2720

REPORT ON
INDUCED POLARIZATION
AND RESISTIVITY SURVEY
ON THE
TOP CLAIMS
HIGHLAND VALLEY AREA
NICOLA MINING DIVISION, B.C.
FOR
LAKE BEAVERHOUSE MINES LIMITED

BY

ROBERT A. BELL, Ph.D.

AND

PHILIP G. HALLOF, Ph.D.

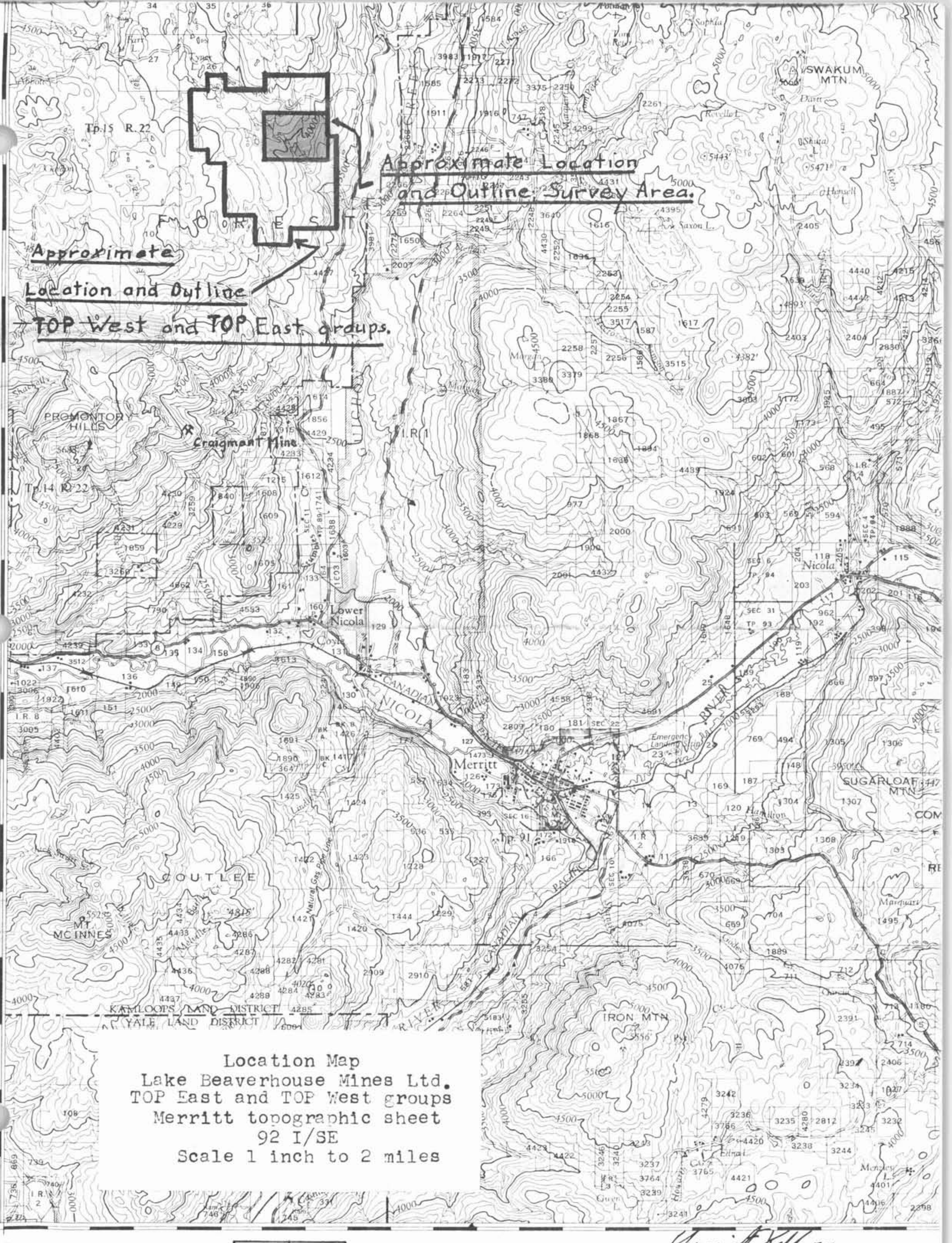
NAME AND LOCATION OF PROPERTY

TOP CLAIMS, HIGHLAND VALLEY AREA

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

DATE STARTED SEPTEMBER 9, 1970

DATE FINISHED SEPTEMBER 29, 1970



Location Map
Lake Beaverhouse Mines Ltd.
TOP East and TOP West groups
Merritt topographic sheet
92 I/SE
Scale 1 inch to 2 miles

Sherwin F. Kelly P. Eng.

