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NORANDA EXPLORATION COMPANY, LIMITED
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GEOLOGY AND GEOPHYSICS REPORT

GERRY LAKE NORTH

N.T.S. 52K/14
PROJECT 1340

RED LAKE DISTRICT
NORTHWESTERN ONTARIO DIVISION

RECEIVED

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MINING LANDS SECTION

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52K15NW0100 2.8675 FREDART LAKE

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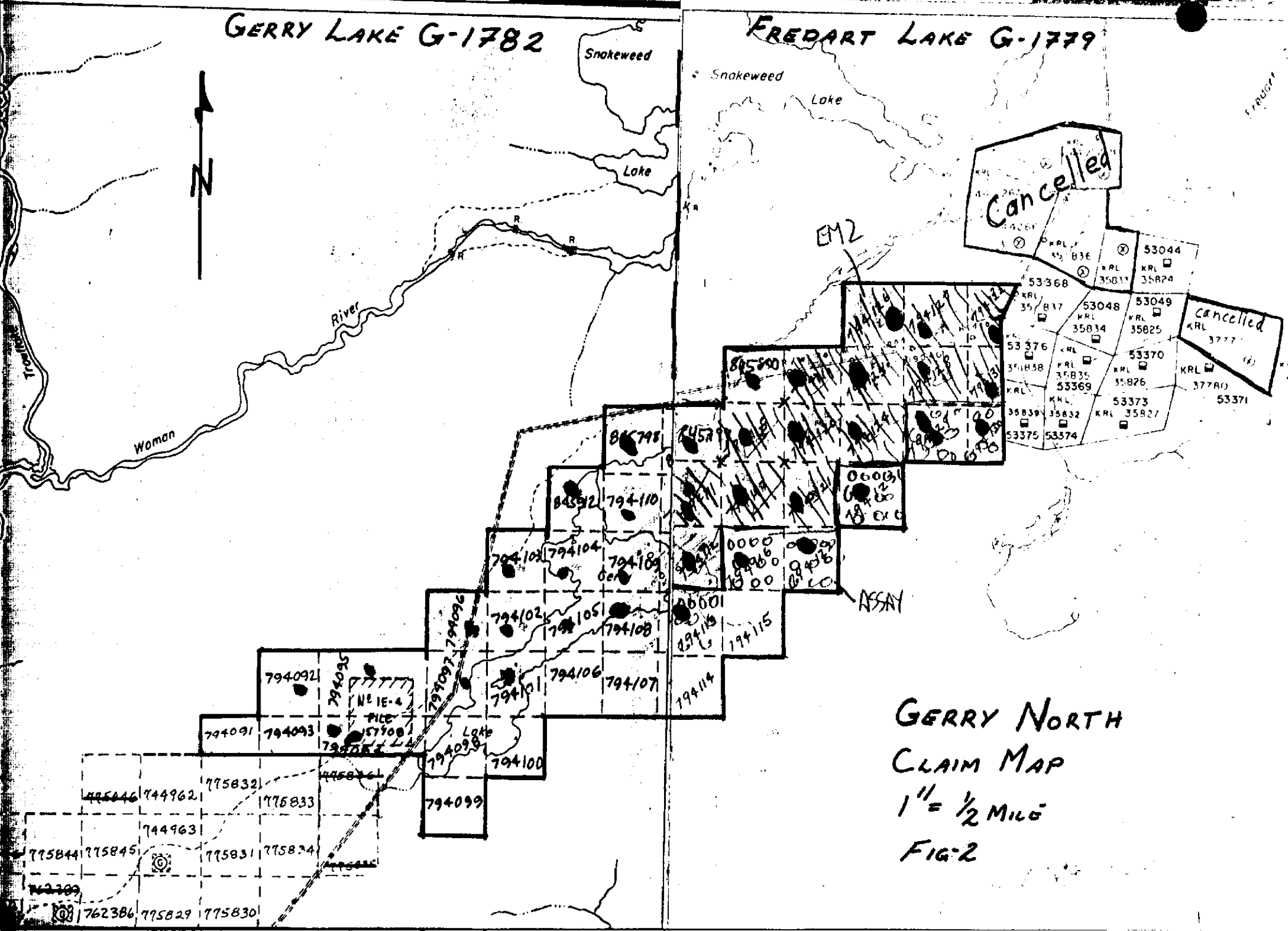
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GERRY LAKE G-1782

FREDART LAKE G-1779



GERRY NORTH
CLAIM MAP
1" = 1/2 MILE
FIG. 2

1.0 INTRODUCTION

The Gerry North property, consisting of 46 unpatented claims, was staked in October of 1984 to cover a band of hydrothermally altered felsic volcanic rocks in close proximity to the Copper Lode-Rexdale orebody which has estimated reserves of 450,000 tons grading 1.56% Copper. Earlier work in the Gerry Lake area outlined a number of relatively shallow conductors which were tested without success. The object of the 1985 Noranda Exploration program was to test this altered horizon for blind Cu-Zn mineralization through the use of a deep penetrating Pulse EM system, followed up by a detailed mapping survey with particular attention to hydrothermal alteration.

2.0 LOCATION, ACCESS AND TOPOGRAPHY

The property is located approximately 50 kilometers northeast of the Town of Ear Falls which is situated on Highway 105, 70 kilometers south of the Town of Red Lake.

Access to the property is by way of the Uchi Lake Road, a well-travelled, gravel, all-weather road which extends from Ear Falls to Selco's South Bay Mine. Both the road and a major power line cross almost all of the grid lines, providing ideal access to the claims.

Topography of the area is generally fairly flat and covered by mature spruce and poplar forest, cut by several small swamps and streams. The only major topographical feature on the claims is a prominent ridge which marks the contact between the younger granites and older volcanic rock and lies along the northern edge of the property.

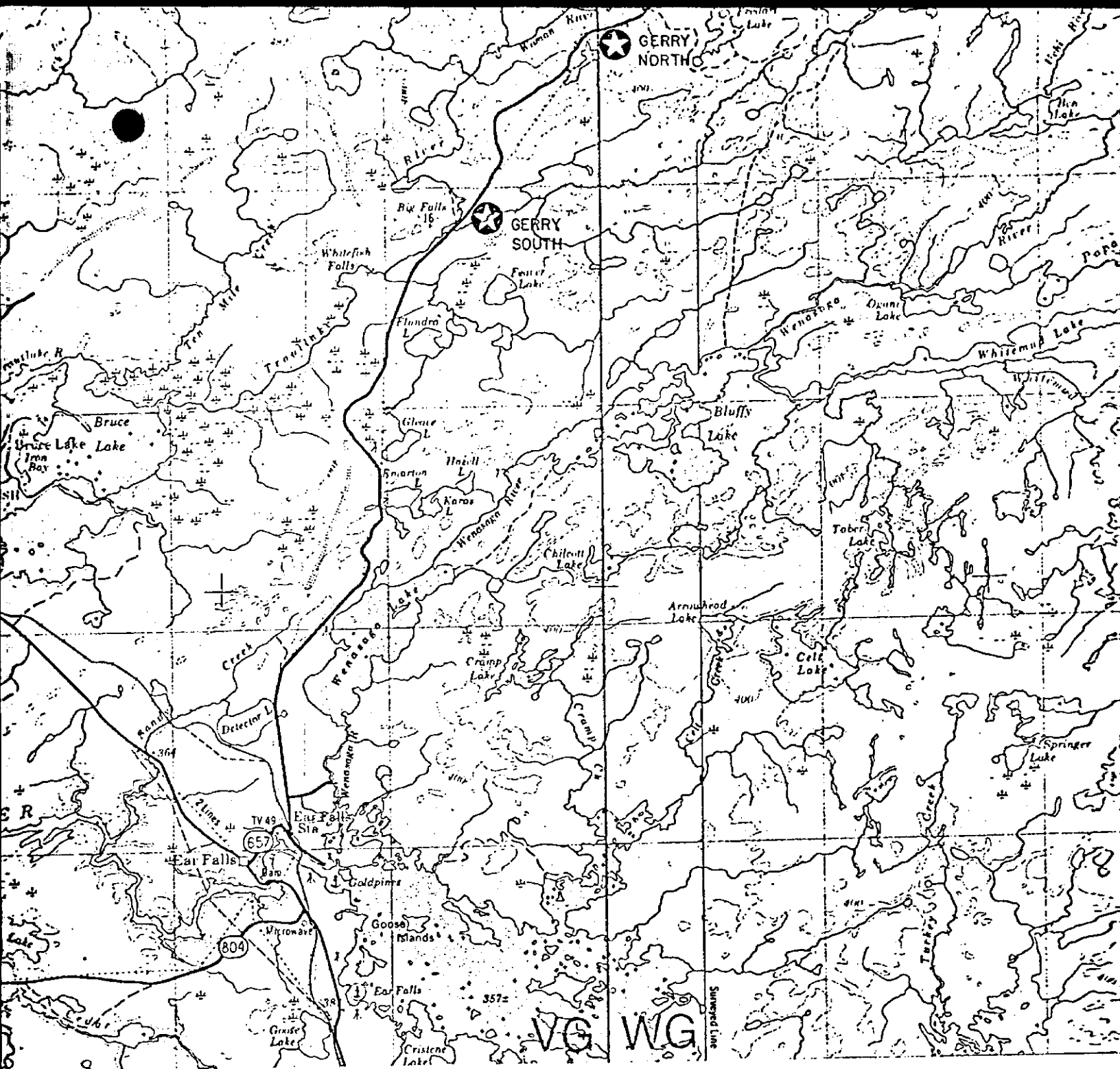
3.0 DESCRIPTION OF CLAIMS AND GRID

The Gerry Lake North property consists of 46 unpatented claims in the Red Lake Mining District. The claims are numbered

KRL 794091-132, inclusive - Recorded October 23, 1984
KRL 845798-800, inclusive - Recorded July 16, 1985
KRL 845912 - Recorded September 5, 1985

All claims are located on Claim Maps G.1782 - Gerry Lake and G.1779 - Fredart Lake.

A grid consisting of 33.4 kilometers of cut lines was installed on the property in January, 1985. This grid consists of a 4.8 kilometer baseline trending 060° Azimuth with wing lines at 200-meter intervals. The lines range from 400 to 200 meters in length with stations every 25 meters.



REVISED	LOCATION MAP FIG. 1
PROJ. No.:	PROJECT: GERRY
N.T.S.:	DRAWN BY: _____ DATE: _____
SCALE: 1 : 250,000	noranda NORANDA EXPLORATION Co. LTD. - THUNDER BAY

FIG. 1

4.0 PREVIOUS WORK

The western extension of the Uchi Belt has received considerable attention in the past for its base metal potential. However work on the actual Gerry North property has been limited to relatively shallow "searching" geophysics and diamond drilling along the south iron formation. The following is a brief list of previous work:

1) Queensland Explorations Ltd.

1959: Geology, Magnetometer, EM and Self Potential surveys carried out on cut grid extending from the east end of Gerry Lake to the eastern boundary of the current property.

1960: 7 diamond drill holes; 5 along the south iron formation and 2 on a Self Potential anomaly on Norex claim 794119.

2) Roxmark Mines Ltd.

1970: 4 diamond drill holes into the iron formation along the north shore of Gerry Lake.

5.0 REGIONAL GEOLOGY

The Gerry Lake North property is situated within the western extension of the Uchi Lake Greenstone Belt, a northeast trending band of archean aged volcanic and sedimentary rocks which extends from Confederation Lake in the east to Gullrock Lake in the west. Heavy overburden cover over much of the area has precluded the formation of a definitive geological map of the Western Extension, however a short regional mapping and compilation program carried out by the OGS (P. Thurston - Uchi Synoptic Program) in 1981 indicates a north to south assemblage as follows:

- 1) pillowed mafic flows.
- 2) discontinuous units of felsic tuffs, oxide facies iron formation, and felsic flows some of which are spherulitic.
- 3) pillowed mafic flows.

This regional picture is complicated by numerous felsic and mafic intrusions

All volcanic rocks in the area are thought to be members of the 3rd cycle of volcanism within the Uchi Greenstone Belt, the only cycle with proven economical base metal mineralization (i.e. South Bay Mine - 1,600,000 tons grading 14% Zn and 3% Cu).

6.0 PROPERTY GEOLOGY

6.1 Lithological Description of Units

Unit 1 - Mafic Volcanics

This unit outcrops over much of the central portion of the property and consists of 55-75% hornblende and 25-45% feldspar. At its best exposure the rock is dark green and very fine grained. Some difficulty was encountered in the field distinguishing between this unit and the Unit 6 mafic intrusive, the only apparent difference being a somewhat coarser grain size in the intrusives.

Unit 1a - Mafic Tuff

This unit outcrops intermittently in a band along the southern edge of the property and underlays the iron formation. It is typically well foliated, almost laminated in spots, and consists of alternating bands of dark green hornblende-biotite rock, and pale brown feldspar-rich bands. The dark bands typically make up 60-70% of the rock and the lighter 30-40%.

Unit 2 - Intermediate Volcanics

No good occurrences of intermediate volcanics were found on the property. Several outcrops located between L500E and 504E at about 497N were originally called intermediate, but later evaluation indicates that they are more likely altered felsic and altered mafic rocks.

Unit 2a - Intermediate Tuff

This unit outcrops frequently along the southern edge of the property. It is similar to the Unit 1a mafic tuff except that the felsic bands are more prominent, comprising up to 70% of the rock. Discrimination between the mafic and intermediate tuffs was based on the visually determined percentage of mafic minerals with >50% being considered mafic and <50% intermediate. No distinct contact between the two units was found.

Unit 3 - Felsic Volcanic Flows

A 150 meter to 400 meter wide band of felsic volcanic rocks was mapped throughout the central portion of the property. At its best "type" outcrop, L494E/497+45N, it is buff coloured, extremely fine grained, and consists of quartz and feldspar with almost no mafic component. This unit is typically massive and breaks with a conchoidal fracture.

Unit 3a - Felsic Tuff

No fine-grained crystal tuffs were observed on the property.

Unit 3b - Felsic Volcanics - Gneissic

This unit was observed frequently in the central felsic volcanic horizon on the property and accounts for just over half of all felsic volcanic outcrops. Compositionally it varies little from the Unit 3 flows, except that it occasionally has minor biotite along the foliation planes. This unit is typically well foliated and tends to break along the foliation planes rather than conchoidally. It is

generally buff coloured with a fine to medium-grained texture.

Unit 3c - Felsic Volcanic Agglomerate or Breccia

This unit was observed in four outcrops between line 490E and 493E at approximately 498+75N. It consists of coarse felsic fragments up to 8 inches square within a mafic matrix consisting of biotite and quartz. The actual dimensions of the unit are hard to determine as it is cut by numerous dykes and sills of both mafic and felsic intrusive rocks. However, it does not appear to be more than 25 to 50 meters wide.

Unit 3d - Felsic Fragmentals (Approx. 1" Diameter Fragments)

This unit was observed in outcrop at two locations on the property: the first at L515E/496+40N and the second at L522E/496+50N. At both locations the unit consists of 1-2" diameter stretched felsic fragments which are most prominent on the weathered surface and almost impossible to distinguish on fresh surfaces. The effects of hydrothermal alteration are apparent at both locations, appearing as an increase in the biotite content (up to 15%). No matrix as such was observed between the fragments, but the fine planes of biotite may represent the boundaries of each individual clast.

Unit 4 - Clastic Sediments

No clastic sediments were observed on the property.

Unit 4a - Chert Magnetite Iron Formation

This unit outcrops along the southern edge of the property creating a prominent magnetic high on the geophysical maps. It consists mainly of alternating bands of magnetite and chert approximately 1 centimeter wide, with up to 2% pyrite associated with the magnetite in some locations. The true width of the unit has not been determined, but it appears to be less than 25 meters.

Unit 4b - Chert Magnetite-Pyrite Iron Formation

See Unit 4a. Pyrite does not occur in major concentrations in any of the iron formations on the property.

Unit 4c - Metadolomite

This unit was observed in two outcrops on the property: the first at 484E/492+50W and the second on an island at the east end of Gerry Lake. It is buff to pale green, fine grained, and when powdered it effervesces in cold HCl. The unit appears to be discontinuous and narrow and lies stratigraphically below the main iron formation along the southern edge of the property.

Unit 4d - Siliceous Cherty Sediment

This unit occurs intermittently along the southern iron formation. It is buff coloured, very fine grained and poorly foliated. It appears to consist mainly of chert and quartz and may just be magnetite free sections of the iron formation.

Unit 5 - Quartz Feldspar Porphyry

Only one Quartz Feldspar Porphyry dyke was seen on the property. It extends between L504E and L506E at approximately 495+25N.

This rock is pale grey with poorly formed, indistinct feldspar phenocrysts, and prominent quartz-eyes. It is less than 3 meters in width and concordant to stratigraphy.

Unit 6 - Mafic Intrusive - Diorite to Gabbro

This unit outcrops frequently in a wide band across the central portion of the property both to the north and south of the felsic horizon. It is very similar in composition to the Unit 1 mafic volcanics and may in part be a recrystallized volcanic rock. It is typically dark green to greenish black and fine to medium grained, consisting of 55-75% hornblende and 25-45% feldspar.

Unit 7 - Felsic Intrusive - Granite

This unit outcrops frequently along the northern edge of the property, as well as occurring as dykes along the contact zone between the main granite body and the mafic volcanics. It is pink to almost white, medium grained, equigranular, and consists of approximately 40-45% quartz, 50% feldspar and 10% or less biotite.

6.2 Stratigraphy and Structural Geology

Geological mapping on the Gerry North property was carried out on a 200-meter cut grid with fill-in pace and compass lines at 100-meter intervals to the south the baseline. Outcrop was better than anticipated with up to 10% outcrop in the areas underlain by volcanic rocks and approximately 30% in the granitic terrain along the property's northern edge. To the west of the property overburden depth increases considerably as evidenced by numerous sand and gravel pits along the side of the road.

The mapping program carried out in June, 1985, indicated a north to south succession of lithologies as follows:

- a) Coarse-grained equigranular pink granite.
- b) Mixed mafic volcanics and medium-grained diorites and gabbros.
- c) Felsic volcanic flows, some of which are almost gneissic, as well as felsic fragmentals and agglomerates or breccias.
- d) Mixed mafic volcanics and mafic intrusives.
- e) Felsic tuffs.
- f) Mafic tuffs.
- g) Chemical sediments - metadolomite to chert magnetite iron formation.
- h) Mafic intermediate tuffs.

This series of lithologies, particularly the presence of the iron formation, seems to indicate that the property is situated within a portion of the mainly felsic and sedimentary central unit of the Cycle 3 volcanics, and covers ground potentially favourable to Cu-Zn mineralization.

Metamorphic grade on the property appears to be in the upper greenschist - lower amphibolite facies, as evidenced by the presence of scattered small garnets occasionally found in the intermediate tuffs, the overall lack of primary features in the volcanic rock, and the recrystallized and foliated appearance of the felsic volcanics. No contact metamorphic effects were noted on the property.

Structurally the property is interpreted as lying on the northern limb of a northeast trending syncline, the axis of which extends from just west of the South Bay Mine down through Arrow and Horseshoe Lakes, and south of the Norex property. Strikes on the property range from 58° to 75° Azimuth, with consistent south dips ranging from 62° to 85° South. In general, the rocks seem to dip more steeply along the south and east edges of the property. Although no "tops" determination could be made, the OGS regional mapping indicates that "tops" are to the south along the northern limb of the major syncline.

No evidence of faulting was observed on the property.

6.3 Alteration and Mineralization

The 1985 mapping program was successful in outlining two zones of hydrothermal alteration within the felsic volcanic rocks over a strike length of 3.0 kilometers. These zones are interpreted as representing a single horizon along which volcanogenic hydrothermal activity has altered the mineralogy of the original volcanic rock. The minerals most indicative of strong hydrothermal alteration are biotite, cordierite, and anthophyllite, at least two of which are present in both of the zones. To aid in the identification of the zones, 81 rock samples were collected for whole rock major oxide analysis (locations and analyses results are shown on Map #2). In general the samples collected from the visually identified alteration zones show a strong enrichment in %MgO and a strong depletion in %Na₂O.

The strongest zone is situated between Lines 520 and 525E at approximately 496+50N. The host rocks consist of felsic fragmentals, with stretched fragments up to 2"x1" in diameter which are barely discernible on the weathered surface and not visible at all on fresh surfaces. Biotite, anthophyllite and cordierite occur as 6"-2' wide seams within the fragmental unit, frequently with specks of chalcopyrite throughout. These seams are interpreted as being the actual fractures along which the hydrothermal fluids moved and as such represent the most highly altered rock on the property. Whole rock analysis of the seam material gave the following values:

SiO ₂	MgO	Na ₂ O	Cu	Zn
38.31%	18.35%	.01%	42 ppm	122 ppm

The felsic fragmental unit which hosts the seams is also strongly altered throughout its exposure in outcrop. Whole rock analysis of this rock gave the following values:

GERRY NORTH
LITHOGEOCHEMISTRY
NOCKOLDS AVG. FOR
UNALTERED IGNEOUS ROCKS

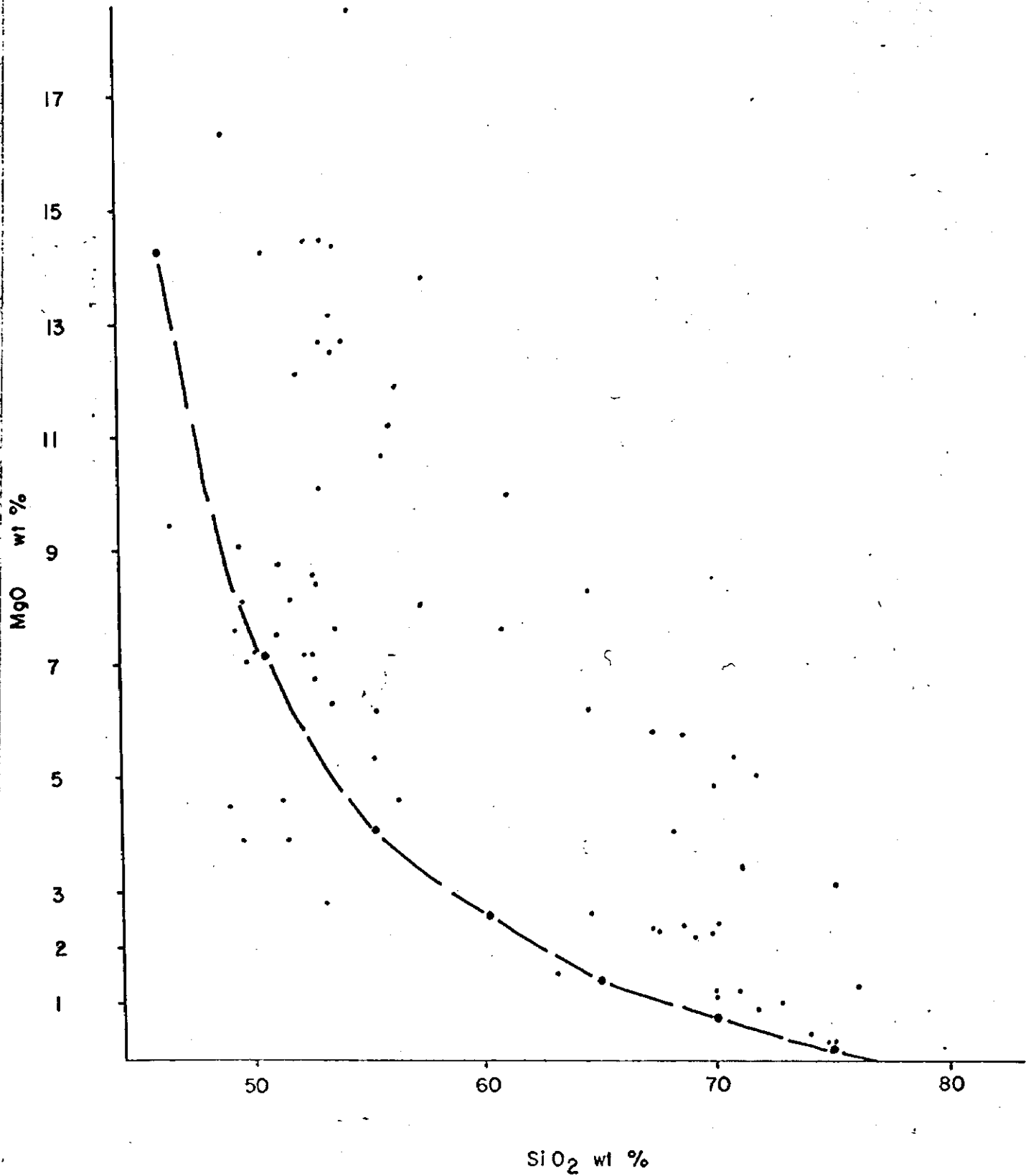


FIG. 3

GERRY NORTH
LITHOGEOCHEMISTRY

— : NOCKOLDS AVG. FOR
UNALTERED IGNEOUS ROCK

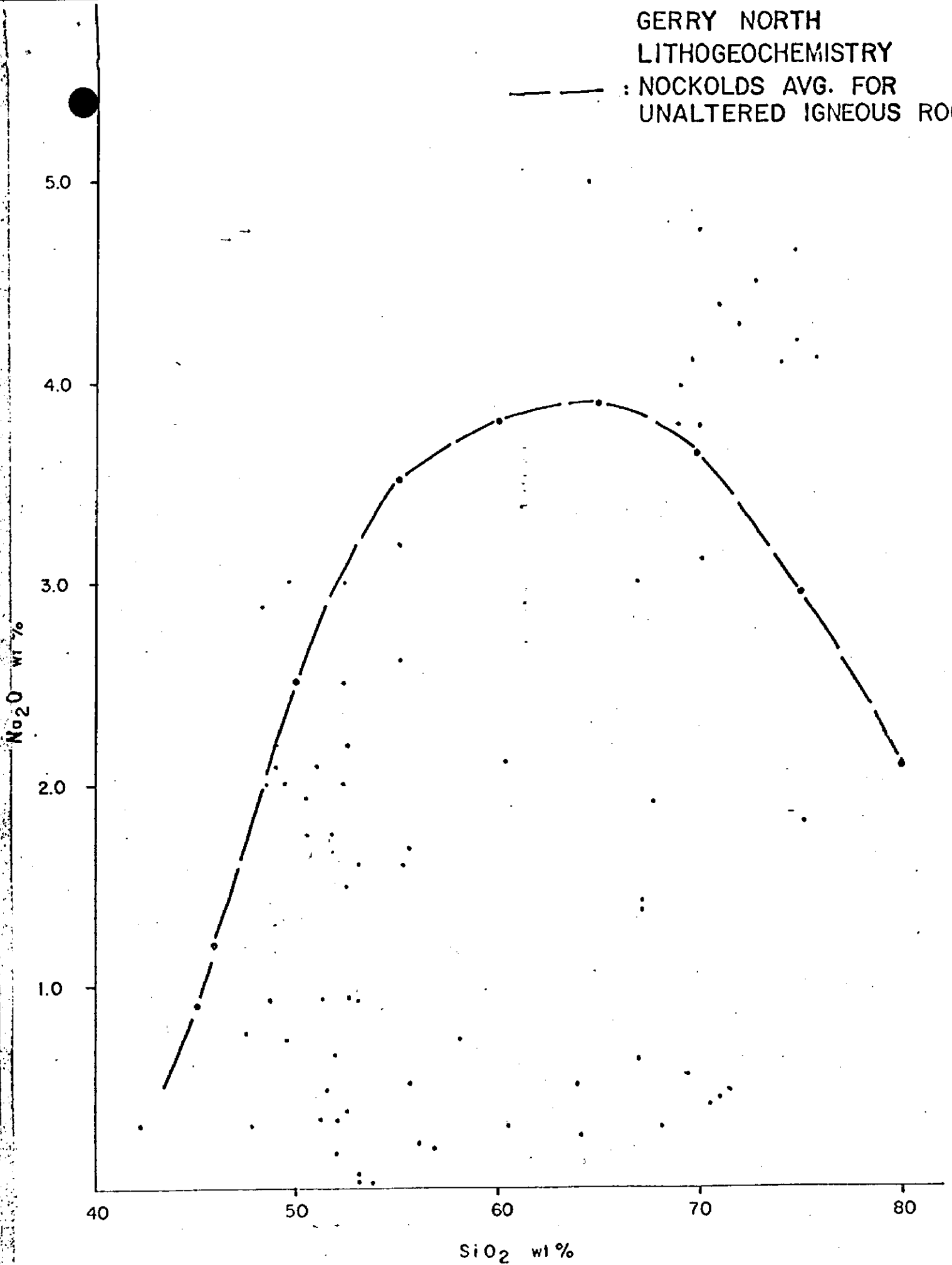


FIG. 4

SiO ₂	MgO	Na ₂ O	Cu	Zn
69.83%	4.82%	.54%	1619 ppm	85 ppm

One sample of this outcrop was taken for petrographic analysis which yielded the following composition:

Quartz	Biotite	Muscovite	Cordierite
48%	25%	5%	22%

The true dimensions of this zone are not known but it has been found intermittently in outcrop over a length of 500 meters and has an estimated width of approximately 50 meters.

The second zone is located between lines 500E and 506E extending from approximately 498N to 495+00N. This zone is considerably different mineralogically from the first zone, but appears to be on approximately the same horizon. The original composition is hard to determine but was probably a felsic tuffaceous rock which has undergone considerable Mg metasomatism, giving the rock a more intermediate composition. The presence of up to 20% coarse biotite and anthophyllite, occurring as stringers and clots, is considered evidence of strong hydrothermal alteration. The true dimensions of this zone are again hard to determine due to the presence of a mafic intrusive body which appears to have been intruded into the central-eastern portion of the alteration zone.

Sulphide mineralization is sparse within this zone, consisting mainly of occasional specks of Py and Cpy. However, one old trench was found on Line 503+75E at 495+25N covering a siliceous band of altered rock with approximately 10% total sulphides consisting of 4% galena, 1-3% sphalerite, 5% pyrite and traces of chalcopyrite. Assays yielded 2.94% Zn, 1.08% Pb, .04% Cu and 1.36 opt Ag. While not economically significant, this mineralization could represent a secondary remobilization of base metals from a major deposit to a quartz vein "sweat" type environment.

Whole rock analysis of a sample of felsic tuff from L504E/496+25N, showing only biotite alteration, gave values as follows:

SiO ₂	MgO	Na ₂ O	Cu	Zn
70.45%	3.52%	1.82%	842 ppm	29 ppm

From the same zone, a more highly altered sample consisting of strong anthophyllite and biotite alteration yielded whole rock values of:

SiO ₂	MgO	Na ₂ O	Cu	Zn
52.02%	12.47%	.16%	38 ppm	134 ppm

The typical MgO enrichment and Na₂O depletion is obvious in both samples.

Note: Averages of Major Oxides in Some Igneous Rocks - Nockolds, 1954 - Table.

7.0 GEOPHYSICS

7.1 Methods And Instrumentation

7.1.1 Crone Pulse EM

The EM survey on Gerry North was carried out using a Crone Pulse EM system manufactured by Crone geophysics of Mississauga, Ontario. The equipment was employed in a Depem mode. The transmitter loops were 300 by 600 meters and were laid to the south in order to be on the up-dip side. The power supply for the transmitter was a 2000-watt motor generator. A 10 msec timebase was used with a ramp shutoff time of 1 msec. The timing between the transmitter and receiver was synchronized by using a remote radio frequency transmitter.

On alternate lines both the horizontal and vertical components were measured at 50-meter intervals, while on the remaining lines only the vertical component was measured at 25-meter intervals. Lines were separated by 200 meters. Eight measurements of the decay were made at each station at predefined intervals during the current-off time.

7.1.2 Horizontal Loop

A MaxMin II Horizontal Loop EM system was employed on the survey area. The instrument is manufactured by Apex Parametrics of Uxbridge, Ontario. Details of the survey are given below:

Line Separation	200 meters
Station Separation	25 meters
Operating Frequencies	444Hz and 1777Hz
Coil Separation	100 meters
Parameters Measured	In-phase and out-of-phase components of the secondary field

7.1.3 Magnetometer

A Scintrex MP-3 Proton Magnetometer was employed on the survey. The instrument is manufactured by Scintrex Ltd. of Concord, Ontario. Measurements of the earth's total geomagnetic field are taken to an accuracy of 0.1 nt. Readings were taken every 25 meters on lines 200 meters apart.

