

LOG # 0102  
ACTION  
FILE NO:

A GEOPHYSICAL REPORT ON A GROUND MAGNETOMETER  
AND INDUCED POLARIZATION SURVEYS ON THE  
GREAT WESTERN STAR GOLD-COPPER PROPERTY  
NELSON MINING DIVISION, BRITISH COLUMBIA

LATITUDE 49°27' NORTH  
LONGITUDE 117°22' EAST  
NTS 82F/6W

FOR

PACIFIC SENTINEL GOLD CORP.

BY

John Lloyd, M.Sc., P.Eng.  
LLOYD GEOPHYSICS LIMITED  
VANCOUVER, BRITISH COLUMBIA  
OCTOBER, 1989

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,492  
PART 1 OF 3



## SUMMARY

During the period July 27 to August 6, 1989 Lloyd Geophysics Limited carried out an IP and ground magnetometer survey on the TOUGHNUT grid and an IP survey on the RON grid for PACIFIC SENTINEL GOLD CORP. on the Great Western STAR Property near Nelson, British Columbia.

The IP survey delineated two new zones on the TOUGHNUT grid and two new zones on the RON grid. At least three of these new zones remain open along strike beyond the boundaries of the survey grids.

On the 1989 TOUGHNUT Grid 450 metres of trenching and 1240 metres of drilling is recommended to test the most promising targets. Similarly 500 metres of trenching and 1220 metres of drilling is recommended on the 1989 RON Grid.

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LIST OF PSEUDO-SECTIONS AND MAPS

Toughnut Grid

Pseudo-Sections	Dwg. Nos 89291-1 to 89291-6
Chargeability Map	Dwg. No 89291-7
Resistivity Map	Dwg. No 89291-8
Magnetic Contour Map	Dwg. No 89291-9

Ron Grid

Pseudo-Sections	Dwg. Nos 89291-10 to 89291-16
Chargeability Map	Dwg. No 89291-17
Resistivity Map	Dwg. No. 89291-18

## 1.0 INTRODUCTION

During the period July 27 to August 6, 1989, Lloyd Geophysics Limited carried out a time domain Induced Polarization (IP) survey on part of the TOUGHNUT and RON grids which lie within the boundaries of the Great Western Star property held by PACIFIC SENTINEL GOLD CORP., near Nelson British Columbia.

A ground magnetic survey was also carried out on the TOUGHNUT grid. This grid is comprised of 10 old lines originally surveyed by IP methods during 1988 and 6 new lines also surveyed by IP methods, in 1989.

## 2.0 PROPERTY LOCATION AND ACCESS

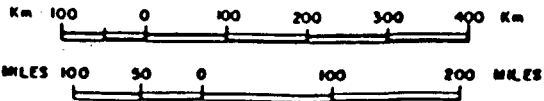
The Great Western Star Project (NTS 82F/6W) is located 8 kilometres southwest of Nelson, in southeastern British Columbia (Figures 1 and 2). The project is centered on the ridges between Giveout, Sandy and Eagle creeks at latitude 40°27'N and longitude 117°22'E. Access to the property is by mainline logging road off the Nelson-Salmo highway approximately 4 kilometres south of Nelson, or by forestry road from the Highway #6, 8 kilometres west of Nelson.

The topography in the project area is moderately steep, with elevations ranging from 600 to 1800 metres. The central and western portions of the project area form a plateau, hidden from Nelson by Morning Mountain. The upper slopes of the property are covered by glacial clays and sands, which may be up to 6 metres thick on ridges, and 12 metres thick in valleys and on side hills.

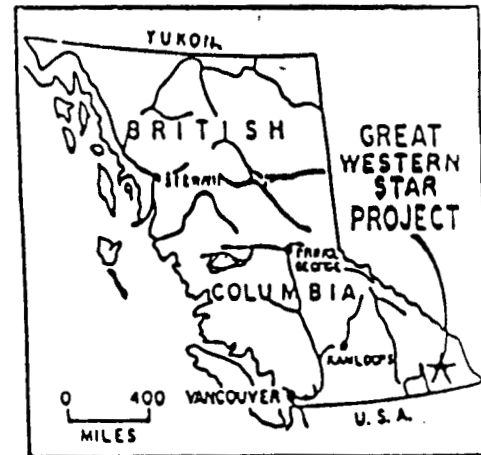
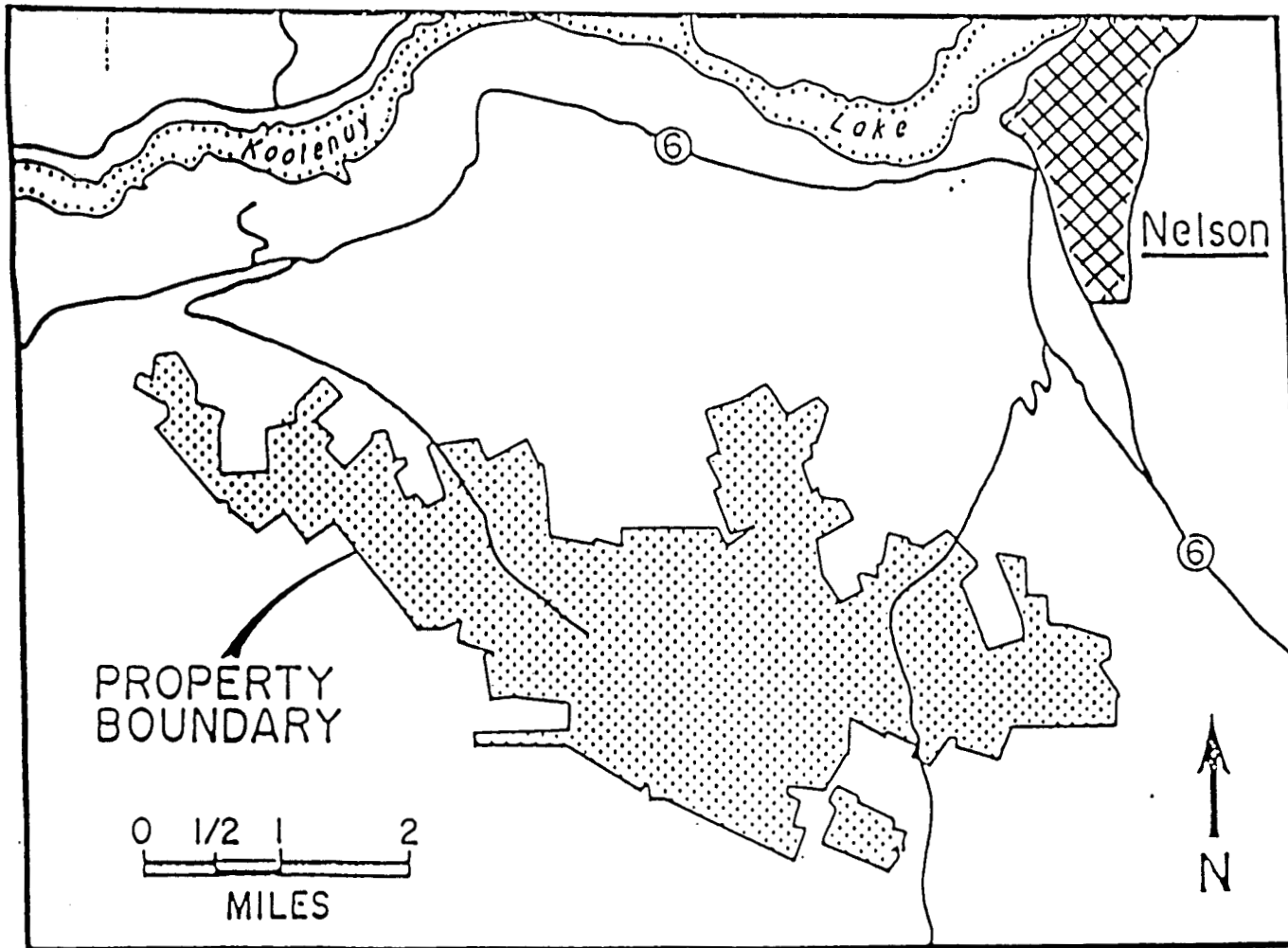
Mature second growth larch, douglas fir, hemlock and western red and white cedar covers much of the property, with recent clear cut



**GREAT WESTERN  
STAR PROJECT**



PACIFIC SENTINEL GOLD CORP.		
GREAT WESTERN STAR GOLD-COPPER PROJECT PROPERTY LOCATION		
NELSON MINING DIVISION SOUTHEASTERN BRITISH COLUMBIA		
Date: June 1989	N.T.S.	FIGURE: 1.
Drawn: by JW.	82F/6W	



PACIFIC SENTINEL GOLD CORP

Great Western Star  
Gold-Copper Project

Location Map

NELSON MINING DIVISION , S.E. B.C.

Date:  
Drawn by: B. Augsten

NTS: 82F/6W

FIG. 2

logging having removed much of this growth near the Alma N and Star mineralized zones. Atco Ltd. has plans for continued clear-cut logging on the property during 1989.

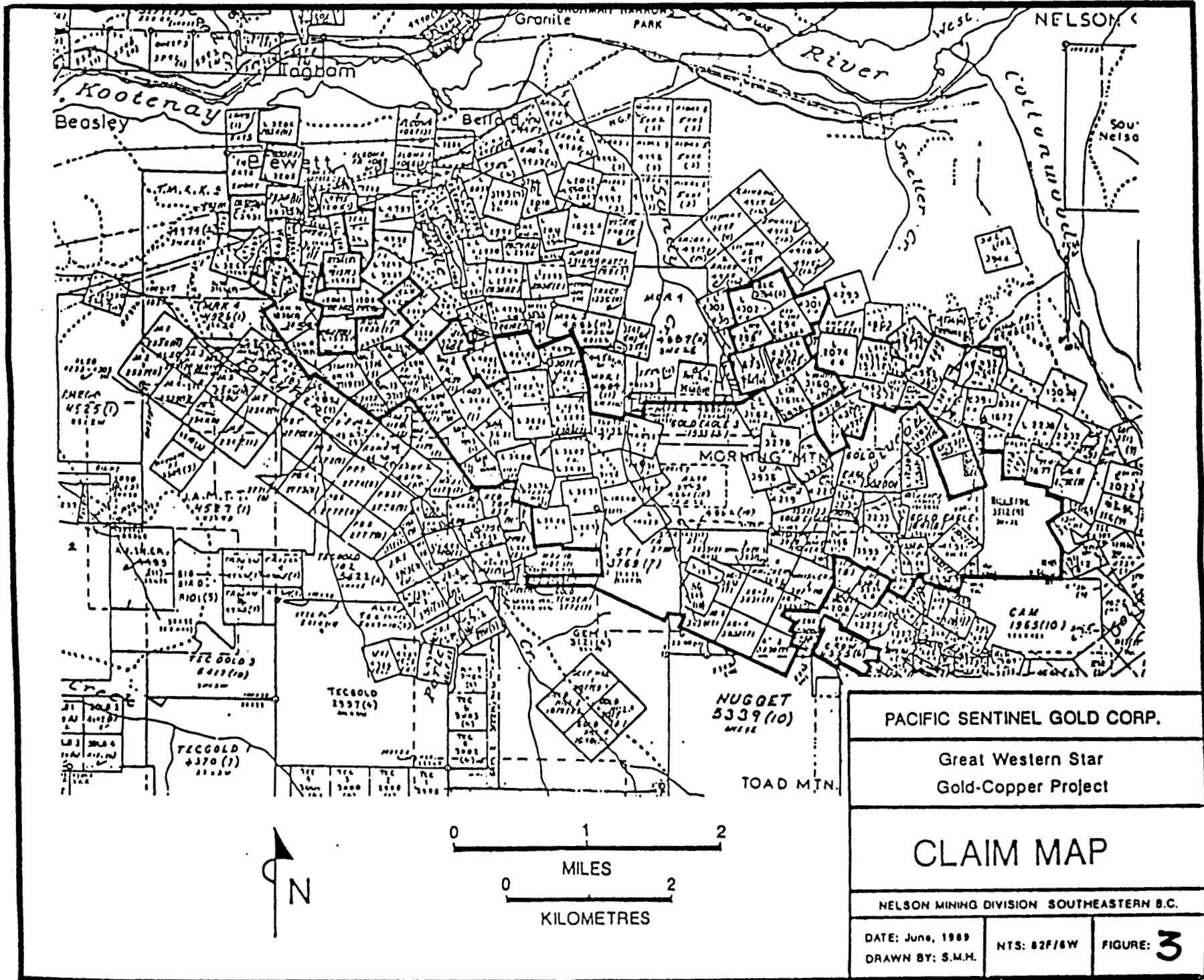
### 3.0 PROPERTY STATUS AND CLAIM HOLDINGS

The Great Western Star property is comprised of modified grid and 2 post claims as well as crown grants and reverted crown grants. The property contains 117 British Columbia claim units of 30 square kilometres, and is operated by Pacific Sentinel Gold Corp., under an option and joint venture agreement with Lectus Developments Ltd., and Reymont Gold Mines Ltd. Pacific Sentinel can earn a 70% direct interest in all claims comprising the project area except for the Asarco option claims in which Pacific Sentinel is earning a 35% interest.

Pertinent claim information is outlined below. Nine separate property vendors own underlying interests in the claims which range from a 1% to 5% N.S.R. The location of the project claims is depicted in Figure 3.

<u>Claim</u>	<u>Units</u>	<u>Record Number</u>	<u>Record Date</u>	<u>Expiry</u>
<u>ADDIE</u>				
Royal Arthur	1	3634	01/03/84	1994
Josie	1	4281	10/29/85	1990





PACIFIC SENTINEL GOLD CORP.

Great Western Star  
Gold-Copper Project

# CLAIM MAP

NELSON MINING DIVISION SOUTHEASTERN B.C.

DATE: June, 1989  
DRAWN BY: S.M.H.

NTS: 82F/6W

FIGURE: **3**

<u>Claim</u>	<u>Units</u>	<u>Record Number</u>	<u>Record Date</u>	<u>Expiry</u>
<u>FINLAY COMPANY</u>				
Champion CG	1	4648		07/31/89
Vicking Fr. CG	1	4649		07/31/89
Gold Leaf Fr. CG	1	12458		07/31/89
Gold Leaf #2 CG	1	12457		07/31/89
Toronto CG	1	4646		07/31/89
Alhambra Fr. CG	1	4651		07/31/89
Imperial CG	1	3686		07/31/89
Eureka CG	1	5552		07/31/89
Bellerophon	1	3680		07/31/89
Florence G. CG	1	3676		07/31/89
Star CG	1	3687		07/31/89
Gerald F. Fr. CG	1	3683		07/31/89
Elkhorn CG	1	9175		07/31/89
Bob CG	1	14632		07/31/89
Alma N CG	1	9174		07/31/89
Dot CG	1	14631		07/31/89
Mayflower CG	1	3684		07/31/89
Elk CG	1	3677		07/31/89
Silverstone	1	10640		07/31/89
Bee CG	1	14630		07/31/89
Gem CG	1	14629		07/31/89
Trumpet CG	1	3678		07/31/89
Toronto Fr CG	1	4301		07/31/89
Dundee CG	1	7241		07/31/89
MS CG	1	7243		07/31/89

STAR CLAIMS

Star #1 Fr.	1	3306	07/08/83	1995
Star #2 Fr.	1	3307	07/08/83	1995
Star #3 Fr.	1	3768	07/11/84	1995
Star #4 Fr.	1	3789	07/20/84	1995
ST 1	6	3769	07/11/84	1995
ST 2	2	3835	08/23/84	1995
ST #3	2	4861	10/14/87	1998
ST #6 Fr.	1	4862	10/14/87	1998

<u>Claim</u>	<u>Units</u>	<u>Record Number</u>	<u>Record Date</u>	<u>Expiry</u>
<u>DENNY</u>				
Muldoon CG	1	976		
Majestic RCG	1	1398	01/10/80	1991
Invincible RCG	1	1403	01/10/80	1991
Vernamo RCG	1	1404	01/10/80	1991
Republic Fr. RCG	1	1424	01/17/80	1991
Mika Chahko RCG	1	1425	01/17/80	1991
Moken Bird Fr. RCG	1	1426	01/17/80	1991
Ron #1 Fr.	1	1438	01/24/80	1992
Ron #2 Fr.	1	1439	01/24/80	1992
Ron #3 Fr.	1	1535	03/10/80	1991
Ron #4	1	1440	01/24/80	1992
Ron #5	1	1441	01/24/80	1991
Ron #6	1	1442	01/24/80	1991
Ron #7	1	1443	01/24/80	1991
Ron #8	1	3716	01/24/80	1991
Ron #9	1	3716	05/14/84	1991
Ron #10	1	1537	03/10/80	1991
Ron #11	1	1538	03/10/80	1991
Ron #12	1	1539	03/10/80	1991
Ron #13	1	3717	05/14/84	1990
Ron #14	1	3719	05/14/84	1990
Ron #15	1	3720	05/14/84	1990
Ron #16	1	3840	08/28/84	1990
Ron #17 Fr.	1	3721	05/14/84	1990
Majestic Fr.	1	3722	08/28/84	1990
Muldoon Fr.				

