McPHAR G

REPORT ON THE INDUCED POLARIZATION, RESISTIVITY AND MAGNETIC SURVEY ON THE ELMHIRST TOWNSHIP PROPERTY

ELMHIRST TWP., THUNDER BAY M.D. ONTARIO.

FOR NEW METALORE MINING CO.LTD.

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1. INTRODUCTION

At the request of Mr. G.W. Chillian, President of New Metalore Mining Co. Limited, we have carried out an induced polarization, resistivity and magnetic survey on the Company Property in Elmhirst Twp., Ontario. The property is located at the north-western edge of Wilkinson Lake, at 49° 49' North Latitude and 87° 38' West Longitude.

Preliminary geological mapping indicates that the majority of the survey area is underlain by archean rhyolites. The south-west portion of the area is underlain by granodiorite. A number of diabase dikes and quartz veins have been mapped in the area. Two fault zones have been inferred from previous geophysical work and strike approximately southwest-northeast across the property.

A McPhar P-660 frequency IP unit was used for the resistivity and IP survey, operating at 0.3 and 5.0 Hz. Two McPhar M-700 Fluxgate Magnetometers were used for the magnetic survey. A third M-700 Fluxgate

Magnetometer and a Rustrak recorder were used at a Base Station in order to monitor the diurnal change in the magnetic field.

Resistivity and Induced Polarization measurements were recorded on three dipole separations (N = 1,2,3) using 100' dipoles and 50' dipoles. Magnetic measurements of the vertical component of the magnetic field were recorded at 50' stations over the survey area.

The survey was conducted over the following claims, believed to be owned or held under option by New Metalore Mining Co. Limited.

TB 352111-1

TB 352109-3

TB 335128-3

TB 352108-2

TB 383003

Seventeen north-east, south-west resistivity and induced polarization lines were surveyed. Magnetic surveying was carried out on twenty-one north-east-southwest lines.

2. PRESENTATION OF RESULTS

The induced polarization and resistivity results are shown on the following data plots in the manner described in the notes preceding this report.

Line	Electrode Intervals	Dwg. No.
1100W	100'	I.P.6116-1
900 W	100'	I.P.6116-2

Line	Electrode Intervals	Dwg. No.
700 W	100'	I.P-6116-3
500 W	100'	I.P.6116-4
400 W	100'	I.P.6116-5
250 W	100'	I.P.6116-6
200 W	50'	I.P.6116-7
100 W	50'	I.P.6116-8
50 W	50'	I.P.6116-9
0	50'	I.P.6116-10
50E	50'	I.P.6116-11
100 E	100'	I.P.6116-12
100E	50'	I.P.6116-13
200 E	50'	I.P.6116-14
300 E	50'	I.P.6116-15
500 E	100'	I.P.6116-16
700 E	100'	I.P.6116-17

Also enclosed with this report is Dwg. I.P.P. 4926, a plan map of the Elmhirst Twp. Grid at a scale of 1" = 100'. The definite, probable and possible Induced Polarization anomalies are indicated by bars, in the manner shown on the legend, on this plan map as well as on the data plots. These bars represent the surface projection of the anomalous zones as interpreted from the location of the transmitter and receiver electrodes when the anomalous values were measured.

Contour maps of the Metal Factor values for 50' and 100' dipoles at N = 1 and N = 3 are also included.

50' dipole, N = 1	Dwg. Misc. 4928
50' dipole, N = 3	Dwg. Misc. 4929
100' dipole, N = 1	Dwg. Misc.4930
100' dipole, N = 3	Dwg. Misc 4931

A logarithmic contour interval has been used on the M.F. contour maps.

Since the Induced Polarizarion measurement is essentially an averaging process, as are all potential methods, it is frequently difficult to exactly pinpoint the source of an anomaly. Certainly, no anomaly can be located with more accuracy than the electrode interval length, i.e. when using 200' electrode intervals the position of a narrow sulphide body can only be determined to lie between two stations 200' apart. In order to definitely locate and fully evaluate, a narrow, shallow source, it is necessary to use shorter electrode intervals. In order to locate sources at some depth, larger electrode intervals must be used, with a corresponding increase in the uncertainties of location. Therefore, while the centre of the indicated anomaly probably corresponds fairly well with source, the length of the indicated anomaly along the line should not be taken to represent the exact edges of the anomalous material.

The magnetic data are plotted in contour form on Dwg. M-4927 at a scale of 1" = 100'. A contour interval of 100 gammas was used in areas exhibiting steep magnetic gradients. The contour interval was reduced to

20 gammas in areas of more moderate relief.

The claim boundary information shown on Dwg. I.P.P. 4926 has been taken from maps made available by the staff of New Metalore Mining Co. Limited.

3. DISCUSSION OF RESULTS

A large number of weakly anomalous I.P. responses are apparent within the survey area. Three types of anomalies may be distinguished:

1) Narrow zones with moderate I.P. response extending to depth.

2) Broad weakly anomalous zones associated with the narrow zone.

3) Broad, weakly anomalous zones which are not associated with the narrow zones.

The individual survey lines will be discussed separately in Part A and then any correlation of the I.P. response with the magnetic contours will be noted in Part B.

Part A

Line 1100W (100' dipoles)

Two weakly anomalous zones are apparent on this line. One extending from 5S to 2S, the other from 2N to 5N. The low M.F. values would indicate only minor amounts of conductive mineralization.

Line 900W (100' dipoles)

A broad, weak anomaly is located between 1N and 6N. The zone appears to weaken at depth.

Line 700W (100' dipoles)

A broad moderate anomaly is located between 1N and 4N. The M.F. values increase near surface between 2N and 4N.

Line 500W (100' dipoles)

Two narrow anomalous zones are located on this line. A definite anomaly is located between 1S and O. The zone extends to depth with decreasing M.F. values. A probable isolated near-surface anomaly is located between 1N and 2N.

Line 400W (100' dipoles)

A weakly anomalous zone is apparent between 1S and 1N. The remainder of the line exhibits background M.F. and P.F.E. values.

Line 250W (100' dipoles)

Three anomalous zones are located on this line. A possible anomaly is located at depth between 5S and 4S. A probable anomaly is located between O and 1N. The zone shows increased M.F. and lower resistivity near surface, indicating a shallow source. A second possible anomaly is indicated between 2N and 3N.

Line 200W (50'. dipoles)

A broad anomalous zone is located between 1.5S and 1.5N. The M.F. values increase near surface between 0.5S and 0.5N.

Line 100W (50' dipoles)

A broad moderately anomalous zone is located between 7.5S and 3S. Two possible near surface anomalies are located north of this zone; one extending from 2S to 1S, the other from 0.5S to O.

Line 50W (50' dipoles)

A broad anomalous zone is located between 3S and O. The zone weakens to the north between 1S and O, exhibiting M.F. values of approximately 2.0. A probable anomaly is indicated at the extreme southern end of the line.

Line O (50' dipoles)

A shallow anomaly is apparent between 3.5S and 1.5S. Between 0.5N and 1.5N a weak surface anomaly is indicated. A possible anomaly is indicated at the south end of the line between 5S and 5.5S.

Line 50E (50' dipoles)

A weak anomaly is indicated between 3.5S and 1.5S. The zone becomes shallower in the north between 2.5S and 1.5S.

Line 100E (100'dipoles and 50' dipoles)

Line 100E was surveyed using both 100' and 50' dipoles. On the 100' dipole separation, a possible anomaly is indicated between 4S and 2S. This anomaly is shown in more detail on the 50' dipole survey. The anomaly is located between 3.5S and 2S and extends to depth in the region 3.5S to 3S. A possible anomaly has been located on the 50' dipole survey between 0 and 1N.

Line 200E (50' dipoles)

Two anomalous zones are indicated on this line. A weak, near-surface anomaly extends from 3.5 to 2S. A second probably anomaly is located betwen 1.5N and 2.5N.

Line 300E (50'dipoles)

A broad weakly anomalous zone is located between 6S and 3S. A slight increase in M.F. is noted near surface in the region 5.5S to 6S. Two possible anomalies are indicated on the north portion of the line; between 2.5N and 3N and between 4N and 4.5N.

Line 500E (100' dipoles)

A weakly anomalous zone is apparent between 7S and 4S. The zone extends to depth in the region of 5S.

Line 700E (100' dipoles)

A weak near surface anomaly is apparent between 4S and 2S.

Part B

Many of the I.P. anomalies considered in Part A are coincident with magnetic features.

The broad weak I.P. responses observed on the western sections of Lines L-1100W, L-900W and L-700W are coincident with a broad low. This is probably a zone of very weakly disseminated mineralization within the rhyolite.

On Line L-500W a definite I.P. response occurs over a marked magnetic low. This zone warrants further investigation. The broad, probable I.P. anomaly on Line L-400W appears to be associated with the same magnetic feature.

On L-2+50W a local magnetic high of approximately 1750 gammas is located just south of the Base Line and is probably caused by a diabase dike which has been mapped just south of the magnetic anomaly. The I.P. response between O and 1N on L-2+50W may be related to alteration caused by this intrusive. An I.P. response obtained with 50' dipoles on L-200W is coincident with a pronounced magnetic low, just east of diabase. This magnetic and I.P. coincidence warrants further investigation.

On the south-east portion of the grid from L-100W to L-50E a broad magnetic high is apparent from station 300S to the southern edge of the grid. The western edge of this feature is marked by a broad

I.P. anomaly extending from 3S to the southern edge of the grid. On Lines L-0+50W, L-0+00W, L-0+50E and L0+100E, broad I.P. anomalies extend from the northern edge of the magnetic feature to the north for approximately 200 feet. The I.P. anomaly on Line 0+50W extends further to the north, ending at the Base Line. A magnetic anomaly of approximately 1000 gammas is coincident with this I.P. anomaly.

The broad weak anomalies located south of the Base Line on Line L-200E, L-300E, L 500E and L-700E are associated with a broad magnetic low. These I.P. anomalies possibly represent weak sulphide concentration within the rhyolite.

A number of possible drill hole locations are recommended on the basis of the I.P. and magnetic surveys. In all cases it is expected that only minor amounts of sulphide will be encountered; however, the presence of gold within these zones may result in an upgrading of the economic significance of the anomalies. When the results of a few of the holes have been obtained a re-evaluation of the drilling program may be warranted.

The following drill hole locations are recommended:

Drill Hole	Collar Location	Dip Angle (From the horizontal)	Direction	Depth
DD2	L-500W, 1.05S	45°	Grid North	150'
DD3	L-200W, 0.5N	45°	Grid South	100'

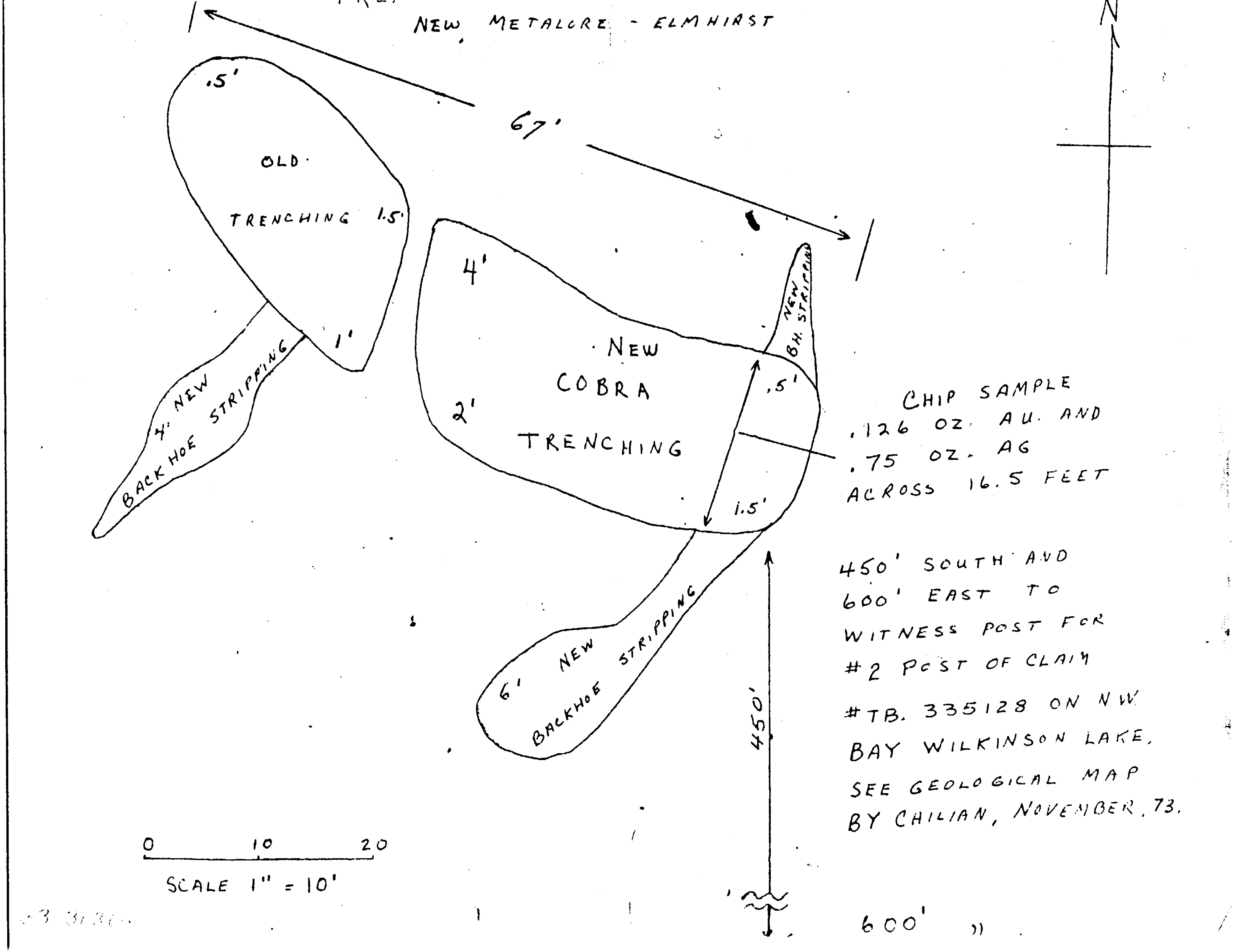
Drill Hole	Collar Location	Dip Angle (from the horizontal)	Direction	Depth
DD1	L-700W, 2.5N	45°	Grid North	150'
DD4	L-100W, 5.75S	45°	Grid North	100'
DD5	L-100E, 2.75S	45°	Grid South	150'

McPHAR GEOPHYSICS COMPANY.

D.J. Misener
Geophysicist.

Robert A. Bell.
R.A. Bell
Geophysicist.

Dated: December 11, 1973.


