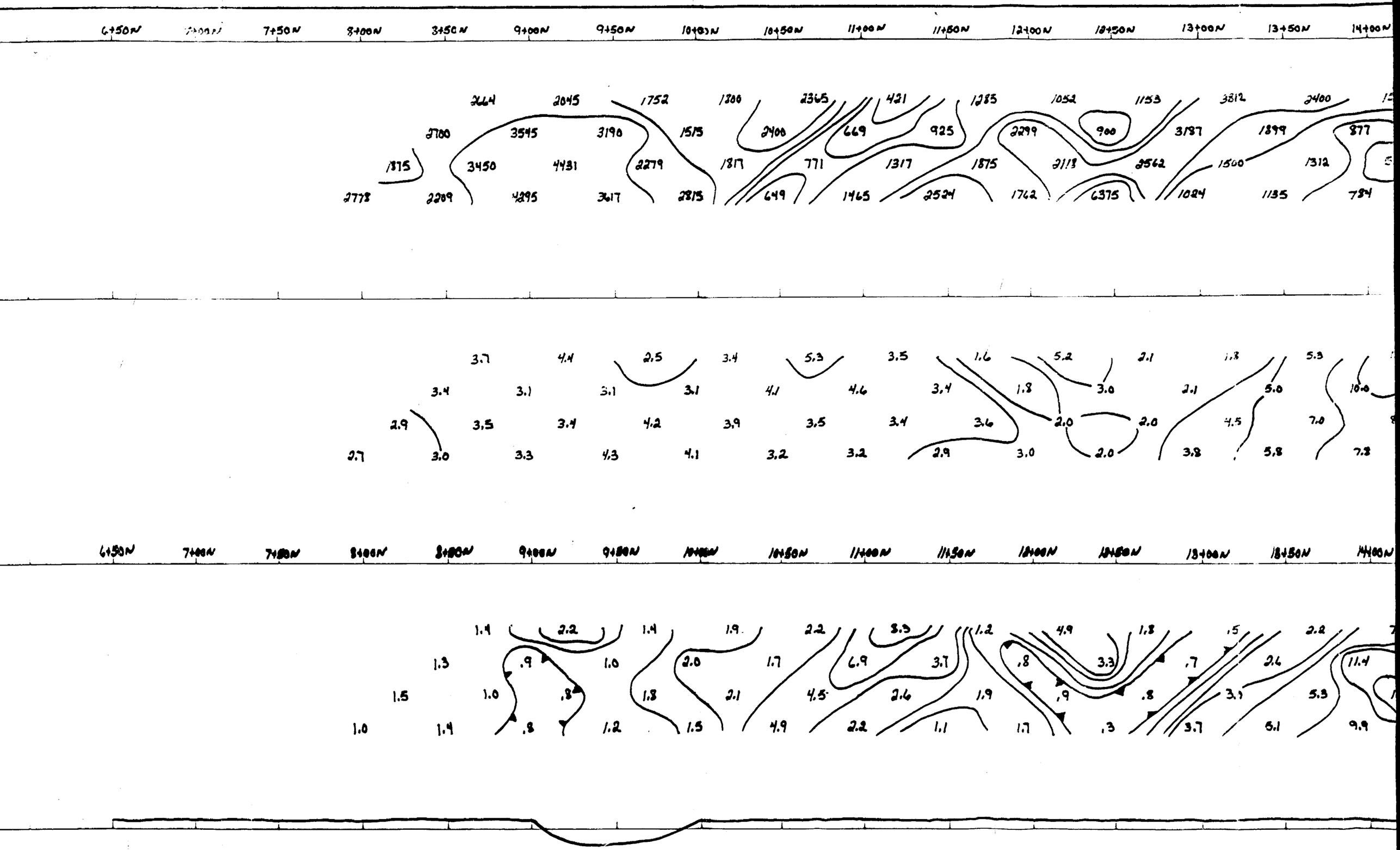
OPERATOR: R. BELANGER

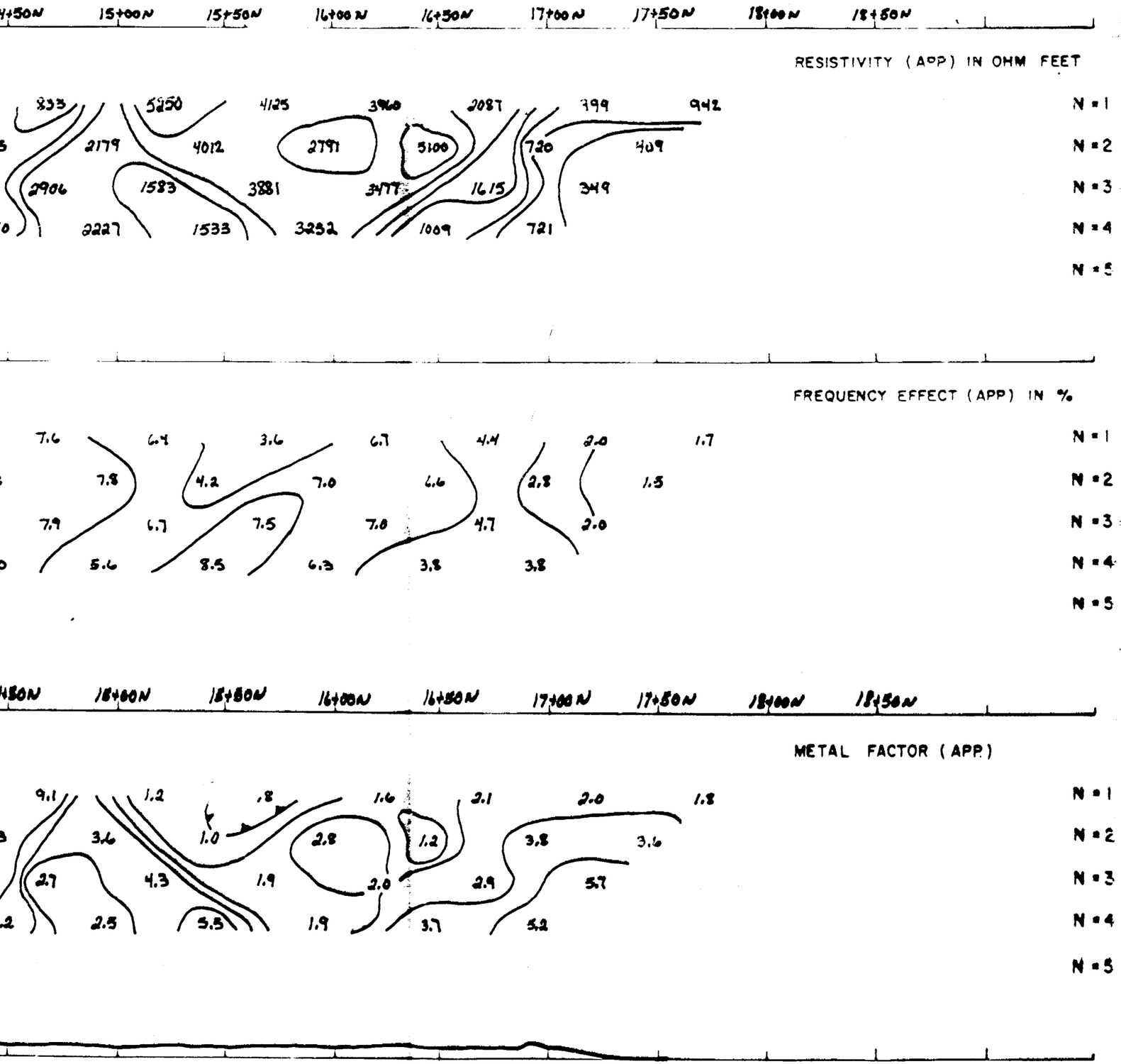
DATE: 63.5203

B. Groves

INDUCED POLARIZATION AND RESISTIVITY SURVEY

OM87-7-C-241


6+50N
7+00N
7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
2664 2045 1752 1800 2365 421 1285 1052 1153 3812 2400
2780 3545 3190 1515 2400 669 925 2299 900 3187 1899 877
1875 3450 4431 2279 1817 771 1317 1875 2113 2562 1500 1312
2778 2209 4295 3617 2815 649 1465 2524 1762 6375 1024 1135 784
3.7 4.4 2.5 3.4 5.3 3.5 1.6 5.2 2.1 1.8 5.3
3.4 3.1 3.1 3.1 4.1 4.6 3.4 1.8 3.0 2.1 5.0 10.0
2.9 3.5 3.4 4.2 3.9 3.5 3.4 3.6 2.0 2.0 4.5 7.0
2.7 3.0 3.3 4.3 4.1 3.2 3.2 2.9 3.0 2.0 3.8 5.8 7.8
6+50N
7+00N
7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
1.4 2.2 1.4 1.9 2.2 3.3 1.2 4.9 1.8 .5 2.2
1.3 .9 1.0 2.0 1.7 6.9 3.7 .8 3.3 .7 2.4 11.4
1.5 1.0 .8 1.8 2.1 4.5 2.4 1.9 .9 .8 3.1 5.3
1.0 1.4 .8 1.2 1.5 4.9 2.2 1.1 1.7 .3 3.7 6.1 9.9



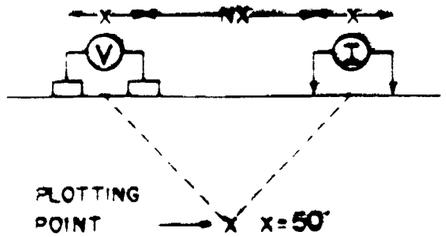
COMPANY: NORANDA EXPLORATION CO. LTD.

PROPERTY: CLINE LAKE PROPERTY

JACOBSON TWP. ONTARIO

LINE NO. - 37+00 E

ELECTRODE CONFIGURATION



SECTION 13

SURFACE PROJECTION OF ANOMALOUS ZONES

FREQUENCIES: .25 & 4.0 HZ.

DEFINITE [redacted]

PROBABLE ||||||||

POSSIBLE / / / / /

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT: PHOENIX IPV-1 IPT-1

CONTRACTOR: REMY BELANGER ENRG.

DATE SURVEYED: DEC. 07-08 1986

APPROVED: 63.5203

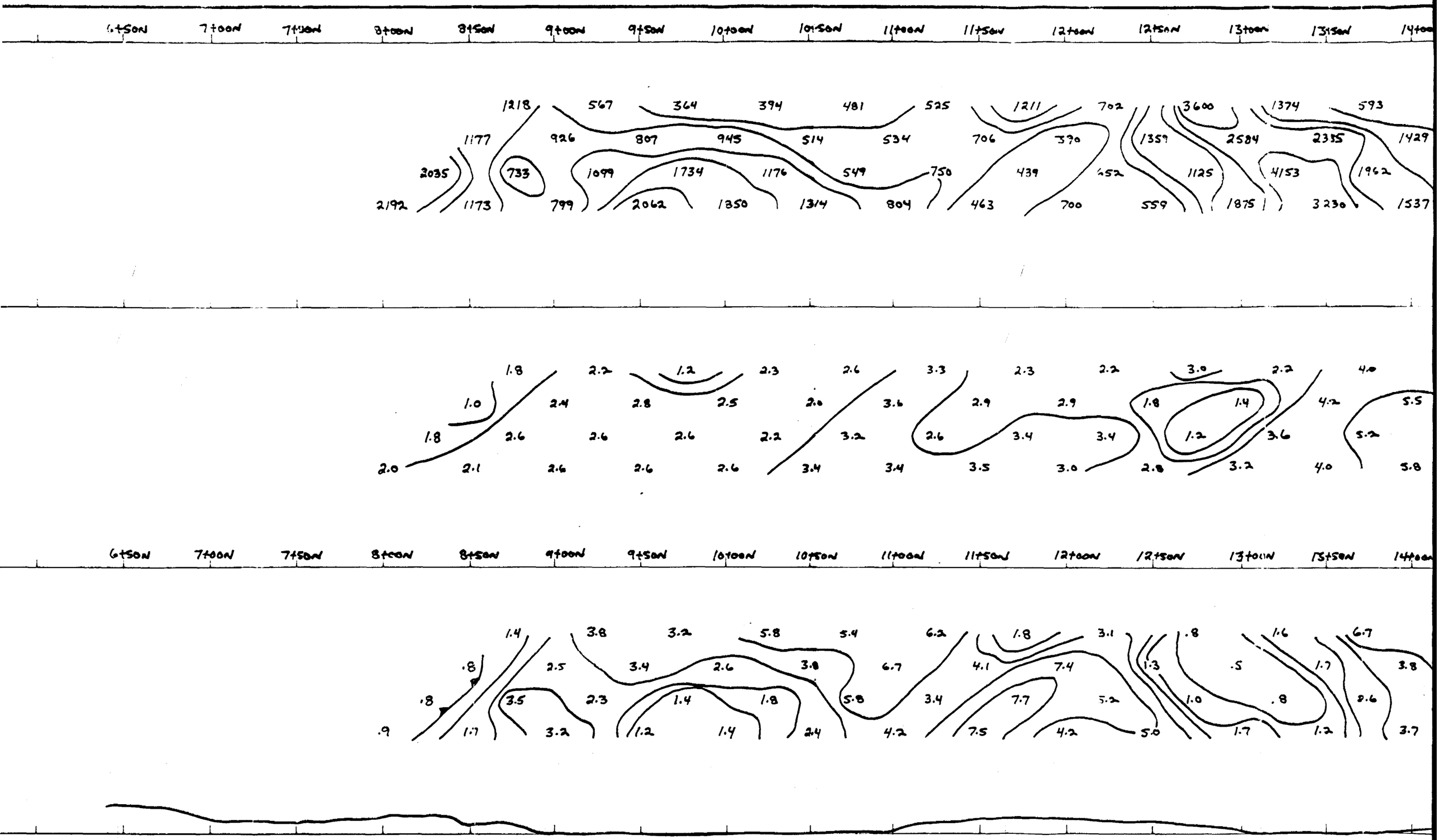
OPERATOR: R. BELANGER

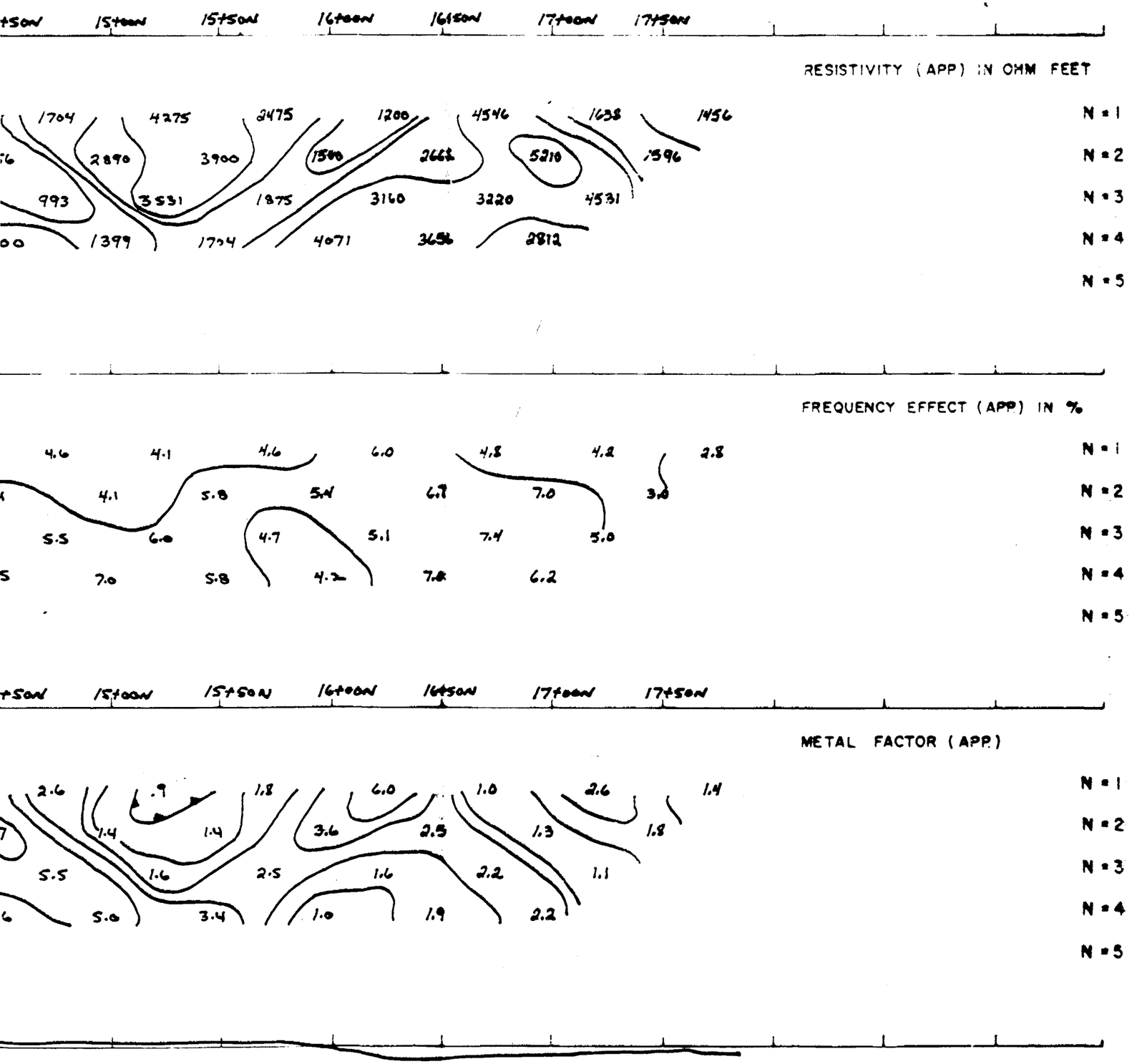
DATE:

B. J. Groves

INDUCED POLARIZATION AND RESISTIVITY SURVEY

DM87-7-C-241


6+50N
7+00N
7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
1218 567 364 394 481 525 1211 702 3600 1374 593
1177 926 807 945 514 534 706 390 1359 2584 2335 1429
2035 733 1099 1734 1176 549 750 439 452 1125 4153 1962
2192 1173 799 2062 1350 1314 804 463 700 559 1875 3230 1537
1.8 2.2 1.2 2.3 2.6 3.3 2.3 2.2 3.0 2.2 4.0
1.0 2.4 2.8 2.5 2.0 3.6 2.9 2.9 1.8 1.4 4.2 5.5
1.8 2.6 2.6 2.6 2.2 3.2 2.6 3.4 3.4 1.2 3.6 5.2
2.0 2.1 2.6 2.6 2.6 3.4 3.4 3.5 3.0 2.8 3.2 4.0 5.8
6+50N
7+00N
7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00N
1.4 3.8 3.2 5.8 5.4 6.2 1.8 3.1 .8 1.6 6.7
.8 2.5 3.4 2.6 3.8 6.7 4.1 7.4 1.3 .5 1.7 3.8
.8 3.5 2.3 1.4 1.8 5.8 3.4 7.7 5.2 1.0 .8 8.6
.9 1.7 3.2 1.2 1.4 2.4 4.2 7.5 4.2 5.0 1.7 1.2 3.7



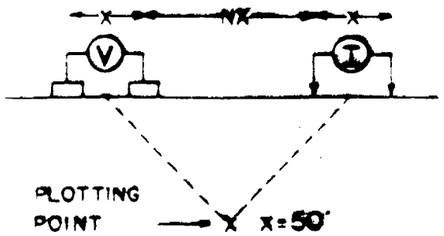
COMPANY: NORANDA EXPLORATION CO LTD.

PROPERTY: CLINE LAKE PROPERTY

JACOBSON TWP. ONTARIO

LINE NO. – 39+00 E

ELECTRODE CONFIGURATION



SECTION 14

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ———

PROBABLE ||||||||

POSSIBLE / / / / /

FREQUENCIES: .25 & 4.0 HZ.

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT: PHOENIX IPV-1 IPT-1

CONTRACTOR: REMY BELANGER ENRG.