7.2 Discussion of Results

7.2.1 Crone Pulse EM Survey

Twelve kilometers of Depem survey was carried out from L502E to L526E between 495N and 504N. The results of the survey are included in Appendix I.

These results indicate that the property is basically resistive as only the first 2 channels normally show any degree of movement. There are some weak 2-channel or possibly 3-channel responses of little interest. The results are badly effected by a power line running across the property which distorts the measurements over 300 meters.

The most interesting response is on L506E at 49750N. It is a broad 7-channel response on the horizontal component and a very weak 3-channel response on the vertical component. there is no magnetic response associated with the anomaly. A weak response on the vertical component is shown on L508E.

Another weak, but possibly interesting response occurs on Lines 524E and 526E. On 524E the response is defined by the weak 3-channel vertical component response at 496225N. On L526E there is a broad 5-channel response at 49700N, however there is no response on the vertical component.

7.2.2 Horizontal Loop EM

A total of 8.3 kilometers of MaxMin were carried out on the Gerry North grid and results of the two frequencies are plotted on Maps 2 and 3. The area is quite resistive as there is practically no deviation from the zero level even on the 1777 Hz.

The only anomalous response detected is on L482 at 492+10N. The conductance at 444 Hz is 50S, while the depth to the current axis is estimated to be 30 meters. Gossan can be seen on surface. This response was not followed up on other lines as it had been located on previous work by other companies.

7.2.3 Magnetics

The magnetics on the Gerry North property vary from 11330 to -1570 nts with background of 200 to 500 nts.

Generally the magnetics display a northeast trend with little geological correlation. This is due to the erratic distribution of magnetite throughout the various rock types. Three magnetically high zones have been located and labelled "A", "B" and "C". These should be examined for possible alteration.

The iron formation on the southern boundary is discontinuously defined by magnetics over 1000 nts. The discontinuous nature is due to variable thickness and magnetite content.

8.0 CONCLUSIONS

1) The 1985 mapping program outlined an extensive horizon of hydrothermally altered felsic tuffs and fragmentals. At the western end of the alteration, several outcrops of coarse felsic agglomerate or breccia were found. This altered horizon was recognized mineralogically by the presence of biotite, anthophyllite and cordierite, and chemically by anomalous percentages of MgO (enriched) and Na₂O (depleted). Geochemically anomalous values of both copper and zinc are found within the altered rocks.

2) The deep penetrating Pulse EM survey carried out on the property in February of 1985, indicated two weak conductors in close proximity to the altered horizon. These conductors have not been tested to date.

3) Most of the previous work carried out in this area concentrated on the oxide iron formation along the southern edge of the property. This unit strikes onto the Copperlode property and has up to 10% Cp associated with the magnetite. Copperlode has estimated 425,000 tons grading 1.56% Cu for this deposit.

The alteration zone found in the 1985 mapping program lies 200-400 meters stratigraphically below the iron formation.

9.0 RECOMMENDATIONS

- 1) Extend the Pulse EM survey to the west as far as Line 488E.
- 2) Resurvey L504E-510E and L522E-526E and fill in 100-meter lines with transmitter loop on up-dip side of the conductors.
- 3) Fill in Mag survey on 100-meters lines tested with Pulse EM.
- 4) Test alteration zone under best Pulse conductors after resurveying with two 300-meter drill holes.
- 5) Down Hole Pulse on first hole.

Estimated Cost

Linecutting	15 kms @ \$250/km	\$ 4,000
Pulse EM	10 days @ \$800/day	\$ 8,000
Magnetometer	15 kms @ \$100/km	\$ 1,500
Diamond Drilling	600 m @ \$100/m	\$60,000
Down Hole Pulse		\$ 5,000
Engineering		<u>\$ 7,000</u>
	Total	\$80,500

Respectfully submitted

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)



Ian Perry
Project Geologist-Red Lake District
Northwestern Ontario Division

Thunder Bay, Ontario
November 20, 1985

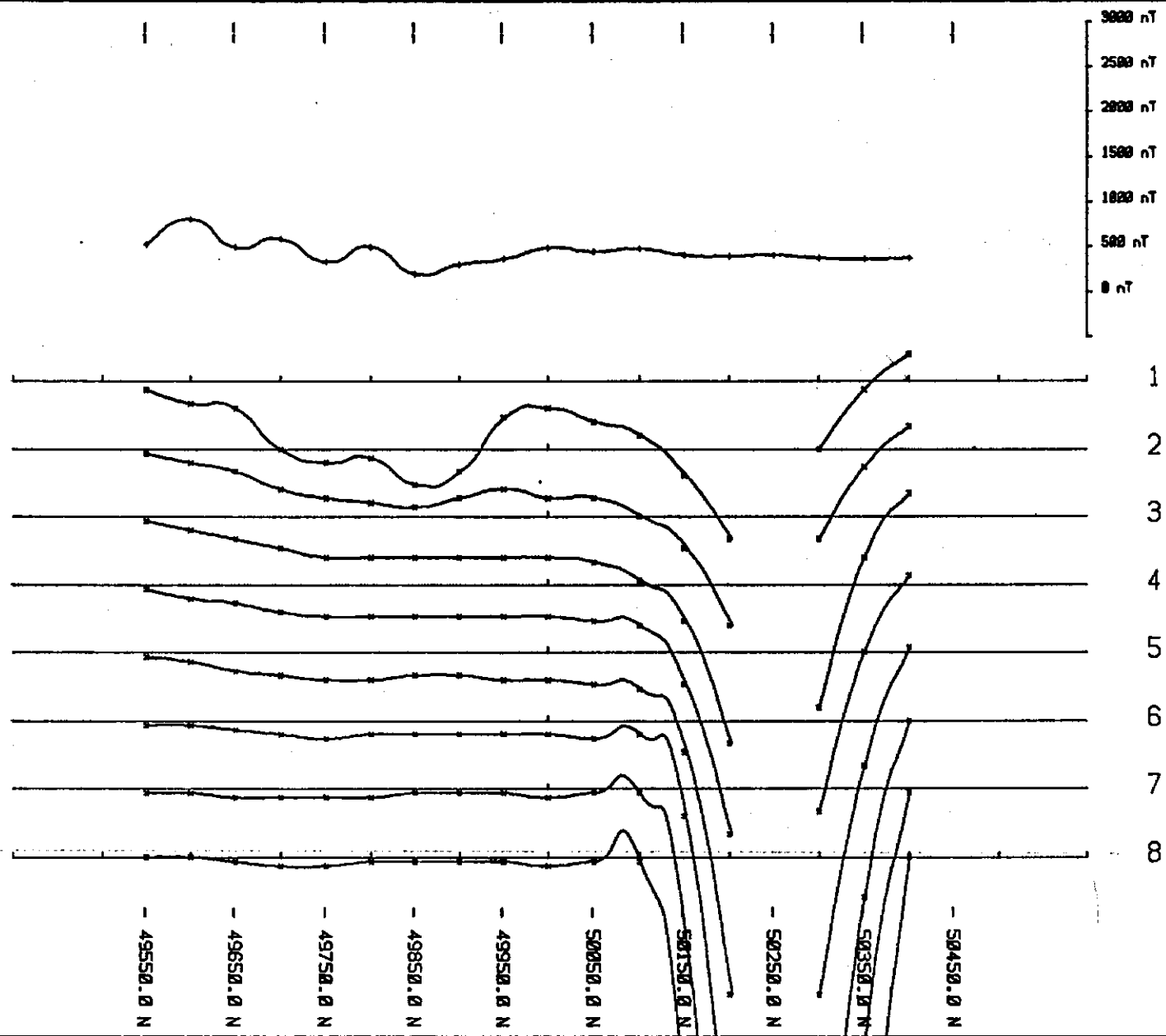


Donald R. Carriere
Division Geophysicist
Northwestern Ontario Division

Thunder Bay, Ontario
November 20, 1985

A P P E N D I X I

PULSE EM PROFILES



MAGNETOMETER SURVEY

DATUM : 8000 nT
 INSTR : UNIMAG
 SCALE : 1:500 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 mS.
 LOOP EDGE AT 49500N
 VERTICAL FIELD



GERRY NORTH

DEEPEM SURVEY

LINE : 502E

FILE BIGN502V.PEM PROJECT 1340

SCALE 1:115000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : 52/K/14

NORANDA EXPLORATION

MAGNETOMETER SURVEY

DATUM : 60000 nT
 INSTR : UNIMAG
 SCALE : 1:500 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 18 μ S.
 LOOP EDGE AT 49500N
 HORIZONTAL FIELD



GERRY NORTH

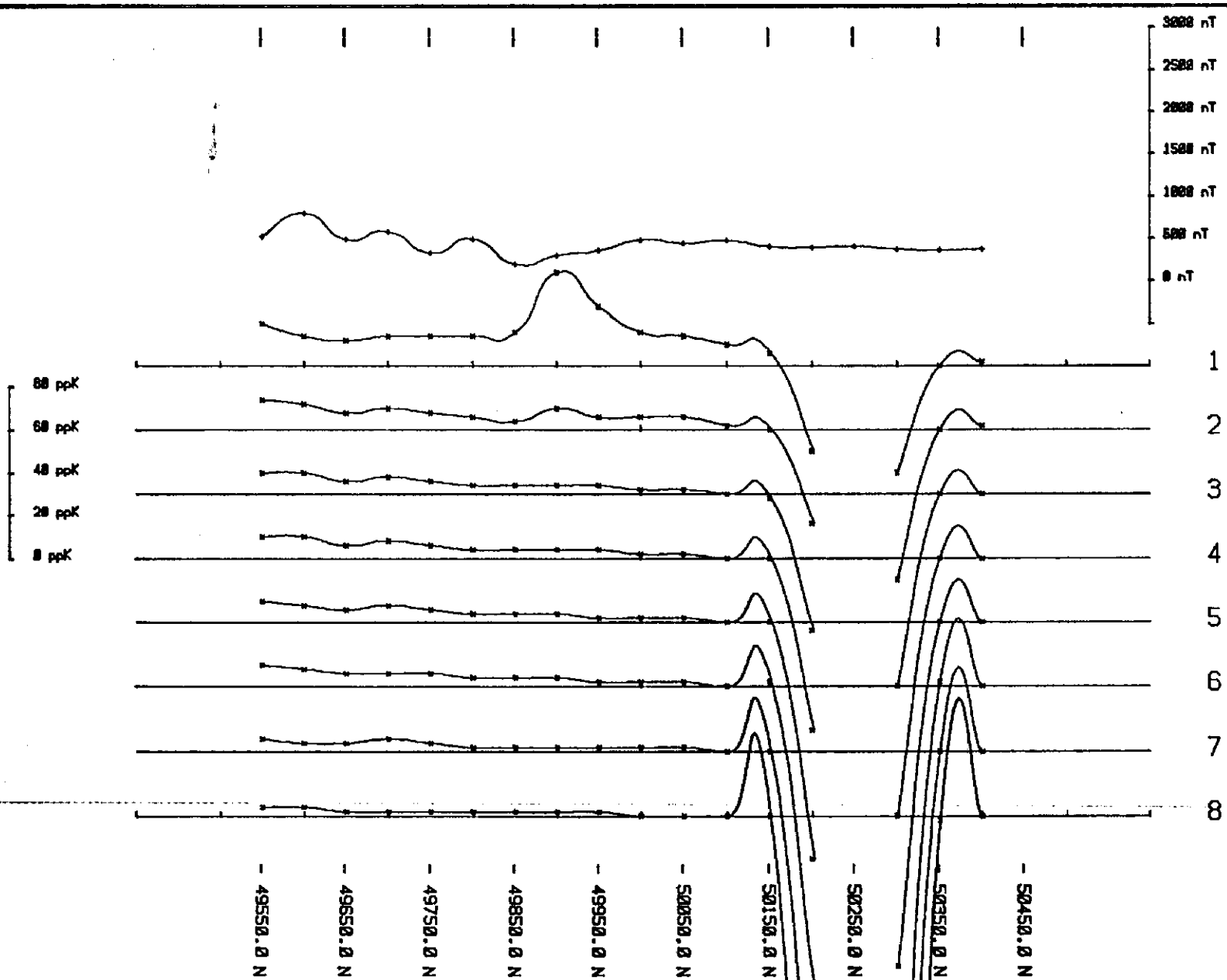
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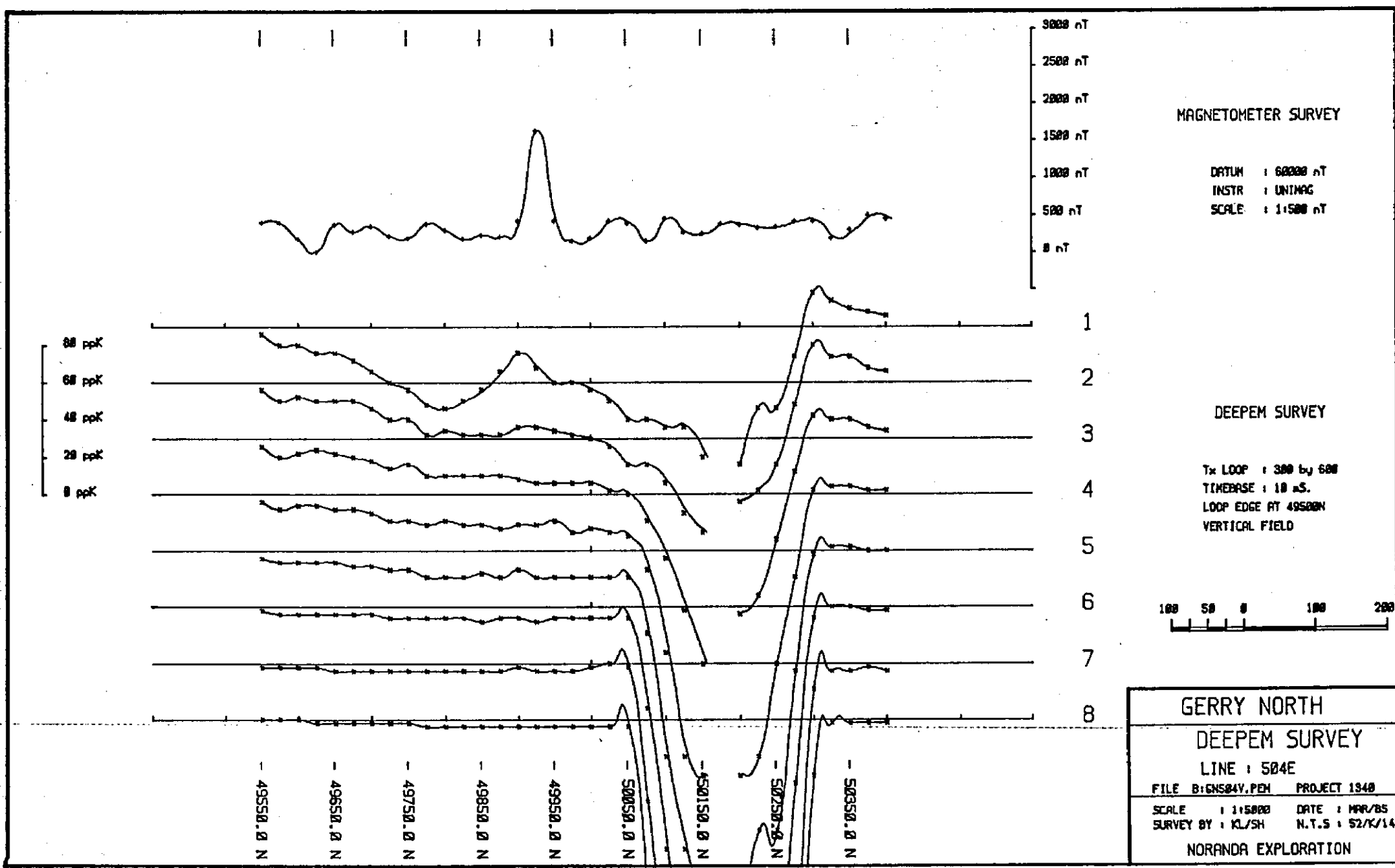
LINE : 502E

FILE B:\GNS82H.PEM PROJECT 1340

SCALE : 1:15000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : 52/K/14

NORANDA EXPLORATION





MAGNETOMETER SURVEY

DATUM : 60000 nT
 INSTR : UNIMAG
 SCALE : 1:500 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 nS.
 LOOP EDGE AT 49500N
 VERTICAL FIELD

GERRY NORTH

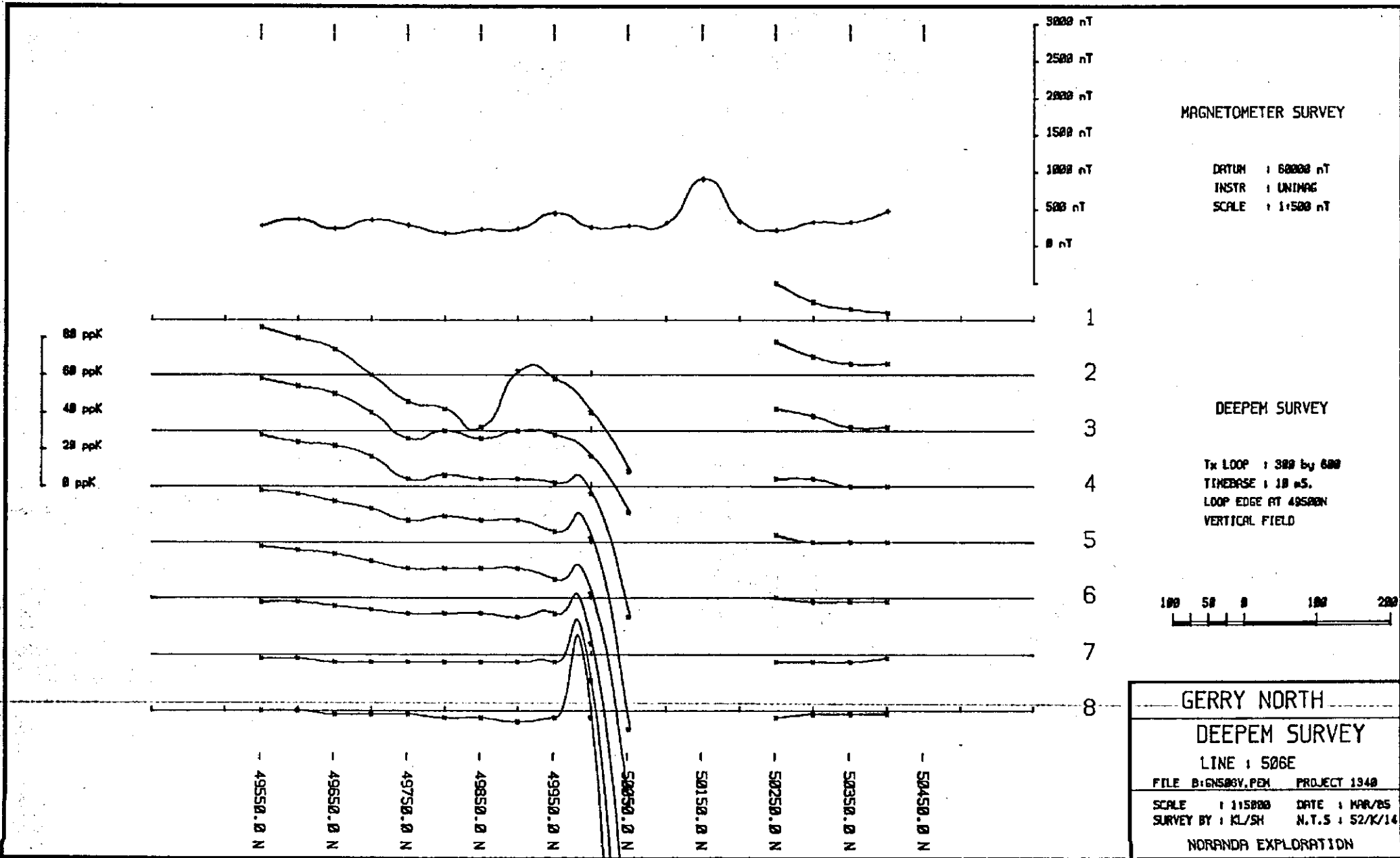
DEEPEM SURVEY

LINE : 504E

FILE B:\GNS04V.PEN PROJECT 1940

SCALE : 1:5000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : 52/K/14

NORANDA EXPLORATION



3000 nT
 2500 nT
 2000 nT
 1500 nT
 1000 nT
 500 nT
 0 nT

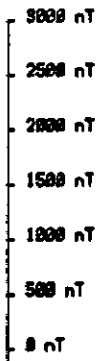
1
 2
 3
 4
 5
 6
 7
 8

80 ppK
 60 ppK
 40 ppK
 20 ppK
 0 ppK

- 49550.0 N
 - 49650.0 N
 - 49750.0 N
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 - 50450.0 N

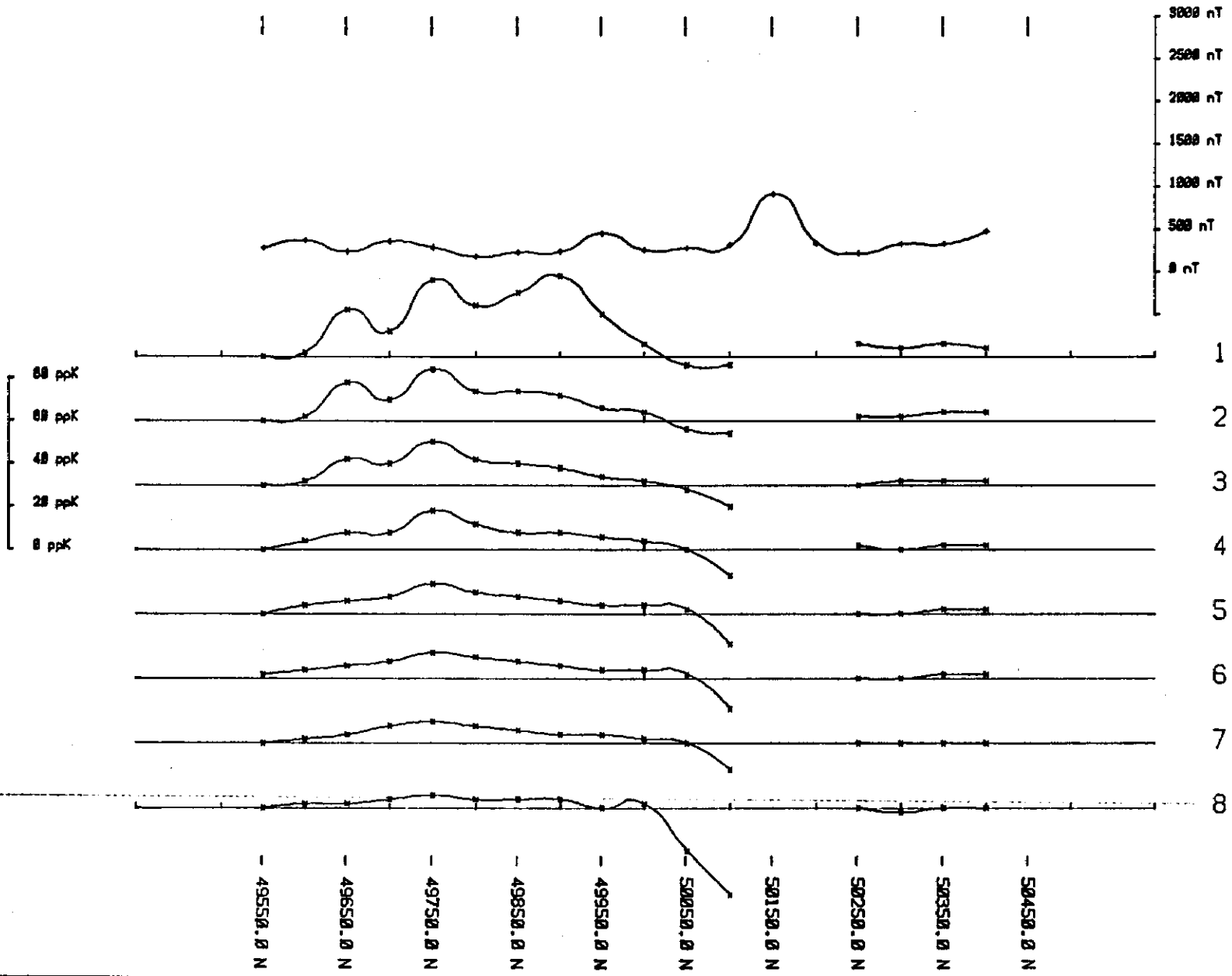
MAGNETOMETER SURVEY

DATUM : 8000 nT
 INSTR : UNIMAG
 SCALE : 1:500 nT



DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 μ S.
 LOOP EDGE AT 49500N
 HORIZONTAL FIELD



GERRY NORTH

DEEPEM SURVEY

LINE : 506E

FILE B:\6508H.PEM PROJECT 1348

SCALE : 1:5000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : 52/K/14

NORANDA EXPLORATION

3000 nT
 2500 nT
 2000 nT
 1500 nT
 1000 nT
 500 nT
 0 nT

MAGNETOMETER SURVEY

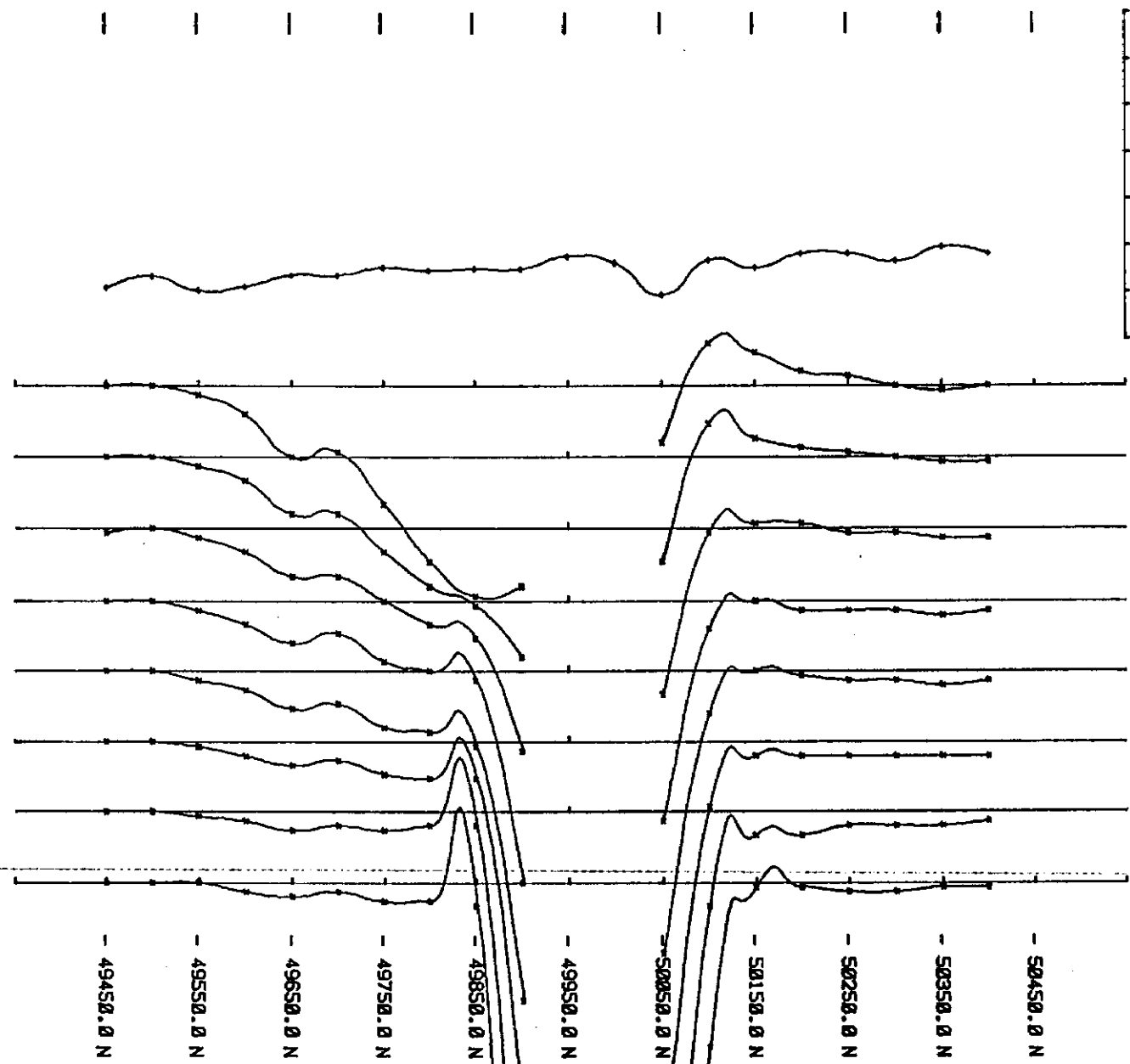
DATUM : 60000 nT
 INSTR : UNIMAG
 SCALE : 1:500 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 uS.
 LOOP EDGE AT 49500N
 VERTICAL FIELD



1
 2
 3
 4
 5
 6
 7
 8



8
 7
 6
 5
 4
 3
 2
 1

- 49450.0 N
 - 49550.0 N
 - 49650.0 N
 - 49750.0 N
 - 49850.0 N
 - 49950.0 N
 - 50050.0 N
 - 50150.0 N
 - 50250.0 N
 - 50350.0 N
 - 50450.0 N

