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REPORT ON THE INDUCED POLARIZATION AND RESISTIVITY SURVEY ON THE SWEDE AND MY CLAIMS, McLEESE LAKE AREA, CARIBOO MINING DIVISION, B.C. FOR GRANITE MOUNTAIN MINES LTD. (N.P.L.)

BY

MARION A. GOUDIE, B.Sc.

AND

PHILIP G. HALLOF, Ph.D.

NAME AND LOCATION OF PROPERTY

SWEDE AND MY CLAIMS, McLEESE LAKE AREA,

CARIBOO MINING DIVISION, B.C. 52° 36' N, 122° 16' W - SE

DATE STARTED: MAY 1, 1972

DATE FINISHED: MAY 27, 1972

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McPHAR GEOPHYSICS LIMITED

REPORT ON THE INDUCED POLARIZATION AND RESISTIVITY SURVEY ON THE SWEDE AND MY CLAIMS, McLEESE LAKE AREA, CARIBOO MINING DIVISION, B.C. FOR GRANITE MOUNTAIN MINES LTD. (N.P.L.)

1. INTRODUCTION

At the request of the company, we have completed an Induced Polarization and Resistivity survey on the Swede and My claims in the McLeese Lake area, in the Cariboo Mining Division of British Columbia for Granite Mountain Mines Ltd. The southeast corner of the survey grid lies at 52° 36' north latitude and 122° 16' west longitude. Access is east from Marguerite for 15 miles via a secondary road to the centre of the property.

Bedrock in the area consists of Cache Creek sediments which have been intruded by quartz diorite. The intrusive rocks are host rocks for the copper mineralization found on the Gibralter property to the north.

The IP survey was carried out to locate any economic deposits of metallic mineralization which might be present.

A McPhar P660 high frequency IP unit was used for the survey, operating at 0.3 and 5.0 cps over the following claims:

Swede	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 34, 35, 36, 37, 38, 39, 40, 41, 43, 45, 47
My	1, 3, 5, 9, 18, 20, 22, 27, 28, 37, 38

These claims are assumed to be owned or held under option by Granite Mountain Mines Ltd.

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.
40S	300 feet	IP 5953-1
32S	300 feet	IP 5953-2
24S	300 feet	IP 5953-3
16S	300 feet	IP 5953-4
8S	300 feet	IP 5953-5
	150 feet	IP 5953-6
	100 feet	IP 5953-7
4S	300 feet	IP 5953-8
0	300 feet	IP 5953-9
4N	300 feet	IP 5953-10
8N	300 feet	IP 5953-11
12N	300 feet	IP 5953-12
16N	300 feet	IP 5953-13
24N	300 feet	IP 5953-14

Also enclosed with this report is Dwg. I.P.P. 4849, a plan map of the Swede and My Claims Grid at a scale of 1" = 400'. 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.

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 length; i.e. when using 300' electrode intervals the position of a narrow sulphide body can only be determined to lie between two stations 300' 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 drill hole information shown on Dwg. I.P.P. 4849 has been made available by the staff of Granite Mountain Mines Ltd. (N.P.L.).

3. DISCUSSION OF RESULTS

A definite anomalous zone extends north from Line 40S to Line 16S, where the source either ends or trends northeast beyond the surveyed lines.

Several weaker anomalies of varying intensity were located by the survey, but no continuous source with any strike length was located.

Line 40S

A weak to moderate anomaly from 48W to 55W was tested by drilling. Two hundred feet of overburden are underlain by graphitic schist.

A narrow, probable anomaly from 0 to 3W was also tested by drilling. The source is quartz diorite with some limonite.

A shallow, probable anomaly extends from 15E to 18E. A definite anomaly, incomplete at the east end of the line, correlates with anomalies to the north - the probable source is graphitic schist.

Line 32S

A moderate to weak anomaly extends from 45W to the end of the line, where it is incomplete. The probable source of the anomaly is graphitic schist, which was found in a drill hole to the immediate south.

Shallow, weak anomalies extend from 39W to 42W, 27W to 30W and 21W to 24W.

A hole was drilled at 16E and encountered quartz diorite. There is a slight increase over background frequency effects at this point but no metal factor anomaly.

A definite anomaly from 24E to the end of the line was tested at 28E. The source is a strongly graphitic schist. There is a sharp reduction in resistivity at 42E which probably indicates a change in rock type, but this change does not extend to the line to the north.

Line 24S

A definite anomaly from 27E to 72E is assumed to reflect a graphitic schist source. The anomaly continues with weak to moderate intensity to 84E. A probable anomaly from 91E to the end of the line is incomplete.

Line 8S

A narrow, probable anomaly was located from 39W to 42W. A probable anomaly from 3E to 12E appears to represent a vertical source. Detail with 150 foot and 100 foot electrode intervals failed to confirm the anomaly.

Line 0

Weak anomalies were located from 30W to the western end of the line, 24W to 27W and 3W to 3E. An anomaly which was probable from 21E to 24E and possible from 24E to 27E was tested by drilling at 20E, 22E and 24E. The source of the anomaly appears to be quartz diorite with sericitic alteration and disseminated specular hematite. A hole drilled at 2N, 22E recovered similar rocks.

The anomalies which have been discussed above are typical of the IP results on the Swede and My claims. The drilling results are listed below.

Percussion holes were drilled at the following locations:

Line 40S, 51W - overburden 200'; bedrock was graphitic schist - probably Cache Creek group

Line 40S, 3W - quartz diorite with some limonite

Line 32S, 16E - quartz diorite

Line 32S, 28E - heavy graphite in schist

Line 16S, 11W - quartz diorite with limonite

Line 0+00, 20E, 22E, 24E - quartz diorite with sericitic alteration and disseminated specular hematite

Line 2N, 22E - quartz diorite similar to above

Line 4N, 17E - results unknown

Line 8N, 11W - quartz diorite with limonite

Line 12N, 18W - hole lost in overburden at 150 feet

Resistivity results suggest that sedimentary rocks lie north of Line 12N and west of the boundary indicated on Dwg. I.P.P. 4849.

4. CONCLUSIONS

The Induced Polarization and Resistivity survey results do not indicate the presence of any large volume of metallic mineralization. A zone of definite anomalies in the southeast portion of the survey grid has been tested by drilling and the source of the anomalies in this zone appears to be graphitic schist. Drill hole results from tests of other IP anomalies suggest that the sources of these anomalies are disseminated iron mineralization rather than economic sulphides.

Resistivity results indicate that north of Line 12N, the principal rocks are sediments. Sedimentary rocks are also indicated in the western portion of the grid (see Dwg. I.P.P. 4849).

No further work is recommended.

McPHAR GEOPHYSICS LIMITED

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA PHILIP G. HALLOF

Marion A. Gaudie, Geologist.

Philip G. Hallof, Geophysicist.

