

PHOENIX GEOPHYSICS LIMITED

REPORT ON THE
CONTINUATION OF THE
INDUCED POLARIZATION AND RESISTIVITY SURVEY
ON THE

SNOWFLAKE CLAIMS
NICOLA MINING DIVISION
BRITISH COLUMBIA

FOR

LORNEX MINING CORPORATION LIMITED

FILMED

Latitude: 49°58'¹N Longitude: 120°35'^W
34.5'

N.T.S 92H/15E

Claims: Snowflake 7

Owner: Quilchena Resources Ltd. and Laramide Resources Ltd.

Operator: Lornex Mining Corporation Ltd.

BY

Paul A. Cartwright, B.Sc.,
Geophysicist

Michael J. Cormier, B.Sc.,
Geophysicist

GEOLOGICAL BRANCH
ASSESSMENT REPORT
Dated: 5 June 1986

14,983

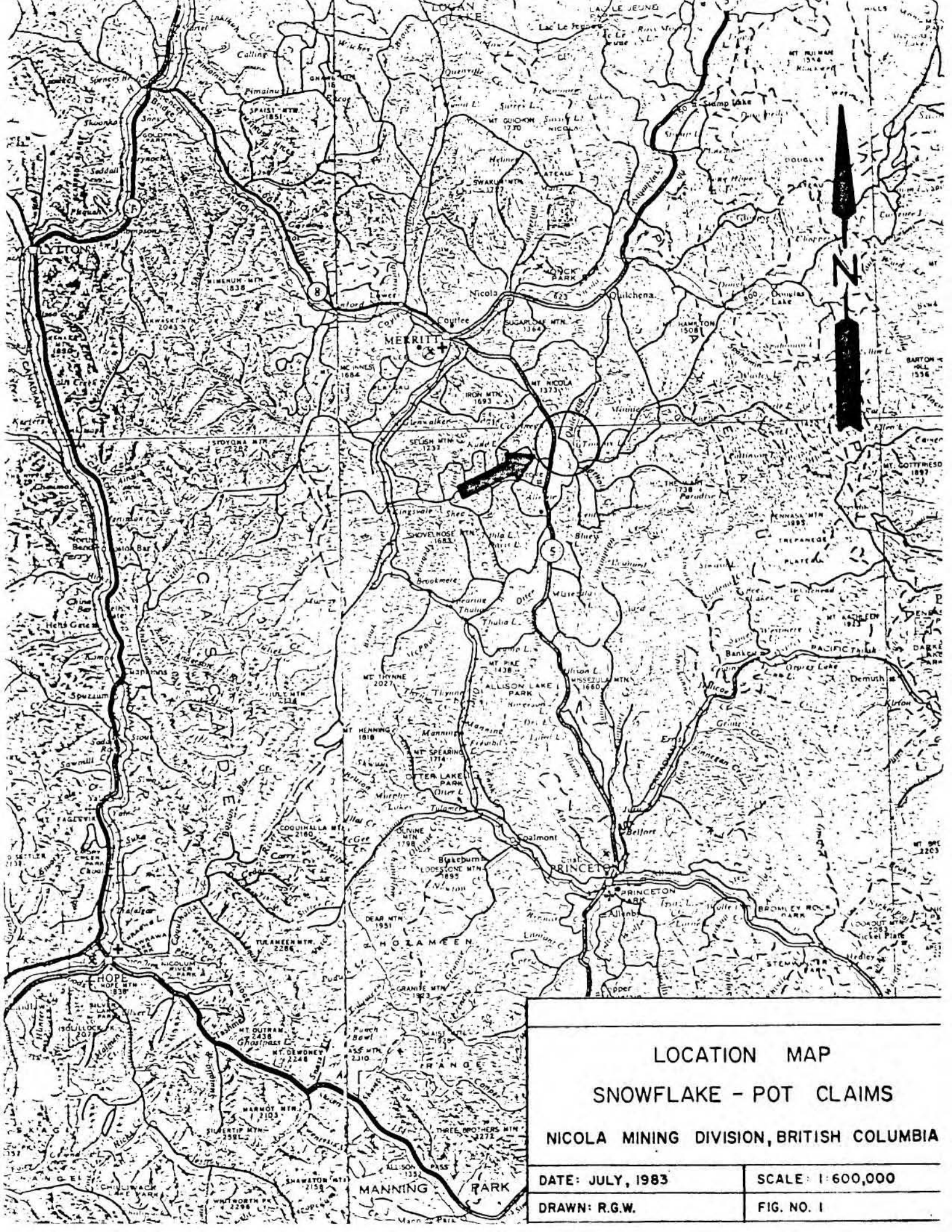
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Claim Map	Figure 2



LOCATION MAP
 SNOWFLAKE - POT CLAIMS

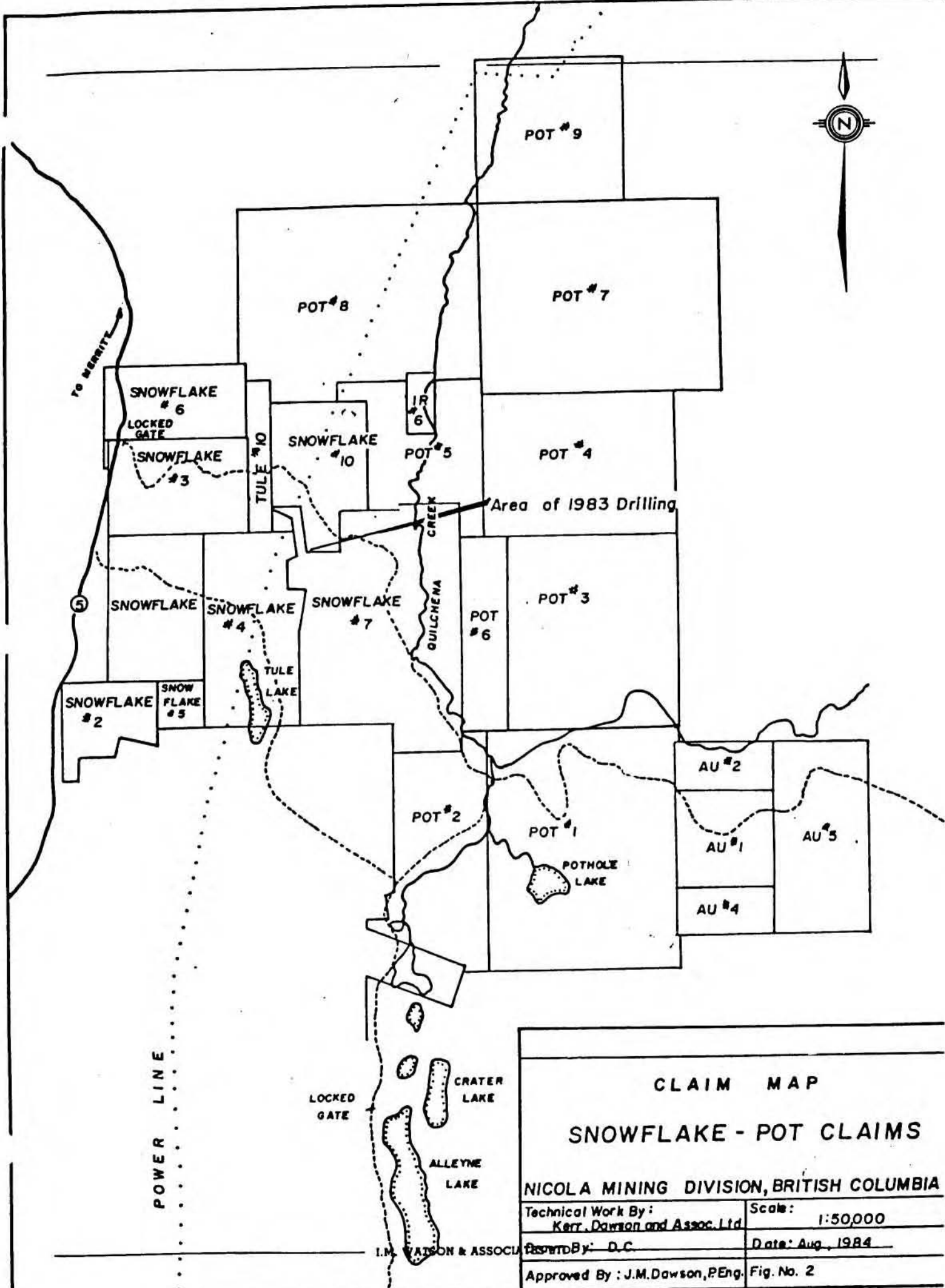
NICOLA MINING DIVISION, BRITISH COLUMBIA