GERRY NORTH

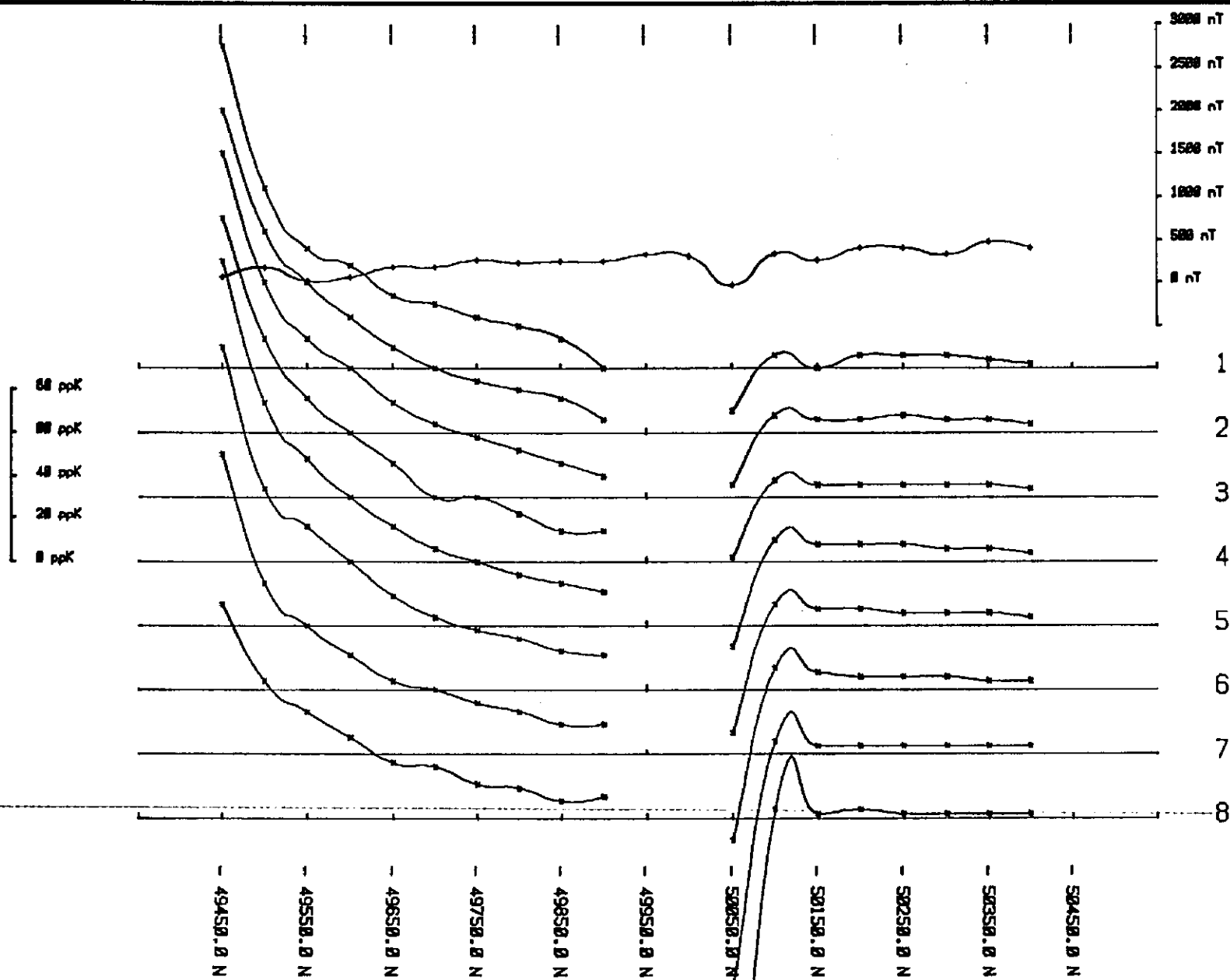
DEEPEM SURVEY

LINE : S10E

FILE 01GNS10Y.PEM PROJECT 1340

SCALE : 1:15000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : 52/K/14

NORANDA EXPLORATION



MAGNETOMETER SURVEY

DATUM : 8000 nT
 INSTR : UNIMAG
 SCALE : 1:500 nT

DEEPEM SURVEY

Tx LOOP : 300 by 800
 TIMEBASE : 10 mS.
 LOOP EDGE AT 49500N
 HORIZONTAL FIELD



GERRY NORTH

DEEPEM SURVEY

LINE : 510E

FILE D:\GNS10H.PEM PROJECT 1948

SCALE : 1:15000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : 52/K/14

NORANDA EXPLORATION

MAGNETOMETER SURVEY

DATUM : 6000 nT
 INSTR : UNIMAG
 SCALE : 1:1500 nT

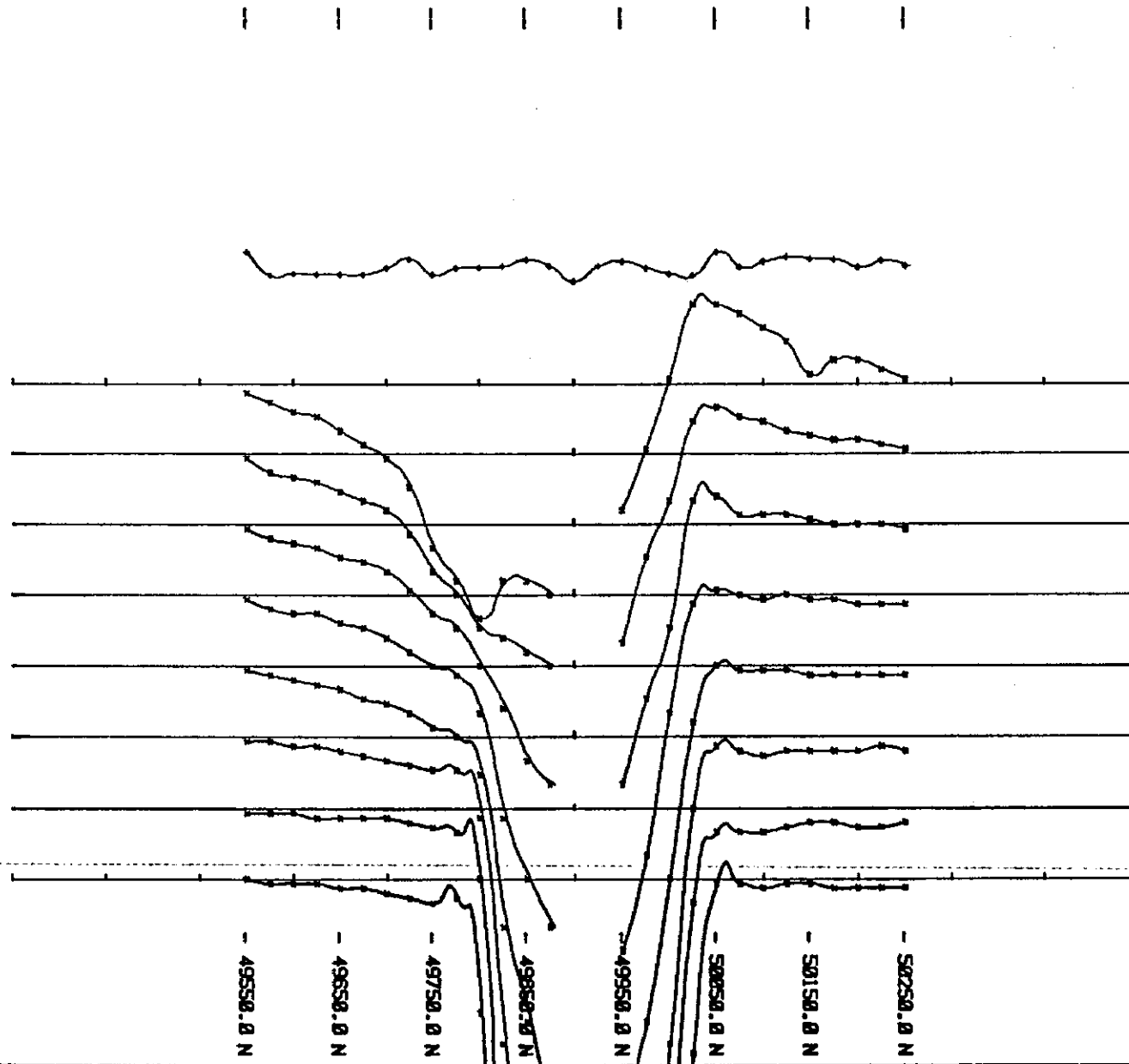
3000 nT
 2500 nT
 2000 nT
 1500 nT
 1000 nT
 500 nT
 0 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 nS.
 LOOP EDGE AT 49500N
 VERTICAL FIELD

100 50 0 100 200

80 ppK
 60 ppK
 40 ppK
 20 ppK
 0 ppK



1
 2
 3
 4
 5
 6
 7
 8

GERRY NORTH

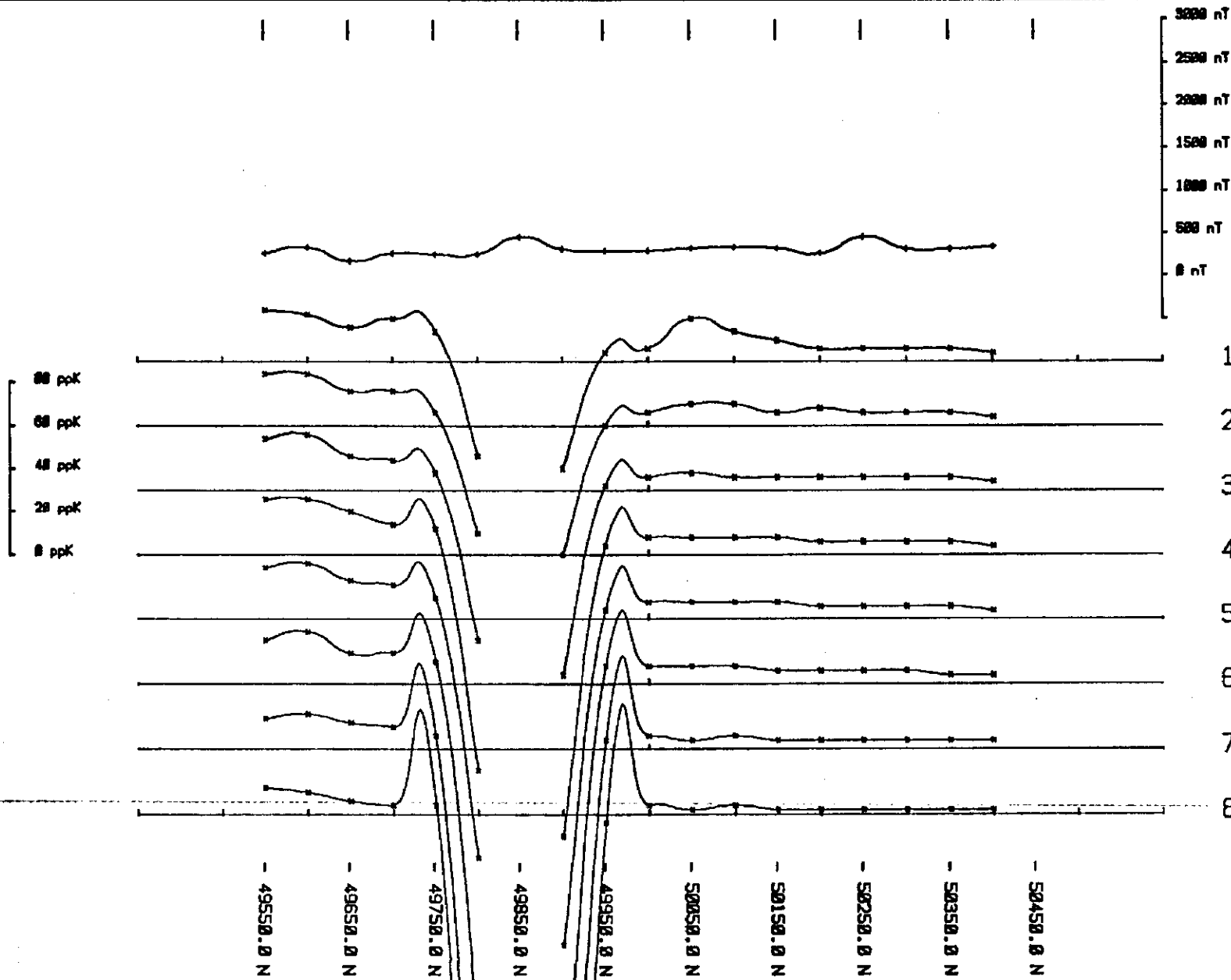
DEEPEM SURVEY

LINE : 512E

FILE D:\G512V.PEM PROJECT 1948

SCALE : 1:15000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.5 : 52/K/14

NORANDA EXPLORATION



MAGNETOMETER SURVEY

DATUM : 60000 nT
 INSTR : UMIMAG
 SCALE : 1:500 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 μ S.
 LOOP EDGE AT 495000
 HORIZONTAL FIELD



GERRY NORTH

DEEPEM SURVEY

LINE : 514E

FILE B:\GNS14H.PEM PROJECT 1840

SCALE : 1:5000 DATE : MAR/05
 SURVEY BY : KL/SH N.T.5 : 52/K/14

NORANDA EXPLORATION

MAGNETOMETER SURVEY

DATUM : 6000 nT
 INSTR : UNIVAC
 SCALE : 1:1500 nT

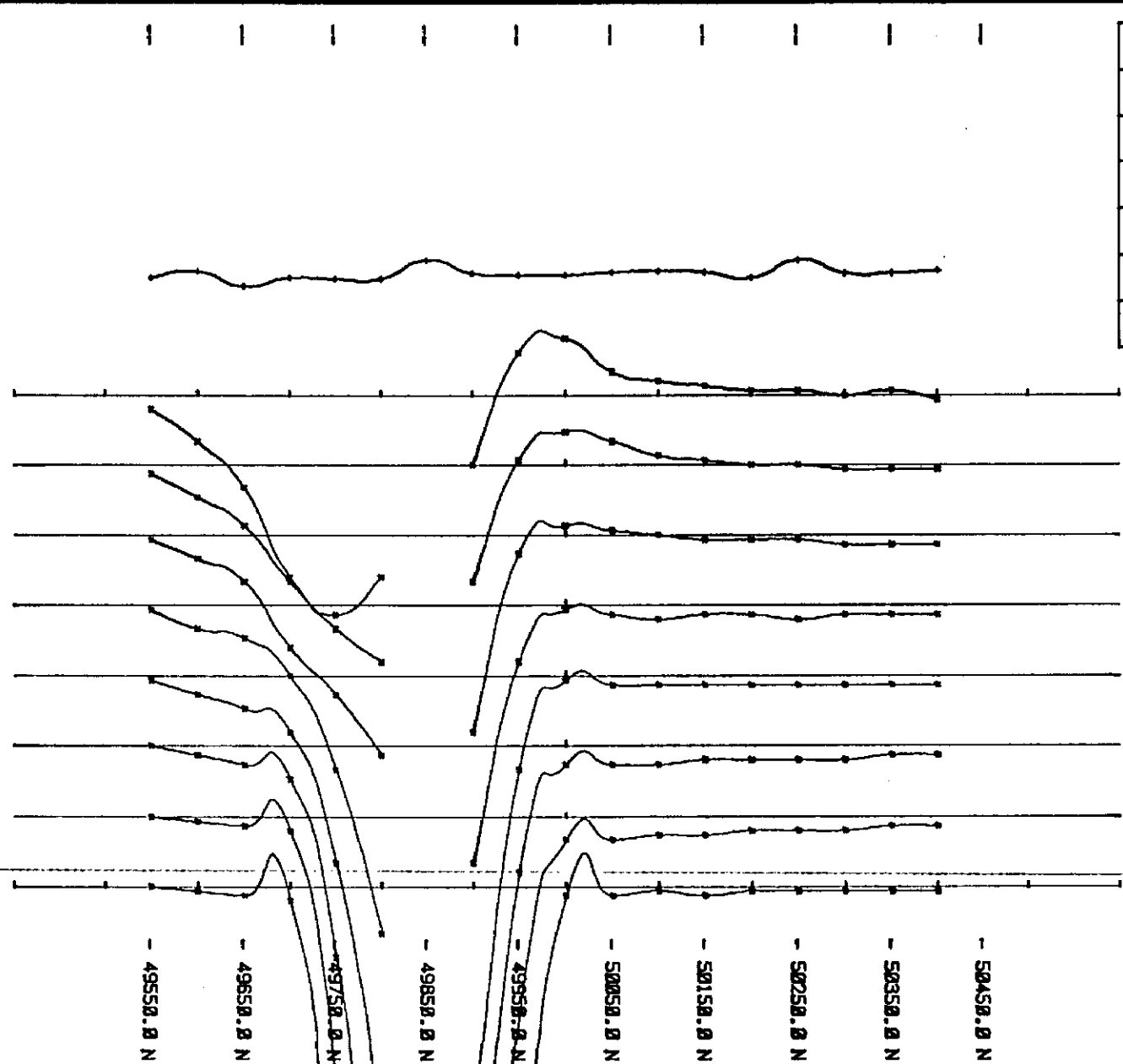
3000 nT
 2500 nT
 2000 nT
 1500 nT
 1000 nT
 500 nT
 0 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 1.0 mS.
 LOOP EDGE AT 49500N
 VERTICAL FIELD



80 ppk
 60 ppk
 40 ppk
 20 ppk
 0 ppk



- 49550.0 N
 - 49650.0 N
 - 49750.0 N
 - 49850.0 N
 - 49950.0 N
 - 50050.0 N
 - 50150.0 N
 - 50250.0 N
 - 50350.0 N
 - 50450.0 N

GERRY NORTH

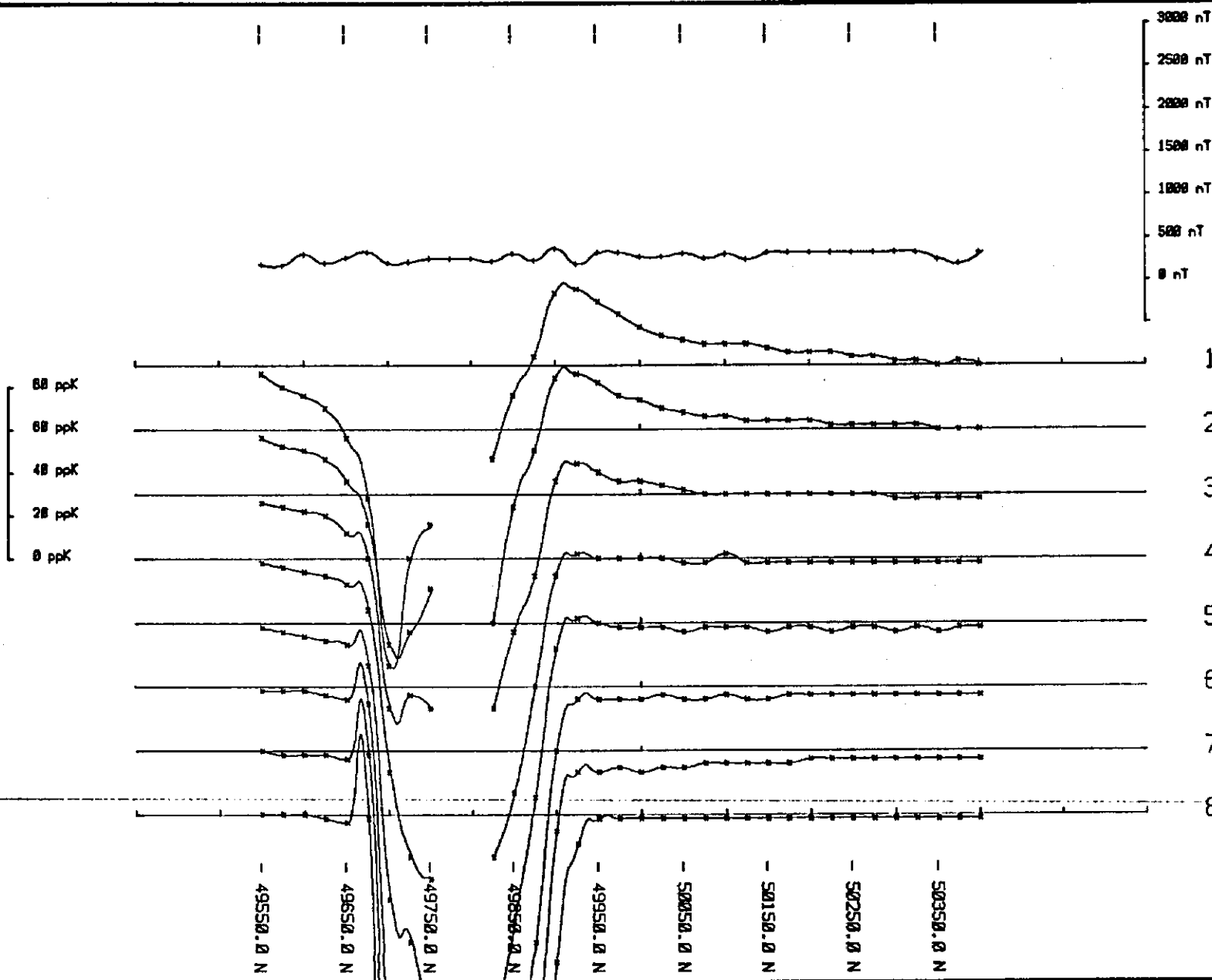
DEEPEM SURVEY

LINE : 514E

FILE B1GNS14V.PEM PROJECT 1940

SCALE : 1:15000 DATE : MAR/85
 SURVEY BY : KJ/SH N.T.S : 52/K/14

NORANDA EXPLORATION



MAGNETOMETER SURVEY

DATUM : 6000 nT
 INSTR : UNIMAG
 SCALE : 1:500 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 nS.
 LOOP EDGE AT 49500N
 VERTICAL FIELD



GERRY NORTH

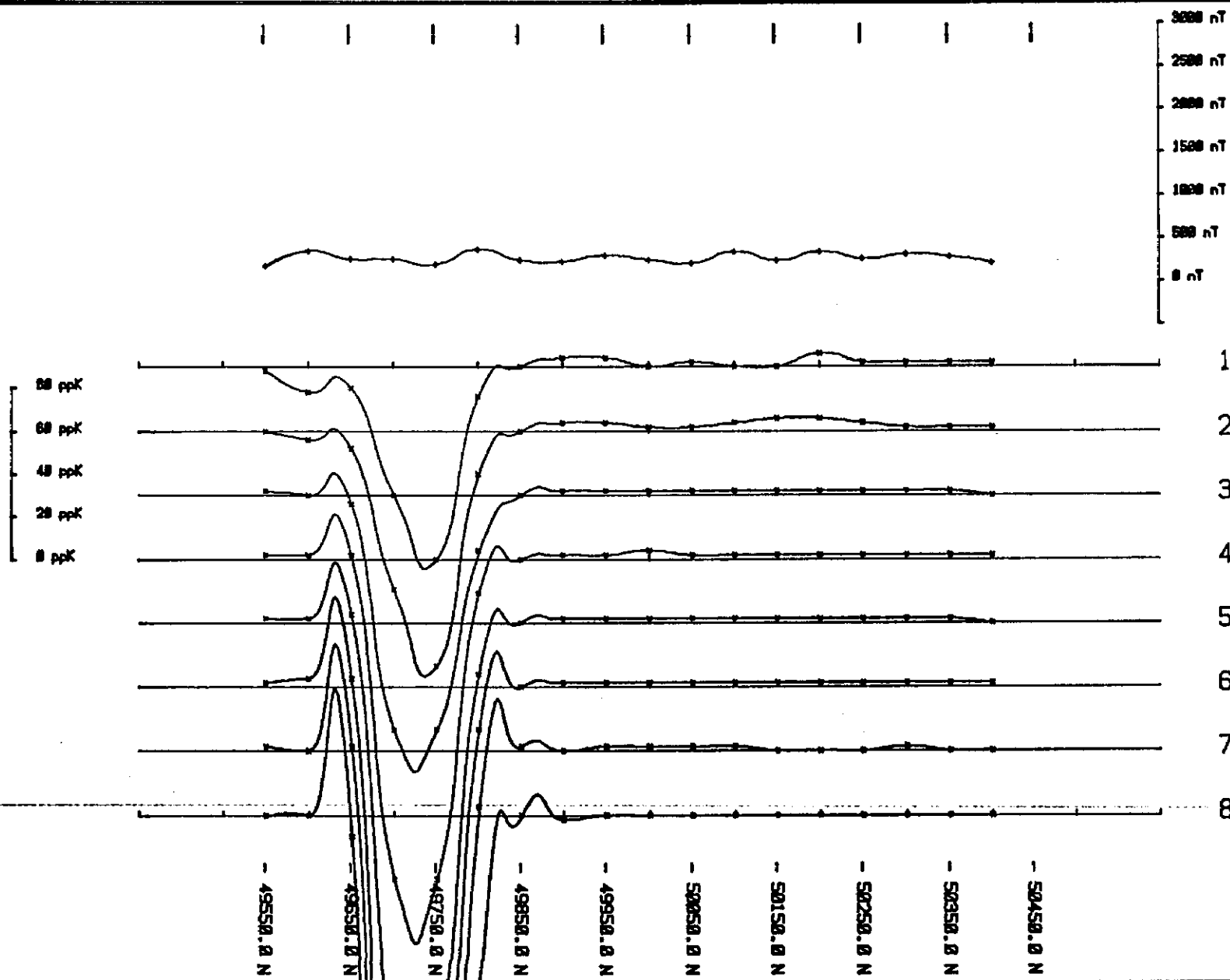
DEEPEM SURVEY

LINE : 516E

FILE 0:EN518V.PEM PROJECT 1948

SCALE : 1:5000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.5 : 52/K/14

NORANDA EXPLORATION



MAGNETOMETER SURVEY

DATUM : 60000 nT
 INSTR : UNTHAG
 SCALE : 1:500 nT

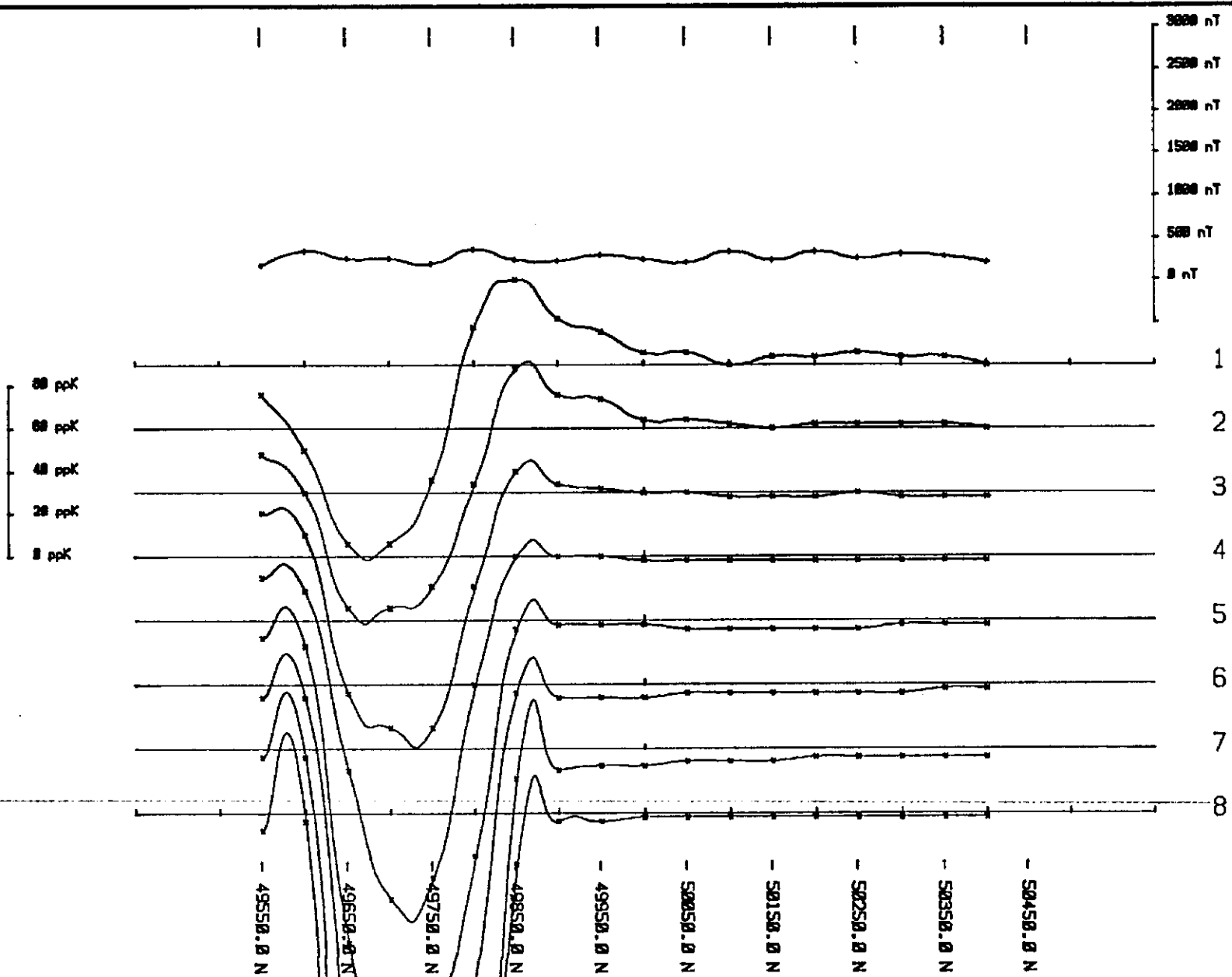
DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 nS.
 LOOP EDGE AT 49500N
 HORIZONTAL FIELD



GERRY NORTH
 DEEPEM SURVEY

LINE : 518E
 FILE B:\GNS18H.PEM PROJECT 1348
 SCALE : 1:5000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : 52/K/14
 NORANDA EXPLORATION



MAGNETOMETER SURVEY

DATUM : 60000 nT
 INSTR : UNIMAG
 SCALE : 1:500 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 nS.
 LOOP EDGE AT 49500N
 VERTICAL FIELD



GERRY NORTH

DEEPEM SURVEY

LINE : 518E

FILE B:\GNS18Y.PEM PROJECT 1948

SCALE : 1:5000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : S2/K/14

NORANDA EXPLORATION

MAGNETOMETER SURVEY

DATUM : 60000 nT
 INSTR : UNIMAG
 SCALE : 1:1500 nT

3000 nT
 2500 nT
 2000 nT
 1500 nT
 1000 nT
 500 nT
 0 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 mS.
 LOOP EDGE AT 49500N
 VERTICAL FIELD



GERRY. NORTH

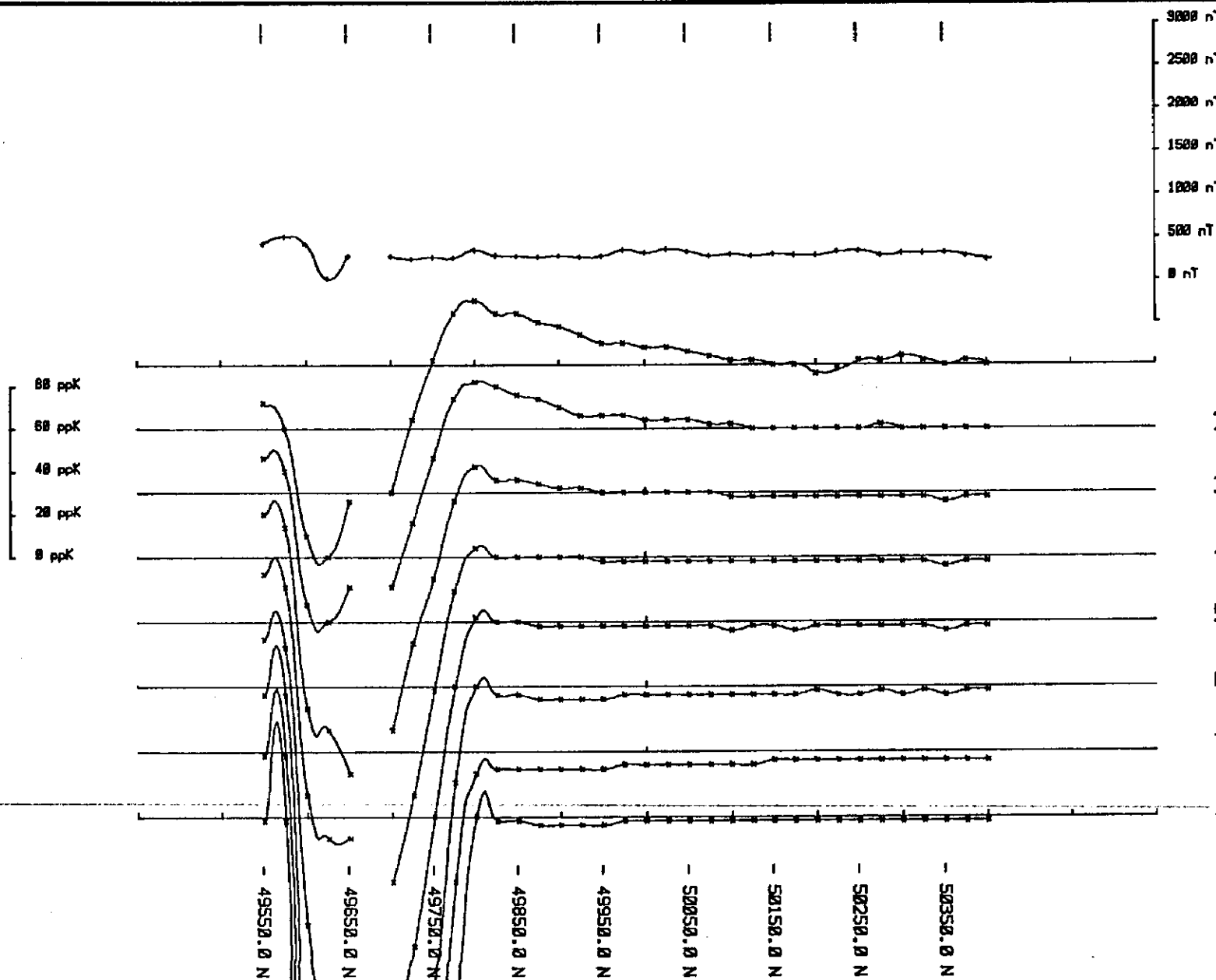
DEEPEM SURVEY

LINE : 520E

FILE B1GNS20V.PEM PROJECT 1940

SCALE : 1:15000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : 52/K/14

NORANDA EXPLORATION



MAGNETOMETER SURVEY

DATUM : 60000 nT
 INSTR : UNIMAG
 SCALE : 1:500 nT

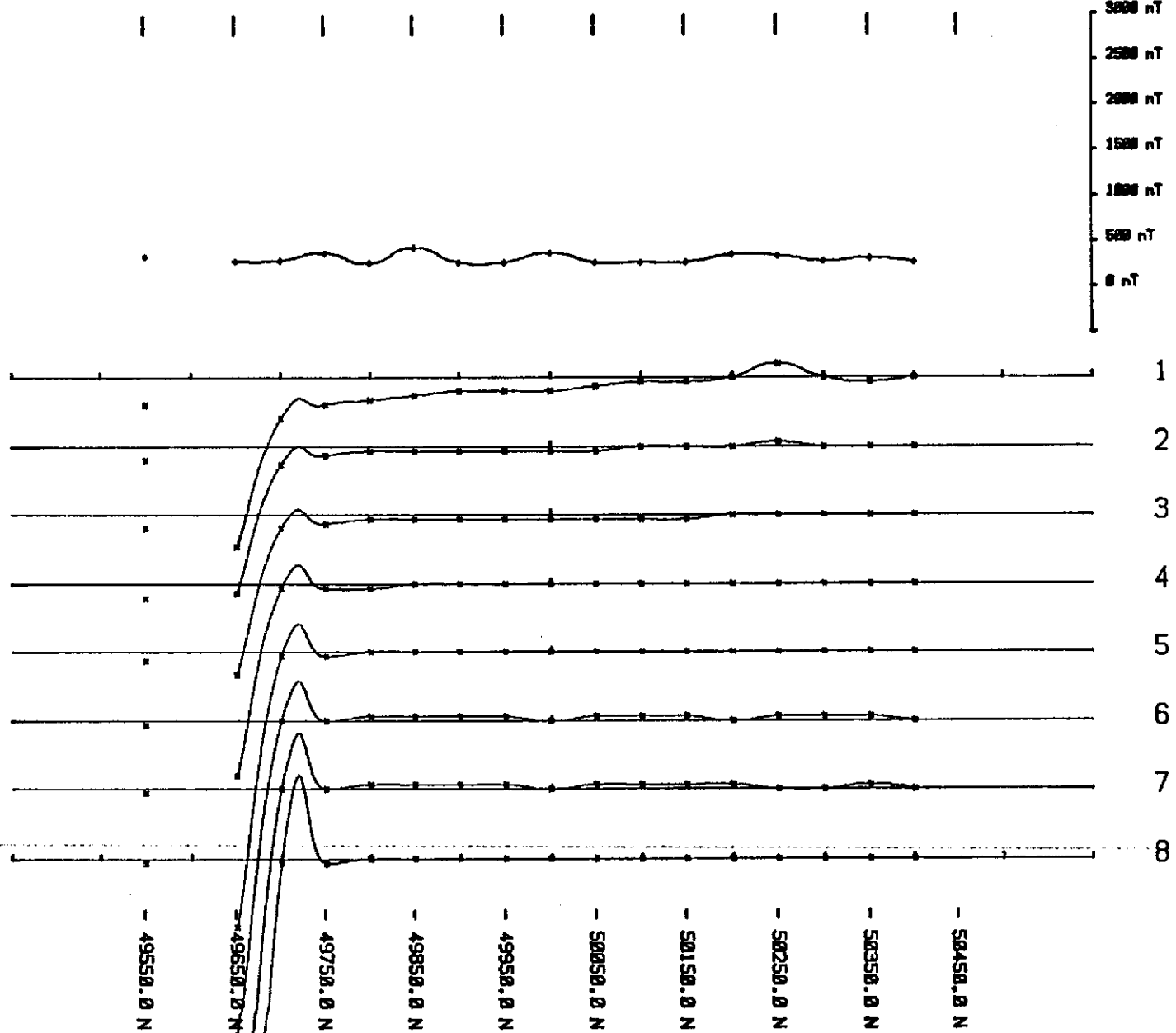
3000 nT
 2500 nT
 2000 nT
 1500 nT
 1000 nT
 500 nT
 0 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 nS.
 LOOP EDGE AT 495000N
 HORIZONTAL FIELD