Expiry Date: February 25, 1973

Dated: July 6, 1972

ASSESSMENT DETAILS

PROPERTY:	Swede & My Claims	MINING DIVISION:	Cariboo
SPONSOR:	Granite Mountain Mines Limited	PROVINCE:	British Columbia
LOCATION:	McLeese Lake Area		
TYPE OF SURVEY:	Induced Polarization		

OPERATING MAN DAYS:	90	DATE STARTED:	May 1, 1972
EQUIVALENT 8 HR. MAN DAYS:	135	DATE FINISHED:	May 27, 1972
CONSULTING MAN DAYS:	2	NUMBER OF STATIONS:	4[illegible]
DRAUGHTING MAN DAYS:	7	NUMBER OF READIN[illegible]	[illegible]
TOTAL MAN DAYS:	144	MILES OF LINE SURVEYED:	22.64

CONSULTANTS:
M. A. Goudie, 739 Military Trail, West Hill, Ontario.
P. G. Hallof, 15 Barnwood Court, Don Mills, Ontario.

FIELD TECHNICIANS:
R. Mertens, 304 Holmes Avenue, Willowdale, Ontario.
E. Novotny, 478 East 18th Avenue, Vancouver, British Columbia.
R. Fernholm, Haileybury, Ontario.
Plus two helpers:
L. Hatcher, 2607 Scott Street, Victoria, British Columbia.
I. Jackish, 1248 Haywood Avenue, West Vancouver, British Columbia.

DRAUGHTSMEN:
B. Marr, 19 Kenewen Court, Toronto 16, Ontario.
N. Lade, 299 Jasper Avenue, Oshawa, Ontario.
V. Young, 703 Cortez Avenue, Bay Ridges, Ontario.

McPHAR GEOPHYSICS LIMITED

Marion A. Goudie

Marion A. Goudie,
Geologist.

Dated: July 6, 1972.

*INTERIM STATEMENT OF COST

Granite Mountain Mines Limited - Swede & My Claims

Crew: R Mertens - E. Novotny

17 2/3 days	Operating		@ $265.00/day	4,681.61
1 1/2 days	Travel	)		
3/4 day	Preparation	) 7 days	@ $100.00/day	700.00
3/4 day	Standby	)		
4 days	Bad Weather	)		
1 day	Standby	) 1 1/3 days		
1/3 day	Breakdown	)		N/C

Additional Technician - R. Fernholm - May 12-27, 1972

10 1/2 days	Operating		@ $75.00/day	787.50
2 1/4 days	Travel	)		
1 1/2 days	Bad Weather	) 4½ days	@ $35.00/day	157.50
3/4 day	Preparation	)		
1 day	Standby			N/C

Expenses

Air Fare - R. Fernholm	286.00	
Truck Rental	574.10	
Vehicle Expense	244.98	
Excess Baggage	8.36	
Meals & Accommodation	904.81	
Freight	10.10	
Telephone & Telegraph	19.95	
Supplies	44.80	
	2,093.10	
Plus 10%	209.31	2,302.41
Extra Labour	666.00	
Plus 20%	133.20	799.20
		$ 9,428.21

McPHAR GEOPHYSICS LIMITED

Marion A. Goudie

Marion A. Goudie,
Geologist.

* Note: This statement reflects at least 90% of the total cost; there a few minor charges not yet received by us and hence not inclu

Declared before me at the

of , in the

Province of British Columbia, VANCOUVER, B.C.

day of JUL 27 1972 A.D.

Sub - Mining Recorder

A Commissioner for taking Affidavits within British Columbia.

A Notary Public in and for the Province of British Columbia.

CERTIFICATE

I, Marion A. Goudie, of the City of Toronto, Province of Ontario, do hereby certify that:

1. I am a Geologist residing at 739 Military Trail, West Hill, Ontario.

2. I am a graduate of the University of Western Ontario with a B.Sc. Degree (1950) in Honours Geology.

3. I am a member of the Geological Society of America.

4. I have been practising my profession for 20 years.

5. I have no direct or indirect interest, nor do I expect to receive any interest directly or indirectly, in the property or securities of Granite Mountain Mines Limited or any affiliate.

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

7. Permission is granted to use in whole or in part for a[illegible] and qualification requirements but not for advertising purposes.

Dated at Toronto

This 6th day of July, 1972.

Marion A. Goudie

Marion A. Goudie, B.Sc.

CERTIFICATE

I, Philip George Hallof, of the City of Toronto, Province of Ontario, do hereby certify that:

1. I am a geophysicist residing at 15 Barnwood Court, Don Mills, Ontario.

2. I am a graduate of the Massachusetts Institute of Technology with a B.Sc. Degree (1952) in Geology and Geophysics, and a Ph.D. Degree (1957) in Geophysics.

3. I am a member of the Society of Exploration Geophysicists and the European Association of the Exploration Geophysicists.

4. I am a Professional Geophysicist, registered in the Province of Ontario, the Province of British Columbia and the State of Arizona.

5. I have no direct or indirect interest, nor do I expect to receive any interest directly or indirectly, in the property or securities of Granite Mountain Mines Limited or any affiliate.

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

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

Dated at Toronto

This 6th day of July, 1972.

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — P. G. HALLOF

Philip G. Hallof, Ph.D.