DATE: JULY, 1983

SCALE: 1:600,000

DRAWN: R.G.W.

FIG. NO. I



TO MERRITT

5

SNOWFLAKE #6

LOCKED GATE

SNOWFLAKE #3

TULE #10

SNOWFLAKE #10

IR #6

POT #5

POT #9

POT #8

POT #7

POT #4

Area of 1983 Drilling

POT #6

POT #3

SNOWFLAKE

SNOWFLAKE #4

SNOWFLAKE #7

POT #2

POT #1

POT HOLE LAKE

AU #2

AU #1

AU #5

AU #4

POWER LINE

LOCKED GATE

CRATER LAKE

ALLEYNE LAKE

CLAIM MAP

SNOWFLAKE - POT CLAIMS

NICOLA MINING DIVISION, BRITISH COLUMBIA

Technical Work By: Kerr, Dawson and Assoc. Ltd. Scale: 1:50,000

Drawn By: D.C. Date: Aug, 1984

Approved By: J.M. Dawson, P.Eng. Fig. No. 2

I.M. WATSON & ASSOCIATES

1. INTRODUCTION

An Induced Polarization and Resistivity Survey has been completed on the Snowflake Claims, Nicola Mining Division, British Columbia, on behalf of Lornex Mining Corporation Ltd. This survey is a continuation of other I.P. and Resistivity surveys carried out during May, 1983 and January 1985.

The property is located approximately 5 km northeast of the community of Aspen Grove, B.C. Access is via 4 km of gravel road which turns east off Highway 5, about 4 km north of Aspen Grove, B.C.

The following geological description of the project area has been provided by the staff of Laramide Resources Ltd.

"The Aspen Grove Area is within a terrain commonly referred to as the Nicola belt, a eugeosynclinal Upper Triassic island-arc rock assemblage. Massive andesitic flows and coarse pyroclastic rocks predominate in the central part of the area and a sequence of layered and massive volcanogenic rocks predominate along the eastern margin. The southwestern section of the area is underlain by intercalated volcanoclastic rocks, flows, and calcareous sedimentary rocks that are partly covered by coarse volcanic breccia.

A sequence of massive red to purple and green augite porphyry flows, coarse volcanic breccia and dioritized volcanics is present in the central part of the region. This sequence may indicate the existence of a central zone of partly subaerial volcanic centres.

Intrusive rocks within the area are mainly dioritic and appear to be part comagmatic with the Nicola volcanic rocks because of similar composition and gradational relationships. Several small areas of monzonite and/or syenite are found within the belt.

The structure of the Aspen area is dominated by two regional, northerly-trending faults about 4 kilometres apart. They are linked by many splays and a terrain shattered by brittle fracture. In contrast, folding is obscure and may be slight except for drag near faults.

The Snowflake property is underlain by a sequence of flows, volcanic fragmentals and related volcanoclastic sediments intruded by a mass of diorite-monzonite on the west-central portion of the property, and by plugs of diorite, diorite porphyry, and diorite-monzonite on the eastern side of the property."

Previous work included ground magnetics, geological mapping, induced polarization, soil and rock geochemistry, VLF electromagnetics, and a considerable amount of drilling and trenching by at least seven different operators.

The previous IP work completed during 1983 and 1985 outlined a number of anomalous zones. One of these trends, Zone B, has been drill tested and encouraging gold values intersected.

Objective of the present IP and Resistivity Survey was to confirm the extent of IP zones outlined by previous surveys and to detect possible new zones.

A Phoenix Model IPV-1 IP and Resistivity receiver unit was used in conjunction with a Phoenix Model IPT-1 IP and Resistivity transmitter powered by a 1 kw motor-generator. IP effect is recorded directly as Percent Frequency Effect (P.F.E.) at operating frequencies of 4.0Hz and 0.25Hz. Apparent resistivity values are normalized in units of ohm-meters, while Metal Factor values are calculated according to the formula: $M.F. = (P.F.E. \times 1000) / \text{Apparent Resistivity}$

Dipole-dipole array was utilized to make the measurements with a basic interelectrode distance of 50 meters. Four dipole separations were recorded in every case.

Field work was carried out during May 1986, initially under the supervision of Paul A. Cartwright, B.Sc., and later under Michael J. Cormier, B.Sc. Both of their certificates of qualifications are included with this report.

2. DESCRIPTION OF CLAIMS

Geophysical work was conducted entirely on the Snowflake 7 claim, which is one of eight claims forming the Snowflake "B" Group. Claim data for this group is compiled below. The "Snowflake" claims are owned by Quilchena Resources Ltd. and subject to an option agreement with Lornex Mining Corporation Ltd. The "Pot" claims are owned by Laramide Resources Ltd.

<u>Claim</u>	<u>Units</u>	<u>Record No.</u>	<u>Date Recorded</u>
Snowflake 2	4	93	14 April 1976
Snowflake 4	8	211	11 Feb. 1977
Snowflake 5	2	212	11 Feb. 1977
Snowflake 7	20	470	15 June 1978
Pot 1	20	1516	19 July 1984
Pot 2	15	1517	19 July 1984
Pot 3	20	1536	3 Aug. 1984
Pot 6	5	1518	19 July 1984

3. PRESENTATION OF DATA

The Induced Polarization and Resistivity results are shown on the following data plots in the manner described in Part B of this report.

Line	Electrode Interval	Dwg. No.
200 + 00N	50 Meters	IP-5870-1
198 + 00N	50 Meters	IP-5870-2
194 + 00N	50 Meters	IP-5870-3
193 + 00N	50 Meters	IP-5870-4
192 + 00N	50 Meters	IP-5870-5
191 + 00N	50 Meters	IP-5870-6
190 + 00N	50 Meters	IP-5870-7
189 + 00N	50 Meters	IP-5870-8
187 + 00N	50 Meters	IP-5870-9
186 + 00N	50 Meters	IP-5870-10

Also enclosed with this report is Dwg. No. I.P.P.-B-4147A and Dwg. No. I.P.P.-B-4147B, plan maps of the Snowflake Grid at a scale of 1:5,000 showing the contoured, Fraser-filtered, Percent Frequency Effect and Apparent Resistivity values respectively. The definite, probable and possible Induced Polarization anomalies are also indicated by bars, in the manner shown on the legend, on this plan map as well as on the data plots. These bars represent the surface projection of the anomalous zones as interpreted from the location of the transmitter and receiver electrodes when the anomalous values were measured.

