

# 4601

93A/6W

GEOPHYSICAL SURVEY DATA

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

CLAIMS SURVEYED: Part of SL claim group, 10 miles  
north of Horsefly; lat. 52° 28' N.,  
long. 121° 28' 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: July 6th to July 13th, 1973  
inclusive.

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 4601 M&P

A REPORT ON  
A TIME DOMAIN INDUCED  
POLARIZATION SURVEY

FOR

FOX GEOLOGICAL CONSULTANTS LIMITED

BY

EAGLE GEOPHYSICS LIMITED  
VANCOUVER, BRITISH COLUMBIA

SEPTEMBER 1973

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

by

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

## S U M M A R Y

During the period July 6th to July 13th, 1973 a time domain Induced Polarization (IP) survey was carried out by Eagle Geophysics Limited for Fox Geological Consultants Limited on a portion of the SL mineral claim group at Quesnel Lake in British Columbia.

The lateral extent of at least three zones of disseminated sulphide mineralization has been indicated by strong IP responses.

Based on good geological, geophysical and geochemical correlation and encouraging assay results it has been concluded that further exploration of the property by drilling is warranted.

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## 1. INTRODUCTION

During the period July 6th to July 13th, 1973 a time domain Induced Polarization (IP) survey was carried out by Eagle Geophysics Limited for Fox Geological Consultants Limited on a portion of the SL mineral claim group located near Mitchell Bay on Quesnel Lake in British Columbia. Some 8 line miles of multi-separation IP measurements were obtained.

At the time this survey was completed the SL claim group comprised eighty-four (84) contiguous mineral claims identified as follows:-

<u>Claim Name</u>	<u>Record Number</u>	<u>Expiry Date</u>
SL 1 to 12 inclusive	67394 to 67405	August 15, 1973
SL 13 to 20 inclusive	67428 to 67435	August 15, 1973
SL 21 to 35 inclusive	67406 to 67420	August 15, 1973
SL 36	67422	August 15, 1973
SL 37 to 42 inclusive	67436 to 67441	August 15, 1973
SL 43	67421	August 15, 1973
SL 44	67423	August 15, 1973
SL 45 to 48 inclusive	67424 to 67427	August 15, 1973
SL 49 to 68 inclusive	67442 to 67461	August 15, 1973
SL 69 to 84 inclusive	67462 to 67477	August 15, 1973

At the time of writing it is understood that some additional mineral claims have been staked by Fox Geological Consultants Limited immediately adjoining the original 84 SL mineral claims.

### 1.1 Property Location

The SL claim group is located near Mitchell Bay on Quesnel Lake some 10 miles north of Horsefly, British Columbia at latitude  $52^{\circ} 28'$  N., and longitude  $121^{\circ} 28'$  W. The southwest corner of the claim block adjoins Shiko Lake. The approximate location of the claim group is shown in Figure 1.

