

# 4366

92P/15W RM

GEOPHYSICAL SURVEY DATA

TYPE OF SURVEY: Time Domain Induced Polarization (IP) Survey.

CLAIMS SURVEYED: Parts of RM claim group, 25 miles northeast of 100 Mile House, lat. 51° 49'N., long. 120° 48'W.

SURVEYED BY: J. Lloyd M.Sc., P.Eng. and L.D. Brydle B.Sc., Eagle Geophysics Limited

SUPERVISION AND REPORT BY: J. Lloyd M.Sc., P.Eng.

CLAIMS HELD BY AND SURVEYED FOR: Fox Geological Consultants Limited.

SURVEY DATES: April 30th to May 22nd, 1973.

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 4366 MAP.....

A REPORT ON  
A TIME DOMAIN INDUCED  
POLARIZATION SURVEY

FOR

FOX GEOLOGICAL CONSULTANTS LIMITED

BY

EAGLE GEOPHYSICS LIMITED  
VANCOUVER, BRITISH COLUMBIA

JUNE 1973

A GEOPHYSICAL REPORT ON A  
TIME DOMAIN INDUCED POLARIZATION  
SURVEY ON PART OF THE RM  
CLAIM GROUP, CANIM LAKE,  
BRITISH COLUMBIA  
FOR  
FOX GEOLOGICAL CONSULTANTS LIMITED

by

John Lloyd M.Sc., P.Eng.

## S U M M A R Y

During the period April 30th to May 22nd, 1973, Eagle Geophysics Limited carried out a time domain Induced Polarization (IP) survey on parts of the RM claim group located at Canim Lake, British Columbia, and held by Fox Geological Consultants Limited.

An IP anomaly approximately coincident with an intrusive breccia of economic significance warrants further exploration by drilling. Drill targets will be selected in conjunction with the results of detailed geological mapping of the anomalous area, which is now nearing completion.

Further studies of the geological and geophysical data relating to complex anomalies within Zone 3 will be completed before any major drill programme is anticipated on this zone.

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## 1. INTRODUCTION

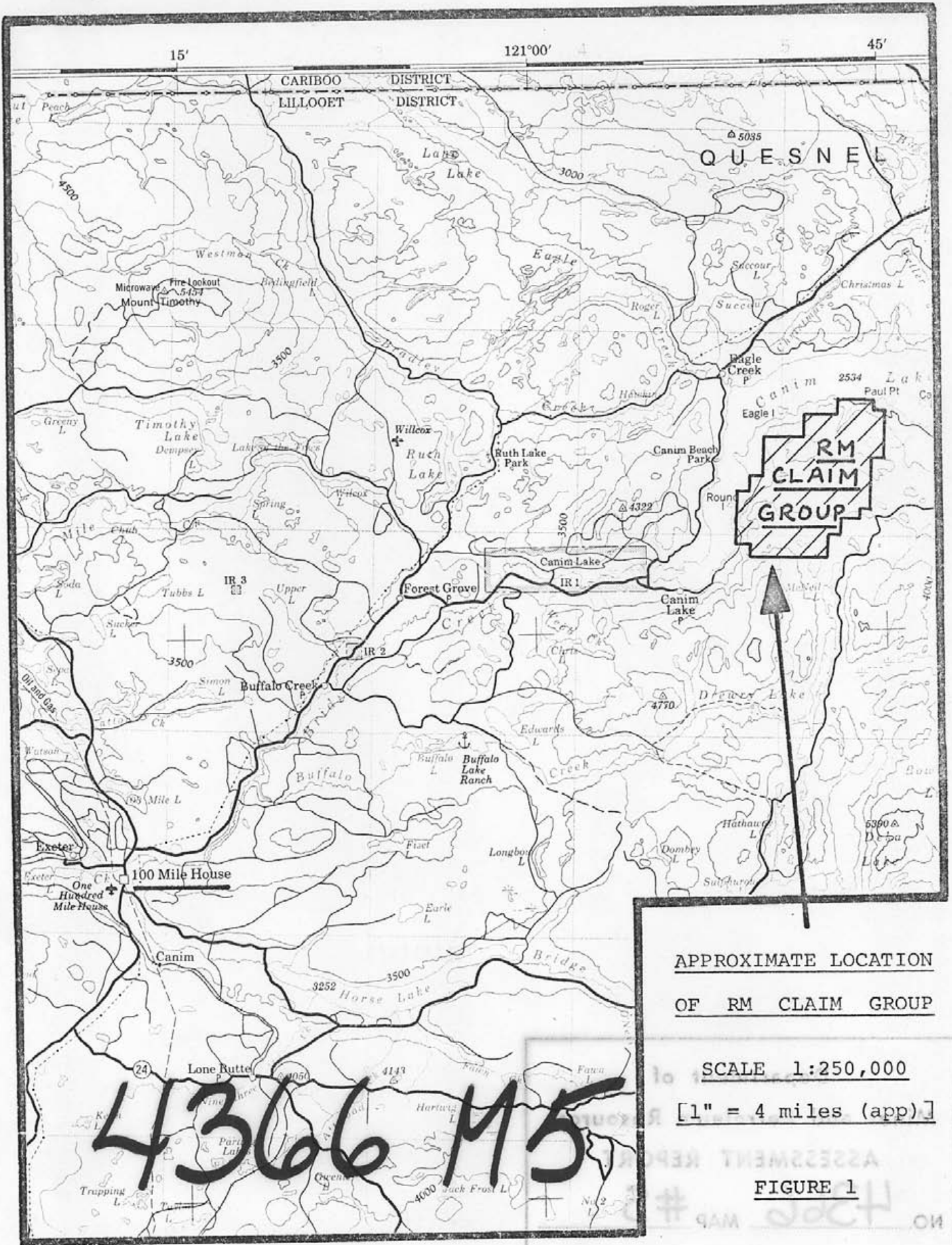
During the period April 30th to May 22nd, 1973 an Induced Polarization (IP) survey was carried out by Eagle Geophysics Limited for Fox Geological Consultants Limited on parts of the RM mineral claim group located on the southeast side of Canim Lake in British Columbia. Some 20 line miles of multi-separation time domain IP measurements were obtained.

The RM claim group comprises two hundred and twenty three (223) contiguous full sized and fractional mineral claims identified as follows:-

<u>Claim Name</u>	<u>Record Number</u>	<u>Expiry Date</u>
RM 1 to 25, inclusive	28467 to 28490	June 28, 1973
RM 25 to 32, inclusive	28812 to 28819	July 21, 1973
RM 33 to 34	28556 and 28557	July 14, 1973
RM 35 to 142, inclusive	28594 to 28701	July 14, 1973
RM 143 to 176, inclusive	28558 to 28591	July 14, 1973
RM 177 and 178	29070 and 19071	Aug 14, 1973
RM 179 and 180	28592 and 28593	July 14, 1973
RM 181 to 211, inclusive	29072 to 29102	Aug 14, 1973
RM 212 to 220, inclusive	30261 to 30269	Nov 20, 1973
RM 221 and 222	30419 and 30420	Dec 19, 1973
RM 223	30686	May 7, 1974

### 1.1 Property Location

The RM claim group is located about 25 miles northeast of 100 Mile House on the south and east shores of Canim Lake not far from the west end of the lake at latitude  $51^{\circ} 49'N.$ , longitude  $128^{\circ} 48'W.$  The approximate location of the claim group is shown in Figure 1.