GOLD EAGLE

Gold Eagle #3	9	1533	03/05/80	1990
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ASARCO

Birdseye	CG	L3278		07/31/89
Princeton Fr	CG	L3938		07/31/89
Gold Eagle	4	1302	10/16/79	1990
Gold Eagle #1 Fr	1	1531	03/05/80	1992
Gold Eagle #2	2	1532	03/05/80	1990
Gold Eagle #4	6	1841	08/05/80	1989
Gold Eagle #5 Fr	1	1856	08/13/80	1990

<u>Claim</u>	<u>Units</u>	<u>Record Number</u>	<u>Record Date</u>	<u>Expiry</u>
<u>ASARCO (Cont'd)</u>				
Gold Eagle #6 Fr	1	1857	08/13/80	1990
Lady Aberdeen	RCG	919	01/22/79	1992
Minto Fr.	RCG	920	01/22/79	1992
Inverness	RCG	918	01/22/79	1992
Haddo Fr.	RCG	921	01/22/79	1992
Horsehoe	RCG	1307	10/22/79	1992
Red Fr.	RCG	1308	10/22/79	1990
Tregarden Fr.	RCG	1309	10/22/79	1990
 <u>BOURDON</u>				
Hillside	6	3512	09/13/83	1997
Hilltop Fr.	1	3511	09/13/83	1997
Great Western (ex.Lot 4148)	RCG	1551	02/19/80	1998
Irene (ex.Lot 4151)	RCG	1552	02/19/80	1998
Great Eastern (ex.Lot 4152)	RCG	1553	02/19/80	1998
 <u>PLANET PROPERTY</u>				
Juno	RCG	34	03/19/75	03/19/91
Venus	RCG	791	10/06/78	10/06/90
Orion	RCG	899	24/11/78	24/11/90
Jupiter	RCG	900	29/11/78	29/11/90
King of the Forest	RCG	901	29/11/78	29/11/90
Kirkwall	RCG	902	29/11/78	29/11/90
 <u>WEIR</u>				
Thistle	CG	L2238	owe \$59.50	07/31/89
White Witch	CG	L3595		07/31/89
Great West Fr.	CG	L4773	owe \$55.55	07/31/89

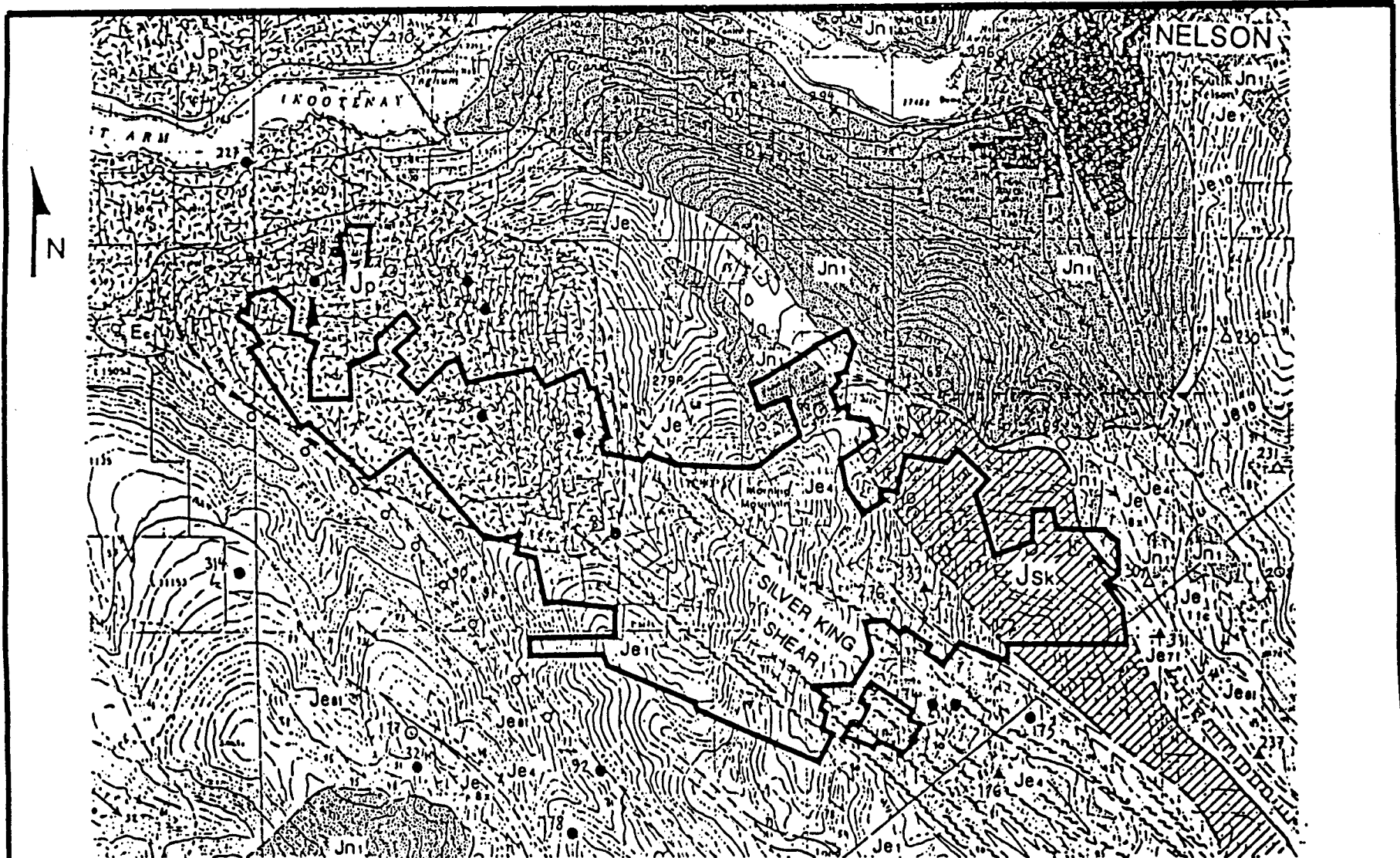
<u>Claim</u>	<u>Units</u>	<u>Record Number</u>	<u>Record Date</u>	<u>Expiry</u>
<u>ADDIE, ADDIE, PALMER</u>				
Black Witch	CG	L4146	owe \$21.52	07/31/89
Tough Nut	CG	L199	owe \$59.50	07/31/89
AG	1	4248	10/09/85	10/09/90
AG 1	1	3829	07/27/84	07/27/89
AG 2	1	3830	07/27/84	07/27/89
AG 3	1	3831	07/27/84	07/27/89
AG 4	1	3832	07/27/84	07/27/89
AG 5	1	3833	07/27/84	07/27/89
AG 6	1	3834	07/27/84	07/27/89
Crow	1	4355	06/19/86	06/19/90
Whiskers 1	1	3926	10/09/84	10/09/89
Whiskers 2	1	3927	10/09/84	10/09/90
Whiskers 3	1	3928	10/09/84	10/09/89
Whiskers 4	1	3929	10/09/84	10/09/89
Whiskers 5 Fr.	1	3930	10/09/84	10/09/89

LABELLE

North Star	CG	L4149		07/31/89
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4.0 REGIONAL AND PROPERTY GEOLOGY

The region southwest of Nelson is underlain by Lower Jurassic Rossland Group andesite flows, agglomerates and tuffs. This Jurassic sequence of alkaline, sub-aerial intermediate volcanic rocks is intruded by numerous small stocks that are probably correlative with the mid-Jurassic Nelson Batholith, by Tertiary rhyolite and lamprophyre dykes, by Eocene Coryell alkalic intrusions, and by Jurassic Bonnington complex diorite (Figure 4).



**LEGEND**

**EOCENE**

**E<sub>c</sub>** CORYELL INTRUSIONS (syenite, quartz monzonite)

**JURASSIC**

**J<sub>n1</sub>** NELSON INTRUSIONS (granodiorite, quartz monzonite)

**J<sub>p</sub>** PSEUDIORITE, PYROXENITE

**J<sub>sk</sub>** SILVER KING INTRUSIONS (plagioclase porphyry)

**Je<sub>1</sub>, Je<sub>4</sub>, Je<sub>7</sub>, Je<sub>8</sub>, Je<sub>8x</sub>, Je<sub>10</sub>, Je<sub>11c</sub>** ROSSLAND GROUP VOLCANICS, Elise Fm.  
(mafic to intermed. flow, epiclastic & pyroclastic units)

**J<sub>y</sub>** YMIR GROUP METASEDIMENTS (argillite, siltstone, grit)

SHEAR ZONE

GEOLOGIC CONTACT

Au +/- Cu MINERALIZATION

PACIFIC SENTINEL GOLD CORP.

Great Western Star Gold-Copper Project

Geology and Claim Boundary

(Geology after T.Hoy, 1988)

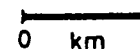
NELSON MINING DIVISION Southeastern British Columbia

DATE: June, 1989

NTS: 62F/6W

FIGURE: 4

DRAWN BY: S.M.H.



On the 30 square kilometre Great Western Star Project outcrop is limited to trenches and near old workings. The central portion of the claim group is underlain by brecciated flows, tuffs and minor epiclastic deposits described by Hoy (1989) as being part of the Jurassic Elise formation of the Rossland Group volcanics (Figure 4). In the claim region the Rossland volcanics are cut by a one kilometre wide northwest-trending zone of intense shearing. This major tectonic and mineralizing structure named the Silver King Shear System, has intensely altered the flows and tuffs in the claim region to chlorite, pyrite, iron-carbonate schists. Disseminated pyrite is ubiquitous within this zone of shearing, with auriferous quartz veins and quartz-carbonate stockworks occurring throughout this major ductile shear. In addition, wide zones of disseminated shear-hosted gold mineralization (Alma N, Gold Eagle Zones) have been discovered within the Silver King Shear System on the property.

In the western portion of the claim group, the Silver King Shear Zone is truncated by Jurassic Bonnington Complex diorite.

In the claim region Bonnington Complex diorite is intensely fractured and has undergone extensive potassic alteration characterized by the present of K-feldspar replacing plagioclase, and the original ferromagnesium minerals being replaced by fine grained biotite (Mulligan, 1952). Porphyry gold-copper mineralization is widespread within the intrusive and within the Rossland volcanics near the intrusive contact (ie. Star and Eureka, and Ron Zones).

On the east side of the Great Western Star Project area, the Rossland volcanics are intruded by the Jurassic Silver King porphyry. The Silver King stock is a plagioclase porphyry

intrusion, which is associated with the emplacement of gold and base metal mineralization throughout the Nelson Mining Camp. In the Giveout Creek region of the Great Western Star project area, a 1,500 metre long zone of strongly schistose Rossland Group andesitic flows occurs at the contact of the Silver King porphyry. Disseminated and vein-controlled gold mineralization is widespread along this contact zone.

For a comprehensive description of the exploration history and the detailed underlying geology of the individual grid areas on the property namely the STAR, RON and TOUGHNUT grids the reader is referred to a summary report dated June 28, 1989 by Douglas B. Forster.

## 5.0 INSTRUMENT SPECIFICATIONS

### 5.1. Ground Magnetometer Survey Equipment

The equipment used on this survey was the OMNI PLUS field magnetometer and the OMNI 4 recording base station magnetometer both manufactured by EDA INSTRUMENTS INC., Toronto, Canada.

The system is completely software/microprocessor controlled. A portable proton precession magnetometer measures and stores in memory the total earth's magnetic field at the touch of a key. It also identifies and stores the location and time of each measurement and computes the statistical error of the reading and stores the decay and strength of the signal being measured. Throughout each survey day a similar base station magnetometer measures and stores in memory the daily fluctuations of the earth's



magnetic field. The use of two magnetometers eliminates the need for a network of base stations on the grid. At the end of each day the field data is merged with the base station data in the field computer and automatic diurnal corrections are applied to correct the field data, resulting in a very accurate ( $\pm 5\text{nT}$ ) measurement of the earth's total magnetic field.

### 5.2. Induced Polarization Survey

The equipment used to carry out this survey was a time domain measuring system consisting of a Wagner Leland/Onan motor generator set and a Mark II transmitter manufactured by Hunttec Limited, Toronto, Canada and a 6 channel IP-6 receiver manufactured by BRGM Instruments, Orleans, France.

The Wagner Leland/Onan motor generator supplies in excess of 7.5 kilowatts of 3 phase power to the ground at 400 hertz via the Mark II transmitter.

The transmitter was operated with a cycle time of 8 seconds and the duty cycle ratio:  $[(\text{time})/(\text{time on} + \text{time off})]$  was 0.5. This means the cycling sequence of the transmitter was 2 seconds current "on" and 2 seconds current "off" with consecutive pulses reversed in polarity.

The IP-6 receiver can read up to 6 dipoles simultaneously. It is microprocessor controlled, featuring automatic calibration, gain setting, SP cancellation and fault diagnosis. To accommodate a wide range of geological conditions, the delay time, the window widths and hence the total integration time is programmable via the keypad. Measurements are calculated automatically every 2 to 4

seconds from the averaged waveform which is accumulated in memory.

The window widths of the IP-6 receiver can be programmed arithmetically or logarithmically. For this particular survey the instrument was programmed arithmetically into 10 equal window widths or channels, Ch<sub>0</sub>, Ch<sub>1</sub>, Ch<sub>2</sub>, Ch<sub>3</sub>, Ch<sub>4</sub>, Ch<sub>5</sub>, Ch<sub>6</sub>, Ch<sub>7</sub>, Ch<sub>8</sub>, and Ch<sub>9</sub>, (see Figure 5). These are recorded individually and summed up automatically to obtain the total chargeability. Similarly the resistivity ( $\rho_a$ ) in ohm-metres is also calculated automatically.

The instrument parameters chosen for this survey were as follows:

Cycle Time (T<sub>c</sub>) = 8 seconds

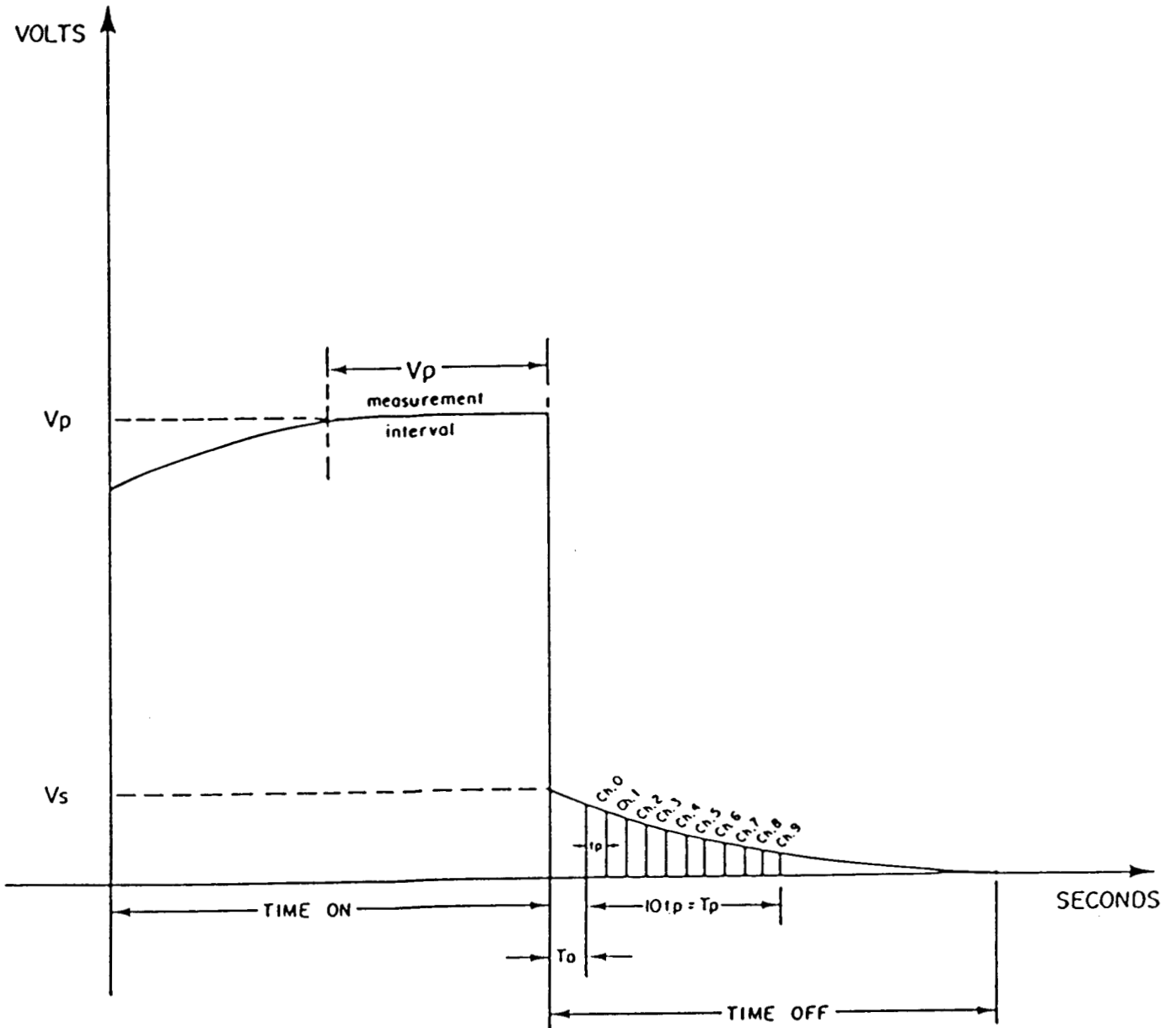
Ratio  $\frac{\text{Time On}}{\text{Time Off}}$  = 2:2

Duty Cycle Ratio  
 $\left[ \frac{\text{Time On}}{\text{Time On} + \text{Time Off}} \right]$  = 0.5

Delay Time (T<sub>D</sub>) = 120 milliseconds

Window Width (t<sub>p</sub>) = 90 milliseconds

Total Integrating Time (T<sub>p</sub>) = 900 milliseconds



BRGM IP-6 RECEIVER PARAMETERS

Figure 5

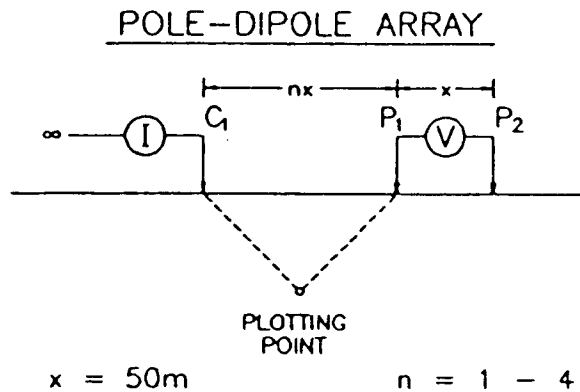
## 6.0 SURVEY SPECIFICATIONS

### 6.1. Ground Magnetometer Survey

The survey was carried out on lines 100 metres apart with readings taken every 12.5 metres.