### 1.2 Property Access

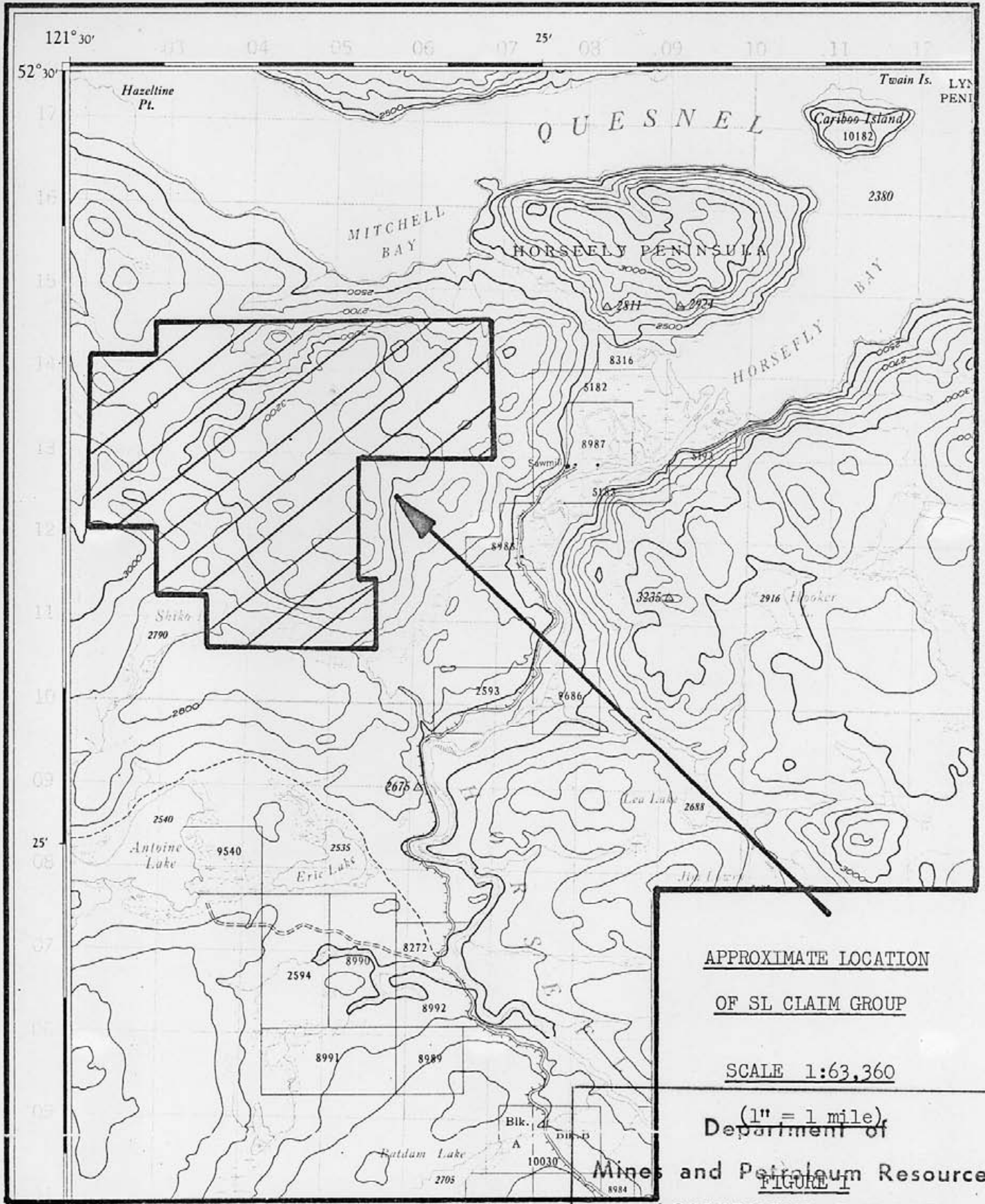
The property can be reached, by two wheel drive vehicle, on a hard surface road from Horsefly to Mitchell Bay. Logging spurs branching south from Mitchell Bay give adequate access to the majority of the property.

### 1.3 Purpose Of The Survey

The purpose of the present IP survey was to search for and outline concentrations of disseminated sulphide mineralization known to occur within a hornblende porphyry cutting a multi-phased stock and within adjoining volcanic breccia rocks.

The SL claims are situated on timbered slopes between Quesnel Lake to the north and Antoine Lake to the south. Relief between Quesnel Lake and small rocky summits within the claim block is about 500 feet.

Much of the commercial timber was removed several years ago; slash from these operations, deadfall, and a dense growth of underbrush cover much of the claim block. Rocky ridges and summits are common in the central part of the claim block. Elsewhere bedrock exposures are rare due to a thick mantle of glacial till that thickens rapidly to the east and north.