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

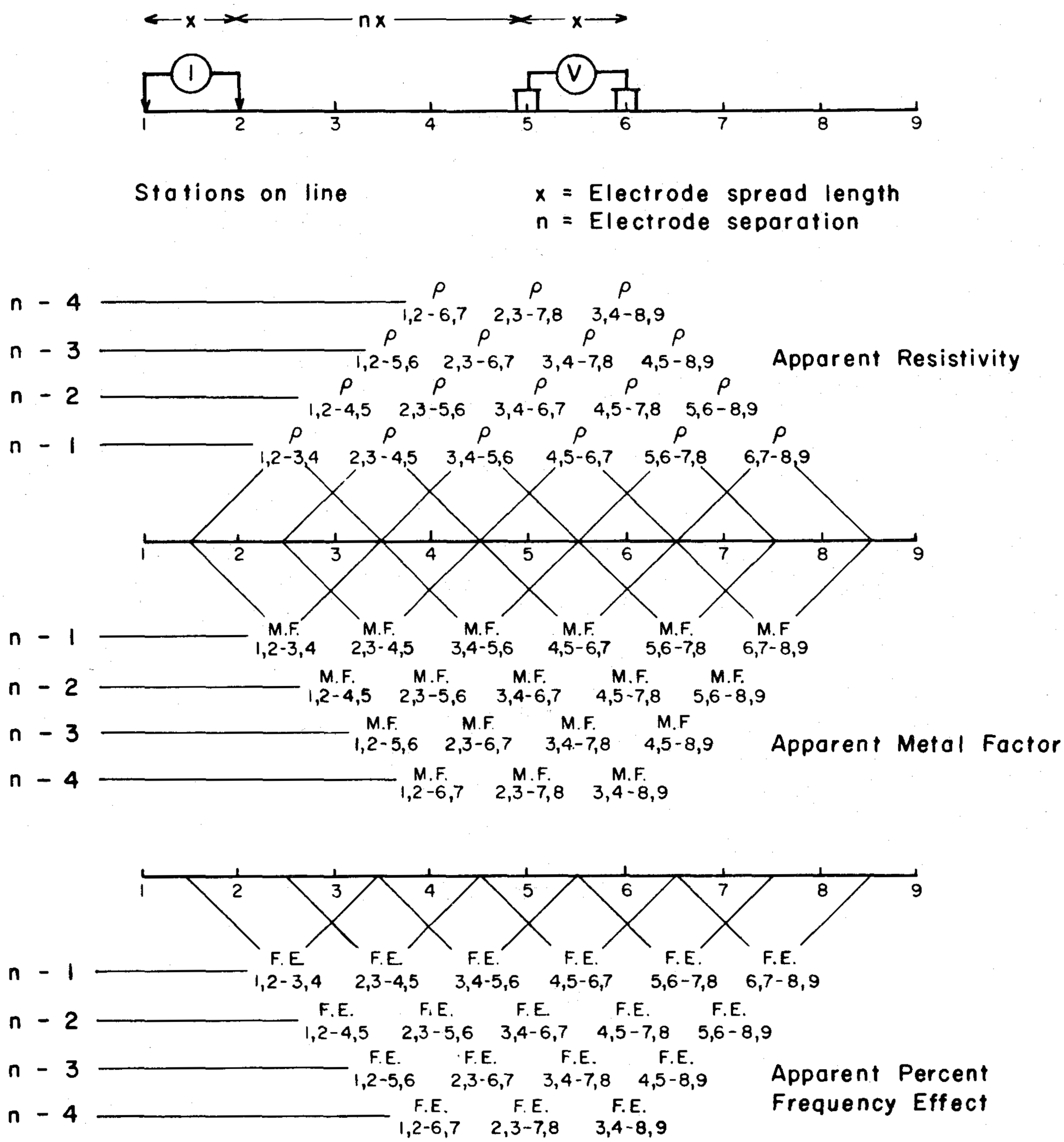


Fig. A

McPHAR GEOPHYSICS LIMITED

REPORT ON
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ON THE
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HIGHLAND VALLEY AREA
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FOR
LAKE BEAVERHOUSE MINES LIMITED

1. INTRODUCTION

At the request of Lake Beaverhouse Mines Limited, we have carried out a combined induced polarization and resistivity survey on the Top Claims in the Highland Valley Area of British Columbia. The property is situated within the Nicola Mining Division in the southwest quadrant of the one degree quadrilateral whose southeast corner is at 50°N latitude and 120°W longitude.

The property is believed to be underlain by the older phase of the Guichon Batholith and is of interest because of the presence of a geochemical anomaly located by previous work. The IP survey was carried out to search for areas of disseminated sulphides of the Brenda Mines type.

Field work was carried out during September, 1970 using a McPhar variable frequency IP system operating at 0.3 and 5.0 Hz. A 200-foot dipole-dipole array was employed with three separations (n = 1, 2 and 3).

The survey was carried out on the following claims, all of which are believed to be owned or held under option by Lake Beaverhouse Mines Limited.