DATE SURVEYED: DEC. 07-08-1986

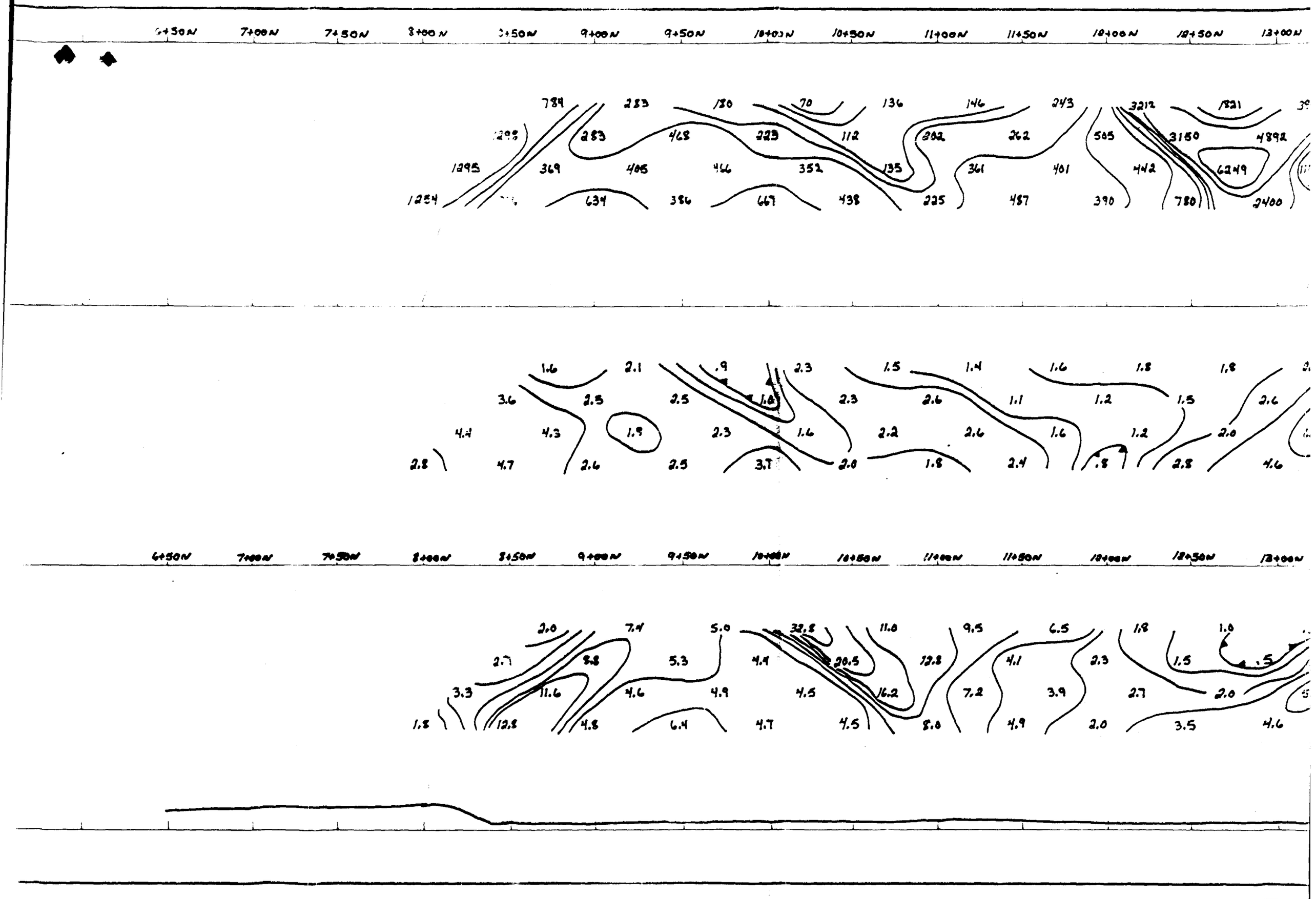
APPROVED: 63.5203

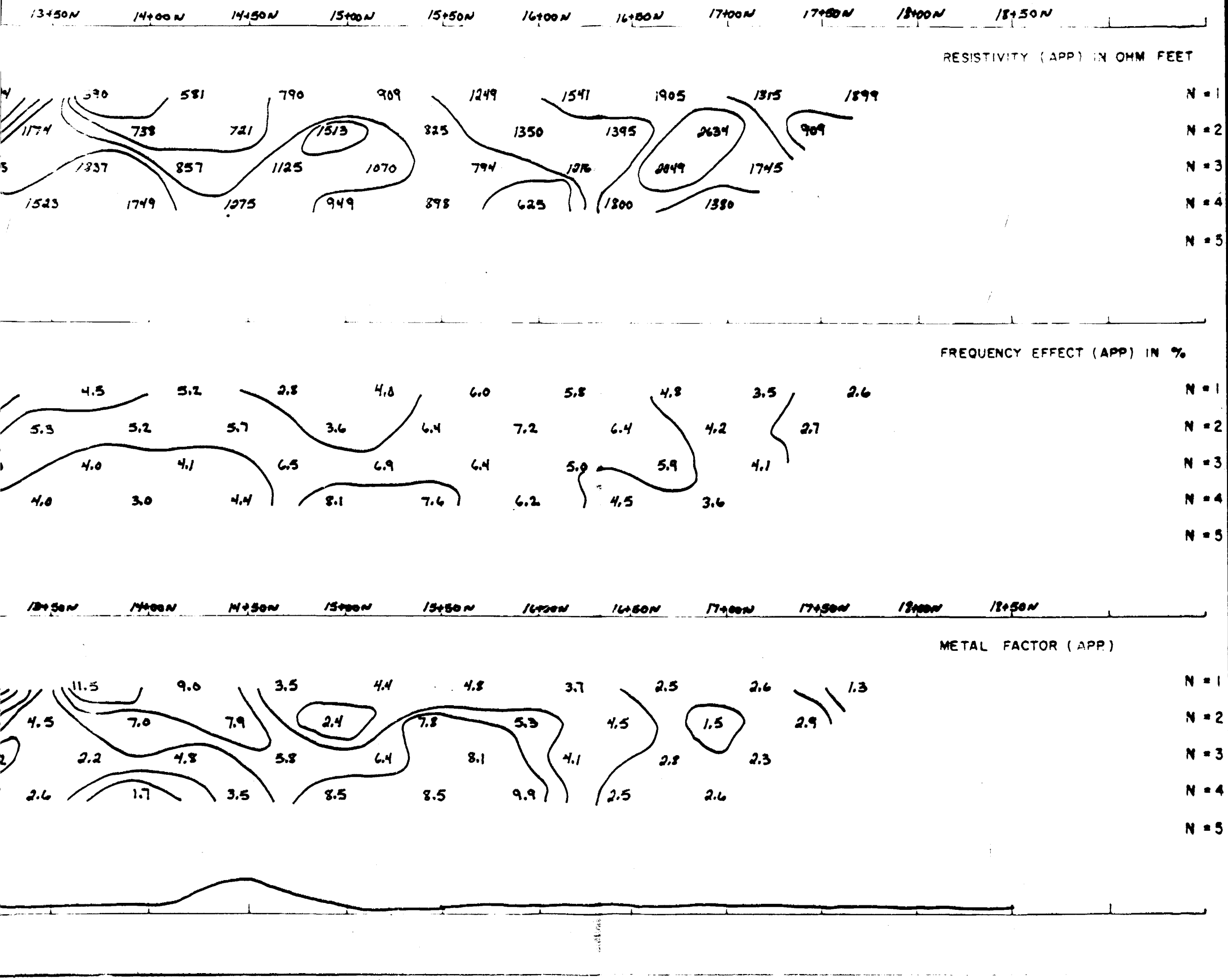
OPERATOR: R. BELANGER

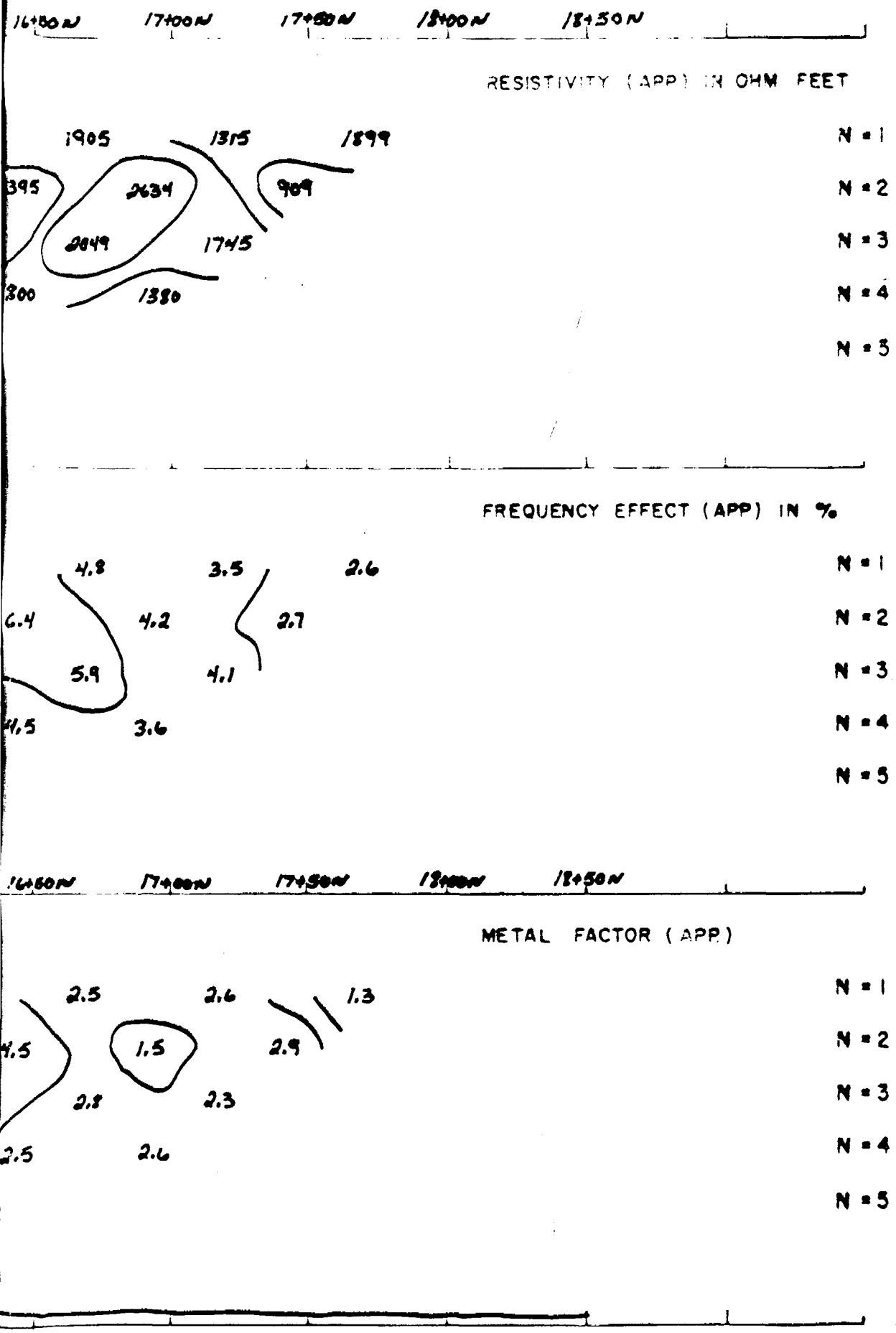
DATE:

INDUCED POLARIZATION AND RESISTIVITY SURVEY

OM87-7-C-241


6+50N
7+00N
7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
789
283
180
70
136
146
243
3212
1821
1295
283
468
223
112
202
262
505
3150
4892
369
405
466
352
135
361
401
442
6249
1254
634
386
667
438
225
487
390
780
2400
1.6
2.1
.9
2.3
1.5
1.4
1.6
1.8
1.8
3.6
2.5
2.5
1.8
2.3
2.6
1.1
1.2
1.5
2.6
4.4
4.3
1.9
2.3
1.6
2.2
2.6
1.6
1.2
2.0
2.8
4.7
2.6
2.5
3.7
2.0
1.8
2.4
.8
2.8
4.6
2.0
7.4
5.0
32.8
11.8
9.5
6.5
1.8
1.0
2.7
8.8
5.3
4.4
20.5
12.8
4.1
2.3
1.5
.5
3.3
11.6
4.6
4.9
4.5
16.2
7.2
3.9
2.7
2.0
1.8
12.8
4.8
6.4
4.7
4.5
8.0
4.9
2.0
3.5
4.6


13+50N
14+00N
14+50N
15+00N
15+50N
16+00N
16+50N
17+00N
17+50N
18+00N
18+50N
RESISTIVITY (APP) IN OHM FEET
N = 1
N = 2
N = 3
N = 4
N = 5
FREQUENCY EFFECT (APP) IN %
N = 1
N = 2
N = 3
N = 4
N = 5
METAL FACTOR (APP)
N = 1
N = 2
N = 3
N = 4
N = 5



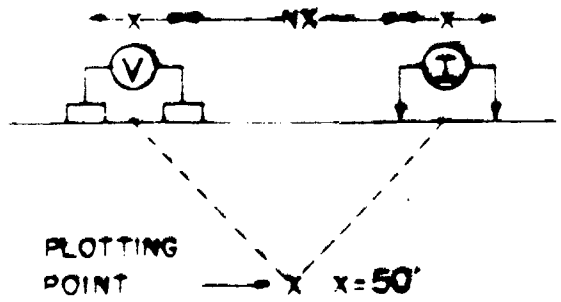
COMPANY: NORANDA EXPLORATION CO LTD.

PROPERTY: CLINE LAKE PROPERTY

JACOBSON TWP. ONTARIO

LINE NO – 41+00 E

ELECTRODE CONFIGURATION



SECTION 15

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ———

PROBABLE ||||||||||

POSSIBLE / / / / /

FREQUENCIES .25 & 4.0 Hz

NOTE CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT PHOENIX IPV-1 IPT-1

CONTRACTOR REMY BELANGER ENRG.

DATE SURVEYED Dec. 7-8 1986

APPROVED 63.5203

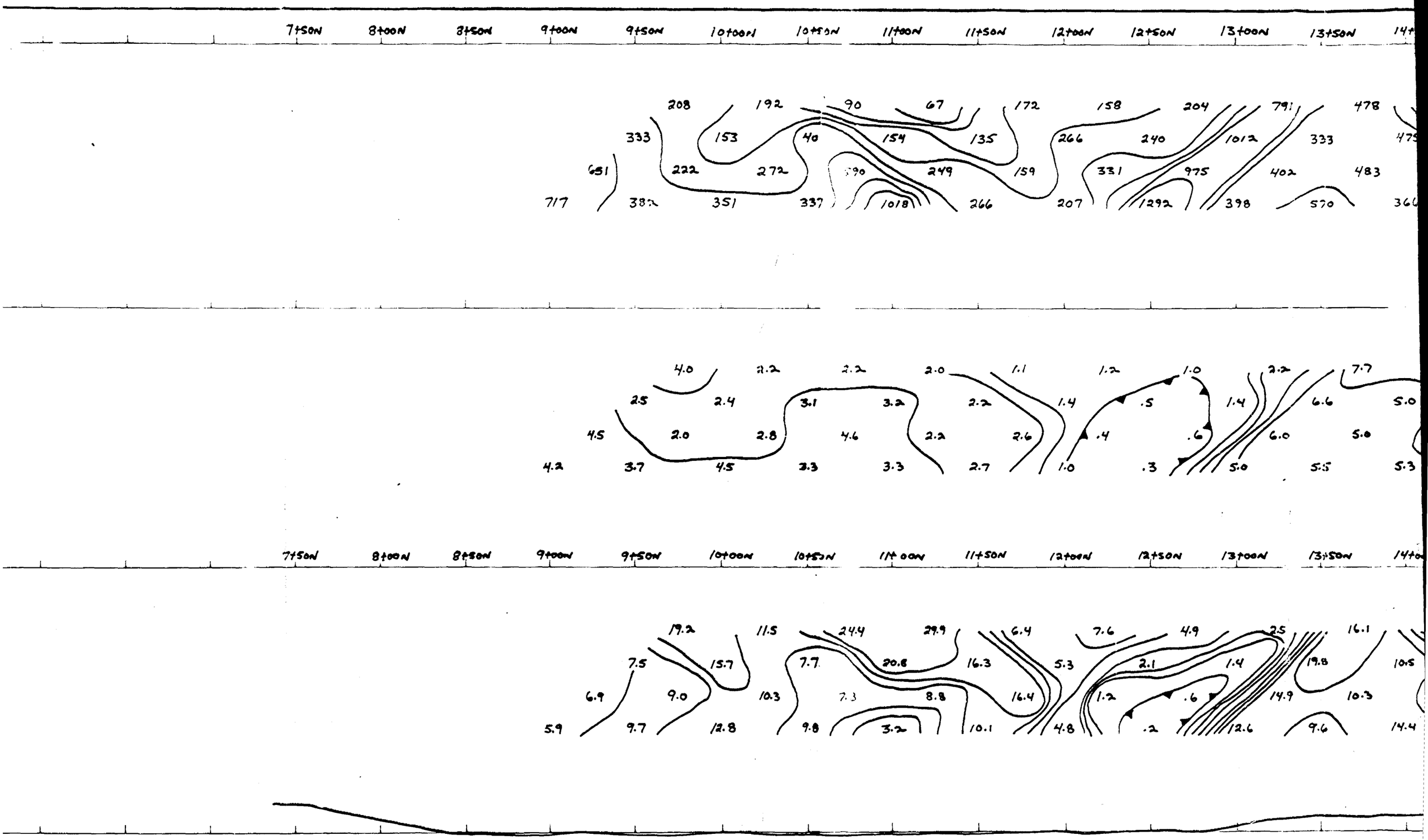
OPERATOR R. BELANGER

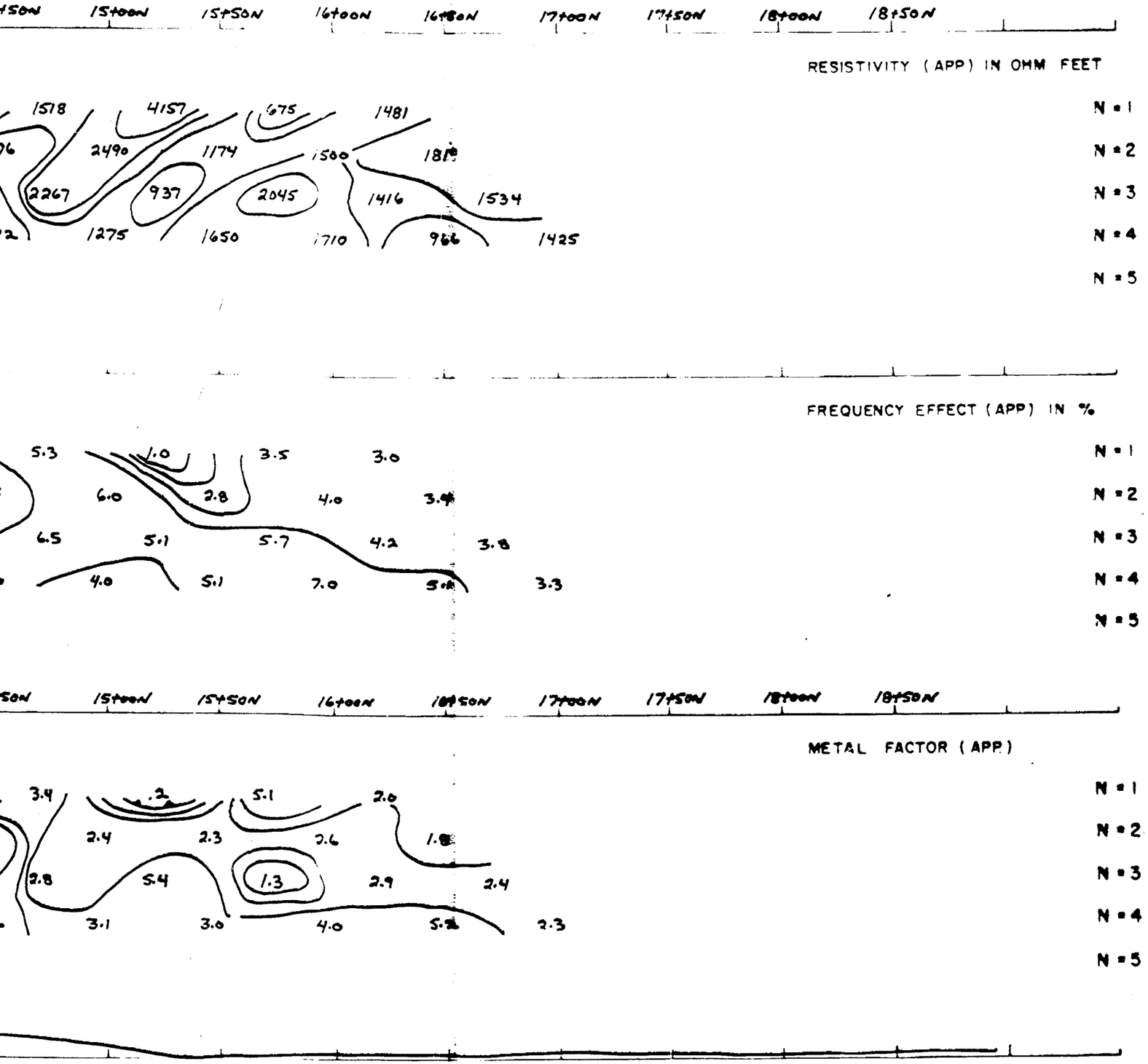
DATE

B. Groves

INDUCED POLARIZATION AND RESISTIVITY SURVEY

OM87-7-C-241


7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+
208 192 90 67 172 158 204 791 478
333 153 40 154 135 266 240 1012 333
651 222 272 590 249 159 331 975 402 483
717 382 351 337 1018 266 207 1292 398 570
4.0 2.2 2.2 2.0 1.1 1.2 1.0 2.2 7.7
2.5 2.4 3.1 3.2 2.2 1.4 .5 1.4 6.6 5.0
4.5 2.0 2.8 4.6 2.2 2.6 .4 .6 6.0 5.0
4.2 3.7 4.5 3.3 3.3 2.7 1.0 .3 5.0 5.5 5.3
7+50N
8+00N
8+50N
9+00N
9+50N
10+00N
10+50N
11+00N
11+50N
12+00N
12+50N
13+00N
13+50N
14+00
19.2 11.5 24.4 29.9 6.4 7.6 4.9 2.5 16.1
7.5 15.7 7.7 20.8 16.3 5.3 2.1 1.4 19.8 10.5
6.9 9.0 10.3 7.3 8.8 16.4 1.2 .6 14.9 10.3
5.9 9.7 12.8 9.8 3.2 10.1 4.8 .2 12.6 9.6 14.4



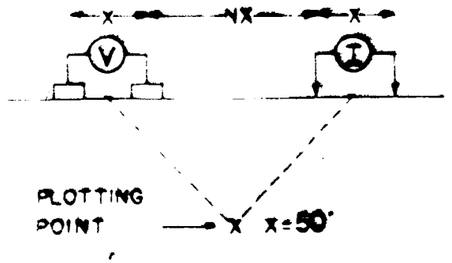
COMPANY: NORANDA EXPLORATION CO. LTD.