APPROXIMATE LOCATION  
OF RM CLAIM GROUP

SCALE 1:250,000  
[1" = 4 miles (app)]

FIGURE 1

4366 M5

## 1.2 Property Access

The property can be reached, by two wheel drive vehicle, by a hard surface road that leaves Highway 97 at 100 Mile House (Figure 1) and the Rocky Point access road and subsidiary logging roads, which provide access to an abandoned saw mill at Howard Lake, which is centrally located on the property. Several logging spurs branch north and south from the sawmill site allowing road access to most points on the property.

## 1.3 Purpose of Survey

The purpose of the present IP survey, on the northern part of the property, was to search for and outline concentrations of disseminated mineralization which are known to occur in an intrusive breccia body and in syenitic rocks adjacent to a major fault structure (Zone 1 on the accompanying maps). On the southern part of the property IP measurements were also obtained over two areas of interesting geology and magnetic response (Zones 2 and 3 on the accompanying maps).

The RM claims are situated on a broad timbered plateau. Precipitous terrain marked by numerous bluffs and steep talus slopes separates the plateau area from Canim Lake. Relief between the Lake (elevation 2,515 feet) and the plateau region is about 1000 feet. Slopes north and south of Howard Lake are gentle and wooded with poplar, fir and spruce. Local relief is not more than 300 feet. Higher hills are usually underlain by Tertiary volcanic rocks, which locally form prominent cliffs and steep valley walls. Streams flowing north and west from Howard Lake have straight, steep sided, V-shaped valleys.



Widespread glacial materials consisting of hard, compact boulder till and fluvio-glacial clay and silt are common. These materials range from a few feet to twenty feet or more in thickness. Swampy depressions are also common and these predominate south and east of Howard Lake.

## 2. INSTRUMENT SPECIFICATIONS

The IP equipment used to carry out this work was a time domain measuring system developed and manufactured by Hunttec Limited of Toronto, Ontario.

The system used for this work consisted of a transmitter, a motor generator and a Mark III receiving unit incorporating a digital display readout for chargeability measurements.

The transmitter, which provides a maximum of 10 kw D.C. to the ground, obtains its power from a 10 kw, 400 cycle, 3 phase Leland alternator driven by an Onan gasoline engine. The total cycle time for the transmitter was 6 seconds and the duty ration (R) was 2.0 to 1. This means the cycling rate of the transmitter was 2 seconds current "ON" and 1 second current "OFF" with the pulses reversing continuously in polarity.

The Mark III receiver presents digitally four individual (M) values of the decay curve at each station. The (M) value reading is the ratio of  $(V_s)$  divided by  $(V_p)$  expressed as a percentage. The quantity  $(V_p)$  is displayed separately.

The parameters measured by this unit are shown in Figure 2. The delay time ( $t_d$ ) and the integration interval ( $t_p$ ) of the receiver define completely the measurements  $(M_1)$ ,  $(M_2)$ ,  $(M_3)$  and  $(M_4)$ .

The delay time ( $t_d$ ) may be set to 15, 30, 60, 120 or 240 milliseconds; similarly the integration interval ( $t_p$ ) may be set to 20, 30, 40, 50 or 60 milliseconds. This provides twenty-five different sets of values for each of the four sample points  $(t_1)$ ,  $(t_2)$ ,  $(t_3)$  and  $(t_4)$  of Figure 2. These

$$M_1 = \frac{e(t_1)}{V_p} = \sum_1^n \int_{(t_d)}^{(t_d+t_p)} \frac{V_s \cdot dt}{V_p \cdot t_p}$$

$$M_2 = \frac{e(t_2)}{V_p} = \frac{1}{2} \sum_1^n \int_{(t_d+t_p)}^{(t_d+3t_p)} \frac{V_s \cdot dt}{V_p \cdot t_p}$$

$$M_3 = \frac{e(t_3)}{V_p} = \frac{1}{4} \sum_1^n \int_{(t_d+3t_p)}^{(t_d+7t_p)} \frac{V_s \cdot dt}{V_p \cdot t_p}$$

$$M_4 = \frac{e(t_4)}{V_p} = \frac{1}{8} \sum_1^n \int_{(t_d+7t_p)}^{(t_d+15t_p)} \frac{V_s \cdot dt}{V_p \cdot t_p}$$

$$M_o = t_p \times 10^{-2} \sum (M_1 + 2M_2 + 4M_3 + 8M_4) \quad (\text{Milliseconds})$$