Top	-1	Top	-22	Top	-43
	-1 FR		-23		-45
	-2		-24		-47
	-3		-25		-49
	-4		-26		-51
	-5		-27		-53
	-6		-28		-55
	-7		-29		-233
	-8		-30		-340
	-10		-31		-341
	-19		-32		-342
	-20		-33		-343
	-21		-34		-344
					-345

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 32S	200 foot spreads	Dwg.IP 5587-1
Line 40S	200 foot spreads	Dwg.IP 5587-2
Line 48S	200 foot spreads	Dwg.IP 5587-3
Line 48S	100 foot spreads	Dwg.IP 5587-4
Line 56S	200 foot spreads	Dwg.IP 5587-5
Line 64S	200 foot spreads	Dwg.IP 5587-6
Line 64S	100 foot spreads	Dwg.IP 5587-7
Line 72S	200 foot spreads	Dwg.IP 5587-8

Enclosed with this report is Dwg. I.P.P. 3454, a plan map of the grid at a scale of 1" = 400'. 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 spread length; i.e. when using 200' spreads the position of a narrow sulphide body can only be determined to lie between two stations 200' apart. In order to locate sources at some depth, larger spreads 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.

3. DISCUSSION OF RESULTS

The geophysical results from the Top Claims are characterized by low resistivities and low to moderate background IP effects. No strong IP anomalies were found on the grid but there are numerous weak effects. Generally, effects of this magnitude are not considered to be important, but they could be of economic interest in the case of disseminated sulphide deposits consisting of chalcopyrite and molybdenite, such as the deposit of Brenda Mines. This is illustrated in the accompanying Appendix. On the other hand, these weak effects could simply reflect very minor amounts of pyrite and/or magnetite occurring as primary constituents of the country rocks.

Somewhat stronger and more definite anomalies were found on Line 32S, Line 48S and Line 72S. Some of these were later confirmed by detailing with 100-foot spreads.

4. SUMMARY AND RECOMMENDATIONS

No strong IP anomalies were found on the Top Claims but there are numerous weak features, some of which may be of interest provided they represent sources containing a high ratio of ore minerals to barren sulphides. A limited drilling program is recommended to evaluate a few of these weak anomalies, for example at 13E, Line 32S and 19E, Line 48S. Drilling could consist of two or three short vertical holes, or a single inclined hole, on each anomaly.

McPHAR GEOPHYSICS LIMITED

Robert A. Bell,
Geologist.

Philip G. Hallof,
Geophysicist.

PROFESSIONAL ENGINEER — PHILIP G. HALLOF — BRITISH COLUMBIA

Dated: November 13, 1970

Expiry Date: February 25, 1971

ASSESSMENT DETAILS

PROPERTY: Top Claims

MINING DIVISION: Nicola

SPONSOR: Lake Beaverhouse Mines Limited

PROVINCE: British Columbia.

LOCATION: Highland Valley Area

TYPE OF SURVEY: Induced Polarization

OPERATING MAN DAYS:	35	DATE STARTED:	Sept. 9,1970
EQUIVALENT 8 HR. MAN DAYS:	54	DATE FINISHED:	Sept. 29,1970
CONSULTING MAN DAYS:	2	NUMBER OF STATIONS:	228
DRAUGHTING MAN DAYS:	7	NUMBER OF READINGS:	1965
TOTAL MAN DAYS:	63	MILES OF LINE SURVEYED:	7.24

CONSULTANTS:

Robert A. Bell, 50 Hemford Crescent, Don Mills, Ontario.
Philip G. Hallof, 5 Minorca Place, Don Mills, Ontario.

FIELD TECHNICIANS:

K. Drobot, c/o 20122 64th Avenue, Langley, B.C.
M. McDonald, 6135 Bow Crescent, N.W. Calgary, Alberta.

DRAUGHTSMEN:

F. Hurst, 230 Woburn Avenue, Toronto 12, Ontario.
B. Marr, 19 Kenewen Court, Toronto 16, Ontario.

McPHAR GEOPHYSICS LIMITED

Robert A. Bell

Robert A. Bell,
Geologist.

Dated: November 13,1970

STATEMENT OF COST

Lake Beaverhouse Mines Limited
Top Claims Group, Nicola Mining Division, B.C.

Crew - 2 men K. Drobot
M. McDonald

8-3/4 days	Operating		@ $265.00/day	$2,318.75
1 day	Travel)			
1 day	Bad Weather)	4 days	@ $100.00/day	400.00
1 day	Preparation)			
1 day	Standby)			
1/4 day	Breakdown			N.C.
				$2,718.75

Expenses for Top and Pen Claims

Bus Fare	17.10
Taxi	1.50
Freight and Brokerage	18.39
Meals and Accommodation	519.13
Supplies	1.72
Est. Expenses (not yet billed)	100.00
	657.84

Prorated portion Top Claim Expenses 8-3/4 / 13-3/4 x $657.84	418.62
	$3,137.37

McPHAR GEOPHYSICS LIMITED

Robert A. Bell

Robert A. Bell,
Geologist.

Dated: November 13, 1970

CERTIFICATE

I, Robert Alan Bell, of the City of Toronto, Province of Ontario, do hereby certify that:

1. I am a geologist residing at 50 Hemford Crescent, Don Mills, (Toronto) Ontario.

2. I am a graduate of the University of Toronto in Physics and Geology with the degree of Bachelor of Arts (1949); and a graduate of the University of Wisconsin in Economic Geology with the degree of Ph.D. (1953).