Since the Induced Polarization measurement is essentially an averaging process, as are all potential methods, it is frequently difficult to exactly pinpoint the source of an anomaly. Certainly, no anomaly can be located with more accuracy than the electrode interval length; i.e. when using 50 meter electrode interval the position of a narrow sulphide body can only be determined

to lie between two stations 50 meter apart. In order to definitely locate, and fully evaluate a narrow, shallow source, it is necessary to use shorter electrode intervals. In order to locate sources at some depth, larger electrode intervals must be used, with a corresponding increase in the uncertainties of location. Therefore, while the centre of the indicated anomaly probably corresponds fairly well with the source, the length of the indicated anomaly along the line should not be taken to represent the exact edges of the anomalous material.

The topographic, claim, and grid information shown on Dwg. No. I.P.P.-B-4147A and Dwg. No. I.P.P.-B4147B has been taken from maps made available by the staff of Lornex Mining Corporation Ltd.

4. DISCUSSION OF RESULTS

The present IP and Resistivity survey work is a continuation of other IP programs carried out on the Snowflake property during 1983 and 1985. The reader is referred to reports dated July 14, 1983, and March 8, 1985 by this author for discussions of results of this earlier work. However, plan maps Dwg. No. I.P.P.-B-4147A, and Dwg. No. I.P.P.-B-4147B form part of the present report, and show the most recent interpretation using all available IP data. The anomalous IP zones marked on the above plan maps are discussed in the following paragraphs.

Zone A

This feature is outlined as a more or less continuous zone of anomalous IP effects striking along the southwestern margin of the survey grid. Generally speaking, the apparent resistivity values accompanying the zone are neither higher or lower than background, which suggests that the source of the trend is disseminated metallic mineralization. Data acquired during 1983 on Line 20400N (Line 4NW) exhibits the most interesting signature recorded over the northern part of Zone A, while the southern portion of the zone is best outlined by the results obtained on Line 19100N

and Line 19000N. In the latter cases, the sources of the anomalous IP effects are interpreted to be at least 50 meters in width, while a much narrower source is indicated to be present under Line 20400N. In every case the depth to the top of the causative source is less than 50 meters.

Zone A1

Zone A1 is shown as a separate trend, enechelon with the southern end of Zone A. However it is quite possible that the source of Zone A1 is the same as that which gives rise to Zone A, as the magnitude and character of the individual anomalies comprising the two zones are very similar.

Zone B, B1

The source of the relatively high magnitude IP effects constituting Zone B may extend beyond the northwestern edge of the survey grid as Zone B1, a much less anomalous feature.

Some drilling has apparently been carried out to test the northern part of Zone B, and interesting concentrations of gold mineralization have been intersected. Virtually all of the anomalies comprising Zone B show the same patterns, with relatively wide areas of quite disseminated material being indicated to be present surrounding a much narrower core of somewhat more conductive mineralization. Again, depths to the top of the causative sources do not appear to exceed 50 meters subsurface.

Zone B3

This short, narrow zone is the most anomalous trend detected by the IP surveys conducted to date on the Snowflake grid. High magnitude IP effects are noted coincident with distinctly lower than background resistivity values. A quite conductive, and polarizable source is interpreted to be present, and to have a width of less than 50 meters, and to be buried less

than 50 meters below the surface. Data recorded in the vicinity of the zone on line 19300N displays the most anomalous results.

Zone C

This zone is outlined by data acquired during the 1983 survey. The following discussion has been taken from the July 14, 1983 report by this author:

"Generally speaking, weakly anomalous IP effects mark IP Zone C, which extends southeastward from the vicinity of Line 6+00NW (Line 20600N), Station 1+50SW (Station 19850E) to beyond Line 3+00NW (Line 20300N). As was the case of Zone B, the anomalous IP readings lie along the flank of a zone of higher resistivity values, although in this instance, the high resistivity measurements are situated to the northeast of the IP trend. Again, there does not appear to be a zone of increased conductivity associated with the interesting IP values, thus suggesting that weakly disseminated mineralization is the source of Zone C."

Zone C1

Zone C1 is interpreted to strike across the northeastern part of Line 19100N, Line 19000N, and Line 18900N, with the most anomalous response being evident in the data recorded on Line 19000N, between Station 19350E and Station 19400E. A relatively wide body of mainly disseminated material similar in nature to the Zone C source appears to be the cause of Zone C1.

Zone D1, Zone D2

The following description has been taken from the previous report by this author dated July 14, 1983:

"It is not certain if Zone D1 and Zone D2 represent the same source, as there is considerable displacement of the anomalies involved between Line 8+00NW (Line 20800N) and Line 6+00NW (Line 20600N). In addition, the character of the individual anomalies changes considerably between the two lines, with a much more conductive source being indicated to underlie Line 8+00NW (Line 20800N) (Zone D1).

The source of Zone D2 on the other hand, does not appear to be nearly as conductive, and is outlined primarily as a zone of increased polarizability forming the southwestern edge of a resistive rock unit, which itself gives rise to very weakly anomalous P.F.E. values. Evidently, a very weakly mineralized rock unit is present, with Zone D2 outlining a region of slightly more concentrated mineralization along the southwestern margin."

Zone D3

This feature is thought to be the southern extension of Zone D2, although this interpretation is open to error due to the sporadic coverage available at present. The source of Zone D3 is best outlined by moderately anomalous Frequency Effects recorded on the extreme northeastern ends of Line 18700N and Line 18600N.

Zone E

Zone E is detected by the 1983 survey coverage as a zone of weakly to moderately anomalous IP effects striking across the northeastern ends of Line 20800N, Line 20600N and Line 20500N. As mentioned in the report describing the previous work by the author dated July 14, 1983, Zone E may be marking the northeastern margin of the very weakly mineralized rock unit mentioned in the discussion on Zone D2.

5. SUMMARY AND RECOMMENDATIONS

Additional Induced Polarization and Resistivity surveys have been completed on the Snowflake Property, Nicola M.D., B.C. on behalf of Lornex Mining Corp. Ltd. This work is a direct continuation of other IP surveying carried out during 1983, and 1985, and has detected several new anomalous zones, as well as better outlining and defining many of the previously indicated trends.

Zone B3 deserves special mention due to its very anomalous nature. In this regard, it is the author's understanding that a diamond drilling program is underway at the present time and has intersected the source of Zone B3.

Drill testing of the other IP zones outlined should be considered. Drilling priorities should be established by reviewing and compiling all other available data.

PHOENIX GEOPHYSICS LIMITED



Paul A. Cartwright, B.Sc.,
Geophysicist.



Michael J. Cormier, B.Sc.,
Geophysicist.

Dated: 5 June 1986.

ASSESSMENT DETAILS

PROPERTY: Snowflake **MINING DIVISION:** Nicola
SPONSOR: Lornex Mining Corporation Ltd. **PROVINCE:** British Columbia
LOCATION: 5 km North of Aspen Grove, B.C.
TYPE OF SURVEY: Induced Polarization and Resistivity
OPERATING MAN DAYS: 33 **DATE STARTED:** 7 May 1986
EQUIVALENT 8HR. MAN DAYS: 49.5 **DATE FINISHED:** 18 May 1986
CONSULTING MAN DAYS: 5 **NUMBER OF STATIONS:** 247
DRAFTING MAN DAYS: 5 **NUMBER OF READINGS:** 1573
TOTAL MAN DAYS: 59.5 **KILOMETERS OF LINE SURVEYED:** 11.85

CONSULTANTS:

Paul A. Cartwright, 4238 West 11th Avenue, Vancouver, B. C.
Michael J. Cormier, 1842 West 5th Avenue, Vancouver, B. C.

