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REPORT ON THE INDUCED POLARIZATION AND RESISTIVITY SURVEY ON THE MAB LAKE PROPERTY MERRITT AREA NICOLA MINING DIVISION, BRITISH COLUMBIA FOR NORANDA EXPLORATION COMPANY, LIMITED

BY

DAVID K. FOUNTAIN, P. ENG.

NAME AND LOCATION OF PROPERTY:

MAB LAKE PROPERTY, MERRITT AREA

NICOLA MINING DIVISION, B. C., 50° N, 120° W, SW

DATE STARTED: August 13, 1969

DATE FINISHED: August 31, 1969

2105

TABLE OF CONTENTS

McPHAR GEOPHYSICS

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.

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.

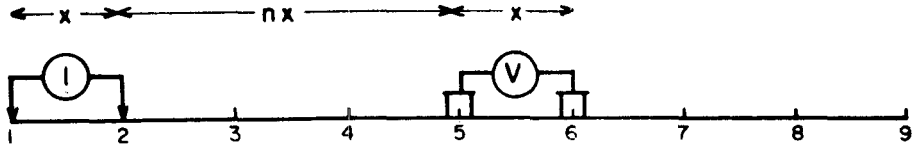
In some situations spurious noise, either man made or natural, will render it impossible to obtain a reading. The symbol "N" on the data plots indicates a station at which it is too noisey to record a reading. If a reading can be obtained, but for reasons of noise there is some doubt as to its accuracy,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

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.

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



Stations on line

x = Electrode spread length
n = Electrode separation

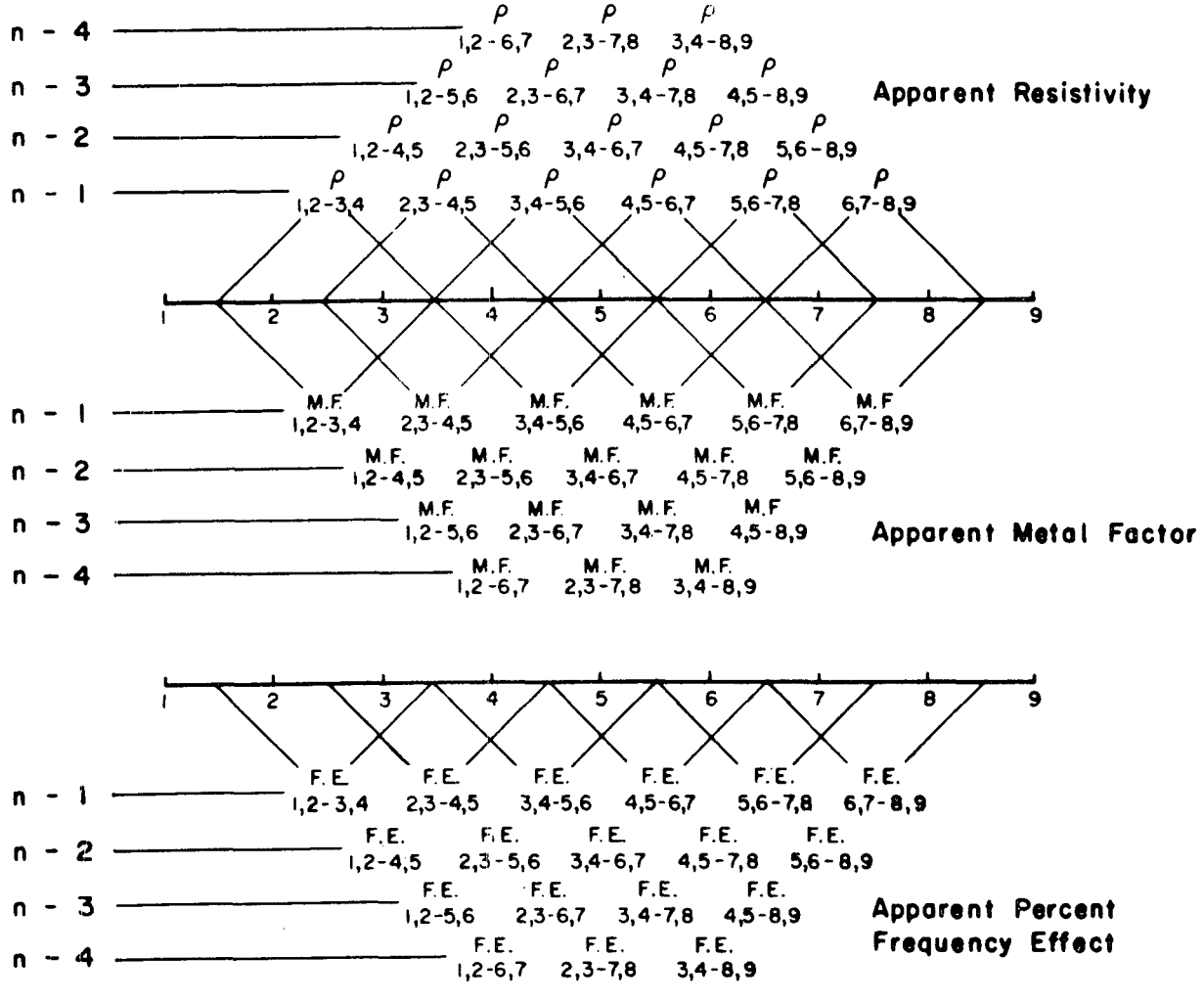


Fig. A

McPHAR GEOPHYSICS LIMITED

REPORT ON THE INDUCED POLARIZATION AND RESISTIVITY SURVEY ON THE MAB LAKE PROPERTY MERRITT AREA NICOLA MINING DIVISION, BRITISH COLUMBIA FOR NORANDA EXPLORATION COMPANY, LIMITED

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1. INTRODUCTION

During the period August 13, 1969 to August 31, 1969, an induced polarization and resistivity survey was carried out on the Mab Lake Property of Noranda Exploration Company, Limited in the Merritt Area, Nicola Mining Division, British Columbia. The property is located approximately 15 miles northeast of Merritt, British Columbia and lies in the southwest quadrant of the one degree quadrilateral whose southeast corner is 50°N latitude and 120°W longitude. Access to the property is via the Merritt-Kamloops Highway (Provincial Highway 5) to Nicola, British Columbia and a four-wheel drive vehicle road north from Nicola for approximately 9 miles.

The geophysical survey work discussed in this report was carried out on the following claims of the Mab Lake Property, all of which are located in the Nicola Mining Division.

Coke 1	39249
Coke 2	39250
Coke 3	39251
Coke 4	39252
Coke 7	39255
Coke 8	39256
Coke 9	39257
Coke 10	39258
Coke 11	39259
Coke 12	39260
Coke 13	39261
Coke 14	39262
Coke 17	39265
Coke 20	39268
Coke 21	39269

It should be noted that the following claim names being part of the Mab Lake Property are duplicated and for this reason their respective Record Numbers have been indicated on the plan map: Coke 23, Coke 24, Coke 25, Coke 26, Coke 27 and Coke 28. The claims are all owned by Noranda Exploration Company, Limited (NPL).