3. I am a member of the Society of Economic Geologists and a fellow of the Geological Association of Canada.

4. I have been practising my profession for over fifteen 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 Lake Beaverhouse 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 13th day of November 1970

Robert A. Bell

Robert A. Bell, Ph.D.

CERTIFICATE

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

1. I am a geophysicist residing at 5 Minorca Place, Don Mills, (Toronto) 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 Lake Beaverhouse 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.

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Dated at Toronto

This 13th day of November 1970

Philip G. Hallof, Ph.D.

PROFESSIONAL ENGINEER PROVINCE OF ONTARIO

Expiry Date: February 25, 1971

APPENDIX

EXPECTED IP ANOMALIES FROM "PORPHYRY COPPER" TYPE ZONES OF DISSEMINATED SULPHIDE MINERALIZATION

Our experience in other areas has shown that the induced polarization method can be successfully used to locate, and outline, zones of disseminated sulphide mineralization of the "porphyry copper" type. In most cases the interpretation of the IP results is simple and straightforward. The results shown in Figure 1 and Figure 2 are typical.

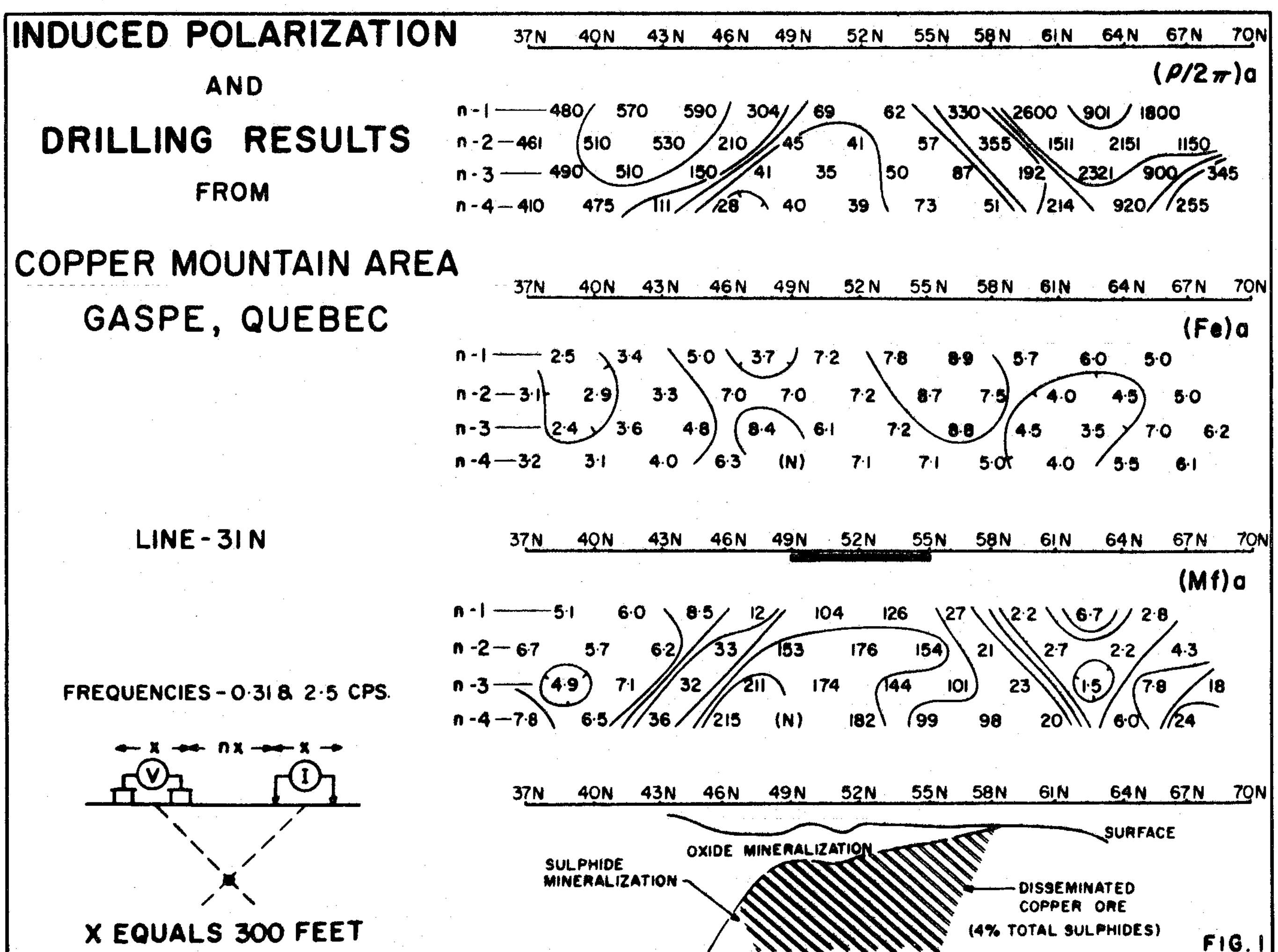


FIG. 1

The source of the moderate magnitude IP anomaly shown in Figure 1 contains approximately 4% metallic mineralization. The zone is of limited lateral extent and enough copper is present to make the mineralization "ore grade". The presence of the surface oxidation can be seen in the fact that the apparent IP effects increase for n = 2.