NEW METALORE - ELMHIRST
N
67'
.5'
OLD
TRENCHING
1.5'
1'
4' NEW BACKHOE STRIPPING
4'
2'
NEW
COBRA
TRENCHING
NEW BH. STRIPPING
.5'
1.5'
6' NEW BACKHOE STRIPPING
CHIP SAMPLE
.126 OZ. AU. AND
.75 OZ. AG
ACROSS 16.5 FEET
450' SOUTH AND
600' EAST TO
WITNESS POST FOR
#2 POST OF CLAIM
#TB. 335128 ON N.W.
BAY WILKINSON LAKE.
SEE GEOLOGICAL MAP
BY CHILIAN, NOVEMBER, 73.
450'
600' "
0 10 20
SCALE 1" = 10'

McPHAR GEOPHYSICS

GB-39

NOTES ON THE THEORY, METHOD OF FIELD OPERATION, AND PRESENTATION OF DATA FOR THE INDUCED POLARIZATION METHOD

Induced Polarization as a geophysical measurement refers to the blocking action or polarization of metallic or electronic conductors in a medium of ionic solution conduction.

This electro-chemical phenomenon occurs wherever electrical current is passed through an area which contains metallic minerals such as base metal sulphides. Normally, when current is passed through the ground, as in resistivity measurements, all of the conduction takes place through ions present in the water content of the rock, or soil, i.e. by ionic conduction. This is because almost all minerals have a much higher specific resistivity than ground water. The group of minerals commonly described as "metallic", however, have specific resistivities much lower than ground waters. The induced polarization effect takes place at those interfaces where the mode of conduction changes from ionic in the solutions filling the interstices of the rock to electronic in the metallic minerals present in the rock.

The blocking action or induced polarization mentioned above, which depends upon the chemical energies necessary to allow the ions to give up or receive electrons from the metallic surface, increases with the time that a d. c. current is allowed to flow through the rock; i. e. as ions pile up against the metallic interface the resistance to current flow increases. Eventually, there is enough polarization in the form of excess ions at the interfaces, to appreciably reduce the amount of current flow through the metallic particle. This polarization takes place at each of the infinite number of solution-metal interfaces in a mineralized rock.

When the d. c. voltage used to create this d. c. current flow is cut off, the Coulomb forces between the charged ions forming the polarization cause them to return to their normal position. This movement of charge creates a small current flow which can be measured on the surface of the ground as a decaying potential difference.

From an alternate viewpoint it can be seen that if the direction of the current through the system is reversed repeatedly before the polarization occurs, the effective resistivity of the system as a whole will change as the frequency of the switching is changed. This is a consequence of the fact that the amount of current flowing through each metallic interface depends upon the length of time that current has been passing through it in one direction.

The values of the per cent frequency effect or F. E. are a measurement of the polarization in the rock mass. However, since the measurement of the degree of polarization is related to the apparent resistivity of the rock mass it is found that the metal factor values or M. F. are the most useful values in determining the amount of polarization present in the rock mass. The MF values are obtained by normalizing the F. E. values for varying resistivities.

The induced polarization measurement is perhaps the most powerful geophysical method for the direct detection of metallic sulphide mineralization, even when this mineralization is of very low concentration. The lower limit of volume per cent sulphide necessary to produce a recognizable IP anomaly will vary with the geometry and geologic environment of the source, and the method of executing the survey. However, sulphide mineralization of less than one per cent by volume has been detected by the IP method under proper geological conditions.

The greatest application of the IP method has been in the search for disseminated metallic sulphides of less than 20% by volume. However, it has also been used successfully in the search for massive sulphides in situations where, due to source geometry, depth of source, or low resistivity of surface layer, the EM method can not be successfully applied. The ability to differentiate ionic conductors, such as water filled shear zones, makes the IP method a useful tool in checking EM anomalies which are suspected of being due to these causes.

In normal field applications the IP method does not differentiate between the economically important metallic minerals such as chalcopyrite, chalcocite, molybdenite, galena, etc., and the other metallic minerals such as pyrite. The induced polarization effect is due to the total of all electronic conducting minerals in the rock mass. Other electronic conducting materials which can produce an IP response are magnetite, pyrolusite, graphite, and some forms of hematite.

In the field procedure, measurements on the surface are made in a way that allows the effects of lateral changes in the properties of the ground to be separated from the effects of vertical changes in the properties. Current is applied to the ground at two points in distance (X) apart. The potentials are measured at two other points (X) feet apart, in line with the current electrodes is an integer number (n) times the basic distance (X).

The measurements are made along a surveyed line, with a constant distance (nX) between the nearest current and potential electrodes. In most surveys, several traverses are made with various values of (n); i.e. (n) = 1, 2, 3, 4, etc. The kind of survey required (detailed or reconnaissance) decides the number of values of (n) used.

In plotting the results, the values of the apparent resistivity, apparent per cent frequency effect, and the apparent metal factor measured for each set of electrode positions are plotted at the intersection of grid lines, one from the center point of the current electrodes and the other from the center point of the potential electrodes. (See Figure A.) The resistivity values are plotted above the line as a mirror image of the metal factor values below. On a second line, below the metal factor values, are plotted the values of the per cent frequency effect. In some cases the values of per cent frequency effect are plotted as superscripts of the metal factor value. In this second case the frequency effect values are not contoured. The lateral displacement of a given value is determined by the location along the survey line of the center point between the current and potential electrodes. The distance of the value from the line is determined by the distance (nX) between the current and potential electrodes when the measurement was made.

The separation between sender and receiver electrodes is only one factor which determines the depth to which the ground is being sampled in any particular measurement. The plots then, when contoured, are not section maps of the electrical properties of the ground under the survey line. The interpretation of the results from any given survey must be carried out using the combined experience gained from field results, model study results and theoretical investigations. The position of the electrodes when anomalous values are measured is important in the interpretation.

In the field procedure, the interval over which the potential differences are measured is the same as the interval over which the electrodes are moved after a series of potential readings has been made. One of the advantages of the induced polarization method is that the same equipment can be used for both detailed and reconnaissance surveys merely by changing the distance (X) over which the electrodes are moved each time. In the past, intervals have been used ranging from 25 feet to 2000 feet for (X). In each case, the decision as to the distance (X) and the values of (n) to be used is largely determined by the expected size of the mineral deposit being sought, the size of the expected anomaly and the speed with which it is desired to progress.

The diagram in Figure A demonstrates the method used in plotting the results. Each value of the apparent resistivity, apparent metal factor, and apparent per cent frequency effect is plotted and identified by the position of the four electrodes when the measurement was made. It can be seen that the values measured for the larger values of (n) are plotted farther from the line indicating that the thickness of the layer of the earth that is being tested is greater than for the smaller values of (n); i. e. the depth of the measurement is increased. When the F. E. values are plotted as superscripts to the MF values the third section of data values is not presented and the F. E. values are not contoured.

indicated for the corresponding value of Apparent Metal Factor. In contouring negative values the contour lines are indicated to the nearest positive value in the immediate vicinity of the negative value.

The symbol "NR" indicates that for some reason the operator did not attempt to record a reading although normal survey procedures would suggest that one was required. This may be due to inaccessible topography or other similar reasons. Any symbol other than those discussed above is unique to a particular situation and is described within the body of the report.

The actual data plots included with the report are prepared utilizing an IBM 360/75 Computer and a Calcomp 770/763 Incremental Plotting System. The data values are calculated, plotted, and contoured according to a programme developed by McPhar Geophysics. Certain symbols have been incorporated into the programme to explain various situations in recording the data in the field.

The IP measurement is basically obtained by measuring the difference in potential or voltage (ΔV) obtained at two operating frequencies. The voltage is the product of the current through the ground and the apparent resistivity of the ground. Therefore in field situations where the current is very low due to poor electrode contact, or the apparent resistivity is very low, or a combination of the two effects; the value of (ΔV) the change in potential will be too small to be measurable. The symbol "TL" on the data plots indicates this situation.

In some situations spurious noise, either man made or natural, will render it impossible to obtain a reading. The symbol "N" on the data plots indicates a station at which it is too noisey to record a reading. If a reading can be obtained, but for reasons of noise there is some doubt as to its accuracy, the reading is bracketed in the data plot ( ).

In certain situations negative values of Apparent Frequency Effect are recorded. This may be due to the geologic environment or spurious electrical effects. The actual negative frequency effect value recorded is indicated on the data plot, however the symbol "NEG" is

METHOD USED IN PLOTTING DIPOLE-DIPOLE INDUCED POLARIZATION AND RESISTIVITY RESULTS

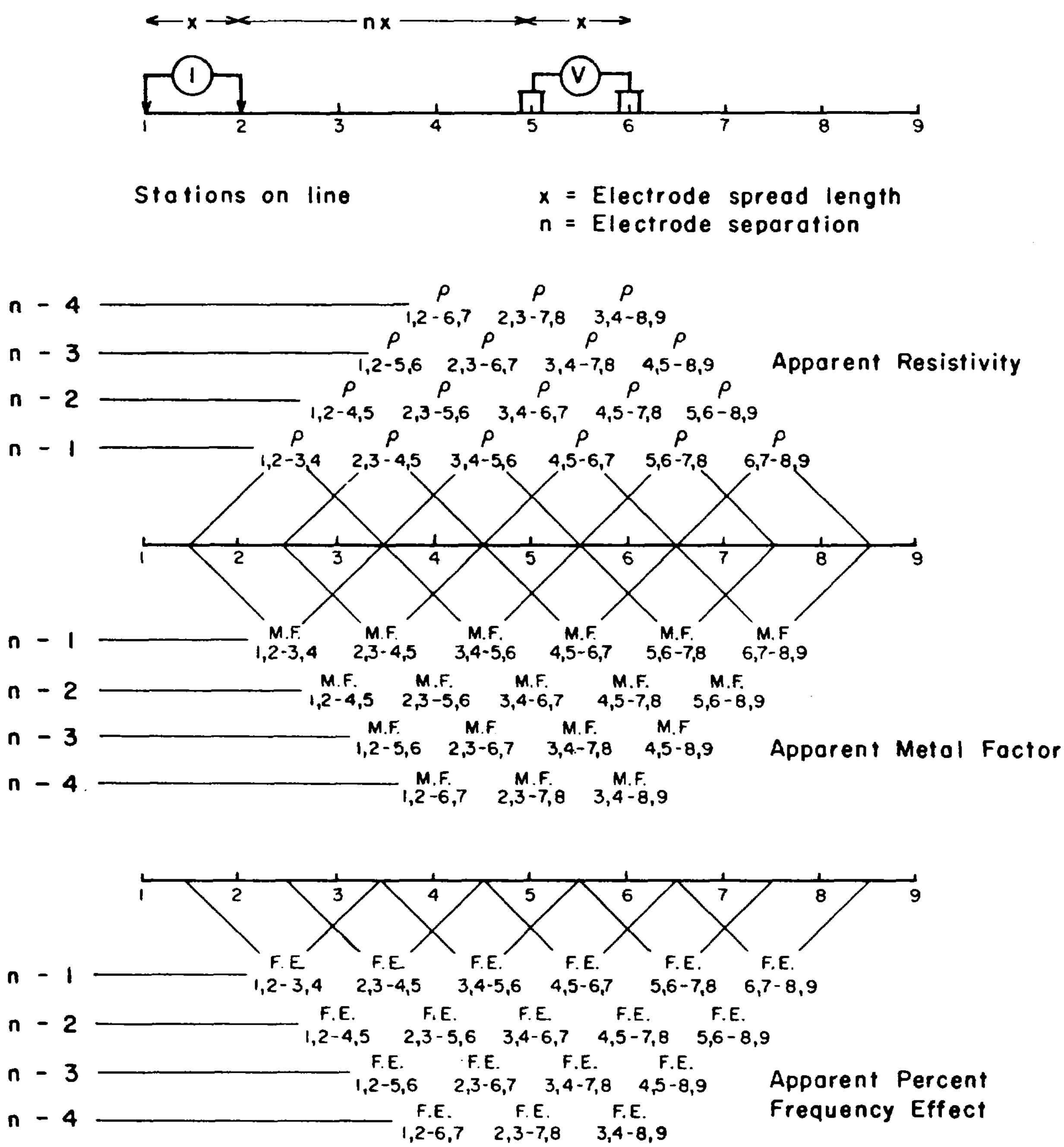
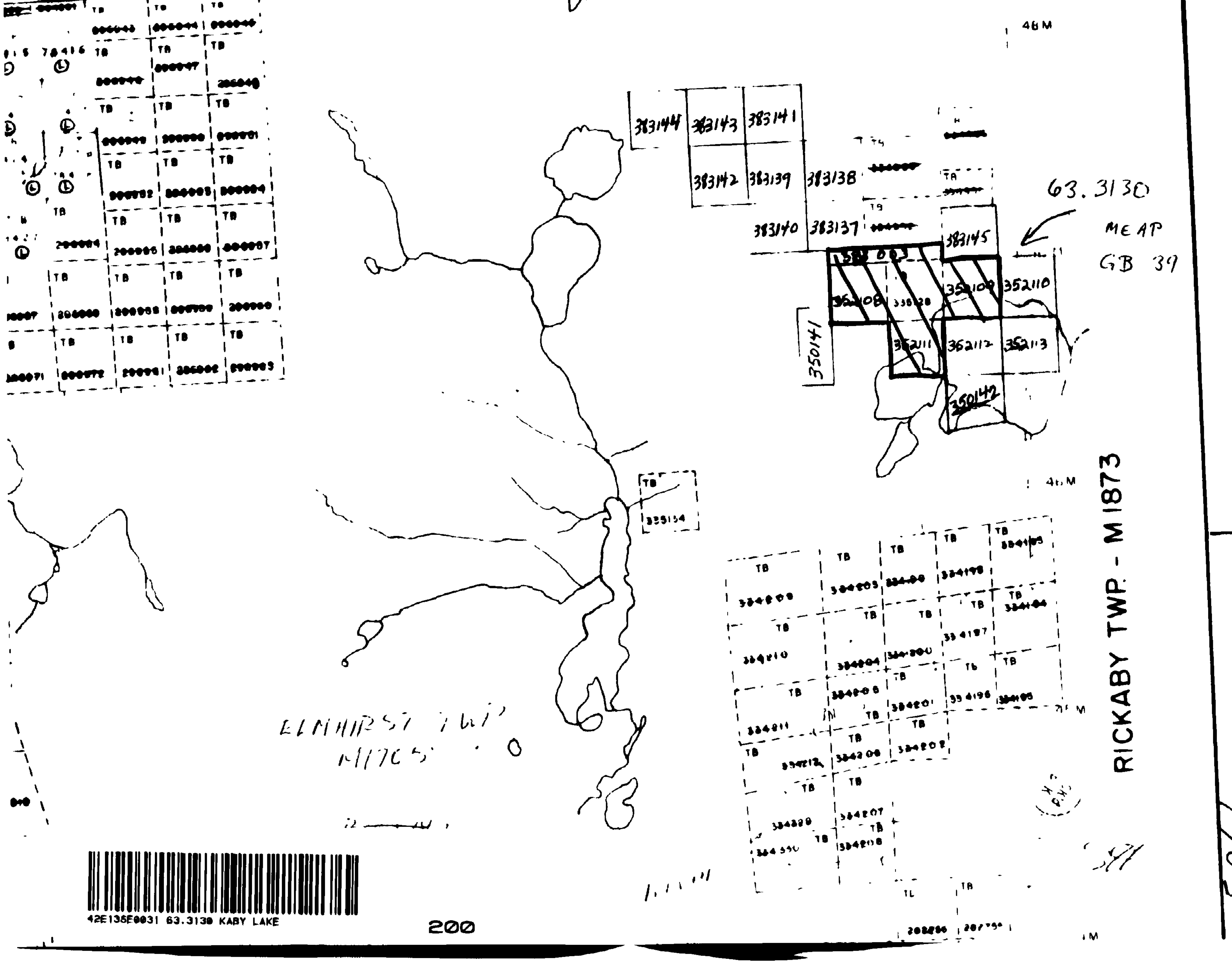
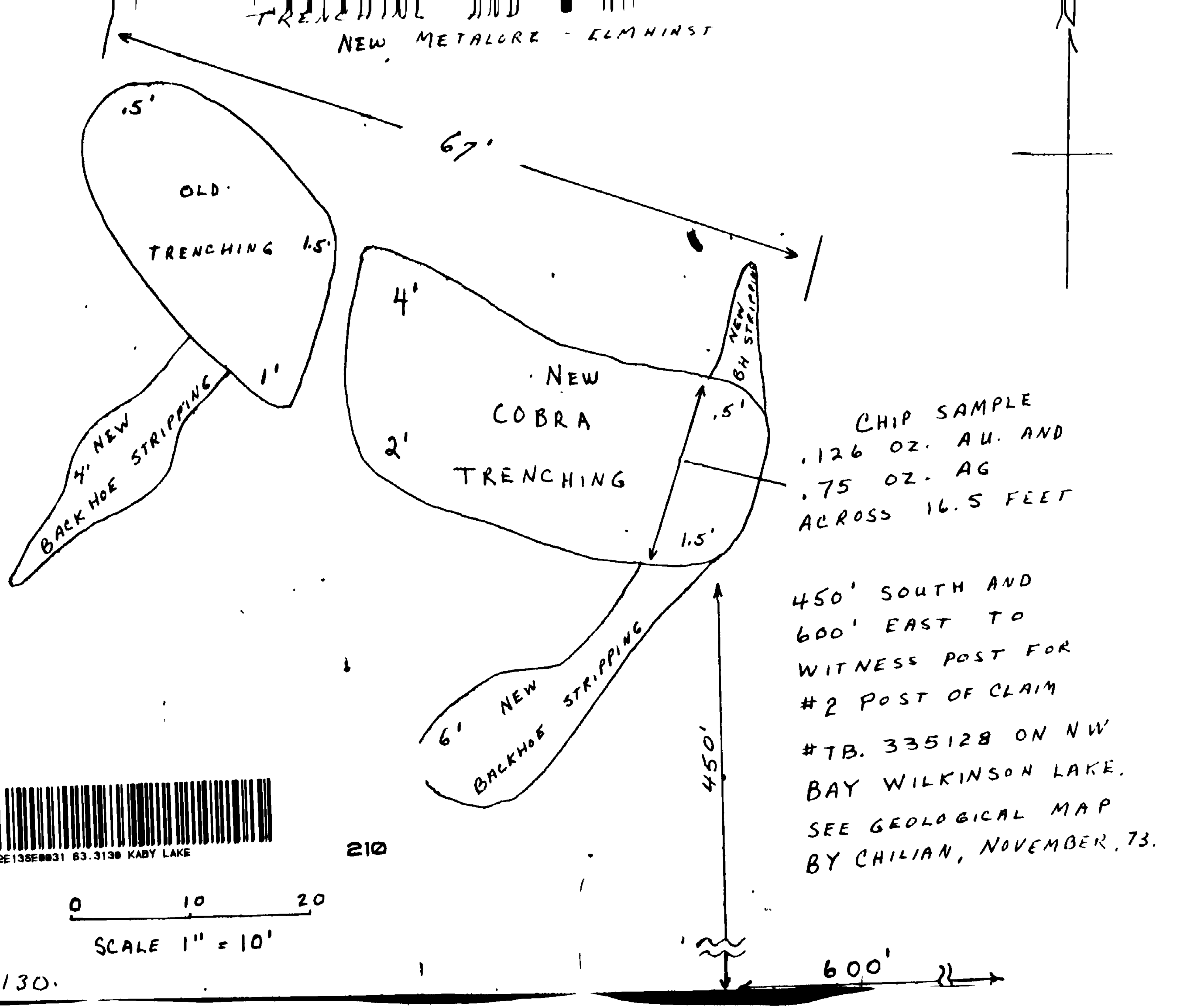