### 6.2. Induced Polarization Survey

The configuration of the POLE-DIPOLE array used for the survey is shown below:



On the TOUGHNUT Grid the current electrode  $C_1$  was SOUTH of the potential measuring dipole  $P_1P_2$ . Here the lines were 100 metres apart and measurements were taken for  $x = 50$  metres and  $n = 1, 2, 3$  and  $4$ .

On the RON Grid (western part of the STAR Grid) the current electrode  $C_1$  was WEST of the potential measuring dipole  $P_1P_2$ . Here the lines were 200 metres apart and measurements were taken for  $x = 50$  metres and  $n = 1, 2, 3$  and  $4$ .

The dipole length ( $x$ ) is the distance between  $P_1$  and  $P_2$  and determines mainly the sensitivity of the array. The electrode separation ( $nx$ ) is the distance between  $C_1$  and  $P_1$  and determines mainly the depth of penetration of the array.

## 7.0 DATA PROCESSING

The data collected was processed in the field at the end of each survey day using a portable Compaq 286 computer and an Epson printer.

Using appropriate software, the magnetic field data was corrected for diurnal variations by merging it with the base station magnetic data. For integrity checks and for a quick review of anomalies, the final corrected magnetic data was plotted out in profile form on the printer.

The IP pseudo-sections were plotted out in the field and contoured using in-house software based on the mathematical solution known as kriging.

In the office the data was transferred to mylar using a Compaq 386 computer coupled to either a Hewlett Packard Draftsmaster II Plotter or a DL2400 Fujitsu Printer for the preparation of the final pseudo-sections and contour plan maps.

8.0 DATA PRESENTATION

The data obtained from the survey described in this report are presented on 13 pseudo-sections and 5 contour plan maps as follows:

TOUGHNUT GRIDPseudo-Sections

<u>Line No.</u>	<u>Dwg. No.</u>
600W	89291-1
500W	89291-2
400W	89291-3
300W	89291-4
200W	89291-5
100W	89291-6

Contour Plan Maps

Chargeability N = 1 with Interpretation	89291-7
Resistivity N = 1	89291-8
Total Field Magnetic Contours	89291-9

RON GRIDPseudo-Sections

<u>Line No.</u>	<u>Dwg. No.</u>
800N	89291-10
1000N	89291-11
1200N	89291-12
1400N	89291-13
1600N	89291-14
1800N	89291-15
2000N	89291-16

Contour Plan Maps

Chargeability N = 1 with Interpretation	89291-17
Resistivity N = 1	89291-18

9.0 DISCUSSION OF RESULTS

An IP response depends largely on the following factors:

1. The volume content of sulphide minerals
2. The number of pore paths that are blocked by sulphide grains

3. The number of sulphide faces that are available for polarization
4. The absolute size and shape of the sulphide grains and the relationship of their size and shape to the size and shape of the available pore paths
5. The electrode array employed
6. The width, depth, thickness and strike length of the mineralized body and its location relative to the array
7. The resistivity contrast between the mineralized body and the unmineralized host rock

The sulphide content of the underlying rocks is one of the critical factors that we would like to determine from field measurements. Experience has shown that this is both difficult and unreliable because of the large number of variables, described above, which contribute to an IP response. The problem is further complicated by the fact that rocks containing magnetite, graphite, clay minerals and variably altered rocks produce IP responses of varying amplitudes.

A detailed study has been made of the pseudo-sections which accompany this report. These pseudo-sections are not sections of the electrical properties of the sub-surface strata and cannot be treated as such when determining the depth, width and thickness of a zone which produces an anomalous pattern.



From this study the anomalies selected are shown on the individual pseudo-sections and are classified into 4 groups. These are definite, probable and possible anomalies and anomalies which have a deeper source.

This classification is based partly on the relative amplitudes of the chargeability and to a lesser degree on the resistivity response. Of equal importance in this classification is the overall anomaly pattern and the degree to which this pattern may be correlated from line to line, provided of course that the correlation is not so extensive along strike, to most probably represent only the subcrop of a geological formation.

#### THE TOUGHNUT GRID

The results obtained and the trenching and drilling recommendations on the 1988 data are described in a report to Lectus Developments Limited by the present writer (Lloyd October 1988 pages 14 to 17).

In 1989 the IP survey was extended for another 600 metres in a northwesterly direction and a ground magnetometer survey was completed over both the 1988 and the 1989 grids.

The 1989 IP survey extended both the SOUTHERN and NORTHERN zones for another 600 metres to the northwest. The overall characteristics or signatures of both zones remain similar (Lloyd, October 1988 pages 13 and 14).

The 1989 IP survey detected 2 additional zones.

The first new zone (ZONE A) lies immediately north of the NORTHERN ZONE with its axis extending from about 750N on line 600W to about 725N on line 300W. It correlates well with a sharp magnetic response of about 500nT above background.

The second new zone (ZONE B) lies immediately south of the SOUTHERN ZONE with its axis extending from about the baseline on line 600W to about 075S on line 400W.

All four IP zones remain open to the northwest with the NORTHERN and SOUTHERN ZONES merging on the southeastern edge of the grid and remaining open in that direction.

There is little or no positive correlation between either the NORTHERN or SOUTHERN IP zones and the magnetic data, however, a vague linear strike direction in the magnetic data is roughly sub-parallel to and lies near the flanks of certain portions of both the NORTHERN and SOUTHERN IP zones. Of the two new IP zones, Zone A correlates well with a sharp magnetic response of about 500 nT above background whereas Zone B has a somewhat broader less well defined magnetic response along its south flank.

#### THE RON GRID

The IP survey detected three zones of increased chargeability, designated C, D and E on Dwg. No. 89291-17.

ZONE C has a strike length of at least 600 metres from about 1650W on line 800N to about 1750W on line 1400N. The zone has a maximum chargeability of 38.7 milliseconds over a background of about 15 milliseconds and correlates well with a resistivity low. It

remains open along strike south of line 800N. This zone is strongly recommended for trenching and for drilling.

ZONE D has a strike length of at least 200 metres from about 2500W on line 1600N to about 2500W on line 1800N. It may be truncated by a fault and appear again on line 2000N at about 2350W. There is, however, conflicting evidence for this interpretation since the zone is associated with well defined resistivity lows on lines 1600N and 1800N but not on line 2000N. The zone has a maximum chargeability of 29.0 milliseconds over a background of about 10 to 15 milliseconds. This zone is strongly recommended for trenching and/or drilling.

ZONE E has a strike length of at least 1000 metres from about 2200W on line 800N to about 2200W on line 1800N. It may be truncated by a fault and appear again on line 2000N at about 1950W. It has a less well defined signature than Zone C and therefore a lower priority for trenching and drilling.

No ground magnetometer survey was carried out over this grid.

#### 10.0 CONCLUSIONS AND RECOMMENDATIONS

From a study of the IP and magnetic data described in this report it has been concluded that anomalies detected on both the TOUGHNUT and RON Grids are worthy of further exploration by trenching and diamond drilling.

10.1. The Toughnut Grid

The following recommendations were made in a report to Lectus Developments Limited by the writer in 1988 (Lloyd October 1988).

SOUTHERN ZONE

<u>Line No.</u>	<u>Trench</u>	
	<u>From</u>	<u>To</u>
0+00	80N	160N
1+00E	100N	180N
2+00E	150N	225N

If the trenching is successful the following drilling is recommended to test below the trenches:

SOUTHERN ZONE

<u>Hole No.</u>	<u>Line No.</u>	<u>Collar Location</u>	<u>Angle</u>	<u>Direction</u>	<u>Length Of Hole</u>
1	0+00	100N	-45°	Drill from S to N	70m
2	0+00	50N	-45°	Drill from S to N	120m
3	0+00	B.L.	-45°	Drill from S to N	180m
4	1+00E	125N	-45°	Drill from S to N	60m
5	1+00E	75N	-45°	Drill from S to N	110m
6	1+00E	25N	-45°	Drill from S to N	165m

NORTHERN ZONE

<u>Line No.</u>	<u>From</u>	<u>Trench</u>	<u>To</u>
1+00E	415N		485N
2+00E	385N		460N
3+00E	365N		435N

If the trenching is successful the following drilling is recommended to test below the trenches:

<u>Hole No.</u>	<u>Line No.</u>	<u>Collar Location</u>	<u>Angle</u>	<u>Direction</u>	<u>Length Of Hole</u>
7	2+00E	400N	-45°	Drill from S to N	65m
8	2+00E	350N	-45°	Drill from S to N	115m
9	2+00E	300N	-45°	Drill from S to N	170m
10	3+00E	375N	-45°	Drill from S to N	70m
11	3+00E	325N	-45°	Drill from S to N	120m
12	3+00E	275N	-45°	Drill from S to N	180m

The following recommendations are based on the new 1989 data:

ZONE A

<u>Line No.</u>	<u>From</u>	<u>Trench</u>	<u>To</u>
500W	700N		800N
600W	700N		800N

If the trenching is successful the following drilling is recommended to test below the trenches:

<u>Hole No.</u>	<u>Line No.</u>	<u>Collar Location</u>	<u>Angle</u>	<u>Direction</u>	<u>Length Of Hole</u>
13	500W	650N	-45°	Drill from S to N	140m
14	500W	700N	-45°	Drill from S to N	100m
15	500W	750N	-45°	Drill from S to N	80m
16	600W	650N	-45°	Drill from S to N	140m
17	600W	700N	-45°	Drill from S to N	100m
18	600W	750N	-45°	Drill from S to N	80m

ZONE B

<u>Line No.</u>	<u>From</u>	<u>Trench</u>	<u>To</u>
500W	50N		50S
600W	50N		100S

If the trenching is successful the following drilling is recommended to test below the trenches:

<u>Hole No.</u>	<u>Line No.</u>	<u>Collar Location</u>	<u>Angle</u>	<u>Direction</u>	<u>Length Of Hole</u>
19	500W	075S	-45°	Drill from S to N	120m
20	500W	025S	-45°	Drill from S to N	100m
21	500W	025N	-45°	Drill from S to N	80m
22	600W	125S	-45°	Drill from S to N	120m

<u>Hole</u> <u>No.</u>	<u>Line</u> <u>No.</u>	<u>Collar</u> <u>Location</u>	<u>Angle</u>	<u>Direction</u>	<u>Length</u> <u>Of Hole</u>
23	600W	075S	-45°	Drill from S to N	100m
24	600W	025N	-45°	Drill from S to N	80m

Finally, all four zones remain open along strike to the northwest and the NORTHERN and SOUTHERN zones merge and remain open along strike to the southeast.

#### 10.2. The Ron Grid

The 1989 RON Grid lies approximately 4.5 kilometres northwest of the TOUGHNUT Grid. The area lying immediately between these two grids was partially covered by a ground magnetometer survey and an IP Survey in 1984. The IP coverage was extended to complete the intervening grid in 1988. This work has been described in 2 reports to U.S. Borax And Chemical Corporation by the present writer (Lloyd October 1984; Lloyd November 1988). Trenching and drilling is recommended on the 1989 IP survey as follows:

#### ZONE C

<u>Line No.</u>	<u>From</u>	<u>Trench</u>	<u>To</u>
800N	1600W		1700W
1200N	1725W		1850W

If the trenching is successful the following drilling is recommended to test below the trenches:

<u>Hole No.</u>	<u>Line No.</u>	<u>Collar Location</u>	<u>Angle</u>	<u>Direction</u>	<u>Length Of Hole</u>
25	800N	1750W	-45°	Drill from W to E	140m
26	800N	1700W	-45°	Drill from W to E	100m
27	800N	1650W	-45°	Drill from W to E	80m
28	1200N	1900W	-45°	Drill from W to E	140m
29	1200N	1850W	-45°	Drill from W to E	100m
30	1200N	1800W	-45°	Drill from W to E	80m

ZONE D

<u>Line No.</u>	<u>Trench</u>	
	<u>From</u>	<u>To</u>
1600N	2450W	2575W
1800N	2425W	2575W

If the trenching is successful the following drilling is recommended to test below the trenches:

<u>Hole No.</u>	<u>Line No.</u>	<u>Collar Location</u>	<u>Angle</u>	<u>Direction</u>	<u>Length Of Hole</u>
31	1600N	2600W	-45°	Drill from W to E	130m
32	1600N	2550W	-45°	Drill from W to E	90m
33	1600N	2500W	-45°	Drill from W to E	70m
34	1800N	2575W	-45°	Drill from W to E	130m



<u>Hole</u> <u>No.</u>	<u>Line</u> <u>No.</u>	<u>Collar</u> <u>Location</u>	<u>Angle</u>	<u>Direction</u>	<u>Length</u> <u>Of Hole</u>
35	1800N	2525W	-45°	Drill from W to E	90m
36	1800N	2475W	-45°	Drill from W to E	70m

Two strong anomalous zones were also detected on line 2000N, the most northerly line on the grid. These zones should be closed off if claim holdings permit.

The width of the zones as interpreted from the IP data are considerably wider than the target sought, however, these wider zones may represent an envelope of disseminated pyrite around shear zone vein systems and may contain low grade gold.

Respectfully Submitted,  
LLOYD GEOPHYSICS LIMITED



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

Vancouver, B.C.  
October, 1989

APPENDICES

(A)

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- Salazar S.G. and Beauchamp D. 1988: Report on Great Western Project (Gold) for Lectus Developments Ltd.

(B)

PERSONNEL EMPLOYED ON SURVEY

<u>Name</u>	<u>Occupation</u>	<u>Address</u>	<u>Dates</u>
J Lloyd	Geophysicist	LLOYD GEOPHYSICS LIMITED #1110-625 Howe Street Vancouver, B.C. V6C 2T6	Oct. 23 - 26, 1989
D Hall	Geophysicist	"	July 27- Aug 6/89
D Klit	Geophysicist	"	July 27- Aug 6/89
T Ballantyne	Geophysicist	"	July 27- Aug 6/89
B Waddington	Geophysical Technician	"	July 30- Aug 3/89
C Pearson	Helper	"	July 27- Aug 6/89
A Lloyd	Helper	"	July 27- Aug 6/89
J Zondag	Typist	"	Oct 25- 26, 1989

(C)

COST OF SURVEY AND REPORTING

Lloyd Geophysics Limited contracted the IP data acquisition on a per diem basis and the magnetic data acquisition on a per kilometre basis. Room and board, truck charges, data processing and computer plotting, map reproduction, interpretation and report writing were extra. The breakdown of these costs is shown below:

Data Acquisition	\$ 18,954.50
Room & Board	2,482.03
Truck Charges	1,332.97
Computer Plotting	1,800.00
Consumables and Reproduction Costs	390.00
Interpretation and Report Writing	1,350.00
	<hr/>
Total Cost	\$ 26,309.50
	=====

(D)

Certification

I, John Lloyd, of 1110-625 Howe Street, in the City of 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. 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 in good standing of the Association of Professional Engineers in the Province of British Columbia, the Society of Exploration Geophysicists of America, the European Association of Exploration Geophysicists and the Canadian Institute of Mining and Metallurgy.
5. I have been practising my profession for over twenty-five years.