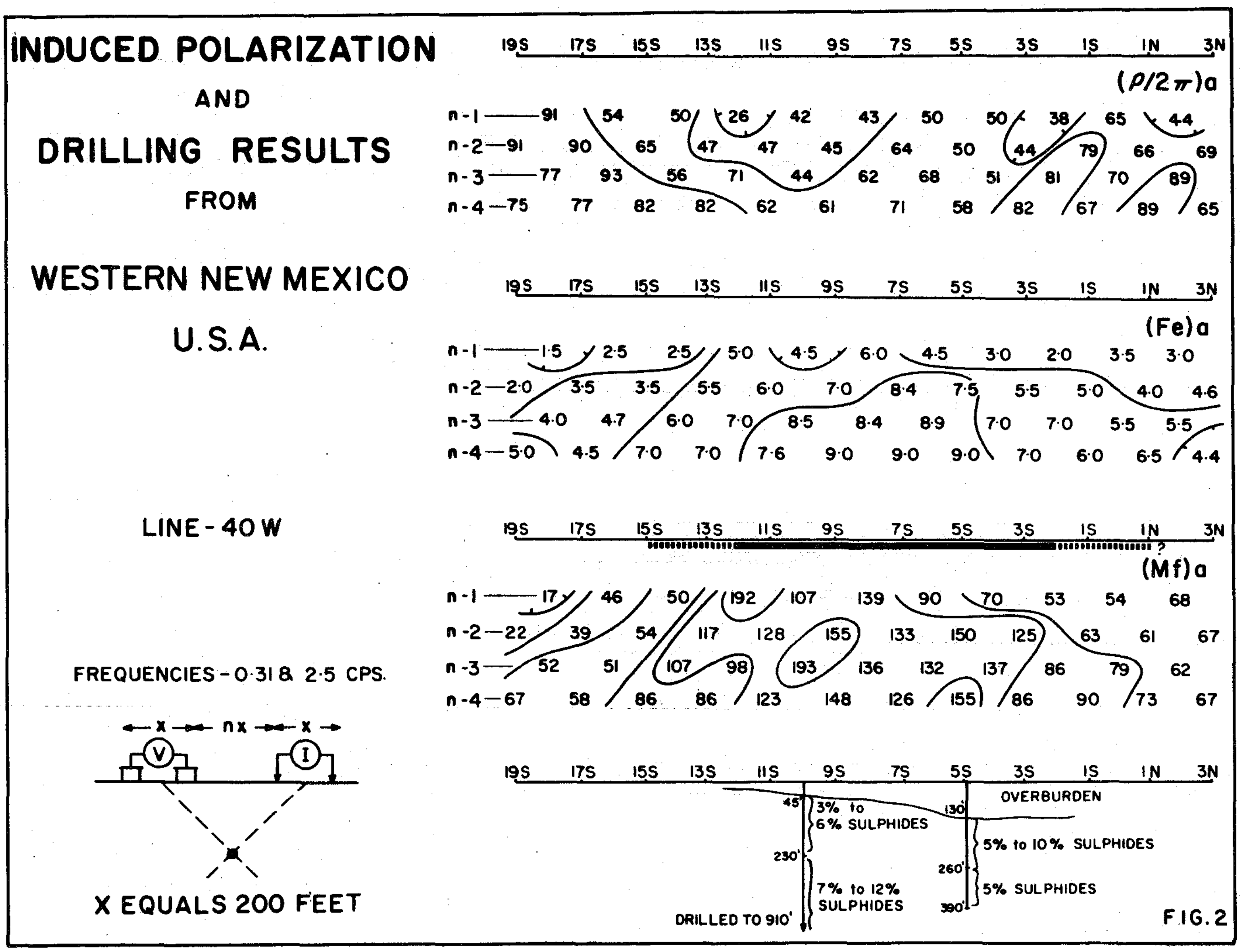


FIG. 2

The IP anomaly shown in Figure 2 has about the same magnitude as that described above. It should be noted that appreciably greater concentrations of metallic mineralization are present; further, there is little or no copper present. These results illustrate the fact that IP results can not be used to determine the exact amount of metallic mineralization present or to determine the economic importance of a mineralized zone. In some geologic situations zoning is present; the zones of mineralization of greatest economic value may contain less total metallic mineralization than other zones in the same general area.

In the proper geologic environment, the method will detect even very low concentrations of metallic mineralization. The IP results shown in Figure 3 located the ore zone at the Brenda Property near Peachland, B. C. The zone contains 1. 0 to 1. 5 per cent metallic mineralization; however, the mineralization is "ore grade" because only molybdenite and chalcopyrite are present.