The survey area is underlain by a variety of volcanic rocks of the Nicola Group. These rocks are intruded by dioritic rocks of the Central Nicola Batholith. Previous geophysical work consisting of electromagnetic and magnetic surveys and geochemical soil sampling has been carried out. Minor sulphide mineralization, chalcopyrite, pyrrhotite and pyrite has also been indicated on the property. The purpose of the present IP survey was to try and locate concentrations of this sulphide mineralization, especially in those areas where lack of outcrop limited geologic investigation.

The IP survey was carried out employing a McPhar variable frequency induced polarization unit utilizing the dipole-dipole electrode configuration and 200 foot dipoles. Three dipole separations (n = 1, 2, 3) were recorded and the frequencies employed were 0.31 Hz and 5.0 Hz.

2. PRESENTATION OF RESULTS

The induced polarization and resistivity results are shown on the data plots listed below and are summarized on the plan map in the manner described in the notes preceding this report.

Line 8N	200 foot electrode intervals	Dwg. IP 5351-1
Line 4N	200 foot electrode intervals	Dwg. IP 5351-2
Line 0	200 foot electrode intervals	Dwg. IP 5351-3
Line 4S	200 foot electrode intervals	Dwg. IP 5351-4
Line 8S	200 foot electrode intervals	Dwg. IP 5351-5
Line 12S	200 foot electrode intervals	Dwg. IP 5351-6

Line 38S	200 foot electrode intervals	Dwg. IP 5351-7
Line 42S	200 foot electrode intervals	Dwg. IP 5351-8
Line 46S	200 foot electrode intervals	Dwg. IP 5351-9
Line 50S	200 foot electrode intervals	Dwg. IP 5351-10

Enclosed with this report is Dwg. I. P. P. 4543, a plan map of the area surveyed at a scale of one inch equals 400 feet. The definite and possible induced polarization anomalies are indicated by solid and broken bars respectively on this plan map as well as 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.

Since the induced polarization 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; i. e. when using 200 foot electrode intervals the position of a narrow sulphide body can only be determined to lie between two stations 200 feet apart. 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 location of survey lines relative to claim boundaries, the

names and relative position of the claims, and the geologic data indicated on the maps and discussed in the report are based upon information supplied by Noranda Exploration Company, Limited.

3. DISCUSSION OF RESULTS

Line 8N

There are no significantly anomalous IP responses on this line.

Line 4N

A weakly anomalous response occurs between 0+00 and 3+00W on this line. Above background Apparent Metal Factor values occur between 6+00W and 12+00W, however the Apparent Frequency Effects are of low magnitude.

Line 0

This long line extends across the property. Generally the IP response is low with only weak, possible anomalies indicated. A possible, narrow, shallow, anomalous response is centred between 32+00W and 34+00W. A weak anomaly is indicated between 0+00 and 2+00W which correlates with a resistivity low. This anomaly would lie on the axis of the anomalous electromagnetic response indicated by the previous geophysical survey work. The geologic data indicates the presence of sulphide mineralization at about 2+00E on this line.

A broad complex pattern of above background response also occurs between 4+00W and 8+00W, and between 10+00W and 14+00W.

Line 4S

A broad zone of weakly anomalous IP response extends from 8+00W to 2+00E on this line. The higher values of Apparent Metal Factor from 2+00W to 2+00E correlate with a resistivity low and the axis of the electromagnetic anomaly indicated by the previous work.

Line 8S

This long line extends across the property. A possible anomaly is indicated between 2+00E and 2+00W which correlates with the strongest portion of the electromagnetic anomaly outlined by the previous work. A second possible anomaly, occurring in an area of higher background resistivity values, is indicated between 10+00W and 14+00W. On the western portion of the line, narrow, weak responses are indicated from 32+00W to 34+00W and from 27+00W to 30+00W.

Line 12S

A narrow, shallow, possible anomaly is indicated between 0+00 and 2+00W which appears to correlate with the axis of the electromagnetic anomaly

Line 38S

This is the most northerly of the four lines located in the

south portion of the property. Above background values of Apparent Metal Factor are indicated between 12+00W and 14+00W, between 18+00W and 21+00W and from 29+00W to at least 34+00W. However, the lack of significant Apparent Frequency Effect response, the shallow anomaly pattern, and the lack of outcrop in the area suggests that the above background Metal Factor Values are due to effects within the gravel overburden.

Line 42S

A broad, weak anomaly extends from 29+00W to at least 5+00W with the stronger response occurring from 21+00W to 5+00W. There is a falloff in resistivity values to the east of 22+00W, however, the values of Apparent Frequency Effect are constant and of large enough magnitude to suggest a source of weakly disseminated metallic mineralization.

Line 46S

The overall IP response on this line is lower than on the previous line with generally lower values of Apparent Frequency Effect. Higher values of Apparent Metal Factor occur from 11+00W to at least 6+00W. However, the shallow anomaly pattern and the low values of Apparent Frequency Effect suggest that the higher Metal Factor Values reflect lower resistivity areas within the overburden.

Line 50S

A narrow, shallow, possible anomaly is indicated between 14+00W and 17+00W with weaker extension to 19+00W.

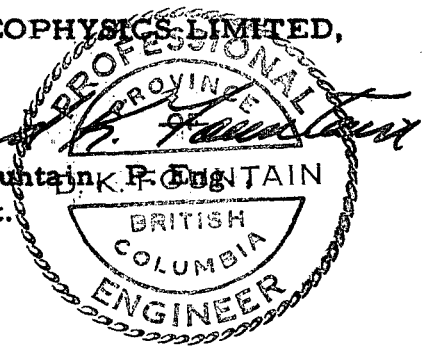
4. SUMMARY AND CONCLUSIONS

The results of the induced polarization survey have not outlined any distinctly anomalous zones. Several weak anomalies have been indicated which could represent the response from weakly disseminated metallic mineralization.

It would be necessary to further evaluate these weak anomalies in light of the available geochemical soil survey and geological data before a decision could be made on a programme of further work. Additional work would not appear to be warranted unless there is a favourable correlation between the induced polarization results and the geologic and/or geochemical data.

McPHAR GEOPHYSICS LIMITED,

David K. Fountain, P. Eng.
Geophysicist.



Expiry Date: April 25, 1970

Dated: November 14, 1969.

ASSESSMENT DETAILS

PROPERTY: Mab Lake Property

MINING DIVISION: Nicola

SPONSOR: Noranda Exploration Company, Limited

PROVINCE: British Columbia

LOCATION: Merritt Area

TYPE OF SURVEY: Induced Polarization

OPERATING MAN DAYS:	36	DATE STARTED:	August 13, 1969
EQUIVALENT 8HR. MAN DAYS:	54	DATE FINISHED:	August 31, 1969
CONSULTING MAN DAYS:	2	NUMBER OF STATIONS:	206
DRAUGTING MAN DAYS:	7	NUMBER OF READINGS:	1428
TOTAL MAN DAYS:	63	MILES OF LINE SURVEYED:	7.4

CONSULTANTS:
David K. Fountain, 44 Highgate Road, Toronto 18, Ontario.

FIELD TECHNICIANS:
K. Drobot, c/o 20122 64th Avenue, Langley, British Columbia
J. Anderson, Box 17, Site 13, R. R. #8, Edmonton, Alberta.