APPROXIMATE LOCATION  
OF SL CLAIM GROUP

SCALE 1:63,360

(1" = 1 mile)  
Department of

Mines and Petroleum Resources  
FIGURE 1  
ASSESSMENT REPORT

NO. 4601 ..... MAP #5



## 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 ratio (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

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 MAP

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

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

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

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

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

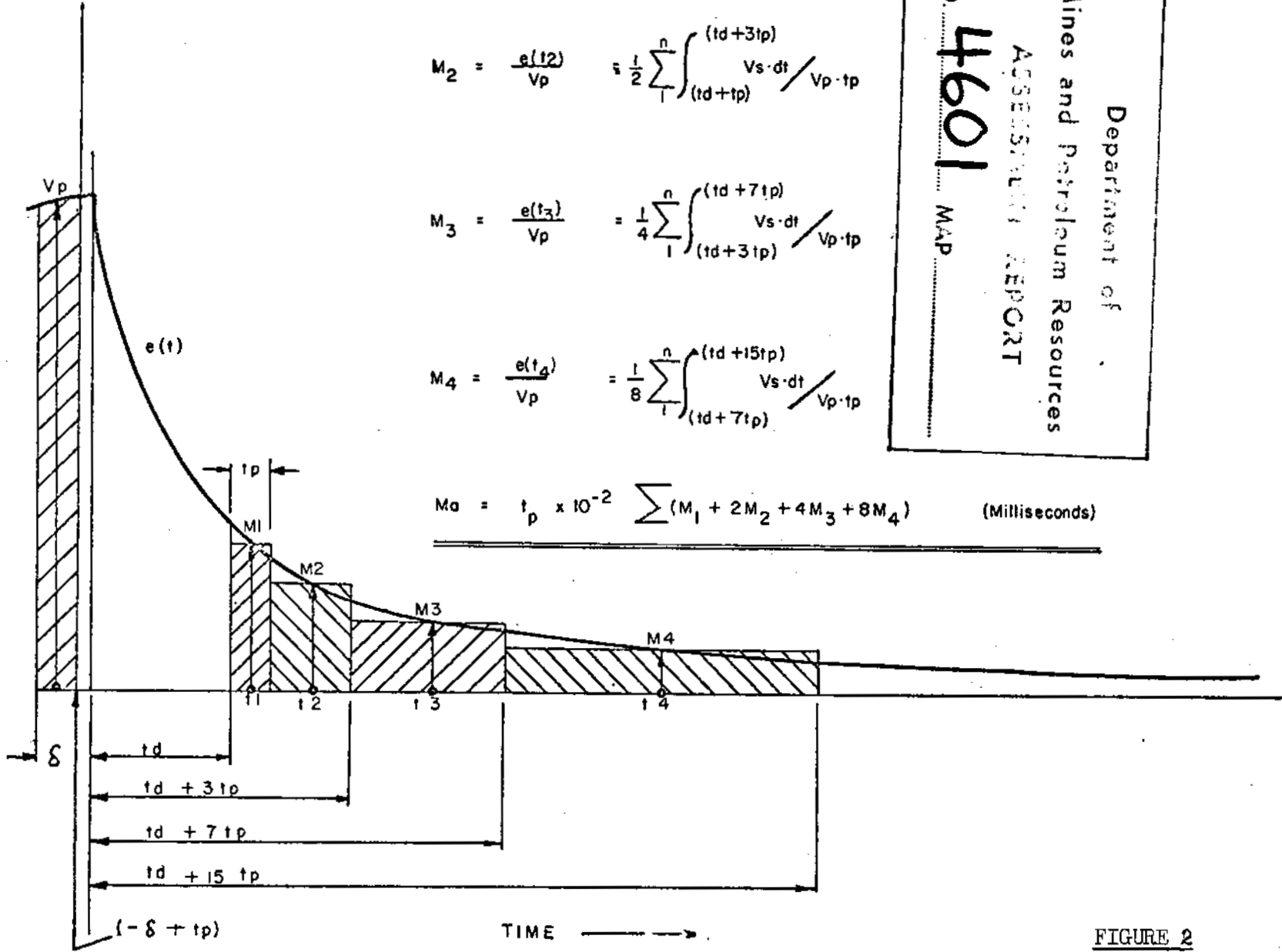


FIGURE 2

values for each of the four sample points ( $t_1$ ), ( $t_2$ ), ( $t_3$ ) and ( $t_4$ ) of Figure 2. These 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 ( $t_p$ ) at 40 milliseconds; this gives 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:-

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

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

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	
		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>
		65	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.

seconds per volt. Therefore data obtained by different transmitters and receivers using different timing and sampling sequences will yield different "millisecond" values over the same orebody or mineralized zone. The interpreter must therefore pay special attention to the transmitter cycling time, the receiver delay time, and the receiver 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 Huntco 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 2.3 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.

The survey lines run approximately east-west and are approximately 500 feet apart. The lines were 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  $n = 2$ . 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 E73179-1 and E73179-2 are contour maps of the apparent chargeability for the first ( $n = 1$ ) and second ( $n = 2$ ) separation measurements respectively. The contour interval is 10 milliseconds for the first separation map and 5 milliseconds for the second separation map.

Map number E73179-3 and E73179-4 are contour maps of the apparent resistivity for the first ( $n = 1$ ) and second ( $n = 2$ ) separation measurements respectively. The contour interval is 500 ohm-metres for both maps.

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, type curves 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 prepared.

#### 5.1 Geology and Mineralization

The property is situated in the eastern part of the Quesnel trough not far from its eastern boundary with metamorphosed rocks of the Cariboo mountains. Rocks in this region consist of a thick succession of submarine volcanics comprising pillow andesite, agglomerate, pillow breccia, heterolithic volcanic breccias (submarine slump breccias), and discontinuous carbonate horizons and several thousand feet of subaerial volcanics consisting of leucite-bearing andesite and related flow-top breccias, volcanic conglomerate and sandstone, tuff, laharic breccia, and well bedded sediments and limestone pebble conglomerate.

Several synvolcanic stocks of diorite, syenodiorite, and syenite occur within the submarine volcanic sequence and represent eroded conduit zones from which much of the volcanic flows and breccias were erupted. One of these intrusive bodies is exposed on the SL claim block. North and

northeast faults are common, and one of these separates submarine volcanic units from subareal types near the south end of the claim block.