Vancouver, B.C.

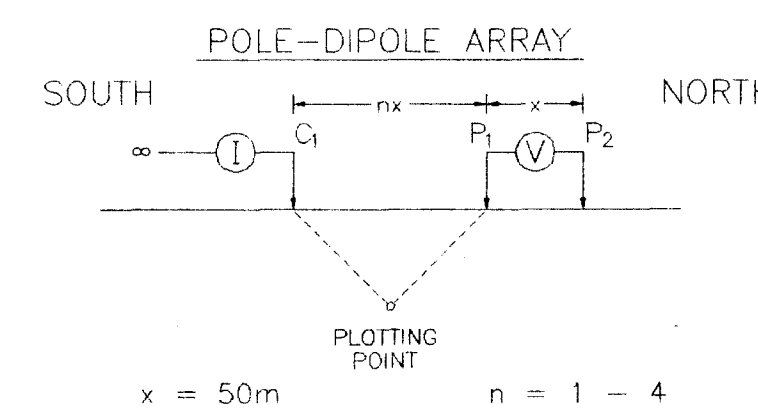
October, 1989

John Lloyd, P. Eng.

PACIFIC SENTINEL  
GOLD CORP.

Toughnut Grid

LINE: 600W



CURRENT ELECTRODE C<sub>1</sub> SOUTH  
OF POTENTIAL DIPOLE P<sub>1</sub>P<sub>2</sub>

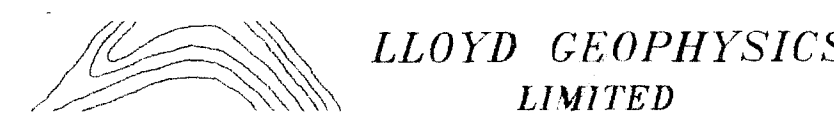
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- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

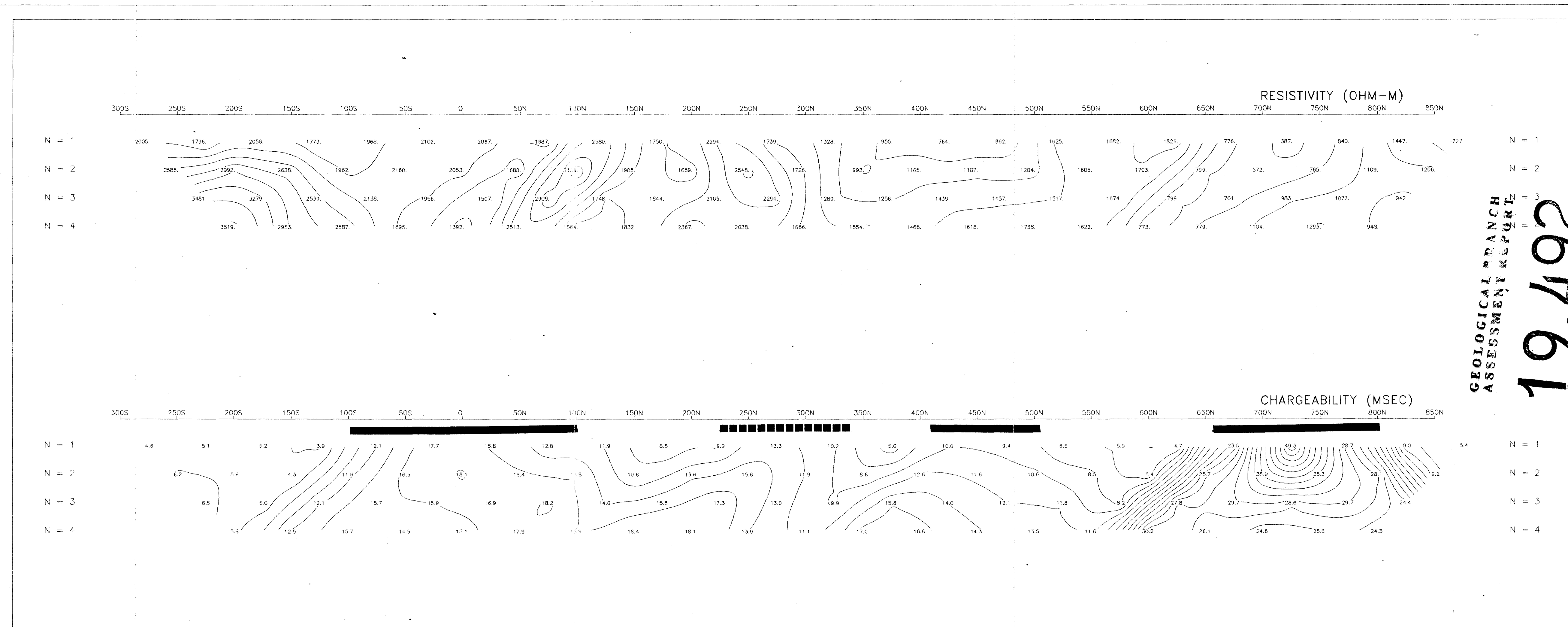
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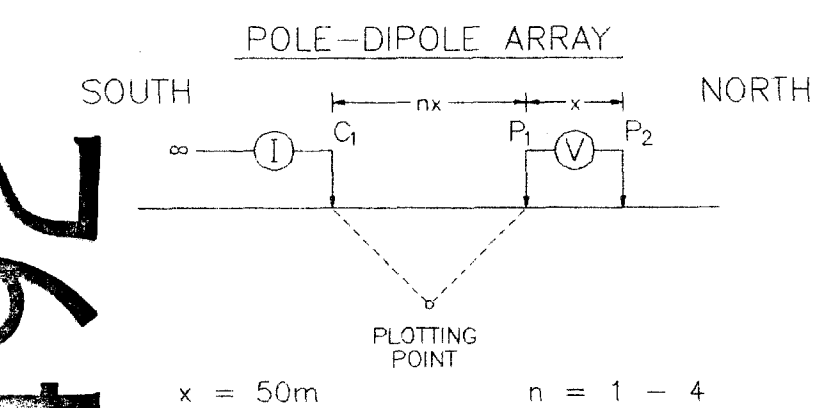
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PACIFIC SENTINEL  
GOLD CORP.

Toughnut Grid

LINE: 500W



x = 50m n = 1 - 4  
CURRENT ELECTRODE C<sub>1</sub> SOUTH  
OF POTENTIAL DIPOLE P<sub>1</sub>P<sub>2</sub>

SURFACE PROJECTION  
OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

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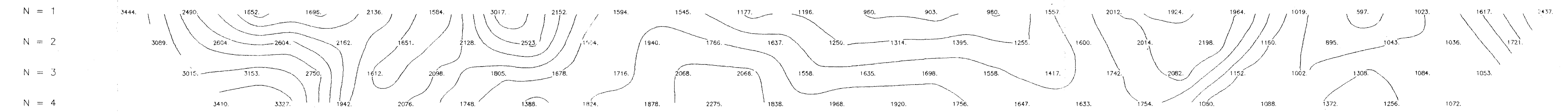
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LIMITED**

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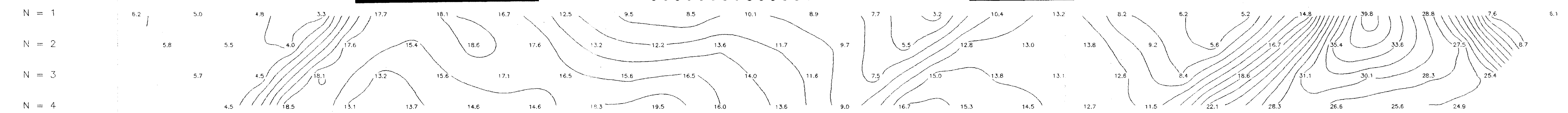
GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,492  
2647,6T

RESISTIVITY (OHM-M)



CHARGEABILITY (MSEC)

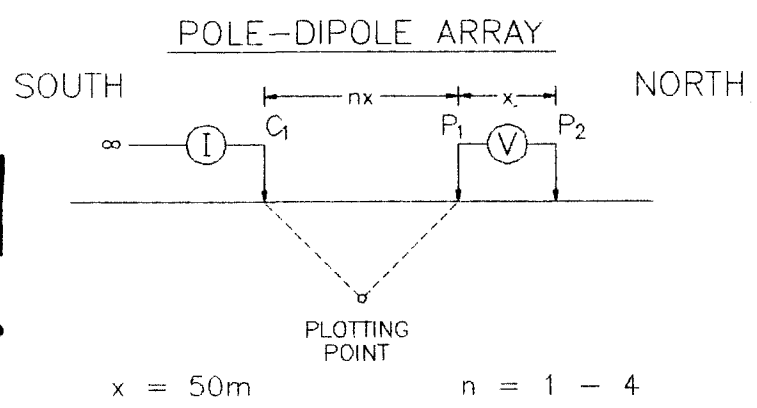




PACIFIC SENTINEL  
GOLD CORP.

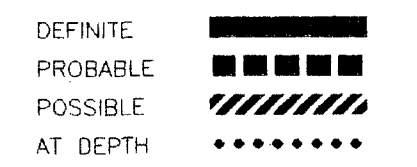
Toughnut Grid

LINE: 400W



CURRENT ELECTRODE G<sub>1</sub> SOUTH  
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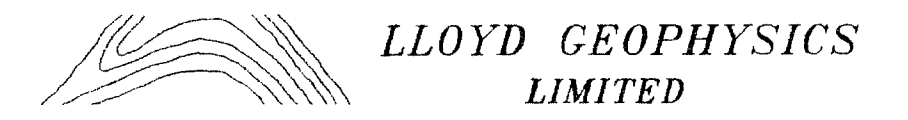
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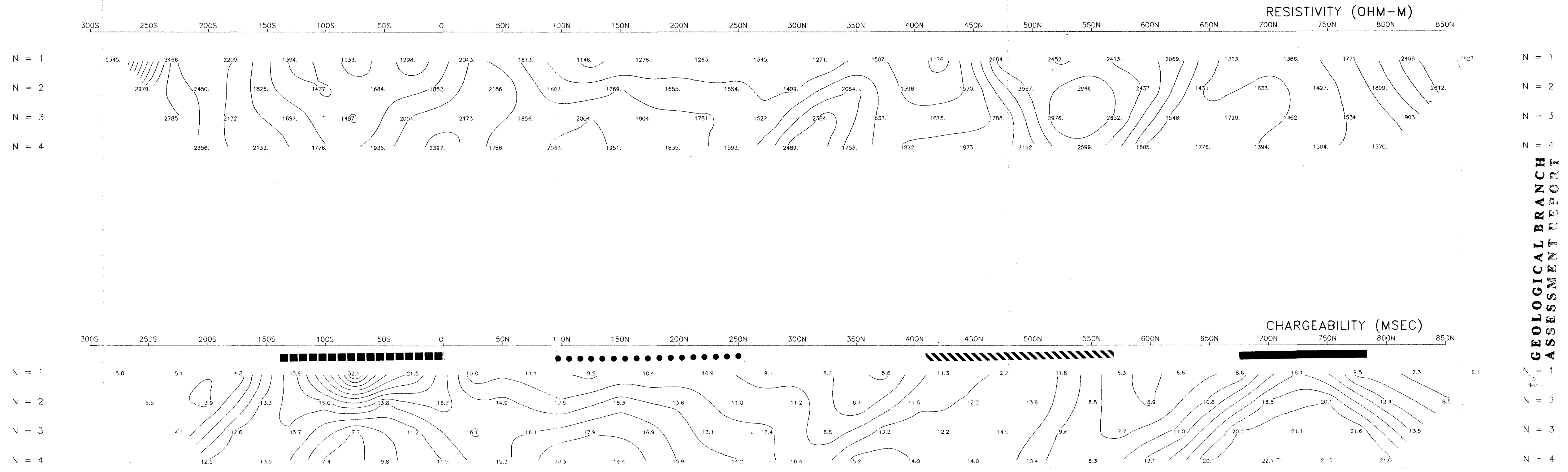
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LIMITED  
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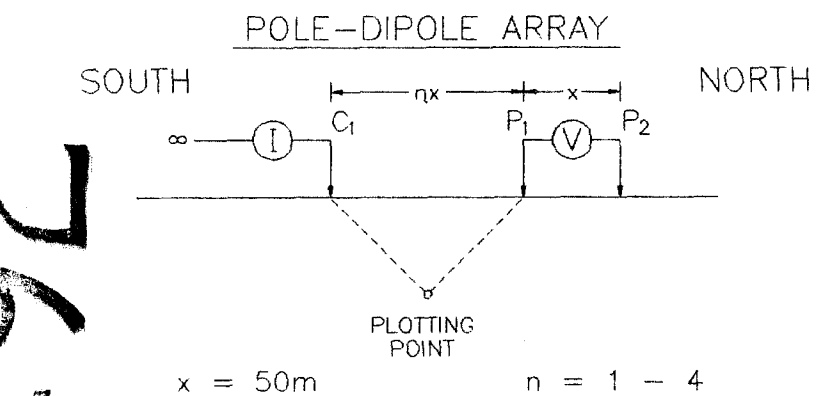
GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,492  
267,61

PACIFIC SENTINEL  
GOLD CORP.

Toughnut Grid

LINE: 300W



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CURRENT ELECTRODE C<sub>1</sub> SOUTH  
OF POTENTIAL DIPOLE P<sub>1</sub>P<sub>2</sub>

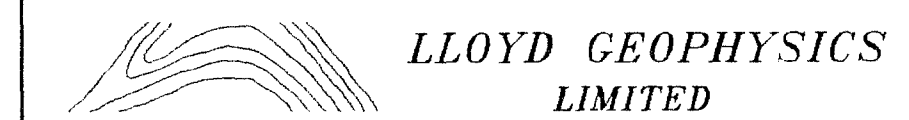
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OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

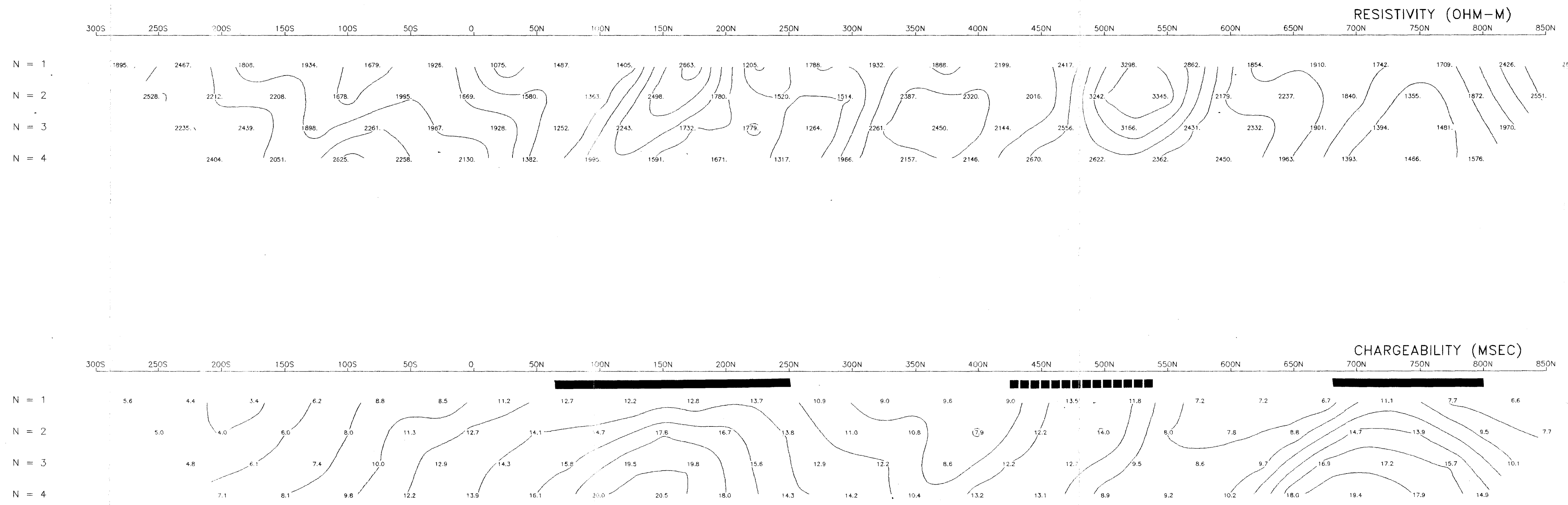
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Rx: EDA IP-6



LLOYD GEOPHYSICS  
LIMITED  
INDUCED POLARIZATION SURVEY  
DRAWING NUMBER : 89291-4



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ASSESSMENT REPORT

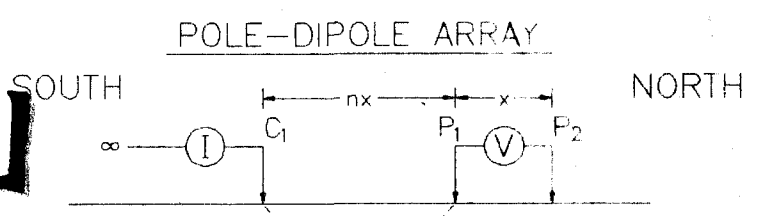
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GOLD CORP.