Expiry Date: February 25, 1973

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

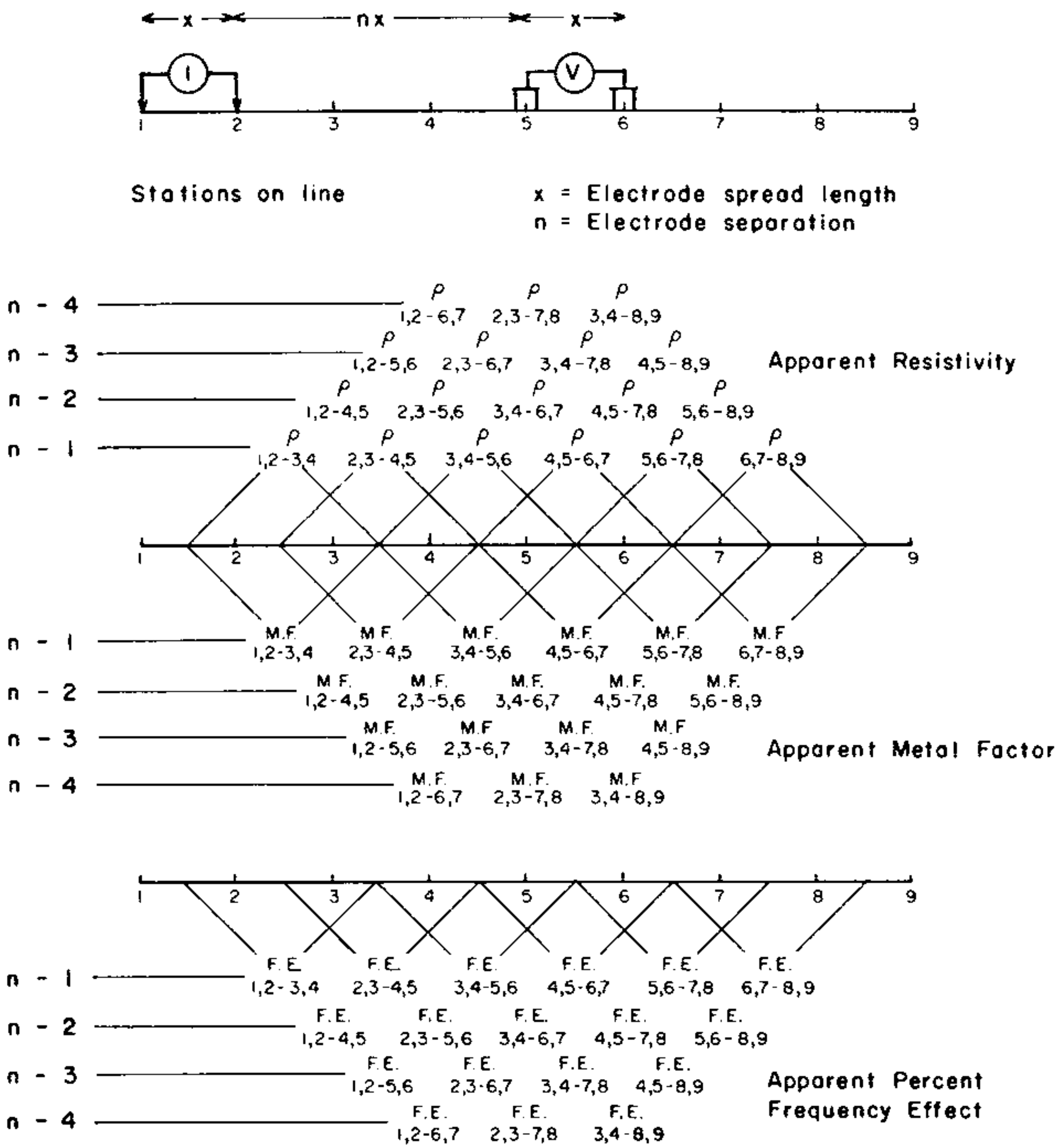
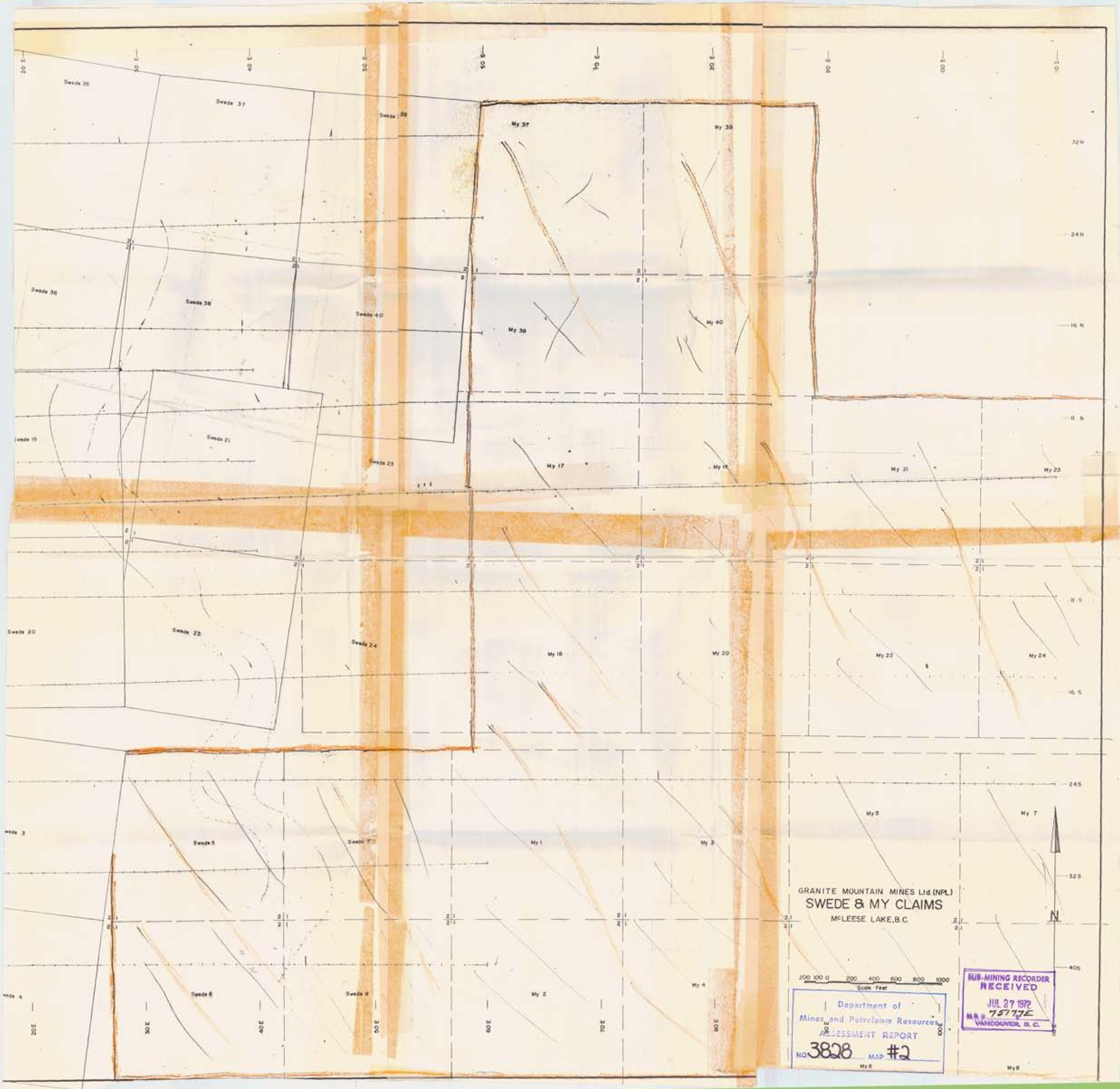


Fig. A



GRANITE MOUNTAIN MINES Ltd.(NPL)
SWEDE & MY CLAIMS
McLEESE LAKE, B.C.
200 100 0 200 400 600 800 1000
Scale Feet
N
Swede 35
Swede 37
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Swede 19
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20 E
30 E
40 E
50 E
60 E
70 E
80 E
90 E
100 E
32 N
24 N
16 N
8 N
8 S
16 S
24 S
32 S
40 S

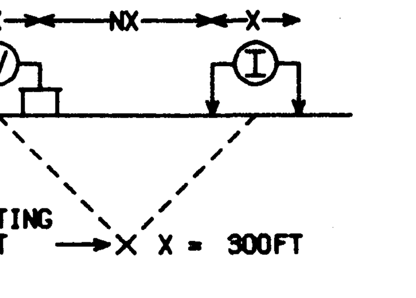
DWG. NO.- I.P.-5953-2

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS
McLEESE LAKE AREA
CARIBOO M.D., B.C.