FIELD HELPERS:
E. Drobot, c/o General Delivery, Ashcroft, British Columbia.
J. Beenen, 1120 Bentley Place, Kamloops, British Columbia

DRAUGHTSMEN:
F. Hurst, 230 Woburn Avenue, Toronto 12, Ontario.
B. Marr, 19 Kenewen Court, Toronto 16, Ontario.
N. Lade, 1355 Lakefield Street, Oshawa, Ontario.

McPHAR GEOPHYSICS LIMITED,

David K. Fountain, P. Eng.,
Geophysicist.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA D. K. FOUNTAIN

Expiry Date: April 25, 1970

Dated: November 14th, 1969

SUMMARY OF COST

Noranda Exploration Company, Limited
I. P. Survey - Merritt Area - Mab Lake, B. C.

Crew

8-3/4 days Operating		@ $220.00/day	1,925.00
2 days Travel 1/2 day Bad Weather)	2-1/2 days	@ $ 85.00/day	212.50

Expenses - Crew

Transportation - Air	18.05	
Taxis	3.78	
Freight & Brokerage	34.00	
Meals & Accommodation	26.00	
Telephone & Telegraph	8.92	
Supplies	11.66	
Vehicle Expense	62.57	
Rented Vehicles	84.23	
Mileage Allowance	1.67	
Miscellaneous Expense	28.76	279.64

Extra Labour

8-3/4 days	@ $260.10 + 20%	312.12
		$2,729.26

McPHAR GEOPHYSICS LIMITED,

David K. Fountain, P. Eng.,
Geophysicist

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. K. FOUNTAIN

Expiry Date: April 25, 1970

Dated: November 14th, 1969.

CERTIFICATE

I, David Kirkman Fountain, of the City of Toronto, Province of Ontario, do certify that:

1. I am a geophysicist residing at 44 Highgate Road, Toronto 18, Ontario.

2. I am a graduate of the University of Toronto with a Bachelor of Applied Science Degree in Engineering Physics (Geophysics).

3. I am a member of the Society of Exploration Geophysicists, the European Association of Exploration Geophysicists and the Canadian Institute of Mining and Metallurgy.

4. I am a registered Professional Engineer in the Provinces of British Columbia and Ontario, and have been practising my profession for eight years.

5. The statements made in this report are based on a study of published geological literature and unpublished private reports.

6. Permission is granted to use in whole or in part for assessment and qualification requirements but not for advertising purposes.

Dated at Toronto

This 14th day of November, 1969

David Kirkman Fountain, B. A. Sc., P. Eng.

PROFESSIONAL ENGINEER
D. K. FOUNTAIN
BRITISH COLUMBIA

Expiry Date: April 25, 1970

DOMINION OF CANADA:

PROVINCE OF BRITISH COLUMBIA.

TO WIT:

In the Matter of a statement of exploration expenses on 15 Mineral Claims in the Nicola Mining Division having Record Numbers 39249-39252, 39255-39262, 39265, 39268-39269.

SUB-MINING RECORDER
RECEIVED
NOV 28 1969
VANCOUVER, B. C.

I, W.W.Young (F.M.C. 78570 Issued May 2, 1969 at Vancouver) agent for 34797 $
Noranda Exploration Company, Limited (No Personal Liability) (F.M.C. 78440, Issued May 2, 1969 at Vancouver)

both of 1050 Davie Street, Vancouver 5,

in the Province of British Columbia, do solemnly declare that the cost of a Geophysical Survey from July 17 to August 31, 1969 was:

A. LINE PREPARATION:

Salaries (Including WCB, UIC, Holiday Pay & Cda Pension)
From: July 17 to August 8, 1969 Intermittently
Employees: A. Hamilton, R. Palmer, D. Smith

Cost Per Man Day:	$21.33		
Number of Man Days:	26		
Cost:	26 x 21.33	$544.58	
Field Costs (Including all costs related to survey)			
Cost Per Man Day:	$10.00		
Number of Man Days:	26		
Cost:	26 x $10.00	260.00	$ 814.58

B. GEOPHYSICAL SURVEY:

By McPhar Geophysics Ltd.		
Total Cost, as per Summary of Cost	$2,729.26	
Less crew expenses	279.64	2,449.62
		$ 3,264.18

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City of Vancouver, in the Province of British Columbia, this 28th day of November, 1969, A.D.

W W Young

J. Paul SUB-MINING RECORDER

A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

In the Matter of

Statutory Declaration

(CANADA EVIDENCE ACT)

DOMINION OF CANADA:

PROVINCE OF BRITISH COLUMBIA.

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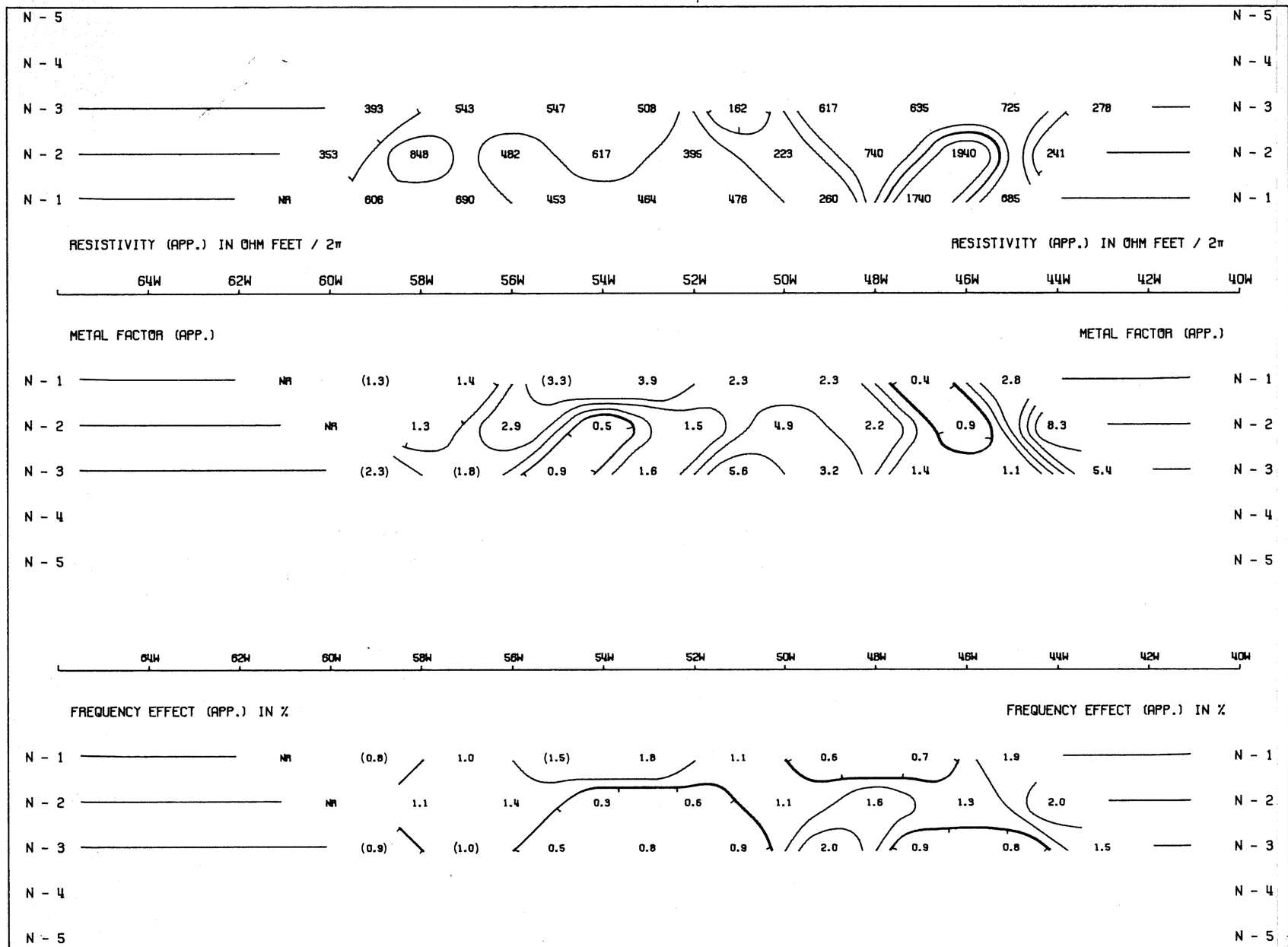
In the Matter of