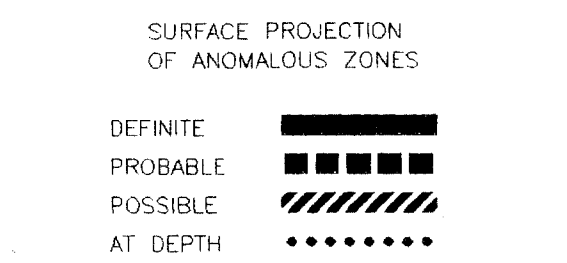
Toughnut Grid

LINE: 200W



POLE-DIPOLE ARRAY  
SOUTH NORTH  
CURRENT ELECTRODE C<sub>1</sub> SOUTH OF POTENTIAL DIPOLE P<sub>1</sub>P<sub>2</sub>  
x = 50m n = 1 - 4

CURRENT ELECTRODE C<sub>1</sub> SOUTH OF POTENTIAL DIPOLE P<sub>1</sub>P<sub>2</sub>



SURFACE PROJECTION OF ANOMALOUS ZONES  
SCALE 1 : 2000

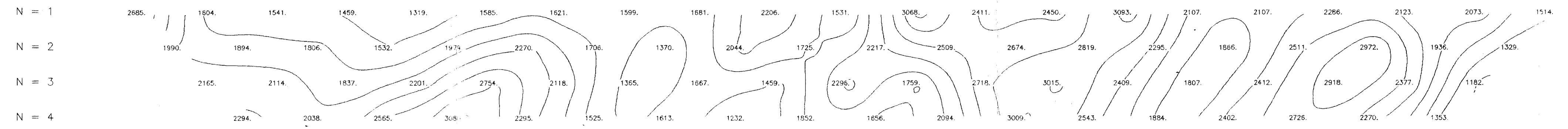
CONTOUR INTERVALS  
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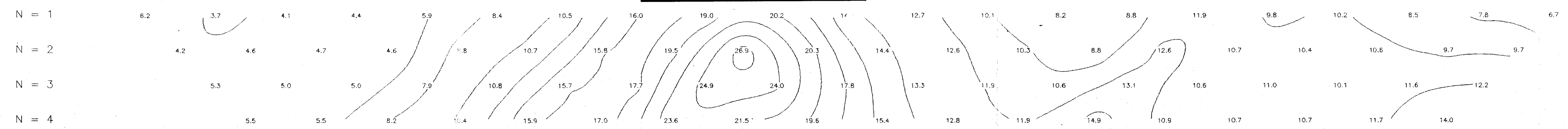
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LIMITED

INDUCED POLARIZATION SURVEY  
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RESISTIVITY (OHM-M)



CHARGEABILITY (MSEC)



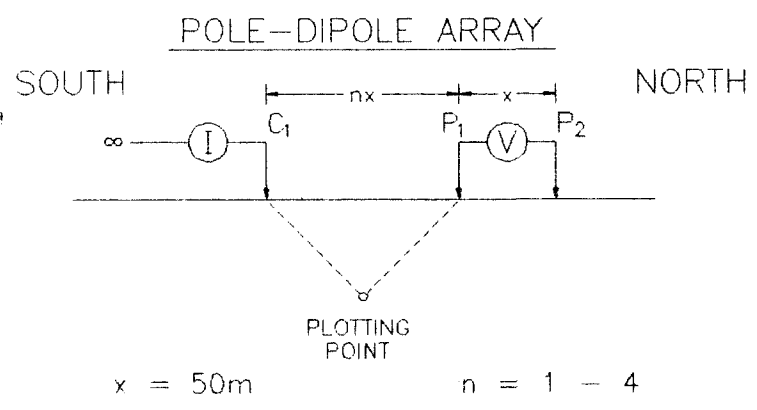
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ASSESSMENT REPORT

19,792

PACIFIC SENTINEL  
GOLD CORP.

Toughnut Grid

LINE: 100W



CURRENT ELECTRODE C<sub>1</sub> SOUTH OF POTENTIAL DIPOLE P<sub>1</sub>P<sub>2</sub>

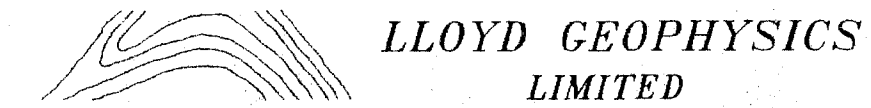
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- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

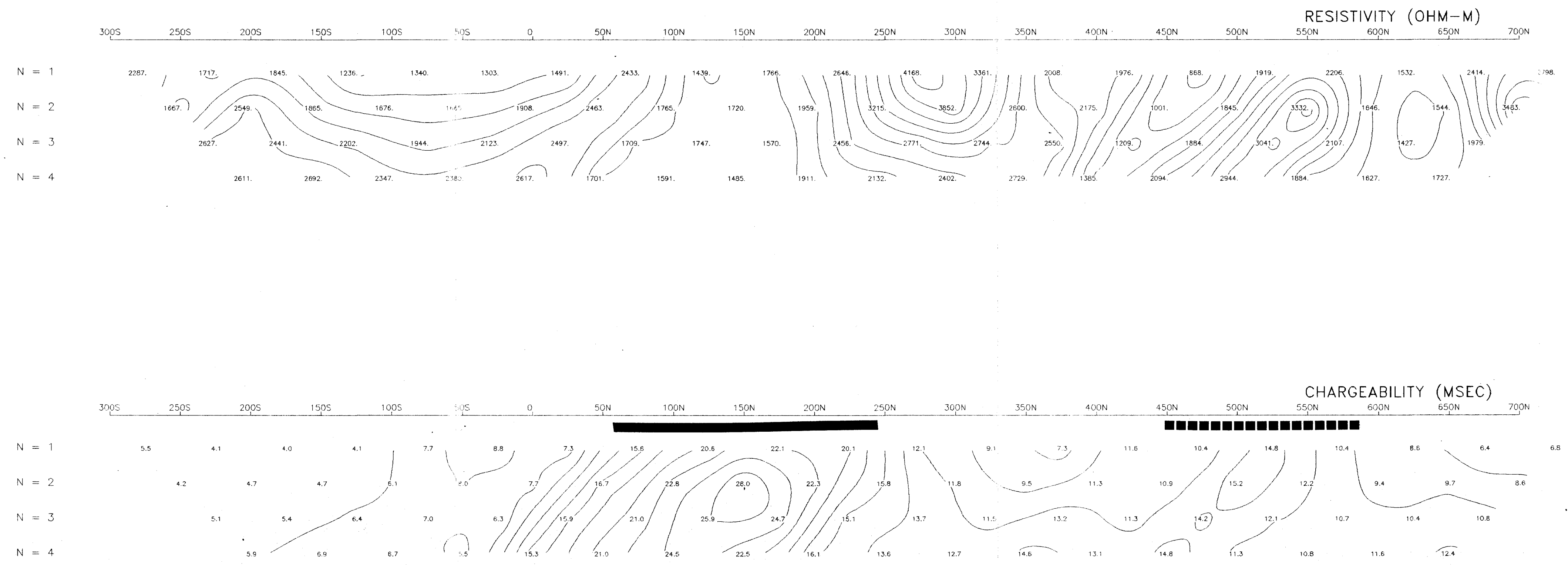
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APP.CHARGEABILITY : 2.0 (msec)  
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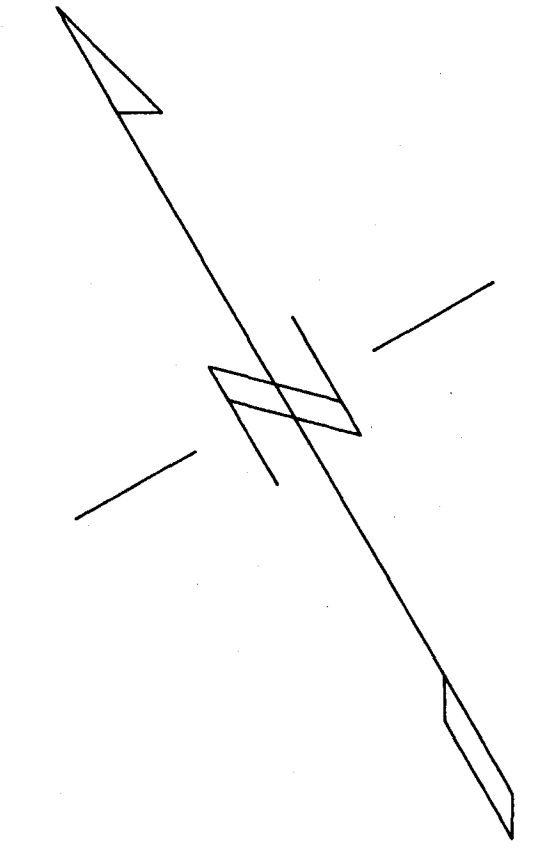
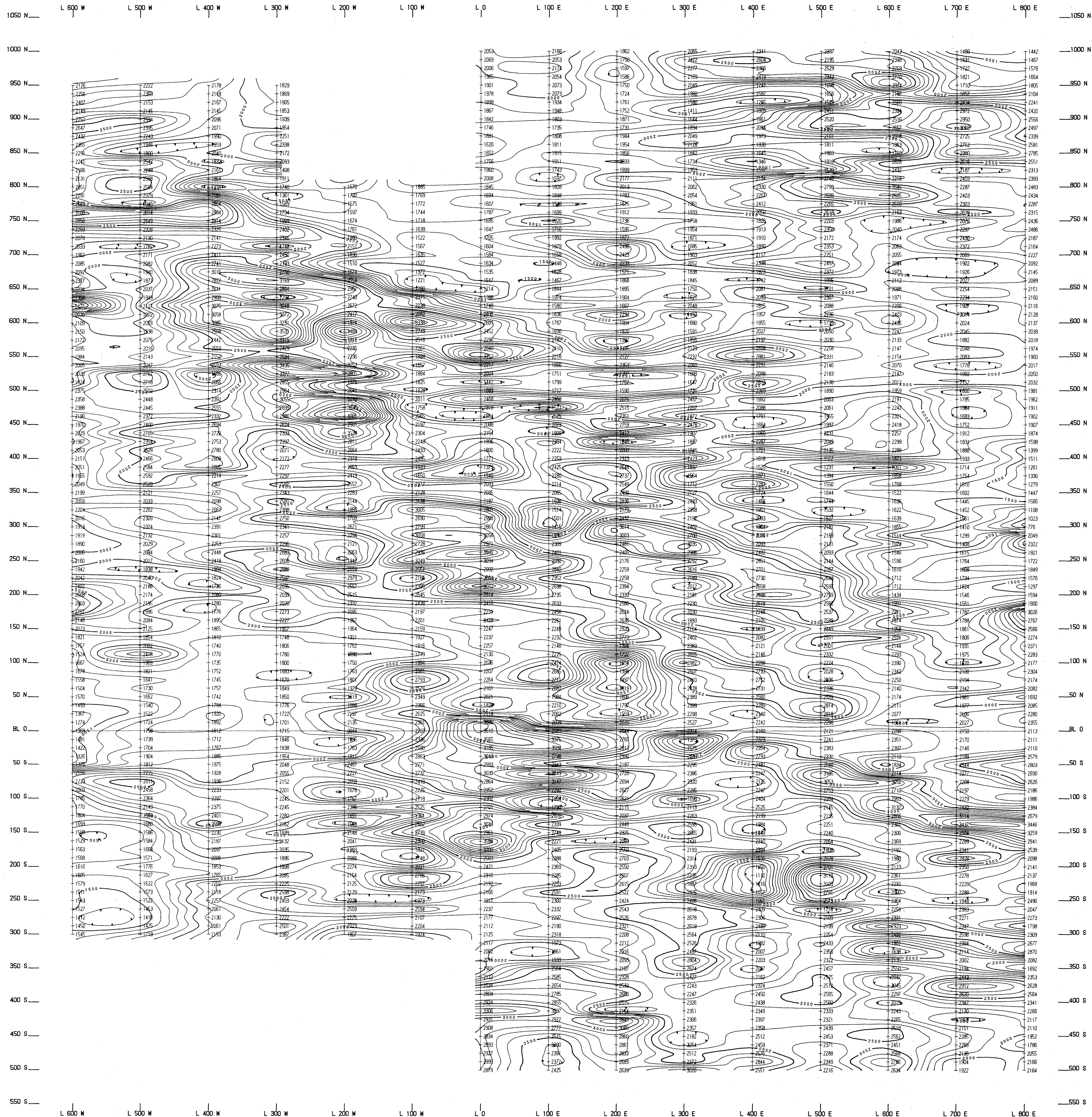
LLOYD GEOPHYSICS  
LIMITED  
INDUCED POLARIZATION SURVEY  
DRAWING NUMBER : 89291-6