LINE NO.- 32S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: MAY 1972

APPROVED:

PHILIP G. HALLOF
PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA

DATE: 7/3/72

Expiry Date: February 25, 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

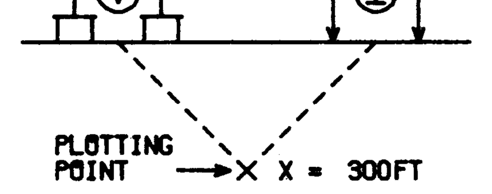
DWG. NO.- I.P.-5953-3

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS
McLEESE LAKE AREA
CARIBOO M.D., B.C.

LINE NO.- 24S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: MAY 1972

APPROVED:

DATE:

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — PHILIP G. HALLOF

Date: February 25, 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

DWG. NO.- I.P.-5953-4

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

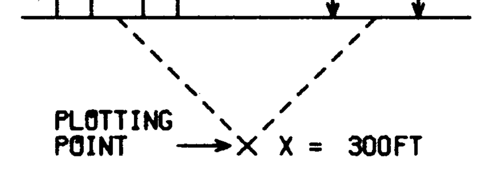
SWEDE AND MY CLAIMS

McLEESE LAKE AREA

CARIBOO M.D., B.C.

LINE NO.- 16S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: MAY 1972

APPROVED:

DATE: 7/5/72

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — PHILIP G. HALLOF

Expiry Date February 25 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

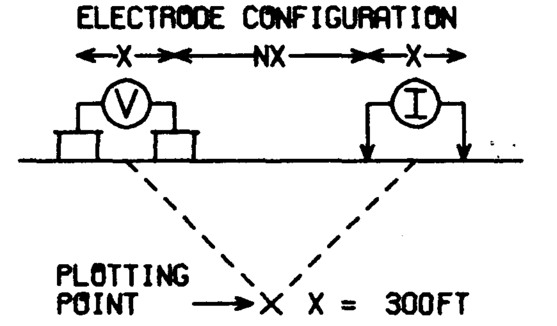
DWG. NO.- I.P.-5953-5

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS
McLEESE LAKE AREA
CARIBOO M.D., B.C.

LINE NO.- 8S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: MAY 1972

APPROVED:

DATE: 7/5/72

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — PHILIP G. HALLOF

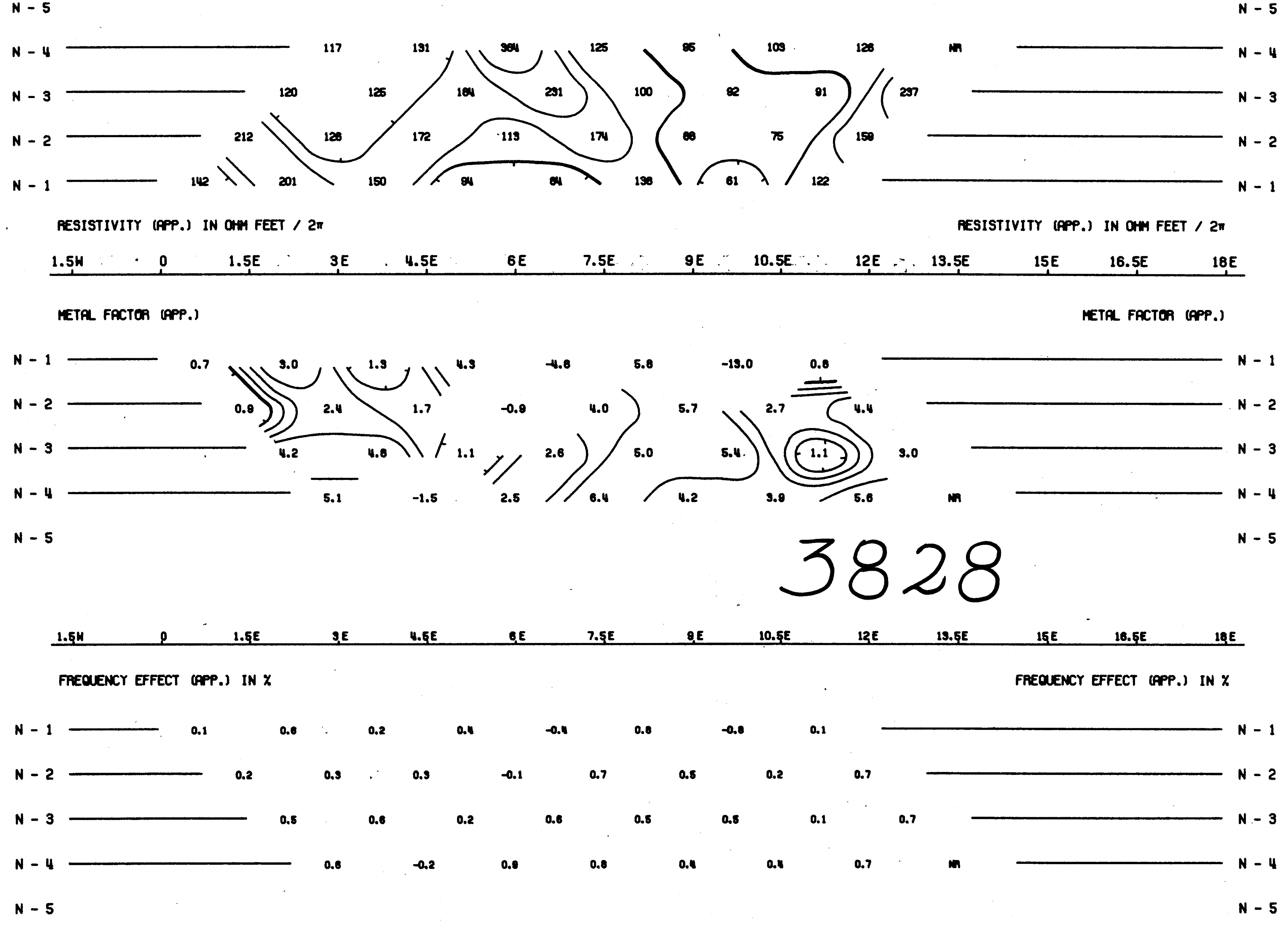
Expiry Date: February 25 1973

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



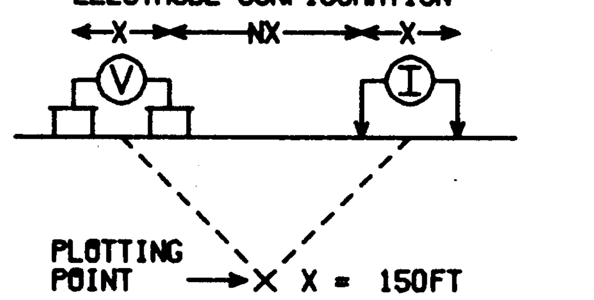
DWG. NO.- I.P.-5953-6

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS
McLEESE LAKE AREA
CARIBOO M.D., B.C.