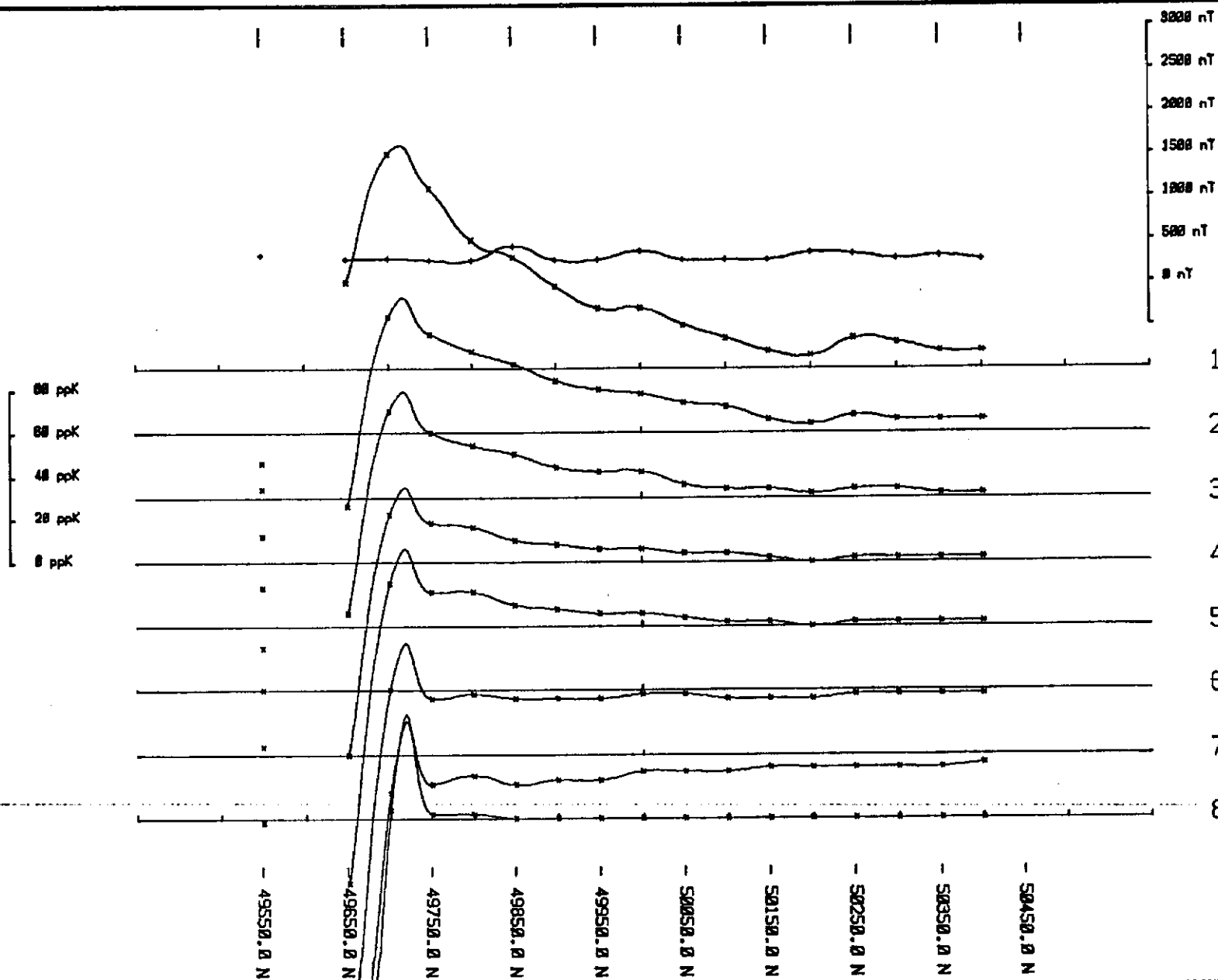


80 pK
 60 pK
 40 pK
 20 pK
 0 pK



GERRY NORTH
 DEEPEM SURVEY
 LINE : S22E

FILE B:\G522H.PEM PROJECT 1348
 SCALE : 1:15000 DATE : MAR/85
 SURVEY BY : KL/SJ N.T.S : S2/K/14
 NORANDA EXPLORATION



MAGNETOMETER SURVEY

DATUM : 60000 nT
 INSTR : UNIMAG
 SCALE : 1:1500 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 mS.
 LOOP EDGE AT 49550N
 VERTICAL FIELD



GERRY NORTH

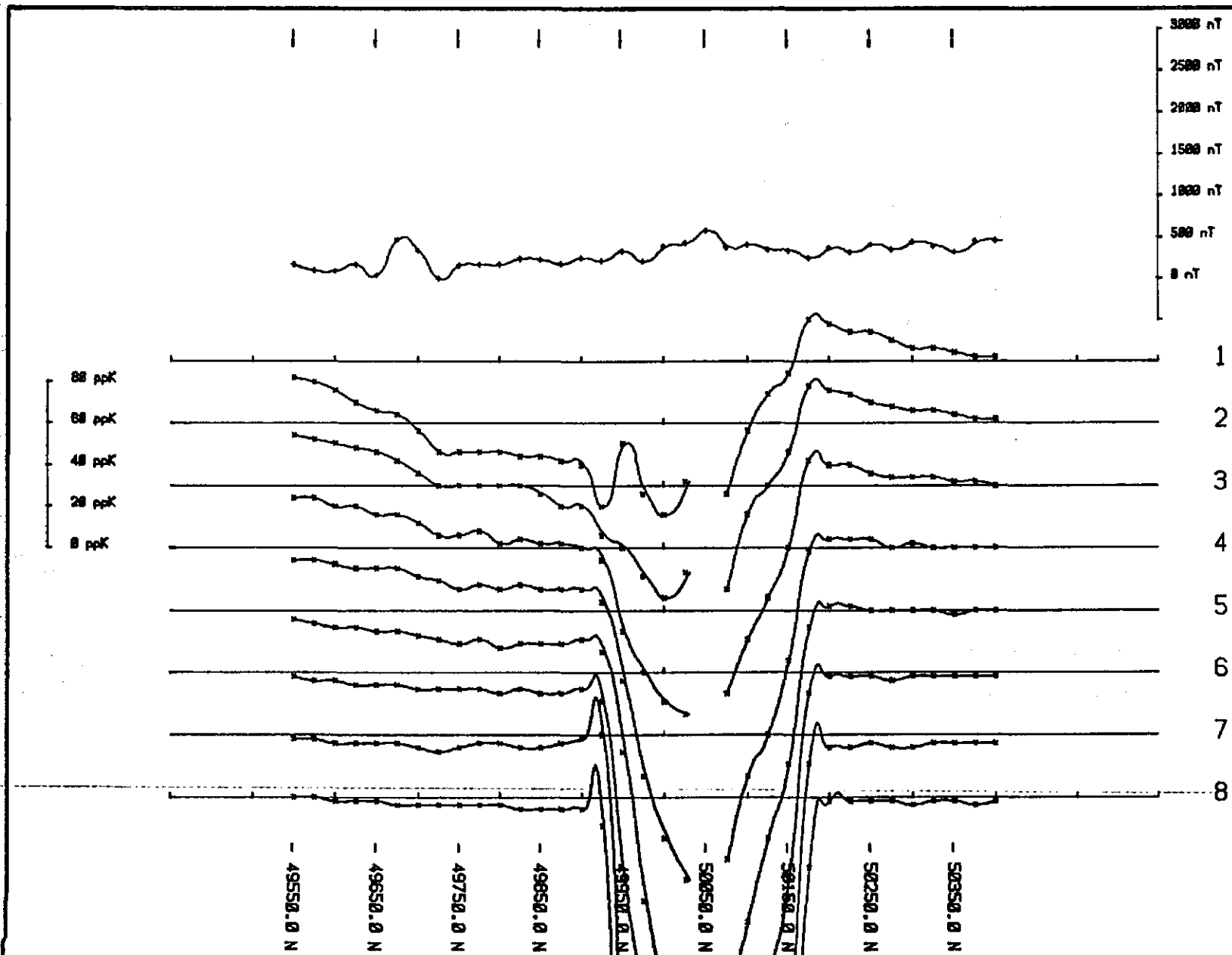
DEEPEM SURVEY

LINE : 522E

FILE B:GNS22V.PEM PROJECT 1948

SCALE : 1:15000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : 52/K/14

NORANDA EXPLORATION



3000 nT
 2500 nT
 2000 nT
 1500 nT
 1000 nT
 500 nT
 0 nT

MAGNETOMETER SURVEY

DATUM : 60000 nT
 INSTR : UNIMAG
 SCALE : 1:500 nT

1
 2
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DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 18 mS.
 LOOP EDGE AT 49500N
 VERTICAL FIELD



GERRY NORTH

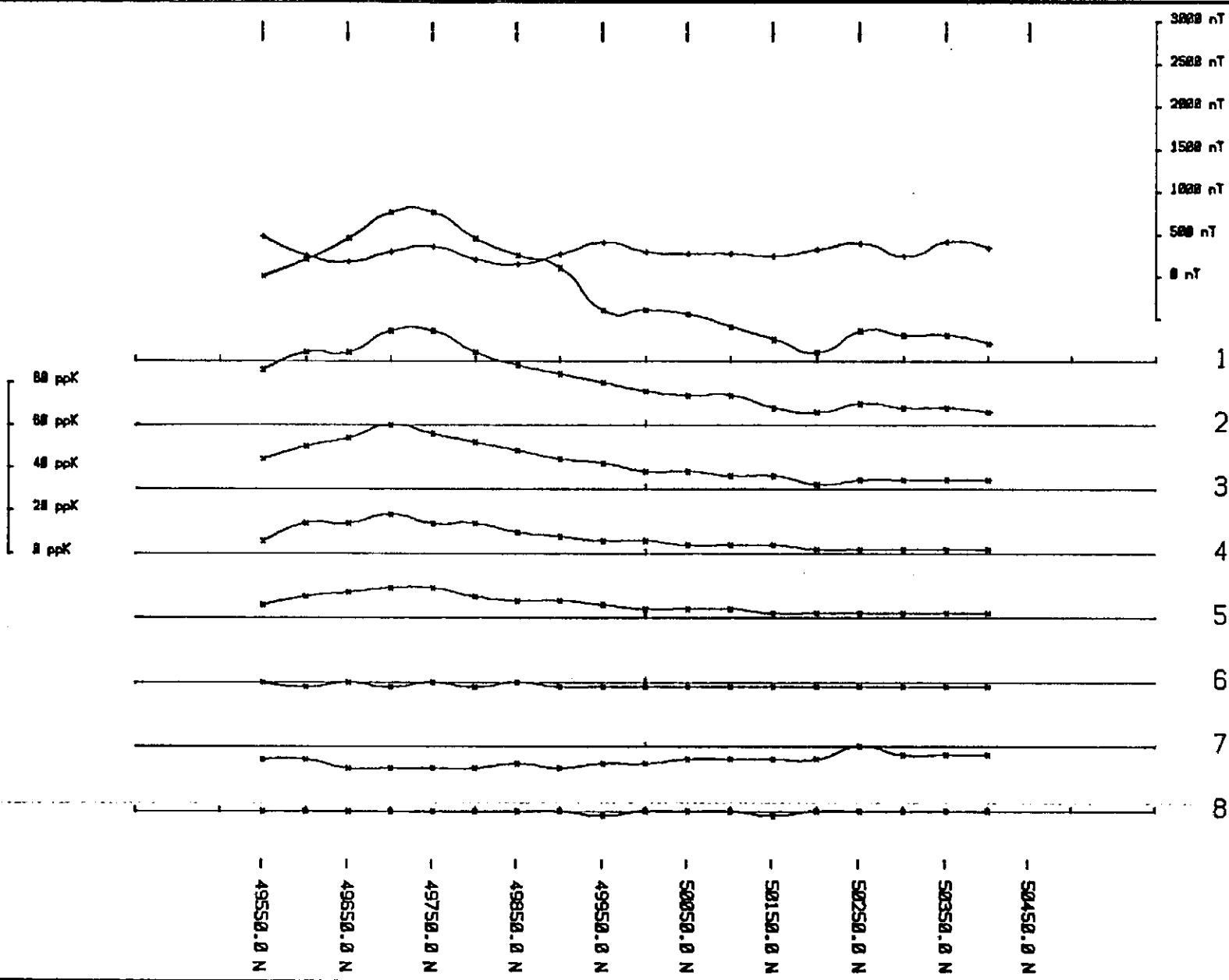
DEEPEM SURVEY

LINE : 508E

FILE B:\GNS80V.PEN PROJECT 1948

SCALE : 1:5000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : 62/K/14

NORANDA EXPLORATION



MAGNETOMETER SURVEY

DATUM : 60000 nT
 INSTR : UNIMAG
 SCALE : 1:1500 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 nS.
 LOOP EDGE AT 49500N
 VERTICAL FIELD



GERRY NORTH

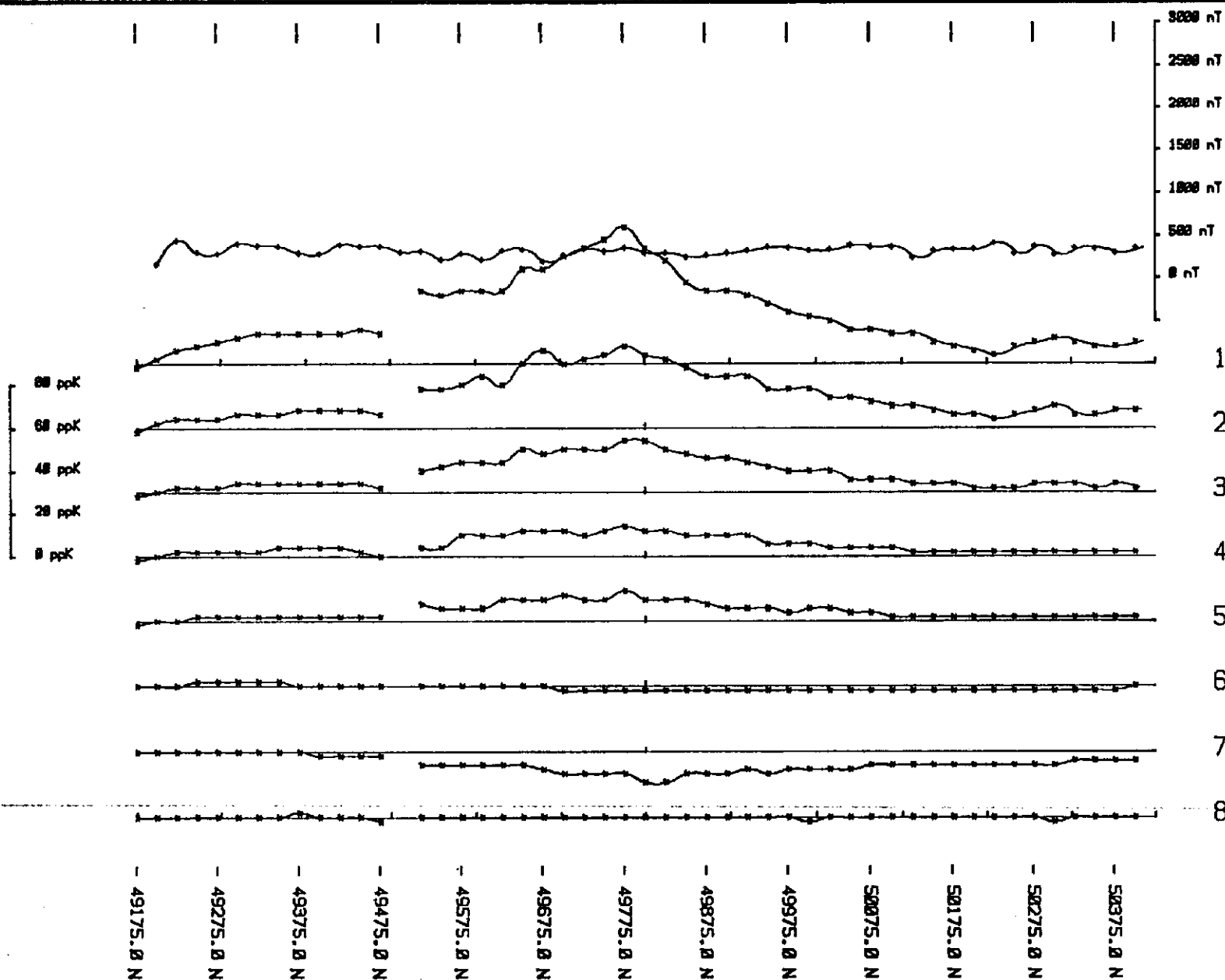
DEEPEM SURVEY

LINE : 526E

FILE 8:GNS28V.PEM PROJECT 1340

SCALE : 1:15000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : 52/K/14

NORANDA EXPLORATION



MAGNETOMETER SURVEY

DATUM : 68000 nT
 INSTR : UNIMAG
 SCALE : 1:1500 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 nS.
 LOOP EDGE AT 49550N
 VERTICAL FIELD



GERRY NORTH

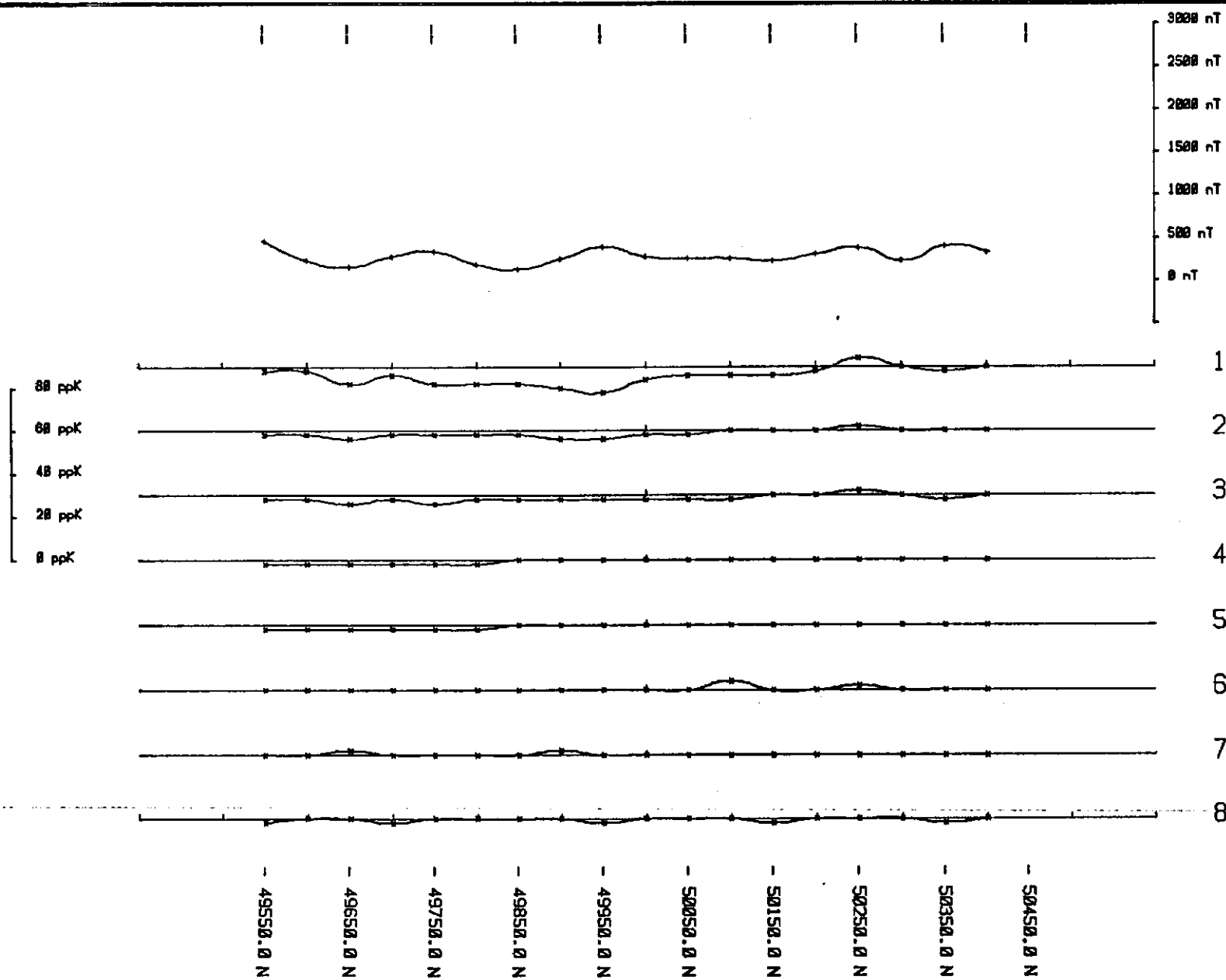
DEEPEM SURVEY

LINE : 524E

FILE B:\G524V.PEM PROJECT 1948

SCALE : 1:15200 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : 52/K/14

NORANDA EXPLORATION



MAGNETOMETER SURVEY

DATUM : 60000 nT
 INSTR : UNIMAG
 SCALE : 1:500 nT

DEEPEM SURVEY

Tx LOOP : 300 by 600
 TIMEBASE : 10 mS.
 LOOP EDGE AT 49500N
 HORIZONTAL FIELD



GERRY NORTH

DEEPEM SURVEY

LINE : 526E

FILE B:\GNS26H.PEM PROJECT 1340

SCALE : 1:5000 DATE : MAR/85
 SURVEY BY : KL/SH N.T.S : 52/K/14

NORANDA EXPLORATION



THUNDER BAY ANALYTICAL LABORATORIES INC.

BALMORAL COMPLEX, BALMORAL AND SIBLEY DRIVE, THUNDER BAY, ONT. P7B 5N3 • TEL. (807) 623-5278

ASSAY LABORATORY-CHEMISTS-GEOCHEMISTS

CERTIFICATE OF ANALYSIS

SAMPLES (S) FROM *Noranda Exploration Company Ltd.*
P.O. Box 2656
Thunder Bay, Ontario

RECEIVED *July 3, 1985*

LAB. NO. *85A245*

SAMPLES (S) OF *Rock*

SUBMITTED TO US SHOW RESULTS AS FOLLOWS:

CLIENT NO.	---	GOLD OZ/T	SILVER OZ/T	COPPER %	NICKEL %	ZINC %	Lead %	---
<i>23617</i>	---	---	<i>0.03</i>	<i>0.001</i>	---	<i>0.009</i>	<i>0.001</i>	---
<i>23618</i>	---	---	<i>0.01</i>	<i>0.003</i>	---	<i>0.013</i>	<i><0.001</i>	---
<i>23619</i>	---	---	<i>0.28</i>	<i>0.001</i>	---	<i>0.025</i>	<i>0.013</i>	---
<i>23620</i>	---	---	<i>1.36</i>	<i>0.043</i>	---	<i>2.94</i>	<i>1.08</i>	---
<i>23621</i>	---	---	<i>1.12</i>	<i>0.045</i>	---	<i>1.18</i>	<i>1.01</i>	---
<i>23622</i>	---	---	<i>0.99</i>	<i>0.051</i>	---	<i>1.65</i>	<i>0.65</i>	---
<i>23623</i>	---	---	<i>0.09</i>	<i>0.031</i>	---	<i>0.009</i>	<i>0.005</i>	---
<i>23624</i>	---	---	<i>0.11</i>	<i>0.018</i>	---	<i>0.058</i>	<i>0.003</i>	---
<i>23625</i>	---	---	<i>0.14</i>	<i>0.037</i>	---	<i>0.015</i>	<i>0.008</i>	---
<i>23626</i>	---	---	<i>0.05</i>	<i>0.018</i>	---	<i>0.008</i>	<i>0.003</i>	---
<i>23627</i>	---	---	<i>0.01</i>	<i>0.004</i>	---	<i>0.003</i>	<i><0.001</i>	---
<i>23628</i>	---	---	<i>0.58</i>	<i>0.041</i>	---	<i>0.10</i>	<i>0.026</i>	---
<i>23629</i>	---	---	<i>0.04</i>	<i>0.065</i>	---	<i>0.010</i>	<i><0.001</i>	---
<i>23630</i>	---	---	<i>0.04</i>	<i>0.043</i>	---	<i>0.009</i>	<i><0.001</i>	---
<i>23631</i>	---	---	<i>0.04</i>	<i>0.059</i>	---	<i>0.014</i>	<i>0.001</i>	---
<i>23632</i>	---	---	<i>Trace</i>	<i>0.003</i>	---	<i>0.012</i>	<i>0.005</i>	---

1340-E-15 - Heavy Rock

Samples, pulps and rejects discarded after one month.

Page . . . 1

**THUNDER BAY ANALYTICAL
LABORATORIES INC.**

Dated July 9, 1985

Per *R. Matthews*
**R. Matthews, B. Sc.,
CHIEF CHEMIST**

*SERVING NORTHWESTERN ONTARIO
Member of the Canadian Testing Association

*ASSAY
1340
I.P.
W.M.*



THUNDER BAY ANALYTICAL LABORATORIES INC.

BALMORAL COMPLEX, BALMORAL AND SIBLEY DRIVE, THUNDER BAY, ONT. P7B 5N3 • TEL. (807) 623-5278

ASSAY LABORATORY-CHEMISTS-GEOCHEMISTS

CERTIFICATE OF ANALYSIS

SAMPLES (S) FROM *Noranda Exploration Company Ltd. - Continued*

RECEIVED

July 3, 1985

LAB. NO.

85A245

SAMPLES (S) OF *Rock*

SUBMITTED TO US SHOW RESULTS AS FOLLOWS:

CLIENT NO.	---	GOLD OZ/T	SILVER OZ/T	COPPER %	NICKEL %	ZINC %	Lead %	---
<i>1240-E</i> 23633	---	---	0.11	0.14	---	0.007	<0.001	---
23634	---	---	0.10	0.14	---	0.005	<0.001	---
26244	---	Nil	---	0.002	---	0.031	---	---
26245	---	Nil	---	<0.001	---	0.014	---	---
26246	---	Nil	---	0.005	---	0.016	---	---
26247	---	Nil	---	0.005	---	0.009	---	---
26248	---	Nil	---	0.008	---	0.016	---	---
26249	---	Nil	---	0.001	---	0.035	---	---
<i>1310-E</i> 26250	---	Nil	---	0.002	---	0.025	---	---
26251	---	Nil	---	0.004	---	0.029	---	---
26252	---	Nil	---	0.005	---	0.012	---	---
26253	---	Nil	---	0.007	---	0.007	---	---
26254	---	Nil	---	0.004	---	0.012	---	---
26255	---	Nil	---	0.011	---	0.039	---	---
26256	---	Nil	---	0.004	---	0.006	---	---
26257	---	Nil	---	0.069	---	0.007	---	---

Page . . . 2

Samples, pulps and rejects discarded after one month.

**THUNDER BAY ANALYTICAL
LABORATORIES INC.**

Dated July 9, 1985

Per *R. Matthews*
R. Matthews, B. Sc.,
CHIEF CHEMIST

SERVING NORTHWESTERN ONTARIO
Member of the Canadian Testing Association



THUNDER BAY ANALYTICAL LABORATORIES INC.

BALMORAL COMPLEX, BALMORAL AND SIBLEY DRIVE, THUNDER BAY, ONT. P7B 5N3 • TEL. (807) 623-5278

ASSAY LABORATORY-CHEMISTS-GEOCHEMISTS

CERTIFICATE OF ANALYSTS

SAMPLES (S) FROM *Noranda Exploration Company Ltd. - Continued*

RECEIVED *July 3, 1985*

LAB. NO. *85A245*

SAMPLES (S) OF *Rock*

SUBMITTED TO US SHOW RESULTS AS FOLLOWS:

CLIENT NO.	---	GOLD OZ/T	SILVER OZ/T	COPPER %	NICKEL %	ZINC %	---	---
<i>26258</i>	---	<i>Nil</i>	---	<i>0.002</i>	---	<i>0.001</i>	---	---
<i>26259</i>	---	<i>Nil</i>	---	<i>0.001</i>	---	<i>0.010</i>	---	---
<i>26259 REP</i>	---	<i>Nil</i>	---	<i>0.001</i>	---	<i>0.013</i>	---	---
---	---	---	---	---	---	---	---	---

1340E

Samples, pulps and rejects discarded after one month.

Page . . . 3

THUNDER BAY ANALYTICAL
LABORATORIES INC.