PROPERTY: CLINE LAKE PROPERTY

JACOBSON TWP. ONTARIO

LINE NO – 43+00 E

ELECTRODE CONFIGURATION



SECTION 16

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 2.5 & 0 HZ

NOTE CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT PHOENIX IPV-1 IPT-1

CONTRACTOR REMY BELANGER ENRG.

DATE SURVEYED Dec. 08.

APPROVED 63.5203

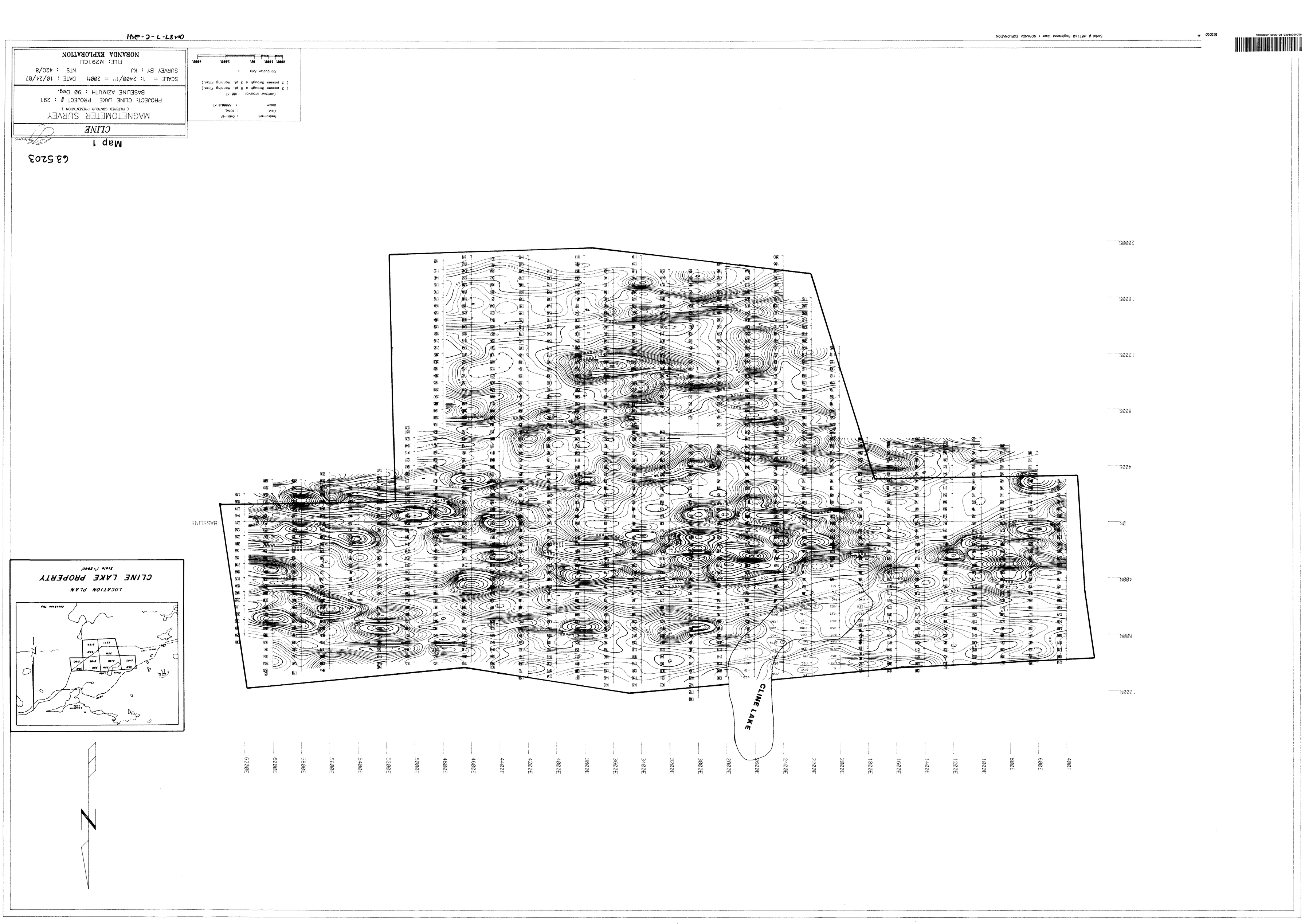
OPERATOR R. BELANGER

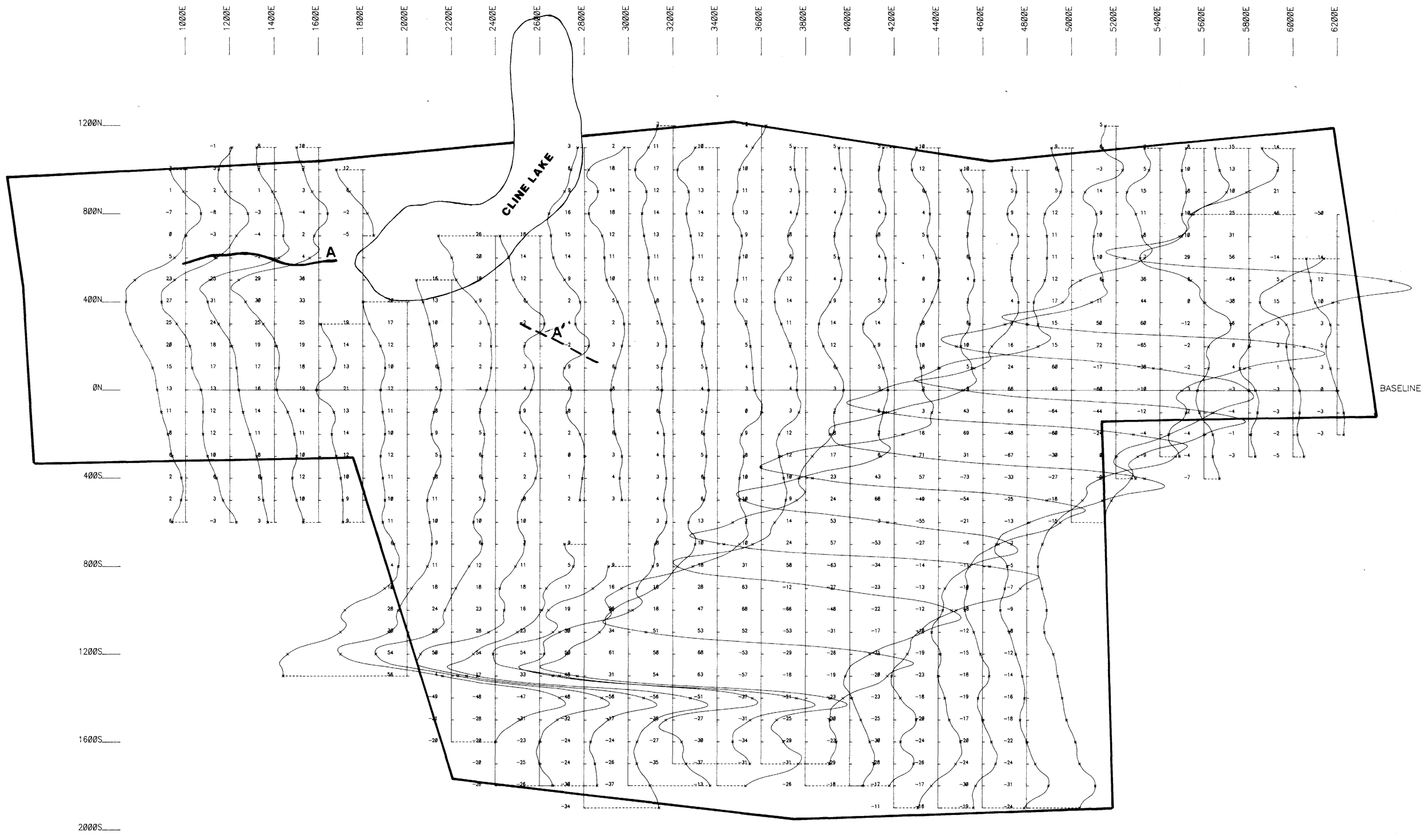
DATE

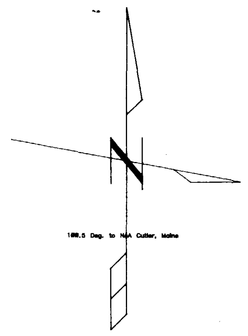
B.G. Grover

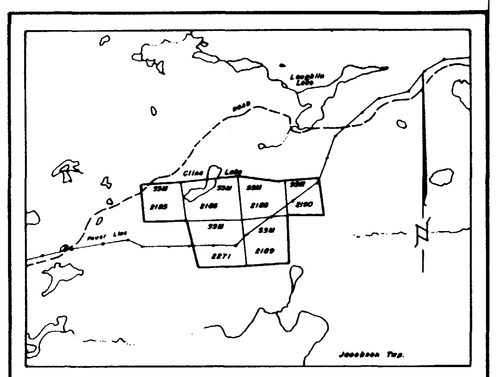
INDUCED POLARIZATION AND RESISTIVITY SURVEY

OM87-7-C-241


CLINE LAKE
BASELINE
LOCATION PLAN
CLINE LAKE PROPERTY
Scale 1"=2640'
Map 1
CLINE
MAGNETOMETER SURVEY
(FILTERED CONTOUR PRESENTATION)
PROJECT: CLINE LAKE PROJECT # : 291
BASELINE AZIMUTH : 90 Deg.
SCALE = 1: 2400/1" = 200ft DATE : 10/24/87
SURVEY BY : KJ NTS : 42C/8
FILE: M291CLI
NORANDA EXPLORATION
Instrument : OMNI-IV
Field : TOTAL
Datum : 58000.0 nT
Contour Interval: 100 nT
(2 passes through a 9 pt. running filter.)
(2 passes through a 3 pt. running filter.)
Conductor Axis :
200ft 100ft 0ft 200ft 400ft
Scale
OM87-7-C-241
Serial # M87140 Registered User : NORANDA EXPLORATION
63.5203







LOCATION PLAN

CLINE LAKE PROPERTY

Scale 1"= 2640'

63.5203

Map 2

Instrument : RADEM
Vertical Scale: 1 Inch = 20%

Tx Location : NAA Cutler, Maine
Contour Interval :
Dip Angle :
Field Strength:

200ft 100ft 0ft 200ft 400ft

CLINE LAKE

VLF–EM SURVEY

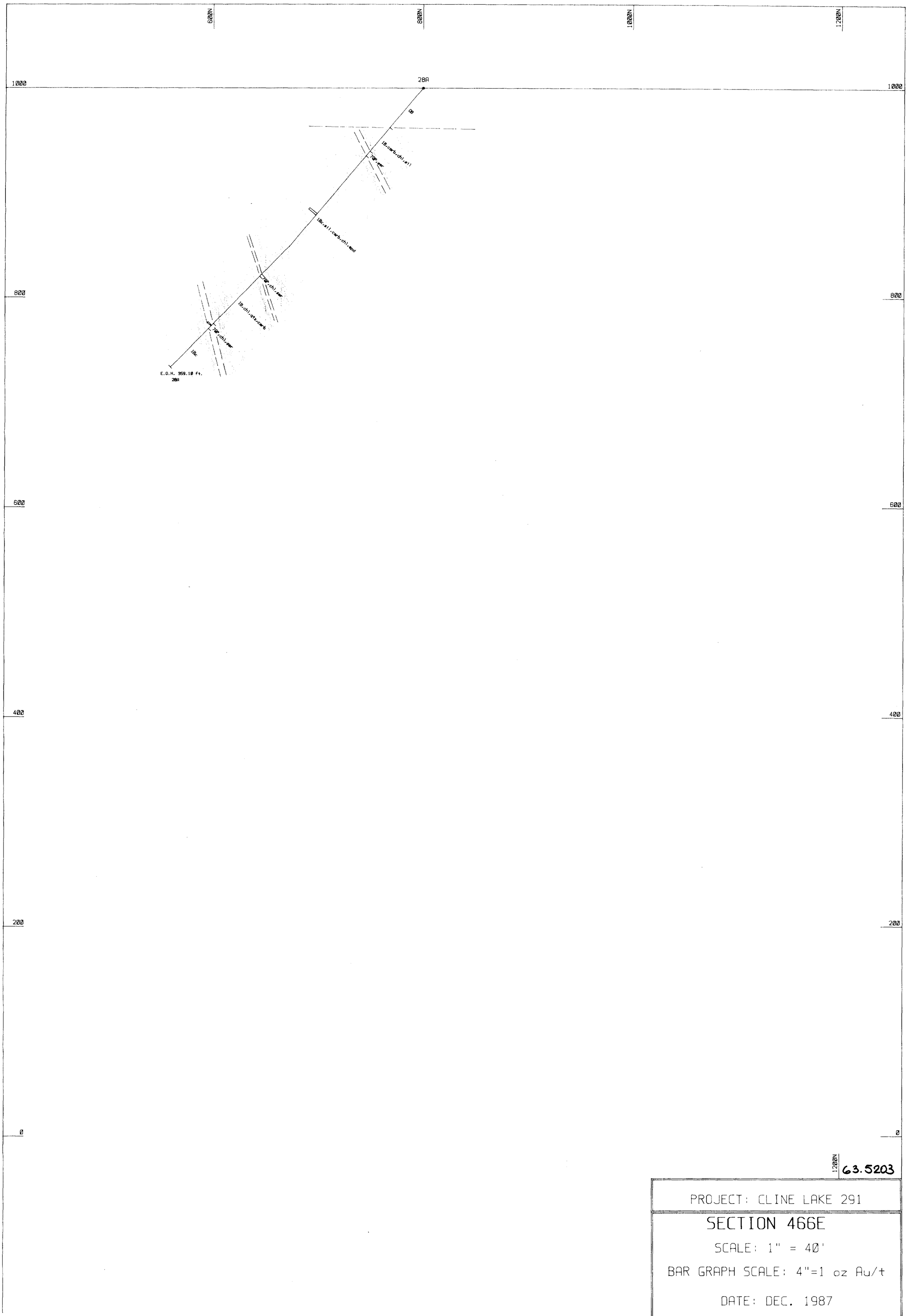
PROJECT : CLINE PROJECT # : 291
BASELINE AZIMUTH : 90 Deg.

SCALE = 1: 2400/1" = 200ft DATE : 10/18/87
SURVEY BY : SP/KJ NTS : 42C/8
FILE: V291NEW FREQ.: 24.0 KHz.

NORANDA EXPLORATION

Serial # V87140 Registered User : NORANDA EXPLORATION

OM87-7-C-241



PROJECT: CLINE LAKE 291

SECTION 466E

SCALE: 1" = 40'