Fig. A



42E13SE0031 63.3130 KABY LAKE

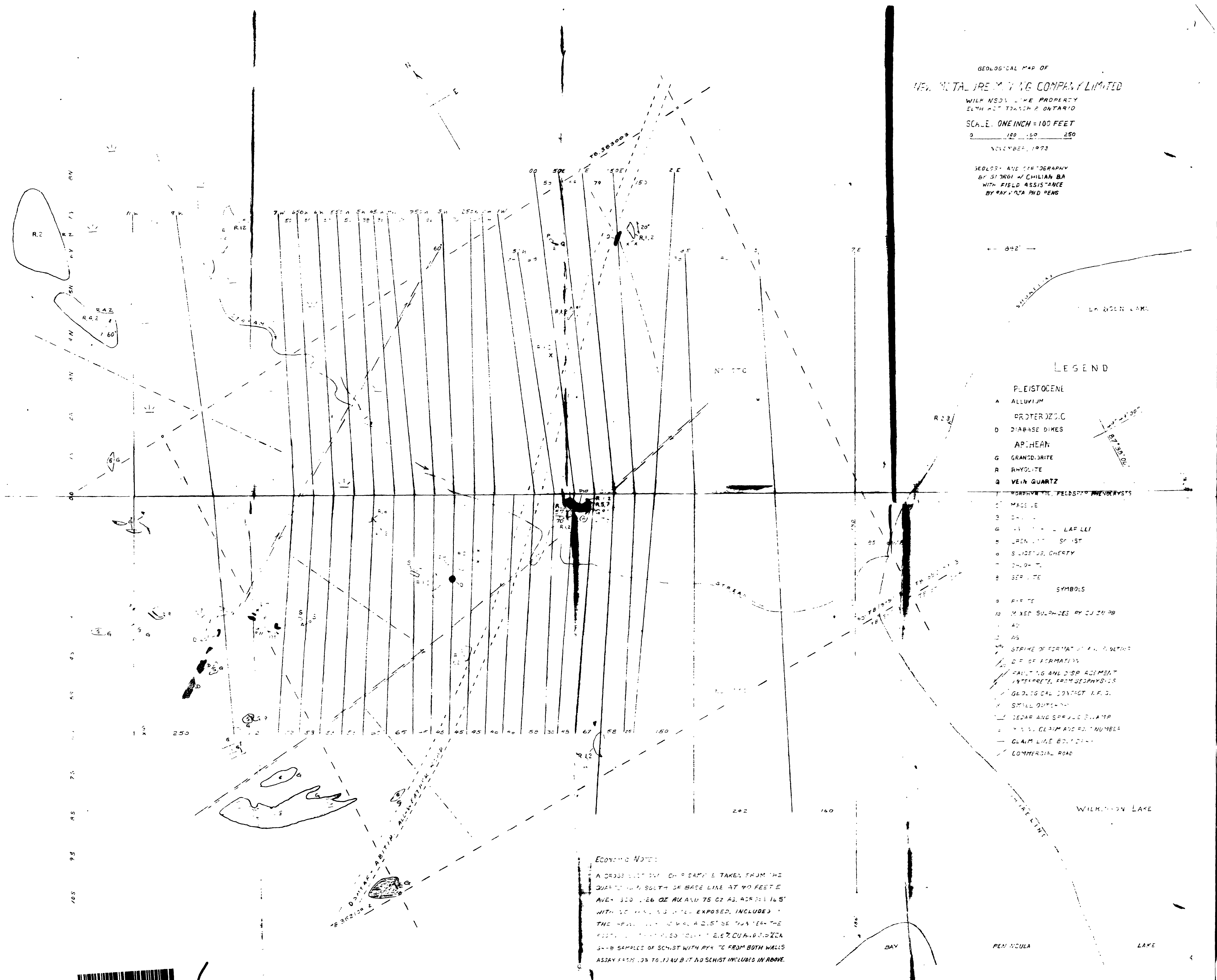
200



NEW METALORE - ELMHINST
67'
.5'
OLD TRENCHING
1.5'
1'
4' NEW BACKHOE STRIPPING
4'
2'
NEW COBRA TRENCHING
NEW BH STRIPPING
.5'
1.5'
CHIP SAMPLE .126 OZ. AU. AND .75 OZ. AG ACROSS 16.5 FEET
6' NEW BACKHOE STRIPPING
450' SOUTH AND 600' EAST TO WITNESS POST FOR #2 POST OF CLAIM #TB. 335128 ON NW BAY WILKINSON LAKE.
SEE GEOLOGICAL MAP BY CHILIAN, NOVEMBER, 73.
450'
600'
0 10 20
SCALE 1" = 10'

210

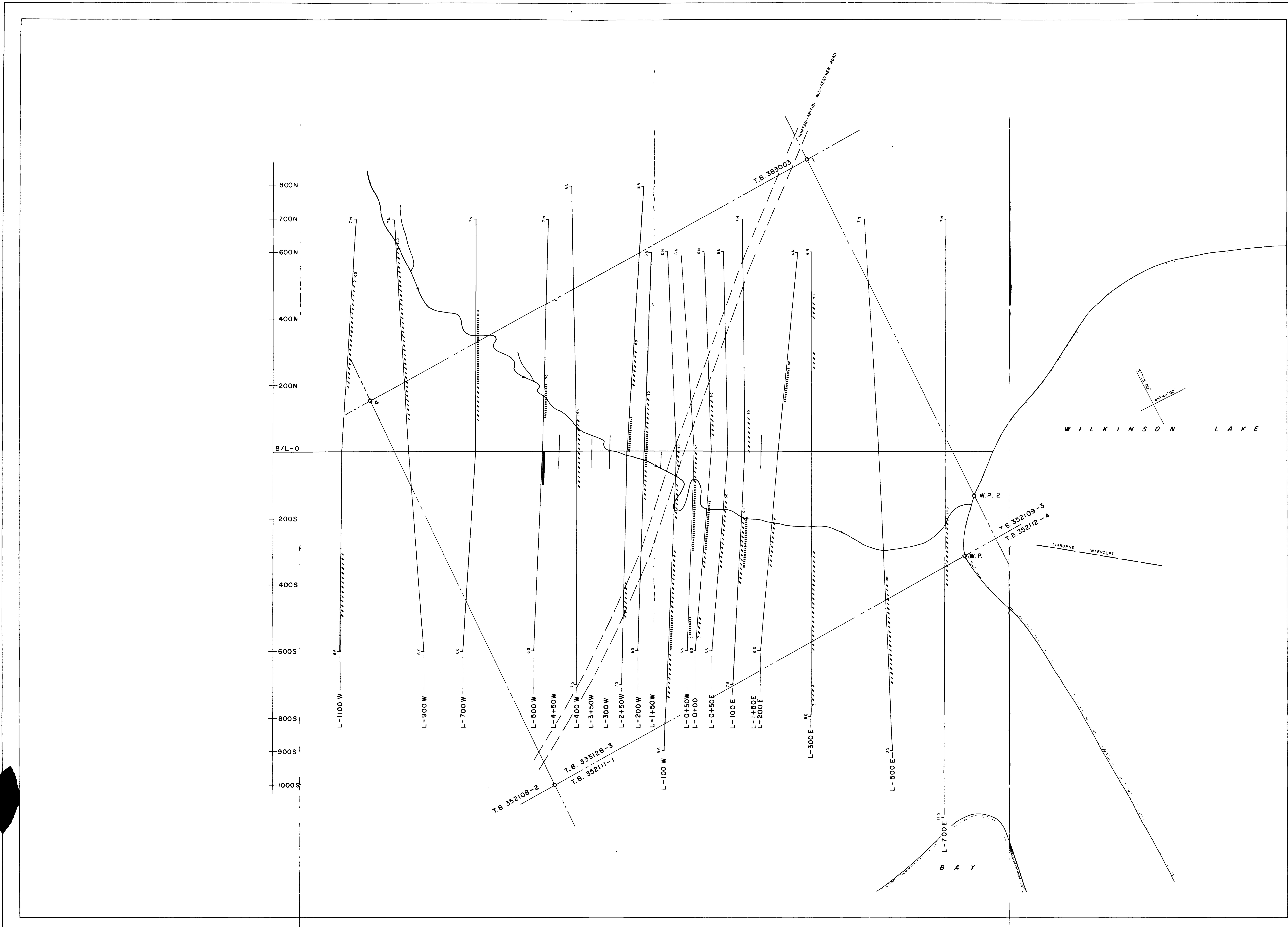
63.3130.