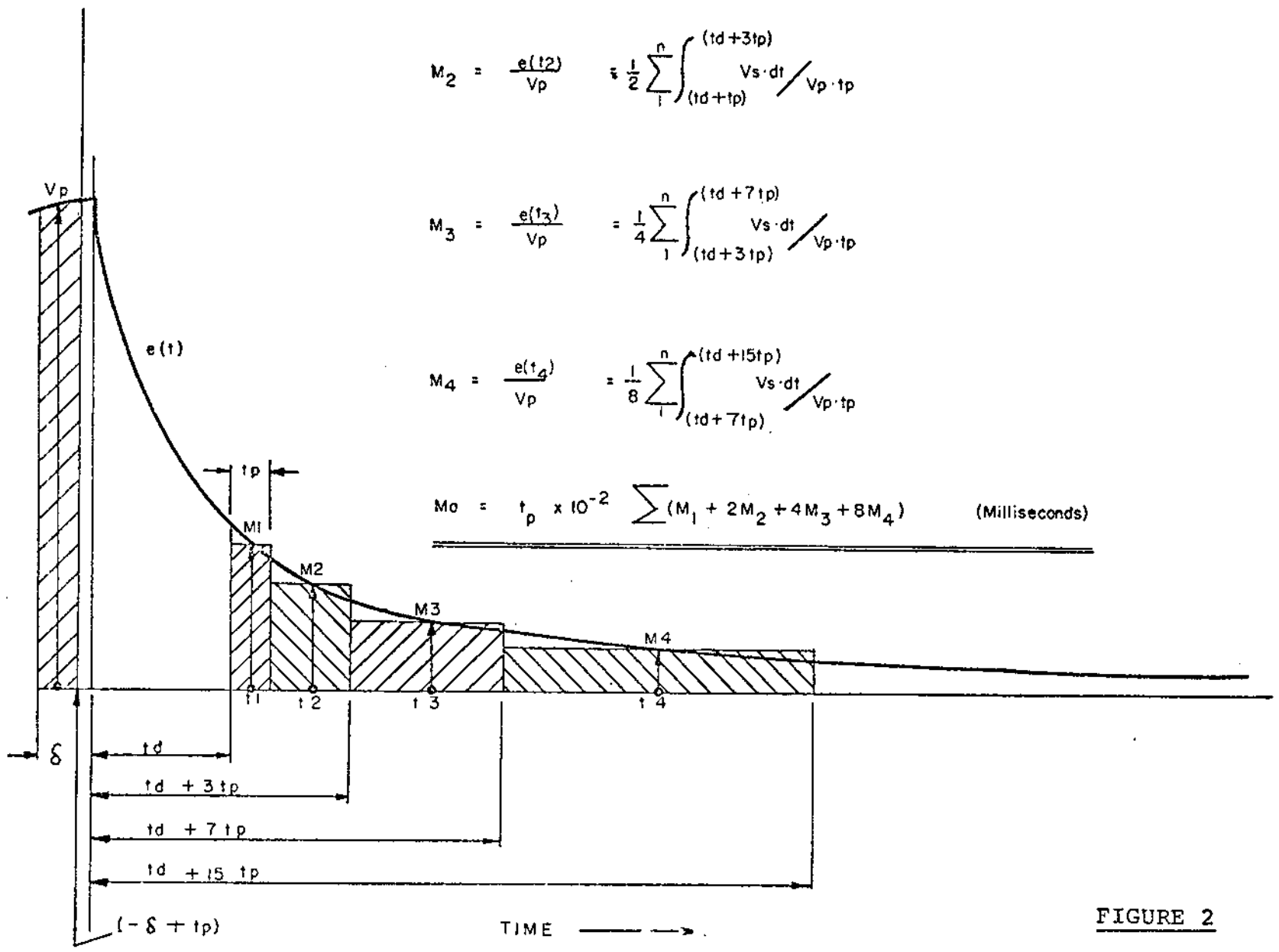


FIGURE 2

quantities have been calculated and are shown in Table 1, together with the limits of integration corresponding to each of the intervals ( $M_1$ ), ( $M_2$ ), ( $M_3$ ) and ( $M_4$ ).

For this survey the delay time ( $t_d$ ) was fixed at 60 milliseconds and the integrating interval ( $t_p$ ) of 40 milliseconds; this gave a total integrating time ( $T_p$ ) of 600 milliseconds.

The apparent chargeability ( $M_a$ ) in milliseconds is obtained by summing the ( $M$ ) factors, weighted for their individual integrating times as follows:-

$$M_a = t_p \times 10^{-2} \Sigma (M_1 + 2M_2 + 4M_3 + 8M_4) \text{ milliseconds} \quad - - (1)$$

The apparent resistivity ( $\rho_a$ ) in ohm-metres is obtained by dividing ( $V_p$ ) by the measured current ( $I_g$ ) and multiplying by a factor ( $K$ ) which is dependent on the geometry of the array used. The absolute value of ( $V_p$ ) is obtained by multiplying the digital voltmeter reading by the scale factor of the input attenuator.

The chargeabilities and resistivities obtained are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous, the calculated apparent chargeabilities and resistivities are functions of the actual chargeabilities and resistivities of the rocks.

The majority of geophysicists, using time domain equipment, quote their apparent chargeability measurements in units of milliseconds. This is an unfortunate choice of units since these units are really millivolt seconds per volt. Therefore data obtained by different transmitters and receivers using different timing and sampling sequences will yield different

Period $t_p$		DELAY TIME $t_d$ IN MILLISECONDS															
		15			30			60			120			240			
		S	M	E	S	M	E	S	M	E	S	M	E	S	M	E	
MILLISECONDS	20	15	25	35	30	40	50	60	70	80	120	130	140	240	250	260	M <sub>1</sub>
		35	55	75	50	70	90	80	100	120	140	160	180	260	280	300	M <sub>2</sub>
		75	115	155	90	130	170	120	160	200	180	220	260	300	340	380	M <sub>3</sub>
		155	235	315	170	250	330	200	280	360	260	340	420	380	460	540	M <sub>4</sub>
	30	15	30	45	30	45	60	60	75	90	120	135	150	240	255	270	M <sub>1</sub>
		45	75	105	60	90	120	90	120	150	150	180	210	270	300	330	M <sub>2</sub>
		105	165	225	120	180	240	150	210	270	210	270	330	330	390	450	M <sub>3</sub>
		225	345	465	240	360	480	270	390	510	330	450	570	450	570	690	M <sub>4</sub>
	40	15	35	75	30	50	70	60	80	100	120	140	160	240	260	280	M <sub>1</sub>
		75	95	135	70	110	150	100	140	180	160	200	240	280	320	360	M <sub>2</sub>
		135	215	295	150	230	310	180	260	340	240	320	400	360	440	520	M <sub>3</sub>
		295	455	615	310	470	630	340	500	660	400	560	720	520	680	840	M <sub>4</sub>
	50	15	40	65	30	55	80	60	85	110	120	145	170	240	265	290	M <sub>1</sub>
		55	115	165	80	130	180	110	160	210	170	220	270	290	340	390	M <sub>2</sub>
		165	265	365	180	280	380	210	310	410	270	370	470	390	490	590	M <sub>3</sub>
		365	565	765	380	580	780	410	610	810	470	670	870	590	790	990	M <sub>4</sub>
	60	15	45	75	30	60	90	60	90	120	120	150	180	240	270	300	M <sub>1</sub>
		75	135	195	90	150	210	120	180	240	180	240	300	300	360	420	M <sub>2</sub>
		195	315	435	210	330	450	240	360	480	300	420	540	420	540	660	M <sub>3</sub>
		435	675	915	450	690	930	480	720	960	540	780	1020	660	900	1140	M <sub>4</sub>

Table 1

S - time in milliseconds from turn off at which integration commences.

E - time in milliseconds from turn off at which integration ceases.

M - the mid point between S and E.

"millisecond" values over the same orebody or mineralized zone. The interpreter must therefore pay special attention to the transmitter timing cycle, and the receiver delay time, integrating interval, and total integrating time, before making comparisons between data obtained with different systems.

In the mid-1960's a good deal of time domain data obtained by Hunttec Limited in the Highland Valley used a transmitter with a 4 second cycle time, a duty ratio (R) of 3.0 to 1 and a receiver with a fixed delay time of 15 milliseconds and a fixed total integrating time of 400 milliseconds. Data obtained on the present survey is approximately 2 times greater than data obtained with the above described system. Furthermore the present data is approximately equivalent to data obtained with standard Scintrex (Newmont type) equipment.

### 3. SURVEY SPECIFICATIONS

The pole-dipole array was used for this IP survey. With this array the current electrode  $C_1$  and the two potential electrodes  $P_1$  and  $P_2$  are moved in unison along the lines to be surveyed. The second current electrode is grounded an "infinite" distance away, which is in fact about ten times or more the distance between  $C_1$  and  $P_1$ . The dipole length ( $x$ ) is the distance between  $P_1$  and  $P_2$ . The electrode separation ( $nx$ ), is the distance between  $C_1$  and  $P_1$  and is equal to or some multiple of the distance between  $P_1$  and  $P_2$ .

With respect to a body of some particular size, shape, depth and true chargeability the dipole length ( $x$ ) determines mainly the sensitivity of the array, whereas the electrode separation ( $nx$ ) determines mainly the depth of penetration of the array.

On the North Grid the survey lines run east-west and are approximately 500 feet apart. This grid was surveyed with a dipole length ( $x$ ) equal to 200 feet and measurements of apparent chargeability and apparent resistivity were made for first and second electrode separations, that is for  $n = 1$  and  $n = 2$ . All measurements were taken at 200-foot station intervals.

On the South Grid the survey lines also run east-west, but in this case, are approximately 1000 feet apart. This grid was surveyed with a dipole length ( $x$ ) equal to 400 feet and measurements of apparent chargeability and apparent resistivity were made for first and second electrode separations, that is for  $n = 1$  and  $n = 2$ . All measurements were taken at 200-foot station intervals.