Dated July 9, 1985

Per *R. Matthews*
R. Matthews, B. Sc.,
CHIEF CHEMIST

WHOLE ROCK ICP ANALYSIS

A .1000 GRAM SAMPLE IS FUSED WITH .60 GRAM OF Li2O2 AND IS DISSOLVED IN 50 MLs 5% HNO3. SAMPLE TYPE: ROCK CHIPS

DATE RECEIVED: JULY 30 1985 DATE REPORT MAILED: *Aug 7/85* ASSAYER: *J. Saundry*, DEAN TOYE OR TOM SAUNDY, CERTIFIED B.C. ASSAYER.

NORANDA EXPLORATION PROJECT - 1340-F3-15 FILE # 85-1650

PAGE 1

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Cu PPM	Zn PPM	Loi %	Sum
23611	55.63	13.95	12.41	3.81	5.62	2.79	1.46	.71	.17	.22	.04	76	174	3.0	99.84
23612	47.62	11.93	18.85	5.32	7.43	2.06	.93	.87	.16	.33	.06	86	108	4.4	99.98
23613	45.45	10.61	27.48	2.94	7.57	1.71	.57	1.50	.48	.99	.01	26	240	.6	99.94
23614	47.40	10.24	21.39	4.38	9.83	1.31	.28	.96	.08	.38	.02	60	114	3.7	99.99
23615	49.71	10.48	22.09	2.82	6.66	.88	3.00	.55	.06	.41	.10	371	194	3.0	99.83
23616	52.46	10.69	20.33	2.65	6.76	1.30	2.38	.60	.06	.36	.07	217	234	2.2	99.92
23635	66.94	17.21	3.22	.93	2.12	2.95	4.08	.31	.12	.04	.01	8	38	1.9	99.84
23636	56.15	13.12	11.16	4.39	10.20	.22	.38	.61	.26	.15	.01	3580	71	2.9	100.01
23637	50.84	14.20	10.79	7.98	10.42	.74	1.37	.83	.06	.31	.04	238	75	2.3	99.92
23638	38.31	21.55	10.23	18.35	.75	.01	3.30	.53	.15	.08	.01	42	122	6.6	99.89
23639	48.32	24.58	7.22	4.39	9.48	2.87	1.69	.38	.02	.10	.03	134	85	.8	99.91
23640	74.28	14.41	1.82	.45	1.90	4.10	1.68	.11	.03	.02	.01	602	45	1.0	99.89
23641	68.89	15.67	3.51	2.18	2.38	3.84	1.74	.35	.07	.04	.01	28	82	1.2	99.89
23642	74.71	14.05	1.62	.34	1.20	4.66	1.95	.11	.05	.03	.01	5	41	1.2	99.94
23643	71.74	14.95	2.64	.91	3.00	4.33	1.20	.27	.08	.03	.01	5	57	.8	99.97
23644	69.83	15.04	4.16	4.82	.48	.54	2.20	.35	.08	.04	.01	1619	85	2.1	99.86
23645	71.43	14.43	3.60	4.56	.31	.47	2.41	.28	.08	.04	.01	39	55	2.3	99.93
23646	49.25	23.11	7.01	3.83	12.21	2.31	.80	.43	.03	.11	.02	123	75	.8	99.93
23647	70.09	14.90	3.45	1.23	2.88	4.71	1.20	.35	.10	.04	.01	36	54	.9	99.87
23648	74.87	14.33	1.54	.33	1.85	4.22	1.41	.11	.05	.02	.01	411	34	1.1	99.90
23649	67.22	15.94	3.97	2.35	.70	1.38	3.26	.29	.07	.04	.01	2979	286	2.2	97.84
23650	72.75	14.88	2.42	1.00	2.61	4.51	1.00	.25	.05	.03	.01	69	43	.4	99.92
23651	74.94	12.49	3.64	3.19	1.10	1.81	1.14	.30	.08	.05	.01	372	72	1.1	99.91
23652	64.23	14.95	8.62	6.10	.42	.25	2.30	.46	.13	.09	.01	46	86	2.3	99.88
23653	52.28	21.72	4.75	9.76	1.57	2.48	3.62	.53	.12	.07	.01	6	169	3.0	99.93
23654	70.63	15.26	3.13	5.32	.31	.38	2.19	.35	.07	.04	.01	5	27	2.2	99.89
23655	52.95	1.20	34.83	7.59	.28	.01	.06	.03	.05	.97	.02	74	78	1.8	99.81
23656	69.95	15.33	3.53	1.17	2.11	3.10	2.68	.16	.03	.07	.01	5	72	1.7	99.85
23657	64.05	17.29	4.42	8.17	.37	.47	2.40	.38	.10	.04	.01	5	46	2.2	99.91
23658	53.30	.17	20.75	18.16	1.14	.01	.12	.03	.05	3.09	.01	5	99	2.1	98.94
23659	67.24	16.84	3.01	2.23	3.93	1.44	2.58	.26	.05	.08	.01	5	27	2.2	99.87
23660	52.67	15.75	8.85	12.93	1.45	.92	.15	.83	.14	.06	.07	5	78	6.1	99.93
23661	50.54	16.03	12.08	8.56	8.61	1.92	.44	.67	.06	.15	.08	281	76	.8	99.98
23662	52.22	14.16	12.69	8.28	7.43	3.05	.39	.84	.05	.18	.08	80	87	.7	100.09
23663	68.50	14.94	4.55	2.37	2.56	3.94	1.55	.52	.13	.05	.01	28	51	.8	99.93
23664	67.19	9.09	10.49	5.78	2.25	.62	.38	.44	.08	.15	.02	402	8299	2.0	99.57
STD SO-4	67.42	10.32	3.64	.99	1.66	1.24	1.99	.56	.21	.08	.03	19	88	11.4	99.55

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NORANDA EXPLORATION PROJECT - 1340-FE-15 FILE # 85-1650

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Cu PPM	Zn PPM	Loi %	Sum
23665	52.99	13.39	13.62	6.18	8.46	1.64	.55	.99	.10	.18	.04	414	105	1.5	99.70
23666	52.03	14.13	11.42	8.38	11.17	.65	.01	.50	.03	.17	.08	193	84	1.1	99.70
23667	60.28	14.28	8.05	7.46	2.84	2.14	.58	.63	.11	.08	.02	16	80	3.2	99.68
23668	48.67	15.46	13.29	7.39	9.84	2.05	.42	.93	.06	.18	.06	60	88	1.3	99.67
23669	52.97	12.13	13.05	12.45	2.64	.93	1.71	.94	.10	.12	.04	40	94	2.5	99.60
23670	51.77	13.65	13.80	7.48	8.48	1.74	.25	1.09	.10	.16	.04	375	84	1.0	99.62
23671	52.62	15.77	9.91	12.27	2.58	1.46	.41	.65	.12	.09	.06	276	68	3.6	99.58
23672	67.81	14.43	5.67	4.07	1.05	1.87	1.75	.54	.16	.06	.01	747	108	2.1	99.63
23673	70.07	15.76	4.00	2.40	1.17	3.79	.94	.39	.10	.03	.01	30	36	.9	99.57
23674	69.78	15.37	3.51	2.13	2.01	4.11	1.63	.34	.08	.04	.01	9	39	.6	99.62
23675	55.16	14.37	10.57	10.54	3.04	1.69	.25	.76	.12	.09	.06	37	88	3.2	99.87
23676	50.90	12.49	19.37	4.44	7.62	2.10	.17	1.80	.15	.22	.01	31	102	.5	99.79
23677	49.18	14.75	13.32	7.82	10.01	2.19	.24	.90	.05	.18	.06	15	102	1.1	99.81
23678	51.55	12.57	18.24	3.77	9.79	.93	.15	1.75	.18	.21	.01	23	118	.9	100.07
23679	55.66	14.47	9.35	11.79	1.30	.50	.01	.85	.16	.07	.04	5	89	6.0	100.21
23680	48.99	15.11	13.03	7.97	9.92	2.10	.22	.75	.06	.17	.04	28	86	1.3	99.67
23681	68.24	11.74	7.06	5.68	.61	.33	3.57	.28	.05	.10	.01	45	474	2.2	99.93
23682	52.02	13.49	13.90	12.47	.35	.16	.24	.93	.08	.12	.04	38	134	6.0	99.82
23683	52.25	14.06	14.39	6.67	8.09	2.05	.20	.82	.07	.21	.04	135	100	.9	99.78
23684	50.53	14.59	12.44	7.43	10.35	1.77	.44	.84	.06	.17	.04	32	88	1.1	99.77
23685	49.55	13.84	13.40	14.09	2.01	.73	.25	1.04	.12	.09	.04	5	92	4.7	99.87
23686	51.32	17.47	13.18	11.87	.80	.32	.27	1.16	.27	.15	.05	82	318	3.0	99.91
23687	51.54	13.35	12.25	14.26	.74	.47	1.12	.86	.08	.10	.04	20	108	4.9	99.73
23688	47.82	13.70	13.46	16.02	.73	.30	.12	.76	.10	.10	.08	368	92	6.6	99.85
23689	60.38	17.45	5.15	9.82	.23	.32	2.70	.41	.11	.05	.01	6	54	2.7	99.34
23690	75.93	13.14	1.79	1.30	1.53	4.12	.79	.19	.01	.03	.01	24	21	.8	99.65
23691	63.09	20.61	3.03	1.47	2.57	6.79	.93	.17	.03	.02	.01	20	49	.9	99.63
23692	71.13	15.45	2.45	1.25	1.65	4.39	1.37	.26	.05	.02	.01	961	29	1.5	99.65
23693	52.41	.41	6.09	14.10	22.76	.35	.01	.02	.02	.76	.01	20	132	2.9	99.86
23694	39.46	.01	6.08	14.03	23.68	.22	.01	.01	.01	.69	.01	9	64	15.7	99.92
23695	51.92	2.99	7.44	14.26	18.95	.32	.01	.12	.03	.58	.01	6	173	3.2	99.85
23696	71.11	9.26	5.92	3.37	5.04	.43	1.59	.63	.22	.19	.01	49	59	2.0	99.78
23697	42.27	2.23	10.75	22.15	9.22	.32	.01	.21	.05	.20	.75	40	113	11.5	99.68
23698	56.75	.55	32.72	7.88	1.37	.18	.01	.03	.03	.31	.03	11	111	.3	100.18
23699	49.59	15.56	12.40	7.06	7.27	3.08	1.19	.99	.08	.17	.05	32	89	2.2	99.66
23700	49.39	14.47	13.99	6.92	10.06	1.98	.49	1.06	.08	.18	.05	52	89	1.0	99.69
STD 90-4	75.59	11.85	4.11	1.06	1.86	1.25	2.34	.64	.24	.09	.04	22	96	11.4	110.48

NORANDA EXPLORATION PROJECT - 1340-F3-15 FILE # 85-1650

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SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Cu PPM	Zn PPM	Loi %	Sum
26601	48.68	12.79	14.81	8.91	7.81	.92	.24	.90	.07	.31	.04	352	172	4.3	99.85
26602	54.82	15.71	9.80	5.24	7.14	3.19	.41	1.17	.29	.19	.05	38	129	1.4	99.43
26603	53.19	.84	39.55	2.73	2.55	.05	.11	.05	.15	.21	.01	30	42	.5	99.95
26604	64.43	16.00	5.59	2.53	3.53	5.05	.45	.43	.09	.08	.01	45	52	1.0	99.20
26260	52.35	14.70	11.63	7.02	9.02	2.23	.05	.87	.09	.25	.05	490	106	1.3	99.63
26261	55.21	16.05	8.77	10.93	2.19	1.66	.68	.78	.13	.12	.07	238	82	2.7	99.33
26262	44.04	3.19	11.88	23.01	6.39	.08	.01	.25	.08	.22	.72	24	101	9.8	99.69
26263	47.39	17.00	13.38	7.91	7.18	.75	2.93	1.01	.10	.25	.08	286	105	2.1	100.13
26264	45.86	15.07	13.01	9.21	10.43	1.21	1.37	1.00	.10	.25	.05	1354	160	2.0	99.75
26265	65.98	.53	26.11	5.88	.95	.02	.01	.03	.03	.31	.01	21	94	.1	99.97
26266	54.46	12.89	16.80	5.02	4.18	2.28	.42	1.28	.14	.26	.01	55	118	1.4	99.16
26267	54.92	12.31	14.63	6.11	5.75	2.66	.45	1.32	.13	.25	.01	5	78	.8	99.35
26268	47.26	3.77	13.81	21.19	6.10	.17	.01	.36	.07	.27	.47	19	94	6.0	99.49
26269	64.01	2.36	16.82	7.79	6.01	.22	.11	.07	.13	.20	.03	20	114	1.7	99.47
26270	64.21	.25	30.18	4.28	.37	.01	.01	.03	.06	.21	.01	5	86	.1	99.73
STD SD-4	67.01	10.66	3.66	1.05	1.73	1.35	1.99	.56	.20	.10	.04	28	94	11.3	99.67

WHOLE ROCK ICP ANALYSIS

A .1000 GRAM SAMPLE IS FUSED WITH .60 GRAM OF LiBO2 AND IS DISSOLVED IN 50 MLS 5% HNO3. SAMPLE TYPE: ROCK CHIPS

DATE RECEIVED: AUG 27 1985 DATE REPORT MAILED: *Sept 2/85* ASSAYER: *T. Saundry* DEAN TOYE OR TOM SAUNDRY, CERTIFIED B.C. ASSAYER.

NORANDA EXPLORATION PROJECT -1340-F3-15 FILE # 85-2081

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SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Cu PPM	Zn PPM	Loi %	Sum
26625	76.50	11.97	1.93	.35	1.63	5.62	.86	.19	.01	.02	.01	14	6	.5	99.59
26626	76.07	11.80	2.35	.11	.17	5.02	3.21	.15	.01	.01	.01	18	7	.6	99.51
26627	72.47	11.98	4.49	5.07	.80	.95	1.35	.81	.18	.03	.01	17	28	1.6	99.75
26628	75.87	10.40	1.46	2.99	1.07	4.58	1.06	.70	.17	.01	.01	16	15	1.4	99.72
26629	70.30	10.19	5.22	8.26	.08	.18	1.07	.22	.18	.01	.01	18	25	4.0	99.73
26630	69.76	9.88	6.07	7.12	.17	.50	2.29	.65	.35	.02	.01	15	37	3.0	99.83
26631	76.17	10.71	2.10	5.47	.11	.80	.68	.77	.18	.01	.01	16	8	2.8	99.81
26632	72.58	11.30	4.53	3.28	1.40	3.98	.73	.75	.35	.04	.01	15	37	.9	99.86
26633	70.48	10.99	8.72	4.72	.28	.58	1.47	.75	.18	.05	.01	33	52	1.5	99.74
26634	72.89	9.84	11.54	2.43	.21	.24	1.34	.72	.17	.05	.01	14	39	.3	99.75
26635	71.87	10.56	8.52	4.39	.18	.25	1.50	.73	.34	.04	.01	13	52	1.3	99.70
26636	72.14	9.98	11.08	3.13	.17	.27	.78	.69	.16	.02	.01	13	14	1.3	99.73
26637	70.09	10.31	5.35	6.29	.53	1.42	1.77	.71	.34	.03	.01	37	52	3.0	99.86
26638	72.63	10.07	5.98	5.72	.09	.28	2.37	.68	.34	.01	.01	30	22	1.6	99.79
26639	72.01	11.04	5.75	5.75	.20	.43	2.08	.73	.35	.02	.01	12	36	1.4	99.78
26640	68.52	10.91	7.86	5.17	1.16	2.75	.97	.74	.17	.09	.01	12	63	1.5	99.86
26641	49.91	4.83	13.88	13.98	.40	.31	.60	1.09	.33	.23	.01	7	-276	4.3	99.91
26642	72.30	10.55	6.47	1.99	.61	3.80	2.39	.33	.16	.05	.01	18	70	.8	99.47
26643	53.03	14.96	13.50	11.99	.80	.48	.56	1.11	.33	.17	.02	12	-202	2.9	99.88
26644	52.00	15.66	13.29	12.62	.25	.09	.67	1.36	.17	.21	.01	14	-220	3.5	99.86
26645	76.85	11.68	2.04	.58	.40	5.50	1.79	.15	.01	.02	.01	11	14	.6	99.63
26646	64.05	14.04	6.97	4.90	2.25	2.81	.51	1.33	.34	.07	.01	48	73	2.7	100.00
26647	77.95	11.39	1.68	.45	1.26	5.09	.71	.17	.01	.02	.01	6	7	.8	99.54
26648	40.87	20.64	7.37	19.72	.05	.21	1.41	.58	.17	.02	.01	12	33	8.5	99.56
26649	75.19	12.74	1.96	1.66	.74	3.32	2.44	.16	.01	.02	.01	6	19	1.3	99.55
26650	55.42	16.40	10.62	5.05	4.11	4.25	.82	1.46	.34	.14	.01	22	-258	1.2	99.85
26651	74.87	10.96	3.28	4.49	.10	.47	1.81	.32	.16	.01	.01	6	7	3.1	99.58
26652	57.33	16.14	5.88	10.38	.05	.52	2.18	.96	.16	.03	.01	13	33	6.0	99.65
26653	76.15	11.64	2.44	.34	.70	3.67	3.62	.17	.01	.03	.01	5	21	.8	99.58
26654	70.86	11.43	1.82	8.96	.07	.40	.88	.53	.16	.01	.01	6	7	4.6	99.73
26655	73.01	11.57	4.40	6.33	.05	.33	2.18	.34	.16	.01	.01	5	20	1.2	99.59
26656	70.02	10.82	3.16	8.72	.22	.73	.40	1.03	.32	.01	.01	8	7	4.5	99.94
26657	75.59	9.77	5.28	3.82	.38	1.01	1.70	.30	.17	.01	.01	5	16	1.6	99.64
26658	77.52	11.84	1.29	.50	1.21	5.34	.96	.18	.01	.02	.01	5	5	.8	99.68
26659	76.48	12.11	2.20	.78	.25	4.54	2.14	.13	.01	.02	.01	5	35	.9	99.57
26660	55.18	15.78	10.71	4.67	7.65	3.34	.25	1.22	.33	.09	.01	8	35	.7	99.94
STD SD-4	67.89	10.05	3.36	.90	1.52	1.36	2.17	.58	.22	.08	.02	22	96	11.4	99.56

SEP - 6 1985
 ICP
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 ASSAY

NDRANDA EXPLORATION PROJECT -1340-F3-15 FILE # 85-2081

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SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Cu PPM	Zn PPM	Loi %	Sum
26661	76.88	10.79	3.41	5.00	.11	.23	1.74	.24	.17	.01	.01	9	20	1.1	99.69
26662	55.12	15.16	11.19	7.14	3.61	3.54	1.57	1.49	.32	.09	.02	11	121	.6	99.87
26663	74.59	11.36	5.25	4.26	.12	.32	2.10	.22	.01	.05	.01	5	58	1.4	99.70
26664	58.92	15.32	10.15	7.00	2.75	1.23	1.48	1.32	.32	.32	.02	14	111	1.0	99.85
26665	78.28	11.04	2.86	4.00	.07	.31	1.64	.25	.01	.02	.01	5	16	1.1	99.59
26666	74.66	11.19	3.33	5.99	.13	.29	1.36	.35	.16	.01	.01	5	19	2.2	99.68
26667	54.04	16.54	11.99	10.81	.31	.28	1.02	1.46	.32	.31	.04	735	894	2.4	99.72
26668	49.02	15.81	15.07	13.37	.73	.91	.19	1.22	.32	.32	.03	21	239	2.7	99.72
26669	63.57	7.85	9.95	4.38	7.10	.31	2.03	.47	.16	.49	.02	105	177	3.4	99.77
26670	46.21	12.00	12.33	6.06	15.37	.51	.82	.68	.16	.57	.04	156	267	5.0	99.80
26671	45.06	9.70	13.64	7.05	16.53	.46	.73	.68	.16	.67	.03	220	319	5.0	99.78
26672	77.10	5.50	6.67	2.72	3.44	.45	.79	.39	.16	.44	.02	118	112	2.1	99.81
STD SO-4	68.01	9.92	3.39	.91	1.53	1.36	2.11	.57	.21	.08	.02	24	97	11.4	99.53

G.L.N. 8
Sample TS-6-68

Carry Lake North

BIOTITE-CORDIERITE SCHIST

G.L.N.

522E-495+75-N1

MAIN ACT O.C. ON N SIDE RP

Estimated mode

Quartz	48
Biotite	25
Muscovite	5
Chlorite	trace
Cordierite	22
Sillimanite	trace
Zircon	trace
Monazite	trace
Apatite	trace

This rock is distinct from others in the group by virtue of its well-defined foliation and strong deformation.

It is composed dominantly of an anhedral, sub-polygonal to interlocking mosaic of quartz which shows a tendency for banded grain-size differentiation in the range 0.03 - 0.2mm.

The mafics are mainly biotite, as individual flakes, 0.1 - 1.0mm, commonly aggregating to form discontinuous parallel streaks and schlieren. The quartz grains between the biotite foliae are locally flattened and elongated. Slender flakes of muscovite are locally intergrown with the biotite and form thin schlieren in their own right.

The rock has been deformed by micro-folding on close-spaced, sub-parallel axes, with attenuation of fold limbs. The structure is clearly revealed by the disposition of biotite flakes and schlieren.

Cordierite is strongly concentrated in some of these folds, as irregular invasive masses, sometimes selectively replacing certain bands and forming extensive optically continuous areas in which poikiloblastically included quartz and biotite grains retain the sinuous form of the folding. The cordierite formation presumably post-dates the deformation.

Rare wisps of sillimanite occur within the cordierite, associated with biotite and chlorite.

Zircon, monazite and apatite are trace accessories, as tiny granules and laths (often surrounded by prominent yellow pleochroic halos when included in cordierite).

W.R. # 26662

Sample TS-1 GLS

AMPHIBOLE-BIOTITE SCHIST GL S → Gerry Lake South

Estimated mode

Plagioclase	37
Quartz	15
Biotite	18
Chlorite	1
Amphibole	22
Cordierite	5
Opagues	2

378 + 42E

405 + 60N

outcrop with prominent
cord - last o.c. to south
W.S.J. x 6 D.

This is a crystalline metamorphic rock composed dominantly of an even, polygonal mosaic of plagioclase 0.05 - 0.2mm in size. Minor interstitial quartz is intergrown with the plagioclase. The latter is water-clear and only distinguishable as plagioclase by the rather widespread development of twinning. It lacks even the slightest clouding and/or incipient sericitization.

The majority of the quartz in this rock is as irregular to rounded segregations up to a few mm in size. These are composed of polygonal mosaics slightly coarser (0.5mm) than the main groundmass. These areas are more or less free of mafics.

The rather abundant mafic constituents are biotite (straw-coloured to mid-brown) and amphibole (colourless or neutral, essentially non-pleochroic). The amphibole is probably a tremolitic variety. It shows inclined extinction but lacks the pronounced twinning characteristic of cummingtonite.

The biotite occurs as well-formed flakes 0.2 - 0.6mm (rarely to 1 or 2mm) in size. The amphibole forms euhedral, strongly elongate prismatic crystals 0.2 - 2.0mm (rarely to 5mm) in length. These sometimes poikiloblastically enclose small grains of plagioclase or quartz. The two minerals occur individually and randomly intergrown, as clumps, meshworks and local sub-parallel sheaves. A few slender flakes of chlorite are a minor constituent.

Opagues are tiny disseminated subhedral granules and laths, 0.02 - 0.15mm in size - apparently Fe/Ti oxides. They occur randomly scattered throughout the matrix and the mafic porphyroblasts, with no special affinity for any particular mineral.

The mafic silicates and opagues seem to be quite independent of the groundmass mosaic fabric - randomly cutting across it.

In one area the groundmass shows the development of cordierite as coalescent grains up to 1mm or more. These are poikiloblastically sieved with plagioclase, quartz and biotite/amphibole grains.

There is little perceptible preferred orientation in the groundmass fabric. The porphyroblastic mafics locally show a very weak tendency to a preferred orientation, but their distribution is more typically as patches of random meshwork intergrowth.

W.R. 26665

Sample TS-2-GLS

ANDALUSITE-CORDIERITE SCHIST G.L.S.

Estimated mode

Quartz	58
Plagioclase	5
Biotite	12
Cordierite	10
Andalusite	14
Sericite	
Staurolite	1

378+50E - 40S+12N

LOWER PART OF MAIN
WATAXOD ZONE

CHERTY SILICA RICH HORIZON. SOME BUSHY
PORPHYRIES

The matrix in this rock is dominantly of quartz, as an anhedral, locally crenulate-margined mosaic of grains 0.1 - 0.5mm in size. There are occasional irregular segregations of slightly coarser grain size.

Biotite forms flakes, 0.2 - 0.5mm, of a straw to mid-brown colour, often aggregating as clusters and parallel growths. The smaller, more dispersed biotite tends to occupy intergranular positions in the quartz mosaic but the local coarser segregations tend to display a weak sub-parallelism.

Andalusite is a prominent constituent, forming irregular, often elongate masses to 3mm or more in size, commonly strongly altered to felted sericite and/or a very fine-grained brown to orange amorphous (virtually isotropic) material. A few extensive fresh areas of andalusite survive, densely sieved with tiny rounded inclusions of quartz and flakes of biotite. The more altered areas often have small remnant cores of andalusite and ragged grains of associated staurolite.

Cordierite occurs as scattered coarse irregular patches 1 - 3mm in size. Cores of andalusite and staurolite are also seen in some of the cordierite patches. Segregations of twinned plagioclase are sometimes seen marginal to the cordierite growths, though this may be a fortuitous association.

The rock apparently lacks opaques.

The elongation of (altered) andalusite patches parallels the weak preferred orientation of some of the biotite aggregates and defines a very weak foliation.

WR 2664

Sample TS-3-GLS

ANTHOPHYLLITE-BIOTITE SCHIST

Estimated mode	
Plagioclase	28
Quartz	17
Biotite	26
Anthophyllite	27
Garnet	1
Chlorite	trace
Opagues	1

378+505 / 405+25N
 QTZ - BIO - AMPH - GRN - CRN - WISS
 (ACT VIOLITE)

The matrix in this rock is less homogenous than in the preceding two samples. It consists of a very fine-grained, somewhat diffuse-margined, anhedral aggregate (0.02 - 0.1mm) of plagioclase, with abundant intergrown individual grains and small elongate clumps of quartz of somewhat coarser size (0.1 - 0.4mm). A perceptible parallel grain elongation of the quartz defines a weak textural grain in the matrix.

The latter is set with abundant mafic porphyroblasts which are randomly oriented and totally discordant to the matrix fabric. These consist of biotite (straw coloured to mid-brown) as individual flakes, 0.2 - 1.0mm, sometimes poikilitic; and amphibole, weakly pleochroic from neutral to pale greyish-blue, as elongate prismatic crystals and bladed/parallel sheafs up to 10mm long, often poikilitic. This exhibits straight extinction and is apparently anthophyllite.

The amphibole and biotite are locally intergrown but in general are not particularly associated.

Accessories are garnet, as occasional rounded poikilitic grains, 1 - 2mm in size, and opaques (Fe-Ti oxides) as tiny subhedral granules and laths, 0.05 - 0.2mm. The latter show a distinct tendency to occur within and around clusters of mafics, especially biotite.

The silicates are all completely fresh and unaltered.

Sample TS-4-GLS

CORDIERITE-BIOTITE ROCK (HORNFELS?)

Footwall? Folsic Tuff

378+65B/406+12N

FOLSIC LAPILLI TUFF

MAINLY QZ, MINOR FOLP, 15% L

CLOTS.

Estimated mode

Quartz	45
Cordierite	37
Biotite	12
Muscovite	5
Chlorite	1
Sillimanite	trace
Zircon	trace
Monazite	trace

The matrix of this rock consists dominantly of quartz as anhedral, somewhat irregular-shaped (occasionally elongate) grains 0.1 - 0.3mm. The coarser grains tend to occur as rounded clumps and irregular segregations, often with associated biotite and/or muscovite.

Cordierite is incipiently developed throughout, as small patches, intergranular to and enveloping quartz, and as more extensive poikiloblastic plates up to several mm in size, sometimes showing diffuse lamellar twinning.

The characteristic yellow pleochroic halos around small inclusions of zircon etc. are well developed.

Biotite forms scattered coarse, ragged, strongly poikilitic flakes, sieved with quartz grains and often enclosing slender, randomly oriented flakes of muscovite and lesser chlorite. It occasionally shows slight marginal alteration to chlorite and sericite. It contains abundant pleochroic halos.

Muscovite, and lesser chlorite, form slender flakes, 0.1 - 1.0mm in length, occurring throughout the matrix as a meshwork of tiny non-oriented flakes. Locally it concentrates as short, sinuous schlieren. Locally muscovite wisps partly rim biotite flakes.

Sillimanite occurs as rare fibrolitic wisps, associated with biotite, muscovite or chlorite.

The rock shows essentially no foliation. The cordierite and porphyroblastic biotite are characteristic of a hornfels, but the present texture is clearly a metamorphically recrystallized one and the genetic history is unclear. A very weak directional fabric is perceptible in the quartzose matrix. The somewhat patchy, fragment-like appearance of the cut-off chip is largely a function of the extensive development of poikiloblastic cordierite.

WR # 26633

Sample TS-5-GLS

CORDIERITE-ANTHOPHYLLITE SCHIST

(WB-38) GLS

429E/387 + 75-N

Act VI - Qtz, Fsp, + Amph

Estimated mode	
Quartz	40
Anthophyllite	12
Biotite	10
Chlorite	2
Cordierite	35
Staurolite	trace
Sillimanite	trace
Apatite	trace
Opaques	1

mosaic

The matrix of this rock is a polygonal/ mosaic of quartz as grains 0.2 - 0.5mm in size. Biotite, as individual flakes 0.05 - 0.2mm, occurs disseminated throughout, largely in intergranular relation to the quartz, but also forming scattered clusters of rather coarser flakes to 1.0mm in size. Minor chlorite occurs as individual slender flakes intergrown with the biotite clusters.

The other mafic constituent is pale olive to grey-green pleochroic anthophyllite which forms random, sheaf-like clusters of elongate crystals to 6.0mm in length.

Cordierite is a major constituent, as diffuse patches throughout the matrix, coalescing to form extensive poikiloblastic areas (up to several mm in size), sieved with more or less replaced droplet-like inclusions of quartz and small biotite flakes.

Small skeletal grains of staurolite occur within some of the cordierite masses. A few incipient wisps of fibrolitic sillimanite are seen developing from biotite and chlorite.

Apatite is a noticeable trace accessory, as randomly disseminated tiny euhedra.

The slide includes several elongate to irregular, vein-like areas of coarser quartz (grain size to 1 or 2mm, with irregular crenulate margins and shadowy extinction suggestive of grain accretion). These areas contain relatively few mafics.

Opaques consist of sparsely disseminated granules 0.01 - 0.15mm in size. They show no particular association. One small grain of a yellow sulfide (chalcopyrite - or conceivably gold?) can be seen on the surface of the cut-off chip.

The rock exhibits a barely perceptible textural grain conferred by a sub-parallelism of biotite clusters and a weak grain elongation of the quartz.

Sample TS-7-GLS

CORDIERITE-ANTHOPHYLLITE ROCK

MAIN ACT Zone

378+45° - 405+40°N

ACT VI - 60% coarse ANTH + Qtz

Estimated mode

Quartz	21
Cordierite	60
Anthophyllite	15
Chlorite	2
Sillimanite	trace
Sericite	trace
Biotite	trace
Opauques	2

This sample represents an extreme variant of the mineralogical assemblage seen in several other rocks of the suite. Cordierite is by far the dominant constituent and biotite is virtually absent.

It consists of a coarse equigranular aggregate of diffuse-margined grains of poikiloblastic cordierite up to several mm in size, more or less densely sieved with small, individual, sub-rounded to elongate inclusions of quartz, sparse, slender flakes of chlorite, and small granules and needles of opaques (Fe/Ti oxides). These inclusions show a distinct sub-parallelism which defines a slightly undulating original foliation.

Quartz also forms a few irregular to elongate pockets and segregations of polygonal mosaic of grain size 0.1 - 0.4mm.