GEOLOGICAL MAP OF
COMPANY LIMITED
PROPERTY
ONTARIO
SCALE. ONE INCH = 100 FEET
0 100 250
BY CHILIAN BA
WITH FIELD ASSISTANCE
PHD
LEGEND
PLEISTOCENE
A ALLUVIUM
D DIABASE DIKES
G GRANODIORITE
R RHYOLITE
Q VEIN QUARTZ
SYMBOLS
CLAIM LINE
COMMERCIAL ROAD
ECONOMIC NOTE:
A CROSS CHIP SAMPLE TAKEN FROM THE
SOUTH OF BASE LINE AT 40 FEET E
.26 OZ AU AND 75 OZ AG
EXPOSED, INCLUDED
2.5% CU AND
SAMPLES OF SCHIST WITH FROM BOTH WALLS
ASSAY .03 TO AU NO SCHIST INCLUDED IN ABOVE.
STREAM
WILKINSON LAKE
BAY
PENINSULA
LAKE
TB 383003
TB 352109
842'
242
160
220

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

Number at the end of anomaly indicates spread used

230

NEW METALORE MINING COMPANY LIMITED

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

SCALE

One inch = One hundred feet

McPHAR GEOPHYSICS LIMITED APPROVED NOV 1973

DWG.I.P.P. 4926

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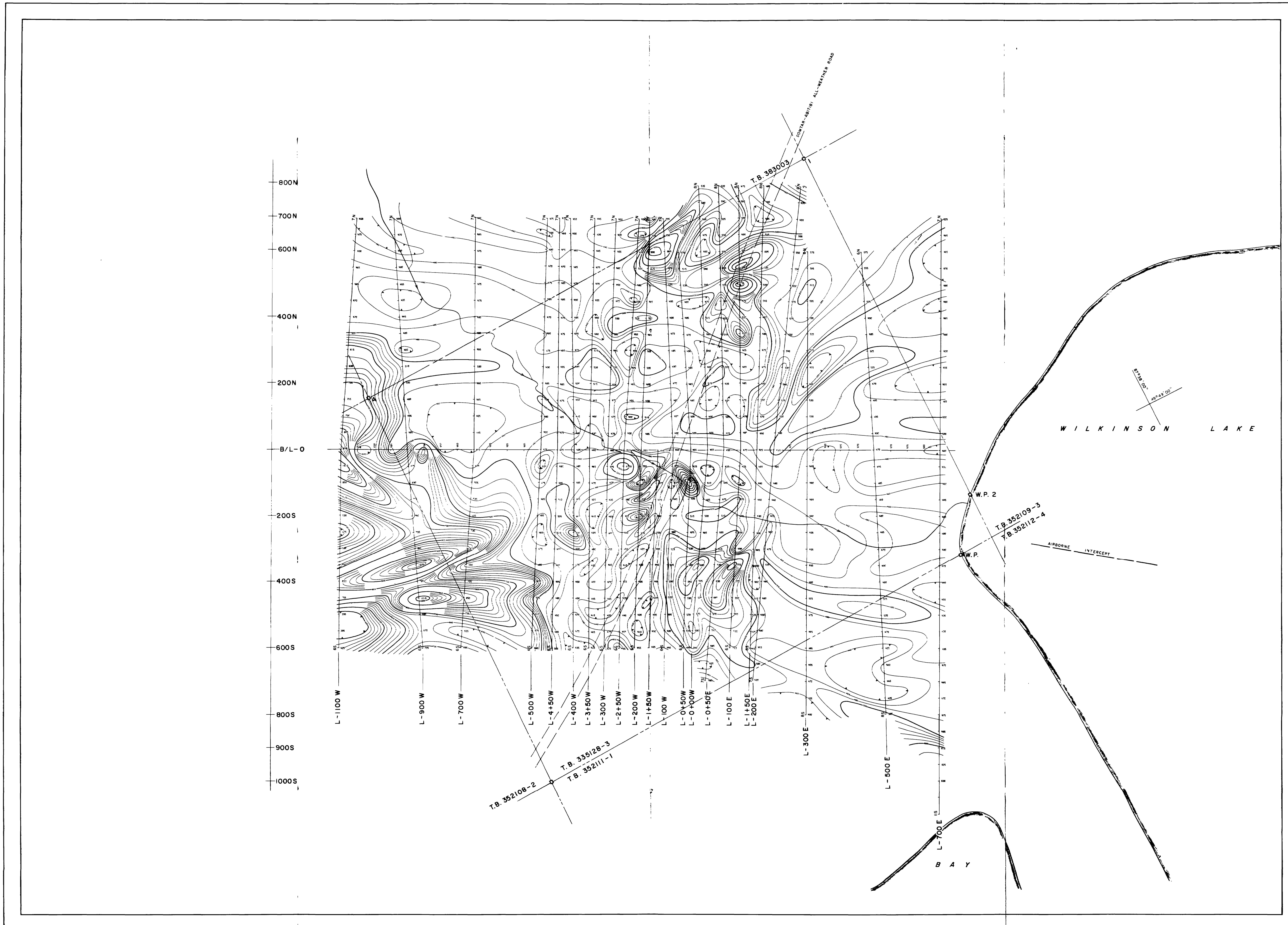
GROUND MAGNETOMETER SURVEY

PLAN MAP



CONTOUR INTERVAL 20 GAMMAS

100 GAMMA CONTOUR

20 GAMMA CONTOUR

RELATIVE LOW

NEW METALORE MINING COMPANY LIMITED

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

SCALE

One inch = One hundred feet

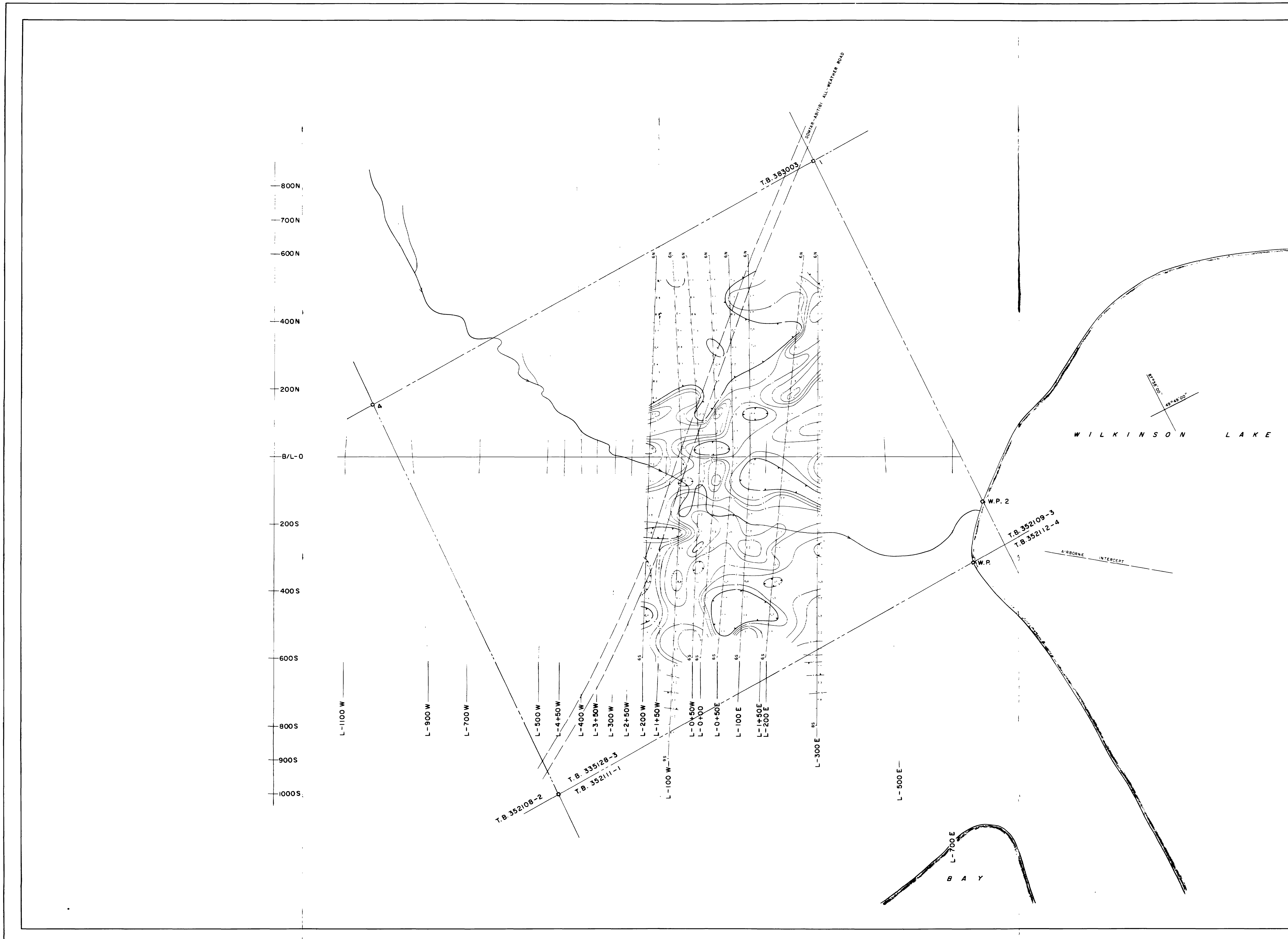
240

DWG. M-4927

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



NOTE:
LOGARITHMIC CONTOUR INTERVAL
1, 1.5, 2, 3, 5, 7.5, 10
RELATIVE LOW

NEW METALORE MINING COMPANY LIMITED

ELMHIRST TWP., THUNDER BAY M.D. ONTARIO

METAL FACTOR VALUES FOR 50' DIPOLES, N=1

SCALE

One inch = One hundred feet

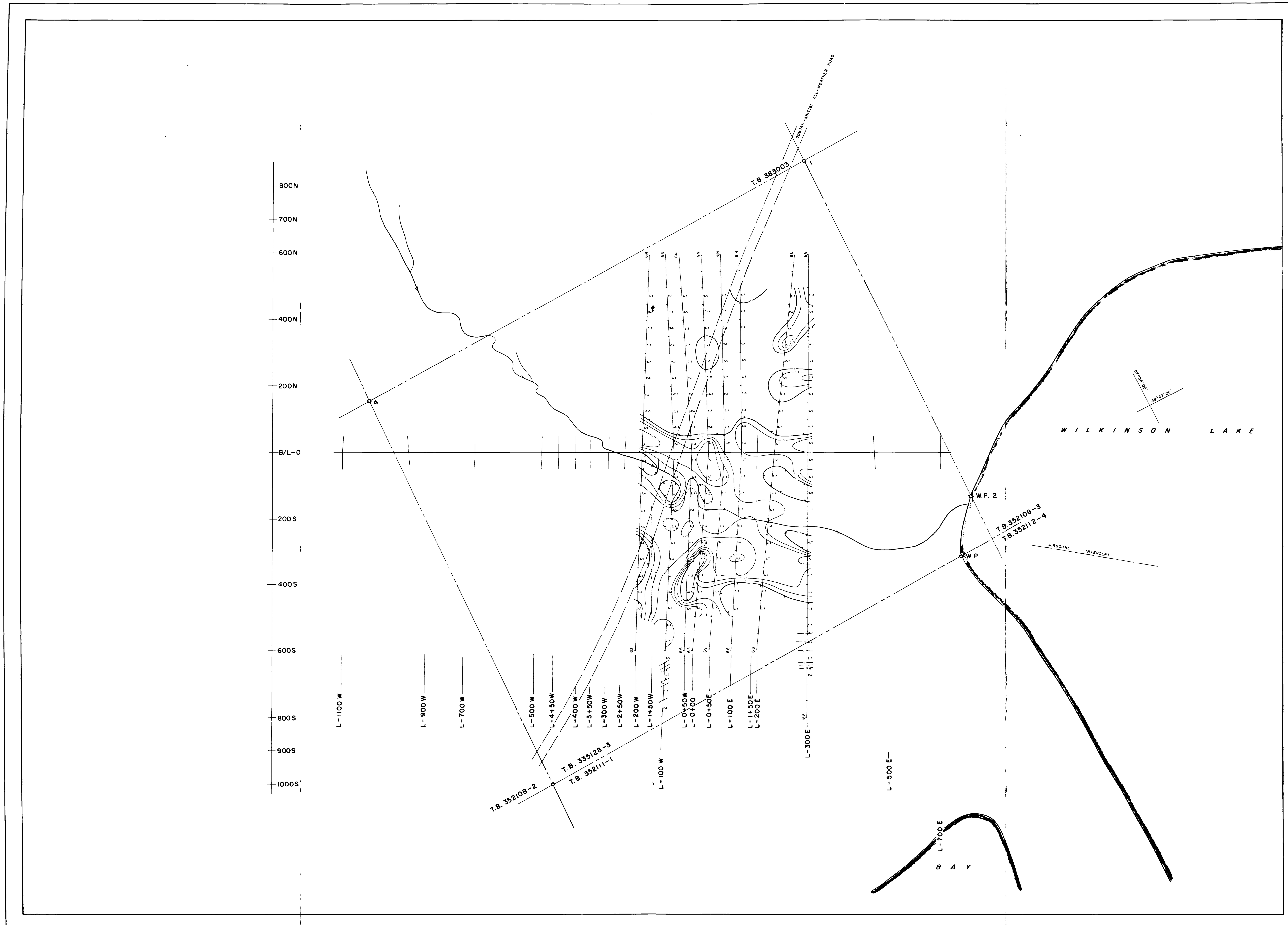
250

DWG. MISC. 4928

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



NEW METALORE MINING COMPANY LIMITED

ELMHIRST TWP., THUNDER BAY M.D. ONTARIO

METAL FACTOR VALUES FOR 50' DIPOLES, N=3

SCALE

One inch = One hundred feet

NOTE

LOGARITHMIC CONTOUR INTERVAL

1, 1·5, 2, 3, 5, 7 5, 10

RELATIVE LOW

DRAWN: R.I.K.