The main feature of the prospect is a circular stock about one mile in diameter enclosed by various volcanic breccias and tuff. The stock varies from a marginal phase of augite diorite that grades inward to monzonite and syenite. A late pyrite-rich hornblende porphyry occupies the central and northern parts of the stock and appears to cross-cut older units. An inward-dipping planar foliation has formed along the southeast contact of the stock. Dark brown and maroon coloured volcanic flow breccia and leucite-bearing andesite occupy the southern part of the property and are faulted against west dipping units farther north. Tuff and breccia east of the stock dip westerly at  $50^{\circ}$ . An augite porphyry pillow lava and related pillow breccia and agglomerate lies immediately east of the tuffs and breccias. Pillow structures are common in the upper part of the augite porphyry adjacent to the overlying breccia. Further east is a poorly sorted, chaotic breccia consisting of volcanic clasts in a lithic and crystal matrix of the same composition. Fragments are subangular to subrounded. Much of the southeast part of the property is underlain by an augite porphyry flow breccia consisting of grey and maroon vesicular fragments in a granular, friable matrix.

Dykes of hornblende porphyry, andesite, latite, and syenite are abundant east of the stock. Most strike east and northeast and are undoubtedly derived from the stock complex.

Two zones of interest have been outlined, an area of some 500 x 2000 feet east of the stock and a large pyritic zone associated with the

central hornblende porphyry. The eastern zone occurs in volcanic breccia and in the upper part of the augite porphyry pillow lava. The breccia is highly altered adjacent to the stock where biotite, epidote, and chlorite, and occasionally garnet have formed in the breccia matrix. Sulphides consist predominantly of pyrite, which forms both disseminated aggregates and fracture coatings. Chalcopyrite is often associated but usually finer grained than pyrite, and occurs on fracture surfaces. Bornite and native copper are locally visible in the upper part of the augite porphyry pillow lava and lower part of the volcanic breccia.

The central hornblende porphyry is poorly exposed and only a few outcrops were available for examination. Disseminated chalcopyrite and pyrite were noted in outcrops near the west edge of the unit. Pyrite is abundant throughout and forms disseminated grains and fracture coatings.

#### 5.2 Induced Polarization Survey

The apparent resistivity readings over the IP grid area vary from a few 100 ohm-metres to a few 1000 ohm-metres. In part it reflects varying overburden thicknesses throughout the area. It is difficult to correlate any specific range of resistivity values with any particular rock type, mineralized or otherwise, in this fairly complex geological setting. In view of this metal factor maps could be misleading.

The apparent chargeability readings vary from a few milliseconds to over 70 milliseconds. Here there is a strong correlation between the mineralized zones and the apparent chargeability responses. The following geological/geochemical/geophysical correlations are significant and useful for further exploration of the prospect.

(a) The main anomaly centred just east of the baseline with its strongest expression on lines 80+00N and 85+00N is roughly coincident with a stronger section of a large east-west trending geochemical (copper) anomaly. At this location the underlying volcanic breccia is intensely altered and strongly pyritized. In addition to this the breccia zone is characterized by a strong magnetic response and the altered zone, along the east contact of the stock, shows a prominent magnetic anomaly some 2000 feet long and several hundred feet wide. The IP response (the chargeability parameter) also extends to the south, in a sporadic fashion, for a distance of approximately 2000 feet, appearing to terminate near line 60+00N. A fairly strong linear resistivity low is coincident with this north-south trending zone.

Trench 2 is approximately coincident with the "core" of this anomaly and is situated along the diorite-breccia contact. Pyrite is very abundant throughout (up to 10% by volume) and is associated with chalcopyrite and locally chalcocite. Sulphides form disseminated grains, crystal aggregates and fracture coatings. Here the best assay results, a 5-foot chip sample, returned 0.97% copper and 3.44 ppm gold (0.10 oz./ton). Secondary chalcocite contributes largely to the high copper values at this location. This suggests secondary enrichment zones within the breccia, which in turn greatly enhances the exploration potential of the prospect.

(b) A second anomaly located on the east end of lines 80+00N, 85+00N and 90+00N has a strong apparent chargeability response and is associated with an apparent resistivity low of moderate magnitude. This anomaly correlates roughly with an "eye" in the large geochemical (copper) anomaly and is underlain by the favourable volcanic breccia host rock.

(c) A third anomaly located on the west end of lines 80+00N, 90+00N, 100+00N and 110+00N has a very strong apparent chargeability response associated with varying apparent resistivity values caused mainly by variations in overburden thickness. The anomaly is large in both amplitude and lateral extent and remains open to the north, south and west. It is known to be associated in part with pyritic hornblende porphyry rocks. In the extreme northwest of the area however it is underlain by volcanic breccia and is close to a geochemical "eye" in the main soil anomaly and encompasses trench 5 which contains minor amounts of copper.

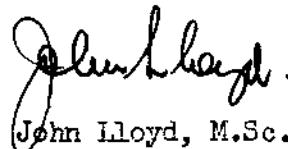
6. CONCLUSIONS AND RECOMMENDATIONS

From a study of the IP data obtained on the survey described in this report along with the available geological, geochemical and magnetometer survey data it has been concluded that:-

- (A) The 3 major IP responses obtained to date overlie zones of disseminated sulphide mineralization.
- (B) Based on assay results obtained from samples taken from several trenches on the property there is, in general, a direct relation between copper grade and the induced polarization response.