Anthophyllite forms randomly oriented coarse sheaves or parallel bundles of slender elongate prisms up to 1cm or more in length, commonly with intergrown granular quartz between the blades. The anthophyllite locally shows marginal alteration to chlorite, with incipient development of fibrolitic sillimanite.

Wisps and lines of fine-grained fibrous mineral are also seen within the cordierite. It is unclear whether this represents incipient alteration to sericite or precursive development of sillimanite.

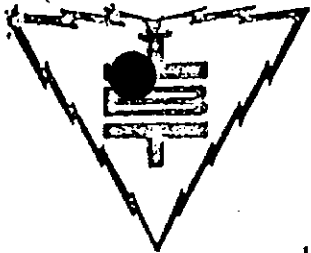
It is notable that the sub-parallel arrangement of acicular opaques survives as included remnants within the anthophyllite masses.

IN ACCOUNT WITH



THUNDER BAY ANALYTICAL
LABORATORIES INC.
(FORMERLY)

✓ ASSAY FILE
CC MCFARLANE



THUNDER BAY TESTING LIMITED

BALMORAL COMPLEX, 1081 BARTON STREET, THUNDER BAY, ONT. P7B 5N3 • TEL. (807) 623-5278

INVOICE

Date: July 9, 1985

Noranda Exploration Company, Limited
P.O. Box 2656
THUNDER BAY, Ontario
P7B 5G2

REMITTANCE
COPY

RE: Lab. No. 85A245 - P.O. #14064

TO: *Services rendered,*

1. Eighteen (18) silver determinations @ \$9.50 ea.,	\$ 171.00
2. Thirty-five (35) copper determinations @ \$9.50 ea.,	\$ 332.50
3. Thirty-five (35) zinc determinations @ \$9.50 ea.,	\$ 332.50
4. Eighteen (18) lead determinations @ \$9.50 ea.,	\$ 171.00
5. Seventeen (17) gold determinations @ \$9.50 ea.,	\$ 161.50
6. Thirty-five (35) sample preparation @ \$2.75/sample,	\$ 96.25

\$1264.75

IAN 23617-34 (Ag Cu Zn Pb) 1340-E1-15
DUNBAR 26244-59 (Au Cu Zn)

PLEASE PAY BY INVOICE — STATEMENTS ON REQUEST ONLY

ACME ANALYTICAL LABORATORIES LTD.

PHONE: 253-3158

852 E Hastings St., Vancouver, B.C. V6A 1R6

File: 85-1650

Date: AUG 7 1985

NORANDA EXPLORATION CO. LTD
 P.O. BOX 2656
 THUNDER BAY ONTARIO
 P7B 5G2

TERMS:
 NET TWO WEEKS
 2% PER MONTH CHARGED ON
 OVERDUE ACCOUNTS.

NUMBER	ASSAY	PRICE	AMOUNT
	PROJECT : 1340-F3-15 P.O. # 14136		
87	GEOCHEM WHOLE ROCK ICP ANALYSIS @	12.00	1044.00
87	ROCK SAMPLE PREPARATION @	2.75	239.25
	TOTAL		1283.25

1340-F3-15
~~*23611-26270*~~
23611-16
23635-23700
26601-04
26260-70

ACME ANALYTICAL LABORATORIES LTD.

A.F.

PHONE: 253-3158

852 East Hastings St., Vancouver, B.C. V6Z 1R6

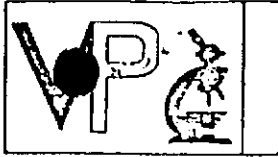
File: B5-20B1

Date: SEPT 2 1985

NORANDA EXPLORATION CO. LTD
 P.O. BOX 2656
 THUNDER BAY ONTARIO
 P7B 5G2

TERMS:
 NET TWO WEEKS
 2% PER MONTH CHARGED ON
 OVERDUE ACCOUNTS.

NUMBER	ASSAY	PRICE	AMOUNT
	PROJECT : 1340-F3-15 P.O. # 14138		
48	GEOCHEM WHOLE ROCK + CU & ZN ASSAY @	12.00	576.00
48	ROCK SAMPLE PREPARATION @	2.75	132.00
	TOTAL		708.00



Vancouver Petrographics Ltd.

AS/ File
Ian
Other
WIF

8887 NASH STREET -- P.O. BOX 39 -- FORT LANGLEY, B.C. V0X 1J0
Telephone (604) 888-1323

1240-F3-15

INVOICE

5331

FOR

Noranda Explorations

P.O. Box 2656

Thunder Bay, Ontario

F7B 5G2

Customer Order No. _____

Customer Charge Code _____

Ordered By:

Ian Perry

QUANTITY	DESCRIPTION	COST
7	THIN SECTIONS @ \$7.00 ea.	\$ 49.00
	POLISHED THIN SECTIONS	
	POLISHED ORE MOUNTS	
7	GROUND & LABELLED THIN SECTION REJECT SLICES 75¢ ea	5.25
	POLISHED MINERAL GRAIN MOUNTS	
	MINERAL GRAIN THIN SECTIONS	
	MINERAL GRAIN POLISHED THIN SECTIONS	
	THIN SECTION K-SPAR STAINS	
7	ROCK K-SPAR STAINS @ \$1.00 ea.	7.00
	CERAMIC PULVERIZER PLATES LAPPED	
	PETROGRAPHIC REPORT	329.00
	FED. TAX	
	PROV. TAX	
	SHIPPING	7.09
	TOTAL	\$391.04

Receiving Date Aug 23, 1985

Shipping Date Sept 1985

Via Mailed

PACKING SLIP

noranda

Noranda Exploration Company, Limited
(no personal liability)

THE BANK OF NOVA SCOTIA
DUBLIN AND BORDER
WINNIPEG, MANITOBA

7650

2130 Notre Dame Avenue
Winnipeg, Manitoba R3H 0K1
Canada

CHEQUE NO.	DATE	AMOUNT
007650	AUG 30, 1985	*****7,922.95

NOREX - WINNIPEG

PAY *****7,922 DOLLARS AND 95 CENTS

PAY TO THE ORDER OF

ACME ANALYTICAL LABS
852 EAST HASTINGS STREET
VANCOUVER
B.C.
VEB 1R6

PER *[Signature]*
AUTHORIZED SIGNATURE

PER *[Signature]*
AUTHORIZED SIGNATURE

⑆40527⑆002⑆00227⑆13⑆

⑆0000792295⑆

9 3 1 7

SCOTTIABANK
DATA CENTRE
WINNIPEG

⑆00227⑆002⑆40527⑆

⑆13⑆22⑆00⑆0000⑆

⑆0000792295⑆

SCOTTIABANK
DATA CENTRE
WINNIPEG
1 SE 85 16 1

SCOTTIABANK
DATA CENTRE
VANCOUVER
1 SE 85 13 1

SEP 13 1985
11 11
1133
DATE TIME

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TO THE CREDIT OF

Acme Analytical Laboratories Ltd

27150-001
Bank of Montreal
SEP 13 1985
Carril & Har
Vancouver

noranda

Noranda Exploration Company, Limited
(personal liability)

CANADIAN IMPERIAL BANK OF COMMERCE
WINNIPEG and KEEWATIN
WINNIPEG, MANITOBA

0007


4-2130 Notre Dame Avenue
Winnipeg, Manitoba R3H 0K1
Canada

CHEQUE NO.	DATE	AMOUNT
000007	SEP 23, 1985	***\$5,647.80

NOREX - WINNIPEG

PAY *****5,647 DOLLARS AND 80 CENTS

PAY TO THE ORDER OF
ACME ANALYTICAL LABS
852 EAST HASTINGS STREET
VANCOUVER
B.C.
V6B 1R6

PER  AUTHORIZED SIGNATURE

PER  AUTHORIZED SIGNATURE

⑆00537⑆010⑆ 01⑆00919⑆

⑆0000564780⑆

⑆00537⑆010⑆ 01⑆00919⑆

⑆0000564780⑆

noranda

Noranda Exploration Company, Limited
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THE BANK OF NOVA SCOTIA
DUBLIN AND BORDER
WINNIPEG, MANITOBA

7096

2130 Notre Dame Avenue
Winnipeg, Manitoba R3H 0K1
Canada

CHEQUE NO.	DATE	AMOUNT
007096	Jul 18. 1985	***\$1,264.75

NOREX - WINNIPEG

PAY *****1,264 DOLLARS AND 75 CENTS

PAY TO THE ORDER OF
 THUNDER BAY ANALYTICAL
 LABORATORIES LIMITED
 1081 BARTON STREET
 THUNDER BAY, ONTARIO
 P7B 5N3

PER *[Signature]*
 AUTHORIZED SIGNATURE
 PER *[Signature]*
 AUTHORIZED SIGNATURE

⑆40527⑆002⑆ 00227⑆13⑆

⑆0000126475⑆

FOR DEPOSIT ONLY
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 THUNDER BAY ANALYTICAL
 LABORATORIES INC.

00007-001 054
 BANK OF MONTREAL
 WINNIPEG REGIONAL
 054 00007-001

JUL 26 85

JY '85 26
 BANK OF MONTREAL
 WINNIPEG REGIONAL
 DATA CENTRE

JY '85 26
 SCOTIABANK
 DATA CENTRE
 WINNIPEG

40527 # 00227 # 13

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CANADIAN IMPERIAL BANK OF COMMERCE
LOGAN and KEEWATIN
WINNIPEG, MANITOBA

0262

4-2130 Noranda Avenue
Winnipeg, Manitoba R3H 0K1
Canada

CHEQUE NO.	DATE	AMOUNT
000262	Oct 8, 1985	*****391.24

NOREX - WINNIPEG

PAY *****391 DOLLARS AND 4 CENTS

OCT 21 1985

PAY TO THE ORDER OF
 VANCOUVER PETROGRAPHICS
 P.O. BOX 39
 VANCOUVER
 BRITISH COLUMBIA
 V0X 1J0

PER *[Signature]*
 AUTHORIZED SIGNATURE
 PER *[Signature]*
 AUTHORIZED SIGNATURE

⑆00537⑆⑆010⑆ 01⑆⑆00919⑆

⑆0000039104⑆

⑆00537⑆⑆010⑆

01⑆⑆00919⑆

⑆0000039104⑆

0003 03094

12010-809 (12)

C.C.C.S.
B.C.C.C.U.
VANCOUVER, B.C.

(12) 12010-809

OCT 28 85

17250-809
SUNSHINE CENTRE
FORT LANGLEY BRANCH
8770 Louisa Road
Langley, B.C.

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Vancouver Photographics
ACCOUNT No. 12848

DT '85 28
C.I.B.C.
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VANCOUVER, B.C.
17250-809

DT '85 28
C.C.C.S.
B.C.C.C.U.
VANCOUVER, B.C.

DT '85 29
C.I.B.C.
DATA CENTRE
VANCOUVER, B.C.

17250-809

12010-809

09500-010



52K15NW0100 2.8675 FREDART LAKE

900

Mining Lands Section

File No 2.8675

Control Sheet

TYPE OF SURVEY GEOPHYSICAL
 GEOLOGICAL
 GEOCHEMICAL
 EXPENDITURE

MINING LANDS COMMENTS:

No receipts. ✓

< Fredart/Lk. + Gerry/Lk. >

Lgd.

S.

D. Kirk
 Signature of Assessor

Feb. 21/86
 Date



Report of Work
(Geophysical, Geological,
Geochemical and Expenditures)

131-85
28675
Mining Act

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

MINING LANDS

Type of Survey(s) Mag	Township or Area Gerry Lake G-1782; Fredart Lake G-1779
Claim Holder(s) Noranda Exploration Company, Limited	Prospector's Licence No. A34387
Address P. O. Box 2656, Thunder Bay, Ontario P7B 5G2	
Survey Company Noranda Exploration Company, Limited	Date of Survey (from & to) 01 02 85 26 03 85 Day Mo. Yr. Day Mo. Yr.
Name and Address of Author (of Geo-Technical report) D. R. Carriere, P. O. Box 2656 Thunder Bay, Ontario P7B 5G2	Total Miles of line Cut 33.45 Km

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	40
	- Magnetometer	
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
KRL	794092		KRL	794127	
	794094			794128	
	794095			794131	
	704096			794132	
	794097				
	794101				
	794102				
	794103				
	794104				
	794105				
	794108				
	794109				
	794110				
	794111				
	794112				
	794117				
	794118				
	794119				
	794120				
	794121				
	794124				
	794125				
	794126				

Expenditures (excludes power stripping)

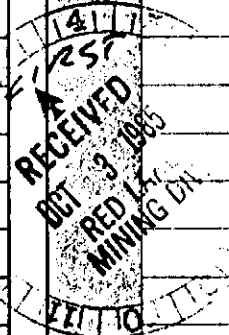
Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ + 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.



See original work statement

Total number of mining claims covered by this report of work. **27**

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Oct. 8, 1985	<i>[Signature]</i>
	Date Approved as Recorded	Branch Director
		<i>[Signature]</i>

Date **October 2, 1985**

Recorded Holder or Agent (Signature) *[Signature]*

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
C.S. Wallis, P. O. Box 2656, Thunder Bay, Ontario P7B 5G2

Date Certified **October 2, 1985**

Certified by (Signature) *[Signature]*

KRL-794091

Report of Work
(Geophysical, Geological,
Geochemical and Expenditures)

Mining LANDS

131-85
2.8675
Mining Act

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Nov 11

Company Name: **Oranda Exploration Company, Limited**
Address: **P. O. Box 2656, Thunder Bay, Ontario P7B 5G2**
Township or Area: **Gerry Lake G-1782; Fredart Lake G-1779**
Prospector's Licence No.: **A34387**
Date of Survey (from & to): **01 02 85 26 03 85**
Day | Mo. | Yr. | Day | Mo. | Yr.
Total Miles of line Cut: **33.45 Km**
Name and Address of Author (of Geo-Technical report): **D. R. Carriere, P. O. Box 2656 Thunder Bay, Ontario P7B 5G2**

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	• Electromagnetic • Magnetometer	40
For each additional survey: using the same grid: Enter 20 days (for each)	• Radiometric • Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical • Electromagnetic • Magnetometer • Radiometric • Other	Days per Claim
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic Magnetometer Radiometric	Days per Claim

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	MA	Expend. Days Cr.	Prefix	Mining Claim Number	MA	Expend. Days Cr.
KRL	794092	3/4		KRL	794127	1/4	
	794094	3/4			794128	>1/2	
	794095	1/4			794131	1/2	
	704096	1/4			794132	>1/2	
	794097	1/4					
	794101	3/4					
	794102	1/4					
	794103	1/4					
	794104	1/4					
	794103	1/4					
	794108	3/4					
	794109	1/4					
	794110	1/4					
	794111	1/4					
	794112	1/2					
	794117	1/2					
	794118	1/4					
	794119	1/4					
	794120	1/4					
	794121	3/4					
	794124	1/2					
	794125	1/4					
	794126	1/4					

PRORATE MAG =
 $(27 \times 40) \div (27 + 43) = 28.61 \Rightarrow 29 \text{ days.}$



Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work. **27**

Date: **October 2, 1985**
Recorded Holder or Agent (Signature): *[Signature]*

Office Use Only

Total Days Cr. Recorded: **1089**
Date Recorded: **Oct. 8, 1985**
Mining Recorder: *[Signature]*
Date Approved as Recorded: **1089**
Branch Director: *[Signature]*

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: **C.S. Wallis, P. O. Box 2656, Thunder Bay, Ontario P7B 5G2**

Date Certified: **October 2, 1985**
Certified by (Signature): *[Signature]*

G-N

W8500-134

134-85

28675

Walls



Ministry of Natural Resources Ontario

Report of Work (Geophysical, Geological, Geochemical and Expenditures)

Instructions: - Please type or print. - If number of mining claims traversed exceeds space on this form, attach a list. Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns. - Do not use shaded areas below.

MINING LANDS

Mining Act

Type of Survey(s) MaxMin	Township or Area Gerry Lake G-1782; Fredart Lake G- 1779
Claim Holder(s) Noranda Exploration Company, Limited	Prospector's Licence No. A34387
Address P. O. Box 2656, Thunder Bay, Ontario P7B 5G2	
Survey Company Noranda Exploration Company, Limited	Date of Survey (from & to) 01 02 85 26 03 85 Day Mo. Yr. Day Mo. Yr. * 33.45 Km
Name and Address of Author (of Geo-Technical report) D. R. Carriere, P. O. Box 2656, Thunder Bay, Ontario P7B 5G2	

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
Geochemical		
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
Geological		
Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
KRL	794092				
	794094				
	794095				
	794096				
	794097				
	794101				
	794102				
	794103				
	793104				
	794105				
	794108				
	794109				
	794110				
	794112				

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

RECEIVED OCT 8 1985 RED LAKE MINING DIV.

FIRST RECEIVED OCT 3 1985 RED LAKE MINING DIV.

See reversed work statement

Total number of mining claims covered by this report of work. 14

Date: October 2, 1985

Recorded Holder or Agent (Signature): *[Signature]*

For Office Use Only

Total Days Cr. Recorded: 289

Date Recorded: Oct. 8/85

Mining Recorder: *[Signature]*

Date Approved as Recorded: *[Signature]*

Branch Director: *[Signature]*

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
C.S. Wallis, P. O. Box 2656, Thunder Bay, Ontario P7B 5G2

Date Certified: October 2, 1985

Certified by (Signature): *[Signature]*

KRL. 794091

Mining Act

Part of Work
Geophysical, Geological,
Geochemical and Expenditures)

Mining Lands

134-85
28675

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Nov 27

Township or Area: **Gerry Lake G-1782; Fredart Lake G-1779**

Prospector's Licence No.: **A34387**

Holder(s) Name: **Noranda Exploration Company, Limited**

Address: **P. O. Box 2656, Thunder Bay, Ontario P7B 5G2**

Survey Company: **Noranda Exploration Company, Limited**

Name and Address of Author (of Geo-Technical report): **D. R. Carriere, P. O. Box 2656, Thunder Bay, Ontario P7B 5G2**

Date of Survey (from & to): **01 02 85 to 03 85**

Day | Mo | Yr. | Day | Mo | Yr. | Total Miles of line Cut: **33.45 Km**

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
KRL	794092	3/4			
	794094	3/4			
	794095	1/4			
	794096	1/4			
	794097	1/4			
	794101	3/4			
	794102	1/4			
	794103	1/4			
	793104	1/4			
	794105	1/4			
	794108	3/4			
	794109	1/4			
	794110	1/2			
	794112	1/4			
		2 3/4			

PRORATE E.M. = $(14 \times 20) \div (14 + 2 \frac{3}{4}) = 13.83 \approx 14$ days

Expenditures (excludes power strips)

Type of Work Performed: _____

Performed on Claim(s): _____

Calculation of Expenditure Days Credits

Total Expenditures \$ _____ + 15 = Total Days Credits _____

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

RECEIVED
OCT 8 1985
RED LAKE MINING DIV.

FIRST RECEIVED
OCT 3 1985
RED LAKE MINING DIV.

Total number of mining claims covered by this report of work. **14**

For Office Use Only

Total Days Cr. Recorded: **280**

Date Recorded: **Oct. 8/85**

Mining Recorder: *[Signature]*

Date Approved as Recorded: _____

Branch Director: _____

Date: **October 2, 1985**

Recorded Holder or Agent (Signature): *[Signature]*

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: **C.S. Wallis, P. O. Box 2656, Thunder Bay, Ontario P7B 5G2**

Date Certified: **October 2, 1985**

Certified by (Signature): *[Signature]*

KRL. 794091

G-N

W8502-135

135-85

Nov 1985



Report of Work
(Geophysical, Geological,
Geochemical and Expenditures)

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

MINING LANDS

Mining Act

28675

Type of Survey(s) Pulse Electromagnetic	Township or Area Gerry Lake G-1782; Fredart Lake G- 1779
Claim Holder(s) Noranda Exploration Company, Limited	Prospector's Licence No. A34387
Address P. O. Box 2656, Thunder Bay, Ontario P7B 5G2	
Survey Company Noranda Exploration Company, Limited	Date of Survey (from & to) 16 03 85 26 03 85 Day Mo. Yr. Day Mo. Yr.
Name and Address of Author (of Geo-Technical report) D. R. Carriere, P. O. Box 2656, Thunder Bay, Ontario P7B 5G2	
Total Miles of line Cut 33.45 Km	

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	34
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	- Electromagnetic	
	- Magnetometer	
	- Radiometric	

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
KRL	794110*				
	794111				
	794117				
	794118				
	794119				
	794120				
	794121				
	794124				
	794125				
	794126				
	794127				
	794128				
	794131				
	794132				

* Credit reduced to 20 days. as there is already 60 days geophys. credits applied in max. allowed credit is 80 days.

RECEIVED
OCT 8 1985
RED LAKE MINING DIV.

RECEIVED
OCT 9 1985
RED LAKE MINING DIV.

See journal work statement.

Expenditures (excludes power strip)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ + 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work. **14**

Date **October 2, 1985**

Recorded Holder or Agent (Signature) *[Signature]*

For Office Use Only

Total Days Cr. Recorded **476**

Date Recorded **Oct. 8/85**

Date Approved as Recorded **462**

Mining Recorder *[Signature]*

Branch Director *[Signature]*

Certification Verifying Report of Work
I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
C.E. Wallis, P. O. Box 2656, Thunder Bay, Ontario P7B 5G2

Date **October 2, 1985**

Certified by (Signature) *[Signature]*

KRL 794104

Report of Work
Geophysical, Geological,
Geochemical and Expenditures)

135-85

Instructions - Please type or print.
If number of mining claims traversed exceeds space on this form, attach a list.
Note - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
Do not use shaded areas below.

Mining LANDS

Mining Act 28675

CRONE PULSE

Township or Area **Gerry Lake G-1782;**
Fredart Lake G-1779

Prospector's Licence No.
A34387

Noranda Exploration Company, Limited
P. O. Box 2656, Thunder Bay, Ontario P7B 5G2

Noranda Exploration Company, Limited
Name and Address of Author (of Geo-Technical report)

Date of Survey (from & to)
16 03 85 26 03 85
Day Mo. Yr. Day Mo. Yr.
Total Miles of line Cut
33.45 Km

D. R. Carriere, P. O. Box 2656, Thunder Bay, Ontario P7B 5G2
Credits Requested per Each Claim in Columns at right

Special Provisions

For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic - Magnetometer	Days per Claim
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric - Other	
	Geological	
	Geochemical	

Man Days

Complete reverse side and enter total(s) here	Geophysical - Electromagnetic - Magnetometer - Radiometric - Other	Days per Claim
12 = 39	Geological	
	Geochemical	

Airborne Credits

Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic Magnetometer Radiometric	Days per Claim
--	--	----------------

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	EM	Expend. Days Cr.
KRL	*794110	✓	✓
	794111		✓
1 Reading	794117	✓	✓
	794118		✓
	794119		✓
	794120		✓
	794121		0
	794124		0
	794125		✓
	794126		✓
	794127		✓
	794128		✓
	794131		✓
	794132		✓

** Credit reduced to 20 days as there is already 60 days geophys. credits applied for max. allowed credit is 80 days.*
AK

RECEIVED
OCT 8 1985
RED LAKE DIV.

RECEIVED
OCT 3 1985
RED LAKE DIV.

Expenditures (excludes power strip)
Type of Work Performed
Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work. **14**

Recorded Holder or Agent (Signature)
Wallis
October 2, 1985

For Office Use Only
Total Days Cr. Recorded **476**
Date Recorded **Oct. 8/85**
Mining Recorder **Kevin Priest**
Date Approved as Recorded **462**
Branch Director

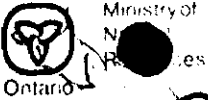
I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work and witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
Wallis, P. O. Box 2656, Thunder Bay, Ontario P7B 5G2

Certified by (Signature)
Wallis
October 2, 1985

G-N

Nov. 28th



Report of Work
(Geophysical, Geological,
Geochemical and Expenditures)

137-85
28675
Mining Act

Instructions: - Please type or print.
- Number of mining claims traversed
- Space on this form, attach a list.
Note: - Day days credits calculated in the
"Expenditures" section may be entered
in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Pichette WS502-137

Type of Survey: **Beneficiation Studies** Township or Area: **Gerry Lake G-1782**
 Claim Holder(s): **Noranda Exploration Company, Limited** **Fredart Lake G-1779**
 Address: **P.O. Box 2656, Thunder Bay, Ontario P7B 5G2** Inspector's Licence No. **A 34387**
 Survey Company: **Noranda Exploration Company, Limited** Date of Survey (from & to): **1 Day 06 Mo. 85 Yr. 31 Day 09 Mo. 85 Yr.** Total Miles of line Cut: **33.45 Km**
 Name and Address of Author (of Geo-Technical report): **Ian A. Perry, P.O. Box 2656, Thunder Bay, Ontario P7B 5G2**

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
Man Days Complete reverse side and enter total(s) here	Geological	Days per Claim
	- Geophysical	
	- Electromagnetic	
	- Magnetometer	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	- Radiometric	
	Geological	
	- Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.	Prefix	Mining Claim Number	Expend. Days Cr.
KRL.	794094	23			
	794108	20			
	794113	20			
	794116	20			
	794122	20			
	794123	20			
	794129	20			
	794130	20			

RECEIVED
OCT 31 1985
MINING LANDS SECTION

RECEIVED
OCT 9 1985
RED LAKE
MINING DIV.

See original work statement

Expenditures (excludes power stripping)

Type of Work Performed: **BENEFICIATION STUDIOS**

Performed on Claim(s):
794092 → 794094 → 794101 → 794105; 794109 → 112;
794117 → 121; 794124 → 129; 794131 → 32
845798 → 800; 846912

Calculation of Expenditure Days Credits

Total Expenditures: **\$ 2,458.78** Total Days Credits: **163**
 ÷ 15 = 163

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date: **October 8, 1985** Recorder/Holder/Agent Signature: *Ian A. Perry*

For Office Use Only

Total Days Cr. Recorded: **163** Date Recorded: **Oct 9/85** Mining Recorder: *Ian A. Perry*
 Date Approved as Recorded: Branch Director: *Ian A. Perry*

Total number of mining claims covered by this report of work: **8**

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: **Ian A. Perry, P.O. Box 2656, Thunder Bay, Ontario P7B 5G2**

Date Certified: **October 8, 1985** Certifying (Signature): *Ian A. Perry*

G.N

W8502-139

#138-85

Nov. 28



Report of Work
(Geophysical, Geological,
Geochemical and Expenditures)

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Pichette

Mining Act

Type of Survey(s) Geological Mapping	Township or Area Gerry Lake G-1782
Claim Holder(s) Noranda Exploration Company, Limited	Fredart Lake G-1779 Prospector's Licence No. A 34387
Address P.O. Box 2656, Thunder Bay, Ontario P7B 5G2	
Survey Company Noranda Exploration Company, Limited	Date of Survey (from & to) 1 Day 06 Mo. 85 Yr. 31 Day 09 Mo. 85 Yr.
Name and Address of Author (of Geo-Technical report) Ian A. Perry, P.O. Box 2656, Thunder Bay, Ontario P7B 5G2	Total Miles of line Cut 33.45 Km

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	· Electromagnetic	
For each additional survey: using the same grid: Enter 20 days (for each)	· Magnetometer	
	· Radiometric	
	· Other	
	Geological	20
	Geochemical	

Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	· Electromagnetic	
	· Magnetometer	
	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	· Electromagnetic	
	· Magnetometer	
	· Radiometric	

Mining Claims Traversed (List in numerical sequence)		
Prefix	Mining Claim Number	Expend. Days Cr.
KRL.	794092	
	794094	
	794095	
	794096	
	794097	
	794101	
	794102	
	794103	
	794104	
	794105	
	794109	
	794110	
	794111	
	794112	
	794117	
	794118	
	794119	
	794120	
	794121	
	794124	
	794125	
	794126	
	794127	

RECEIVED
OCT 24 1985
MINING LANDS SECTION
RECEIVED
OCT 9 1985
RED LAKE
MINING DIV.

See attached work statement.

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ + 15 = Total Days Credits

Total number of mining claims covered by this report of work. **31**

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
620	Oct 9 1985	<i>[Signature]</i>
Date Approved as Recorded	Branch Director	

Date **October 8, 1985** Reporter/Holder or Agent Signature *[Signature]*

Certification Verifying Report of Work
I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
Ian A. Perry, P.O. Box 2656, Thunder Bay, Ontario P7B 5G2

Date Certified **October 8, 1985** Certified by (Signature) *[Signature]*

KRL. 794091

Nov. 28

#138-85

28675

Type of Work (Geophysical, Geological, Geochemical and Expenditures)

Instructions: - Please type or print. If number of mining claims traversed exceeds space on this form, attach a list. Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns. - Do not use shaded areas below.

Pichette

Mining Act

Type of Survey(s) **Geological Mapping** Township or Area **Gerry Lake G-1782**

Claim Holder(s) **Noranda Exploration Company, Limited** Fredart Lake G-1779

Address **P.O. Box 2656, Thunder Bay, Ontario P7B 5G2** Prospector's Licence No. **A 34387**

Survey Company **Noranda Exploration Company, Limited** Date of Survey (from & to) **1 06 85 31 09 85** Total Miles of line Cut **33.45 Km**

Name and Address of Author (of Geo-Technical report) **Ian A. Perry, P.O. Box 2656, Thunder Bay, Ontario P7B 5G2**

Credits Requested per Each Claim in Columns at right

Special Provisions For first survey: Enter 40 days. (This includes line cutting) For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	20
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.	Prefix	Mining Claim Number	Expend. Days Cr.
KRL.	794092	1/2	KRL.	794128	✓
	794094	~1/2		794129	>1/2
	794095	1/4		794131	~✓
	794096	1/4		794132	1/2
	794097	1/4		845798	✓
	794101	1/2		845799	✓
	794102	✓		845800	✓
	794103	✓		845912	1/4
	794104	>1/2			1/4
	794105	<1/2			
	794109	3/4			
	794110	✓			
	794111	✓			
	794112	1/2			
	794117	✓			
	794118	✓			
	794119	✓			
	794120	✓			
	794121	1/4			
	794124	1/4			
	794125	✓			
	794126	✓			
	794127	✓			

PROBATE GEOL.:

$(31 \times 20) \div (31 + 25) = 16.64$

1121

RECEIVED
OCT 9 1985
RED LAKE
MINING DIV.

20/14

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded **620** Date Recorded **Oct 9 1985** Mining Recorder **[Signature]**

Date Approved as Recorded **Oct 9 1985** Branch Director **[Signature]**

Date **October 8, 1985** Reported Holder or Agent Signature **[Signature]**

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying **Ian A. Perry, P.O. Box 2656, Thunder Bay, Ontario P7B 5G2**

Date Certified **October 8, 1985** Certified by (Signature) **[Signature]**

KRL. 794091



Mining Lands Comments

Roger Barlow.

Eight measurements of the decay were taken on the Crane Pulse E.M. survey. The profiles are in the body of the report. No readings are shown. Is this acceptable? Any other comments appreciated.

Dennis Kimwig.

To: Geophysics

Comments

- OK - line domain requires many readings (too many to put on maps) - should suggest a listing of readings

Approved

Wish to see again with corrections

Date Dec 11/85

Signature (Roger Barlow)

To: Geology - Expenditures

Comments

Approved

Wish to see again with corrections

Date

Signature

To: Geochemistry

Comments

Approved

Wish to see again with corrections

Date

Signature



GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) MAGNETOMETER
Township or Area Fredart Lake G.1779 & Gerry Lake G.1782
Claim Holder(s) Noranda Exploration Co., Ltd.
Survey Company Noranda Exploration Co., Ltd.
Author of Report D. R. Carriere
Address of Author P. O. Box 2656 Thunder Bay Ont P7B 5G2
Covering Dates of Survey FEB 1 - MAR 26 1985
(linecutting to office)
Total Miles of Line Cut 33.45km

MINING CLAIMS TRAVERSED
List numerically

KRL794092	(prefix)	(number)
794094		
794095		
794096		
794097		
794101		
794102		
794103		
794104		
794105		
794108		
794109		
794110		
794111		
794112		
794117		
794118		
794119		
794120		
794121		
794124		
794125		
794126		
794127		
794128		
794131		
794132		
TOTAL CLAIMS		<u>27</u>

If space insufficient, attach list

SPECIAL PROVISIONS CREDITS REQUESTED	Geophysical	DAYS per claim.
ENTER 40 days (includes line cutting) for first survey.	-Electromagnetic	_____
ENTER 20 days for each additional survey using same grid.	-Magnetometer	<u>40</u>
	-Radiometric	_____
	-Other	_____
	Geological	_____
	Geochemical	_____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Nov. 27, 1985 SIGNATURE: D. R. Carriere
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

Number of Stations 1158 Number of Readings 1158

Station interval 25 Line spacing 200

Profile scale _____

Contour interval 250, 500, 1000, 2000, 5000, 7500

MAGNETIC

Instrument Scintrex MP-3

Accuracy - Scale constant 0.1nt

Diurnal correction method Automatic correction with base station

Base Station check-in interval (hours) base station reading interval-magnetometer 50 second

Base Station location and value Ear Falls 59470 nts

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method Time Domain Frequency Domain

Parameters - On time _____ Frequency _____

- Off time _____ Range _____

- Delay time _____

- Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth - include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m.
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, -(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____



**GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT**

**TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.**

Type of Survey(s) ELECTROMAGNETIC (MAXMIN)
Township or Area Fredart Lake G.1779 & Gerry Lake G.1782
Claim Holder(s) Noranda Exploration Co., Ltd.