DATE: NOV. 1973

APPROVED: D.J. Messner

DATE: Dec 7/73

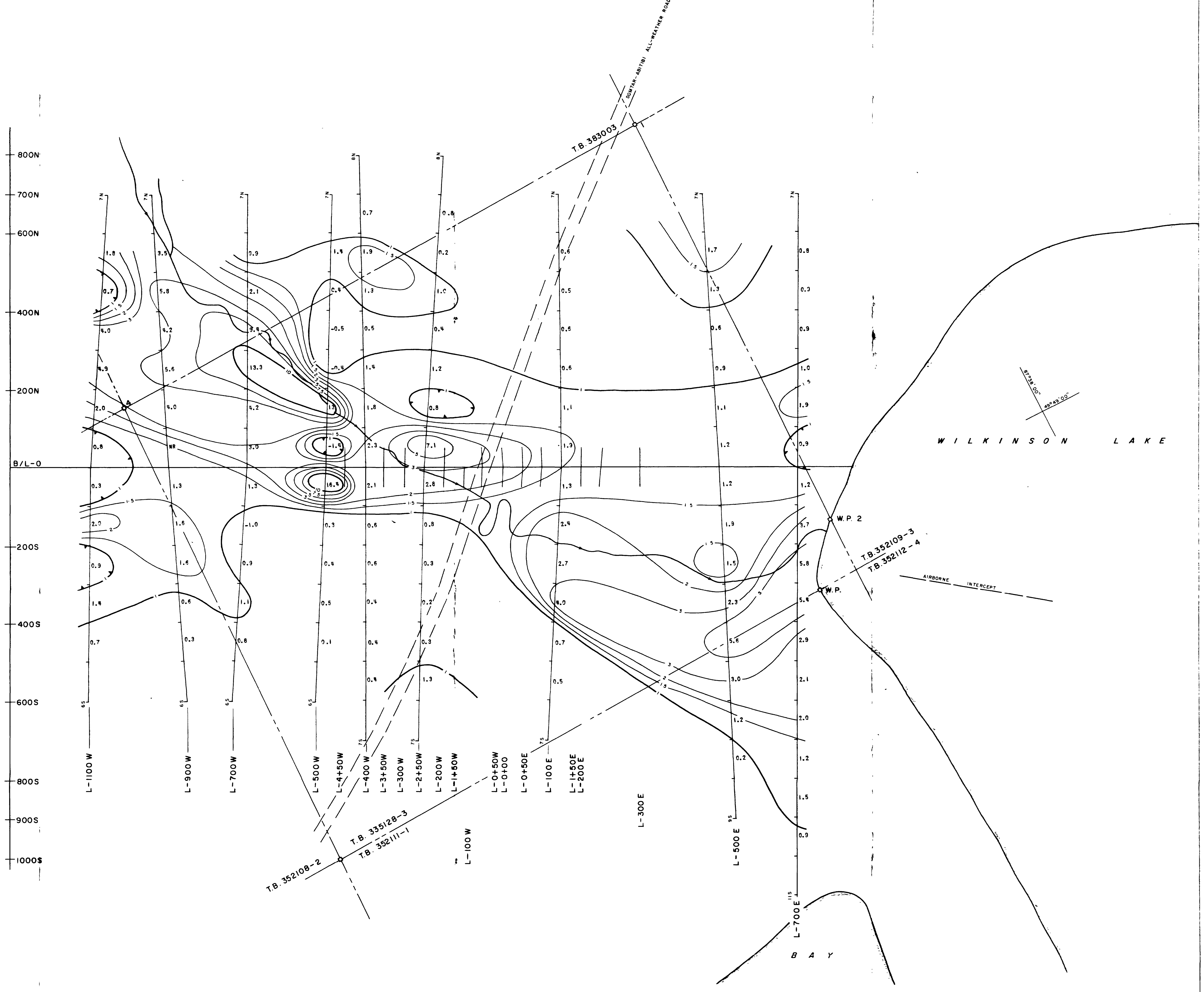
260

DWG. MISC. 4929

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



NOTE

LOGARITHMIC CONTOUR INTERVAL

1, 1.5, 2, 3, 5, 7.5, 10

RELATIVE LOW

NEW METALORE MINING COMPANY LIMITED

ELMHIRST TWP., THUNDER BAY M.D. ONTARIO

METAL FACTOR VALUES FOR 100' DIPOLES, N= 1

SCALE

One inch = One hundred feet

270

DWG MISC. 4930

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP

NOTE

LOGARITHMIC CONTOUR INTERVAL

1, 1.5, 2, 3, 5, 7.5, 10

RELATIVE LOW

280

NEW METALORE MINING COMPANY LIMITED

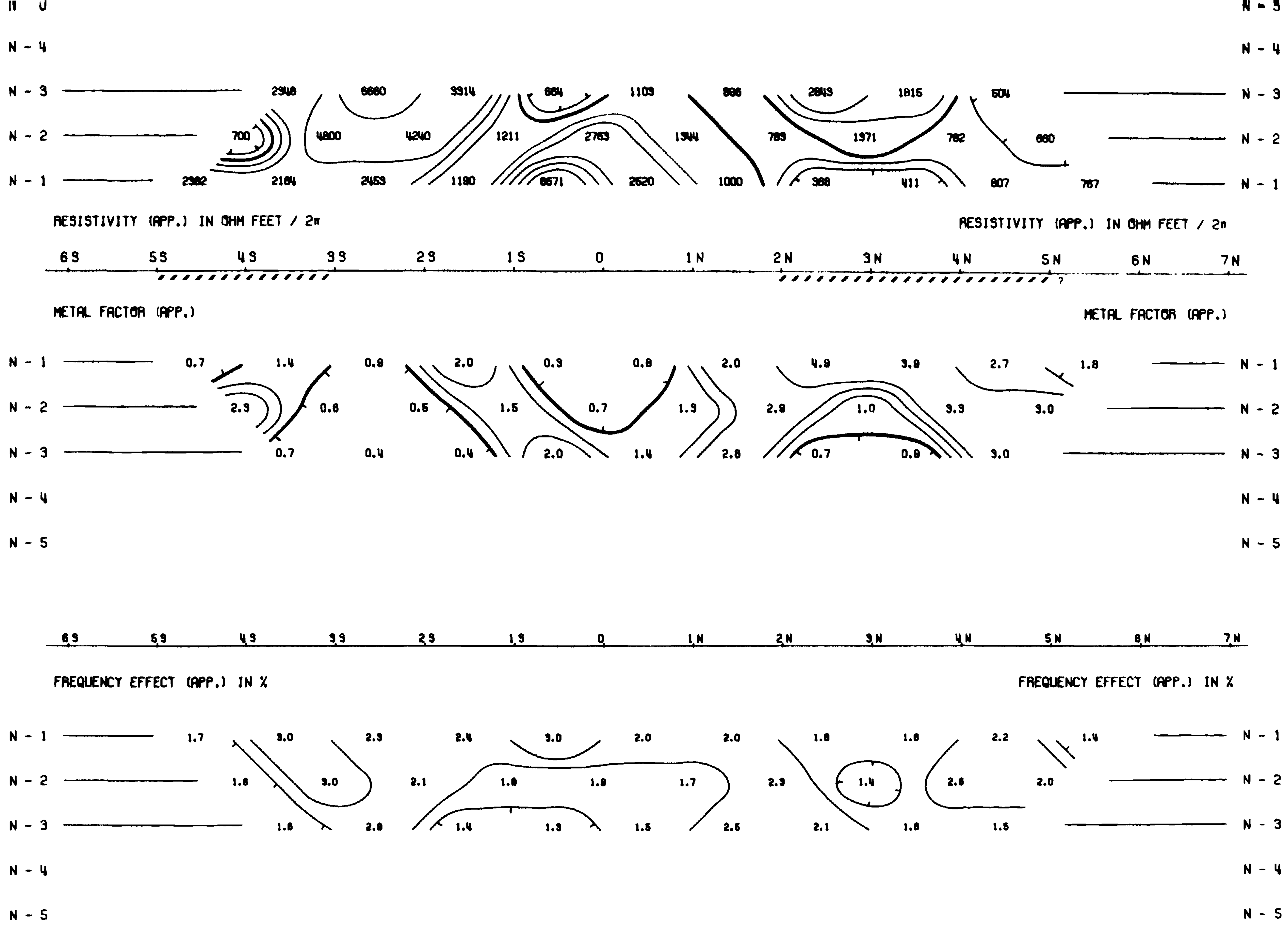
ELMHIRST TWP., THUNDER BAY M.D. ONTARIO

METAL FACTOR VALUES FOR 100' DIPOLES, N=2

SCALE

One inch = One hundred feet

DWG. MISC. 4931

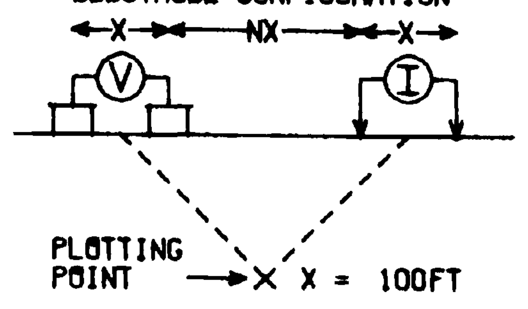


DWG. NO.- I.P.-6116-1

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 1100W



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: OCT 1973

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1,-1.5-2,-3,-5,-7.5-10

APP.

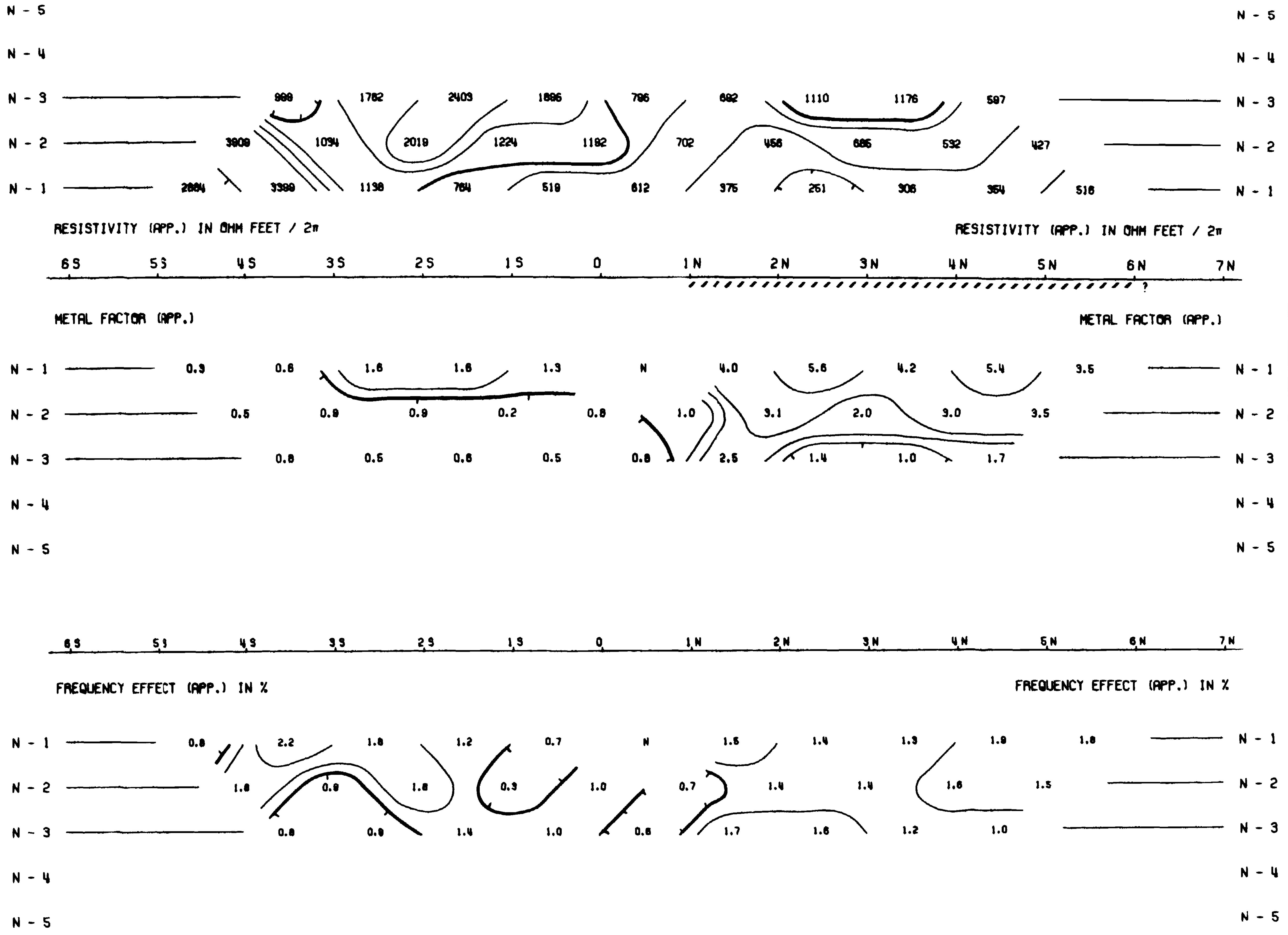
DATE

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY MCPHAR COMPUTER DIVISION

290



42E13SE0031 63 3138 KABY LAKE

300

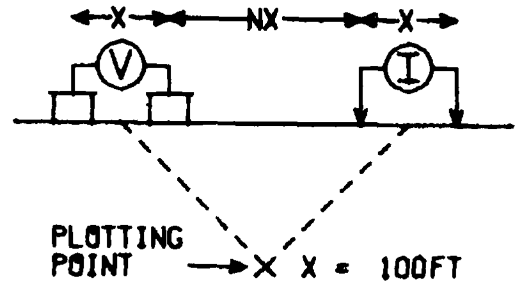
DWG. NO.- I.P.-6116-2

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 900W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

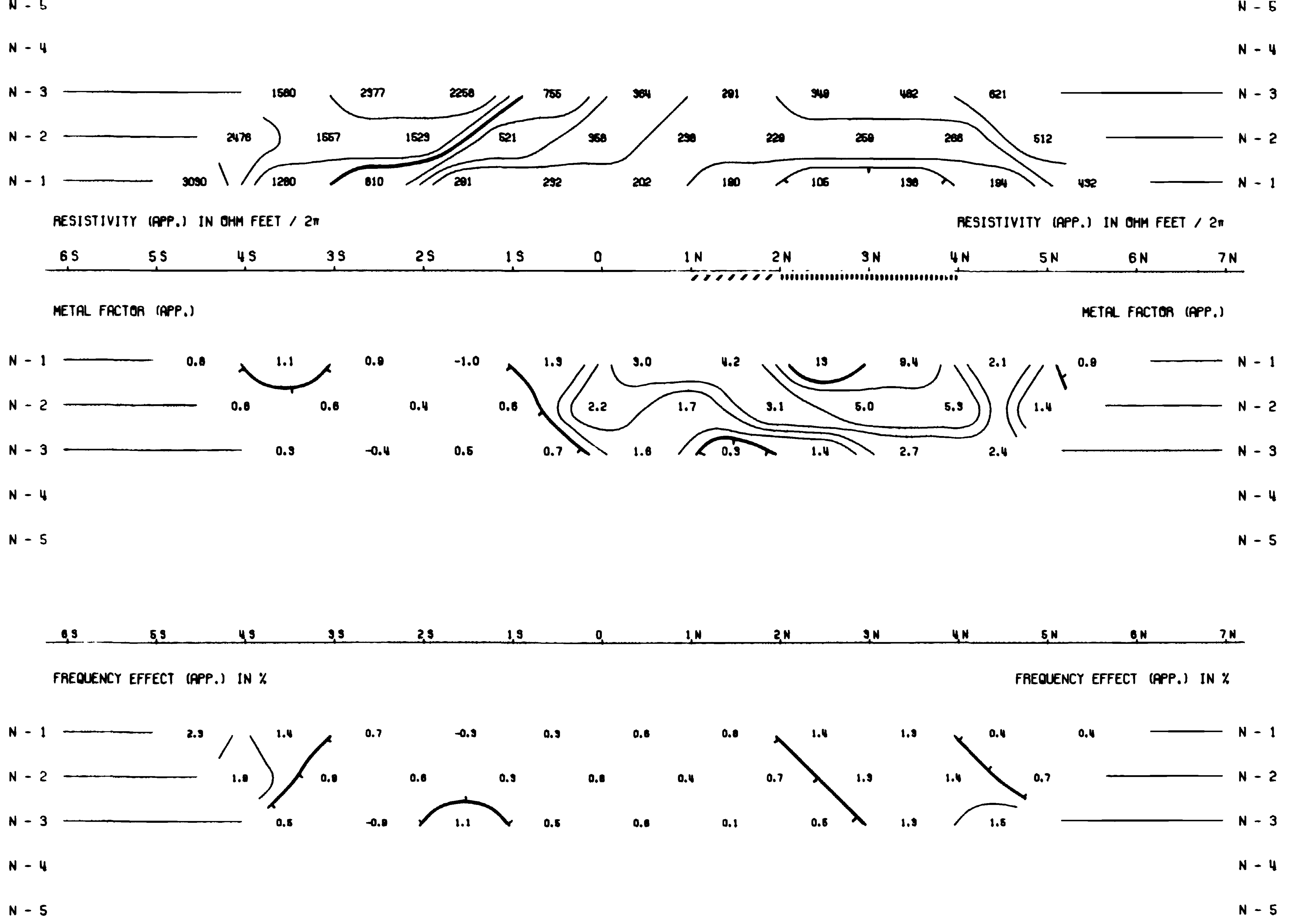
DATE SURVEYED: OCT 1973

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1,-1.5-2,-3,-5,-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY MCPHAR COMPUTER DIVISION