#### 4. PRESENTATION OF DATA

The data obtained from the IP survey of the area described in this report are presented on four (4) maps, which are folded into the map pocket at the end of this report.

Map numbers E73174-1 and E73174-2 are contour maps of the apparent chargeability for the first ( $n = 1$ ) and second ( $n = 2$ ) separation measurements respectively. The contour interval is 5 milliseconds.

Map number E73174-3 and E73174-4 are contour maps of the apparent resistivity for the first ( $n = 1$ ) and second ( $n = 2$ ) separation measurements respectively. The contour interval is 200 ohm-metres.

All maps are at a horizontal scale of 1 inch equals 500 feet.



## 5. DISCUSSION OF RESULTS

Induced polarization interpretation procedures have been most completely developed in situations of mineralized horizontal layering, where the electrode separations used are small compared with the lateral extent of the mineralized bodies. Geologically, the porphyry coppers of large lateral extent are practical examples where such interpretation procedures can be used to best advantage.

For more confined bodies, where the electrode separations used are often large compared with the lateral extent of the bodies themselves, the complex problem of resolving the combined effects of depth, width, thickness and true chargeability of such bodies, together with the physical characteristics of the overburden and country rocks have only recently been studied in detail. The results of much of this work remain as yet unpublished. The interpreter must therefore use empirical solutions, typecurves obtained from theoretical investigations, plus experience gained from surveys over known orebodies and the results of both computer and tank model studies.

In general a favourable anomaly shows a chargeability high, an associated resistivity low which in turn produces a strong metal factor high. This situation is ideal and applies more specifically to massive sulphide deposits. A chargeability high with little or no change in resistivity produces a metal factor anomaly of only moderate amplitude. Distinct resistivity lows having little or no chargeability response, but producing moderate amplitude metal factors are, in the present geological environment, anomalies of considerably less interest.

Anomalies are classified into three groups: definite, probable and possible. This grouping is based on the relative amplitudes of apparent chargeability, apparent resistivity and

to a lesser degree apparent metal factor. Of equal importance in the grouping of these anomalies is the overall anomaly pattern and degree to which this pattern may be correlated, from line to line, and with rock types of possible economic importance. Such a correlation, particularly for weak anomalies, increases considerably their attractiveness as potential drilling targets.

At the time of writing maps of apparent metal factor have not yet been completed.

### 5.1 Geology and Mineralization

The RM claims overlie altered volcanic rocks and derived sediments and tuff of the Nicola Group and several small stocks of diorite, syenodiorite, and intrusive breccia. The Takomkane batholith underlies much of the terrain to the west between Canim Lake and Forest Grove, and most of the plateau area to the south appears to be underlain by volcanic rocks of the Kamloops Group and younger plateau basalts. Several faults of regional extent are known in the Canim Lake area; a major fault that trends northeasterly through Howard Lake appears to be an important control of sulphide zones on the property.

Rocks underlying the property comprise an Upper Triassic volcanic sequence of flows, sediments, tuff, and coeval intrusive rocks. Sediments and tuff underlie the western half of the property and are faulted against andesitic flows, breccia, and intrusive rocks to the east. Complex volcanic breccias of the Kamloops Group (Miocene) unconformably overlie the Triassic assemblage.

The main area of economic significance lies in a narrow valley about 3000 feet north of Howard Lake. Thin fracture fillings and disseminated grains of pyrite, chalcopyrite, and bornite occur in an intrusive breccia body some 1400 by 2000 feet, and in syenitic rocks 500 feet farther north. Associated host rocks are altered to pink feldspar, epidote, chlorite and magnetite. Visual estimates suggest an overall grade of 0.1 to 0.2% copper, with higher grade, localized material up to 0.5% copper.

Low grade, disseminated chalcopyrite and bornite also occur in volcanic sediments along the main road leading to the west end of Howard Lake.

## 5.2 Induced Polarization Survey

On the North Grid the apparent chargeability background is approximately 4 milliseconds. The apparent resistivity varies from less than 100 ohm-metres to greater than 1000 ohm-metres and shows no distinct pattern. There are three main areas of increased apparent chargeability on this grid. Broadly these are as follows:

- (1) In the central portion of Zone 1, mainly in the area of the diorite breccia, where apparent chargeability readings vary from about 10 to 20 milliseconds. This area is to the east of the major NNE trending fault and roughly coincident with the main area of economic significance.
- (2) Immediately west of Zone 1, on the west end of lines 150N, 155N, 160N, 165N, 170N and 175N. The major fault appears to cut across the eastern portion of this area. Here apparent chargeability readings reach over 40 milliseconds. Disseminated pyrite is known to occur within this area.

- (3) About 4000 feet south of the centre of Zone 1, at the west end of line 130N. This area may extend across Howard Lake to the south, as indicated by higher apparent chargeability readings near the east end of line 100N. However, higher apparent chargeability readings on the south side of the lake are associated with an increase in resistivity response which makes this prediction somewhat less likely. Here the anomalous response is quite weak with only a few readings reaching over 10 milliseconds, and a background of 3 to 4 milliseconds.

At the time of writing detailed geological mapping is in progress on this grid. When this work has been completed a more thorough interpretation of the data will be possible. The final interpretation will include a correlation of detailed geology, IP data and ground magnetometer survey work. The magnetometer data is at present not available to the writer.

The final interpretation will definitely include the layout of a substantial drilling programme.

On the South Grid two main zones of interest were investigated. Here outcrop is sparse and overburden depths less well known. The IP survey was of a reconnaissance nature with lines about 1000 feet apart and measurements made with a 400-foot dipole. This technique should detect a sulphide body with a geometry of possible economic dimensions down to a depth of at least 500 or 600 feet.

The data obtained over Zone 2, with the exception of the higher readings towards the east end of line 100N, is essentially non-anomalous and there is little encouragement for further exploration based on the IP data alone.

Line 110N should be established on claims RM49 and RM50 and surveyed by IP methods to check for possible continuity with an area of higher readings on the North Grid, on the north side of Howard Lake.

The data obtained over the major portion of Zone 3 is strongly anomalous; fairly rapid changes in apparent chargeability and apparent resistivity lead to complex anomalous patterns. Two north-south areas with strong apparent chargeability responses can be observed within the zone. Firstly an area about 4000 feet long and 800 feet wide underlines the east half of claims RM118, RM120 and RM122. Secondly an area about 1200 feet wide and 3000 feet long underlies claims RM102, RM104 and RM106. Both these areas have associated apparent resistivity highs and fairly low apparent metal factor values. This is particularly true of the western area where the apparent metal factor values are approximately the same, or may be lower, than the background values for the major portion of the zone.

Based mainly on the IP data, Zone 3 is therefore a less attractive zone than Zone 1 with respect to additional exploration expenditures in the form of drilling. It should however be considered for additional exploration when all data has been presented and fully evaluated. In particular maps of apparent metal factor values should be prepared and evaluated.