Statutory Declaration

(CANADA EVIDENCE ACT)



DWG. NO.- I.P.-5351-1

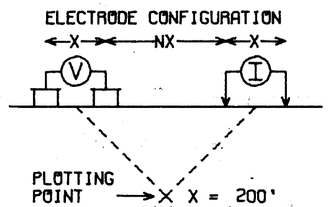
NORANDA EXPLORATION COMPANY LIMITED

MAB LAKE PROPERTY

MERRITT AREA, NICOLA M.D., B.C.

LINE NO.- 8N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

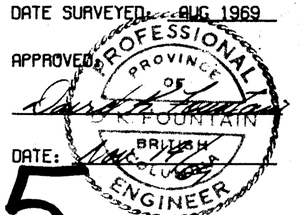
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: AUG 1969

APPROVED:

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



DATE:

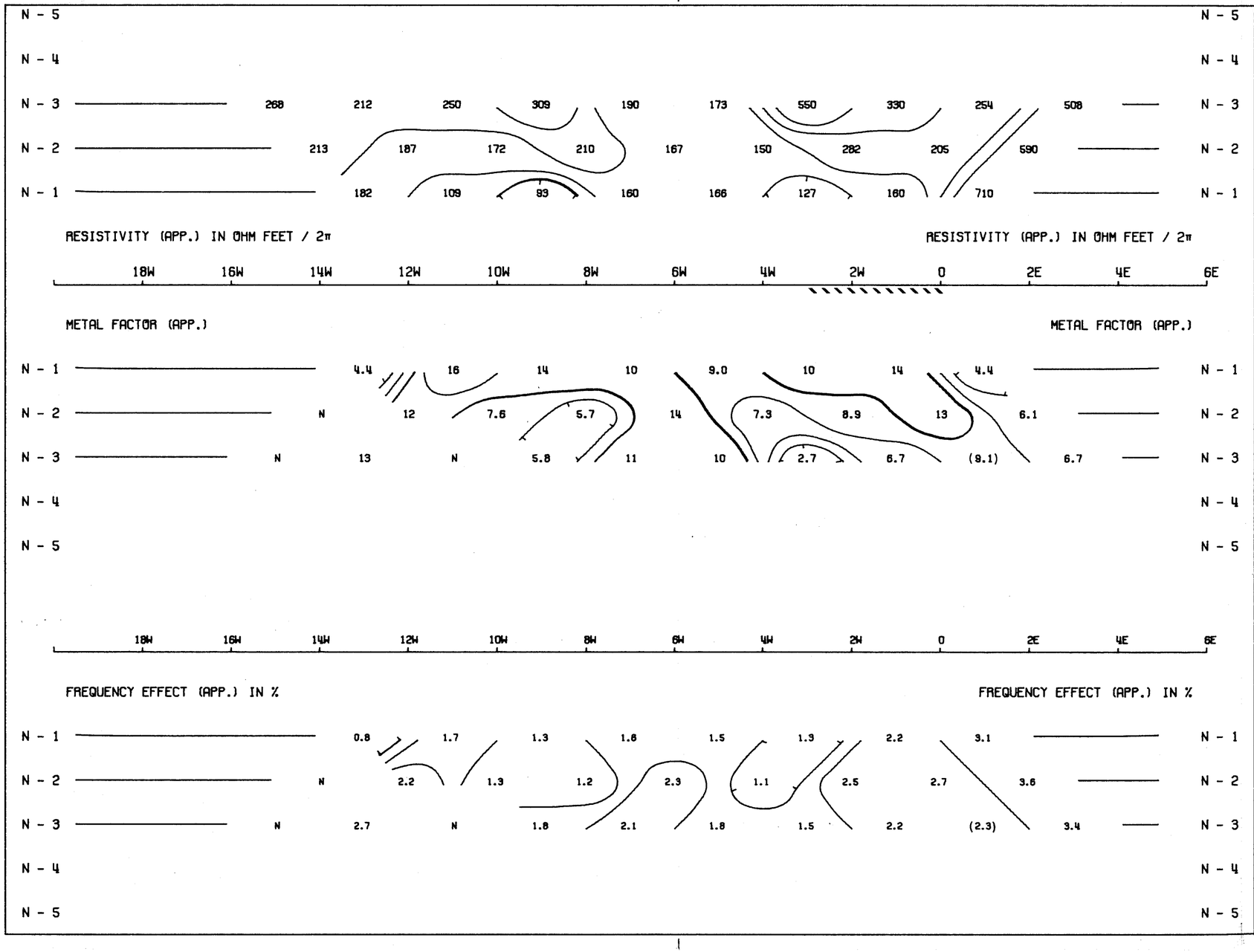
Expiry Date: April 25, 1970

2105

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5351-2

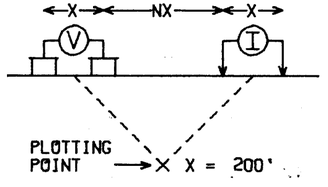
NORANDA EXPLORATION COMPANY LIMITED

MAB LAKE PROPERTY

MERRITT AREA, NICOLA M.D., B.C.