42E13SE0031 63.3130 KABY LAKE

310

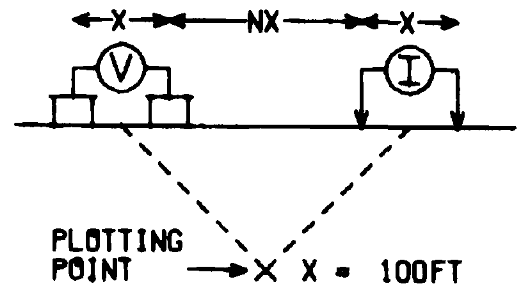
DWG. NO.- I.P.-6116-3

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 700W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: OCT 1973

APPROVED:

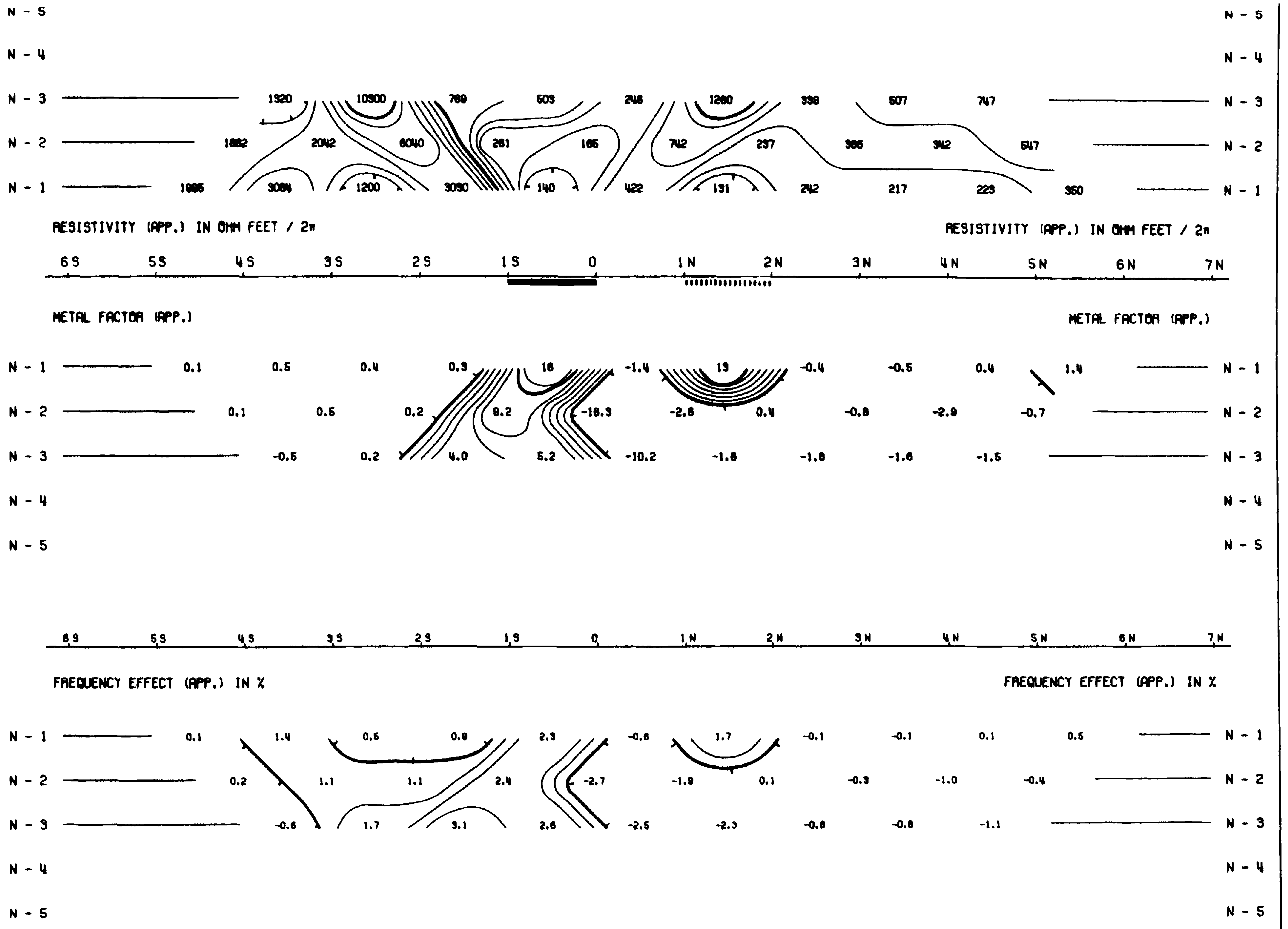
DATE:

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY MCPHAR COMPUTER DIVISION



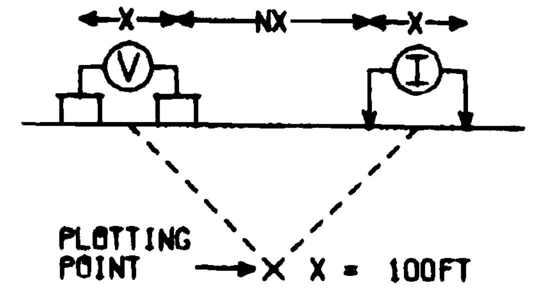
DWG. NO.- I.P.-6116-4

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 500W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: OCT 1973

APPROVED

DATE:

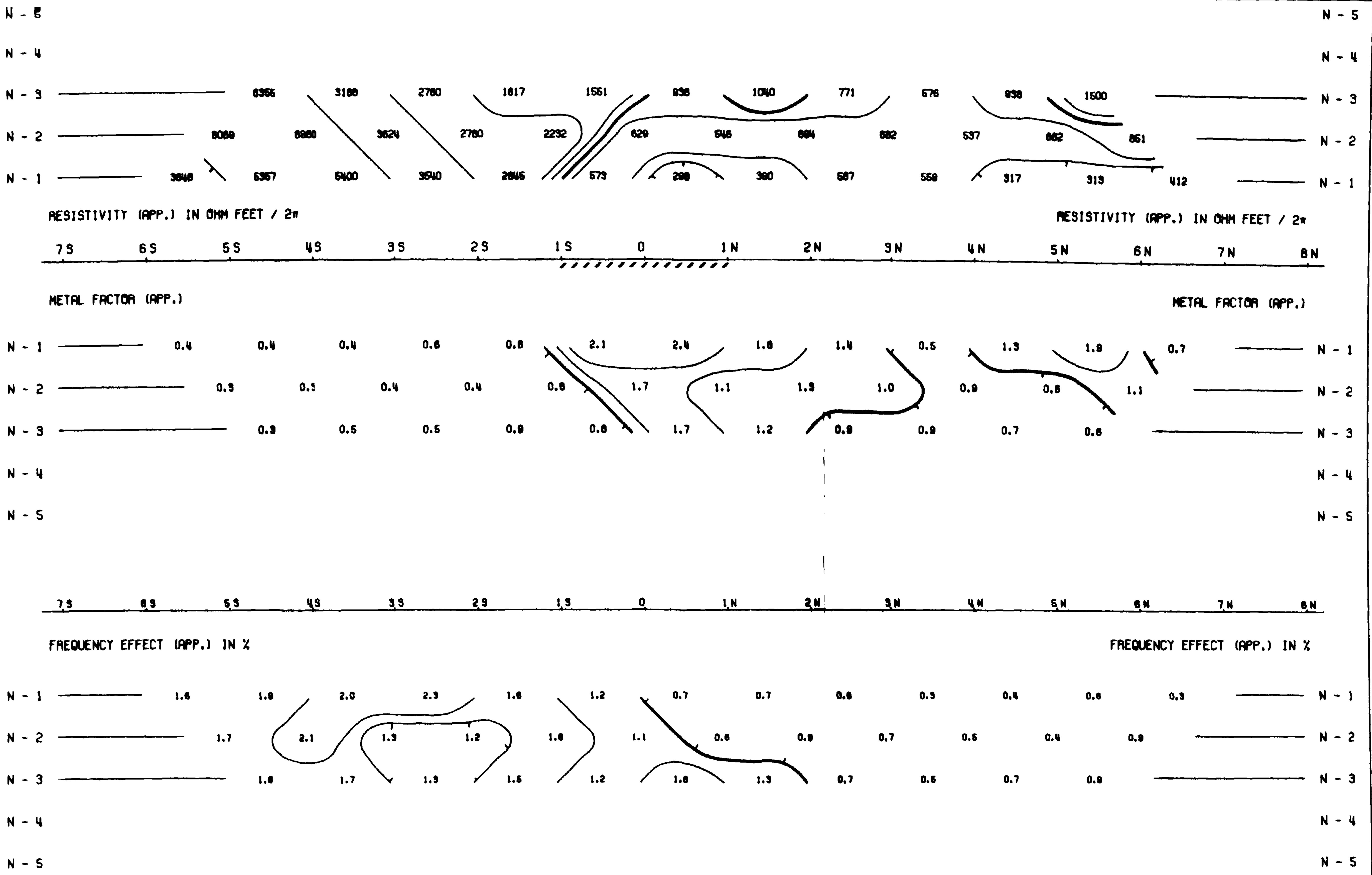
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY McPHAR COMPUTER DIVISION

320



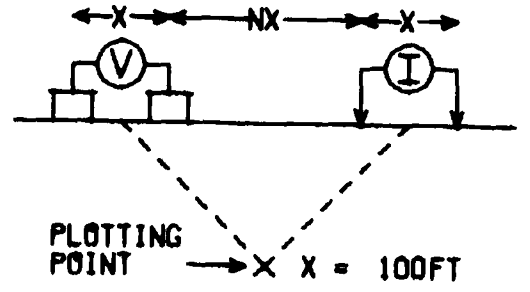
DWG. NO.- I.P.-6116-5

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 400W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: OCT 1973

APPROVED:

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

DATE:

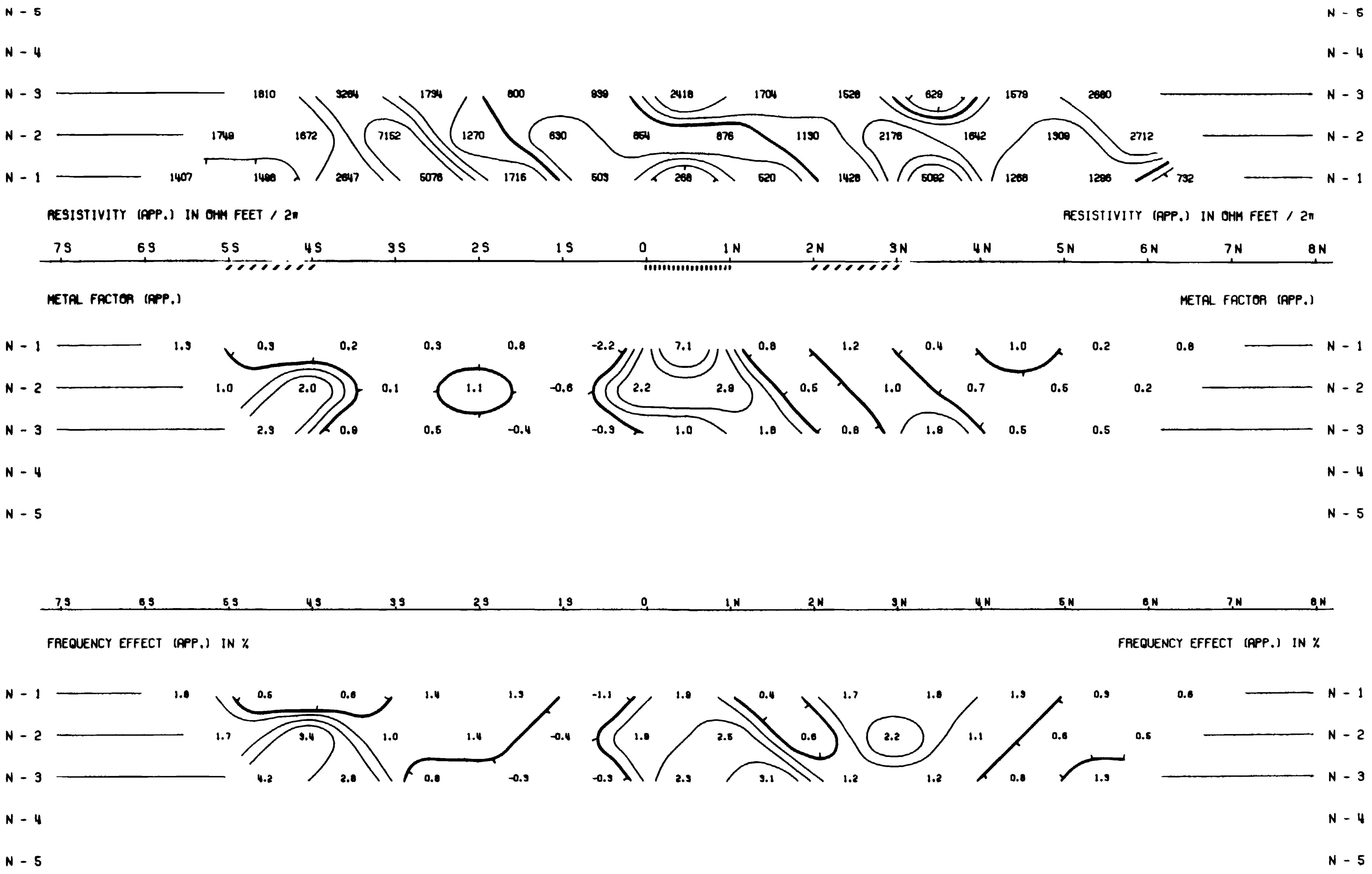
McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY McPHAR COMPUTER DIVISION

42E13SE0031 63.3130 KABY LAKE

330



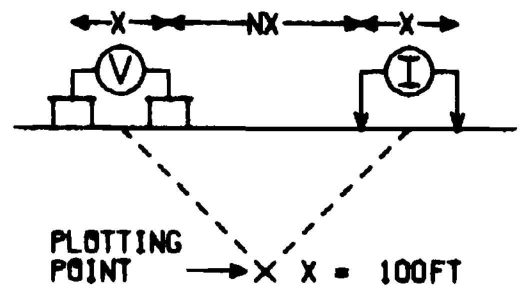
DWG. NO.- I.P.-6116-6

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 250W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: OCT 1973