BAR GRAPH SCALE: 4"=1 oz Au/t

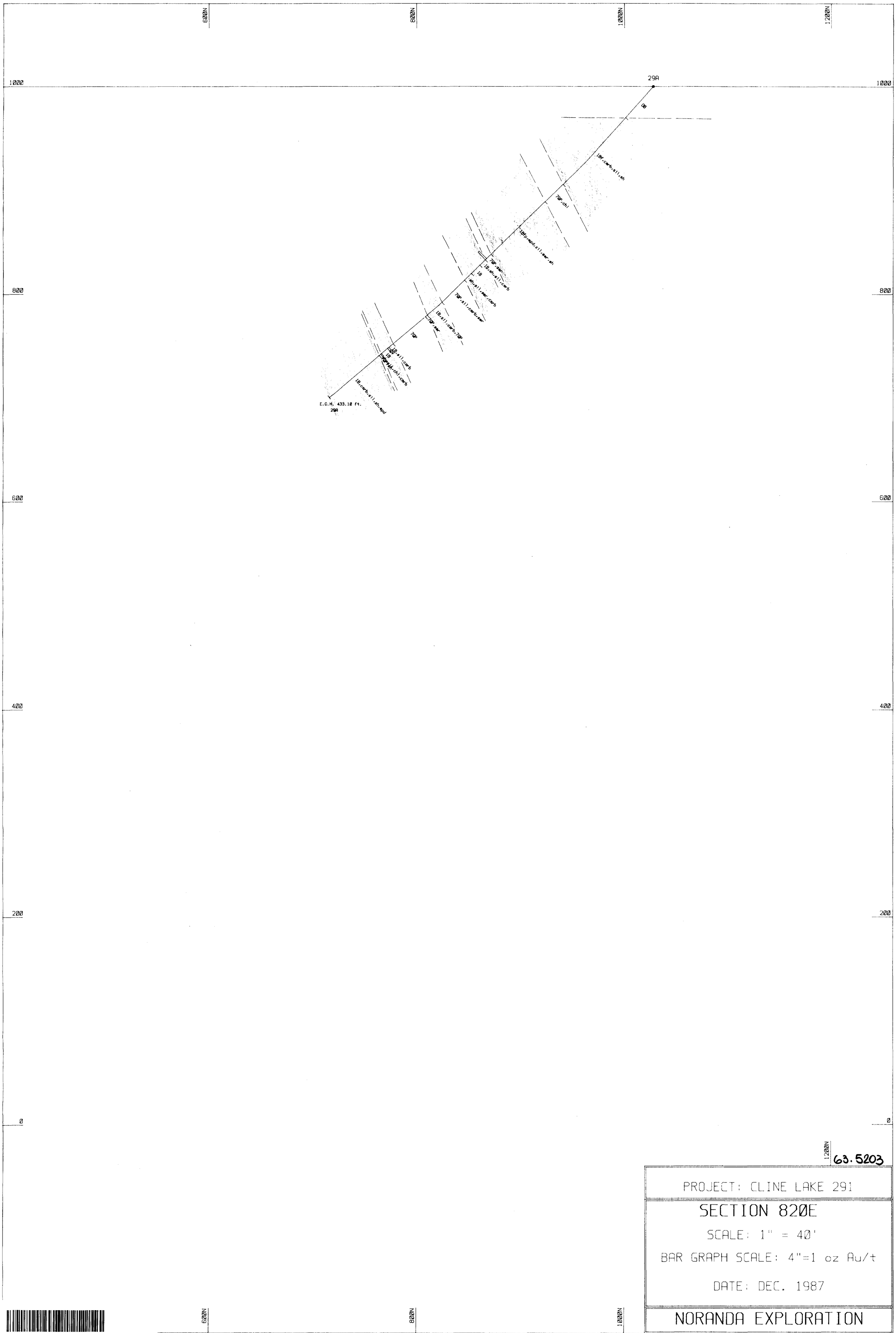
DATE: DEC. 1987

NORANDA EXPLORATION

42C08SW0026 63.5203 JACOBSON

220

OM87-7-C-241

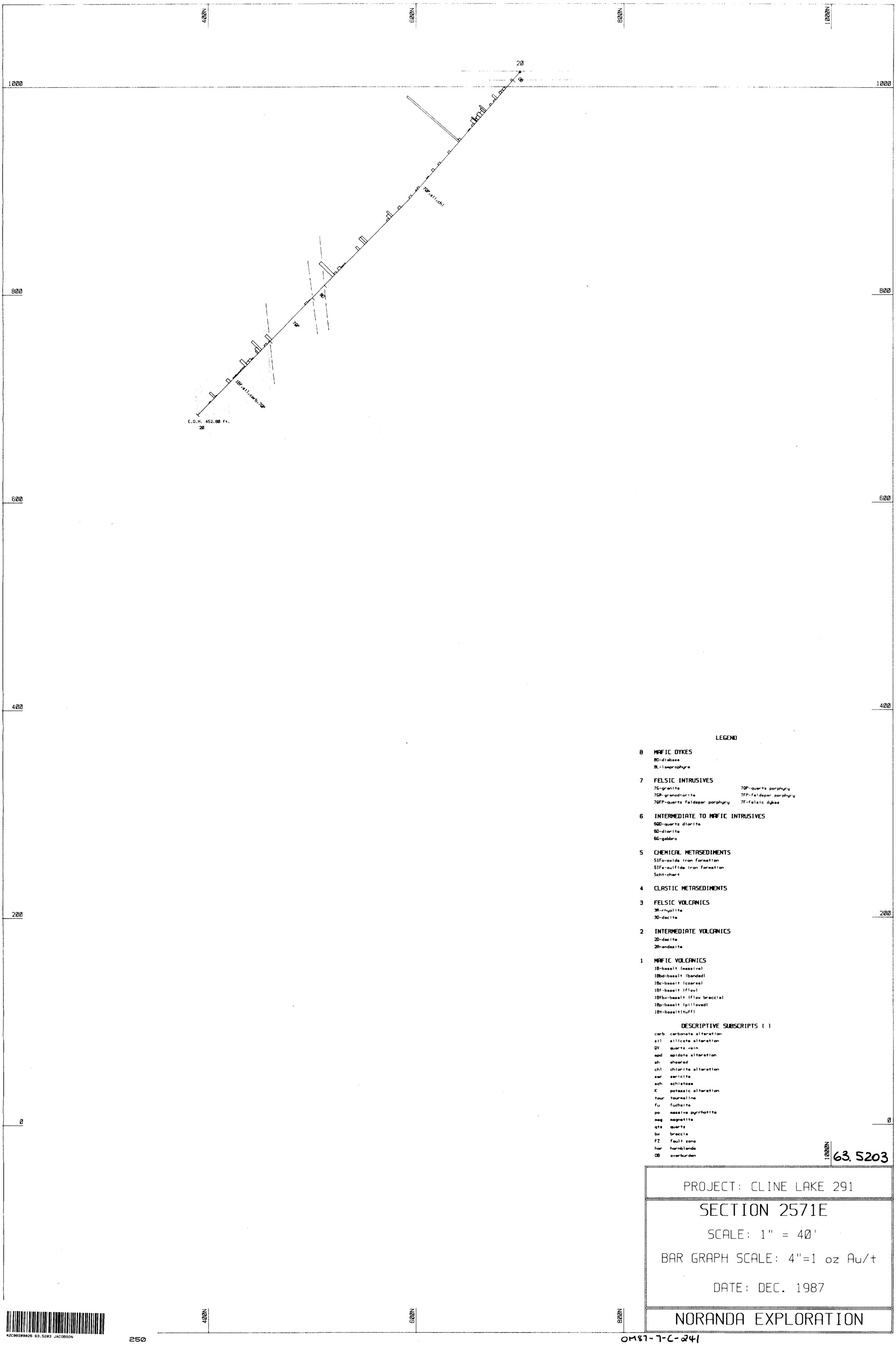


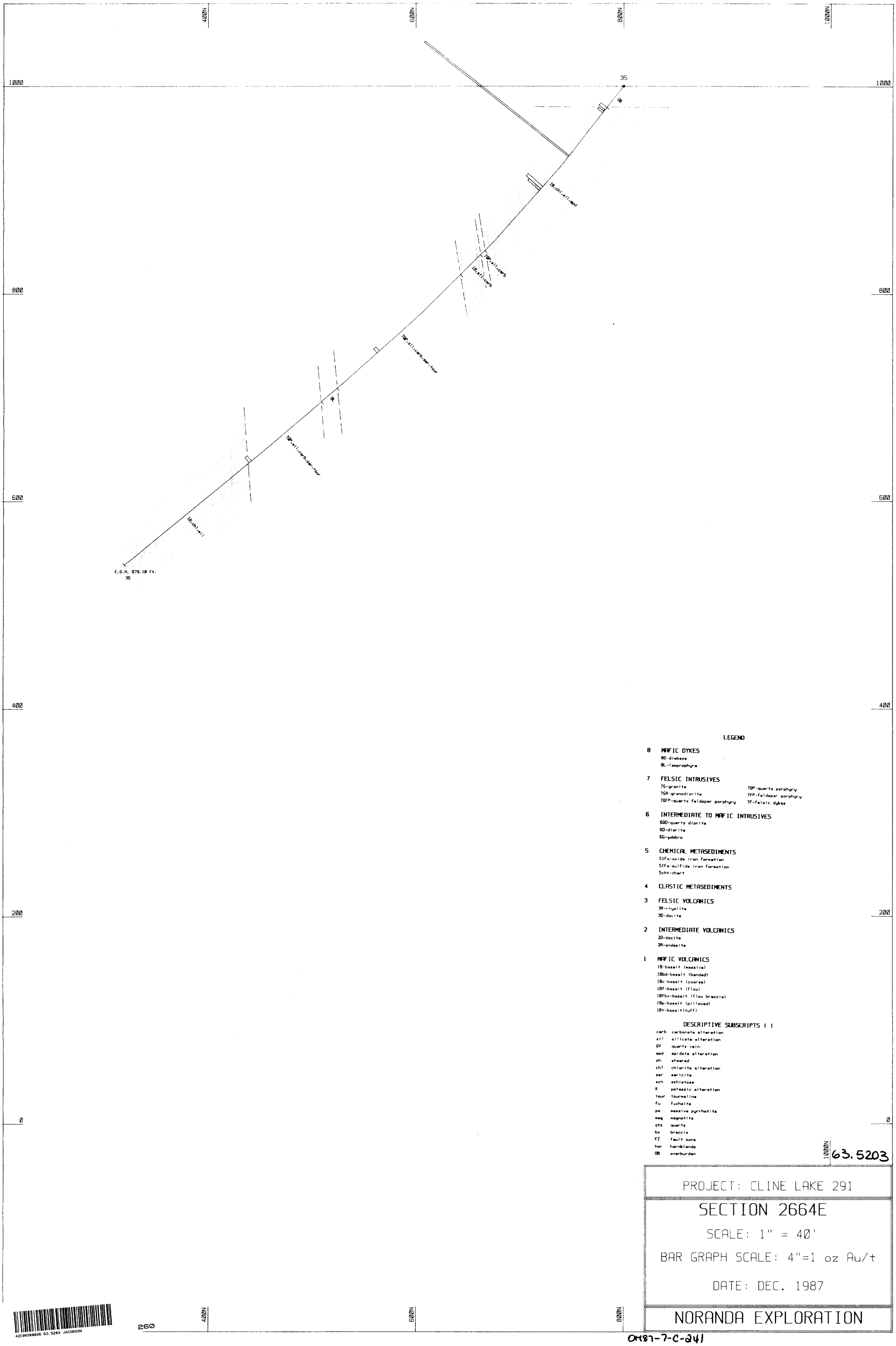
42C08SW0026 63.5203 JACOBSON

230

OM87-7-C-241

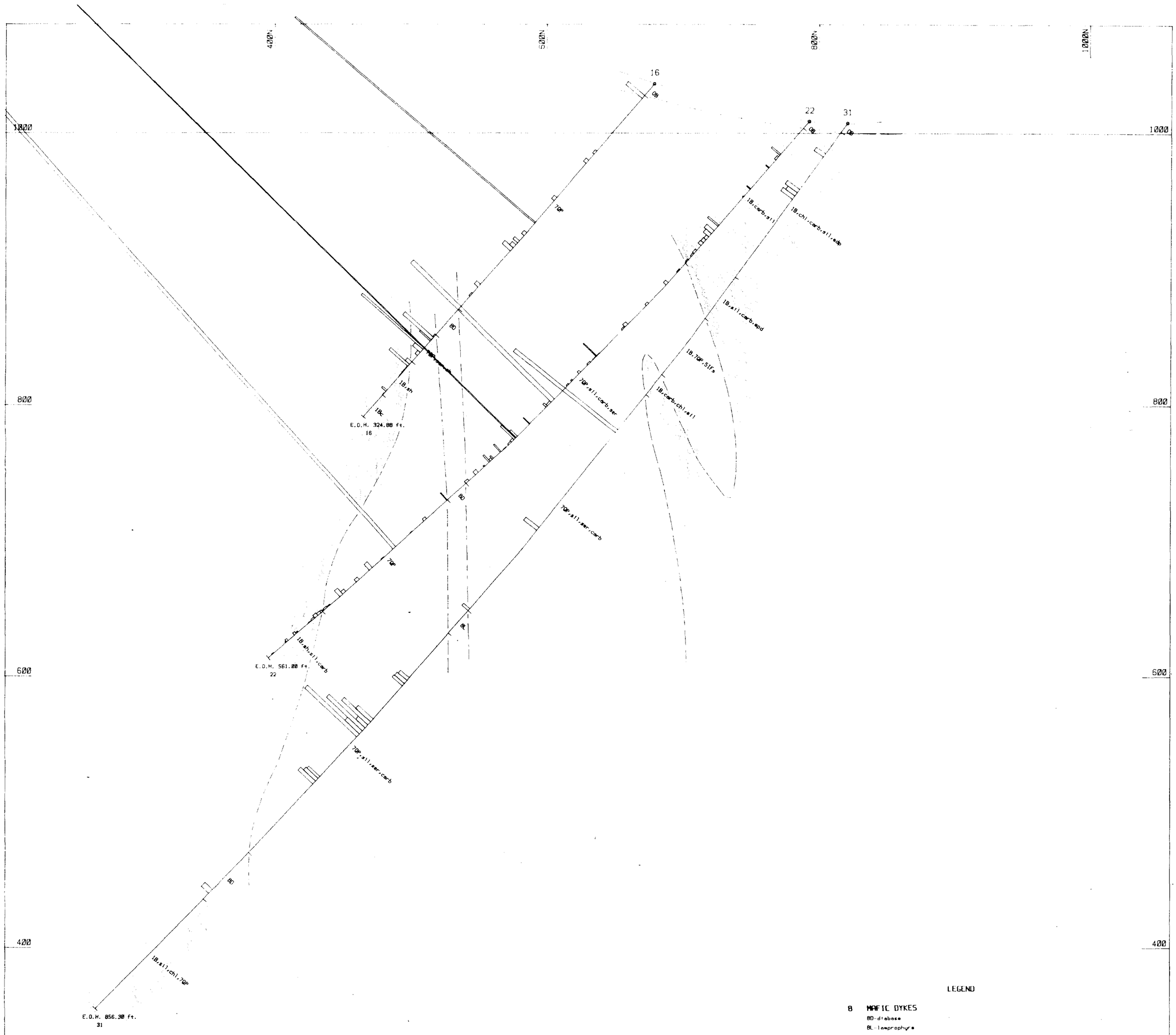
600N
800N
1000N
1200N
1000
800
600
400
200
0
39
80
1B.epd.carb.sh
70P.chl
1B+.sil.carb.epd.sh
70P.sar
1B.sil.carb.sh
70P
1B
1B.epd.sil.carb
1Fe
1B.sh
70P
1B.sil
E.O.H. 383.90 ft.
39
63.5203
PROJECT: CLINE LAKE 291
SECTION 987E
SCALE: 1" = 40'
BAR GRAPH SCALE: 4"=1 oz Au/t
DATE: DEC. 1987
NORANDA EXPLORATION
42C08SW0026 63.5203 JACOBSON
240
OM87-7-C-241


400N
600N
800N
1000N
1000
800
600
400
200
0
20
OB
7QP-sil-chl
80
7QP
18f-sil,carb,7QP
E.O.H. 452.00 ft.
20
LEGEND
8 MAFIC DYKES
8D-diabase
8L-lamprophyre
7 FELSIC INTRUSIVES
7G-granite
7GR-granodiorite
7QFP-quartz feldspar porphyry
7QP-quartz porphyry
7FP-feldspar porphyry
7F-felsic dykes
6 INTERMEDIATE TO MAFIC INTRUSIVES
6QD-quartz diorite
6D-diorite
6G-gabbro
5 CHEMICAL METASEDIMENTS
5IFo-oxide iron formation
5IFs-sulfide iron formation
5cht-chert
4 CLASTIC METASEDIMENTS
3 FELSIC VOLCANICS
3R-rhyolite
3D-dacite
2 INTERMEDIATE VOLCANICS
2D-dacite
2A-andesite
1 MAFIC VOLCANICS
1B-basalt (massive)
1Bbd-basalt (banded)
1Bc-basalt (coarse)
1Bf-basalt (flow)
1Bfbx-basalt (flow breccia)
1Bp-basalt (pillowed)
1Bt-basalt(tuff)
DESCRIPTIVE SUBSCRIPTS ( )
carb carbonate alteration
sil silicate alteration
QV quartz vein
epd epidote alteration
sh sheared
chl chlorite alteration
ser sericite
sch schistose
K potassic alteration
tour tourmaline
fu fuchsite
po massive pyrrhotite
mag magnetite
qtz quartz
bx breccia
FZ fault zone
hor hornblende
OB overburden
63.5203
PROJECT: CLINE LAKE 291
SECTION 2571E
SCALE: 1" = 40'
BAR GRAPH SCALE: 4"=1 oz Au/t
DATE: DEC. 1987
NORANDA EXPLORATION
42C08SW0026 63.5203 JACOBSON
250
OM87-7-C-241



42C08SW0026 63.5203 JACOBSON

OM87-7-C-241



LEGEND

8 MAFIC DYKES
- 8D-diabase
- 8L-lamprophyre

7 FELSIC INTRUSIVES
- 7G-granite
- 7GR-granodiorite
- 7QFP-quartz feldspar porphyry
- 7QP-quartz porphyry
- 7FP-feldspar porphyry
- 7F-felsic dykes

6 INTERMEDIATE TO MAFIC INTRUSIVES
- 6QD-quartz diorite
- 6D-diorite
- 6G-gabbro

5 CHEMICAL METASEDIMENTS
- 5IFo-oxide iron formation
- 5IFs-sulfide iron formation
- 5cht-chert

4 CLASTIC METASEDIMENTS

3 FELSIC VOLCANICS
- 3R-rhyolite
- 3D-dacite

2 INTERMEDIATE VOLCANICS
- 2D-dacite
- 2A-andesite

1 MAFIC VOLCANICS
- 1B basalt (massive)
- 1Bbd-basalt (banded)
- 1Bc basalt (coarse)
- 1Bf basalt (flow)
- 1Bfbx-basalt (flow breccia)
- 1Bp-basalt (pillowed)
- 1Bt basalt(tuff)

DESCRIPTIVE SUBSCRIPTS ( )

carb	carbonate alteration
sil	silicate alteration
QV	quartz vein
epd	epidote alteration
sh	sheared
chl	chlorite alteration
ser	sericite
sch	schistose
K	potassic alteration
tour	tourmaline
fu	fuchsite
po	massive pyrrhotite
mag	magnetite
qtz	quartz
bx	breccia
FZ	fault zone
hor	hornblende
OB	overburden

1000N 63.5203

PROJECT: CLINE LAKE 291

SECTION 2768E

SCALE: 1" = 40'

BAR GRAPH SCALE: 4"=1 oz Au/t

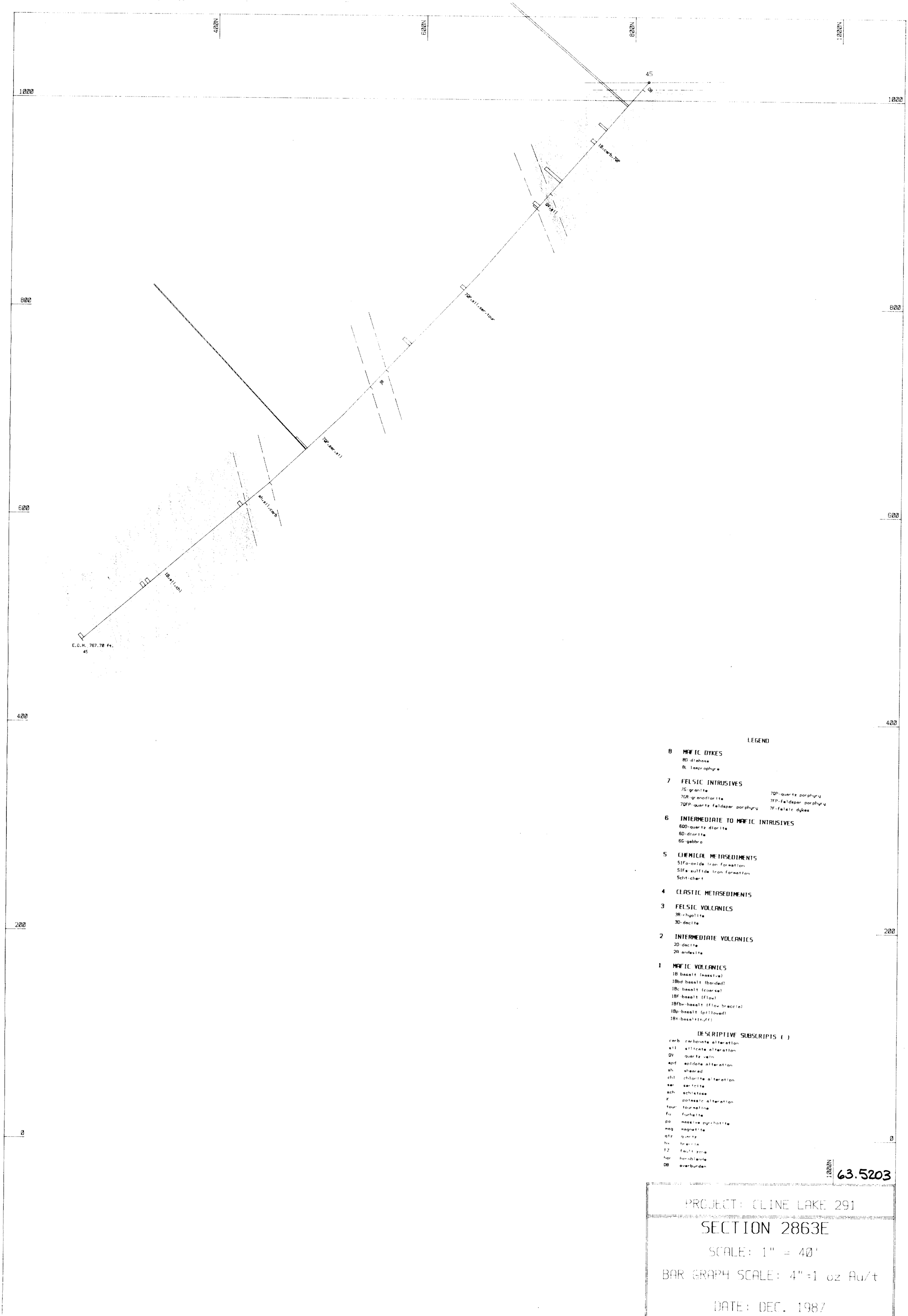
DATE: DEC. 1987

NORANDA EXPLORATION

42C08SW0026 63.5203 JACOBSON

270

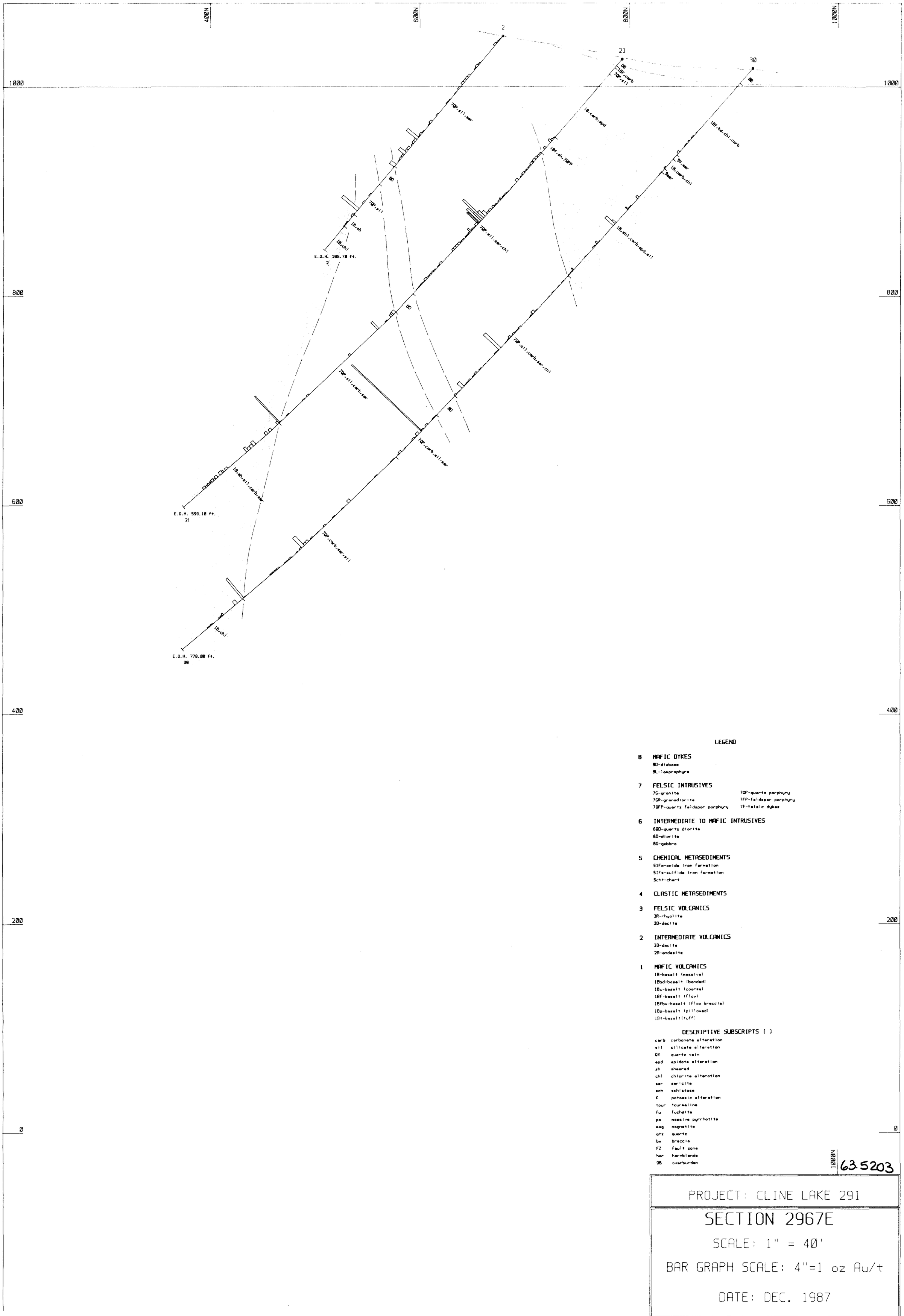
OM87-7-C-241



42C08SW0026 63.5203 JACOBSON

280

OM87-7-C-241



PROJECT: CLINE LAKE 291

SECTION 2967E

SCALE: 1" = 40'