GEOLOGICAL BRANCH ASSESSMENT REPORT

19,492





**LEGEND**

- CONTOUR INTERVALS**
- 100 nT
  - 500 nT
  - 2500 nT

BASE LEVEL OF 5550 nT REMOVED FROM ALL READINGS

**INSTRUMENT**

- EDA OMNI PLUS
- EDA OMNI IV BASESTATION

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**19,492**

To Accompany a Report by  
JOHN LLOYD M.Sc., P. Eng.  
September 1989

SCALE 1 : 2500  
50 0 50 (metres) 100 150 200

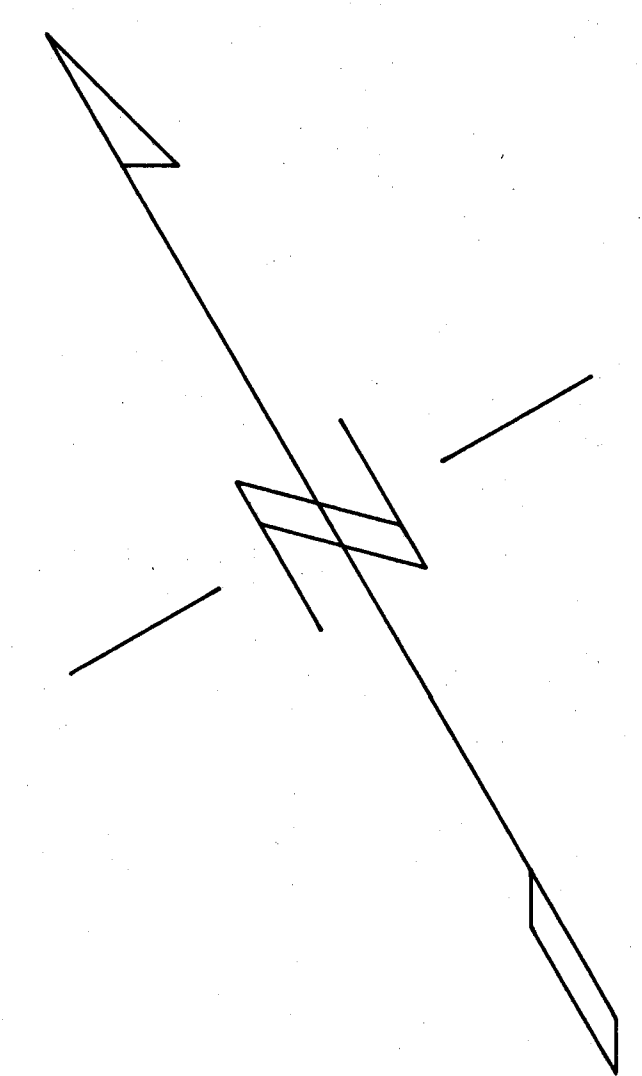
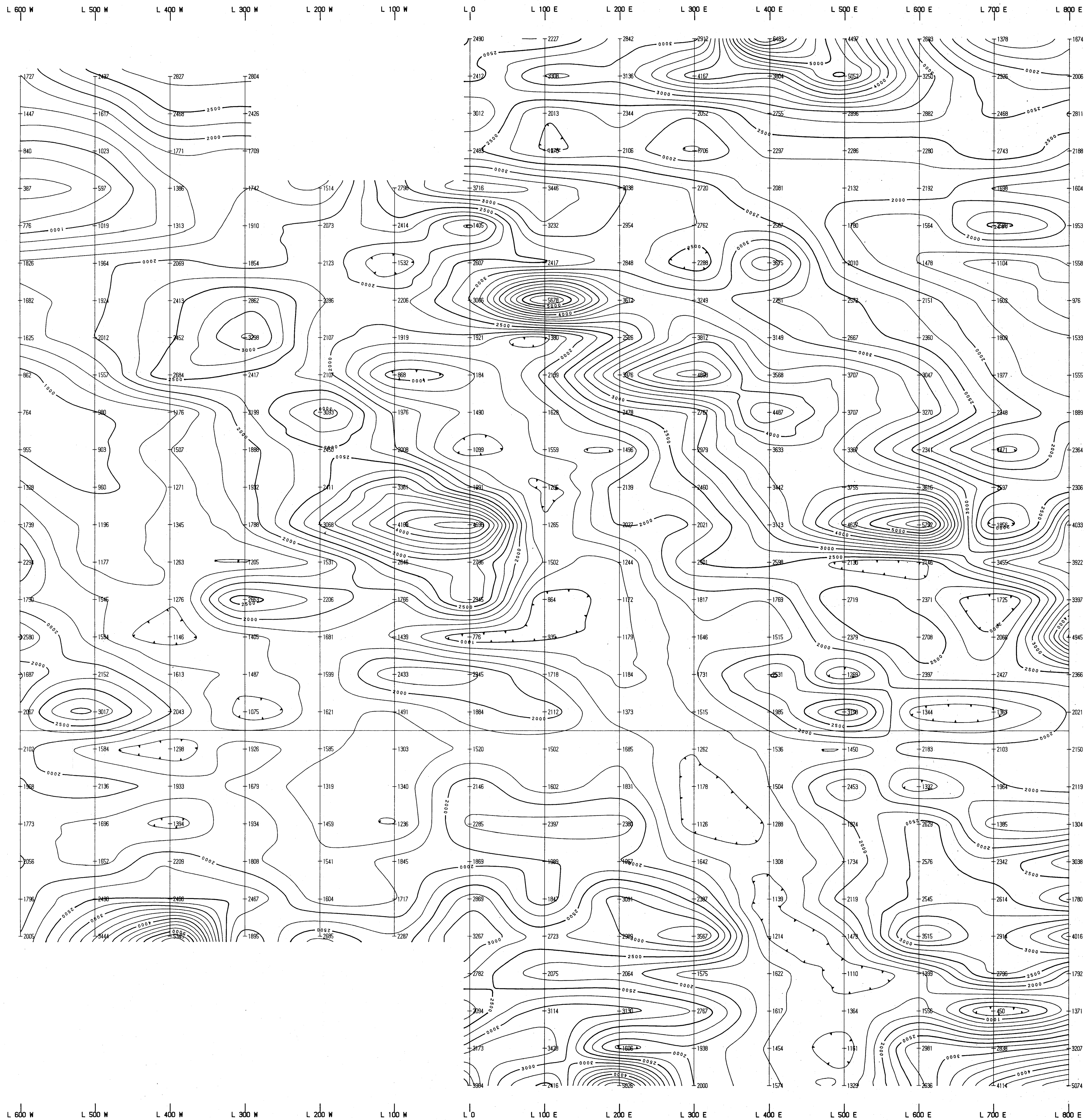
PACIFIC SENTINEL GOLD CORP.

TOUGHNUT PROPERTY  
Nelson Mining Division  
Nelson, British Columbia

**TOTAL FIELD MAGNETIC CONTOURS**  
NTS 82 F/6  
Map Scale 1 : 2500 Drawing : 89291-9

LLOYD GEOPHYSICS LIMITED





**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**19,492**

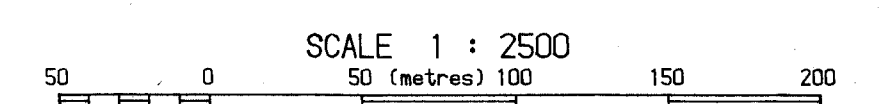
**LEGEND**

INDUCED POLARIZATION SURVEY  
POLE-DIPOLE ARRAY  
DIPOLE SEPARATION : 50 METERS  
CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

**CONTOUR INTERVALS**

- 250 OHM-M
- 1000 OHM-M
- 2500 OHM-M

To Accompany a Report by  
**JOHN LLOYD M.Sc., P. Eng.**  
September 1989



**PACIFIC SENTINEL GOLD CORP.**

**TOUGHNUT PROPERTY 88 & 89**  
Nelson Mining Division  
Nelson, British Columbia

**RESISTIVITY N = 1**

NTS 82 F/6

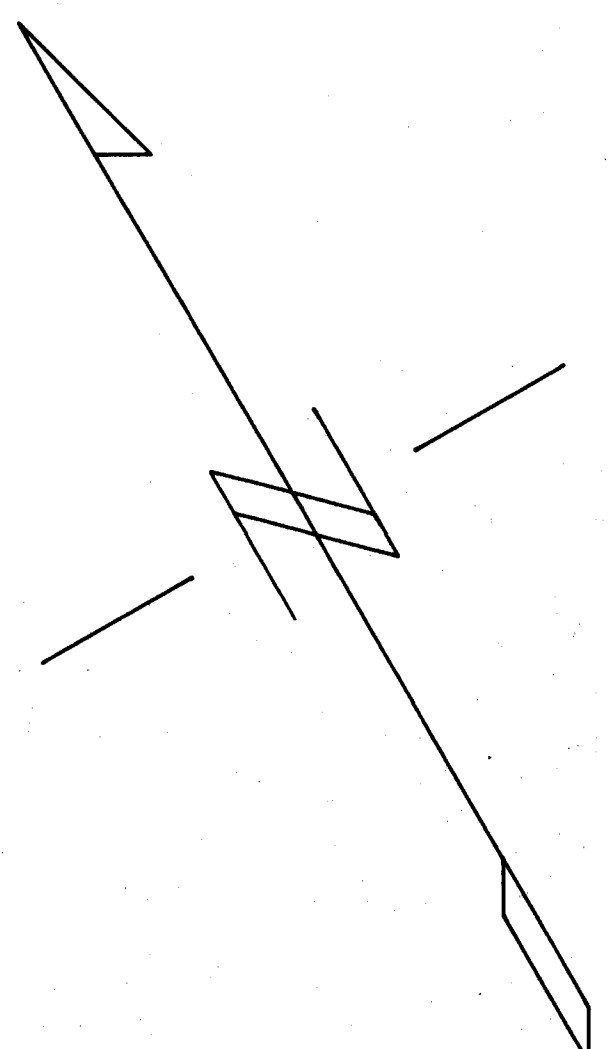
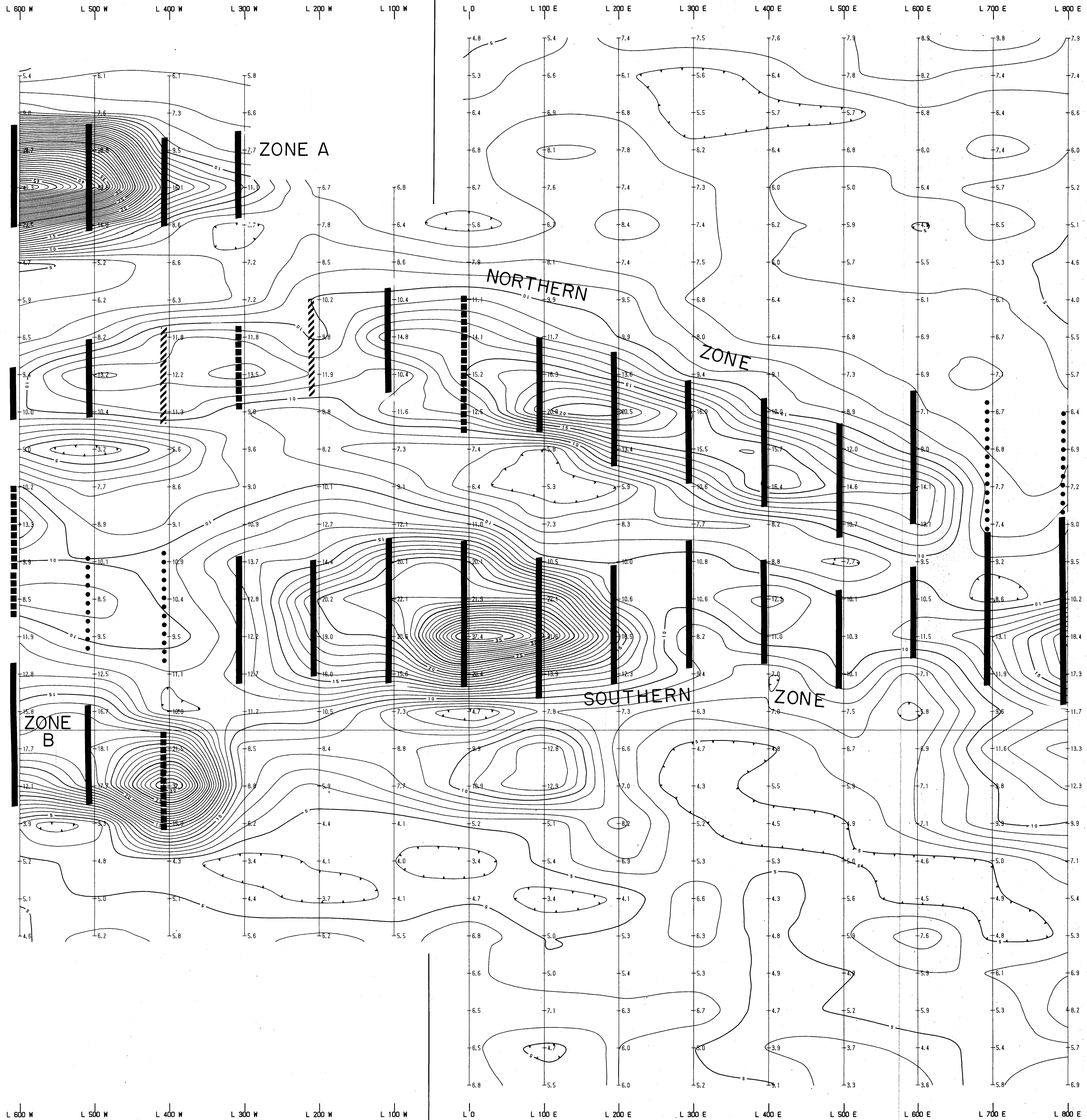
Map Scale 1 : 2500 Drawing : 89291-8

**LLOYD GEOPHYSICS LIMITED**



SURVEYED IN 1989

SURVEYED IN 1988



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,492

LEGEND

INDUCED POLARIZATION SURVEY  
POLE-DIPOLE ARRAY  
DIPOLE SEPARATION : 50 METERS  
CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

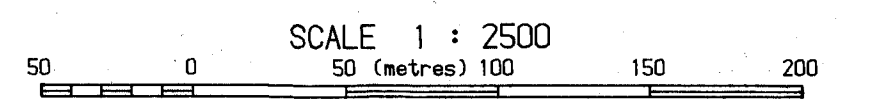
CONTOUR INTERVALS

- 1.0 MSEC
- 5.0 MSEC
- 25.0 MSEC

SURFACE PROJECTION OF ANOMALOUS  
CHARGEABILITY ZONES AS DERIVED FROM  
PSEUDOSECTIONS N = 1 TO 4

- █ DEFINITE
- ▒ PROBABLE
- ▤ POSSIBLE
- AT DEPTH

To Accompany a Report by  
JOHN LLOYD M.Sc., P. Eng.  
September 1989



PACIFIC SENTINEL GOLD CORP.

TOUGHNUT PROPERTY 88 & 89  
Nelson Mining Division  
Nelson, British Columbia

CHARGEABILITY N = 1

NTS 82 F/6

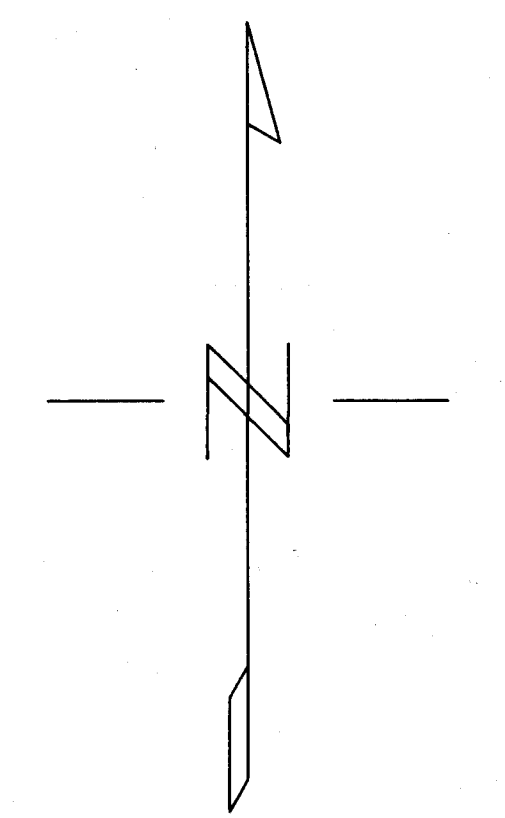
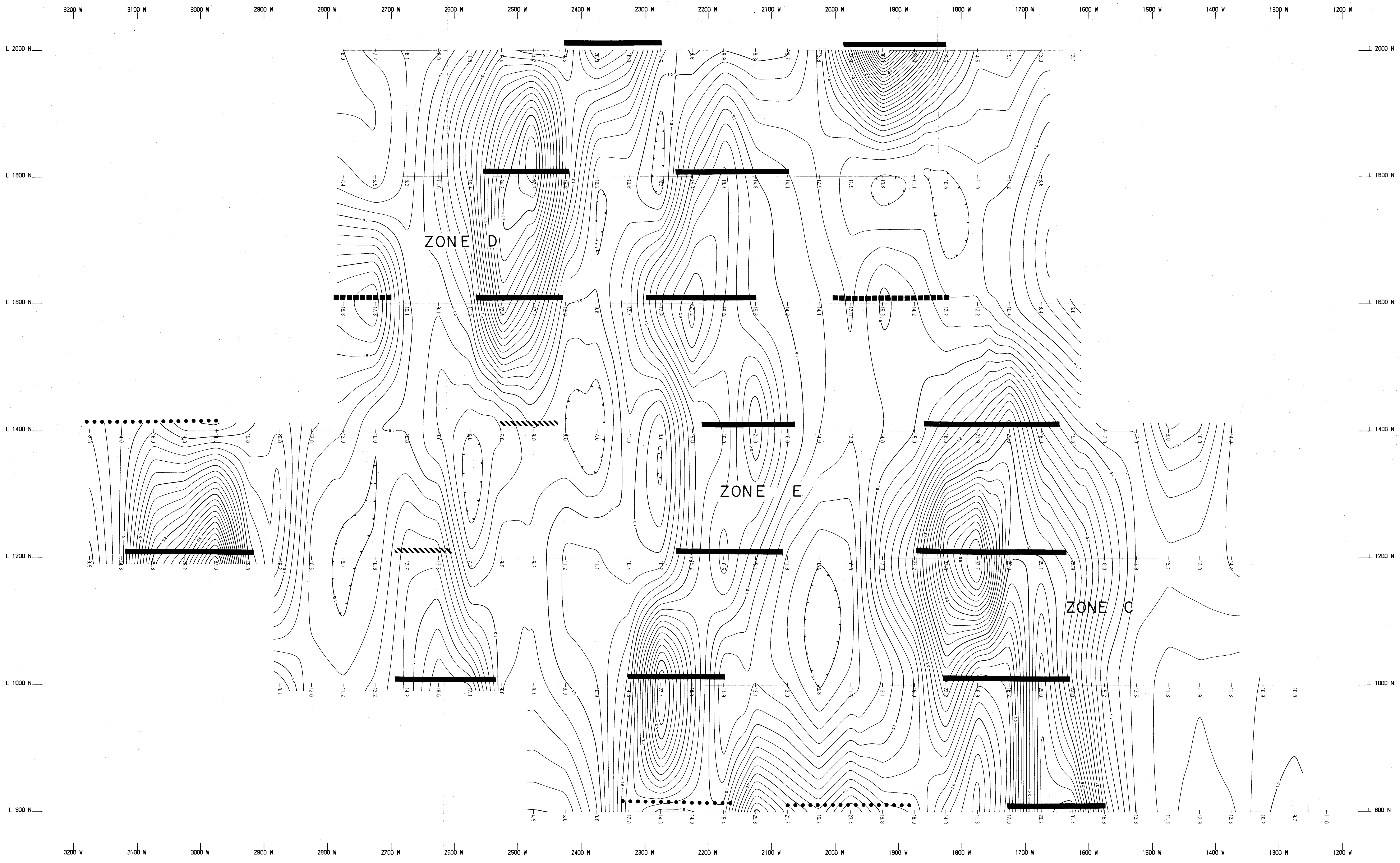
Map Scale 1 : 2500 Drawing : 89291-7

LLOYD GEOPHYSICS LIMITED









**LEGEND**

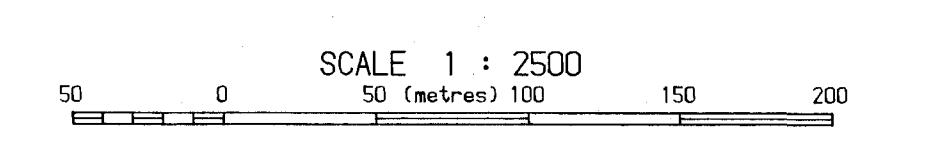
INDUCED POLARIZATION SURVEY  
 POLE-DIPOLE ARRAY  
 DIPOLE SEPARATION : 50 METERS  
 CURRENT ELECTRODE WEST OF POTENTIAL DIPOLE

CONTOUR INTERVALS  
 ——— 1.0 MSEC  
 ——— 5.0 MSEC  
 ——— 25.0 MSEC

SURFACE PROJECTION OF ANOMALOUS CHARGEABILITY ZONES AS DERIVED FROM PSEUDOSECTIONS N = 1 TO 4

- DEFINITE
- PROBABLE
- /////// POSSIBLE
- ..... AT DEPTH

To Accompany a Report by  
 JOHN LLOYD M.Sc., P. Eng.  
 September 1989



PACIFIC SENTINEL GOLD CORP.