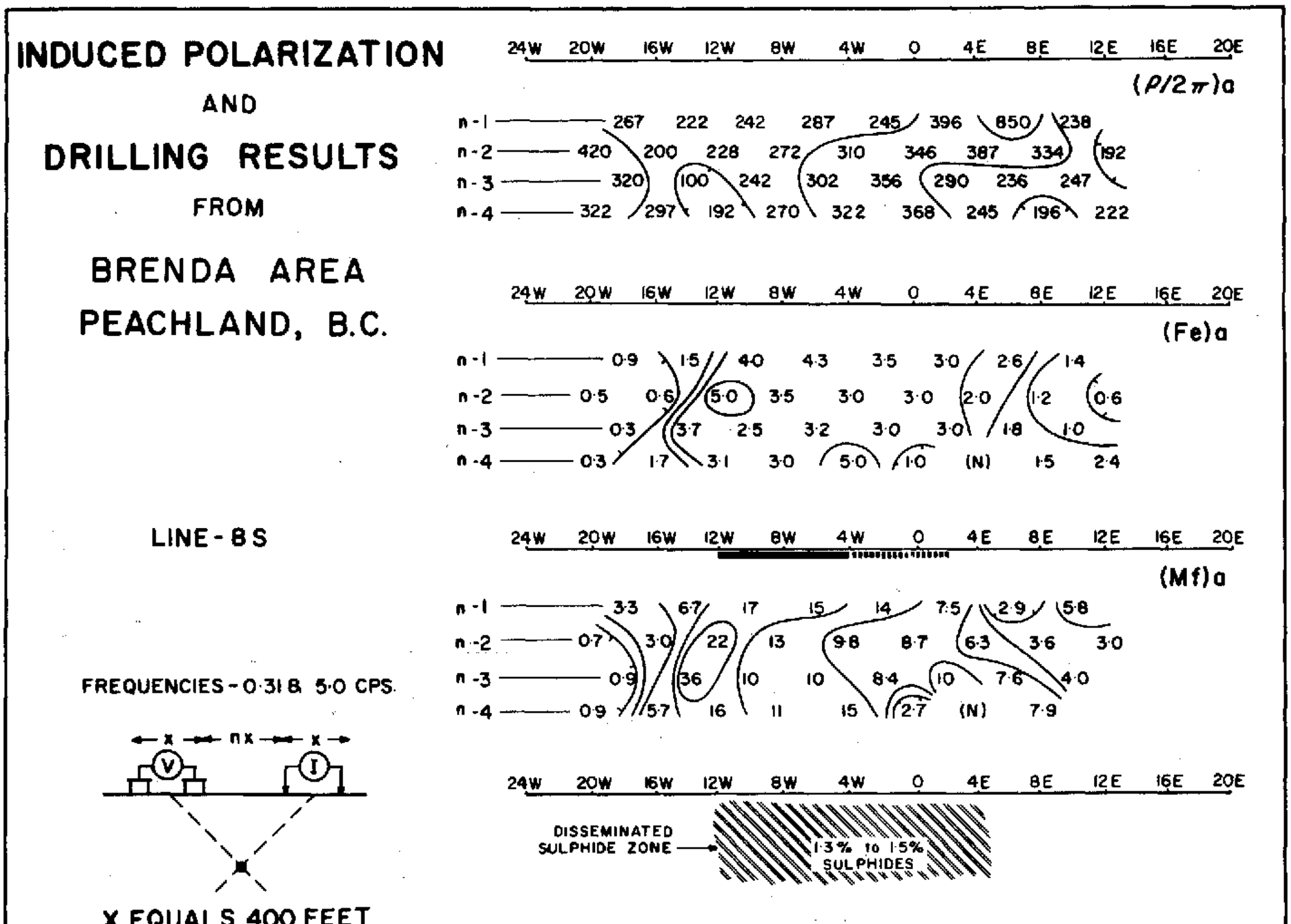


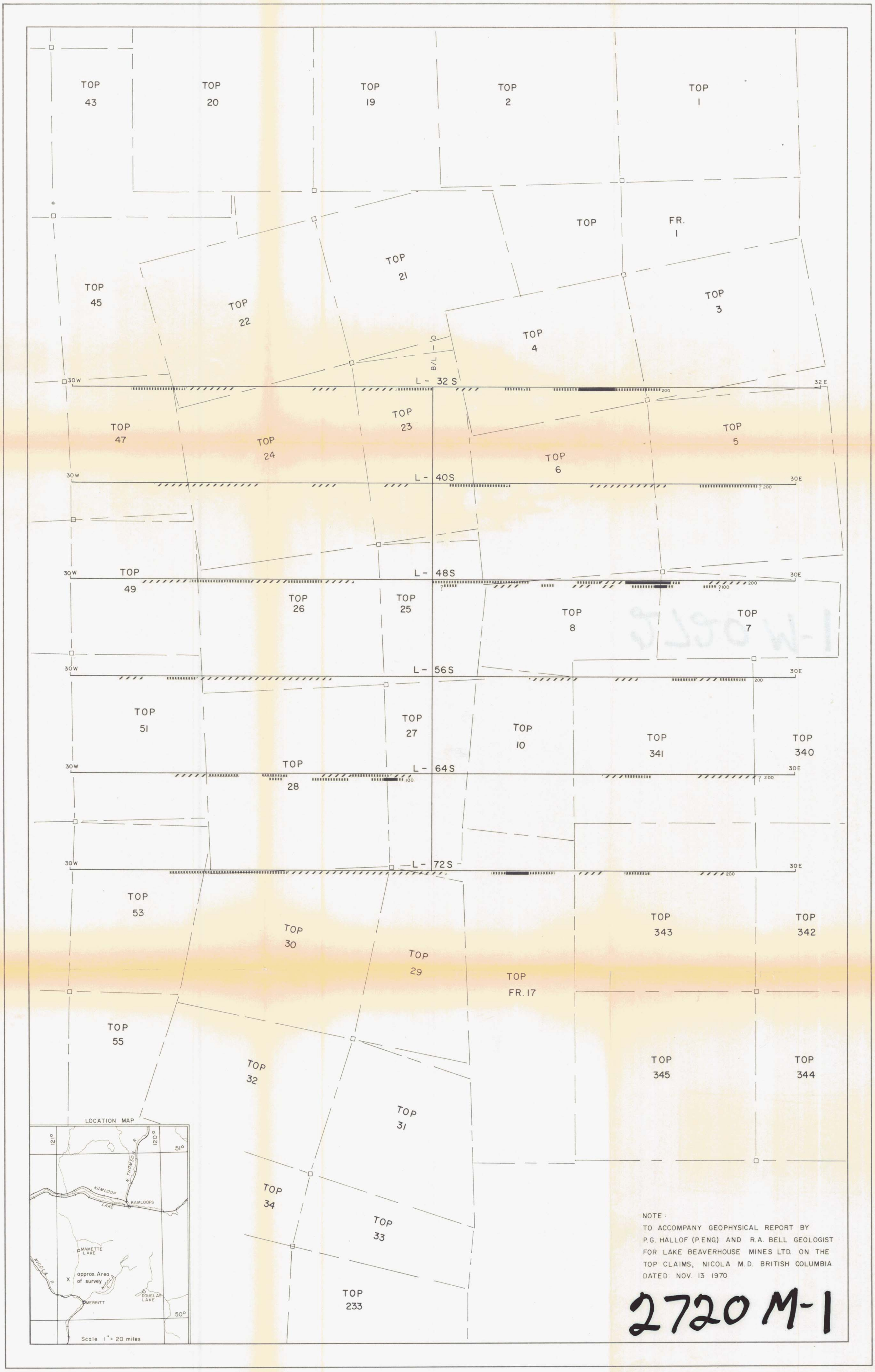
FIG.3

DWG. IPP-3454

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



NOTE

TO ACCOMPANY GEOPHYSICAL REPORT BY P.G. HALLOF (P.ENG) AND R.A. BELL GEOLOGIST FOR LAKE BEAVERHOUSE MINES LTD. ON THE TOP CLAIMS, NICOLA M.D. BRITISH COLUMBIA DATED NOV. 13 1970

2720 M-1

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

Numbers at the end of the anomalies indicate spread used.

LAKE BEAVERHOUSE MINES LTD.

TOP CLAIMS, NICOLA M.D., B.C.

SCALE

ONE INCH EQUALS FOUR HUNDRED FEET

Department of Mines and Petroleum Resources ASSESSMENT REPORT

NO. 2720 MAP #1

DRAWN:
DATE:
APPROVED:
DATE:

PROFESSIONAL ENGINEER
PHILIP G. HALLOF
BRITISH COLUMBIA

DWG. IPP-3454

DWG. NO. - I.P. - 5587-1

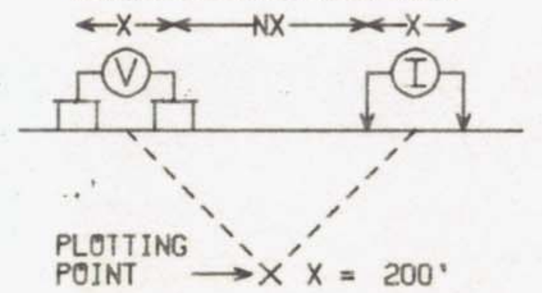
LAKE BEAVERHOUSE MINES LTD.

TOP CLAIMS

NICOLA 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: SEPT '70

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

APPROVED: Philip G. Hallof

DATE: 11/13/70

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA PHILIP G. HALLOF

Expiry Date: February 25, 1971

2720 M-2

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/65 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.- 5587-2

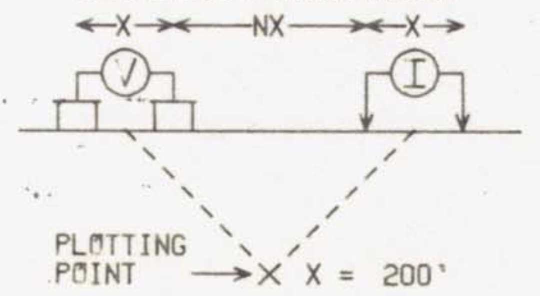
LAKE BEAVERHOUSE MINES LTD.