BAR GRAPH SCALE: 4"=1 oz Au/t

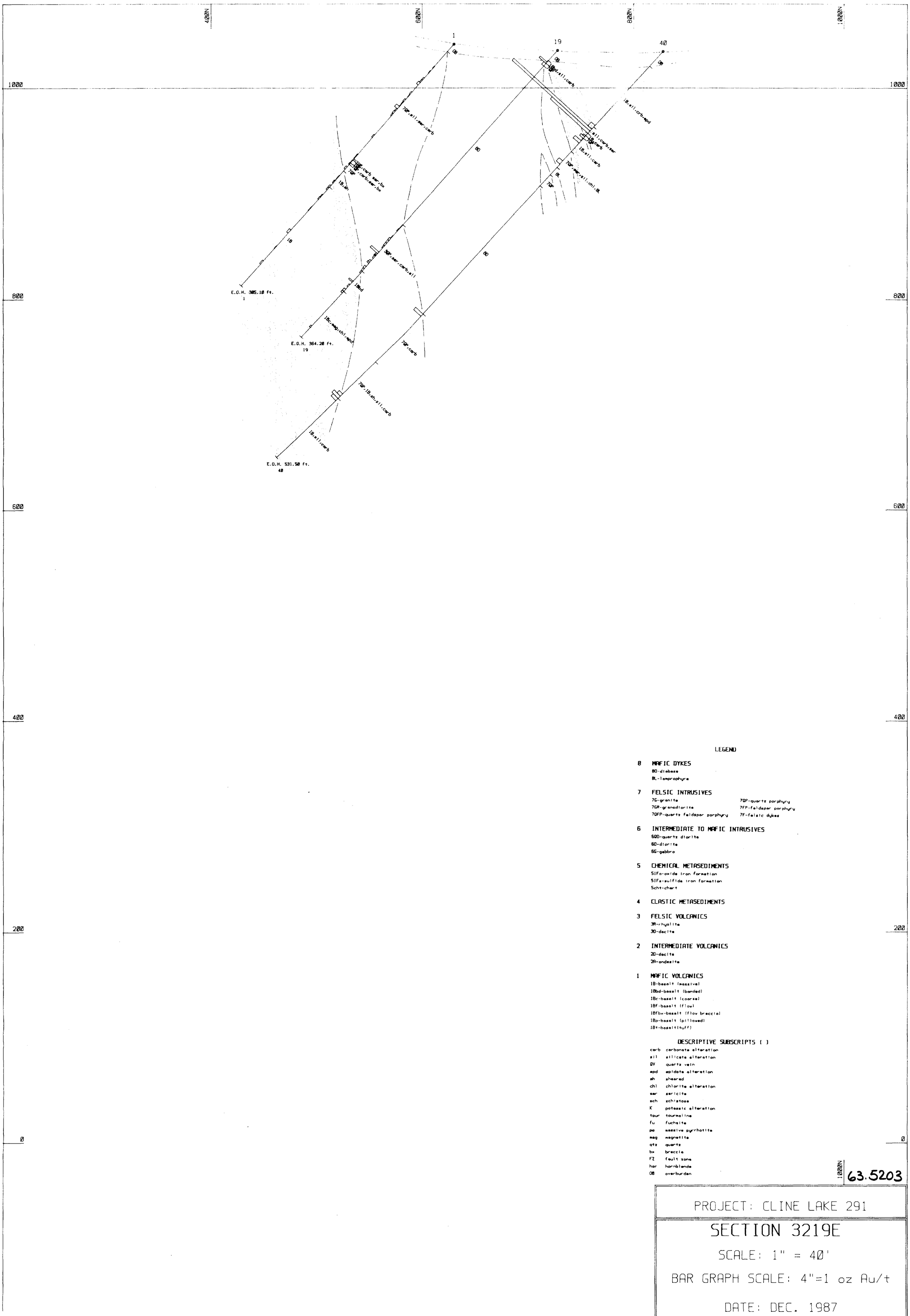
DATE: DEC. 1987

NORANDA EXPLORATION

42C08SW0026 63.5203 JACOBSON

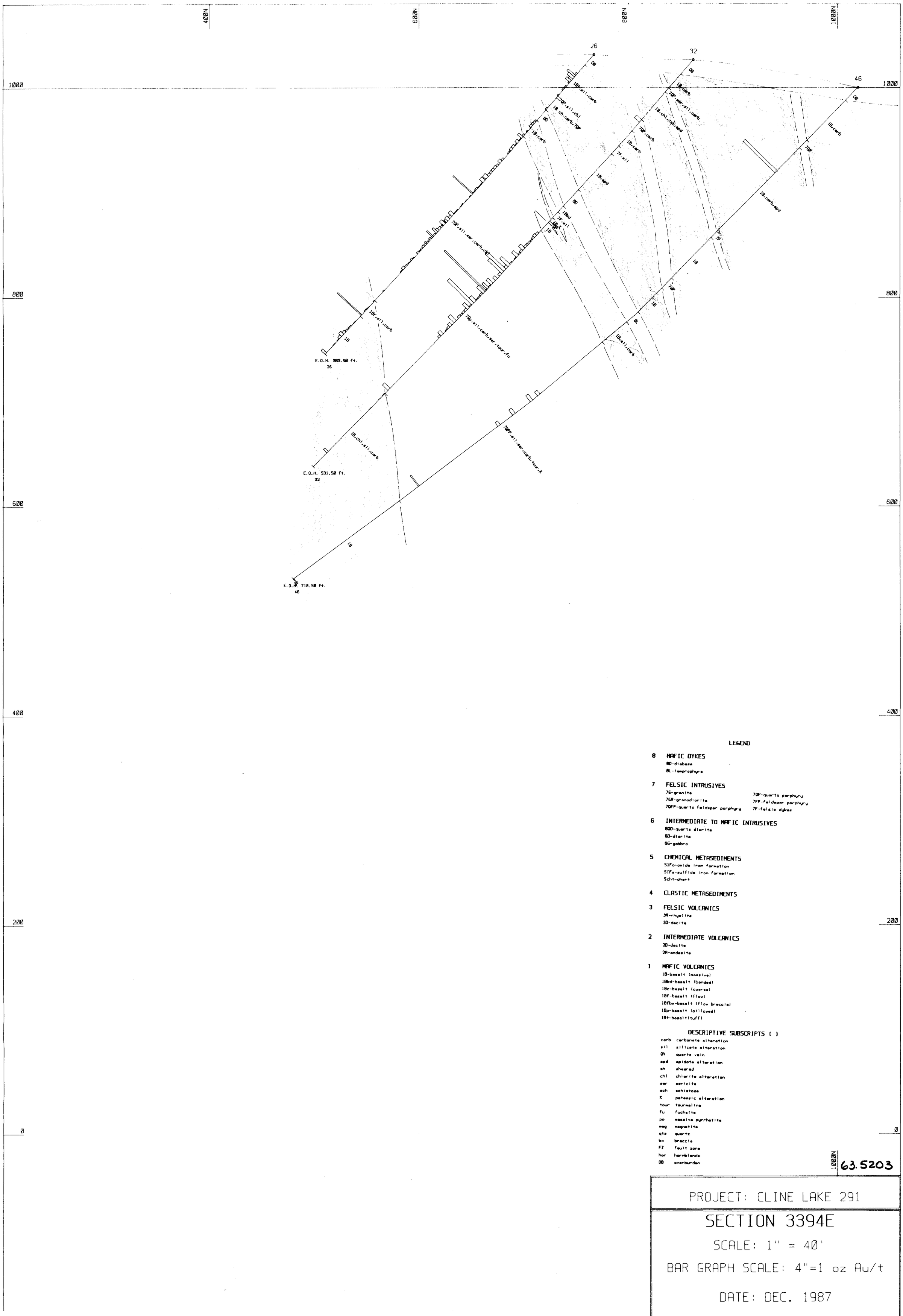
290

QM87-7-C-241



42C08SW0026 63.5203 JACOBSON

OM87-7-C-241



LEGEND

8 MAFIC DYKES
- 8D-diabase
- 8L-lamprophyre

7 FELSIC INTRUSIVES
- 7G-granite
- 7GR-granodiorite
- 7QFP-quartz feldspar porphyry
- 7QP-quartz porphyry
- 7FP-feldspar porphyry
- 7F-felsic dykes

6 INTERMEDIATE TO MAFIC INTRUSIVES
- 6QD-quartz diorite
- 6D-diorite
- 6G-gabbro

5 CHEMICAL METASEDIMENTS
- 5IFo-oxide iron formation
- 5IFs-sulfide iron formation
- 5cht-chert

4 CLASTIC METASEDIMENTS

3 FELSIC VOLCANICS
- 3R-rhyolite
- 3D-dacite

2 INTERMEDIATE VOLCANICS
- 2D-dacite
- 2A-andesite

1 MAFIC VOLCANICS
- 1B-basalt (massive)
- 1Bbd-basalt (banded)
- 1Bc-basalt (coarse)
- 1Bf-basalt (flow)
- 1Bfbx-basalt (flow breccia)
- 1Bp-basalt (pillowed)
- 1Bt-basalt(tuff)

DESCRIPTIVE SUBSCRIPTS ( )

carb	carbonate alteration
sil	silicate alteration
QV	quartz vein
epd	epidote alteration
sh	sheared
chl	chlorite alteration
ser	sericite
sch	schistose
K	potassic alteration
tour	tourmaline
fu	fuchsite
po	massive pyrrhotite
mag	magnetite
qtz	quartz
bx	breccia
FZ	fault zone
hor	hornblende
OB	overburden

1000N 63.5203

PROJECT: CLINE LAKE 291

SECTION 3394E

SCALE: 1" = 40'

BAR GRAPH SCALE: 4"=1 oz Au/t

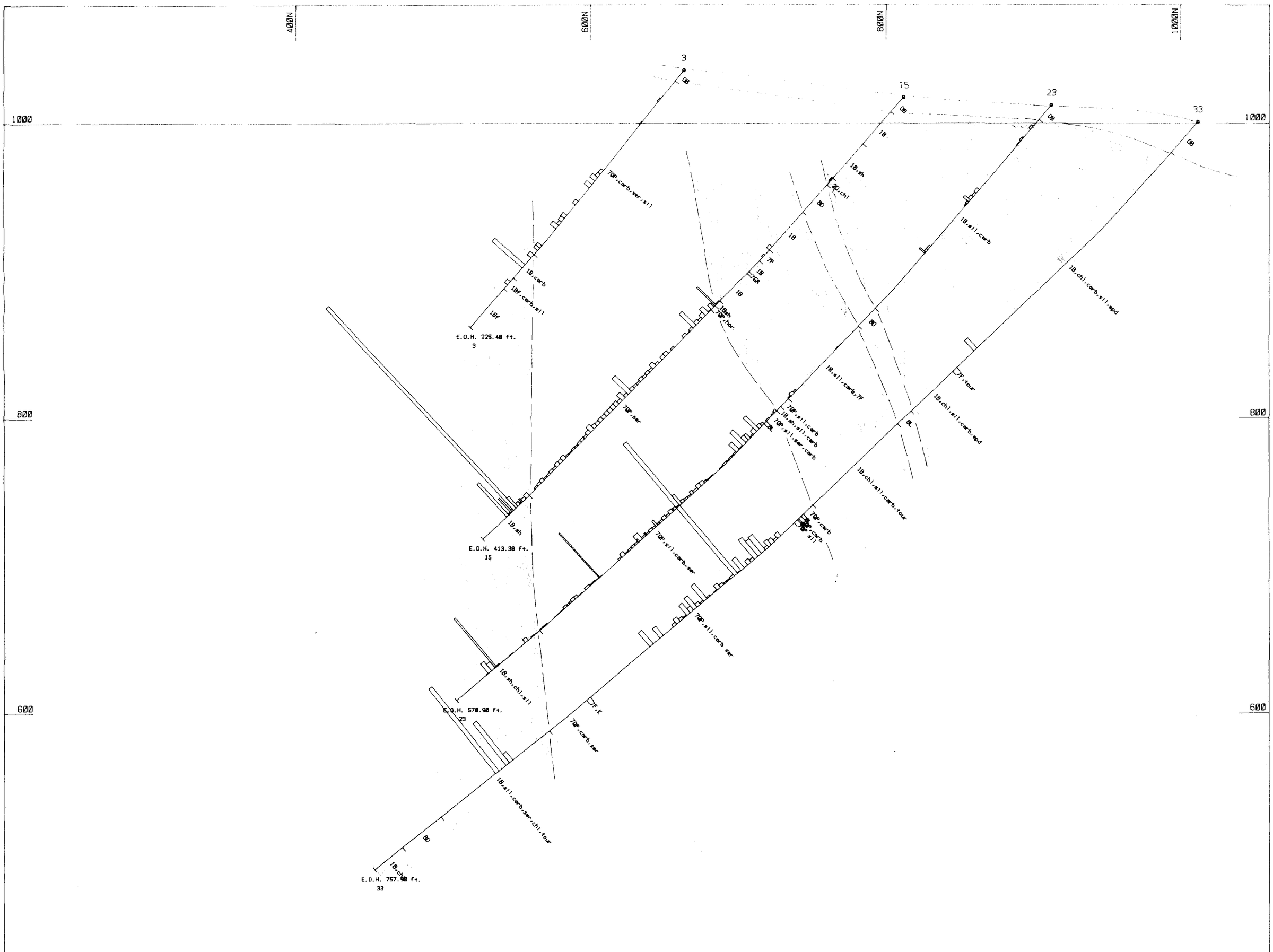
DATE: DEC. 1987

NORANDA EXPLORATION

42C08SW0026 63.5203 JACOBSON

310

OM87-7-C-241



LEGEND

8 MAFIC DYKES
- 8D-diabase
- 8L-lamprophyre

7 FELSIC INTRUSIVES
- 7G-granite
- 7GR-granodiorite
- 7QFP-quartz feldspar porphyry
- 7QP-quartz porphyry
- 7FP-feldspar porphyry
- 7F-felsic dykes

6 INTERMEDIATE TO MAFIC INTRUSIVES
- 6QD-quartz diorite
- 6D-diorite
- 6G-gabbro

5 CHEMICAL METASEDIMENTS
- 5IFo-oxide iron formation
- 5IFs-sulfide iron formation
- 5cht-chert

4 CLASTIC METASEDIMENTS

3 FELSIC VOLCANICS
- 3R-rhyolite
- 3D-dacite

2 INTERMEDIATE VOLCANICS
- 2D-dacite
- 2A-andesite

1 MAFIC VOLCANICS
- 1B-basalt (massive)
- 1Bbd-basalt (banded)
- 1Bc-basalt (coarse)
- 1Bf-basalt (flow)
- 1Bfbx-basalt (flow breccia)
- 1Bp-basalt (pillowed)
- 1Bt-basalt(tuff)

DESCRIPTIVE SUBSCRIPTS ( )

carb	carbonate alteration
sil	silicate alteration
QV	quartz vein
epd	epidote alteration
sh	sheared
chl	chlorite alteration
ser	sericite
sch	schistose
K	potassic alteration
tour	tourmaline
fu	fuchsite
po	massive pyrrhotite
mag	magnetite
qtz	quartz
bx	breccia
FZ	fault zone
hor	hornblende
OB	overburden

63.5203

PROJECT: CLINE LAKE 291

SECTION 3484E

SCALE: 1" = 40'

BAR GRAPH SCALE: 4"=1 oz Au/t

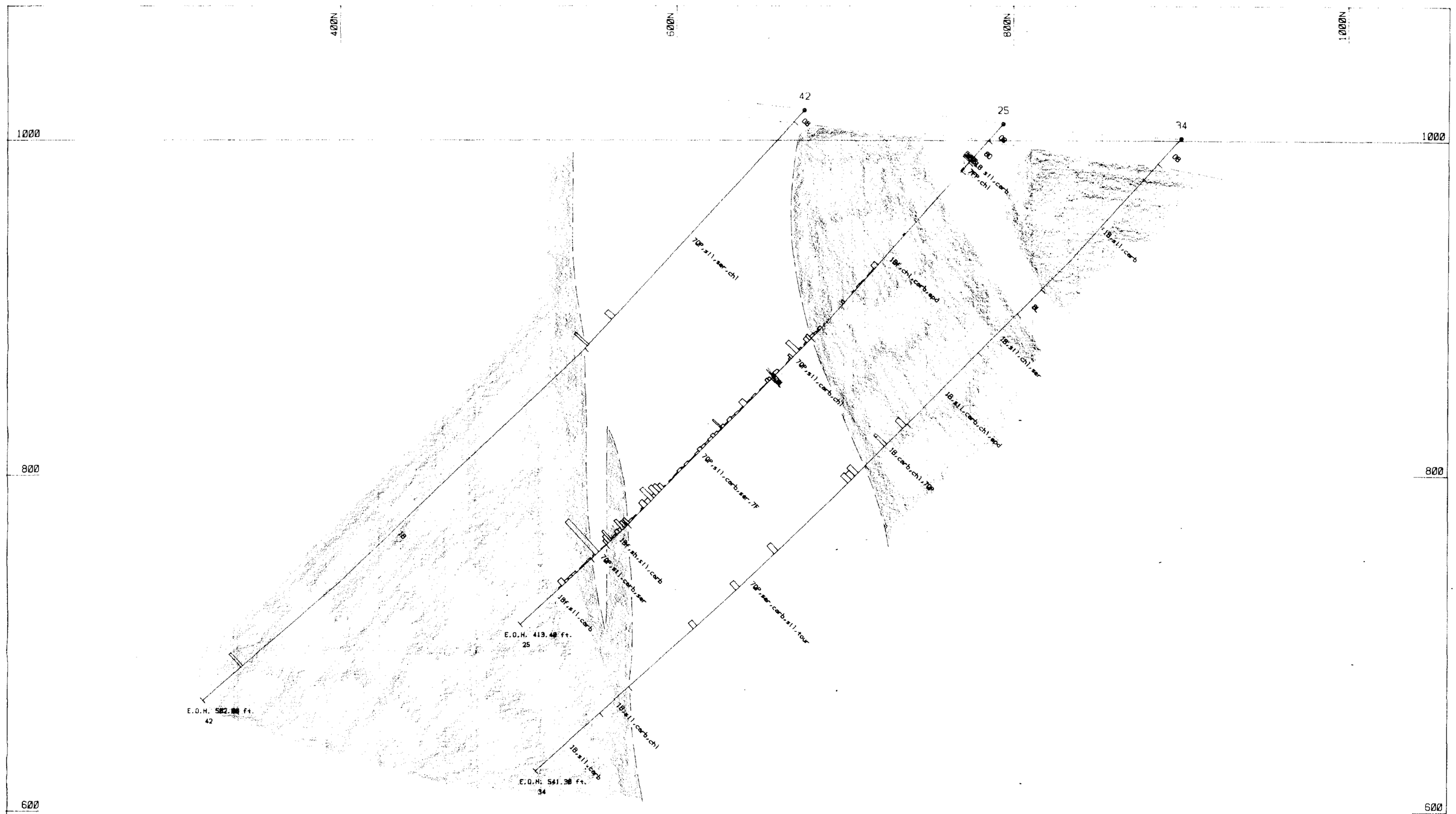
DATE: DEC. 1987

NORANDA EXPLORATION

42C08SW0026 63.5203 JACOBSON

320

OM87-7-C-241



LEGEND

8 MAFIC DYKES
- 8D-diabase
- 8L-lamprophyre

7 FELSIC INTRUSIVES
- 7G-granite
- 7GR-granodiorite
- 7QFP-quartz feldspar porphyry
- 7QP-quartz porphyry
- 7FP-feldspar porphyry
- 7F-felsic dykes