RON GRID 1989  
 Nelson Mining Division  
 Nelson, British Columbia

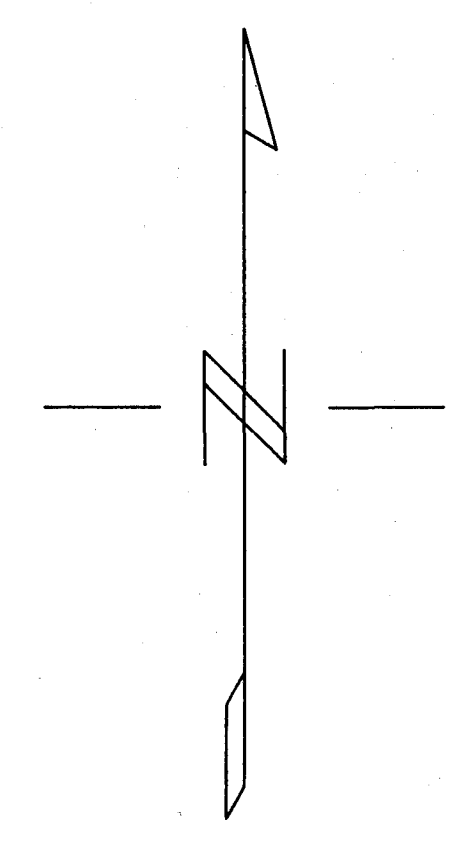
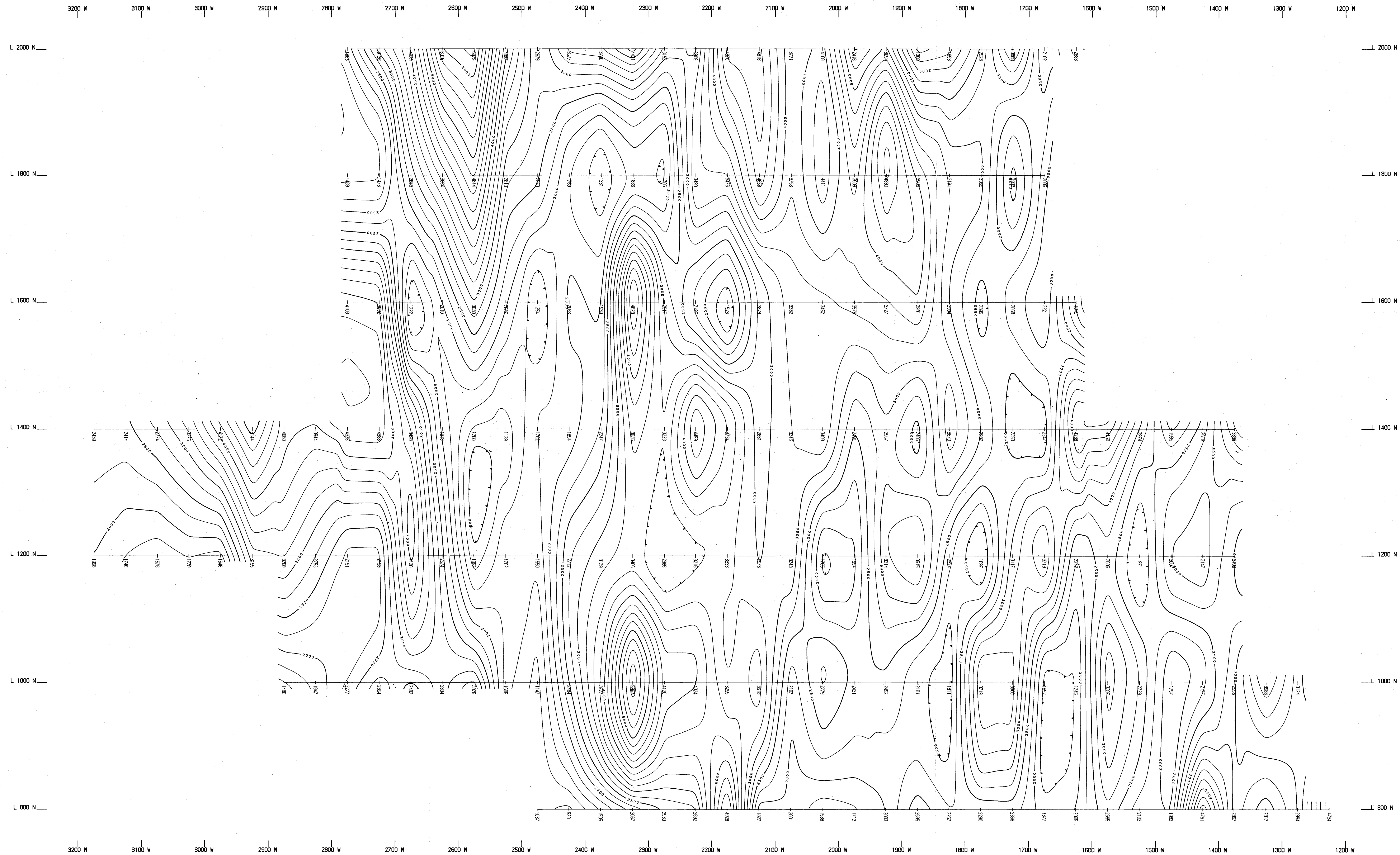
CHARGEABILITY N = 1

NTS 82 F/6

Map Scale 1 : 2500 Drawing : 89291-17

LLOYD GEOPHYSICS LIMITED

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT  
**19,492**



**LEGEND**

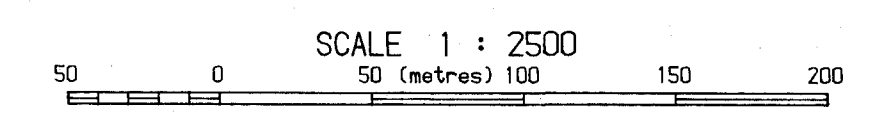
INDUCED POLARIZATION SURVEY  
 POLE-DIPOLE ARRAY  
 DIPOLE SEPARATION : 50 METERS  
 CURRENT ELECTRODE WEST OF POTENTIAL DIPOLE

CONTOUR INTERVALS  
 ——— 250 OHM-M  
 ——— 1000 OHM-M

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

**19,492**

To Accompany a Report by  
 JOHN LLOYD M.Sc., P. Eng.  
 September 1989



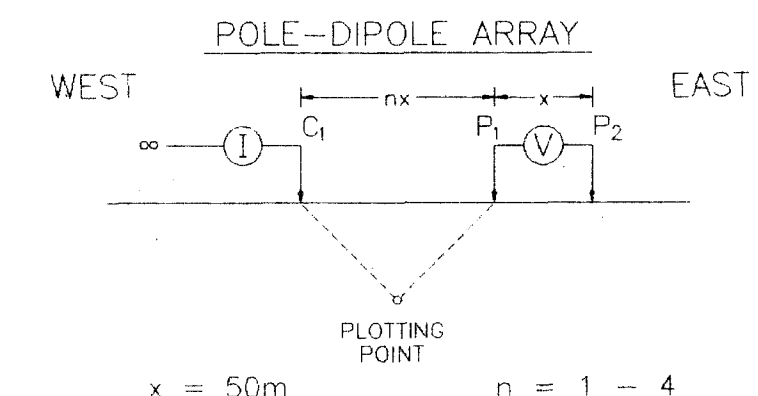
PACIFIC SENTINEL GOLD CORP.
RON GRID 1989 Nelson Mining Division Nelson, British Columbia
RESISTIVITY N = 1 NTS 82 F/6 Map Scale 1 : 2500 Drawing : 89291-18
LLOYD GEOPHYSICS LIMITED



PACIFIC SENTINEL  
GOLD CORP.

Ron Grid

LINE: 800N



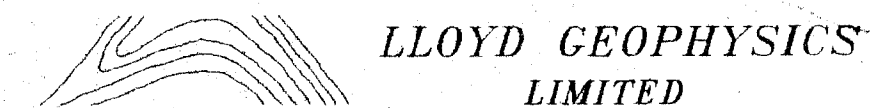
CURRENT ELECTRODE C<sub>1</sub> WEST OF POTENTIAL DIPOLE P<sub>1</sub>P<sub>2</sub>

SURFACE PROJECTION OF ANOMALOUS ZONES

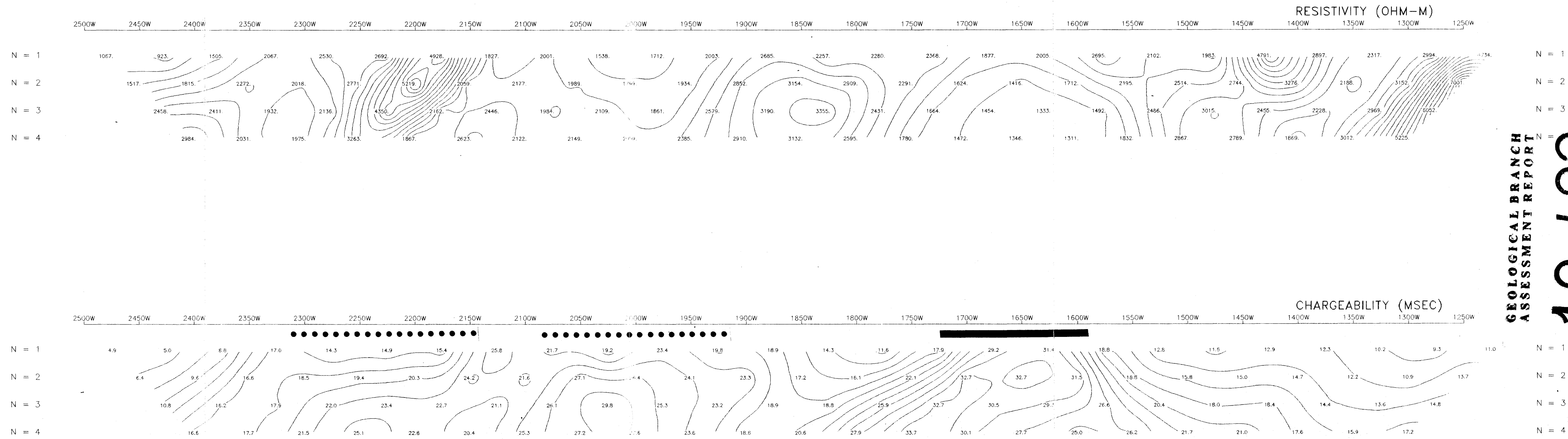
- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

CONTOUR INTERVALS  
APP.CHARGEABILITY : 2.0 (msec)  
APP.RESISTIVITY : 250 (ohm-m)  
DATE SURVEYED: JULY 30, 1989  
Tx: Huntec MK2 Model 7500  
Rx: EDA IP-6



INDUCED POLARIZATION SURVEY  
DRAWING NUMBER : 89291-10

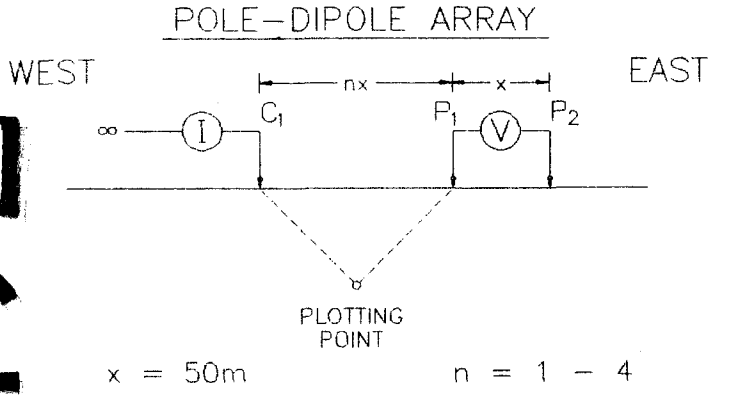


GEOLOGICAL BRANCH  
ASSESSMENT REPORT  
**19,492**

PACIFIC SENTINEL  
GOLD CORP.

Ron Grid

LINE: 1000N



CURRENT ELECTRODE C<sub>1</sub> WEST  
OF POTENTIAL DIPOLE P<sub>1</sub>P<sub>2</sub>

SURFACE PROJECTION  
OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

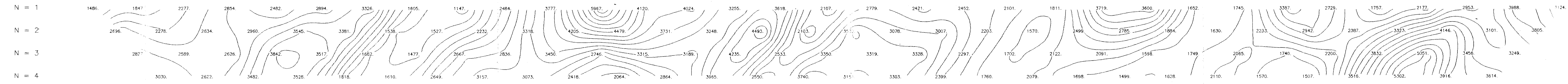
CONTOUR INTERVALS  
APP.CHARGEABILITY : 2.0 (msec)  
APP.RESISTIVITY : 250 (ohm-m)  
DATE SURVEYED: July 29, 1989  
Tx: Hunttec Mk2 Model 7500  
Rx: EDA IP-6

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

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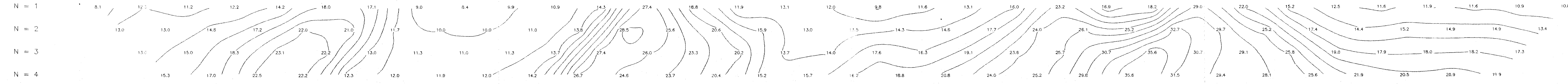
RESISTIVITY (OHM-M)

2900W 2850W 2800W 2750W 2700W 2650W 2600W 2550W 2500W 2450W 2400W 2350W 2300W 2250W 2200W 2150W 2100W 2050W 2000W 1950W 1900W 1850W 1800W 1750W 1700W 1650W 1600W 1550W 1500W 1450W 1400W 1350W 1300W



CHARGEABILITY (MSEC)

2900W 2850W 2800W 2750W 2700W 2650W 2600W 2550W 2500W 2450W 2400W 2350W 2300W 2250W 2200W 2150W 2100W 2050W 2000W 1950W 1900W 1850W 1800W 1750W 1700W 1650W 1600W 1550W 1500W 1450W 1400W 1350W 1300W



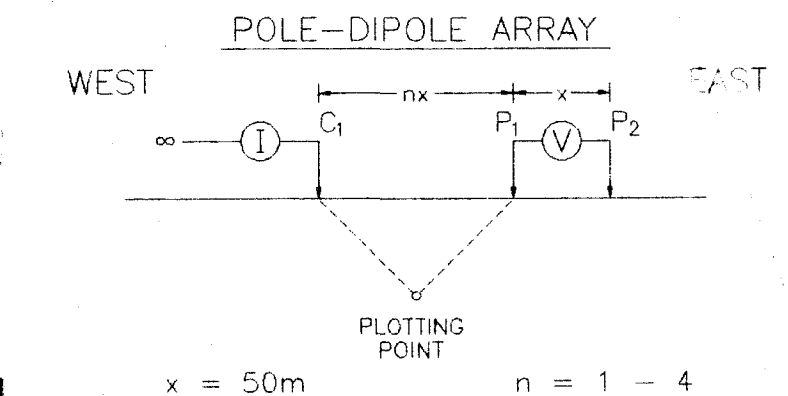
LLOYD GEOPHYSICS  
LIMITED

INDUCED POLARIZATION SURVEY  
DRAWING NUMBER 89291-11

PACIFIC SENTINEL  
GOLD CORP.