APPROVED

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

DATE: 2/73

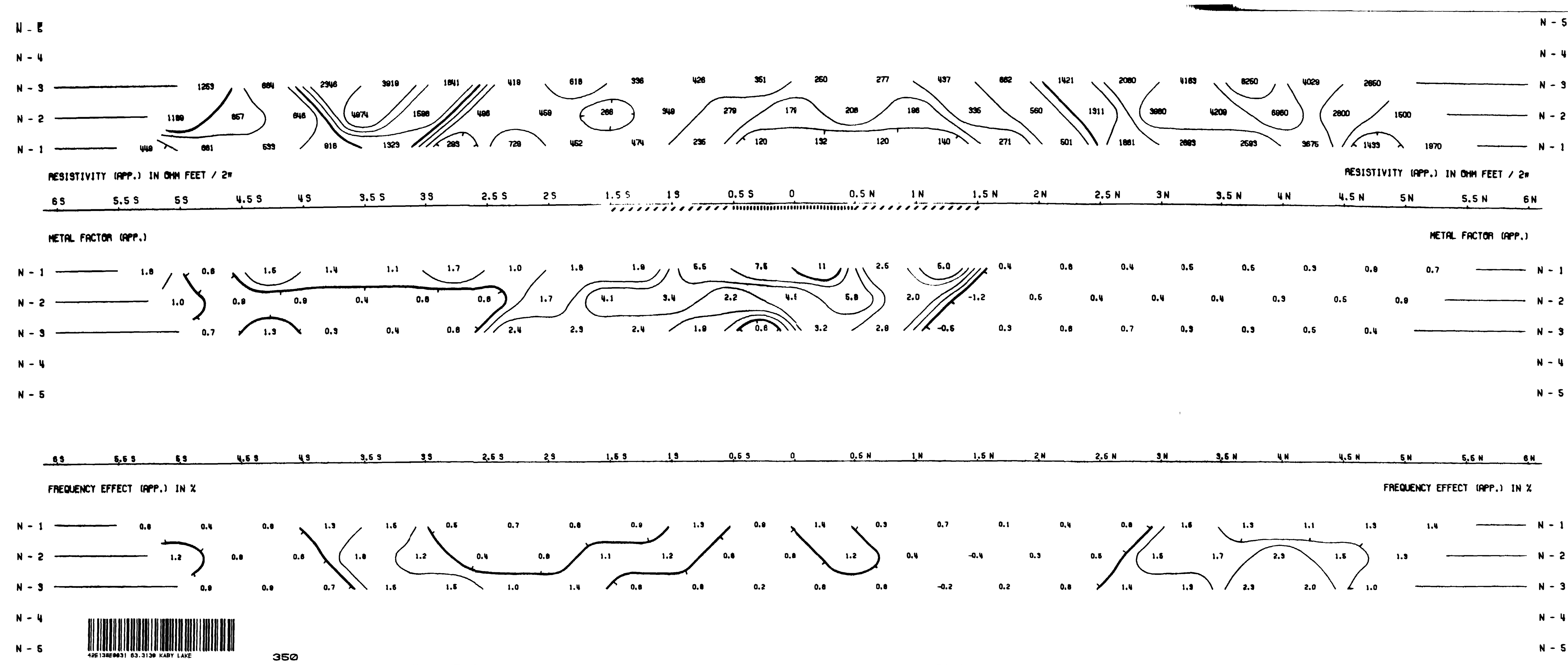
McPHAR GEOPHYSICS LIMITED

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY MCPHAR COMPUTER DIVISION

340

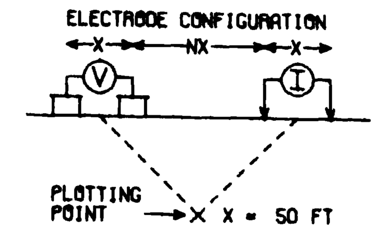


DWG. NO.- I.P.-6116-7

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 200W



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬
PROBABLE ||||||||||||
POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEP 1973

APPROVED:

DATE: Dec 1973

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS LIMITED

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY McPHAR COMPUTER DIVISION

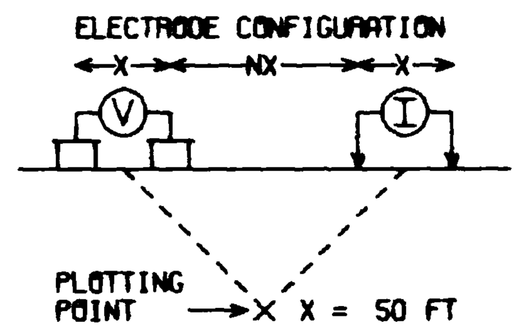
360

DWG. NO.- I.P.-6116-8

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D.,
ONTARIO.

LINE NO.- 100W



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEP 1973

APPROVED:

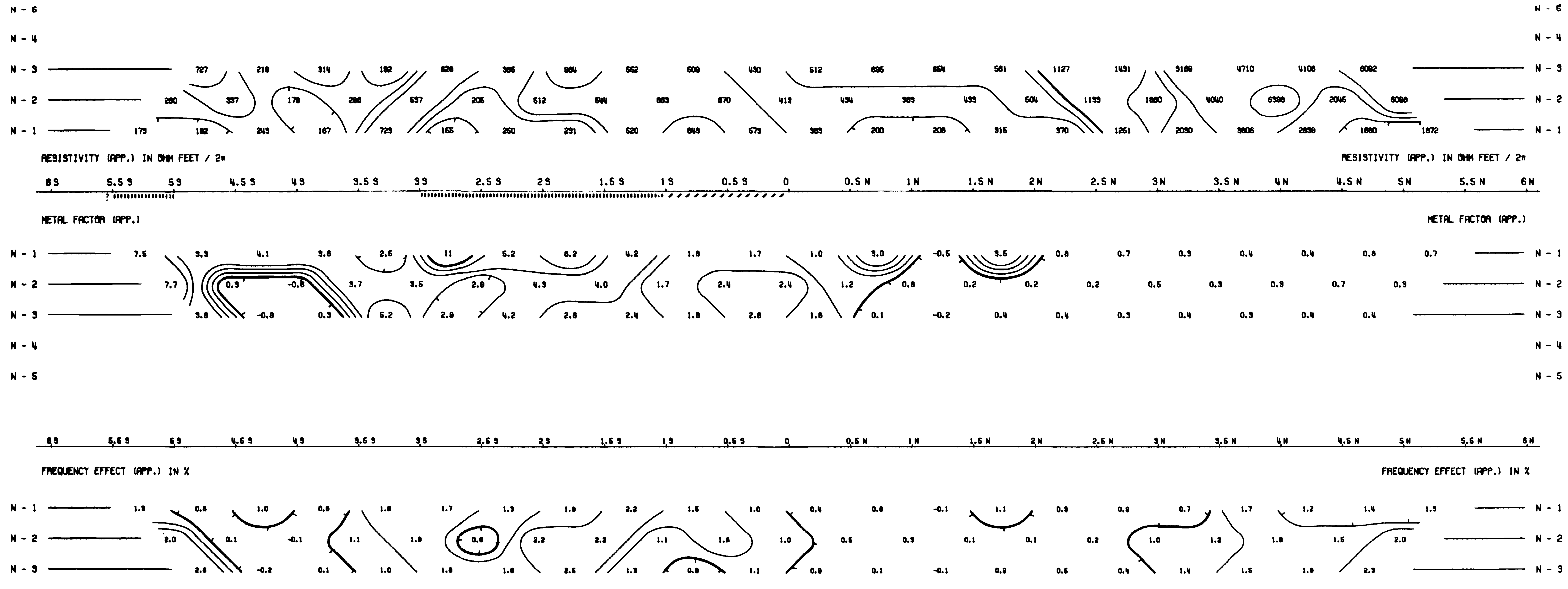
DATE:

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY MCPHAR COMPUTER DIVISION



N - 4
N - 5

42E13SE0031 63.3138 KABY LAKE

370

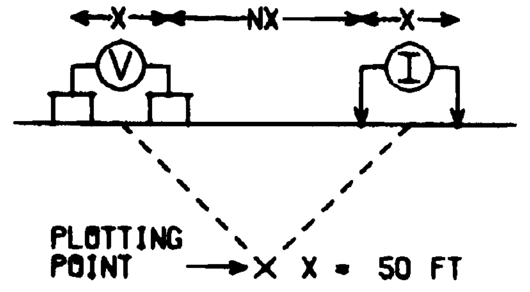
DWG. NO.- I.P.-6116-9

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 50W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEP 1973

APPROVED:

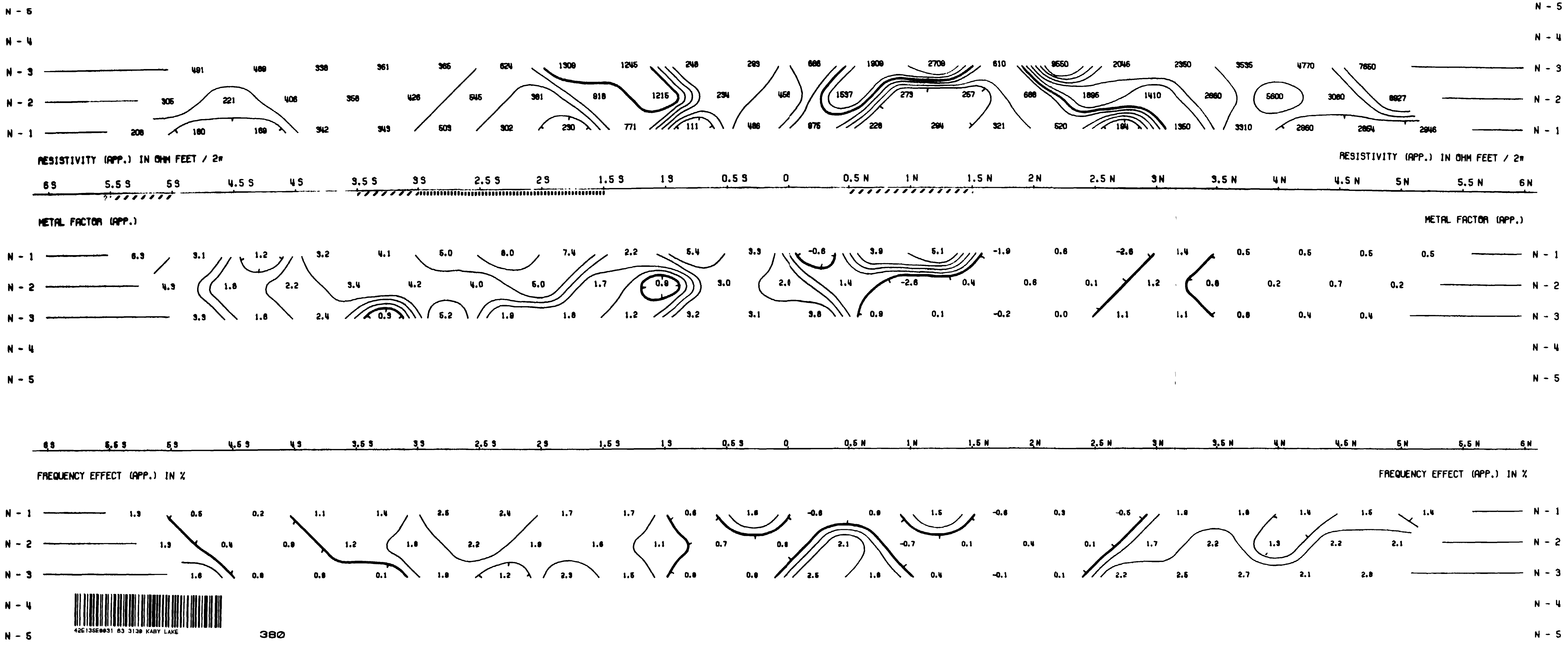
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

DATE: Oct 2/73

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY MCPHAR COMPUTER DIVISION



DWG. NO.- I.P.-6116-10

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D.,
ONTARIO.

LINE NO.- 0

ELECTRODE CONFIGURATION

PLOTTING POINT → X = 50 FT

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEP 1973

APPROVED:

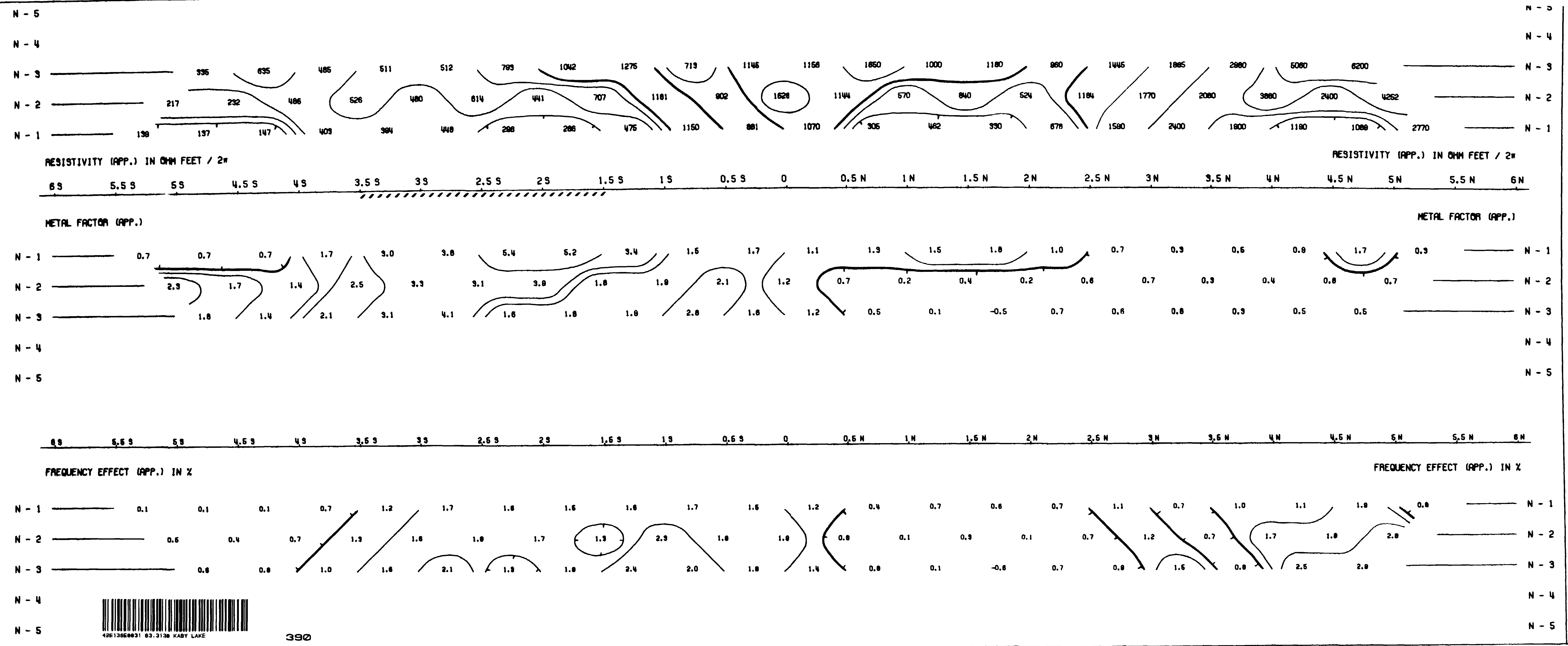
DATE:

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY MCPHAR COMPUTER DIVISION



DWG. NO.- I.P.-6116-11

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 50E

ELECTRODE CONFIGURATION

PLOTTING POINT — X = 50 FT

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: 1983

APPROVED:

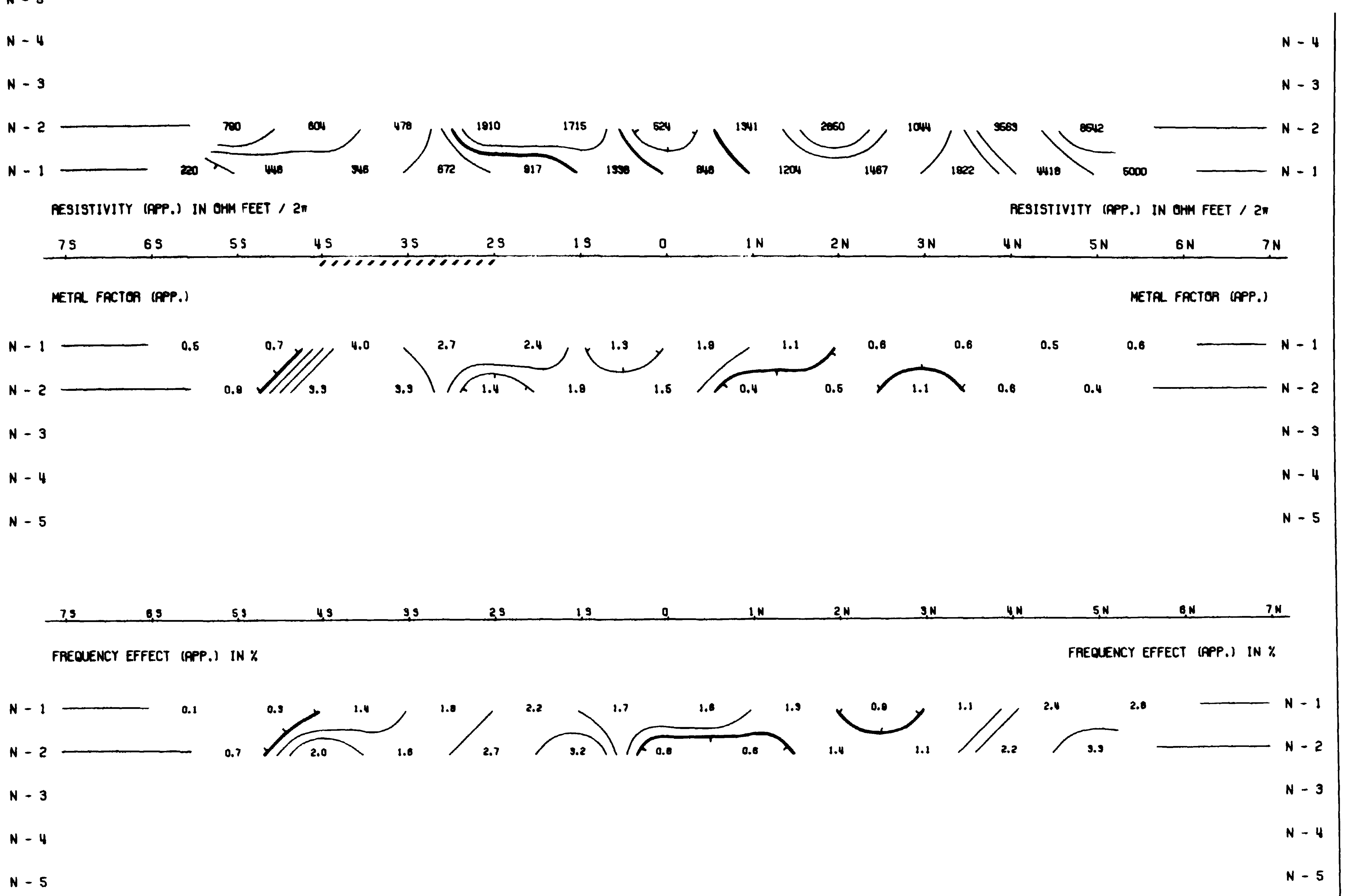
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

DATE:

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY McPHAR COMPUTER DIVISION



42E13SE0031 83.3130 KABY LAKE

400

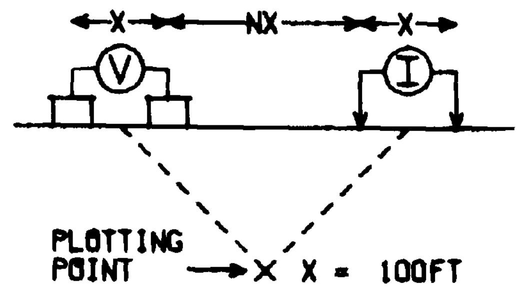
DWG. NO.- I.P.-6116-12

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 100E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEP 1973

APPROVED:

DATE:

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY McPHAR COMPUTER DIVISION

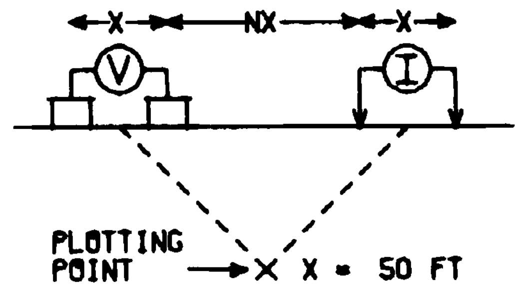
DWG. NO.- I.P.-6116-13

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 100E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEP 1973

APPROVED:

DATE:

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY MCPHAR COMPUTER DIVISION

DWG. NO.- I.P.-6116-14

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 200E

ELECTRODE CONFIGURATION

X NX X

PLOTTING POINT X = 50 FT

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEP 1973

APPROVED:

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

DATE: …/0/23

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY McPHAR COMPUTER DIVISION

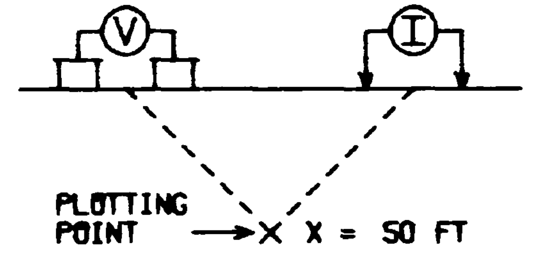
DWG. NO.- I.P.-6116-15

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 300E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEP 1973

APPROVED:

DATE:

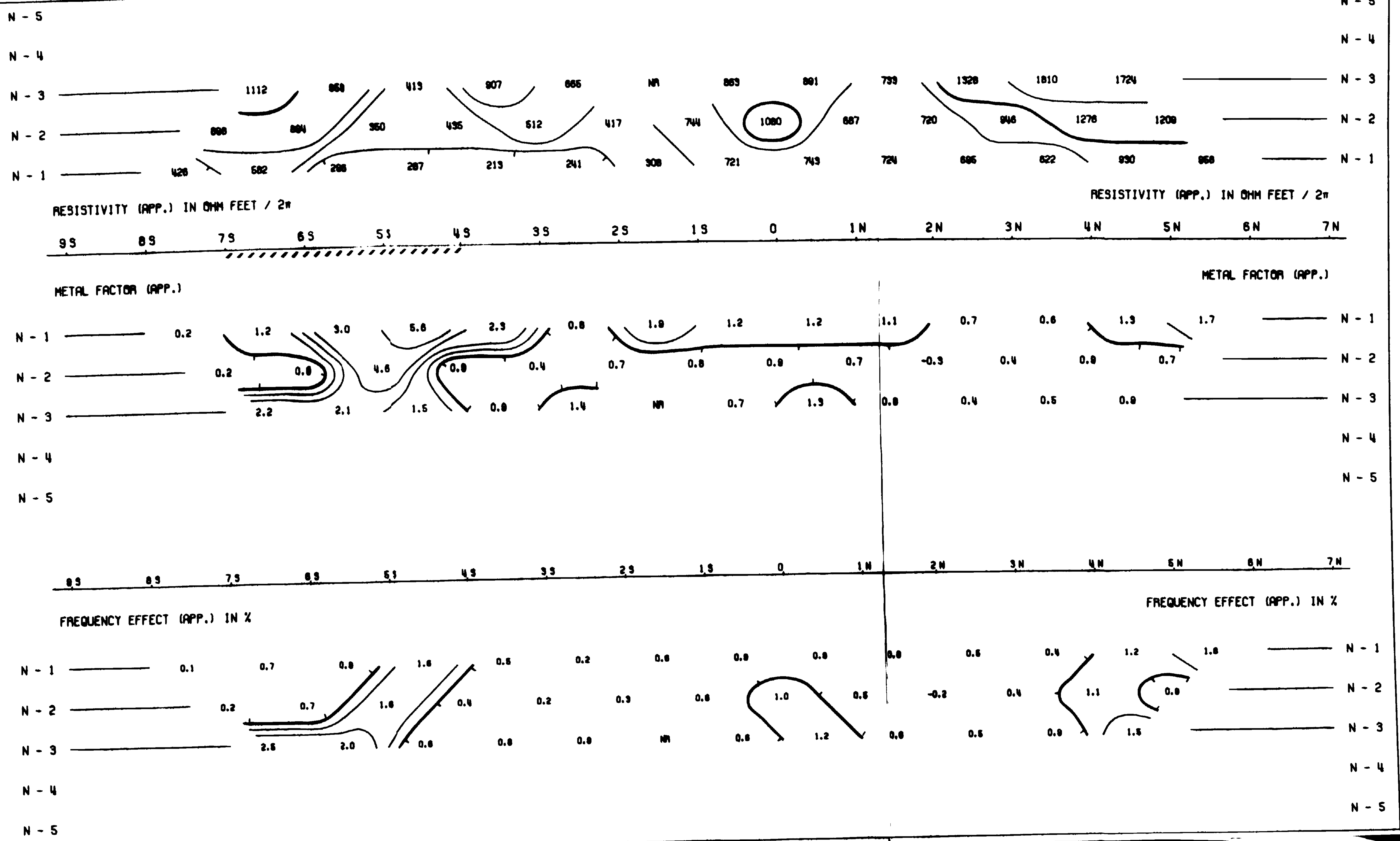
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY McPHAR COMPUTER DIVISION

430



DWG. NO.- I.P.-6116-16

NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.

LINE NO.- 500E

ELECTRODE CONFIGURATION

PLOTTING POINT X = 100FT

SURFACE PROJECTION OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEP 1973

APPROVED:

DATE:

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

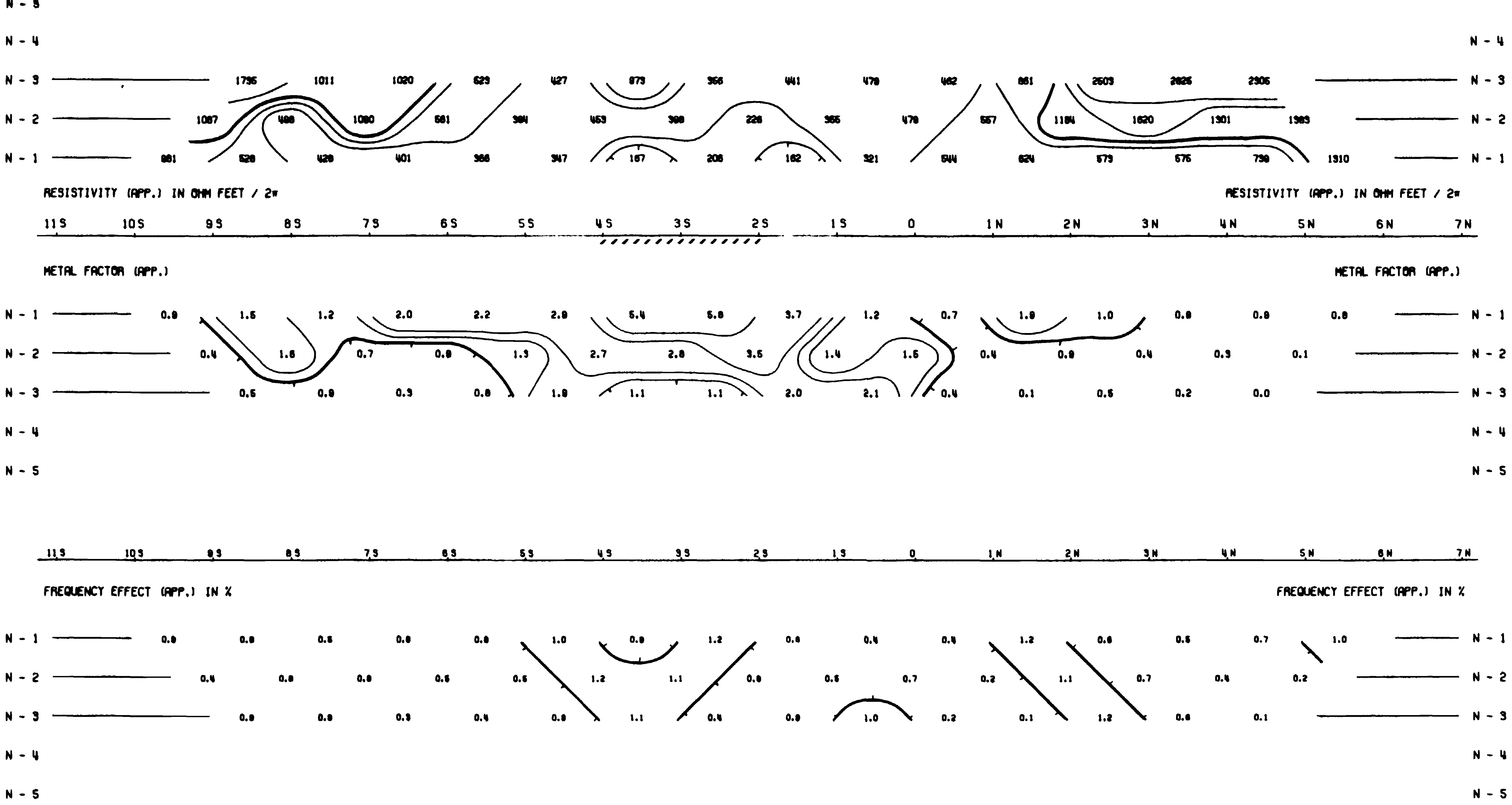
NOTE: THIS PLOT WAS PRODUCED BY McPHAR COMPUTER DIVISION

440

DWG. NO.- I.P.-6116-17

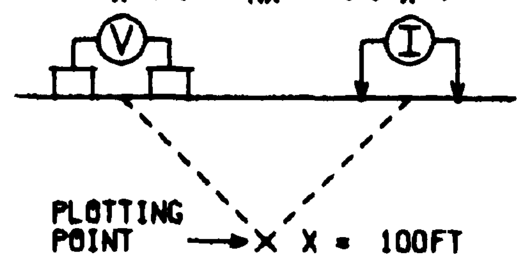
NEW METALORE MINING COMPANY LTD.,

ELMHIRST TWP., THUNDER BAY M.D., ONTARIO.



LINE NO.- 700E

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: OCT 1973

APPROVED:

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

DATE:

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY MCPHAR COMPUTER DIVISION

42E13SE0031 63.3130 KABY LAKE

450