6 INTERMEDIATE TO MAFIC INTRUSIVES
- 6QD-quartz diorite
- 6D-diorite
- 6G-gabbro

5 CHEMICAL METASEDIMENTS
- 5IFo-oxide iron formation
- 5IFs-sulfide iron formation
- 5cht-chert

4 CLASTIC METASEDIMENTS

3 FELSIC VOLCANICS
- 3R-rhyolite
- 3D-dacite

2 INTERMEDIATE VOLCANICS
- 2D-dacite
- 2A-andesite

1 MAFIC VOLCANICS
- 1B-basalt (massive)
- 1Bbd-basalt (banded)
- 1Bc-basalt (coarse)
- 1Bf-basalt (flow)
- 1Bfbx-basalt (flow breccia)
- 1Bp-basalt (pillowed)
- 1Bt-basalt (tuff)

DESCRIPTIVE SUBSCRIPTS ( )

carb	carbonate alteration
sil	silicate alteration
QV	quartz vein
epd	epidote alteration
sh	sheared
chl	chlorite alteration
ser	sericite
sch	schistose
K	potassic alteration
tour	tourmaline
fu	fuchsite
po	massive pyrrhotite
mag	magnetite
qtz	quartz
bx	breccia
FZ	fault zone
hor	hornblende
OB	overburden

1000N 63.5203

PROJECT: CLINE LAKE 291

SECTION 3561E

SCALE: 1" = 40'

BAR GRAPH SCALE: 4"=1 oz Au/t

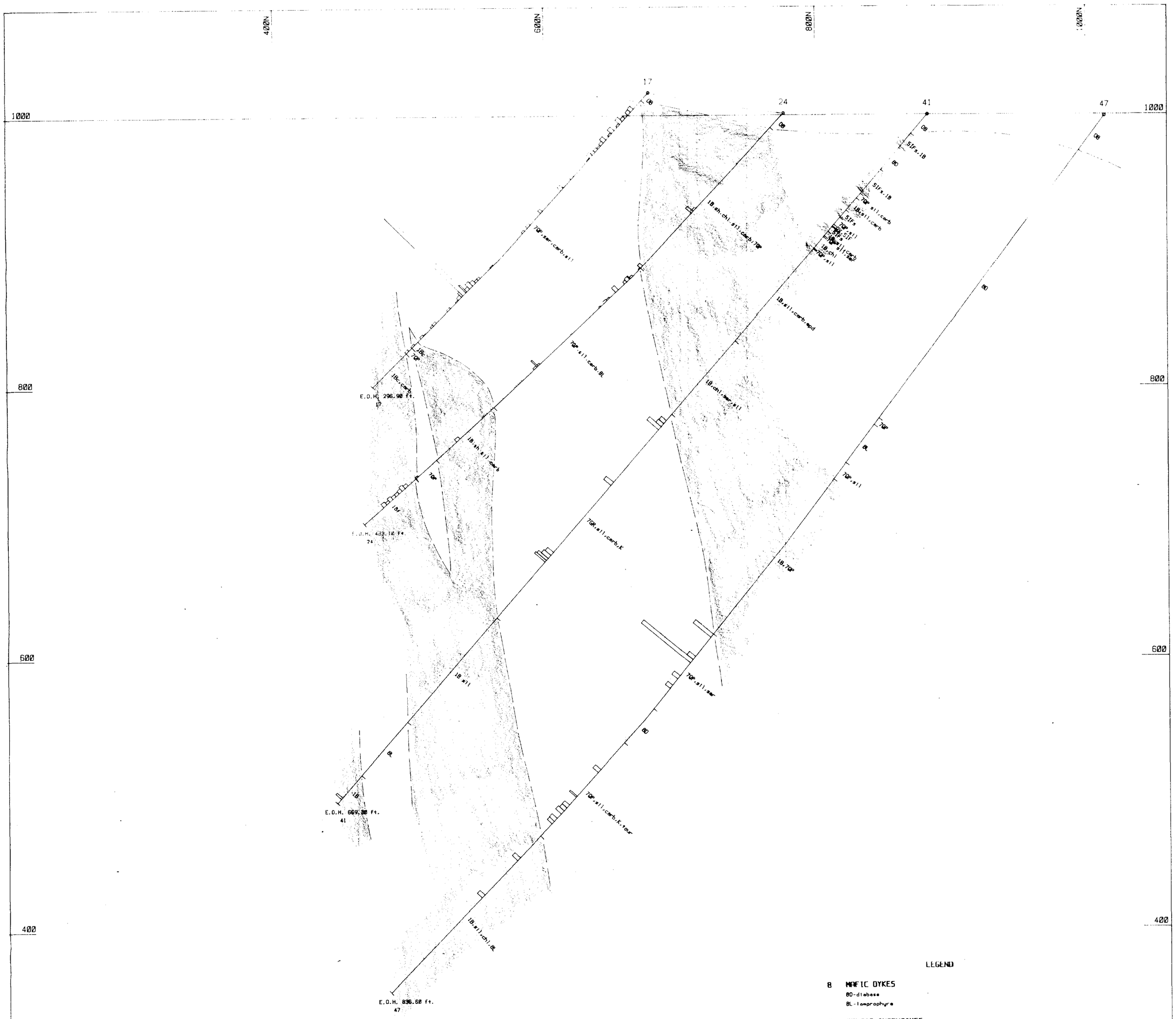
DATE: DEC. 1987

NORANDA EXPLORATION

42C08SW0026 63.5203 JACOBSON

330

OM87-7-C-241



LEGEND

8 MAFIC DYKES
- 8D-diabase
- 8L-lamprophyre

7 FELSIC INTRUSIVES
- 7G-granite
- 7GR-granodiorite
- 7QFP-quartz feldspar porphyry
- 7QP-quartz porphyry
- 7FP-feldspar porphyry
- 7F-felsic dykes

6 INTERMEDIATE TO MAFIC INTRUSIVES
- 6QD-quartz diorite
- 6D-diorite
- 6G-gabbro

5 CHEMICAL METASEDIMENTS
- 5IFo-oxide iron formation
- 5IFs-sulfide iron formation
- 5cht-chert

4 CLASTIC METASEDIMENTS

3 FELSIC VOLCANICS
- 3R-rhyolite
- 3D-dacite

2 INTERMEDIATE VOLCANICS
- 2D-dacite
- 2A-andesite

1 MAFIC VOLCANICS
- 1B-basalt (massive)
- 1Bbd-basalt (banded)
- 1Bc-basalt (coarse)
- 1Bf-basalt (flow)
- 1Bfbx-basalt (flow breccia)
- 1Bp-basalt (pillowed)
- 1Bt-basalt(tuff)

DESCRIPTIVE SUBSCRIPTS ( )

carb	carbonate alteration
sil	silicate alteration
QV	quartz vein
epd	epidote alteration
sh	sheared
chl	chlorite alteration
ser	sericite
sch	schistose
K	potassic alteration
tour	tourmaline
fu	fuchsite
po	massive pyrrhotite
mag	magnetite
qtz	quartz
bx	breccia
FZ	fault zone
hor	hornblende
OB	overburden

63.5203

PROJECT: CLINE LAKE 291

SECTION 3678E

SCALE: 1" = 40'

BAR GRAPH SCALE: 4"=1 oz Au/t

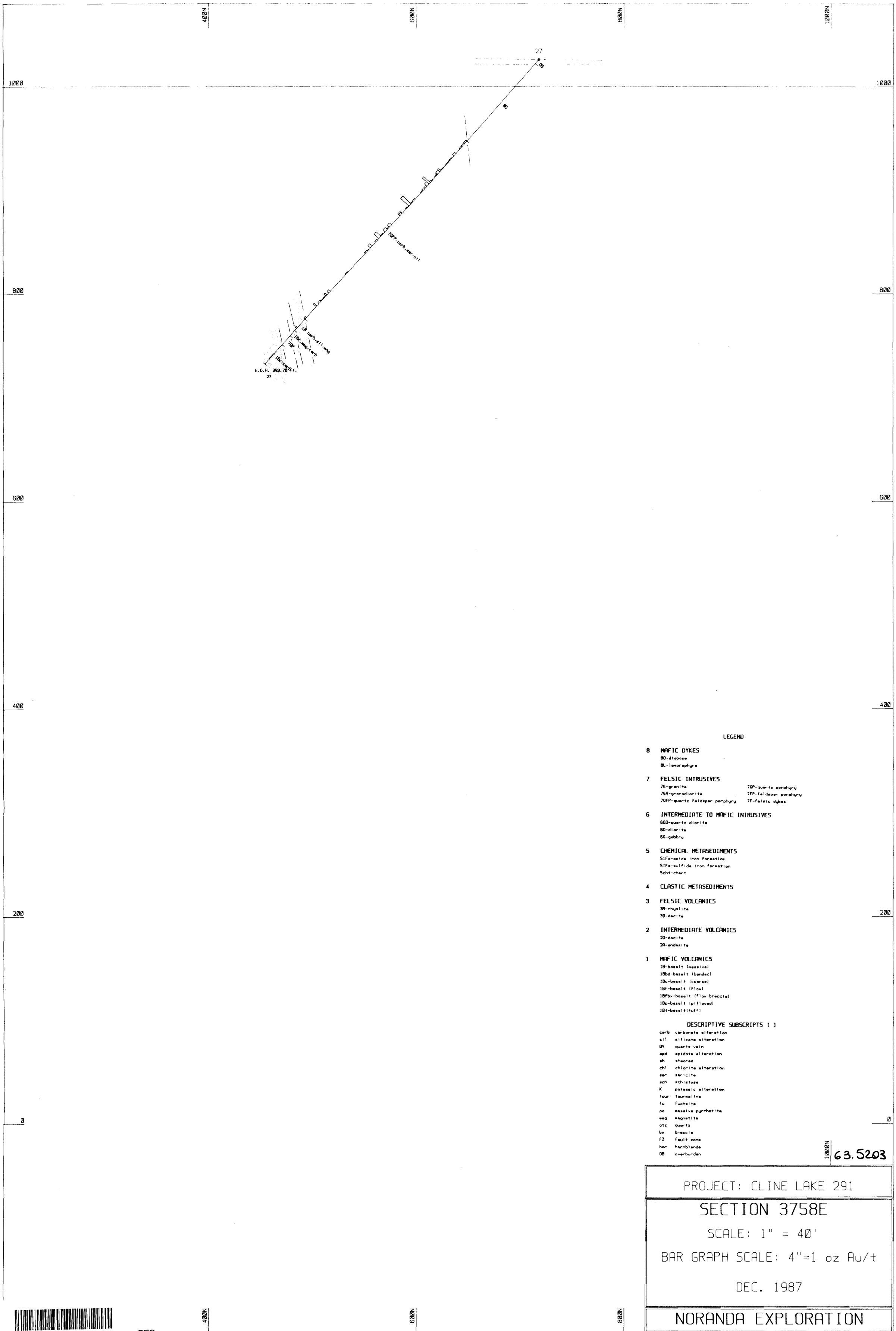
DATE: DEC. 1987

NORANDA EXPLORATION

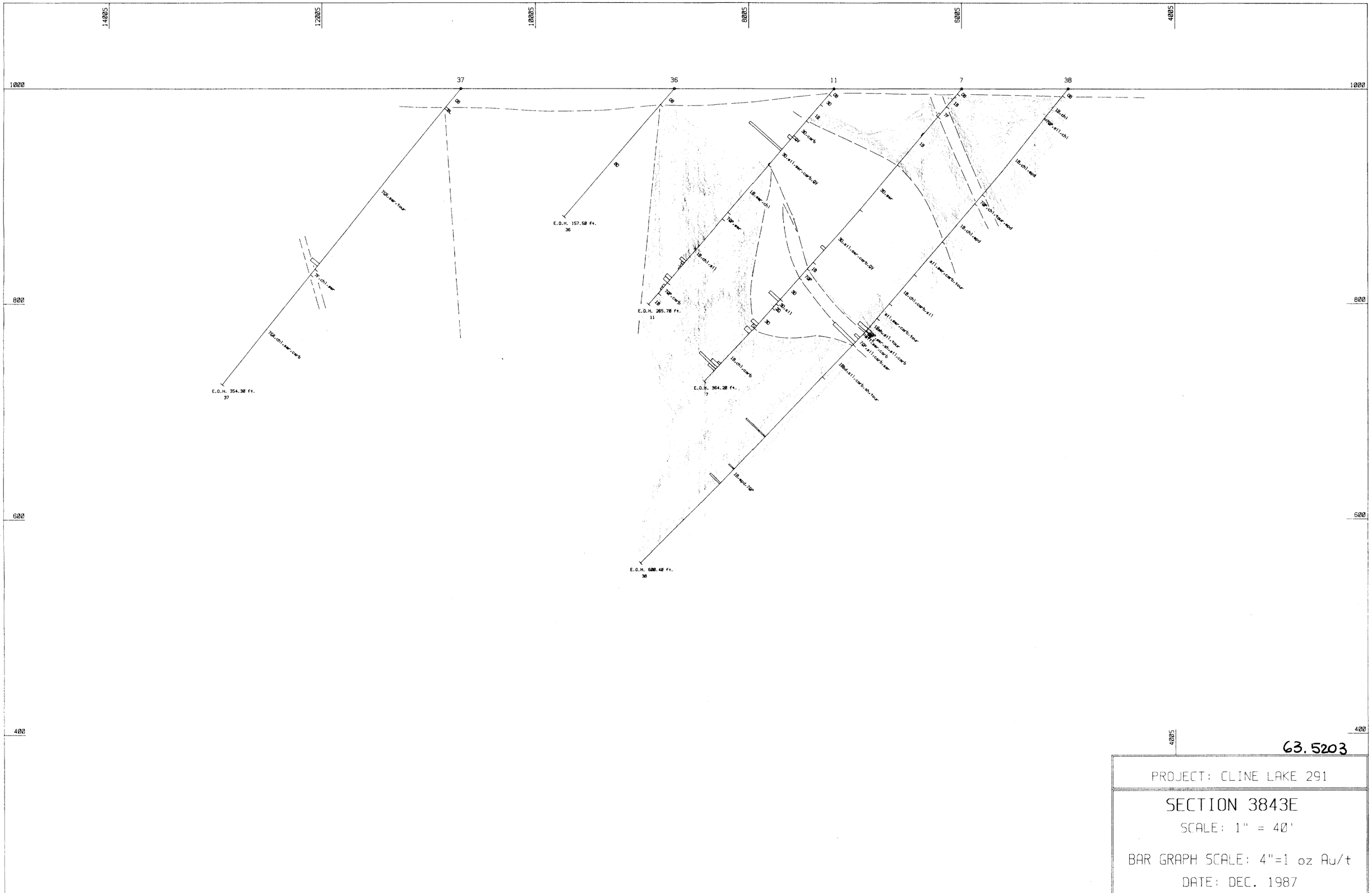
42C08SW0026 63.5203 JACOBSON

340

OM87-7-C-241


400N
600N
800N
1000N
1000
800
600
400
200
0
27
8D
8D
7QFP-carb,ser-sil
1B carb,sil,mag
1Bc-mag,carb
7QP
1Bc-carb
E.O.H. 303.78 ft.
27
LEGEND
8 MAFIC DYKES
8D-diabase
8L-lamprophyre
7 FELSIC INTRUSIVES
7G-granite
7GR-granodiorite
7QFP-quartz feldspar porphyry
7QP-quartz porphyry
7FP-feldspar porphyry
7F-felsic dykes
6 INTERMEDIATE TO MAFIC INTRUSIVES
6QD-quartz diorite
6D-diorite
6G-gabbro
5 CHEMICAL METASEDIMENTS
5IFo-oxide iron formation
5IFs-sulfide iron formation
5cht-chert
4 CLASTIC METASEDIMENTS
3 FELSIC VOLCANICS
3R-rhyolite
3D-dacite
2 INTERMEDIATE VOLCANICS
2D-dacite
2A-andesite
1 MAFIC VOLCANICS
1B-basalt (massive)
1Bbd-basalt (banded)
1Bc-basalt (coarse)
1Bf-basalt (flow)
1Bfbx-basalt (flow breccia)
1Bp-basalt (pillowed)
1Bt-basalt(tuff)
DESCRIPTIVE SUBSCRIPTS ( )
carb carbonate alteration
sil silicate alteration
QV quartz vein
epd epidote alteration
sh sheared
chl chlorite alteration
ser sericite
sch schistose
K potassic alteration
tour tourmaline
fu fuchsite
po massive pyrrhotite
mag magnetite
qtz quartz
bx breccia
FZ fault zone
hor hornblende
OB overburden
1000N
63.5203
PROJECT: CLINE LAKE 291
SECTION 3758E
SCALE: 1" = 40'
BAR GRAPH SCALE: 4"=1 oz Au/t
DEC. 1987
NORANDA EXPLORATION
42C08SW0026 63.5203 JACOBSON
350
400N
600N
800N

OM87-7-C-241



63.5203

PROJECT: CLINE LAKE 291

SECTION 3843E

SCALE: 1" = 40'