LINE NO.- 8S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: MAY 1972

APPROVED:

DATE:

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — PHILIP G. HALLOF

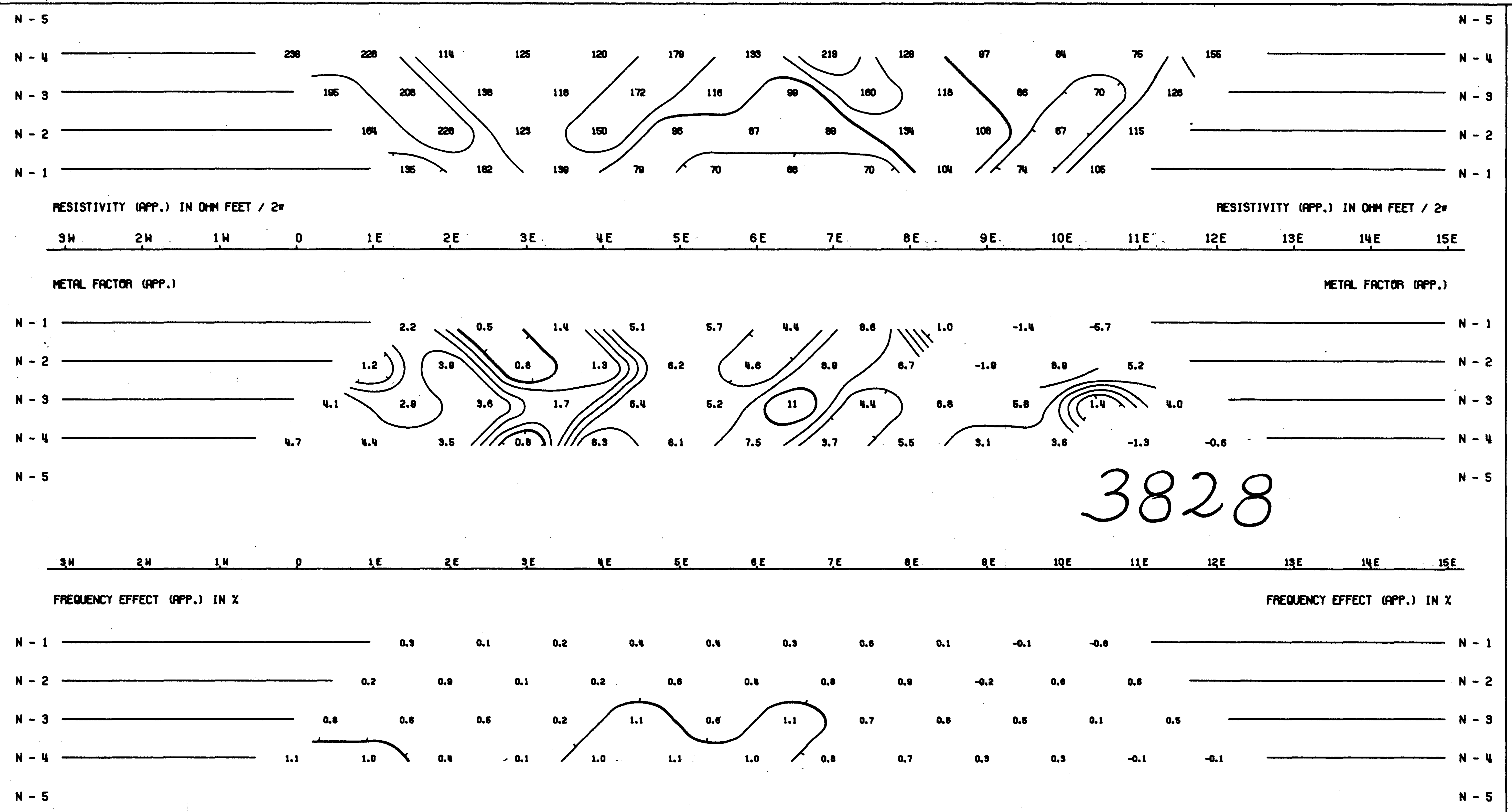
Expiry Date: February 25, 1973

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



DWG. NO.- I.P.-5953-7

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS
McLEESE LAKE AREA
CARIBOO M.D., B.C.

LINE NO.- 8S

ELECTRODE CONFIGURATION

PLOTTING POINT X = 100FT

SURFACE PROJECTION OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: MAY 1972

APPROVED:

DATE:

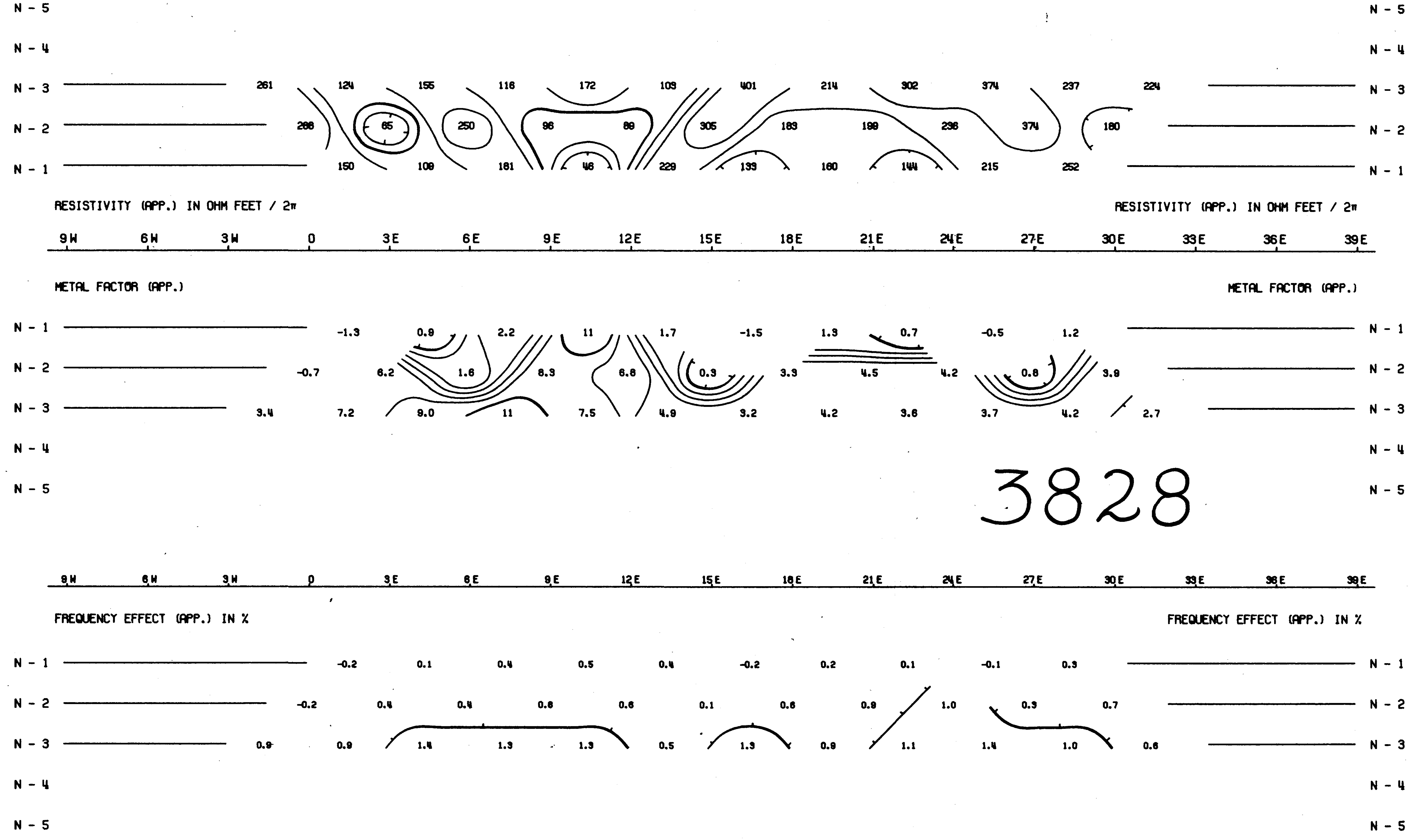
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA PHILIP G. HALLOF