Survey Company Noranda Exploration Co., Ltd.
Author of Report D. R. Carriere
Address of Author P. O. Box 2656 Thunder Bay Ont P7B 5G2
Covering Dates of Survey Feb. 1 - Mar. 26, 1985
(linecutting to office)
Total Miles of Line Cut 33.45 km

**MINING CLAIMS TRAVERSED
List numerically**

(prefix)	(number)
KRL	794092
	794094
	794095
	794096
	794097
	794101
	794102
	794103
	794104
	794105
	794108
	794109
	794110
	794112
TOTAL CLAIMS <u>14</u>	

<u>SPECIAL PROVISIONS CREDITS REQUESTED</u>	<u>DAYS per claim.</u>
ENTER 40 days (includes line cutting) for first survey.	-Electromagnetic <u>20</u>
ENTER 20 days for each additional survey using same grid.	-Magnetometer _____
	-Radiometric _____
	-Other _____
	Geological _____
	Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)
DATE: Nov. 27, 1985 SIGNATURE: D. R. Carriere
Author of Report or Agent

Res. Geol. _____ Qualifications _____

<u>Previous Surveys</u>			
<u>File No.</u>	<u>Type</u>	<u>Date</u>	<u>Claim Holder</u>

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations 364 Number of Readings 728
Station interval 25 Line spacing 200
Profile scale 1 cm = 20%
Contour interval _____

MAGNETIC

Instrument _____
Accuracy – Scale constant _____
Diurnal correction method _____
Base Station check-in interval (hours) _____
Base Station location and value _____

ELECTROMAGNETIC

Instrument Apex Parametrics - MaxMin 11
Coil configuration Horizontal Loop
Coil separation 100m
Accuracy +1%
Method: Fixed transmitter Shoot back In line Parallel line
Frequency 444 Hz & 1777 Hz
(specify V.L.F. station)
Parameters measured In-phase & out-of-phase components of the secondary field

GRAVITY

Instrument _____
Scale constant _____
Corrections made _____
Base station value and location _____
Elevation accuracy _____

**INDUCED POLARIZATION
RESISTIVITY**

Instrument _____
Method Time Domain Frequency Domain
Parameters – On time _____ Frequency _____
– Off time _____ Range _____
– Delay time _____
– Integration time _____
Power _____
Electrode array _____
Electrode spacing _____
Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m.
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, -(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

Number of Stations 331 Number of Readings 442

Station interval 25 & 50m Line spacing 200m

Profile scale 1cm = 20ppk

Contour interval _____

MAGNETIC

Instrument _____

Accuracy - Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument Crone Pulse EM

Coil configuration Deepem

Coil separation 50m to 1km

Accuracy ±2ppk

Method: Fixed transmitter Shoot back In line Parallel line

Frequency Time Domain 10ms time base 1 sec ramp shut off
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method Time Domain Frequency Domain

Parameters - On time _____ Frequency _____

- Off time _____ Range _____

- Delay time _____

- Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth - include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m.
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, (circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____
Station interval _____ Line spacing _____
Profile scale _____
Contour interval _____

MAGNETIC

Instrument _____
Accuracy – Scale constant _____
Diurnal correction method _____
Base Station check-in interval (hours) _____
Base Station location and value _____

ELECTROMAGNETIC

Instrument _____
Coil configuration _____
Coil separation _____
Accuracy _____
Method: Fixed transmitter Shoot back In line Parallel line
Frequency _____
(specify V.L.F. station)
Parameters measured _____

GRAVITY

Instrument _____
Scale constant _____
Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION
RESISTIVITY

Instrument _____
Method Time Domain Frequency Domain
Parameters – On time _____ Frequency _____
– Off time _____ Range _____
– Delay time _____
– Integration time _____
Power _____
Electrode array _____
Electrode spacing _____
Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____
(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____
(specify for each type of survey)

Accuracy _____
(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken KRL794095, KRL794097, KRL794101-103, KRL794105, KRL794110, KRL794117-121, KRL794124-125, KRL794127, KRL794132, KRL845798

Total Number of Samples 105

Type of Sample Rock (Nature of Material)

Average Sample Weight 0.5kg

Method of Collection Hand samples

Soil Horizon Sampled

Horizon Development

Sample Depth

Terrain flat

Drainage Development poor

Estimated Range of Overburden Thickness

0-20m

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis

crushed to -100 mesh

General

ANALYTICAL METHODS

Values expressed in: per cent [x], p. p. m. [x], p. p. b. []

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, (circle)

Others 11 major oxide & LOI (%)

Field Analysis (tests)

Extraction Method

Analytical Method

Reagents Used

Field Laboratory Analysis

No. (tests)

Extraction Method

Analytical Method

Reagents Used

Commercial Laboratory (tests)

Name of Laboratory Thunder Bay Testing Acme Labs Vancouver

Extraction Method

Analytical Method

Reagents Used

General Thunder Bay Testing -

Atomic Absorbtion

Acme Labs -

0.1g sample, fused with 0.6g

LiBO2 dissolved in 50ml HNO3

Atomic Absorbtion



GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) GEOLOGICAL MAPPING
Township or Area Fredart Lake G.1779 & Gerry Lake G.1782
Claim Holder(s) Noranda Exploration Co., Ltd
Survey Company Noranda Exploration Co., Ltd.
Author of Report Ian A. Perry
Address of Author P. O. Box 2656 Thunder Bay Ont. P7B 5G2
Covering Dates of Survey June 1 - Sept. 30, 1985
(linecutting to office)
Total Miles of Line Cut 33.45 km

MINING CLAIMS TRAVERSED
List numerically

<small>(prefix)</small>	<small>(number)</small>
KRL	794092
	794094
	794095
	794096
	794097
	794101
	794102
	794103
	794104
	794105
	794109
	794110
	794111
	794112
	794117
	794118
	794119
	794120
	794121
	794124
	794125
	794126
	794127
	794128
	794129
	794131
	794132
	845798
	845799
	845800
	845912
TOTAL CLAIMS	31

If space insufficient, attach list

<u>SPECIAL PROVISIONS</u> <u>CREDITS REQUESTED</u>	<u>Geophysical</u>	<u>DAYS</u> <u>per claim.</u>
ENTER 40 days (includes line cutting) for first survey.	-Electromagnetic	_____
	-Magnetometer	_____
	-Radiometric	_____
	-Other	_____
ENTER 20 days for each additional survey using same grid.	Geological	20
	Geochemical	_____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Nov. 27, 1985 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy - Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION
RESISTIVITY

Instrument _____

Method Time Domain Frequency Domain

Parameters - On time _____ Frequency _____

- Off time _____ Range _____

- Delay time _____

- Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth - include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m.
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, -(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____



Recorded Holder
NORANDA EXPLORATION COMPANY, LIMITED

Township or Area
FREDART LAKE & GERRY LAKE AREAS

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ days Magnetometer _____ 29 days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	KRL 794092 794094 to 97 inclusive 794101 to 05 inclusive 794108 to 12 inclusive 794117 to 21 inclusive 794124 to 28 inclusive 794131 - 32

Special credits under section 77 (16) for the following mining claims

[Empty box for special credits]

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

[Empty box for no credits]

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.



Recorded Holder
NORANDA EXPLORATION COMPANY, LIMITED

Township or Area
FREDART LAKE AND GERRY LAKE AREAS

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic <u>MaxMin</u> <u>14</u> days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	KRL 794092 794094 to 97 inclusive 794101 to 05 inclusive 794108 to 110 inclusive 794112

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.



Recorded Holder
NORANDA EXPLORATION COMPANY, LIMITED

Township or Area
FREDART LAKE AND GERRY LAKE AREAS

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic <u>Pulse</u> <u>39</u> days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ days Man days <input checked="" type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input type="checkbox"/> Ground <input checked="" type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	KRL 794110 - 11 794117 to 20 inclusive 794125 to 28 inclusive 794131 - 32

Special credits under section 77 (16) for the following mining claims

[Empty box for special credits]

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

KRL 794121
794124

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.



Recorded Holder
NORANDA EXPLORATION COMPANY, LIMITED

Township or Area
FREDART LAKE AND GERRY LAKE AREAS

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input type="checkbox"/> Ground <input type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	<p>\$2458.78 SPENT ON ANALYSES OF SAMPLES TAKEN FROM MINING CLAIMS:</p> <p style="text-align: right;">KRL 794097' 794101 to 03 inclusive' 794105' 794110 to 13 inclusive' 794117 to 21 inclusive' 794124 - 25 794127 794132 845798</p> <p>164 ASSESSMENT WORK DAYS ARE ALLOWED WHICH MAY BE GROUPED IN ACCORDANCE WITH SECTION 76(6) OF THE MINING ACT.</p>

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.



Recorded Holder
NORANDA EXPLORATION COMPANY, LIMITED

Township or Area
FREDART LAKE AND GERRY LAKE AREAS

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological <u>17</u> days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	KRL 794092. 794094 to 97 inclusive. 794101 to 05 inclusive. 794109 to 12 inclusive. 794117 to 21 inclusive 794124 to 29 inclusive 794131 - 32 845798 to 800 inclusive 845912.

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.



March 19, 1986

Your Files: 131-85, 134-85, 135-85,
137-85, 138-85
Our File : 2.8675

Mining Recorder
Ministry of Northern Development and Mines
P.O. Box 5003
Red Lake, Ontario
POV 2M0

Dear Sir:

RE: Notice of Intent dated February 21, 1986
Geophysical (Electromagnetic & Magnetometer)
Geological Surveys and Data for Assaying
on Mining Claims KRL 794097, et al, in the
Area of Fredart Lake and Gerry Lake

The assessment work credits, as listed with the
above-mentioned Notice of Intent, have been approved
as of the above date.

Please inform the recorded holder of these mining
claims and so indicate on your records.

Yours sincerely,

J.C. Smith, Supervisor
Mining Lands Section

Whitney Block, 6th Floor
Queen's Park
Toronto, Ontario
M7A 1W3

Telephone: (416) 965-4888

DK/mc

cc: Noranda Exploration Company, Limited
P.O. Box 2656
Thunder Bay, Ontario
P7B 5G2

Resident Geologist
Red Lake, Ontario

Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

Encl.



Ontario

March 10/86

Ministry of
Northern Development
and Mines

February 21, 1986

Your File: #'s 131-85,134-85
135-85,137-85
138-85

Our File: 2.8675

Mining Recorder
Ministry of Northern Development and Mines
P.O. Box 5003
Red Lake, Ontario
POV 2M0

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. R.J. Pichette at (416) 965-4888.

Yours sincerely,

S.E. Yundt, Director
Land Management Branch

Mining Lands Section
Whitney Block, 6th Floor
Queen's Park
Toronto, Ontario
M7A 1W3

D.K. DK/mc

Encls.

cc: Noranda Exploration Company, Limited
P.O. Box 2656
Thunder Bay, Ontario
P7B 5G2

Mr. G.H. Ferguson
Mining & Lands Comm.
Toronto, Ontario



Notice of Intent
for Technical Reports

February 21, 1986

2.8675/131-85,134-85
135-85,137-85
138-85

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on the record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted directly to the Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

RECEIVED

85.11.25

Ray Pichette

NOV 27 1985

MINING LANDS SECTION

Report of Work # 135-85

Recorded holder wants you to approve maximum possible credits on claim KCL 794110 rather than 20 days noted by the Mining Records on the Report of Work.

He feels that the 60 day geophysics previously supplied for cost be reduced significantly thereby allowing more than 20 days credits on this Report of Work!

Ray Scott Sweet

In this situation, how would you normally approve the credits, assuming the approval would be more than 20 days?

Scott. (S)

Assessment Work Breakdown

#135-85

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey												
Pulse Electromagnetic												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
67	X	7	=	469	+		=	469	+	14	=	34

Type of Survey												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
	X	7	=		+		=		+		=	

Type of Survey												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
	X	7	=		+		=		+		=	

Type of Survey												
Technical Days	X	7	=	Technical Days Credits	+	Line-cutting Days	=	Total Credits	+	No. of Claims	=	Days per Claim
	X	7	=		+		=		+		=	

January 17, 1986

File: 2.8675

Noranda Exploration Company, Limited
P.O. Box 2656
Thunder Bay, Ontario
P7B 5G2

Attention: Ian A Perry

Dear Sir:

RE: Data for Assaying submitted on
Mining Claims KRL 794094, et al,
in the Areas of Fredart Lake and
Gerry Lake

In order to complete the above-described submission,
please remit (in duplicate), receipts or cancelled
cheques as proof of payment for the \$2458.78 expendi-
ture credits claimed.

When submitting this information, please quote file
2.8675.

For further information, please contact Dennis Kinvig
at (416)965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

DK/mc

cc: Mining Recorder-Red Lake, Ontario-File#137-85
Noranda Exploration Company, Limited
Suite 400
55 Yonge Street
Toronto, Ontario
M5E 1J4

REGISTERED

November 27, 1985

Report Of Work 130 to 135
inclusive

Noranda Exploration Company, Limited
P.O. Box 2656
Thunder Bay, Ontario
P7B 5G2

Dear Sirs:

RE: Mining Claims KRL 786672, et al,
in the Areas of Gerry Lake and
Fredart Lake

I have not received the reports and maps (in duplicate)
for Geophysical (Electromagnetic & Magnetometer) Surveys
on the above-mentioned claims.

As the assessment "Report of Work" was recorded by the
Mining Recorder on October 8, 1985 the 60 day period
allowed by Section 77 of the Mining Act for the submission
of the technical reports and maps to this office will
expire on December 7, 1985.

If the material is not submitted to this office by December 7,
1985 I will have no alternative but to instruct the Mining
Recorder to delete the work credits from the claim record
sheets.

For further information, please contact Mr. Arthur Barr
at (416)965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

AB/mc

cc: Noranda Exploration Company, Limited
Suite 400
55 Yonge Street
Toronto, Ontario
M5E 1J4

Mining Recorder
Red Lake, Ontario

Encl.

Noranda Exploration Company, Limited

(no personal liability)

P.O. Box 2656

Thunder Bay, Ontario P7B 5G2

noranda

Telephone (807) 623-4339
Telex 073-4659

January 22, 1986

FILE #: 2.8675

Land Management Branch
Whitney Block, Room 6643
Queen's Park
TORONTO, Ontario
M7A 1W3

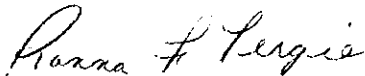
Attention: Dennis Kinvig:

RE: Data for Assaying submitted on Mining Claims
KRL.794094 et al, in the Areas of Fredart & Gerry Lakes.

Enclosed please in duplicate copies of cancelled cheques and invoices
for Beneficiation Studies on the Gerry Lake Project.

As per our telephone conversation these were submitted on November
28, 1985.

Yours truly,



Ronna F. Tergie
Records Clerk
Northwestern Ontario Division

/rft
encl.

c.c. file 1340

RECEIVED

JAN 24 1986

MINING LANDS SECTION

Noranda Exploration Company, Limited

(no personal liability)

P.O. Box 2656

Thunder Bay, Ontario P7B 5G2

 **noranda**

Telephone (807) 623-4339

Telex 073-4659

November 27, 1985

VIA GELCO EXPRESS

Lands Administration Branch
Ministry of Natural Resources
Room 6643, Whitney Block
Queen's Park
Toronto, Ontario
M7A 1W3

RECEIVED

NOV 28 1985

MINING LANDS SECTION

Attention: Mrs. S. E. Yundt

Dear Mrs. Yundt:

Please find enclosed Report of Work and Pink Technical Data Statement in duplicate, for the Geological and Geophysical surveys which were done on the Gerry North Property and covered claims KRL794091 et al.

With respect to the magnetic and electromagnetic (MaxMin) surveys, we would like to request that they be assessed under special provisions. We appreciate that this work was not carried out as required (i.e. a 200m line separation was used), but we would like to receive the partial credits under Special Provisions.

As this will reduce the number of days finally credited, we would like the claim KRL794110 reviewed for the full 34 mandays. This claim was reduced as we had over 80 days geophysics when we were given full credits under Special Provisions.

Yours truly,

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)



D. R. Carriere
Division Geophysicist
Northwestern Ontario Division

DRC:js

c. c. F. Tergie
C. S. Wallis
File 1340

Noranda Exploration Company, Limited
(no personal liability)
P.O. Box 2656
Thunder Bay, Ontario P7B 5G2

noranda

1340
Gerry

Telephone (807) 623-4339
Telex 073-4659

November 28, 1985

Lands Administration Branch
Ministry of Natural Resources
Room 6643, Whitney Block
Queen's Park
Toronto, Ontario
M7A 1W3

Attention: Mrs. S. E. Yundt

Dear Mrs. Yundt:

Enclosed please find a Certificate of Analysis, invoices and cancelled cheques, in duplicate, for Beneficiation Studies on the Gerry Project. Your office assigned the Reports of Work No. 137-85 and 139-85.

The Pink Technical Data Statements and written report were sent yesterday via Gelco Express.

Yours truly,

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

Lorna F. Lergie

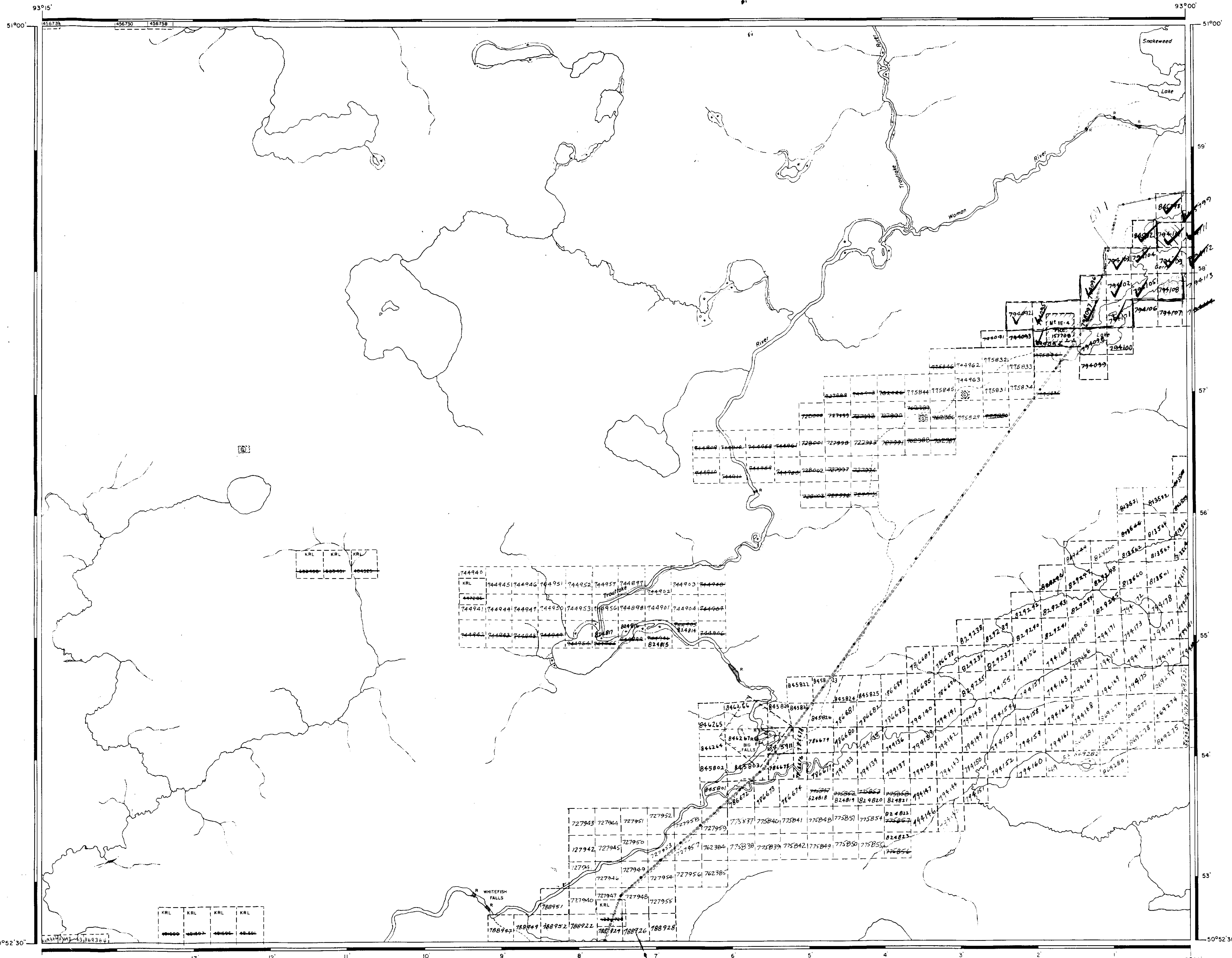
for
Ian A. Perry
Project Geologist-Red Lake
Northwestern Ontario Division

IAP:js

c.c. ~~P. Lergie~~
C. S. Wallis
File 1340

Enclosures

JOYCE RIVER G-1797



SOUTH OF OTTER LAKE G-1888

FREDART LAKE G-1779

KARAS LAKE G-1801

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

- M.R.O. - MINING RIGHTS ONLY
- S.R.O. - SURFACE RIGHTS ONLY
- M.+S. - MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
43 MIN. ACT		25/8/70	S.R.O.	163474

RED LAKE MINING DIVISION
MAR 21 1986
RED LAKE, ONTARIO

SAND AND GRAVEL

Q JARRY PERMIT
Updated Nov 24 84

LEGEND

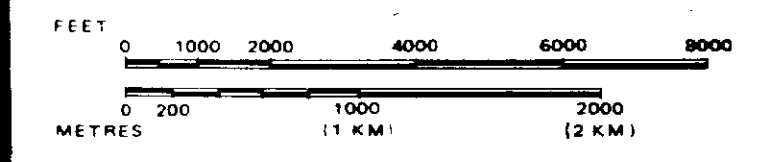
- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
 - TOWNSHIPS, BASE LINES, ETC.
 - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
 - LOT LINES
 - PARCEL BOUNDARY
 - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" SURFACE RIGHTS ONLY	○
" MINING RIGHTS ONLY	◐
LEASE, SURFACE & MINING RIGHTS	■
" SURFACE RIGHTS ONLY	◼
" MINING RIGHTS ONLY	◻
LICENCE OF OCCUPATION	◄
ORDER-IN-COUNCIL	OC
RESERVATION	⊙
CANCELLED	⊖
SAND & GRAVEL	⊙

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6 1913, VESTED IN ORIGINAL PATENTEES BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1

SCALE 1 INCH = 40 CHAINS



AREA
GERRY LAKE
M.N.R. ADMINISTRATIVE DISTRICT
RED LAKE
MINING DIVISION
RED LAKE
LAND TITLES / REGISTRY DIVISION
KENORA / PATRICIA

Ontario Ministry of Natural Resources Land Management Branch

Date: FEBRUARY 16, 1983 Number: **G-1782**

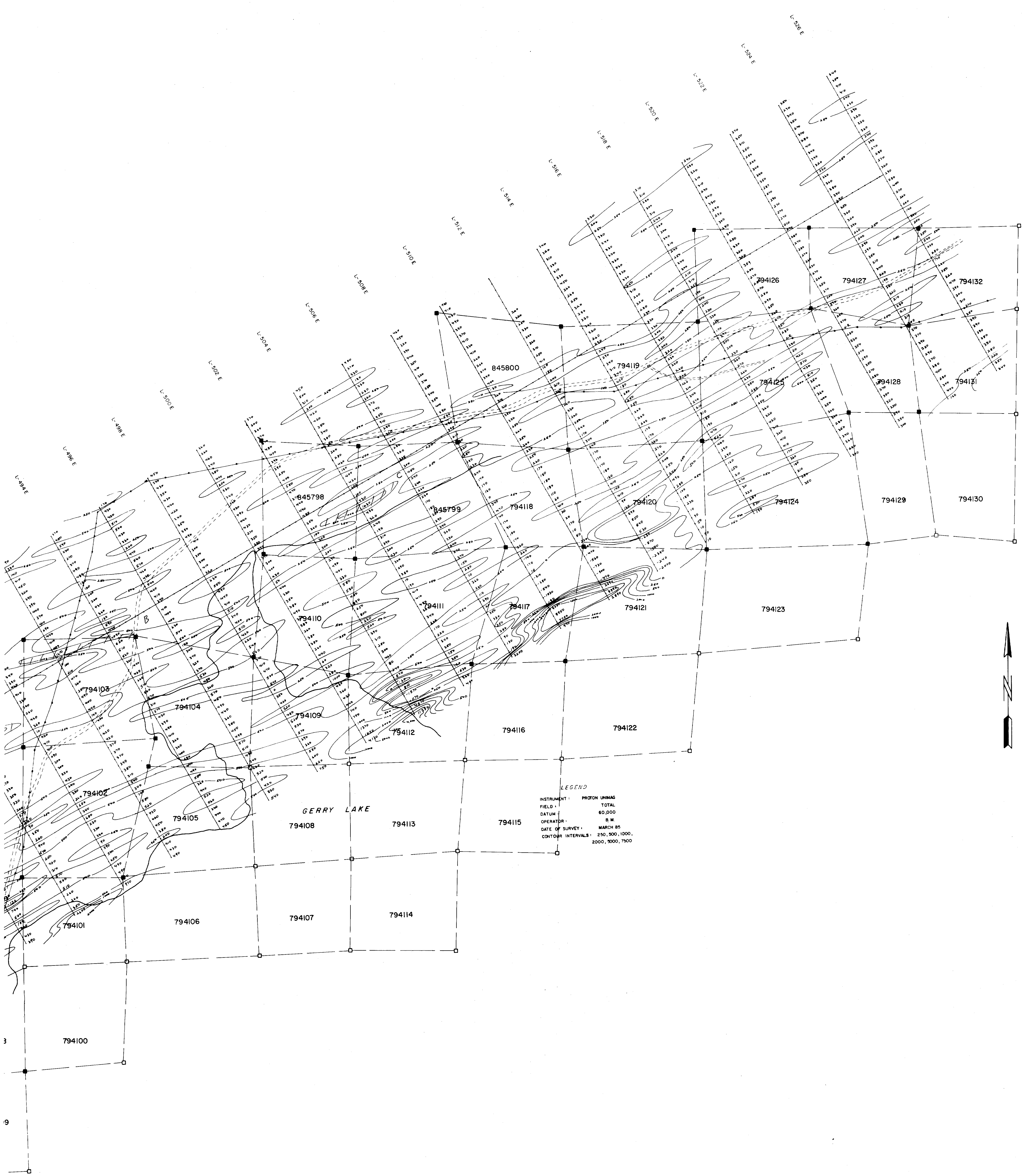




28675

D. A. Corcoran

REVISED	GEOPHYSICAL SURVEY	
	LOCATION MAP	
DWG NO	PROJECT	PROJECT GERRY (NORTH GRID)
NTS 52 K/14	Drawn by	J.R.K.
SCALE	1:5000	
noranda NORANDA EXPLORATION CO. LTD.		