BAR GRAPH SCALE: 4"=1 oz Au/t

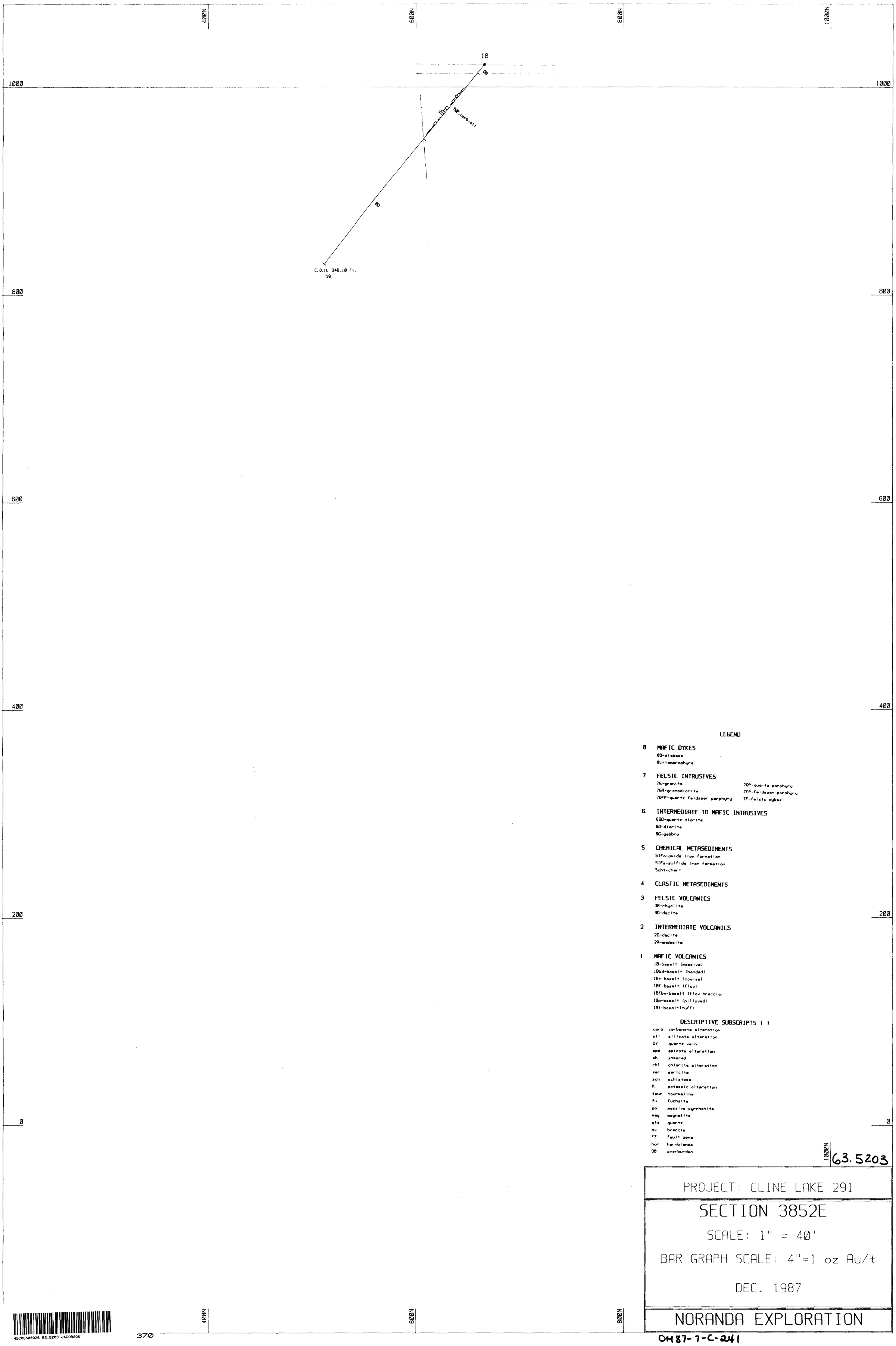
DATE: DEC. 1987

NORANDA EXPLORATION

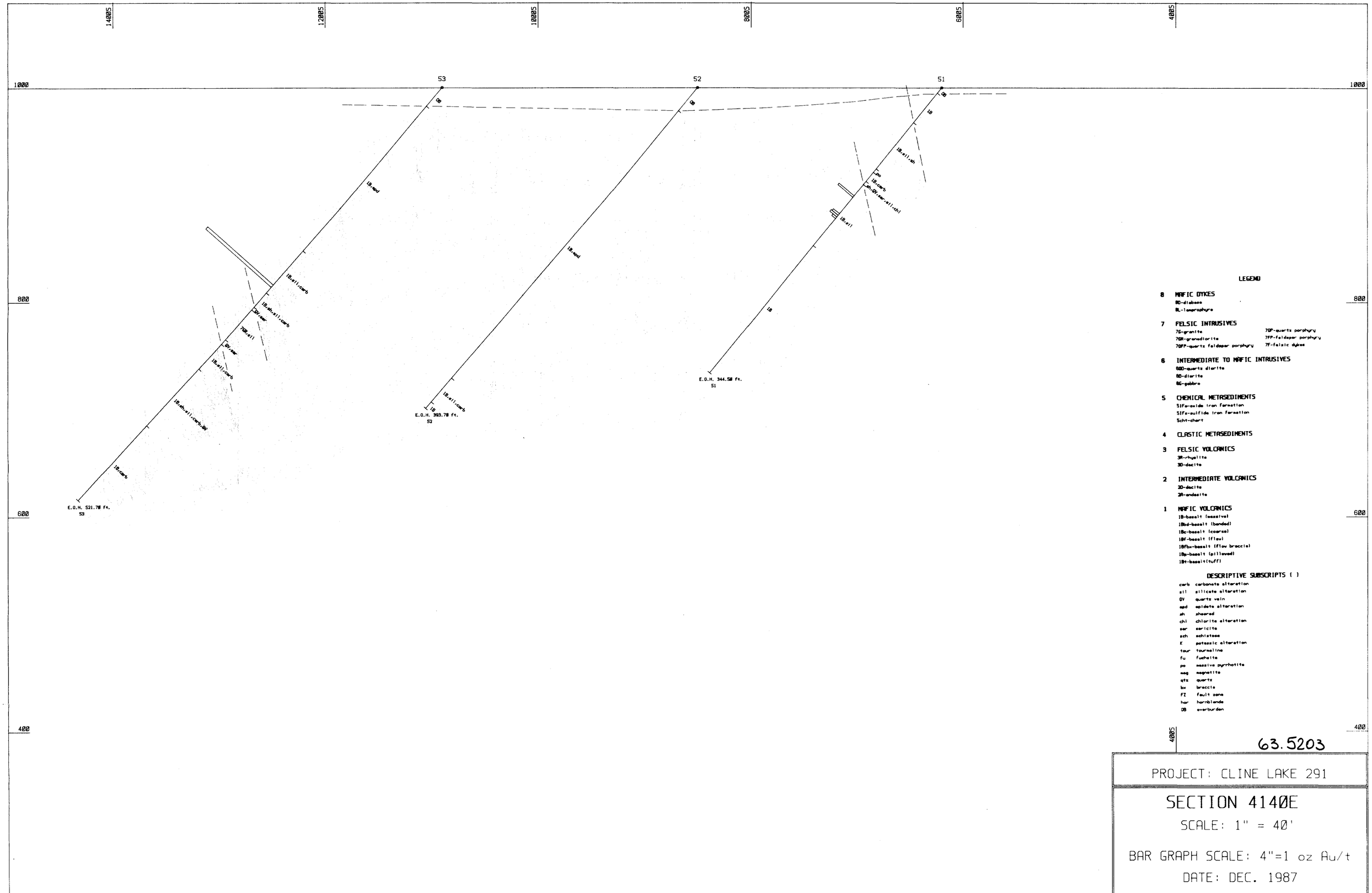
42C08SW0026 63.5203 JACOBSON

360

OM87-7-C-241


400N
500N
800N
1000N
1000
800
600
400
200
0
18
8
7QP-carb,sil
8
E.O.H. 246.10 ft.
18
LEGEND
8 MAFIC DYKES
8D-diabase
8L-lamprophyre
7 FELSIC INTRUSIVES
7G-granite
7GR-granodiorite
7QFP-quartz feldspar porphyry
7QP-quartz porphyry
7FP-feldspar porphyry
7F-felsic dykes
6 INTERMEDIATE TO MAFIC INTRUSIVES
6QD-quartz diorite
6D-diorite
6G-gabbro
5 CHEMICAL METASEDIMENTS
5IFo-oxide iron formation
5IFs-sulfide iron formation
5cht-chert
4 CLASTIC METASEDIMENTS
3 FELSIC VOLCANICS
3R-rhyolite
3D-dacite
2 INTERMEDIATE VOLCANICS
2D-dacite
2A-andesite
1 MAFIC VOLCANICS
1B-basalt (massive)
1Bbd-basalt (banded)
1Bc-basalt (coarse)
1Bf-basalt (flow)
1Bfbx-basalt (flow breccia)
1Bp-basalt (pillowed)
1Bt-basalt(tuff)
DESCRIPTIVE SUBSCRIPTS ( )
carb carbonate alteration
sil silicate alteration
QV quartz vein
epd epidote alteration
sh sheared
chl chlorite alteration
ser sericite
sch schistose
K potassic alteration
tour tourmaline
fu fuchsite
po massive pyrrhotite
mag magnetite
qtz quartz
bx breccia
FZ fault zone
hor hornblende
OB overburden
1000N
63.5203
PROJECT: CLINE LAKE 291
SECTION 3852E
SCALE: 1" = 40'
BAR GRAPH SCALE: 4"=1 oz Au/t
DEC. 1987
NORANDA EXPLORATION
42C08SW0026 63.5203 JACOBSON
370
400N
600N
800N

OM87-7-C-241



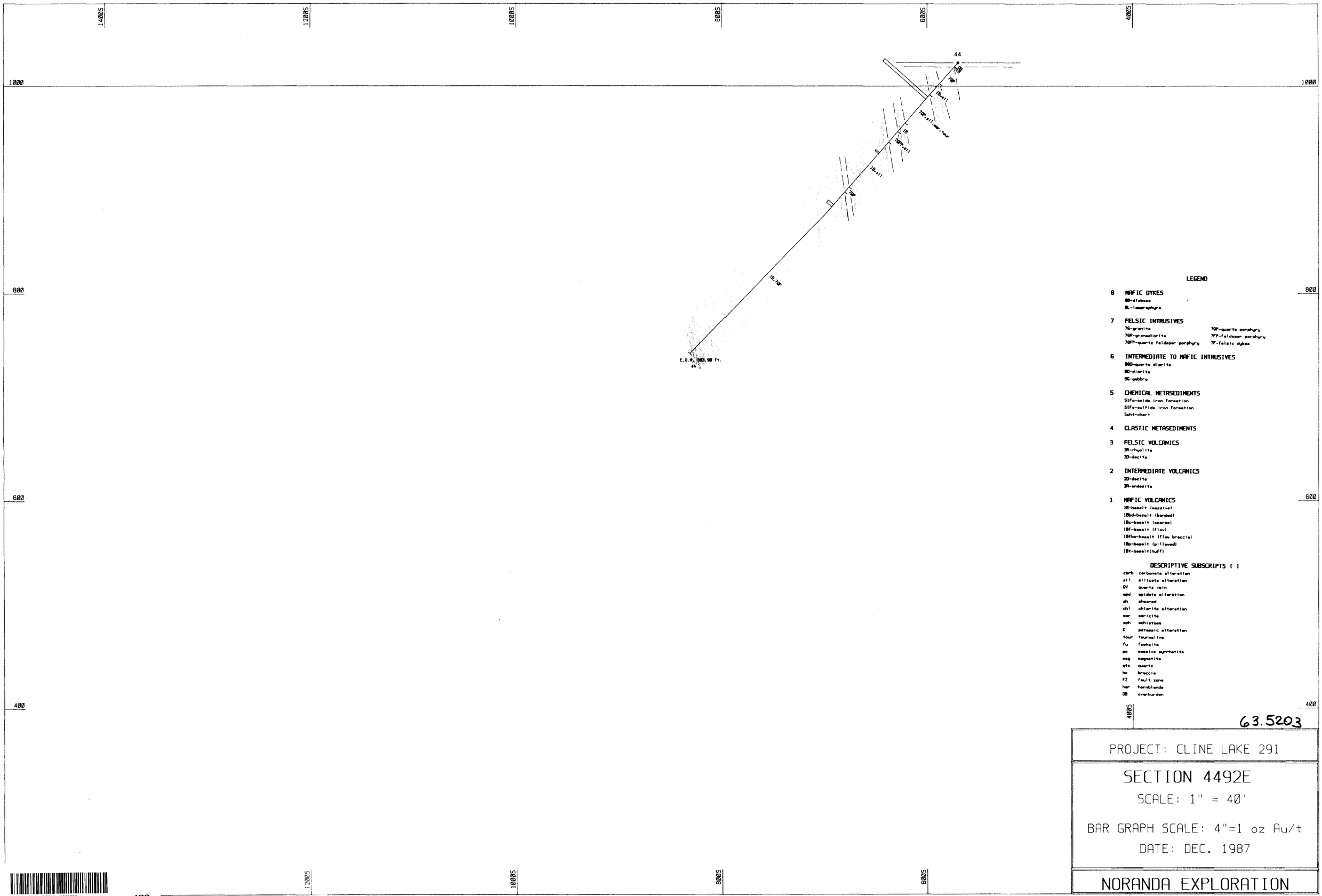
42C08SW0026 63.5203 JACOBSON

380

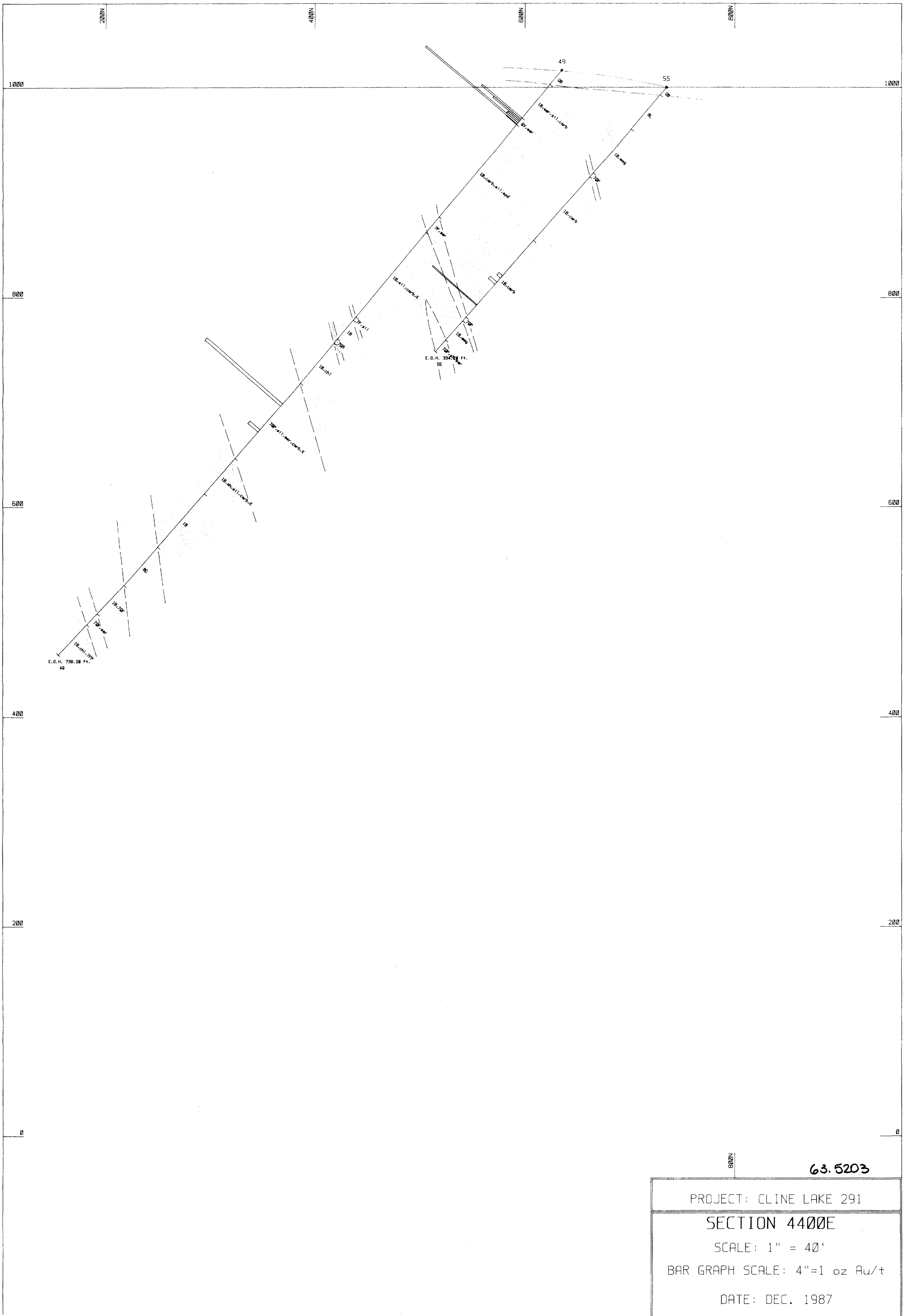
OM87-7-C-241

42C085W0026 63.5203 JACOBSON

OM87-7-C-241


1400S
1200S
1000S
800S
600S
400S
1000
800
600
400
44
7GP
1Bxsil
7GP-sil,ser,tour
7B
7GPr-sil
1Bxsil
7GP
1B,7GP
E.O.H. 003.00 ft.
44
LEGEND
8 MAFIC DYKES
8D-diabase
8L-lamprophyre
7 FELSIC INTRUSIVES
7G-granite
7GR-granodiorite
7GFP-quartz feldspar porphyry
7QP-quartz porphyry
7FP-feldspar porphyry
7F-felsic dykes
6 INTERMEDIATE TO MAFIC INTRUSIVES
6QD-quartz diorite
6D-diorite
6G-gabbro
5 CHEMICAL METASEDIMENTS
5IFo-oxide iron formation
5IFs-sulfide iron formation
5cht-chert
4 CLASTIC METASEDIMENTS
3 FELSIC VOLCANICS
3R-rhyolite
3D-dacite
2 INTERMEDIATE VOLCANICS
2D-dacite
2A-andesite
1 MAFIC VOLCANICS
1B-basalt (massive)
1Bbd-basalt (banded)
1Bc-basalt (coarse)
1Bf-basalt (flow)
1Bfbx-basalt (flow breccia)
1Bp-basalt (pillowed)
1Bt-basalt(tuff)
DESCRIPTIVE SUBSCRIPTS ( )
carb carbonate alteration
sil silicate alteration
QV quartz vein
epd epidote alteration
sh sheared
chl chlorite alteration
ser sericite
sch schistose
K potassic alteration
tour tourmaline
fu fuchsite
po massive pyrrhotite
mag magnetite
qtz quartz
bx breccia
FZ fault zone
hor hornblende
OB overburden
63.5203
PROJECT: CLINE LAKE 291
SECTION 4492E
SCALE: 1" = 40'
BAR GRAPH SCALE: 4"=1 oz Au/t
DATE: DEC. 1987
NORANDA EXPLORATION
42C08SW0026 63.5203 JACOBSON

OM87-7-C-241



63.5203

PROJECT: CLINE LAKE 291

SECTION 4400E

SCALE: 1" = 40'