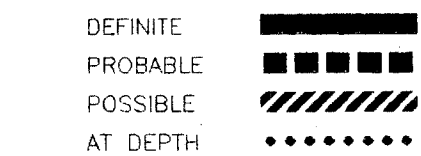
Ron Grid

LINE: 1200N



CURRENT ELECTRODE C1 WEST  
OF POTENTIAL DIPOLE P1P2

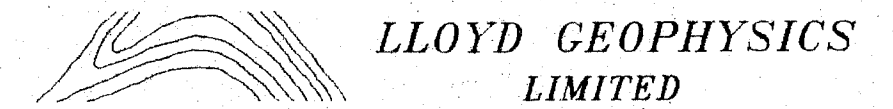
SURFACE PROJECTION  
OF ANOMALOUS ZONES



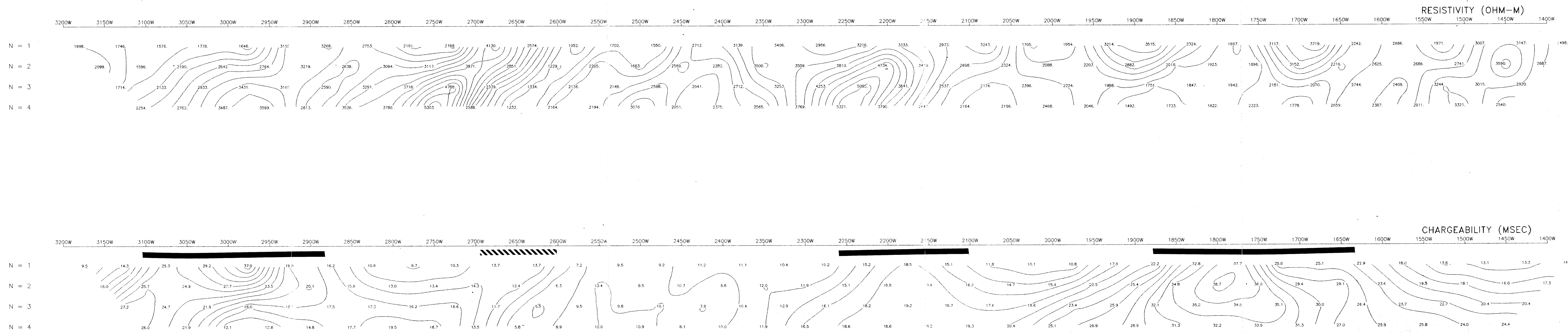
SCALE 1 : 2000

CONTOUR INTERVALS  
APP. CHARGEABILITY : 2.0 (msec)  
APP. RESISTIVITY : 250 (ohm-m)

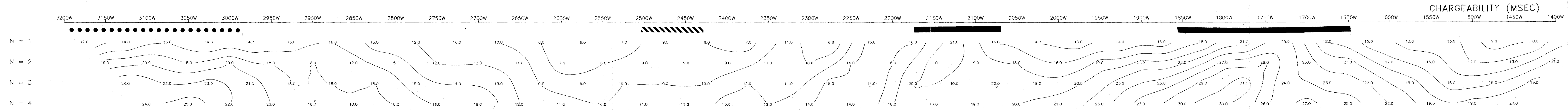
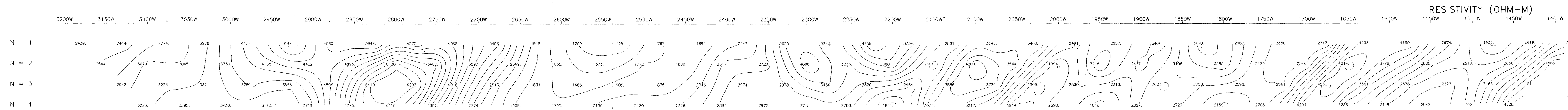
DATE SURVEYED: July 31, 1989  
Tx: Huntex MK2 Model 7500  
Rx: EDA IP-6



LLOYD GEOPHYSICS  
LIMITED  
INDUCED POLARIZATION SURVEY  
DRAWING NUMBER : 89291-12



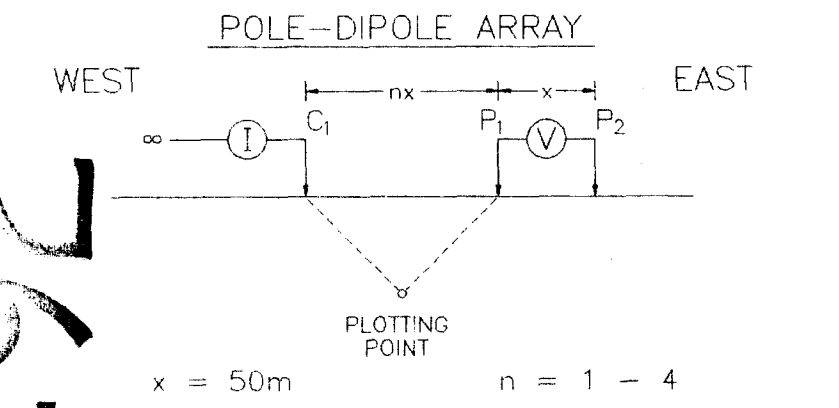
GEOLOGICAL BRANCH  
ASSETS  
19,492



PACIFIC SENTINEL  
GOLD CORP.

Ron Grid

LINE: 1400N



CURRENT ELECTRODE C<sub>1</sub> WEST  
OF POTENTIAL DIPOLE P<sub>1</sub>P<sub>2</sub>

SURFACE PROJECTION  
OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

CONTOUR INTERVALS  
APP.CHARGEABILITY : 2.0 (msec)  
APP.RESISTIVITY : 250 (ohm-m)  
DATE SURVEYED: July 28, 1989  
Tx: Hunttec Mk2 Model 7500  
Rx: EDA IP-6

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

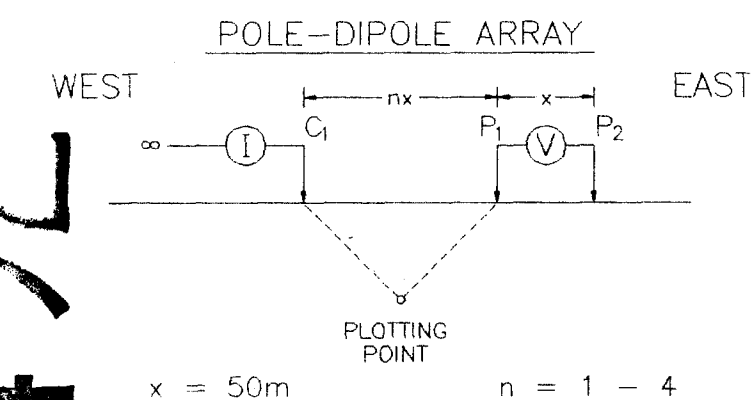
19,492  
2647,6T

**LLOYD GEOPHYSICS  
LIMITED**  
INDUCED POLARIZATION SURVEY  
DRAWING NUMBER : 89291-13

PACIFIC SENTINEL  
GOLD CORP.

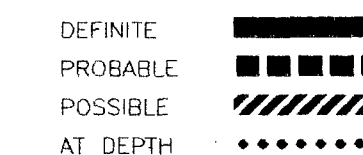
Ron Grid

LINE: 1600N



CURRENT ELECTRODE C<sub>1</sub> WEST  
OF POTENTIAL DIPOLE P<sub>1</sub>P<sub>2</sub>

SURFACE PROJECTION  
OF ANOMALOUS ZONES



SCALE 1 : 2000

CONTOUR INTERVALS  
APP.CHARGEABILITY : 2.0 (msec)  
APP.RESISTIVITY : 250 (ohm-m)

DATE SURVEYED: July 31, 1989  
Tx: Huntec Mk2 Model 7500  
Rx: EDA IP-6

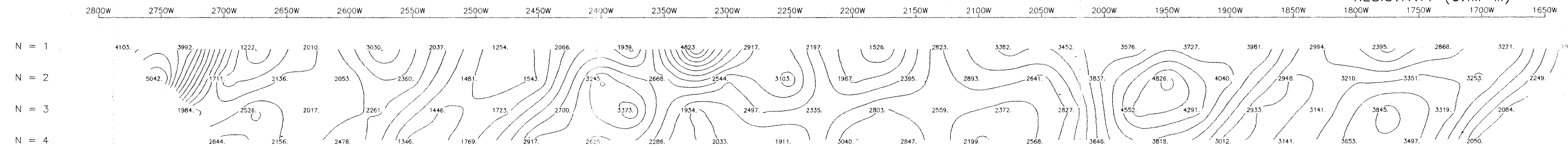
**LLOYD GEOPHYSICS  
LIMITED**

INDUCED POLARIZATION SURVEY

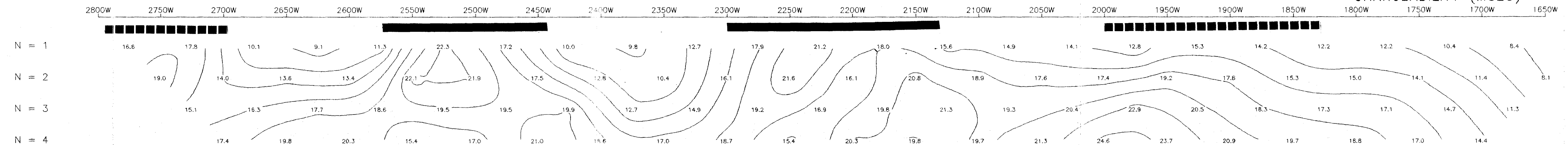
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GEOLOGICAL BRANCH  
ASSESSMENT REPORT  
**19,492**

RESISTIVITY (OHM-M)



CHARGEABILITY (MSEC)

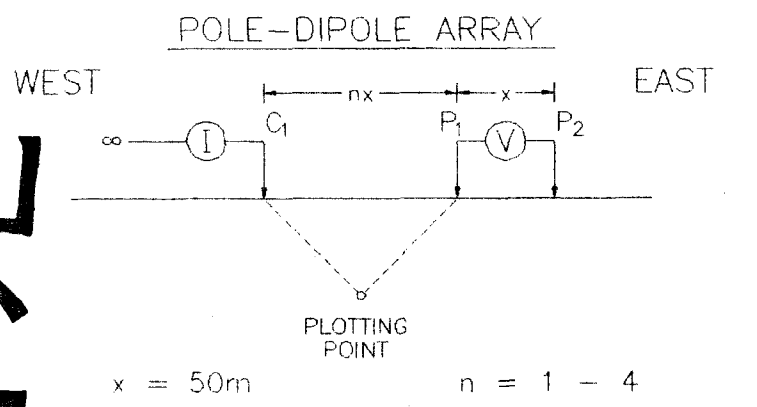




PACIFIC SENTINEL  
GOLD CORP.

Ron Grid

LINE: 1800N



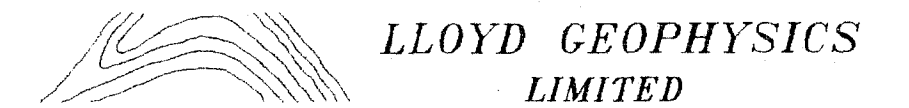
SURFACE PROJECTION OF ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE
- AT DEPTH

SCALE 1 : 2000

CONTOUR INTERVALS  
APP.CHARGEABILITY : 2.0 (msec)  
APP.RESISTIVITY : 250 (ohm-m)

DATE SURVEYED: August 1, 1989  
Tx: Huntec Mk2 Model 7500  
Rx: EDA IP-6

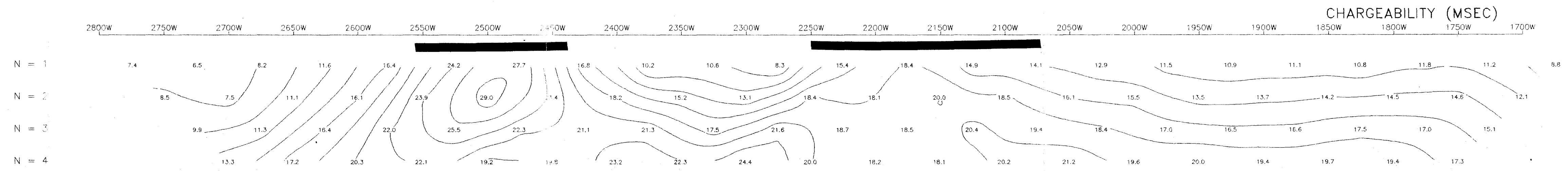
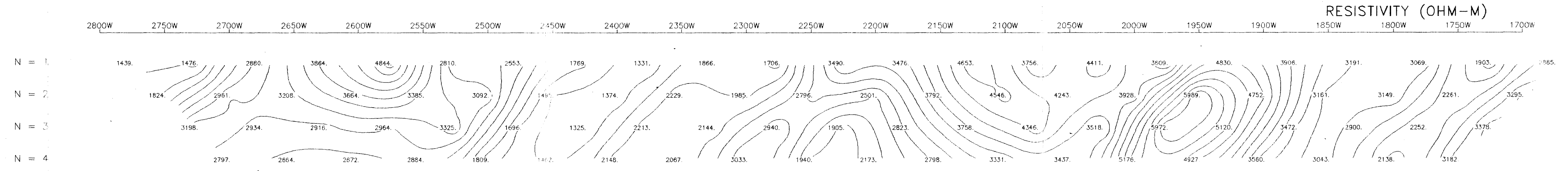


INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 89291-15

GEOLOGICAL BRANCH ASSESSMENT REPORT

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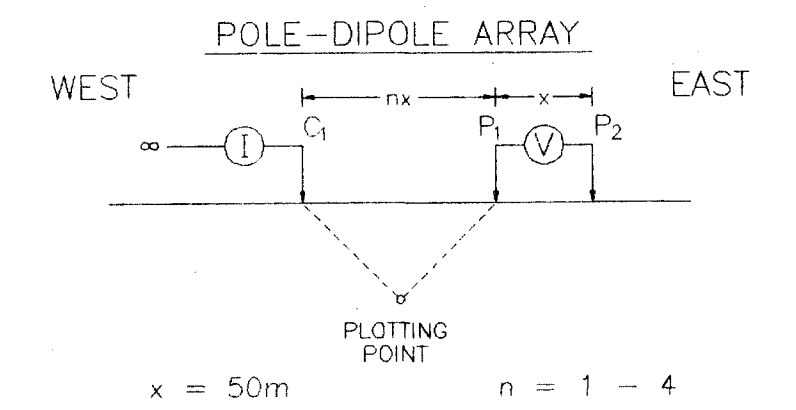




PACIFIC SENTINEL  
GOLD CORP.

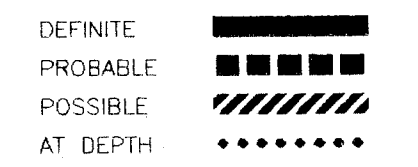
Ron Grid

LINE: 2000N



CURRENT ELECTRODE C<sub>1</sub> WEST  
OF POTENTIAL DIPOLE P<sub>1</sub>P<sub>2</sub>

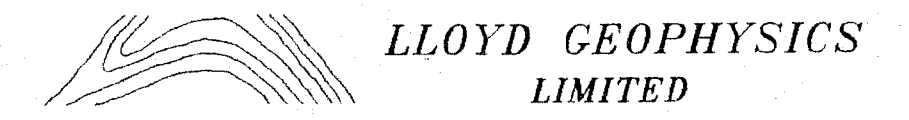
SURFACE PROJECTION  
OF ANOMALOUS ZONES



SCALE 1 : 2000

CONTOUR INTERVALS  
APP. CHARGEABILITY : 2.0 (msec)  
APP. RESISTIVITY : 250 (ohm-m)

DATE SURVEYED: August 1, 1989  
Tx: Huntec Mk2 Model 7500  
Rx: EDA IP-6.



LLOYD GEOPHYSICS  
LIMITED

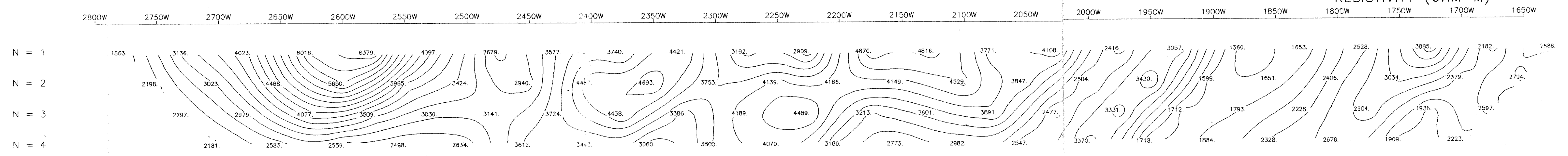
INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 89291-16

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,492  
267,61

RESISTIVITY (OHM-M)



CHARGEABILITY (MSEC)