In view of the favourable geological, geochemical, geophysical and assay results obtained to date, it is recommended that, at the end of the present field season, these data be carefully compiled, correlated and interpreted with a view to selecting suitable drill locations for further exploration of the property.

Respectfully submitted,  
EAGLE GEOPHYSICS LIMITED,

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

September 1973

APPENDIX

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.

Vancouver, B. C.

September 1973

John Lloyd, P. Eng.





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 was provided at an additional cost. The charges for the field work were \$4,255.37 and for the office work \$225.00. Therefore the total cost of all services provided by Eagle Geophysics Limited was \$4,480.37.

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.

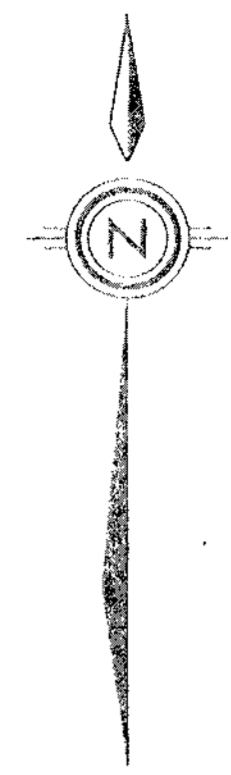
"Geochemical And Geophysical Report On The SL Claims", August 25, 1973.

PERSONNEL EMPLOYED ON SURVEY

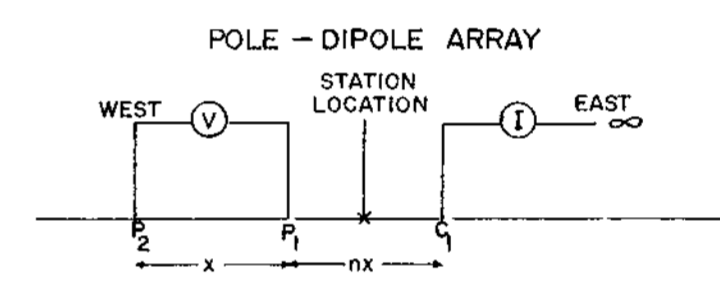
Eagle Geophysics Limited provided the following personnel to complete the field work and report writing of the IP survey described in this report:-

<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.	July 5 to July 14, 1973 Sept. 19, 20, 1973
L. D. Brydle	Geophysicist	"	July 5 to July 14, 1973
D. S. Coote	Geophysicist	"	July 5 to July 14, 1973
T. Pickard	Helper	"	July 5 to July 14, 1973
D. Chantler	Helper	"	July 5 to July 14, 1973
Mrs. A. Appel	Secretary	"	Sept. 20, 1973

Drafting of the final IP maps was carried out by Fox Geological Consultants Limited in Kamloops, British Columbia.



LEGEND



- NOTES (1) ALL LINES WERE SURVEYED USING THIS ARRAY  
 (2) FOR ALL LINES SURVEYED THE MEASURING DIPOLE  $P_1P_2$  WAS TO THE WEST OF THE LEADING CURRENT ELECTRODE  $C_1$   
 (3) MEASUREMENTS ARE FOR  $x=200$  FEET ;  $n=1$

CONTOURS OF APPARENT CHARGEABILITY  
 CONTOUR INTERVAL 10 MILLISECONDS

FOX GEOLOGICAL CONSULTANTS LIMITED  
 SL CLAIM GROUP, CARIBOO MINING DIVISION, B.C.

**TIME DOMAIN  
 INDUCED POLARIZATION SURVEY**

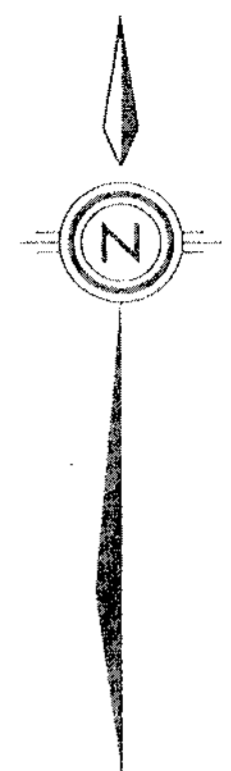
FIRST SEPARATION CONTOURS OF APPARENT CHARGEABILITY  
 $x = 200$  FEET ;  $n = 1$

Department of  
 Mines and Petroleum Resources  
 INVESTIGATION REPORT  
**4601 MAP #1**

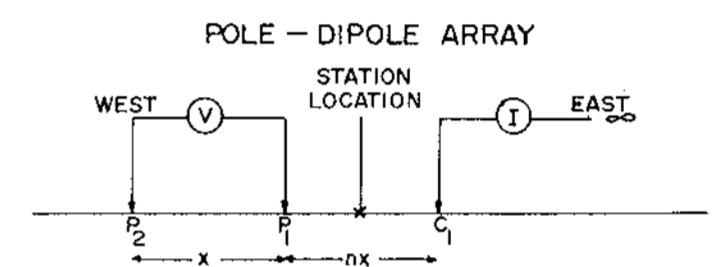
EAGLE GEOPHYSICS LTD  
 JULY 1973

MAP NUMBER E73179-1  
 To accompany report by:  
*John Lloyd*  
 John Lloyd M.Sc., P.Eng.