BAR GRAPH SCALE: 4"=1 oz Au/t

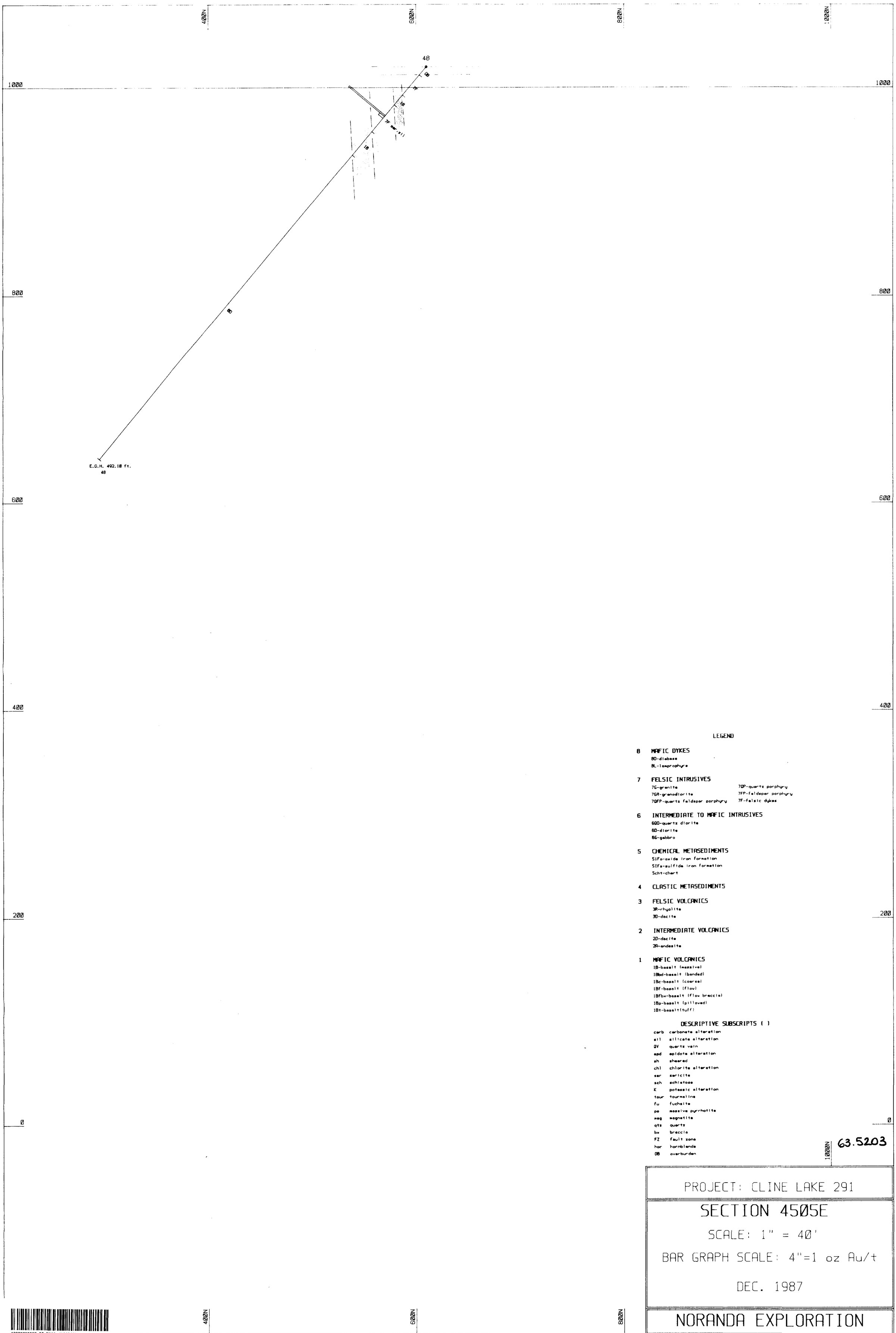
DATE: DEC. 1987

NORANDA EXPLORATION

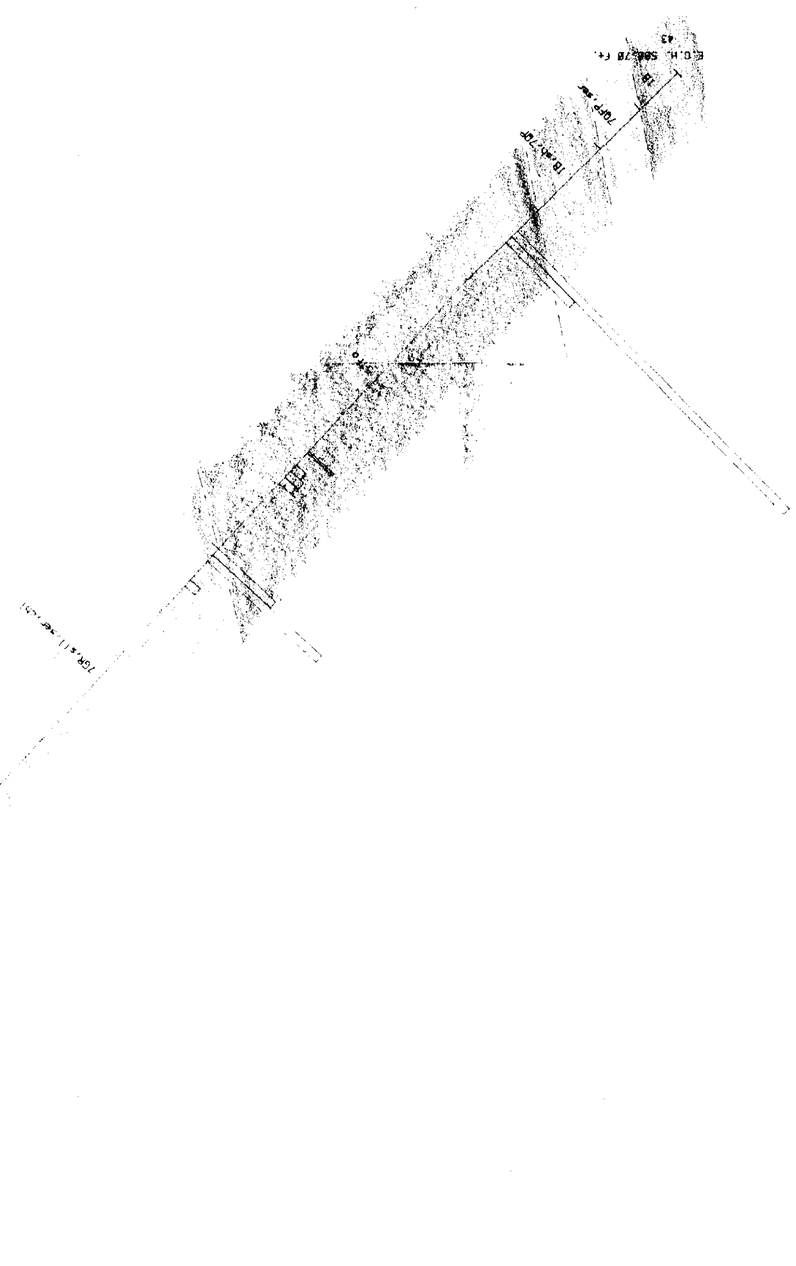
42C085W0026 63.5203 JACOBSON

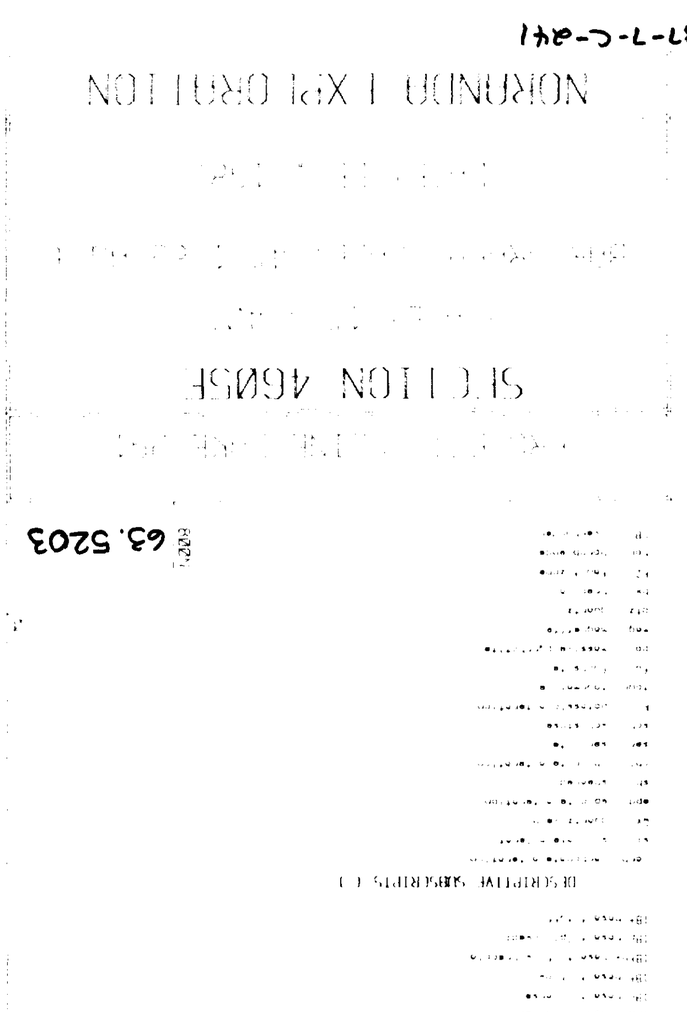
410

OM87-7-C-241


400N
600N
800N
1000N
1000
800
600
400
200
0
48
OB
7F
1B
7F sil
1B
8
E.O.H. 492.10 ft.
48
LEGEND
8 MAFIC DYKES
8D-diabase
8L-lamprophyre
7 FELSIC INTRUSIVES
7G-granite
7GR-granodiorite
7QFP-quartz feldspar porphyry
7QP-quartz porphyry
7FP-feldspar porphyry
7F-felsic dykes
6 INTERMEDIATE TO MAFIC INTRUSIVES
6QD-quartz diorite
6D-diorite
6G-gabbro
5 CHEMICAL METASEDIMENTS
5IFo-oxide iron formation
5IFs-sulfide iron formation
5cht-chert
4 CLASTIC METASEDIMENTS
3 FELSIC VOLCANICS
3R-rhyolite
3D-dacite
2 INTERMEDIATE VOLCANICS
2D-dacite
2A-andesite
1 MAFIC VOLCANICS
1B-basalt (massive)
1Bbd-basalt (banded)
1Bc-basalt (coarse)
1Bf-basalt (flow)
1Bfbx-basalt (flow breccia)
1Bp-basalt (pillowed)
1Bt-basalt(tuff)
DESCRIPTIVE SUBSCRIPTS ( )
carb carbonate alteration
sil silicate alteration
QV quartz vein
epd epidote alteration
sh sheared
chl chlorite alteration
ser sericite
sch schistose
K potassic alteration
tour tourmaline
fu fuchsite
po massive pyrrhotite
mag magnetite
qtz quartz
bx breccia
FZ fault zone
hbr hornblende
OB overburden
63.5203
PROJECT: CLINE LAKE 291
SECTION 4505E
SCALE: 1" = 40'
BAR GRAPH SCALE: 4"=1 oz Au/t
DEC. 1987
NORANDA EXPLORATION
42C08SW0026 63.5203 JACOBSON
420

OM87-7-C-241





1000
1000
800
800
600
600
7GR, sil, ser, chl
1B, chl, epd
7F
1B, epd
5IFo
1B, epd
1B, sh, 7QP
7QFP, ser
1B
E.O.H. 500.70 Ft.
43

400

200

LEGEND

8 MAFIC DYKES
8D diabase
8L lamprophyre

7 FELSIC INTRUSIVES
7G granite
7GD granodiorite
7QFP quartz feldspar porphyry
7QP quartz porphyry
7FP feldspar porphyry
7F felsic dykes

6 INTERMEDIATE TO MAFIC INTRUSIVES
6QD quartz diorite
6D diorite
6G gabbro

5 CHEMICAL METASEDIMENTS
5IFo oxide iron formation
5IFs sulfide iron formation
5CT chert

4 CLASTIC METASEDIMENTS

3 FELSIC VOLCANICS
3R rhyolite
3D dacite

2 INTERMEDIATE VOLCANICS
2D dacite
2A andesite

1 MAFIC VOLCANICS
1B basalt massive
1Bpi basalt pillowed
1Bc basalt coarse
1Bf basalt fine
1Bfx basalt flow breccia
1Bv basalt [illegible]
1Bt basalt tuff

DESCRIPTIVE SUBSCRIPTS ( )
carb carbonate alteration
sil silicification
qv quartz veins
epd epidote alteration
sh sheared
chl chlorite alteration
ser sericite
sch schistose
k potassic alteration
tour tourmaline
fu fuchsite
po massive pyrrhotite
mag magnetite
qtz quartz
bx breccia
FZ fault zone
hb hornblende
[illegible]

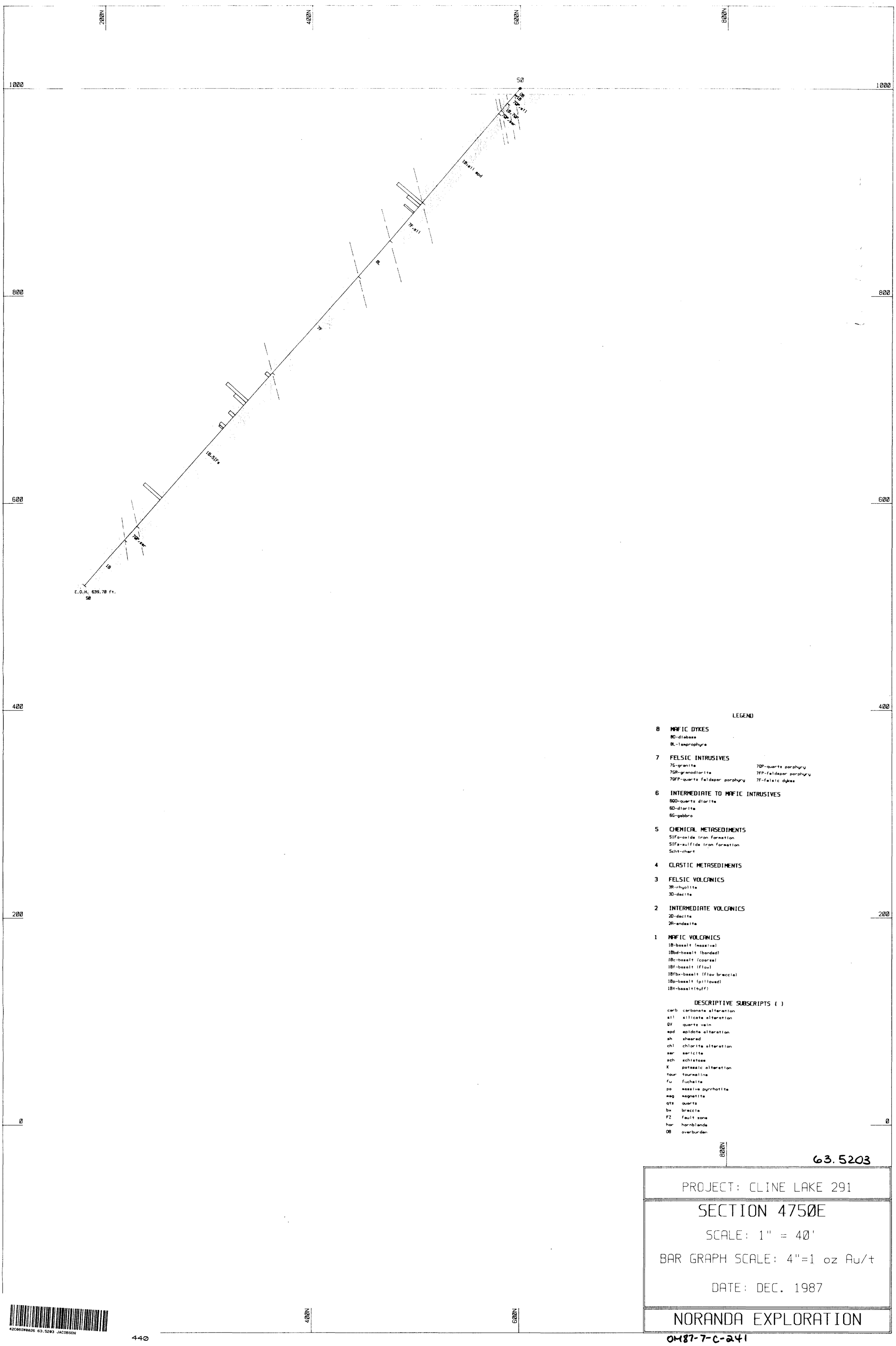
63.5203

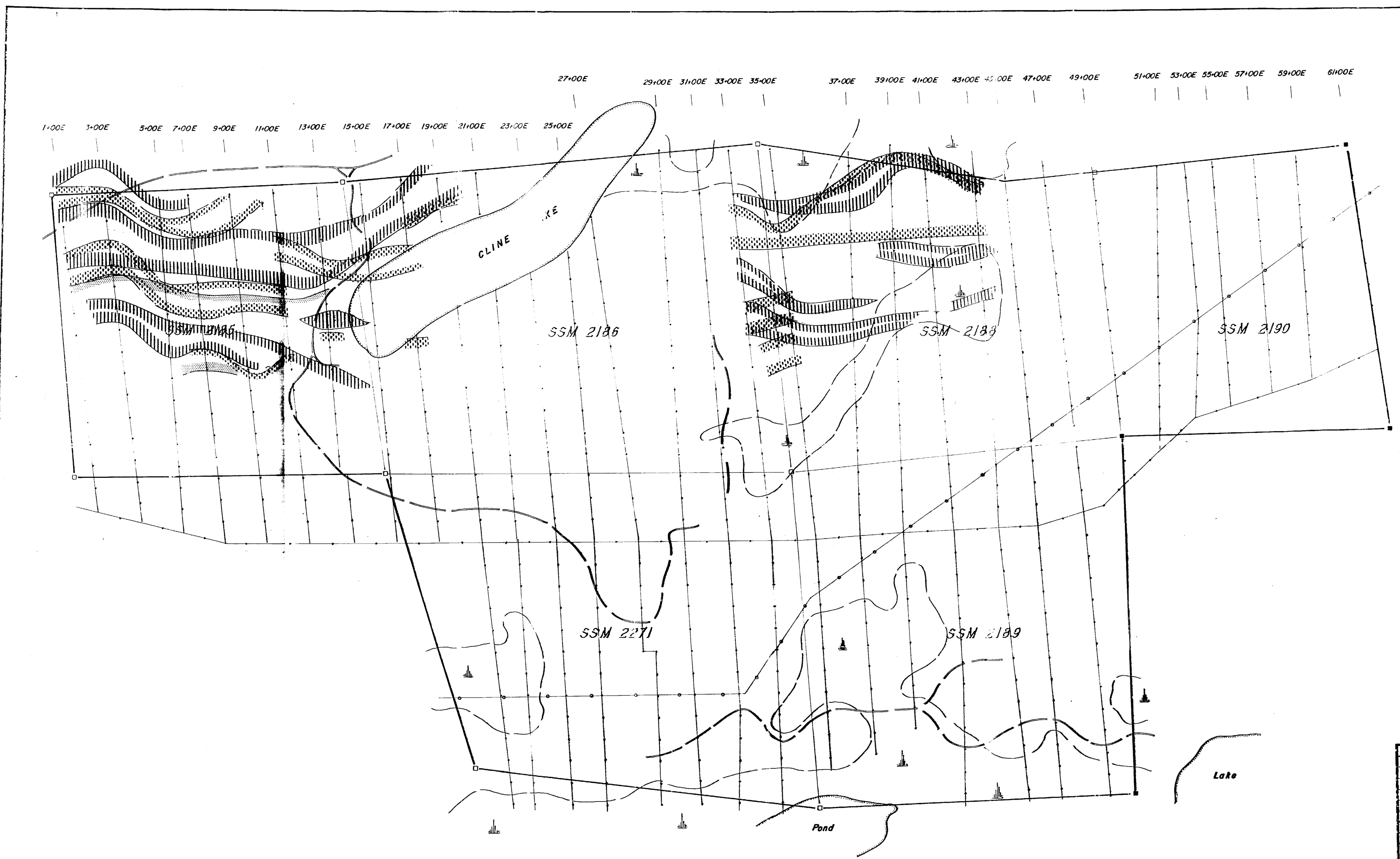
SECTION 4605E

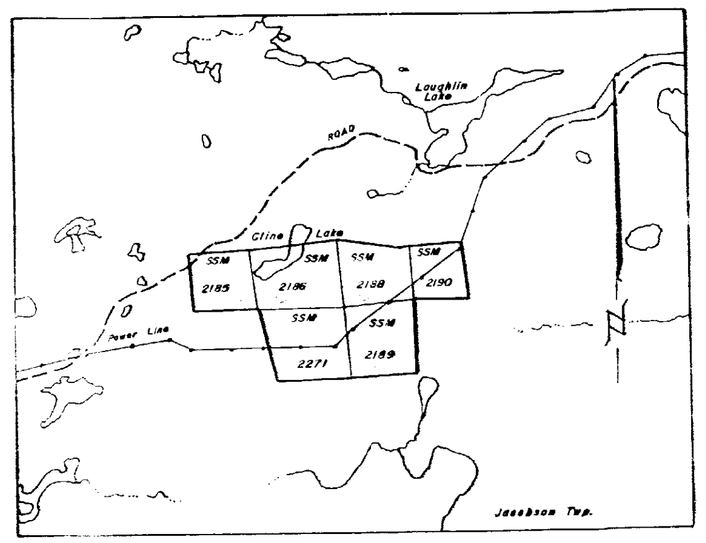
NORANDA EXPLORATION

OM87-7-C-241

430


200N
400N
600N
800N
1000
800
600
400
200
0
50
8
1B
7QP-sil
1B-7QP
7QP-ser
1B-sil epd
7F-sil
8
7F
1B-5IFs
7QP-ser
1B
E.O.H. 639.70 ft.
50
LEGEND
8 MAFIC DYKES
8D-diabase
8L-lamprophyre
7 FELSIC INTRUSIVES
7G-granite
7GR-granodiorite
7QFP-quartz feldspar porphyry
7QP-quartz porphyry
7FP-feldspar porphyry
7F-felsic dykes
6 INTERMEDIATE TO MAFIC INTRUSIVES
6QD-quartz diorite
6D-diorite
6G-gabbro
5 CHEMICAL METASEDIMENTS
5IFo-oxide iron formation
5IFs-sulfide iron formation
5cht-chert
4 CLASTIC METASEDIMENTS
3 FELSIC VOLCANICS
3R-rhyolite
3D-dacite
2 INTERMEDIATE VOLCANICS
2D-dacite
2A-andesite
1 MAFIC VOLCANICS
1B-basalt (massive)
1Bbd-basalt (banded)
1Bc-basalt (coarse)
1Bf-basalt (flow)
1Bfbx-basalt (flow breccia)
1Bp-basalt (pillowed)
1Bt-basalt(tuff)
DESCRIPTIVE SUBSCRIPTS ( )
carb carbonate alteration
sil silicate alteration
QV quartz vein
epd epidote alteration
sh sheared
chl chlorite alteration
ser sericite
sch schistose
K potassic alteration
tour tourmaline
fu fuchsite
po massive pyrrhotite
mag magnetite
qtz quartz
bx breccia
FZ fault zone
hor hornblende
OB overburden
800N
63.5203
PROJECT: CLINE LAKE 291
SECTION 4750E
SCALE: 1" = 40'
BAR GRAPH SCALE: 4"=1 oz Au/t
DATE: DEC. 1987
NORANDA EXPLORATION
42C08SW0026 63.5203 JACOBSON
400N
600N
440
OM87-7-C-241





LOCATION PLAN

CLINE LAKE PROPERTY

Scale 1" = 2640'

LEGEND

HIGH RESISTIVITY

LOW RESISTIVITY

HIGH FREQUENCY EFFECT

63.5203

REVISED	MAP 1
	SUMMARY OF I.P. RESULTS CLINE LAKE PROPERTY
	Jacobson Twp. ONTARIO
	PROJECT:
PROJ. Nº 291	SURVEYED BY: DATE:
N.T.S. 42-C-3	DRAWN BY: SCALE: 1" = 200'
DWG. Nº	NORANDA EXPLORATION CO. LTD.
	OFFICE: Timmins, ONTARIO.

450

OM87-7-C-241