FIELD TECHNICIANS:

K. Corman, 5711 No. 2 Road, Richmond, B.C.
S. Cormier, 164 Main Street, Antigonish, N.S.

DRAUGHTSMEN:

R. Wakaluk, 7865 Vivian Drive, Vancouver, B. C.

PHOENIX GEOPHYSICS LIMITED

Paul A. Cartwright

Paul A. Cartwright, B.Sc.
Geophysicist.

DATED: 5 June 1986

STATEMENT OF COSTS

Lornex Mining Corporation Limited

Induced Polarization and Resistivity Survey

Snowflake Property, Nicola Mining Division, B. C.**Crew:** P. Cartwright, M. Cormier, K. Corman**Period:** 7 May 1986 to 13 May 1986**Crew:** M. Cormier, K. Corman, S. Cormier**Period:** May 14, 1986 to May 18, 1986

11 Operating Days @ \$1,100.00 per day	\$12,100.00
1/2 day Bad Weather Day @ \$550.00 per day	275.00
Mobilization - demobilization	1,200.00

SUB- TOTAL

\$13,575.00
=====

PHOENIX GEOPHYSICS LIMITED

*Paul A. Cartwright*Paul A. Cartwright, B.Sc.
Geophysicist**Dated:** 5 June 1986Line-cutting for Geophysical Survey

R. Gibbs April 30 - May 7 @ \$95/day	\$760.00
R. Krawinkel April 30 - May 7 @ \$90/day	\$720.00
Room & Board	\$690.50
Supplies	\$179.50

SUB-TOTAL \$2,350.00TOTAL \$15,925.00

CERTIFICATE

I, Paul A. Cartwright, of the City of Vancouver, Province of British Columbia, do hereby certify:

1. I am a geophysicist residing at 4238 West 11th Avenue, Vancouver, B.C.
2. I am a graduate of the University of British Columbia, with a B.Sc. Degree (1970).
3. I am a member of the Society of Exploration Geophysicists, The European Association of Exploration Geophysicists and the Canadian Society of Exploration Geophysicists.
4. I have been practising my profession for 16 years.
5. I am a Professional Geophysicist licenced in the Province of Alberta
6. I have no direct or indirect interest, not do I expect to receive any interest, directly or indirectly, in the property or securities of Laramide Resources Ltd. or Lornex Mining Corporation Ltd., or any other affiliates.
7. The statements made in this report are based on a study of published geological literature and unpublished reports.
8. Permission is granted to use in whole or in part for assessment and qualification requirements but not for advertising purposes.

DATED AT VANCOUVER, BRITISH COLUMBIA, this 5th day of June 1986.


Paul A. Cartwright, B.Sc.

CERTIFICATE

I, Michael J. Cormier, of the City of Vancouver, Province of British Columbia, do hereby certify that:

1. I am a geophysicist residing at 2242 Stephen Street, Vancouver, British Columbia.
2. I am a graduate of McGill University, Montreal, Quebec with a B.Sc. Degree (1981).
3. I have been practising my profession for 5 years.
4. I have no direct or indirect interest, nor do I expect to receive any interest, directly or indirectly, in the property or securities of Laramide Resources Ltd. or Lornex Mining Corp. Ltd., or any affiliates.
5. The statements made in this report are based on a study of published geological literature and unpublished private reports.
6. Permission is granted to use in whole or in part for assessment and qualification requirements but not for advertising purposes.

DATED at Vancouver, B.C. this 5th day of June 1986.


Michael J. Cormier, B.Sc.

PART B

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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. can be useful values

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 cannot 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 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 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 at the top of the data profile, above the metal factor values. On a third line, below the metal factor values, are plotted the values of the percent frequency effect. 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 the 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.

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 noisy 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 ().

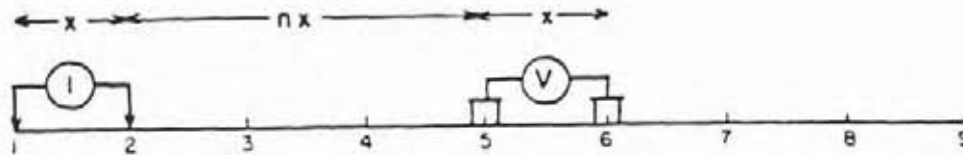
In certain situations negative values of Apparent Frequency Effect are recorded. This may be due to the geologic

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.