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY MCPHAR COMPUTER DIVISION



DWG. NO.- I.P.-5953-8

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS

McLEESE LAKE AREA

CARIBOO M.D., B.C.

LINE NO.- 4S

ELECTRODE CONFIGURATION

PLOTTING POINT X = 300FT

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: MAY 1972

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

APPROVED:

DATE:

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA PHILIP G. HALLOF

Expiry Date: February 25 1973

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

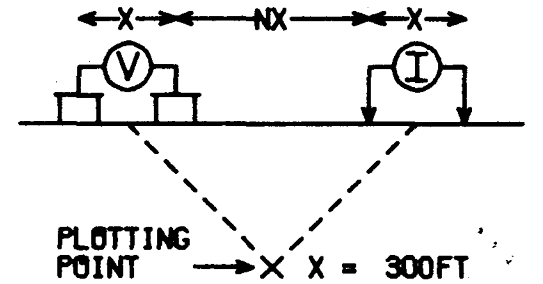
NOTE: THIS PLOT WAS PRODUCED BY McPHAR COMPUTER DIVISION

DWG. NO.- I.P.-5953 - 9

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS
McLEESE LAKE AREA
CARIBOO M.D., B.C.

LINE NO.- 0



SURFACE PROJECTION OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: MAY 1972

APPROVED: [signature]

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

DATE: 7/5/72

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — PHILIP G. HALLOF

Expiry Date: February 25, 1973

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY MCPHAR COMPUTER DIVISION

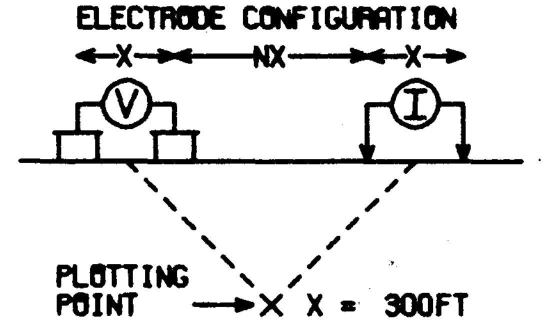
DWG. NO.- I.P.-5953-10

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS
McLEESE LAKE AREA
CARIBOO M.D., B.C.

LINE NO.- 4N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: MAY 1972

APPROVED:

DATE:

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — PHILIP G. HALLOF

Expiry Date: February 25, 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

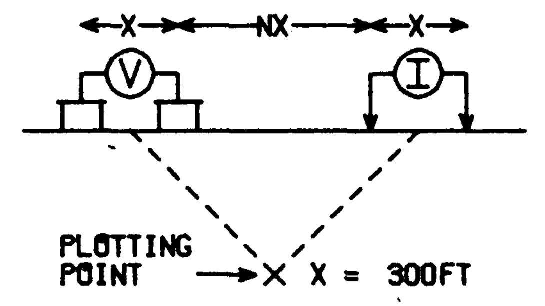
DWG. NO.- I.P.-5953-11

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS
McLEESE LAKE AREA
CARIBOO M.D., B.C.

LINE NO.- 8N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: MAY 1972

APPROVED:

DATE:

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — PHILIP G. HALLOF

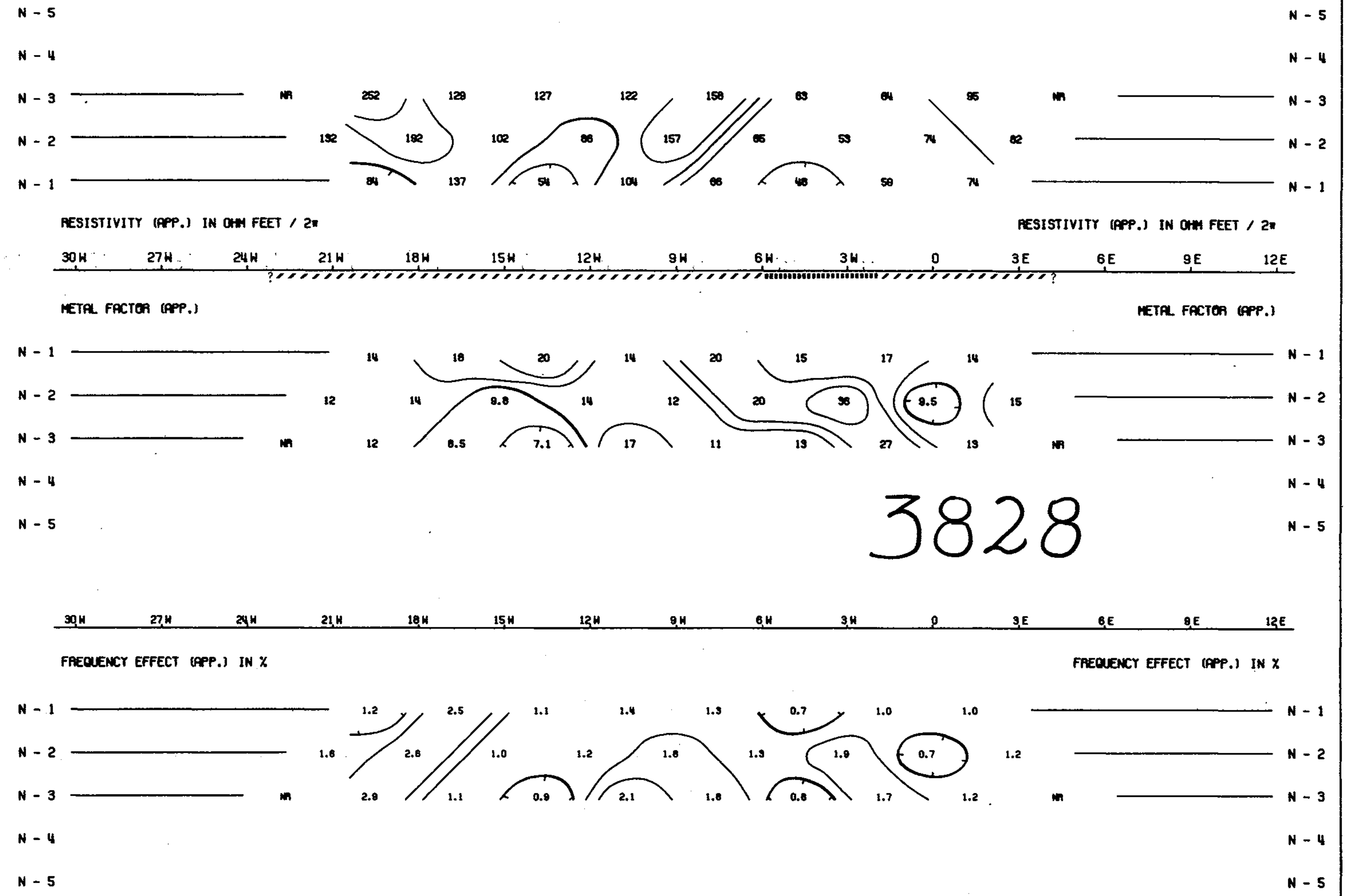
Expiry Date: February 25, 1973

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



DWG. NO.- I.P.-5953-12

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS
McLEESE LAKE AREA
CARIBOO M.D., B.C.

LINE NO.- 12N

ELECTRODE CONFIGURATION

PLOTTING POINT X = 300FT

SURFACE PROJECTION OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: MAY 1972

APPROVED

DATE

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

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — PHILIP G. HALLOF

Expiry Date: February 25, 1973

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY McPHAR COMPUTER DIVISION

DWG. NO.- I.P.-5953-13

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS
McLEESE LAKE AREA
CARIBOO M.D., B.C.

LINE NO.- 16N

ELECTRODE CONFIGURATION
←X→←NX→←X→
PLOTTING POINT → X   X = 300FT

SURFACE PROJECTION OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: MAY 1972

APPROVED:

DATE: 7/5/72

PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA, PHILIP G. HALLOF
Expiry Date: February 25 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

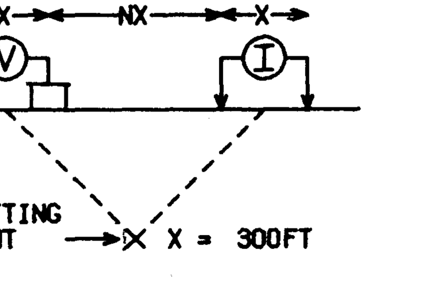
DWG. NO.- I.P.-5953-14

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS
McLEESE LAKE AREA
CARIBOO M.D., B.C.

LINE NO.- 24N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 HZ

DATE SURVEYED: MAY 1972

APPROVED:

DATE: 7-5-72

PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA, PHILIP G. HALLOF

Expiry Date: February 28, 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

DWG. IPP-4849

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP

NOTE: TO ACCOMPANY GEOPHYSICAL REPORT FOR GRANITE MOUNTAIN MINES LTD., (N.P.L.), SWEDE AND MY CLAIMS, McLEESE LAKE AREA, CARIBOO M.D., B.C. BY P.G. HALLOF (P. ENG.) AND M.A. GOUDIE (GEOLOGIST).

DATED: JULY 5, 1972

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS, McLEESE LAKE AREA

CARIBOO M.D., B.C.