LINE NO.- 4N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: AUG 1969

APPROVED:

DATE:

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

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D.K. FOUNTAIN

Expiry Date: April 25, 1970

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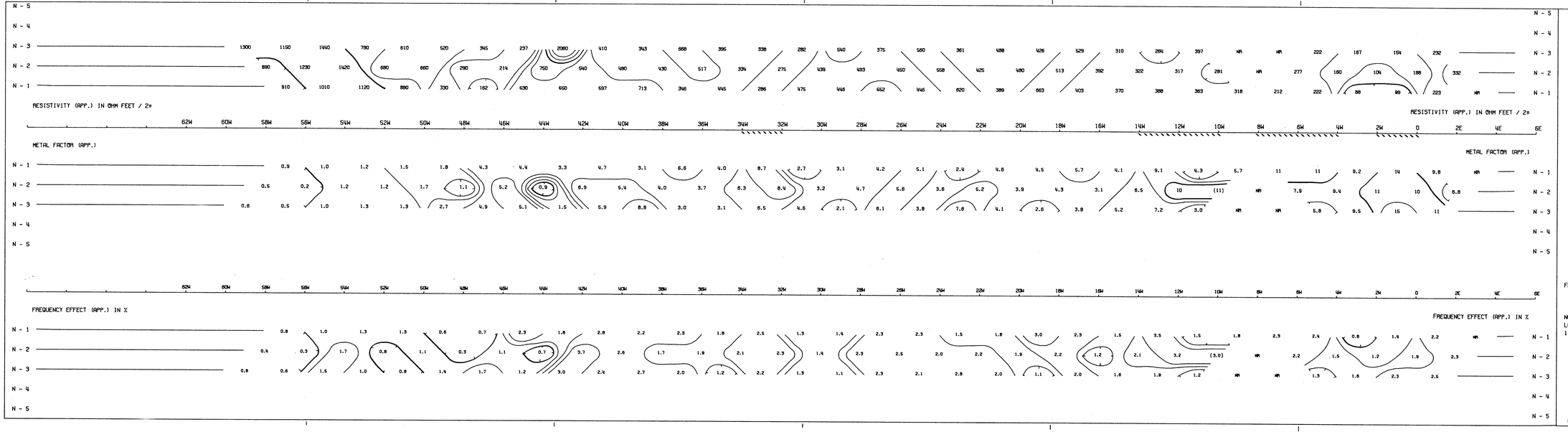
McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5351-3

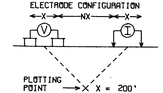
NORANDA EXPLORATION COMPANY LIMITED

MAB LAKE PROPERTY

MERRITT AREA, NICOLA M.D., B.C.

LINE NO.- 0

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ——————

PROBABLE ||||||||||||||||

POSSIBLE / / / / / /

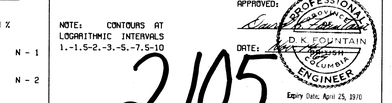
FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: AUG 1969

APPROVED:

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

DATE:



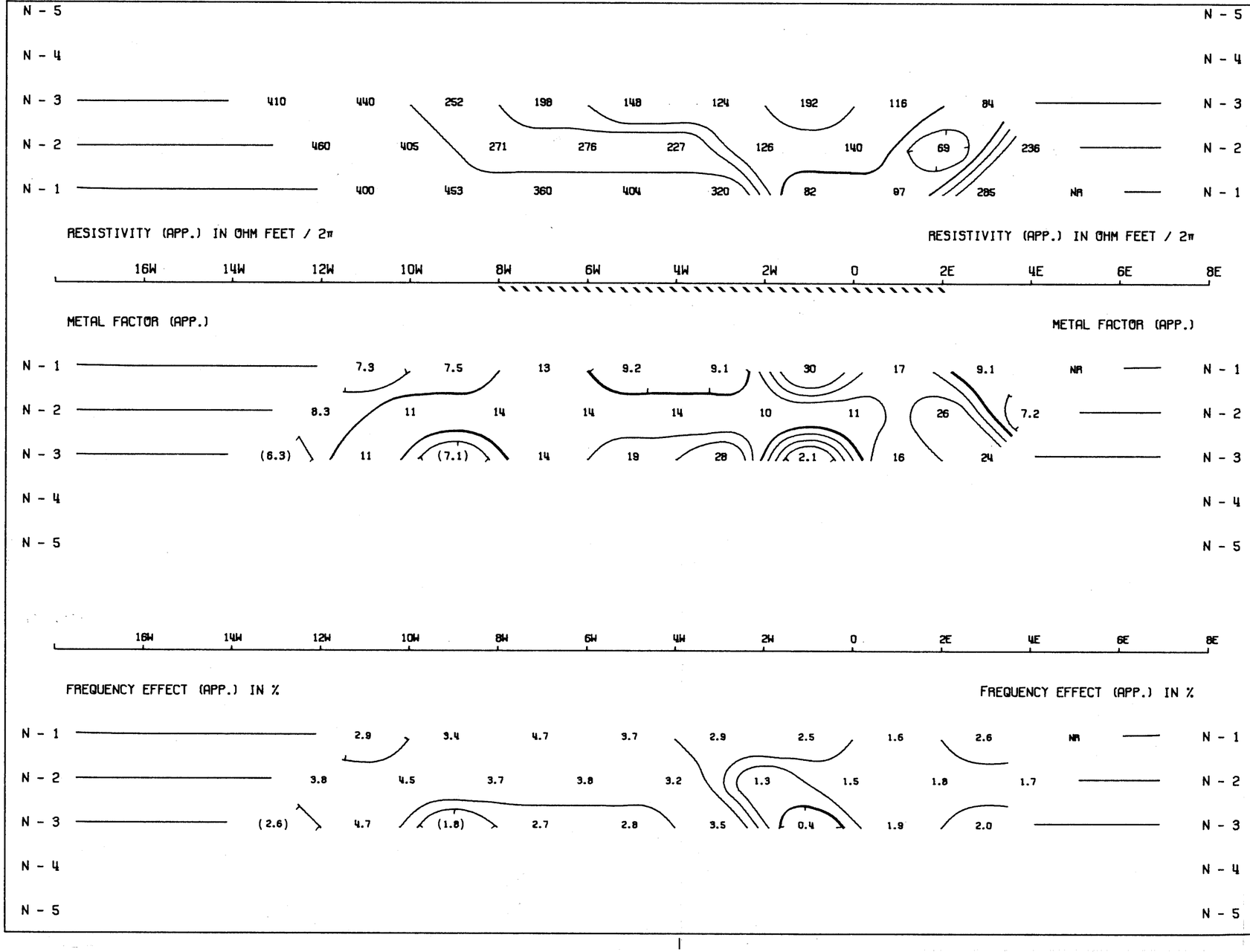
2105

Expiry Date, April 25, 1970

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5351-4

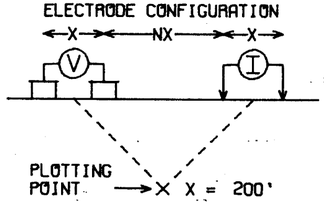
NORANDA EXPLORATION COMPANY LIMITED

MAB LAKE PROPERTY

MERRITT AREA, NICOLA M.D., B.C.

LINE NO.- 4S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ——————

PROBABLE ....