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



Stations on line

x = Electrode spread length
 n = Electrode separation

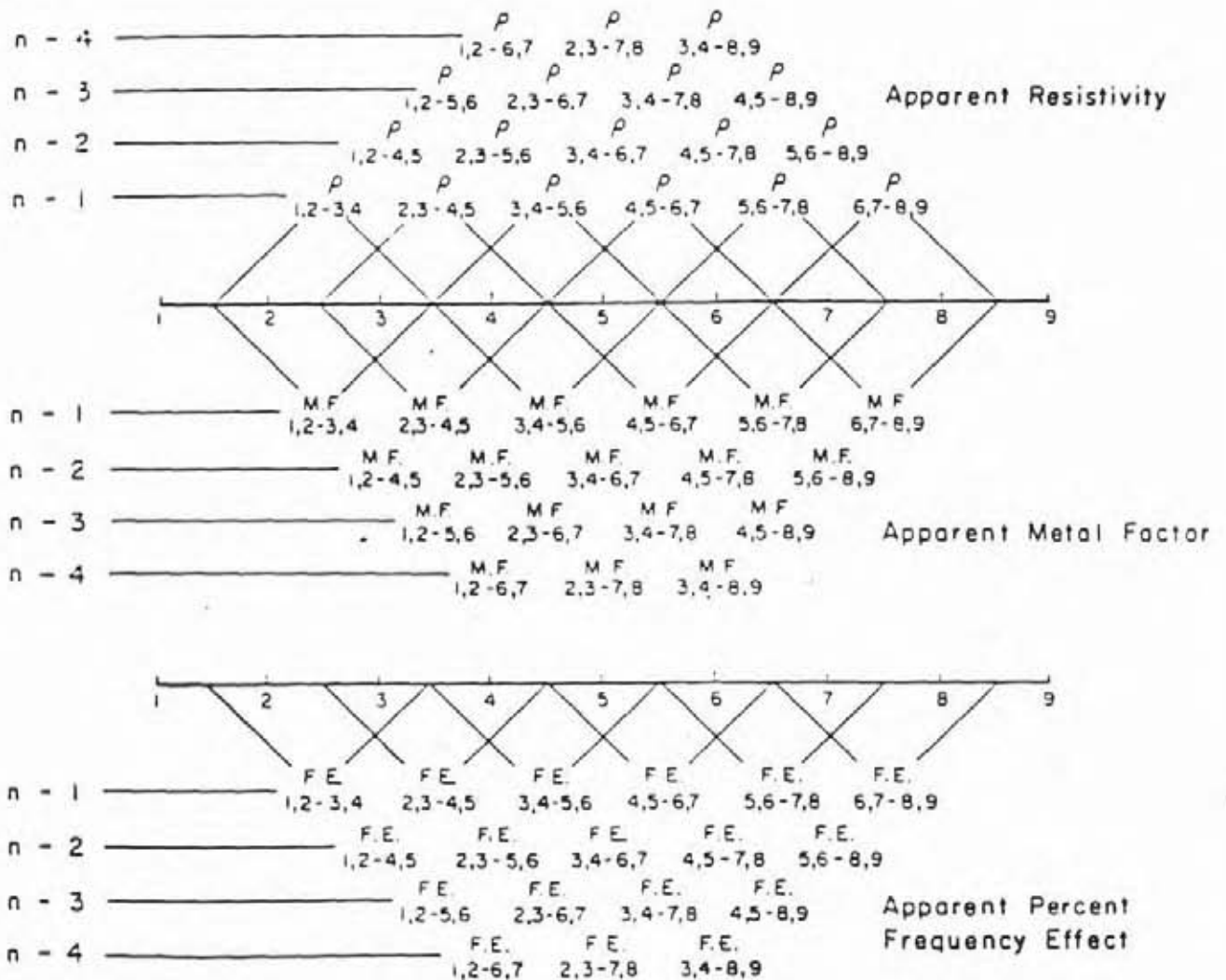


Fig. A

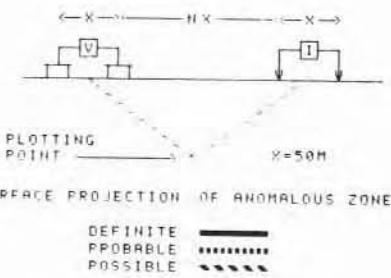
LORNEX SNOWFLAKE L200+00N		X=50M RHO (OHM-M)																		
DIPOLE NUMBER	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
COORDINATE	19000E	19100E	19200E	19300E	19400E	19500E	19600E	19700E	19800E	19900E										
N=1	607	445	294	436	301	413	317	356	243	297	236	417	599	177	72	59	55	94	61	75
N=2	738	566	458	564	269	383	503	348	272	357	367	206	161	199	119	70	82	99	64	
N=3	735	797	549	455	245	562	469	368	308	542	189	106	156	291	148	120	86	101		
N=4	956	1077	446	400	342	467	469	399	465	284	109	108	266	343	193	99	83			
N=5																				
N=6																				

LORNEX MINING CORP.

SNOWFLAKE
NICOLA M D I B C

LINE NO -200+00N

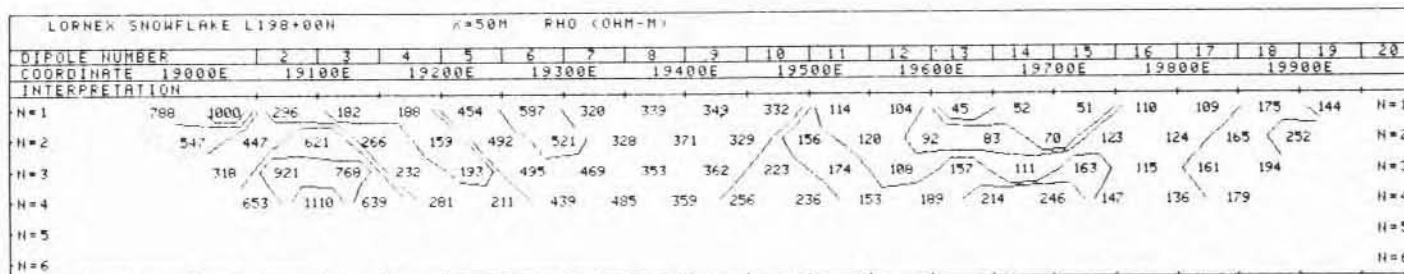
LORNEX SNOWFLAKE L200+00N		X=50M PFE																		
DIPOLE NUMBER	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
COORDINATE	19000E	19100E	19200E	19300E	19400E	19500E	19600E	19700E	19800E	19900E										
N=1	1.6	1.3	1.1	1.3	1.3	2	2.1	2.9	3	2.7	2.5	1.7	1.8	1	1.7	1.3	1.7	1	1	.5
N=2	1.4	1.3	1.2	1.5	1.9	2.3	2.7	2.7	3.2	3.3	2.7	1.7	1.7	1	.9	.9	.9	1	1	
N=3	1.6	1.6	1.8	2.3	2.4	3	2.7	3.4	3.6	3.4	2.6	2	1.6	1.4	.8	.9	.9	1.2		
N=4	1.8	2.2	2.3	2.4	3	3	3.1	3.7	3.6	3.2	1.8	2	1.9	1.2	1	1.2	.9			
N=5																				
N=6																				



LORNEX SNOWFLAKE L200+00N		X=50M METAL FACTOR																		
DIPOLE NUMBER	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
COORDINATE	19000E	19100E	19200E	19300E	19400E	19500E	19600E	19700E	19800E	19900E										
N=1	2.6	2.9	3.7	3	4.3	4.8	6.6	8.1	12	9.1	11	4.1	3	5.6	9.7	22	13	11	16	6.7
N=2	1.9	2.3	2.6	2.7	7.1	6	5.4	7.8	12	9.2	7.4	8.3	11	5	7.6	13	11	10	16	
N=3	2.2	2	3.3	5.1	9.8	5.3	5.8	9.2	12	6.3	14	19	10	4.8	5.4	7.5	10	12		
N=4	1.9	2	5.2	6	8.8	6.4	6.6	9.3	7.7	11	17	19	7.1	3.5	5.2	12	11			
N=5																				
N=6																				

FREQUENCY (HERTZ) 4 0.0 25
DATE SURVEYED MAY 1986
APPROVED _____
NOTE - CONTOURS AT LOGARITHMIC INTERVALS: 1, -1 5
-2, -3, -5, -7 5, -10
DATE May 30/86

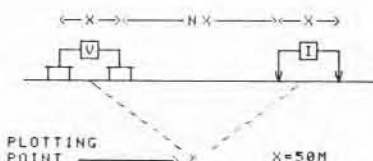
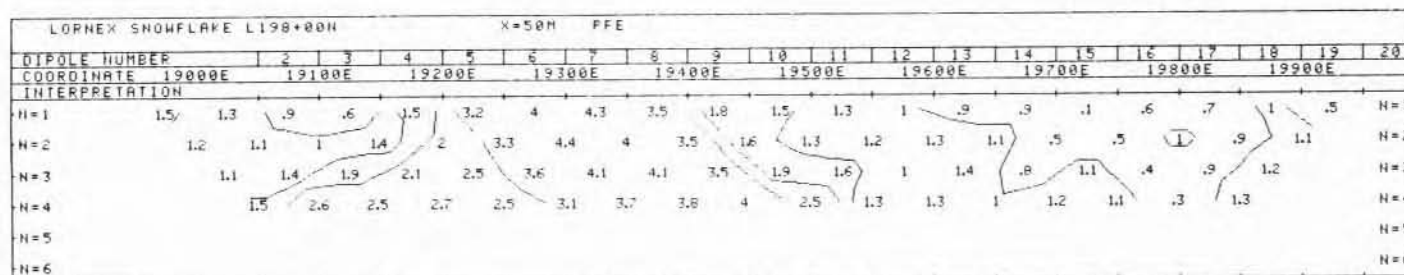
PHOENIX GEOPHYSICS LTD.
INDUCED POLARIZATION AND RESISTIVITY SURVEY



LORNEX MINING CORP.