**4601-M1**



**LEGEND**



- NOTES (1) ALL LINES WERE SURVEYED USING THIS ARRAY  
 (2) FOR ALL LINES SURVEYED THE MEASURING DIPOLE P<sub>1</sub>P<sub>2</sub> WAS TO THE WEST OF THE LEADING CURRENT ELECTRODE C<sub>1</sub>  
 (3) MEASUREMENTS ARE FOR x=200 FEET ; n=2

CONTOURS OF APPARENT CHARGEABILITY  
 CONTOUR INTERVAL 5 MILLISECONDS

FOX GEOLOGICAL CONSULTANTS LIMITED  
 SL CLAIM GROUP, CARIBOO MINING DIVISION, B.C.

**TIME DOMAIN  
 INDUCED POLARIZATION SURVEY**

SECOND-SEPARATION CONTOURS OF APPARENT CHARGEABILITY

x=200 FEET ; n=2

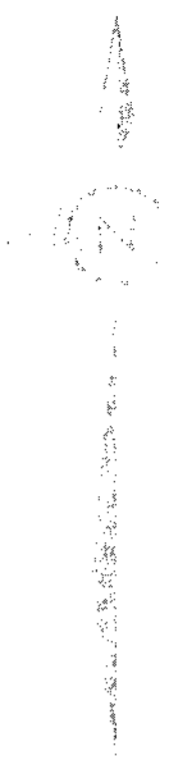
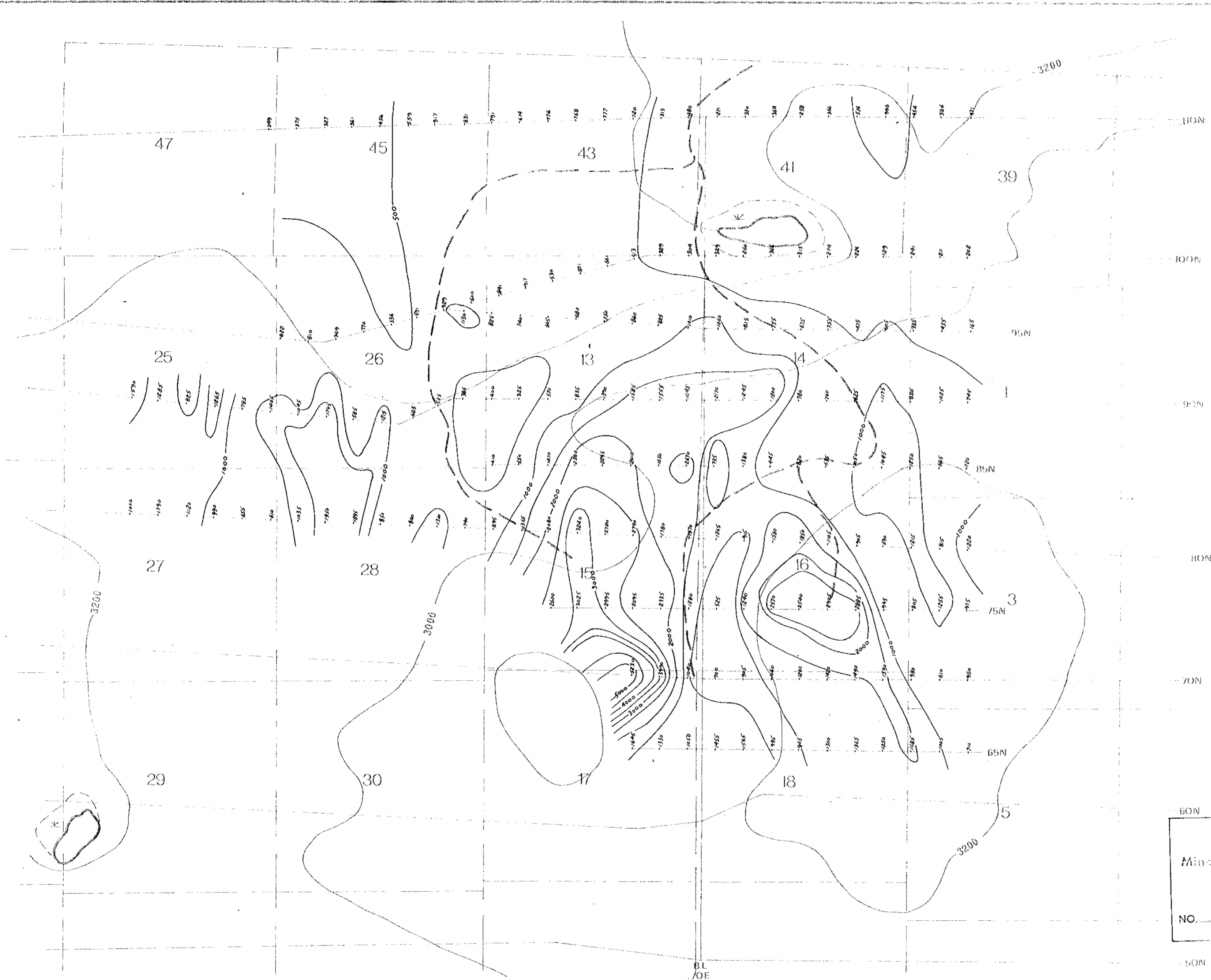
Department of  
 Mines and Technical Resources  
 ANALYTICAL REPORT  
 NO. **4601** MAP #2