## 6. CONCLUSIONS AND RECOMMENDATIONS

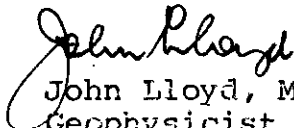
From a study of the IP data obtained on the survey described in this report, along with a study of the geology available to date, it has been concluded that:-

- (A) The IP anomaly, detected within Zone 1 on the North Grid, justifies a substantial drilling programme.
- (B) No additional work, in the form of drilling, is at present justified for Zone 2 on the South Grid.
- (C) An increase in apparent chargeability towards the east end of line 100N may represent a southern extension of an anomalous area detected on the north side of Howard Lake.
- (D) Complex anomalies in Zone 3, on the South Grid, may be partially caused by increases in resistivity which reflect varying overburden thicknesses.

Based mainly on the IP data it is recommended that:-

- (1) The final selection of drill targets on Zone 1 be made after the magnetic and IP data has been correlated with the detailed geological mapping now in progress.
- (2) Line 110N be established over claims RM49 and RM50 and surveyed by IP methods.
- (3) Further studies of the geological and geophysical data relating to Zone 3, in particular the preparation and evaluation of metal factor maps, should be completed prior to any anticipated drilling programme on this zone.

Respectfully submitted,  
EAGLE GEOPHYSICS LIMITED

  
John Lloyd, M.Sc., P.Eng.  
Geophysicist

June, 1973.

A P P E N D I C E S

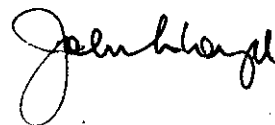
(i)

CERTIFICATION

I, John Lloyd, of 575 Lucerne Place in the District of North Vancouver, in the Province of British Columbia, do hereby certify that:-

1. I graduated from the University of Liverpool, England, in 1960 with a B.Sc. (Hons.) in Physics and Geology, Geophysics Option.
2. I obtained the Diploma of the Imperial College of Science and Technology (D.I.C.), in Applied Geophysics from the Royal School of Mines, London University, in 1961.
3. I obtained the degree of M.Sc. in Geophysics from the Royal School of Mines, London University, in 1962.
4. I am a member of the Association of Professional Engineers in the Province of British Columbia, the Society of Exploration Geophysicists of America and the European Association of Exploration Geophysicists.
5. I have been practising my profession for the last ten years.
6. I have no interest or shares in any property or securities of Fox Geological Consultants Limited nor do I expect to receive any.

John Lloyd, P.Eng.



Vancouver, B.C.

June, 1973



PERSONNEL EMPLOYED ON SURVEY

Eagle Geophysics Limited provided the following personnel to complete the field work and report writing of the IP Survey described in this report:-

<u>Name</u>	<u>Occupation</u>	<u>Address</u>	<u>Dates</u>
J. Lloyd	Geophysicist	Eagle Geophysics Ltd 575 Lucerne Place North Vancouver, B.C.	Apr 30 to May 18, 1973 June 7th and 8th, 1973
L.D. Brydle	Geophysicist	"	Apr 30 to May 22, 1973
D.S. Coote	Geophysicist	"	Apr 30 to May 22, 1973
J.P. Slominski	Geophysical Operator	"	Apr 30 to May 21, 1973
B.G. Ek	" "	"	Apr 30 to May 11, 1973
R.J. Bing	Helper	"	May 12 to May 21, 1973
G.A. Molnar	"	"	May 18 to May 21, 1973
J. Winnifield	Draftsman	"	June 4, 1973
A. Fife	Secretary	"	June 11, 1973

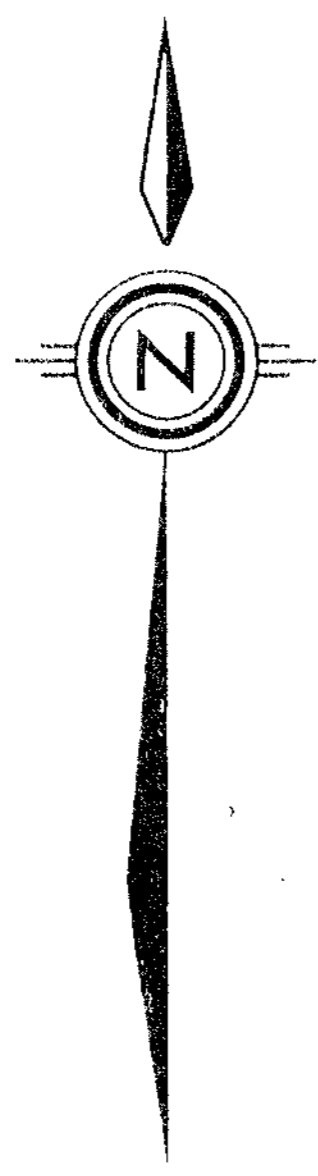
(iii)

COST OF SURVEY

Eagle Geophysics Limited provided the geophysical crew, the IP equipment and a 4 x 4 crewcab on a per diem basis. The report writing and some of the drafting were provided at an additional cost. Therefore the total cost of all services provided by Eagle Geophysics Limited was \$9,994.37.

REFERENCES

- Dowlan, W.M. and  
McLaughlin, G. "Considerations Concerning Measurement Standards and Design of Pulsed IP Equipment, Parts I and II". Proceedings of the symposium on Induced Electrical Polarization, Feb. 18 and 19, 1967. Department of Mineral Technology, University of California, Berkeley.
- Fox, P.E. "Report on the Canim Lake Copper Prospect" Jan. 1973.



NORTH GRID

SOUTH GRID

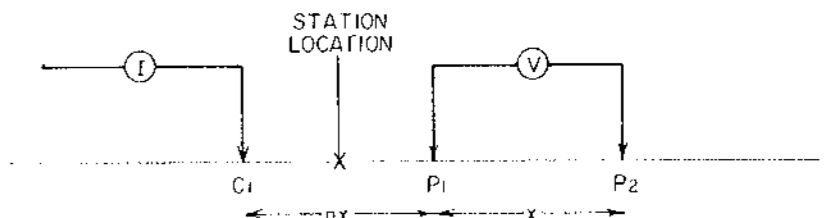
ZONE I

ZONE II

ZONE III

LEGEND

POLE-DIPOLE ARRAY



- NOTES (1) ALL LINES WERE SURVEYED USING THIS ARRAY
- (2) FOR ALL LINES SURVEYED THE MEASURING DIPOLE P1-P2 WAS TO THE EAST OF THE LEADING CURRENT ELECTRODE C1
- (3) MEASUREMENTS ON THE NORTH GRID ARE FOR x=200 FEET AND n=1
- (4) MEASUREMENTS ON THE SOUTH GRID ARE FOR x=400 FEET AND n=1

MAIN ZONES OF GEOLOGICAL AND/OR GEOPHYSICAL INTEREST

CONTOURS OF APPARENT CHARGEABILITY  
CONTOUR INTERVAL 5 MILLISECONDS

4366 M-1

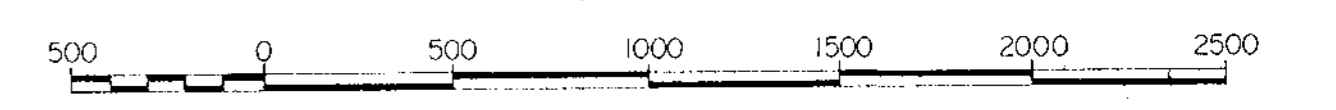
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RM CLAIM GROUP, CLINTON MINING DIVISION, B.C.