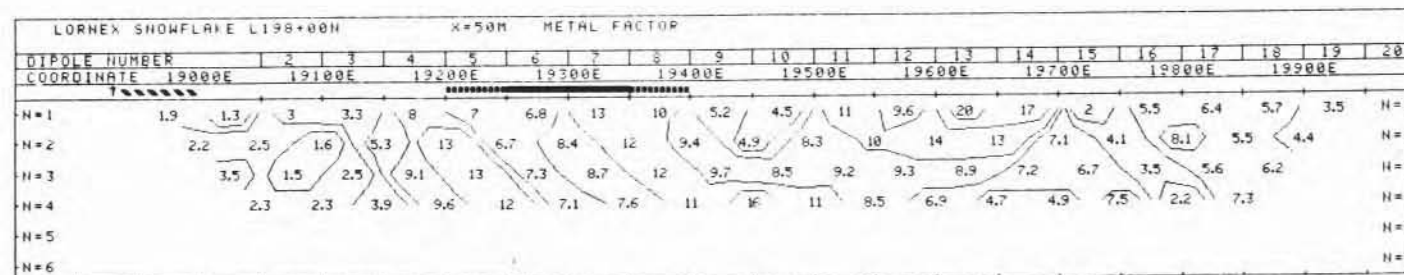
SNOWFLAKE
NICOLA M D B C

LINE NO -198+00N



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
PROBABLE
POSSIBLE



FREQUENCY (HERTZ)
4 0 0 25

DATE SURVEYED MAY 1986
APPROVED

NOTE- CONTOURS
AT LOGARITHMIC
INTERVALS 1.-1.5
-2.-3.-5.-7 5.-10

MJC
DATE May 30/86



PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY

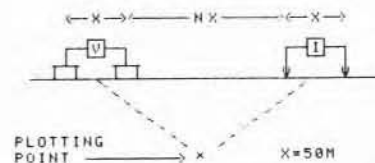
LORNEX SNOWFLAKE L194+00N														X=50M RHO (OHM-M)	
DIPOLE NUMBER	2	3	4	5	6	7	8	9	10	11	12	13	14		
COORDINATE	18600E	18700E	18800E	18900E	19000E	19100E	19200E								
INTERPRETATION															
N=1	905	672	1182	2695	1164	944	409	502	371	412	225	329			N=1
N=2		945	693	2070	1835	805	653	501	693	254	278	309	341		N=2
N=3			788	1447	1481	1159	540	731	620	426	264	310	321	474	N=3
N=4				1572	1177	1064	678	571	691	379	429	268	306	445	N=4
N=5															N=5
N=6															N=6

LORNEX MINING CORP.

SNOWFLAKE
NICOLA M D B C

LINE NO -194+00N

LORNEX SNOWFLAKE L194+00N														X=50M PFE	
DIPOLE NUMBER	2	3	4	5	6	7	8	9	10	11	12	13	14		
COORDINATE	18600E	18700E	18800E	18900E	19000E	19100E	19200E								
INTERPRETATION															
N=1	1	1	1.4	1.8	1.8	2.3	1.4	1.6	1.1	8.3	6.5	4			N=1
N=2		.9	1.4	1.8	1.9	2.3	1.7	1	1.1	8.2	7.3	5.8	4.1		N=2
N=3			1.4	1.6	1.7	2.2	2.4	1.4	1	8.2	6.3	7	5.3	4	N=3
N=4				1.7	1.7	2.3	2.3	1.6	1.1	7.4	5.6	6.2	6.3	4.9	N=4
N=5															N=5
N=6															N=6



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE 
 PROBABLE 
 POSSIBLE 

LORNEX SNOWFLAKE L194+00N														X=50M METAL FACTOR	
DIPOLE NUMBER	2	3	4	5	6	7	8	9	10	11	12	13	14		
COORDINATE	18600E	18700E	18800E	18900E	19000E	19100E	19200E								
INTERPRETATION															
N=1	1.1	1.5	1.2	.7	1.5	2.4	3.4	3.2	3	20	29	12			N=1
N=2		1	2	.9	1	2.9	2.6	2	1.6	32	26	19	12		N=2
N=3			1.8	1.1	1.1	1.9	4.4	1.9	1.6	19	24	23	17	8.4	N=3
N=4				1.1	1.4	2.2	3.4	2.8	1.6	20	13	23	21	11	N=4
N=5															N=5
N=6															N=6

FREQUENCY (HERTZ)
4 0.0 25

DATE SURVEYED MAY 1986
APPROVED

NOTE- CONTOURS
AT LOGARITHMIC
INTERVALS 1.-1.5
-2.-3.-5.-7 5.-10

MJC
DATE May 30/86



PHOENIX GEOPHYSICS LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY

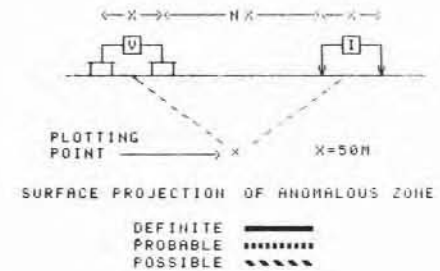
LORNEX SNOWFLAKE L192+00N		X=50M RHO (OHM-M)														
DIPOLE NUMBER	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
COORDINATE	18500E	18600E	18700E	18800E	18900E	19000E	19100E	19200E								
INTERPRETATION																
N=1	1750	2167	2492	1742	456	554	216	138	93	48	124	96			N=1	
N=2		2431	1646	1578	744	518	401	322	286	114	135	167	70		N=2	
N=3			1887	1020	750	784	336	391	512	317	281	174	102	85	N=3	
N=4				1173	708	745	451	292	540	477	386	337	89	107	143	N=4
N=5															N=5	
N=6															N=6	

LORNEX MINING CORP.

SNOWFLAKE
NICOLA M D - B C

LINE NO - 192+00N

LORNEX SNOWFLAKE L192+00N		X=50M PFE														
DIPOLE NUMBER	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
COORDINATE	18500E	18600E	18700E	18800E	18900E	19000E	19100E	19200E								
INTERPRETATION																
N=1	1.3	1.3	1.1	2.5	1.2	1.7	.7	.1	-.2	-.9	2.8	6.8			N=1	
N=2		2	1.1	2	2	1.4	1.2	.9	.1	-1.2	3.4	6.9	6.3		N=2	
N=3			2	2.2	2	2.4	1.5	1.2	.6	-.5	3.6	6.4	5.9	5.8	N=3	
N=4				3.4	2.1	2.3	2.1	1.5	.9	.3	4.5	5.9	5.3	5.5	5.6	N=4
N=5															N=5	
N=6															N=6	



LORNEX SNOWFLAKE L192+00N		X=50M METAL FACTOR														
DIPOLE NUMBER	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
COORDINATE	18500E	18600E	18700E	18800E	18900E	19000E	19100E	19200E								
INTERPRETATION																
N=1	.7	.6	.4	1.4	2.6	3.1	3.2	.7	-2.2	-19	23	71			N=1	
N=2		.8	.7	1.3	2.7	2.7	3	2.8	.3	-11	25	41	90		N=2	
N=3			1.1	2.2	2.7	3.1	4.5	3.1	1.2	-1.6	13	37	58	68	N=3	
N=4				2.9	3	3.1	4.7	5.1	1.7	.6	12	18	60	51	39	N=4
N=5															N=5	
N=6															N=6	

FREQUENCY (HERTZ)
4 0.0 25

DATE SURVEYED MAY 1986
APPROVED

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

MJC
DATE May 30/86

PHOENIX GEOPHYSICS LTD.