SCALE IN FEET

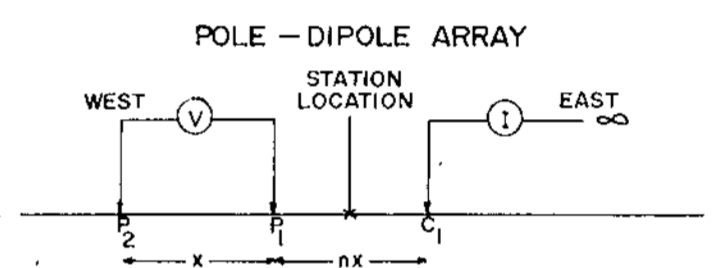
MAP NUMBER E73179-2  
 To accompany report by:  
*John Lloyd*  
 John Lloyd M.Sc. P.Eng.

EAGLE GEOPHYSICS LTD  
 JULY 1973

4601-M2



**LEGEND**



- NOTES (1) ALL LINES WERE SURVEYED USING THIS ARRAY  
 (2) FOR ALL LINES SURVEYED THE MEASURING DIPOLE P<sub>1</sub>P<sub>2</sub> WAS TO THE WEST OF THE LEADING CURRENT ELECTRODE C<sub>1</sub>  
 (3) MEASUREMENTS ARE FOR x=200 FEET ; n=1

CONTOURS OF APPARENT RESISTIVITY  
 CONTOUR INTERVAL 500 OHM-METRES

FOX GEOLOGICAL CONSULTANTS LIMITED  
 SL CLAIM GROUP, CARIBOO MINING DIVISION, B.C.