INDUCED POLARIZATION SURVEY

FIRST SEPARATION CONTOURS OF APPARENT CHARGEABILITY

x=200 FEET ; n=1 - NORTH GRID  
x=400 FEET ; n=1 - SOUTH GRID



SCALE IN FEET

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MAY 1973

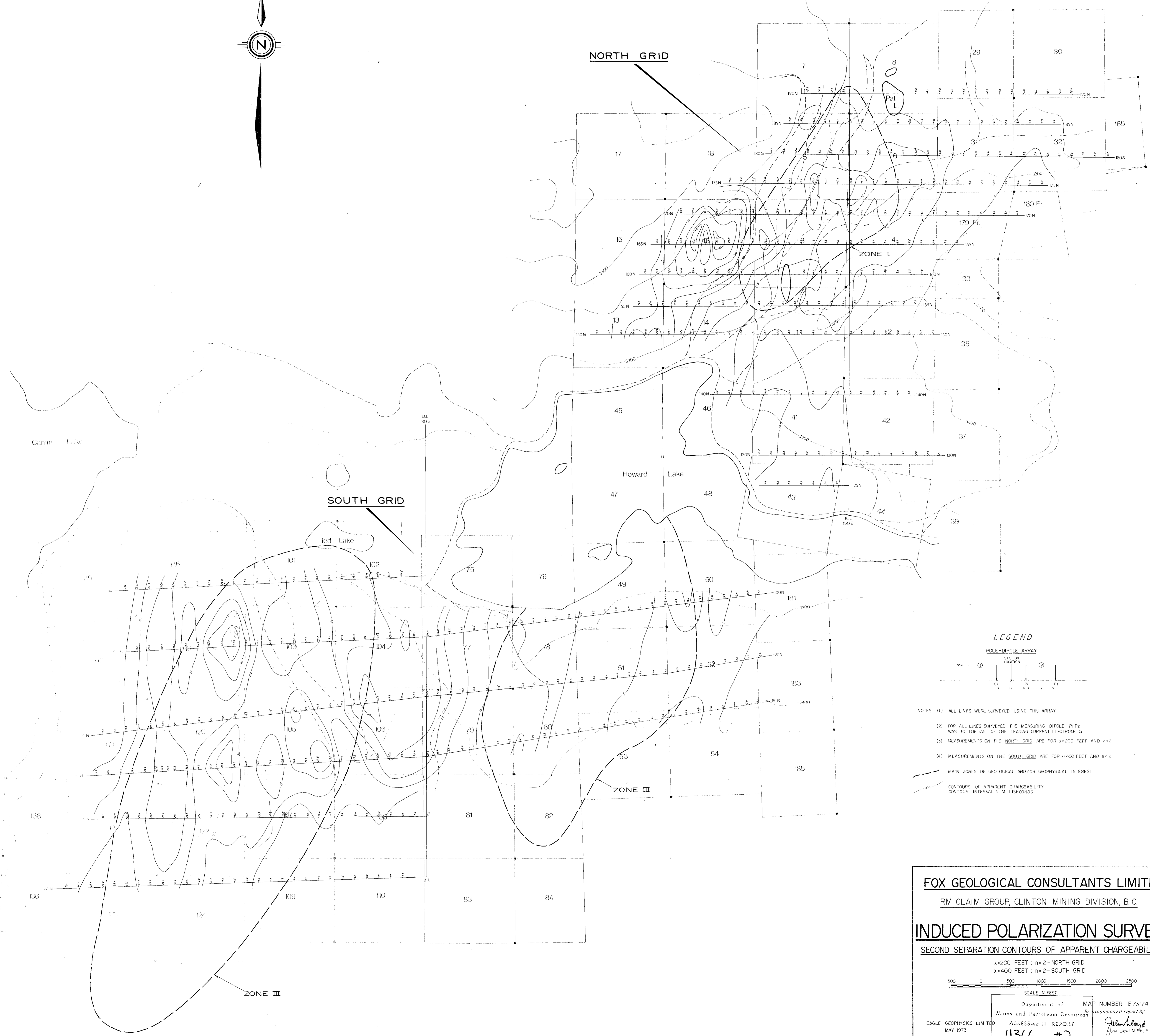
MAP NUMBER E 73174-1  
ASSESSMENT REPORT  
NO. 4366 MAP #1

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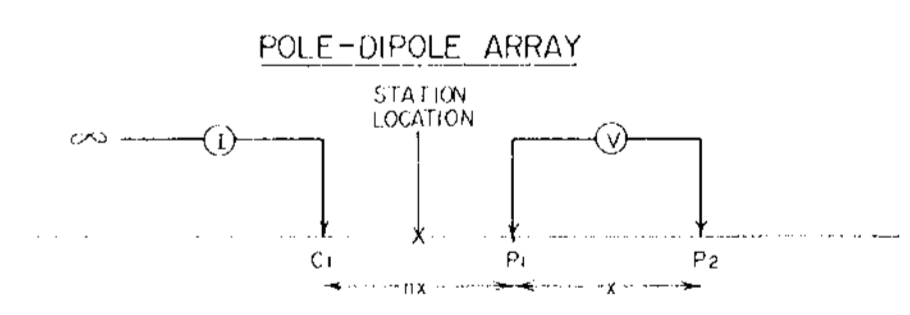


**NORTH GRID**

**SOUTH GRID**



**LEGEND**



- NOTES (1) ALL LINES WERE SURVEYED USING THIS ARRAY  
(2) FOR ALL LINES SURVEYED THE MEASURING DIPOLE (P1-P2) WAS TO THE EAST OF THE LEADING CURRENT ELECTRODE (C1)  
(3) MEASUREMENTS ON THE NORTH GRID ARE FOR x=200 FEET AND n=2  
(4) MEASUREMENTS ON THE SOUTH GRID ARE FOR x=400 FEET AND n=2
- MAIN ZONES OF GEOLOGICAL AND/OR GEOPHYSICAL INTEREST  
--- CONTOURS OF APPARENT CHARGEABILITY  
--- CONTOUR INTERVAL 5 MILLISECONDS

**FOX GEOLOGICAL CONSULTANTS LIMITED**  
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**INDUCED POLARIZATION SURVEY**  
SECOND SEPARATION CONTOURS OF APPARENT CHARGEABILITY

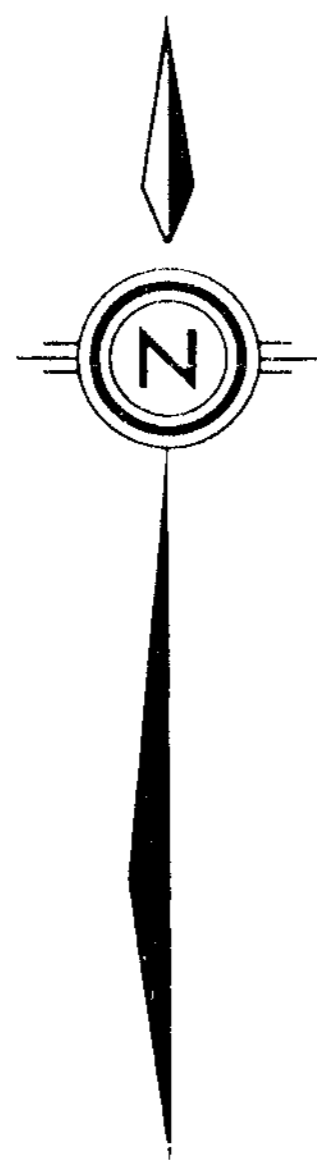
x=200 FEET ; n=2-NORTH GRID  
x=400 FEET ; n=2-SOUTH GRID