LEGEND
 INSTRUMENT: PROTON UNMAG
 FIELD: TOTAL
 DATUM: 60,000
 OPERATOR: B.M.
 DATE OF SURVEY: MARCH 85
 CONTOUR INTERVALS: 250, 500, 1000,
 2000, 3000, 7500



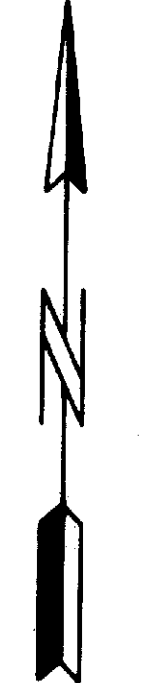
28675

A. R. Brown
 REVISED
 MAGNETOMETER
 PROJECT GERRY (NORTH GRID)
 SCALE 1:500C
 noranda
 1000-1000-1000 CO. LTD.



GERRY LAKE

EM LEGEND
 FREQUENCY : 444 Hz
 COIL SPACING : 100 m
 PROFILE SCALE : 1cm = 20%
 IN PHASE : ————
 OUT OF PHASE : - - - - -
 CONDUCTORS : S W & S M
 DATE OF SURVEY : MARCH 85
 INSTRUMENT : APEX MAX MIN III
 CONDUCTOR AXIS : ————

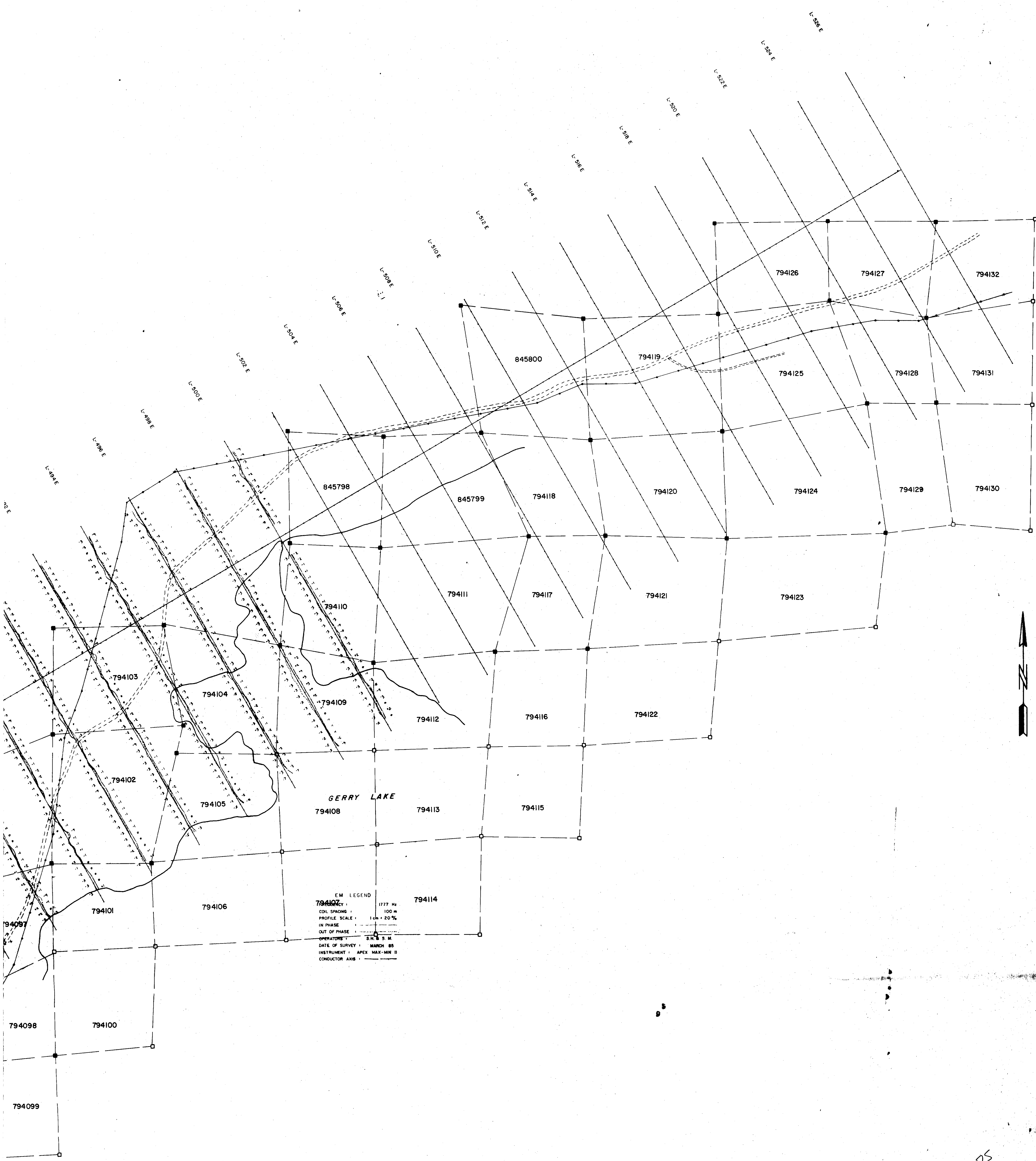


28675

444 Hz

D. A. Collins

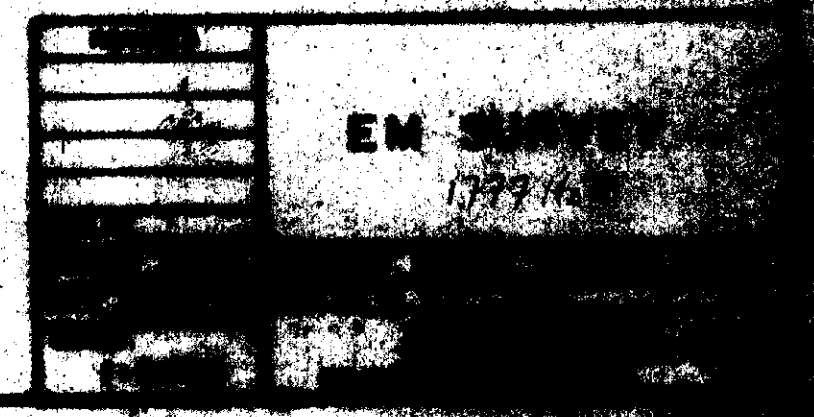
REVISED	
DATE	
PROJECT	EM SURVEY
SCALE	1:5000
PROJECT NUMBER	444 Hz
DATE	
SCALE	
PROJECT NUMBER	

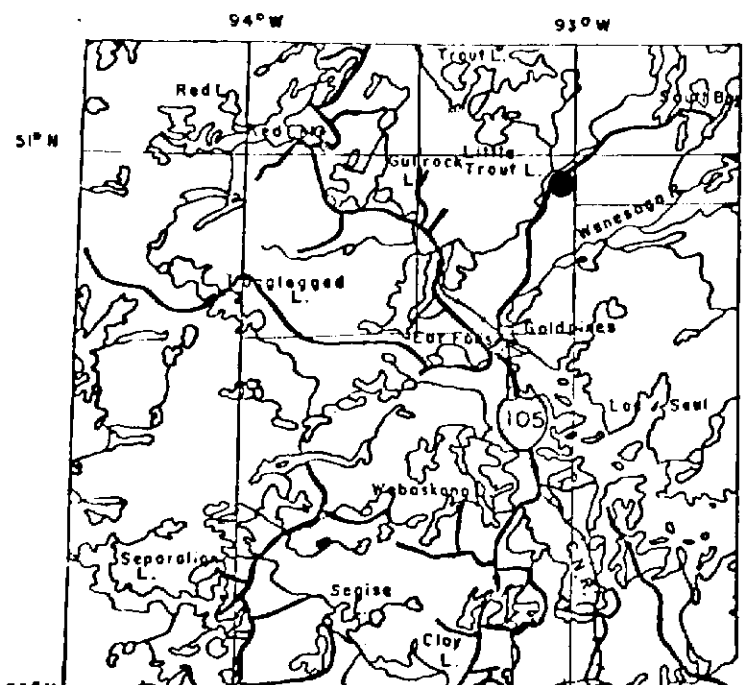
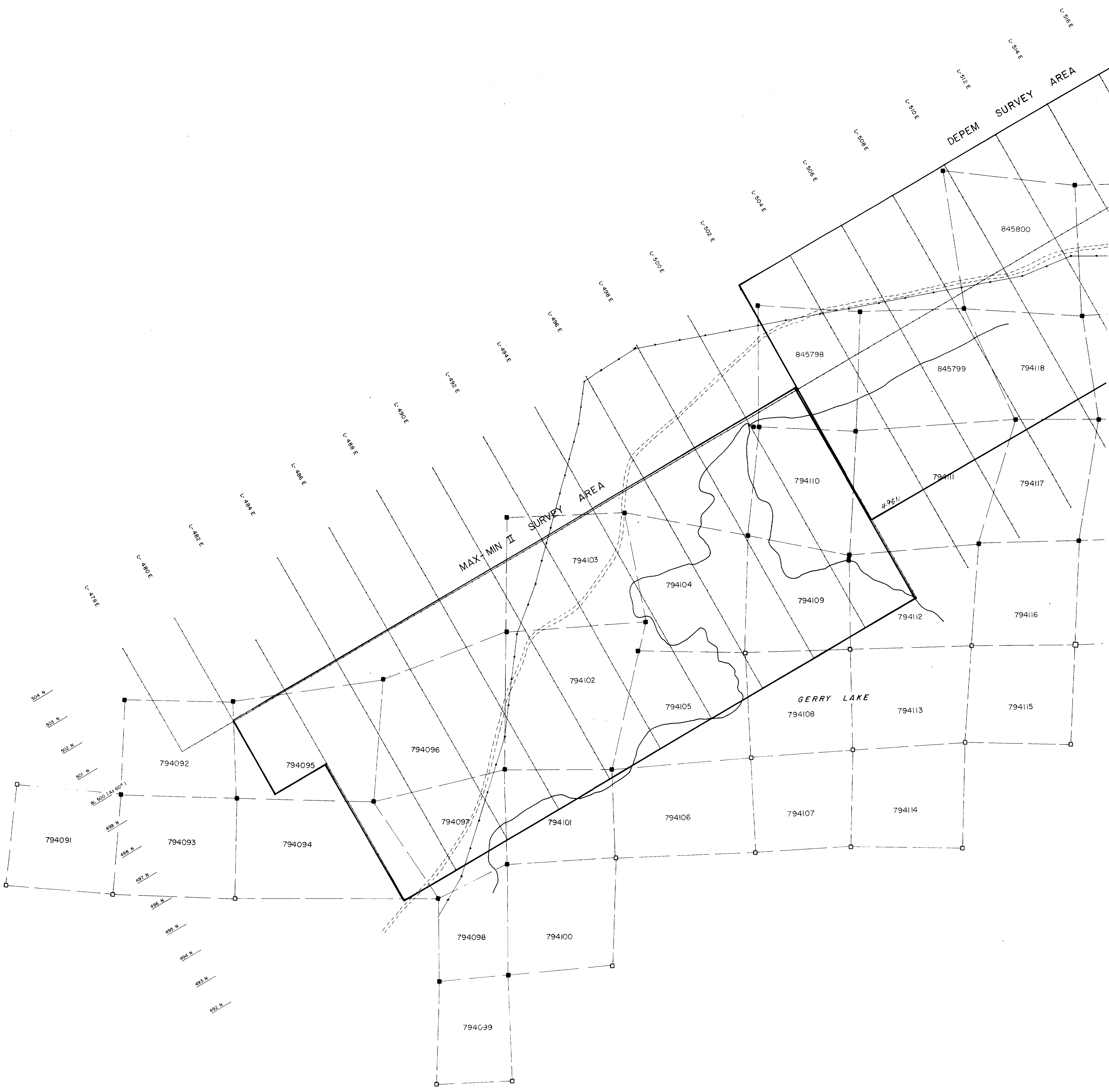


EM LEGEND
 794107 1777 Hz
 COIL SPACING 100 m
 PROFILE SCALE 1 cm = 20%
 IN PHASE
 OUT OF PHASE
 OPERATORS S. H. S. M.
 DATE OF SURVEY MARCH 85
 INSTRUMENT APEX MAX-MIN II
 CONDUCTOR AXIS

28675

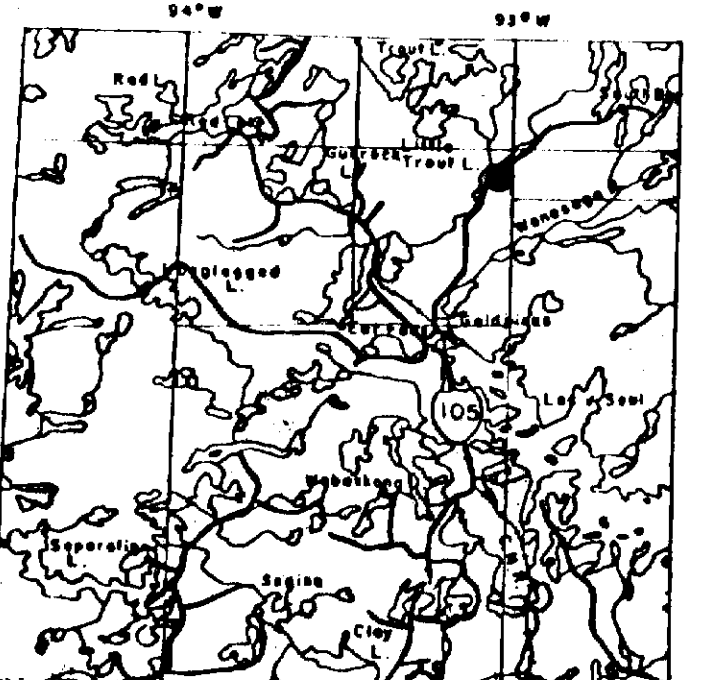
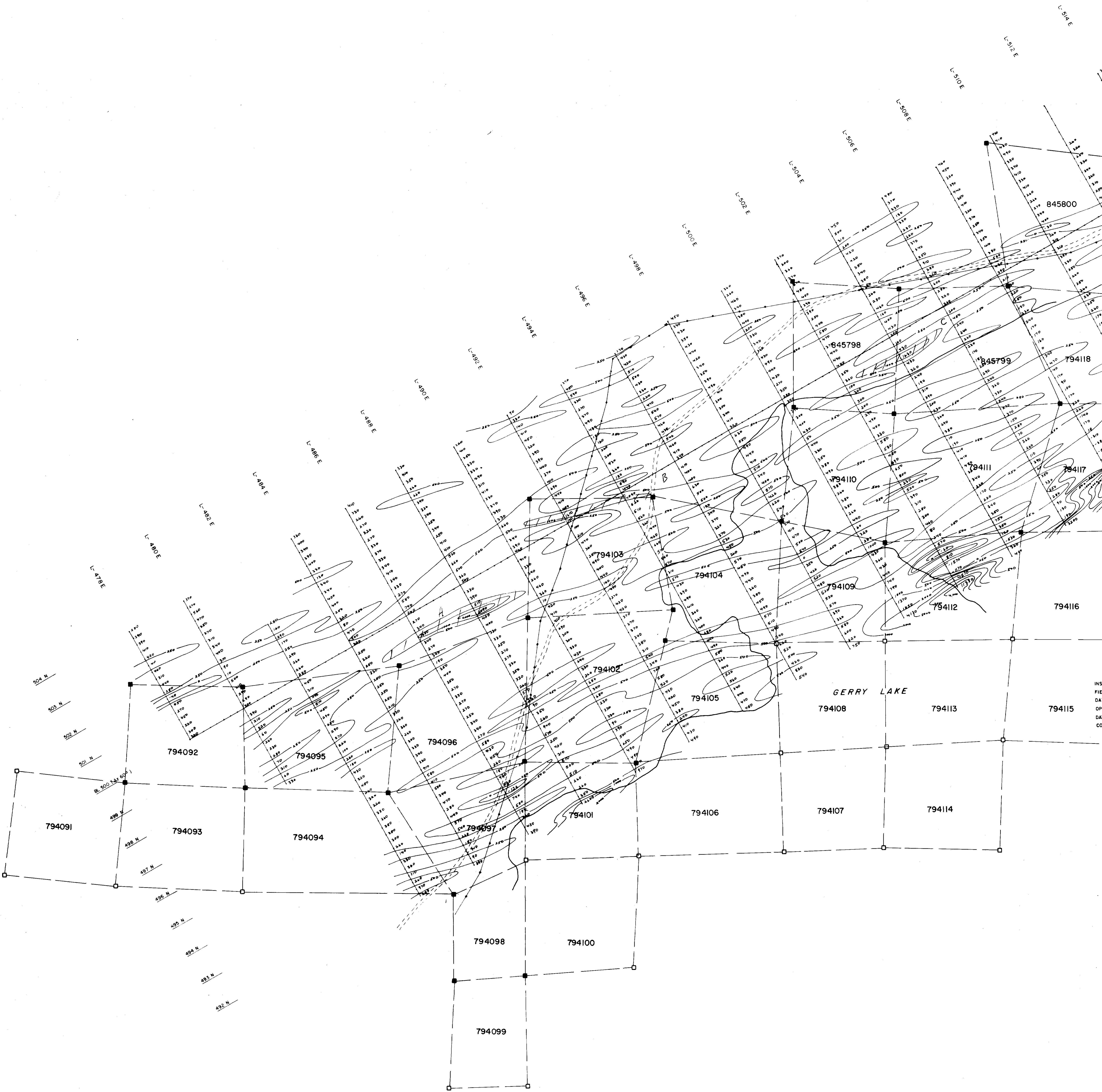
A. F. Carriere 1777 Hz

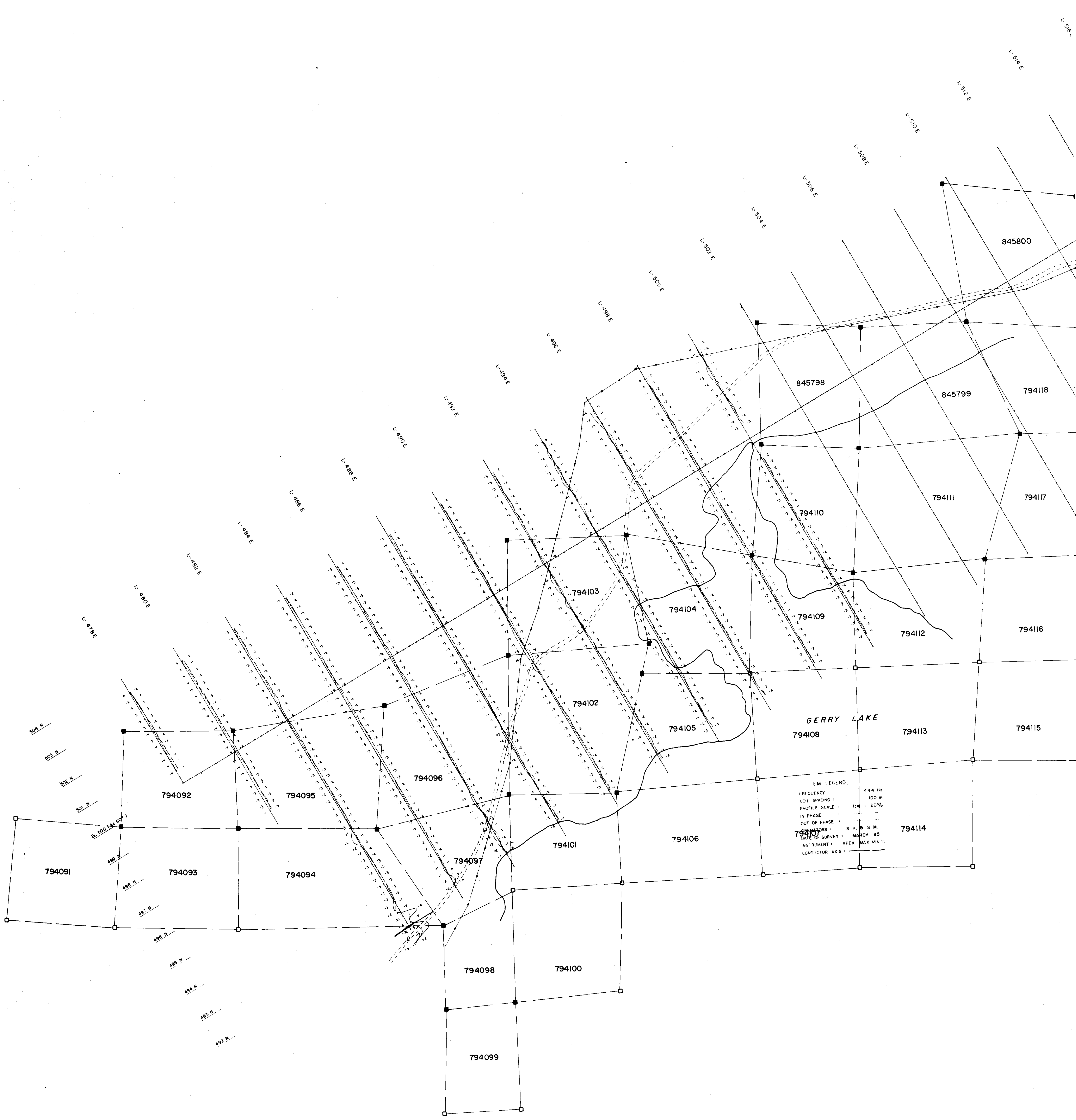




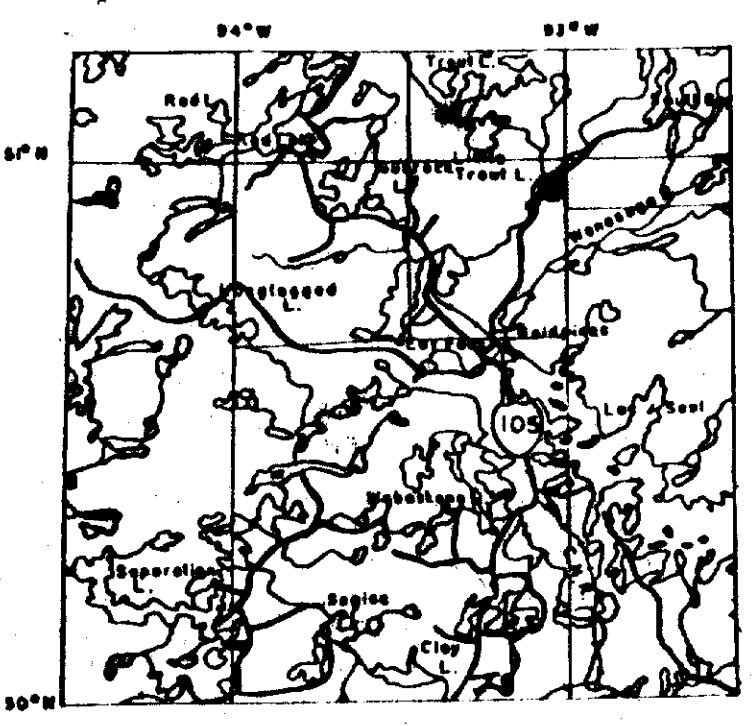
SCALE 1:1600,000





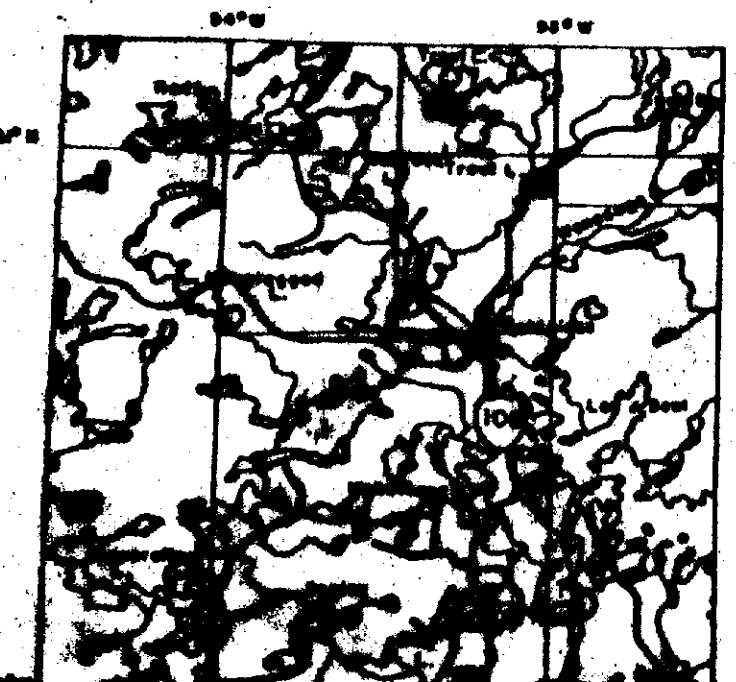
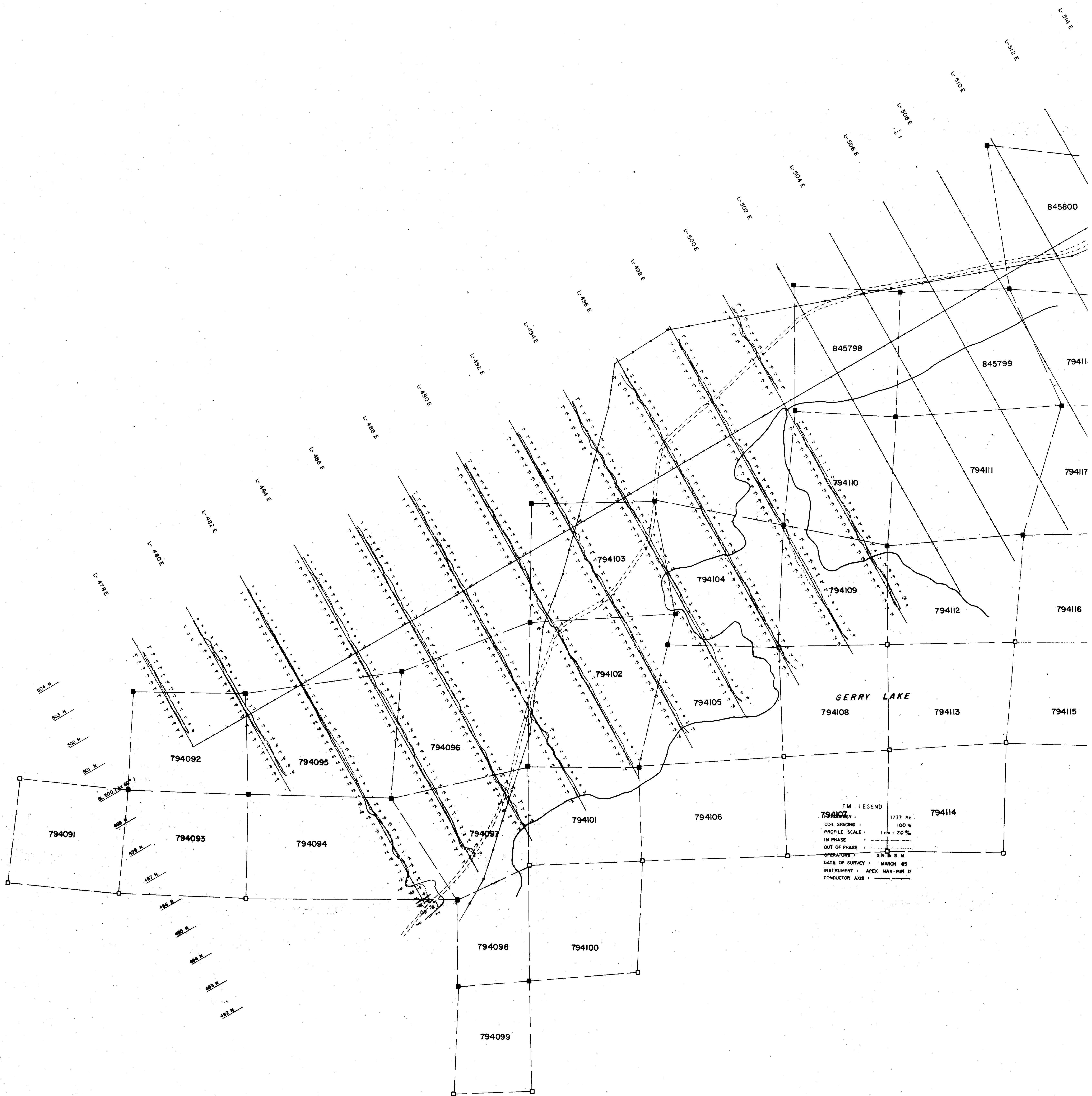


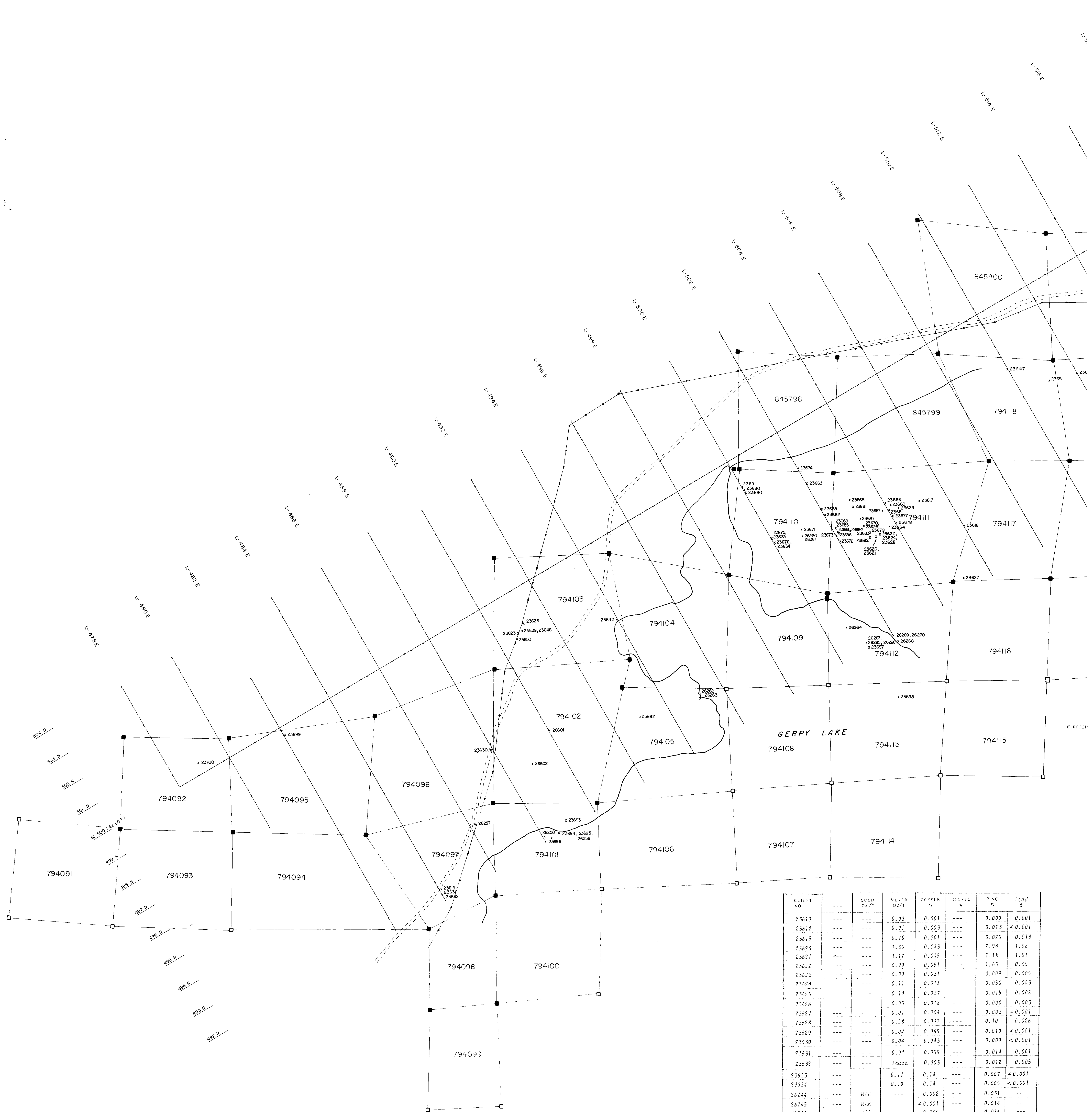
EM LEGEND
 FREQUENCY : 444 Hz
 COIL SPACING : 100 m
 PROFILE SCALE : 10% : 20%
 IN PHASE :
 OUT OF PHASE : - - - - -
 DATE OF SURVEY : MARCH 85
 INSTRUMENT : OPEX MAX MIN II
 CONDUCTOR AXIS



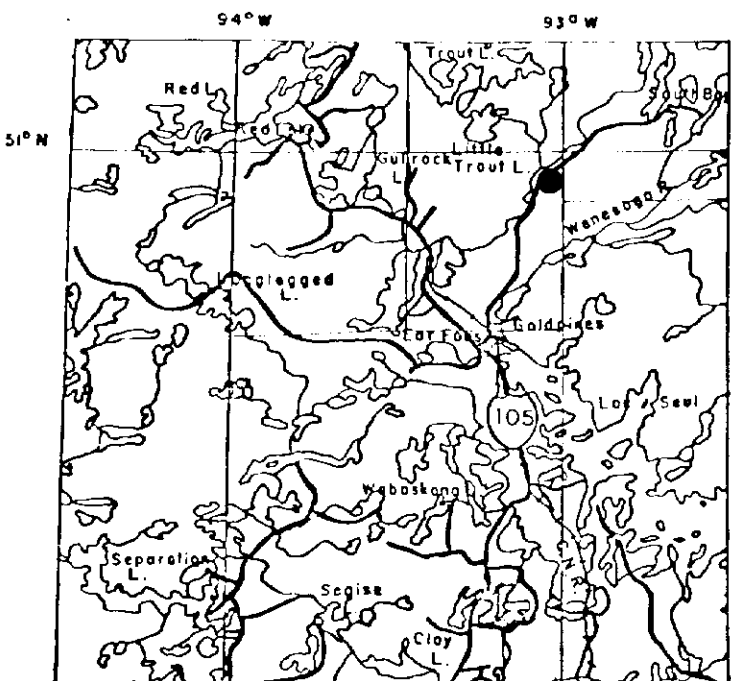
SCALE 1:150,000







CLIENT NO.	COLD OZ/T	SILVER OZ/T	COPPER %	NICKEL %	ZINC %	Lead %
23617	---	0.03	0.001	---	0.009	0.001
23618	---	0.01	0.003	---	0.013	<0.001
23619	---	0.28	0.001	---	0.025	0.015
23620	---	1.36	0.043	---	2.94	1.08
23621	---	1.12	0.015	---	1.18	1.01
23622	---	0.99	0.051	---	1.65	0.65
23623	---	0.09	0.031	---	0.009	0.005
23624	---	0.11	0.018	---	0.058	0.003
23625	---	0.14	0.037	---	0.015	0.008
23626	---	0.05	0.018	---	0.008	0.003
23627	---	0.01	0.004	---	0.003	<0.001
23628	---	0.58	0.041	---	0.10	0.026
23629	---	0.04	0.065	---	0.010	<0.001
23630	---	0.04	0.043	---	0.009	<0.001
23631	---	0.04	0.059	---	0.014	0.001
23632	---	Trace	0.003	---	0.012	0.005
23633	---	0.11	0.14	---	0.007	<0.001
23634	---	0.10	0.14	---	0.005	<0.001
26244	NEL	---	---	---	0.031	---
26245	NEL	---	<0.001	---	0.014	---
26246	NEL	---	0.005	---	0.016	---
26247	NEL	---	0.005	---	0.009	---
26248	NEL	---	0.008	---	0.016	---
26249	NEL	---	0.001	---	0.035	---
26250	NEL	---	0.002	---	0.025	---
26251	NEL	---	0.004	---	0.029	---
26252	NEL	---	0.005	---	0.012	---
26253	NEL	---	0.007	---	0.007	---
26254	NEL	---	0.004	---	0.012	---
26255	NEL	---	0.011	---	0.039	---
26256	NEL	---	0.004	---	0.006	---
26257	NEL	---	0.069	---	0.007	---
26258	NEL	---	0.002	---	0.001	---
26259	NEL	---	0.001	---	0.010	---
26259 REP	NEL	---	0.001	---	0.013	---



SCALE 1:1600,000