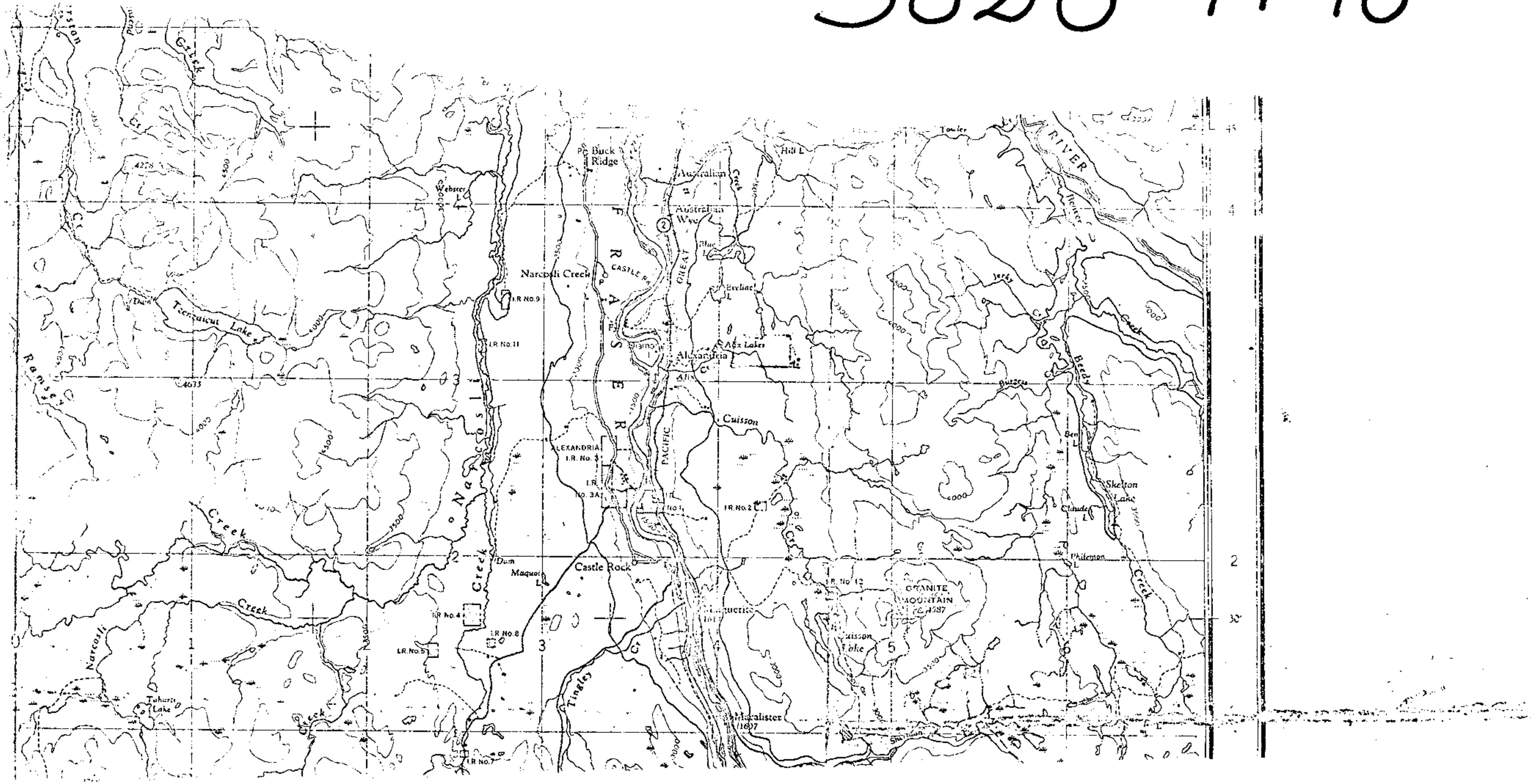
SCALE

ONE INCH EQUALS FOUR HUNDRED FEET

3828 M-1

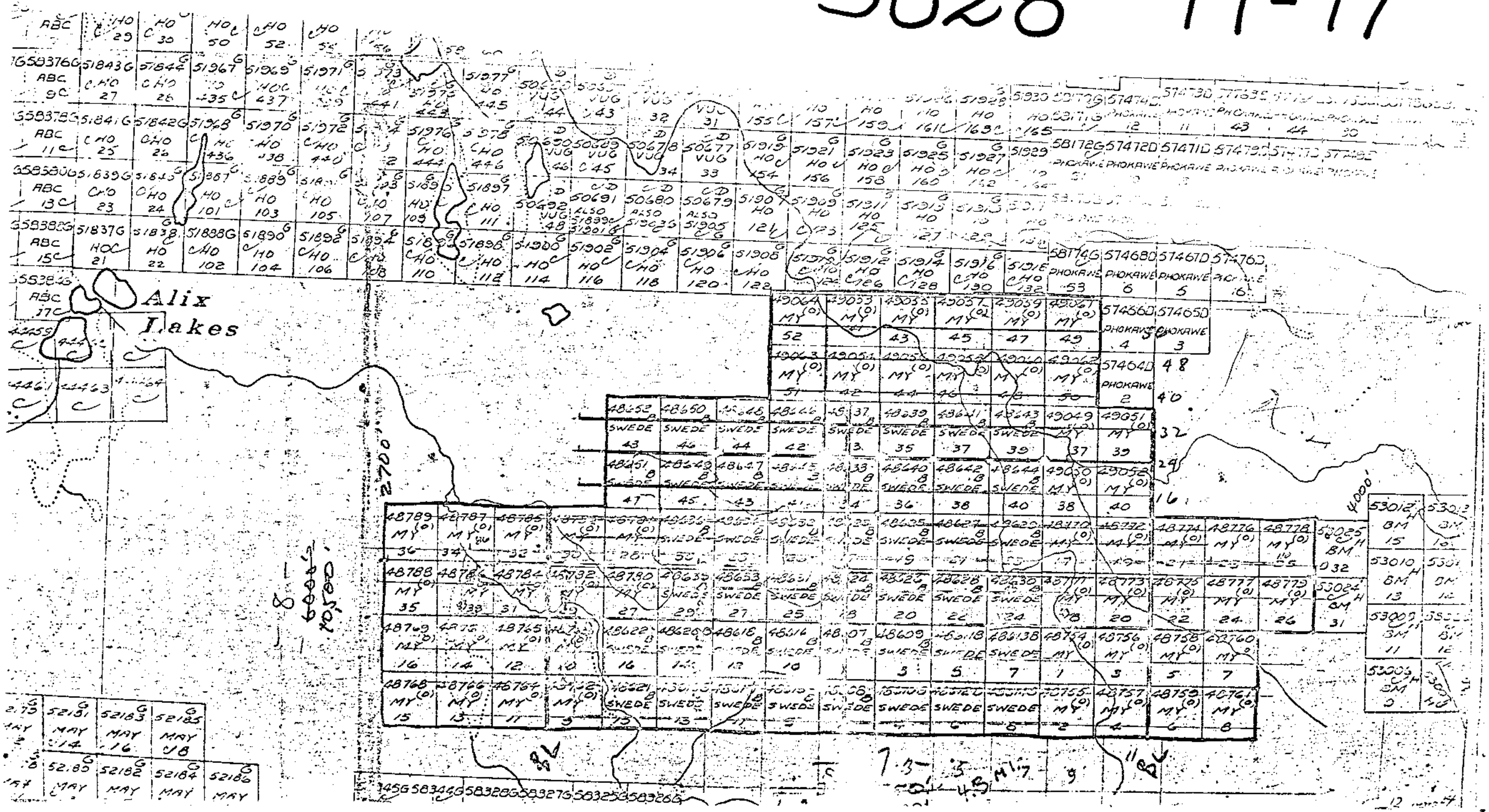
DWG. IPP-4849

3828 M-18



Buck Ridge
Australian
Australian Wye
Webster L
Narcosli Creek
I.R. No. 9
I.R. No. 11
Tzenzaicut Lake
Ramsey Cr
F R A S E R
GREAT PACIFIC
CASTLE R
Alexandria
Alex Lakes
Cuisson
ALEXANDRIA I.R. No. 3
I.R. No. 3A
I.R. No. 2
Castle Rock
Maquoi L
Dam
I.R. No. 4
I.R. No. 8
I.R. No. 5
I.R. No. 7
I.R. No. 12
Tingley Cr
Macalister
1607
Marguerite
GRANITE MOUNTAIN
Cuisson Lake
Skelton Lake
Beedy Creek
Jerky Cr
Burgess
Philemon L
Hill L
Towler
RIVER
Tuharis Lake
Narcosli
Creek

3828 M-17



Alix Lakes
ABC
HO
VUG
PHOKAWE
MY
SWEDE
BM
MAY
51843G
51844G
51967
51969
51971
51977
51970
51972
51976
51919
51921
51923
51925
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51929
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50677
49064
49053
49055
49057
49059
49061
48652
48650
48646
48639
49049
49051
48789
48787
48785
48788
48784
53012
53010
53025
53024
52181
52183
52185
2700'
4000'

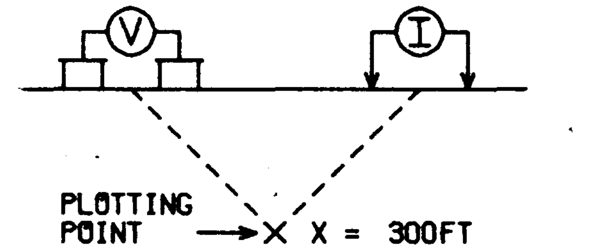
DWG. NO.- I.P.- 5953-1

GRANITE MOUNTAIN MINES LTD., (N.P.L.)

SWEDE AND MY CLAIMS
McLEESE LAKE AREA
CARIBOO M.D., B.C.

LINE NO.- 40S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: MAY 1972

APPROVED

DATE

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

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA PHILIP G. HALLOF
Expiry Date: February 25, 1973

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED BY MCPHAR COMPUTER DIVISION