**TIME DOMAIN  
 INDUCED POLARIZATION SURVEY**

FIRST SEPARATION CONTOURS OF APPARENT RESISTIVITY

x= 200 FEET ; n=1

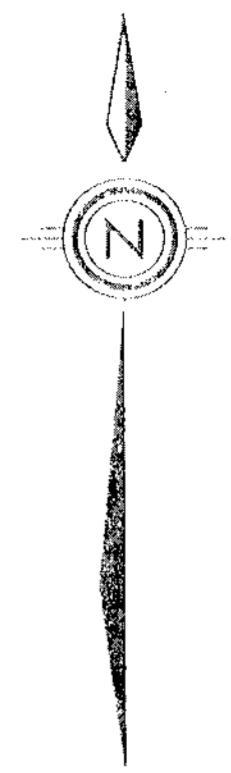
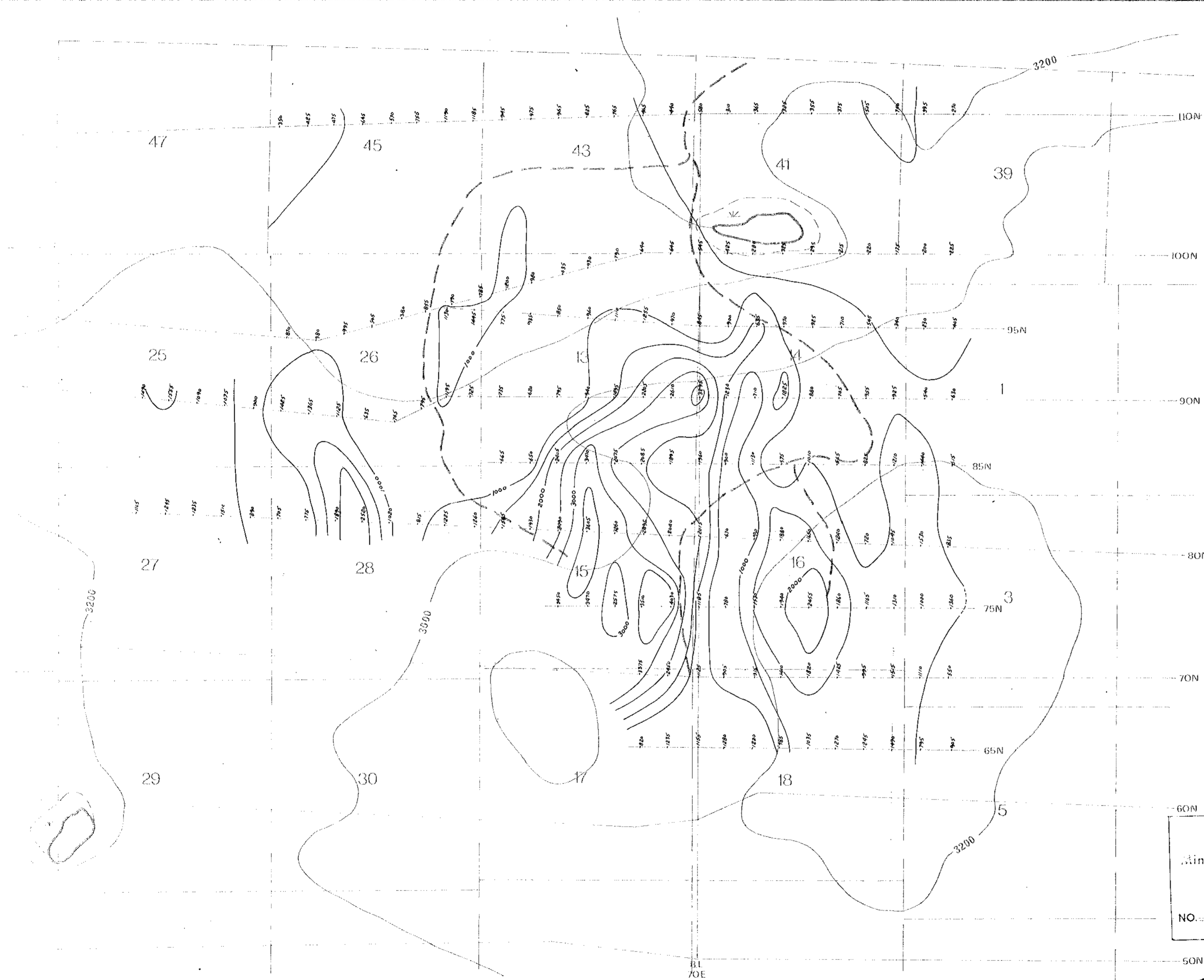
Department of  
 Mineral and Petroleum Resources  
 TECHNICAL REPORT  
 NO. **4601** MAP #3

SCALE IN FEET

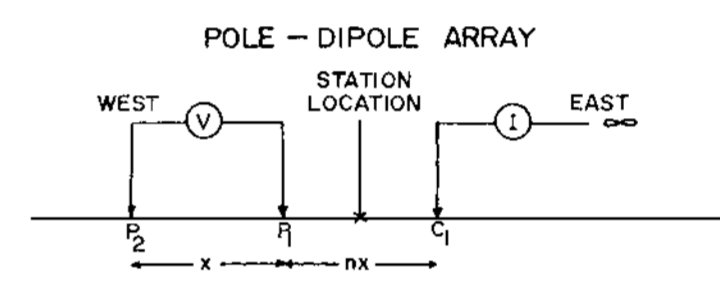
MAP NUMBER E73179-3  
 To accompany report by:  
*John Lloyd*  
 John Lloyd M.Sc., P.Eng.

EAGLE GEOPHYSICS LTD  
 JULY 1973

4601-M3



**LEGEND**



- NOTES (1) ALL LINES WERE SURVEYED USING THIS ARRAY  
 (2) FOR ALL LINES SURVEYED THE MEASURING DIPOLE P P WAS TO THE WEST OF THE LEADING CURRENT ELECTRODE C  
 (3) MEASUREMENTS ARE FOR  $x=200$  FEET ;  $n=2$

CONTOURS OF APPARENT RESISTIVITY  
 CONTOUR INTERVAL 500 OHM-METRES

FOX GEOLOGICAL CONSULTANTS LIMITED  
 SL CLAIM GROUP, CARIBOO MINING DIVISION, B.C.

**TIME DOMAIN  
 INDUCED POLARIZATION SURVEY**

SECOND SEPARATION CONTOURS OF APPARENT RESISTIVITY

$x=200$  FEET ;  $n=2$

Department of  
 Mines and Petroleum Resources  
 BRITISH COLUMBIA  
 NO. **4601** MAP #4

SCALE IN FEET

EAGLE GEOPHYSICS LTD  
 JULY 1973

MAP NUMBER E73179-4  
 To accompany report by:  
*John Lloyd*  
 John Lloyd M.Sc. P. Eng.

4601-MA