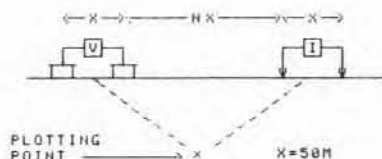
INDUCED POLARIZATION AND RESISTIVITY SURVEY

LORNE X MINING CORP.

SNOWFLAKE

NICOLA M.D. B.C.

LINE NO. -186+00N



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE
 PROBABLE
 POSSIBLE

FREQUENCY (HERTZ)
4 8.0 25

DWG NO. - I P - 5670-10

NOTE- CONTOURS
AT LOGARITHMIC
INTERVALS. 1.-1.5
-2.-3.-5.-7 5.-10

DATE SURVEYED MAY 1986

APPROVED MJC

DATE May 30/86



PHOENIX GEOPHYSICS LTD.

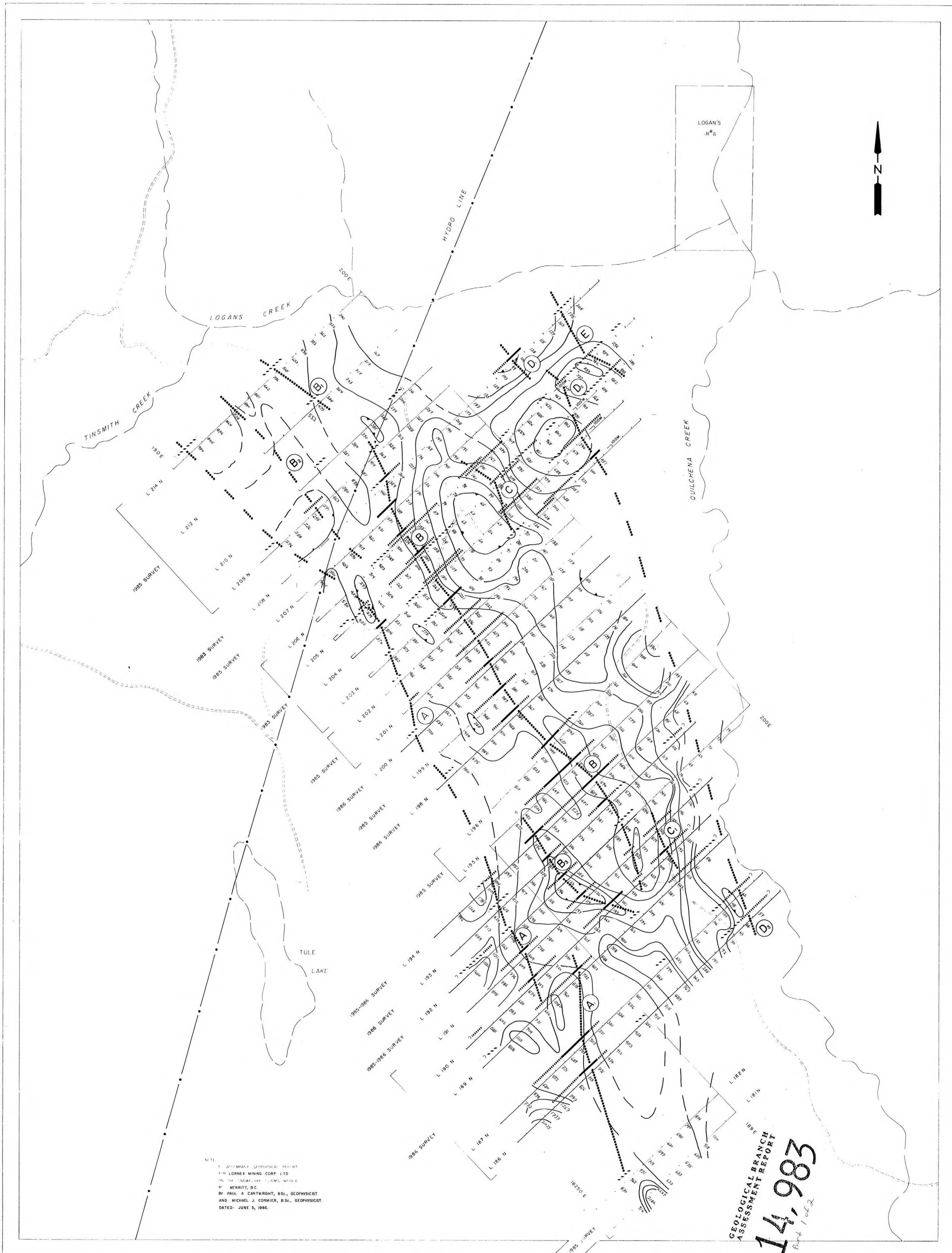
INDUCED POLARIZATION AND RESISTIVITY SURVEY

LORNE X SNOWFLAKE L186+00N		X=50M RHO (OHM-M)																								
DIPOLE NUMBER		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
COORDINATE	18350E	18450E	18550E	18650E	18750E	18850E	18950E	19050E	19150E	19250E	19350E	19450E	19550E													
INTERPRETATION																										
N=1	3883	2544	1552	436	667	540	961	510	178	93	122	182	325	566	918	1131	497	235	81	79	58	48	60	61	82	H=1
N=2	1822	2320	1822	603	682	708	800	679	243	278	319	242	168	427	1306	1007	343	372	216	64	55	55	65	59	57	H=2
N=3	903	2163	829	893	868	992	530	281	330	818	650	202	219	827	1479	283	322	300	156	62	68	75	66	55	H=3	
N=4	1020	1000	1073	933	1163	760	195	370	845	1526	550	249	389	1293	412	307	249	214	149	67	99	77	53	H=4		
N=5																									H=5	
N=6																									H=6	

LORNE X SNOWFLAKE L186+00N		X=50M PFE																								
DIPOLE NUMBER		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
COORDINATE	18350E	18450E	18550E	18650E	18750E	18850E	18950E	19050E	19150E	19250E	19350E	19450E	19550E													
INTERPRETATION																										
N=1	1.4	1.1	2.5	2.3	3.3	4.3	5.6	3.3	.5	-.4	.7	2.3	1.1	1.2	1.1	1.2	1	1.1	1.1	1.3	1.3	1.9	2.1	1.5	2.2	H=1
N=2	1.2	1.5	2.1	2.2	2.9	5.1	4.6	4.2	2.5	.3	.5	1.4	1.1	.8	1.5	1.3	1.1	.9	.9	1.5	1.5	1.9	2.2	2	2	H=2
N=3	1.6	2.7	1.4	2.8	4.6	4.8	2.4	2.9	2.6	1.4	1.1	1	.9	1.1	1.2	1.3	1.1	1.1	1.6	1.8	1.8	2	1.8	2.3	H=3	
N=4	3.1	2	2.6	4.3	4.3	2.9	1.2	2.8	3.4	2.3	.3	.8	.9	.7	1.6	1.2	1.1	1.6	1.9	2.3	2.1	1.4	2.1	H=4		
N=5																									H=5	
N=6																									H=6	