SCALE IN FEET  
0 500 1000 1500 2000 2500

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EAGLE GEOPHYSICS LIMITED  
MAY 1973

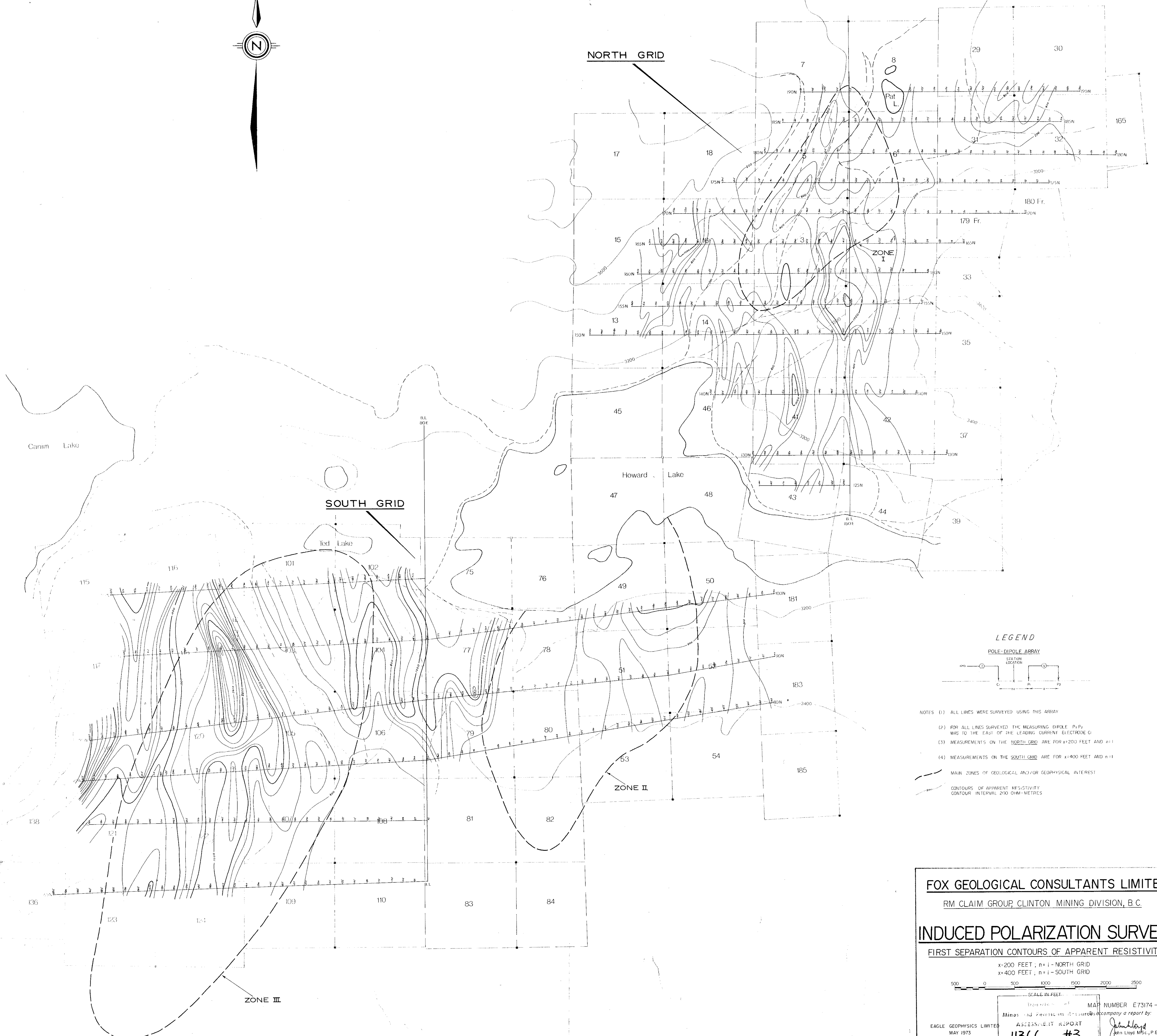
MAP NUMBER E73/74-2  
to accompany a report by  
ACCESSIBLE REPORT  
No. 4366 M.S. #2  
John Lloyd M.Sc., P. Eng.





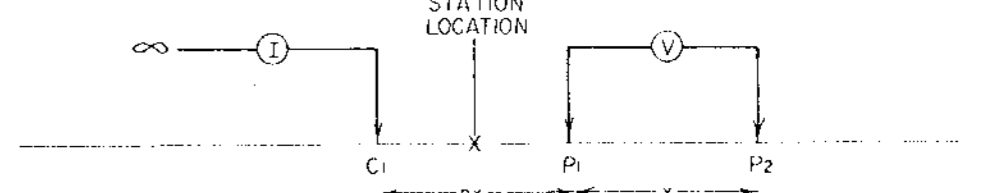
NORTH GRID

SOUTH GRID



LEGEND

POLE-DIPOLE ARRAY



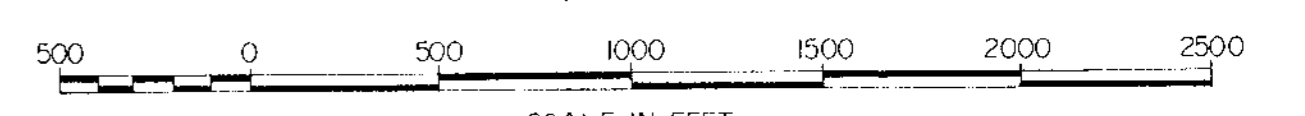
- (1) ALL LINES WERE SURVEYED USING THIS ARRAY
- (2) FOR ALL LINES SURVEYED THE MEASURING DIPOLE (P1-P2) WAS TO THE EAST OF THE LEADING CURRENT ELECTRODE C
- (3) MEASUREMENTS ON THE NORTH GRID ARE FOR x=200 FEET AND n=1
- (4) MEASUREMENTS ON THE SOUTH GRID ARE FOR x=400 FEET AND n=1

--- MAIN ZONES OF GEOLOGICAL AND/OR GEOPHYSICAL INTEREST  
--- CONTOURS OF APPARENT RESISTIVITY  
--- CONTOUR INTERVAL 200 OHM-METRES