TOP CLAIMS

NICOLA 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: SEPT '70

APPROVED:

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

DATE: 11/3/70

2720 M-3

Expiry Date: February 25, 1971

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/65 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.- 5587-3

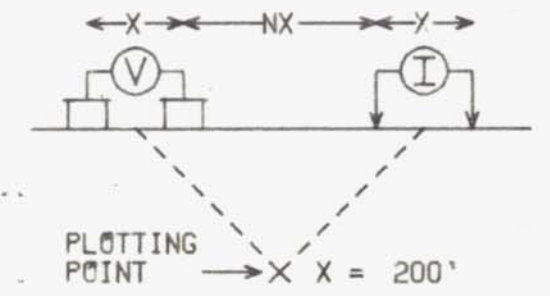
LAKE BEAVERHOUSE MINES LTD.

TOP CLAIMS

NICOLA M.D., B.C.

LINE NO.- 48S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEPT '70

APPROVED: Philip G. Hallof

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

DATE: 11/3/70

2720 M-4

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

Expiry Date: February 25, 1971

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/65 COMPUTER AND A CALCOMP PLOTTER

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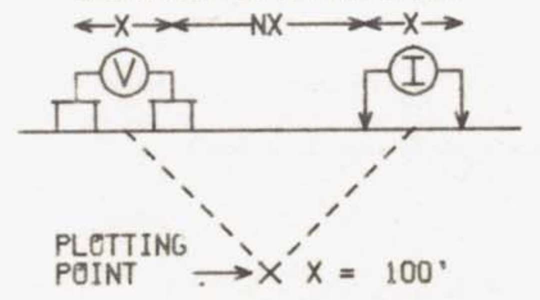
LAKE BEAVERHOUSE MINES LTD.

TOP CLAIMS
NICOLA M.D., B.C.

LINE NO.- 48S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEPT '70

APPROVED: Philip G. Hallof

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

DATE: 11/13/70

PROFESSIONAL ENGINEER — PHILIP G. HALLOF — BRITISH COLUMBIA
Expiry Date: February 25, 1971

2720 M-5

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

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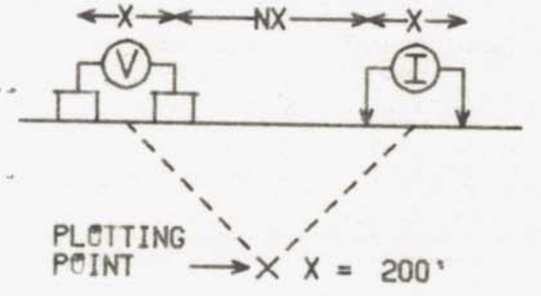
LAKE BEAVERHOUSE MINES LTD.

TOP CLAIMS
NICOLA M.D., B.C.

LINE NO.- 56S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEPT '70

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

APPROVED: Philip G. Hallof

DATE: 11/13/70

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

Expiry Date: February 25, 1971

2720 M-6

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/65 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.- 5587-6

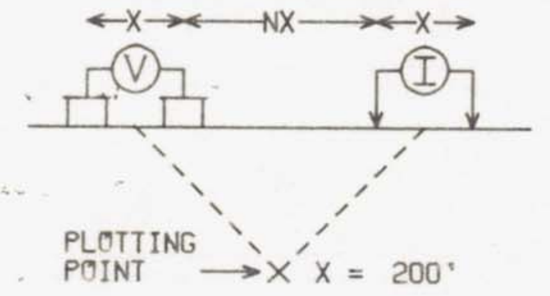
LAKE BEAVERHOUSE MINES LTD.

TOP CLAIMS

NICOLA M.D., B.C.

LINE NO.- 64S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEPT '70

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

APPROVED: Philip G. Hallof

DATE: 11/13/70

PROFESSIONAL ENGINEER — P. G. HALLOF — BRITISH COLUMBIA

Expiry Date: February 25, 1971

2720 M-7

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/65 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.- 5587-7

LAKE BEAVERHOUSE MINES LTD.

TOP CLAIMS

NICOLA M.D., B.C.

LINE NO.- 64S

ELECTRODE CONFIGURATION

PLOTTING POINT X = 100'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEPT '70

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

APPROVED:

DATE: 11/3/70

PROFESSIONAL ENGINEER — P. G. HALLOF — BRITISH COLUMBIA

Expiry Date: February 25, 1971

2720-M-8

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/65 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.- 5587-8

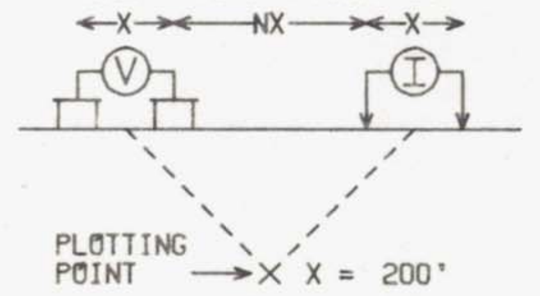
LAKE BEAVERHOUSE MINES LTD.

TOP CLAIMS

NICOLA M.D., B.C.

LINE NO.- 72S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 HZ

DATE SURVEYED: SEPT '70

APPROVED:

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

DATE: 11/3/70

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

Expiry Date: February 25, 1971

2720M-9

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/65 COMPUTER AND A CALCOMP PLOTTER