LORNE X SNOWFLAKE L186+00N		X=50M METAL FACTOR																								
DIPOLE NUMBER		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
COORDINATE	18350E	18450E	18550E	18650E	18750E	18850E	18950E	19050E	19150E	19250E	19350E	19450E	19550E													
INTERPRETATION																										
N=1	.4	.4	1.6	5.3	4.9	8	5.8	6.5	2.8	-.4	5.7	13	3.4	2.1	1.2	1.1	2	4.7	14	16	22	40	35	25	27	H=1
N=2	1.2	.6	1.2	3.6	4.3	7.2	5.8	6.2	10	1.1	1.6	5.8	6.5	1.9	1.1	1.3	3.2	2.4	4.2	23	27	35	34	34	37	H=2
N=3	1.8	1.2	1.7	3.1	5.3	4.8	4.5	10	7.9	1.7	1.7	5	4.1	1.3	.8	4.6	3.4	3.7	10	29	26	27	27	42	H=3	
N=4	3	2	2.4	4.6	3.7	3.8	6.2	7.6	4	1.5	.5	3.2	2.3	.5	3.9	3.9	4.4	7.5	13	34	21	10	36	H=4		
N=5																									H=5	
N=6																									H=6	

PHOENIX GEOPHYSICS LIMITED
 INDUCED POLARIZATION AND RESISTIVITY SURVEY
 PLAN MAP



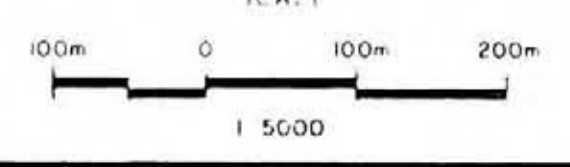
NOTE
 1. APPARENT RESISTIVITY MEASUREMENTS
 FOR LORNE MINING CORP. LTD.
 ON THE SNOWFLAKE CLAIMS AREA
 BY MERRIT, B.C.
 BY PAUL A. CARTWRIGHT, B.Sc., GEOPHYSICIST
 AND MICHAEL J. COMIER, B.Sc., GEOPHYSICIST
 DATED: JUNE 5, 1986.

14,983
 GEOLOGICAL BRANCH
 ASSESSMENT REPORT
 Part 1 of 2

SURFACE PROJECTION
 OF ANOMALOUS ZONE
 DEFINITE
 PROBABLE
 POSSIBLE

APPARENT RESISTIVITY (ohm-m)
 FRASER FILTERED N=1-4
 CONTOUR INTERVAL: 1,15,2,3,5,7,5,10, etc.

LORNE MINING CORPORATION LIMITED
 SNOWFLAKE CLAIMS
 NICOLA M.D., BRITISH COLUMBIA
 SCALE: 1:5000



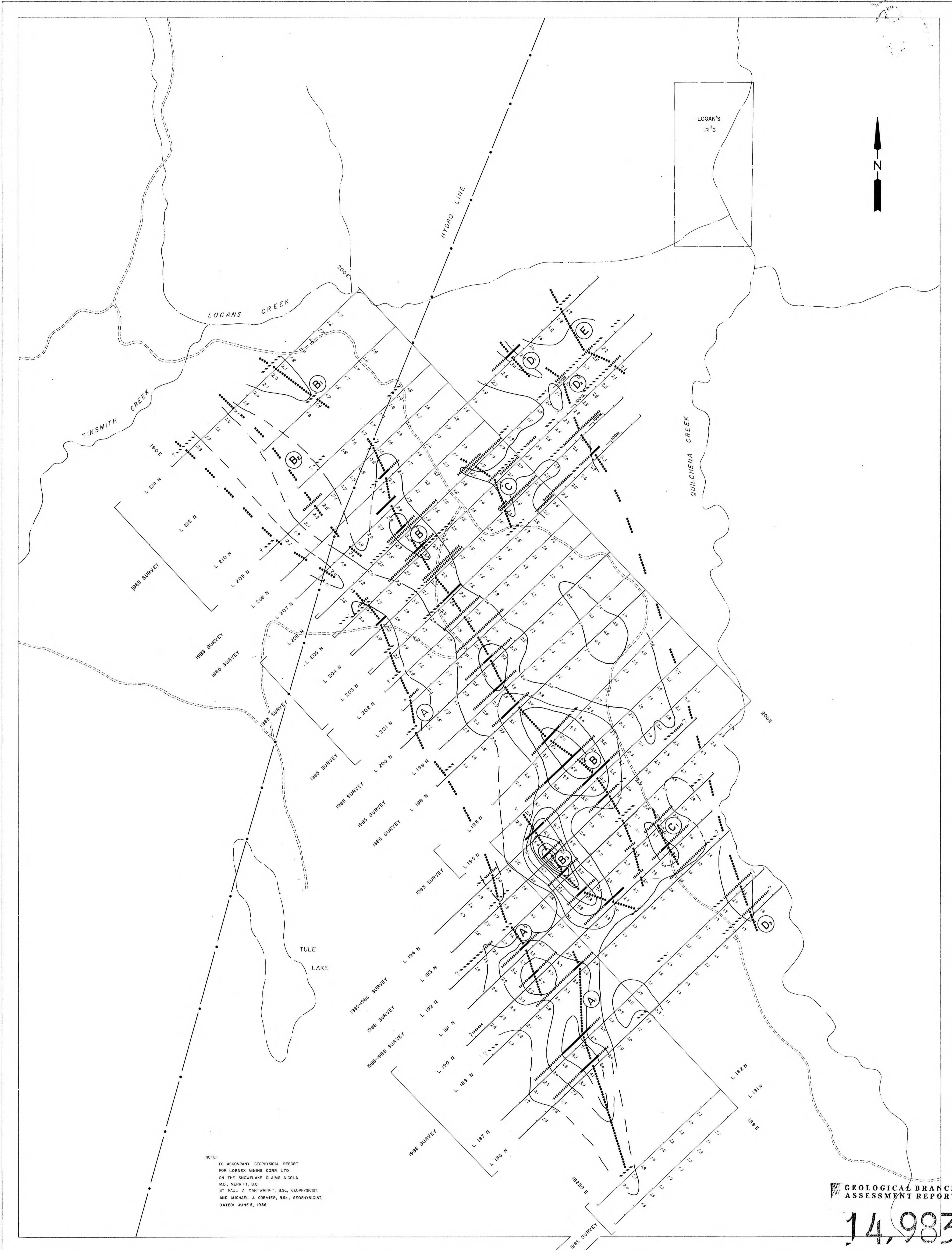
CENTER OF ANOMALOUS
 I.P. ZONE

DRAWN R.G.W./P.A.C.
 DATE MAY 27, 1986
 APPROVED:
 DATE June 03/86

PHOENIX GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



NOTE:
TO ACCOMPANY GEOPHYSICAL REPORT
FOR LORNE MINING CORP LTD
ON THE SNOWFLAKE CLAIMS NICOLA
M.D., MERRITT, B.C.
BY PAUL J. FARTWRIGHT, B.Sc., GEOPHYSICIST
AND MICHAEL J. CORMIER, B.Sc., GEOPHYSICIST
DATED: JUNE 5, 1986

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,983

SURFACE PROJECTION
OF ANOMALOUS ZONE
DEFINITE
PROBABLE
POSSIBLE

PERCENT FREQUENCY EFFECT
FRASER FILTERED N=1-4
CONTOUR INTERVAL: 1% P.F.E.

LORNE MINING CORPORATION LIMITED

SNOWFLAKE CLAIMS
NICOLA M.D., BRITISH COLUMBIA

SCALE
100m 0 100m 200m
1:5000

CENTER OF ANOMALOUS
I.P. ZONE

DRAWN: R.G.W./P.A.C.
DATE: MAY 27, 1986
APPROVED: P.A.C.

DATE: JUNE 03, 86
14,983 P.B.T. 1 of 2
DWG. NO.-I.P.P.-B-4147