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: AUG 1969

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

APPROVED:

DATE:

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA D. K. FOUNTAIN 9855

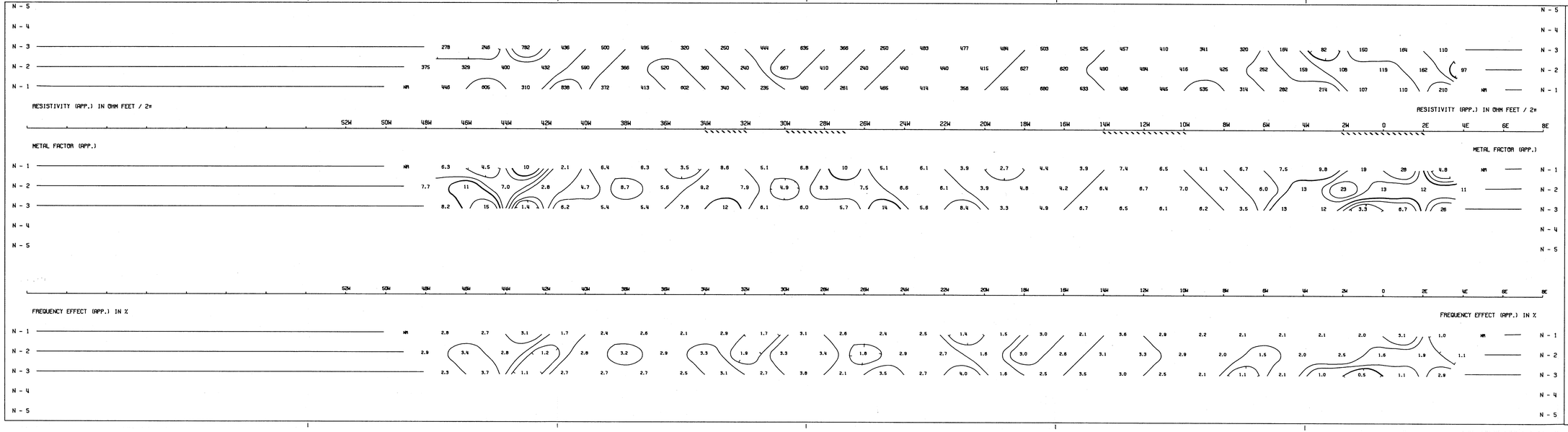
Expiry Date: April 25, 1970

2105

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5351 - 5

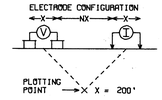
NORANDA EXPLORATION COMPANY LIMITED

MAB LAKE PROPERTY

MERRITT AREA, NICOLA M.D., B.C.

LINE NO.- 8S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: AUG 1969

APPROVED:

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

DATE:

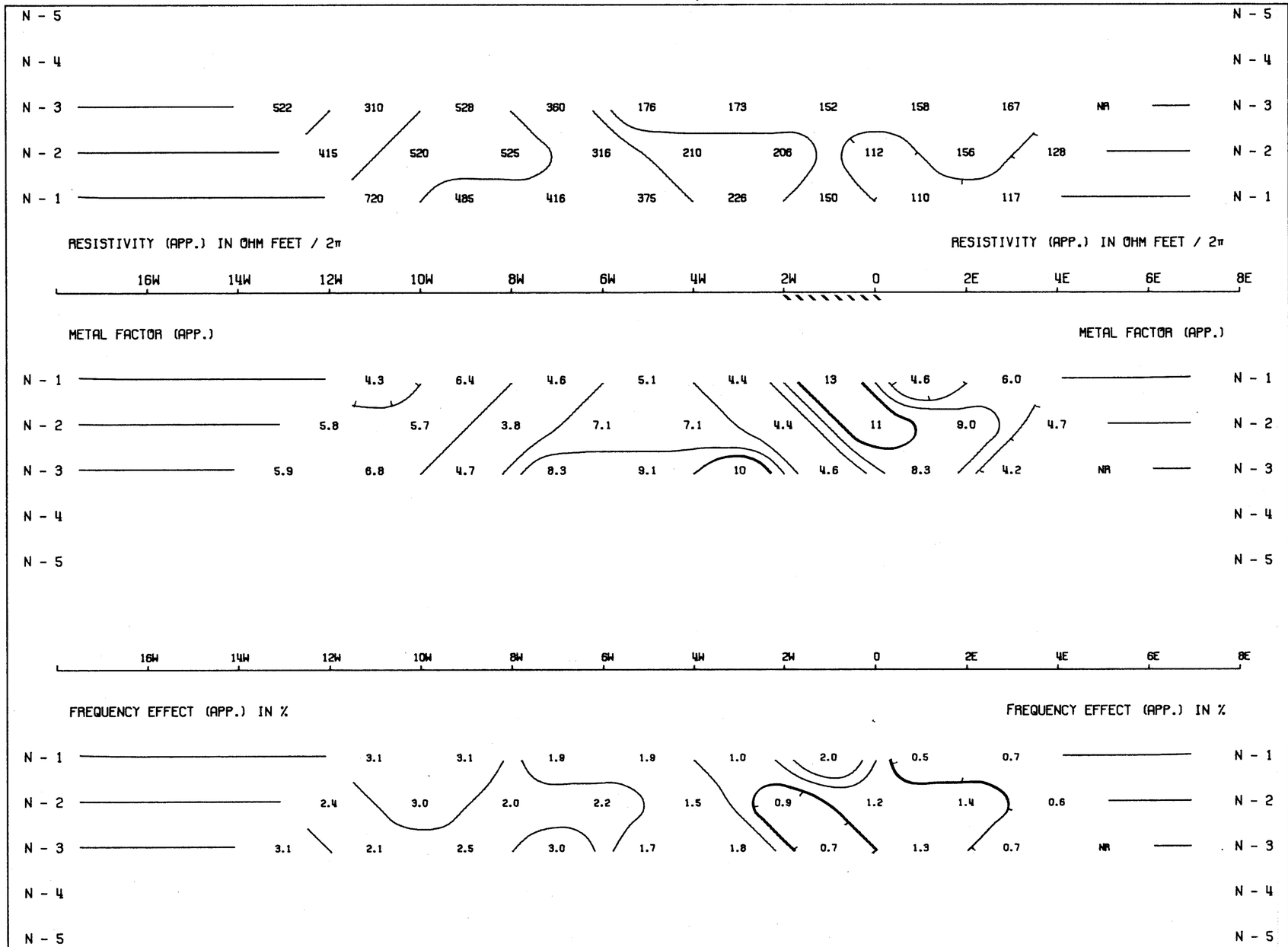
2105

Expiry Date: April 25, 1970

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5351-6

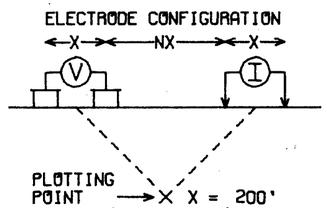
NORANDA EXPLORATION COMPANY LIMITED

MAB LAKE PROPERTY

MERRITT AREA, NICOLA M.D., B.C.

LINE NO.- 12S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ——————

PROBABLE ||||||||||||||

POSSIBLE / / / / /

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: AUG 1969

APPROVED:

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

DATE:

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA D.K. FOUNTAIN 6S

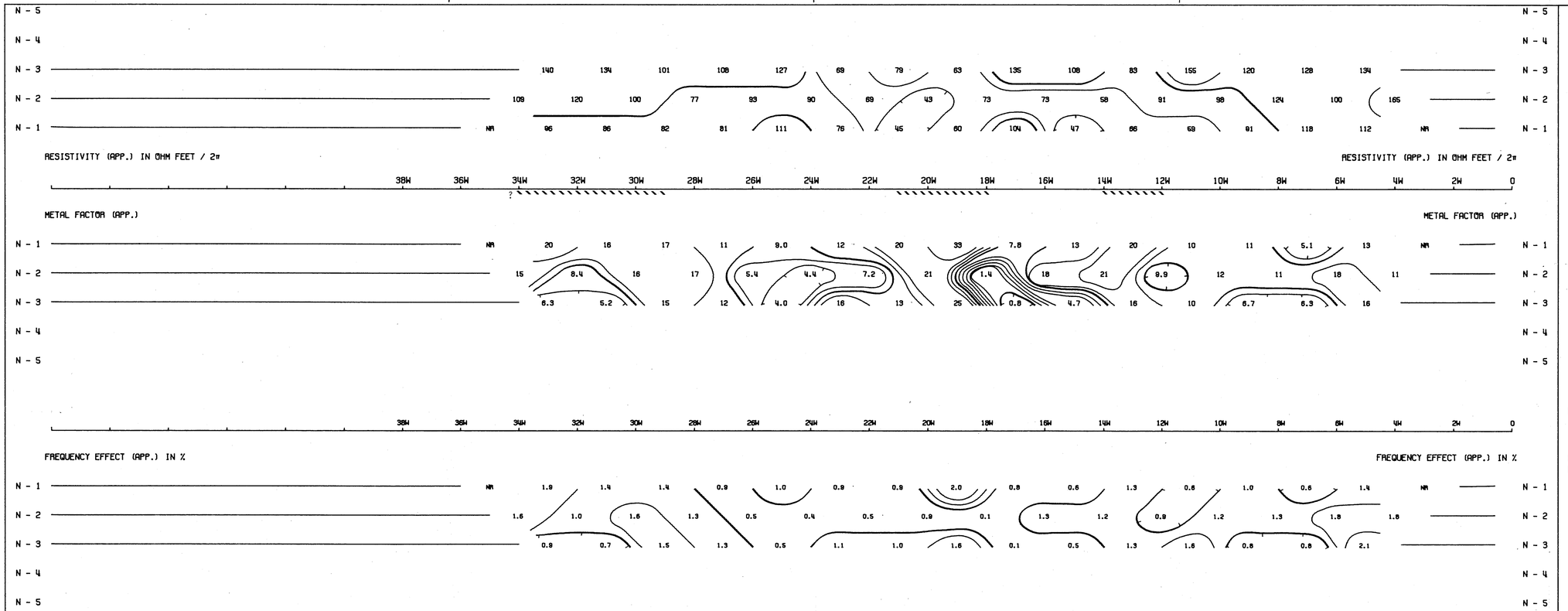
Expiry Date: April 25, 1970

2105

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.- 5351 - 7

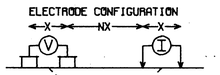
NORANDA EXPLORATION COMPANY LIMITED

MAB LAKE PROPERTY

MERRITT AREA, NICOLA M.D., B.C.

LINE NO.- 38S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: AUG 1969

APPROVED:

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

DATE: [illegible]

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA

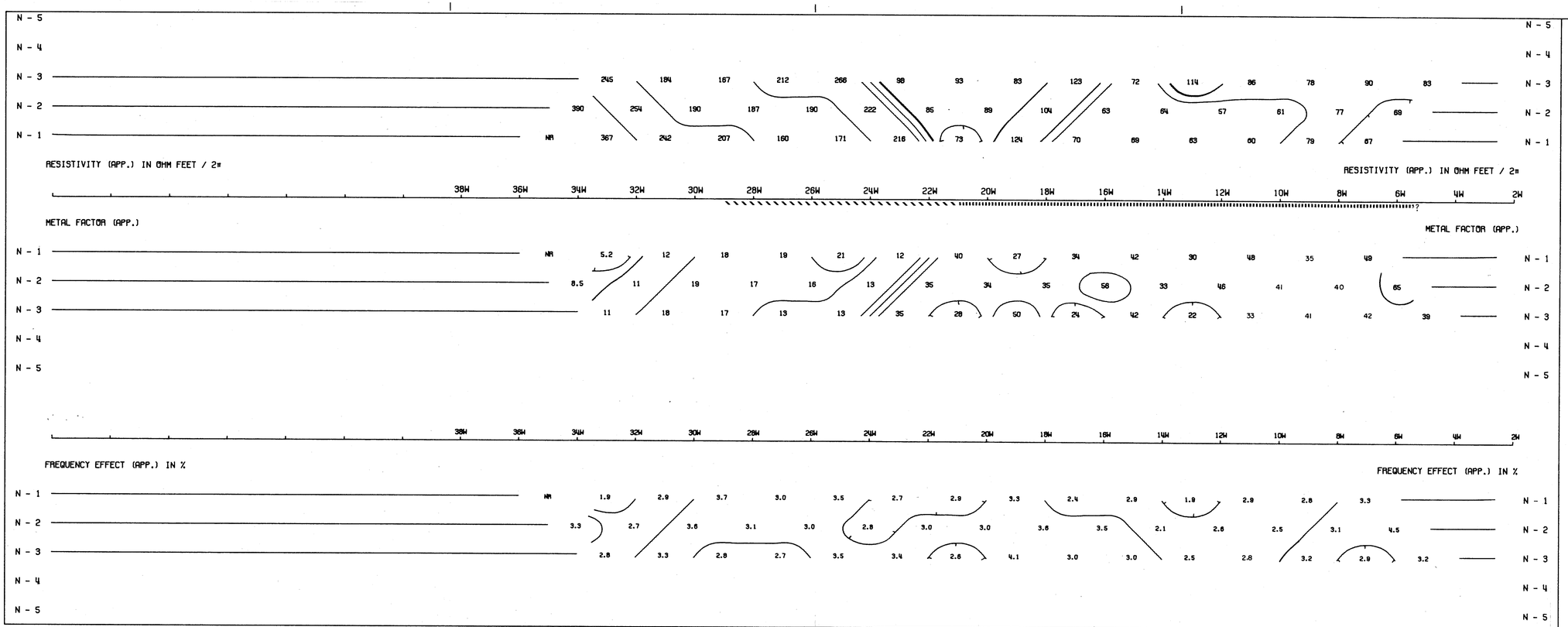
Expiry Date April 25, 1970

2105

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5351-8

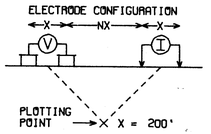
NORANDA EXPLORATION COMPANY LIMITED

MAB LAKE PROPERTY

MERRITT AREA, NICOLA M.D., B.C.

LINE NO.- 42S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: AUG 1969

APPROVED:

DATE:

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

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA

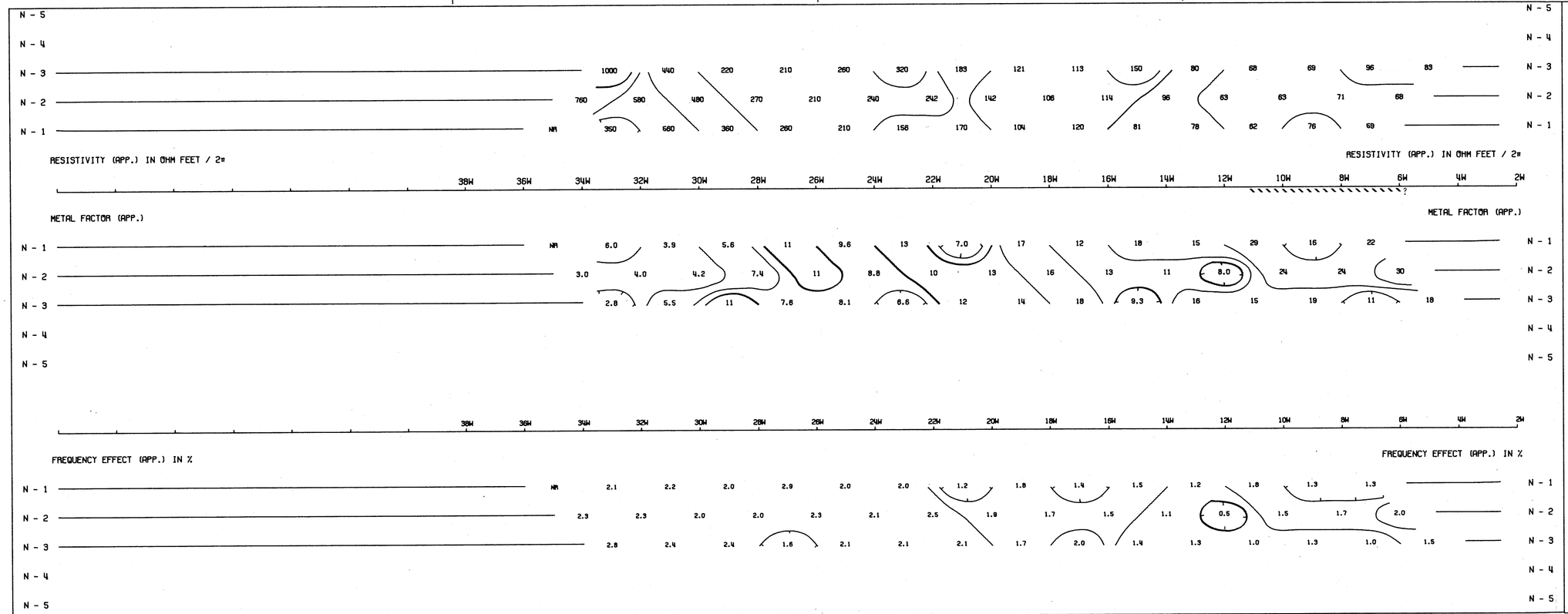
Expiry Date: April 25, 1970

2105

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5351-9

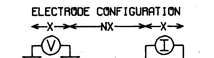
NORANDA EXPLORATION COMPANY LIMITED

MAB LAKE PROPERTY

MERRITT AREA, NICOLA M.D., B.C.

LINE NO.- 46S

ELECTRODE CONFIGURATION



PLOTTING POINT → X = 200'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ——————

PROBABLE ||||||||||||

POSSIBLE / / / / /

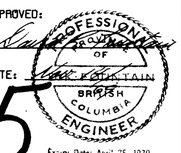
FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: AUG 1969

APPROVED:

DATE:

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

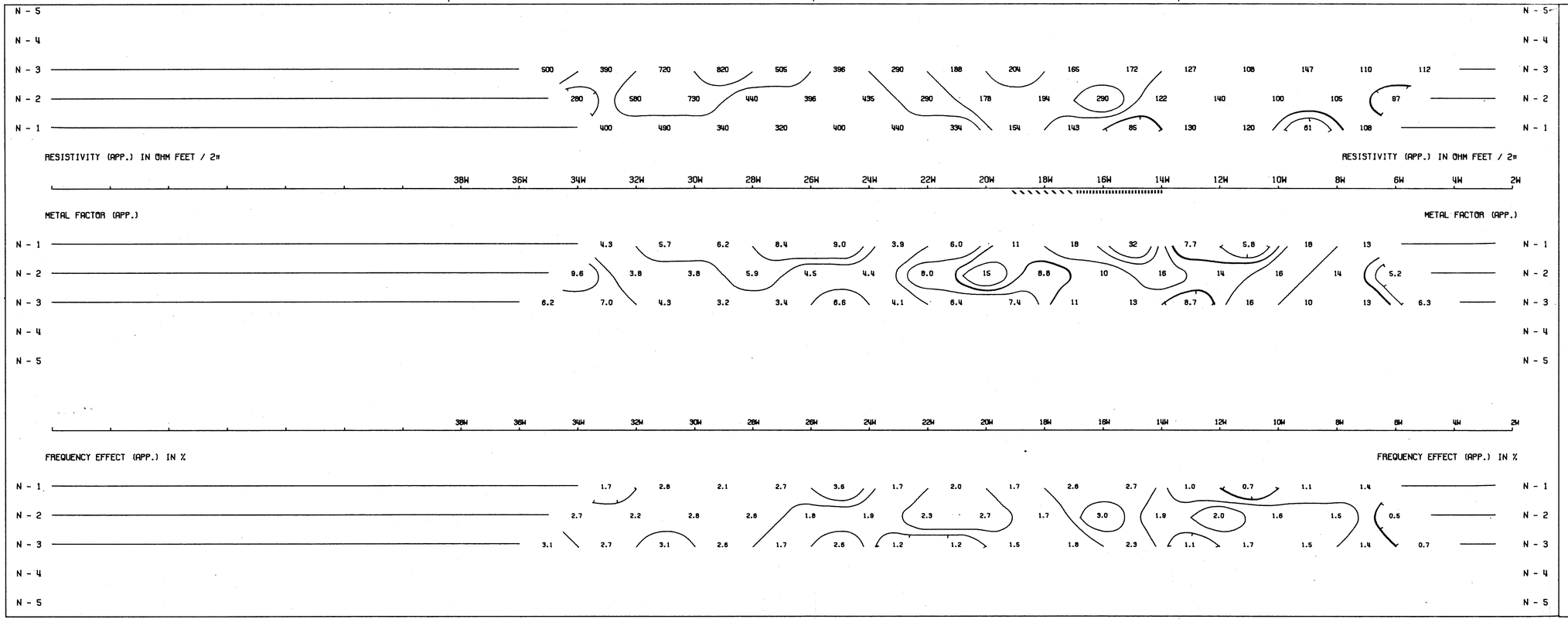


2105

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5351-10

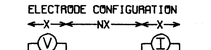
NORANDA EXPLORATION COMPANY LIMITED

MAB LAKE PROPERTY

MERRITT AREA, NICOLA M.D., B.C.

LINE NO.- 50S

ELECTRODE CONFIGURATION



PLOTTING POINT → X = 200'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: AUG 1969

APPROVED:

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

DATE:

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — D. K. FOUNTAIN

Expiry Date: April 25, 1970

2105

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER

DWG IPP-4543

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

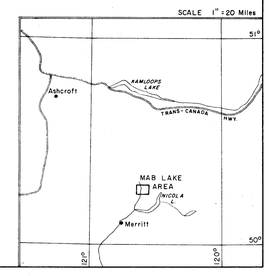
PLAN MAP

NOTE –

TO ACCOMPANY GEOPHYSICAL REPORT
BY D. K. FOUNTAIN, P.ENG., ON THE MAB
LAKE PROPERTY, MERRITT AREA, NICOLA M.D. B.C.
DATED: NOVEMBER 14th. 1969

LOCATION MAP

SCALE 1" = 20 Miles



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

Number at the end of anomaly indicates spread used.

NORANDA EXPLORATION COMPANY LIMITED

MAB LAKE PROPERTY, MERRITT AREA, NICOLA M.D., B.C.

SCALE

ONE INCH EQUALS FOUR HUNDRED FEET

DRAWN: F.J.H.
DATE: JAN. 1970

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA

DWG. IPP-4543