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INDUCED POLARIZATION SURVEY  
FIRST SEPARATION CONTOURS OF APPARENT RESISTIVITY

x=200 FEET, n=1 - NORTH GRID  
x=400 FEET, n=1 - SOUTH GRID



SCALE IN FEET: 0 500 1000 1500 2000 2500

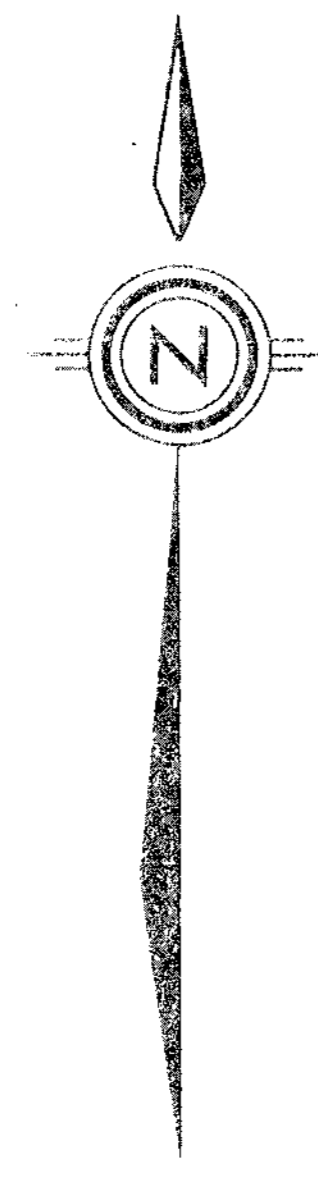
MAP NUMBER E73174-3

ASSESSMENT REPORT

NO. 4366 MAP #3

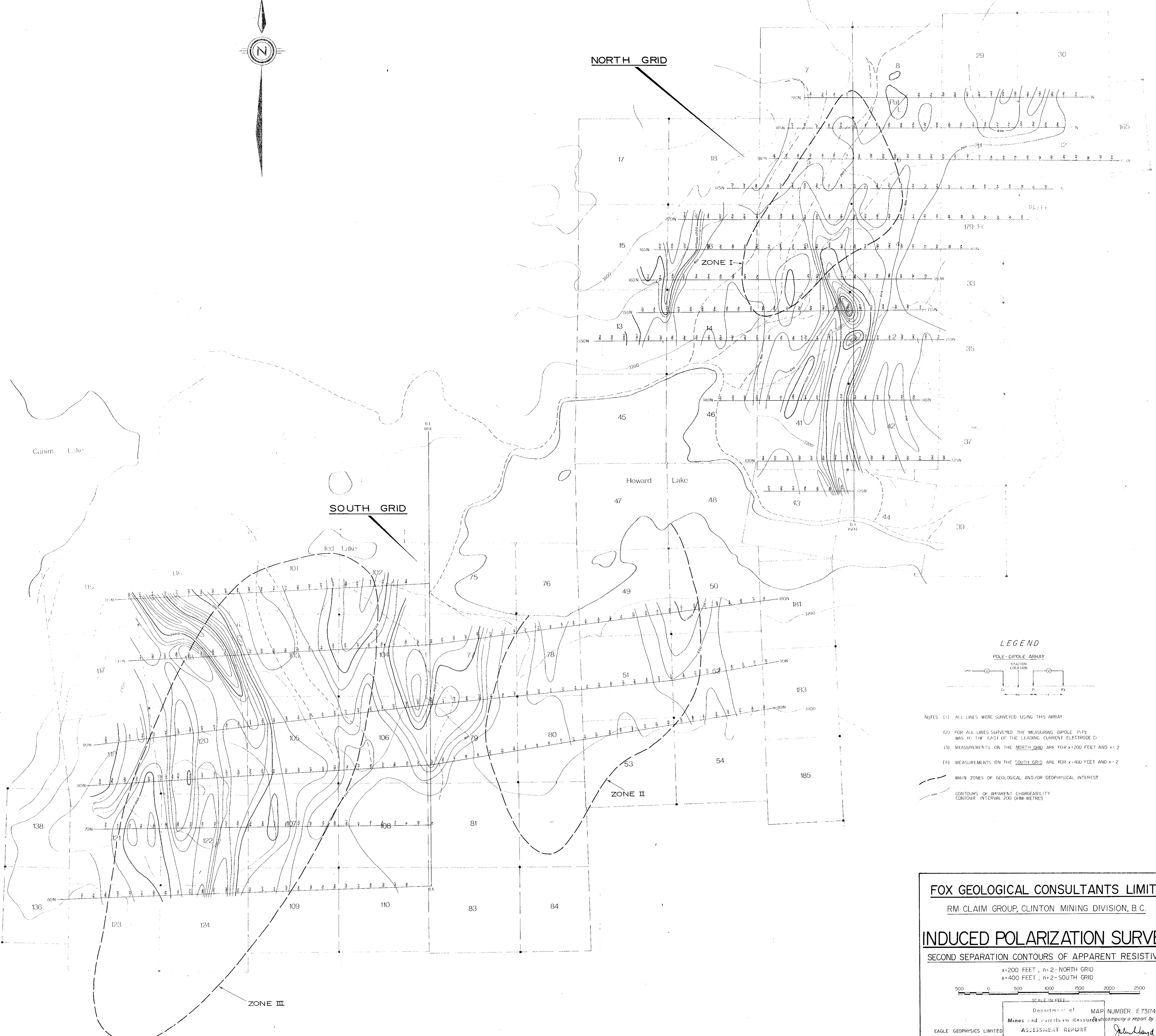
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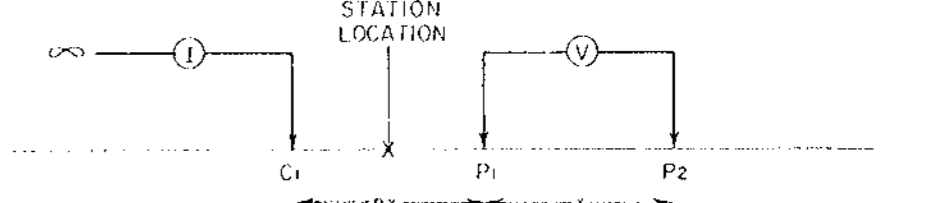
NORTH GRID

SOUTH GRID



LEGEND

POLE-DIPOLE ARRAY



- NOTES (1) ALL LINES WERE SURVEYED USING THIS ARRAY  
(2) FOR ALL LINES SURVEYED THE MEASURING DIPOLE (P1P2) WAS 10' EAST OF THE LEADING CURRENT ELECTRODE C1  
(3) MEASUREMENTS ON THE NORTH GRID ARE FOR  $x=200$  FEET AND  $n=2$   
(4) MEASUREMENTS ON THE SOUTH GRID ARE FOR  $x=400$  FEET AND  $n=2$

--- MAIN ZONES OF GEOLOGICAL AND/OR GEOPHYSICAL INTEREST  
--- CONTOURS OF APPARENT RESISTIVITY  
--- CONTOUR INTERVAL 200 OHM METRES

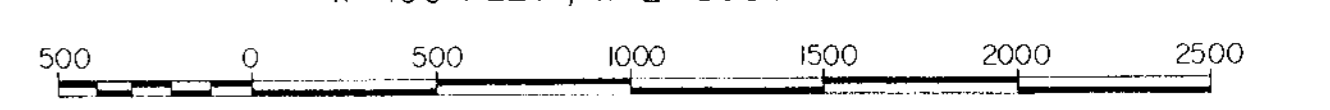
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INDUCED POLARIZATION SURVEY

SECOND SEPARATION CONTOURS OF APPARENT RESISTIVITY

$x=200$  FEET ;  $n=2$  - NORTH GRID  
 $x=400$  FEET ;  $n=2$  - SOUTH GRID



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EAGLE GEOPHYSICS LIMITED  
MAY 1973

MAP NUMBER E73174-4  
ASSESSMENT REPORT  
No. 4366 MAP #4

John Lloyd M.Sc., P. Eng.