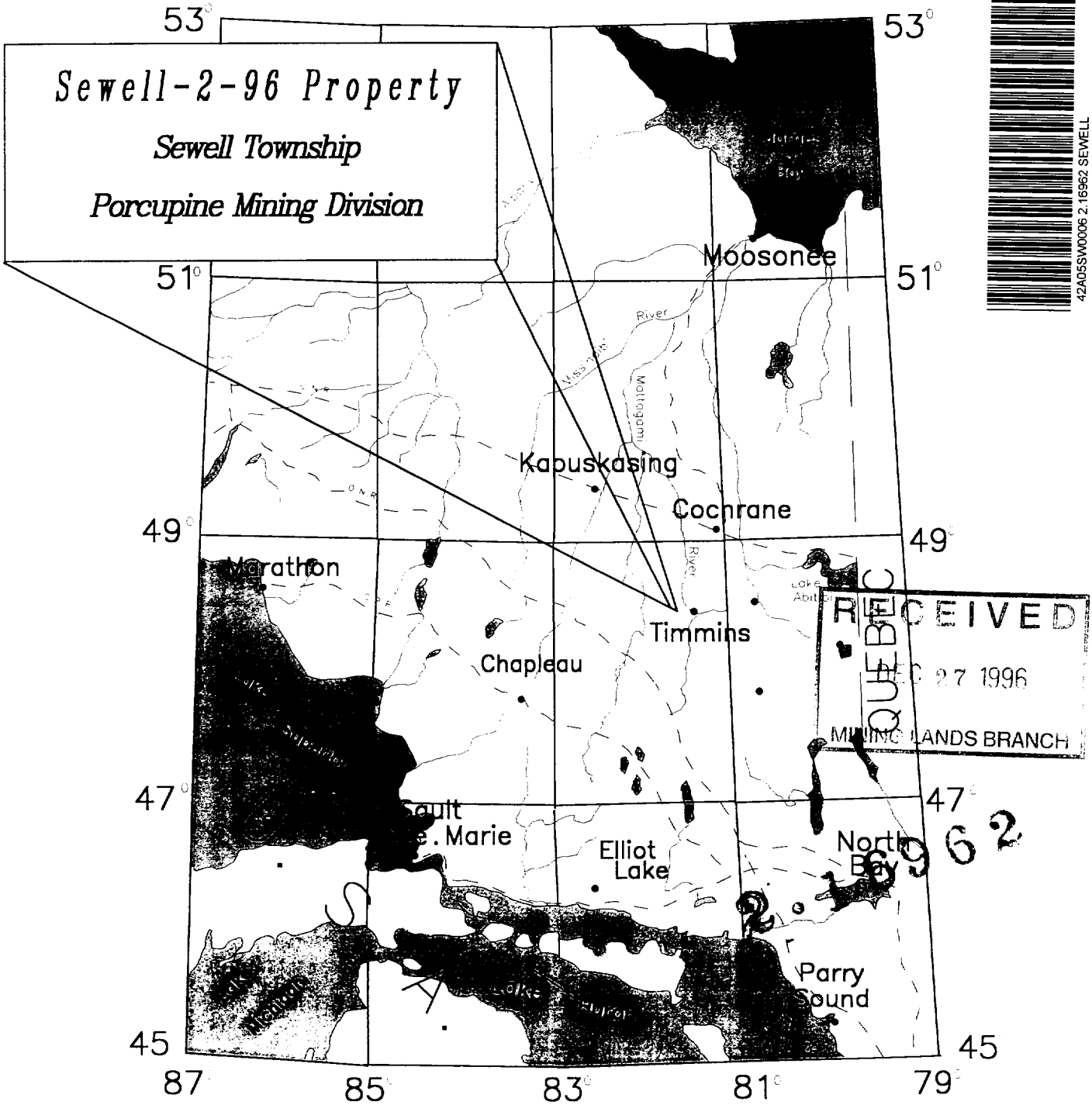
Geophysical Report of Work

for

Cross Lake Minerals Ltd



2.16962

M C Exploration Services Inc

Oct 1996

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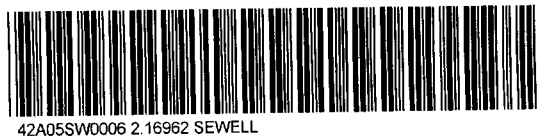
1:5000 Plan Maps



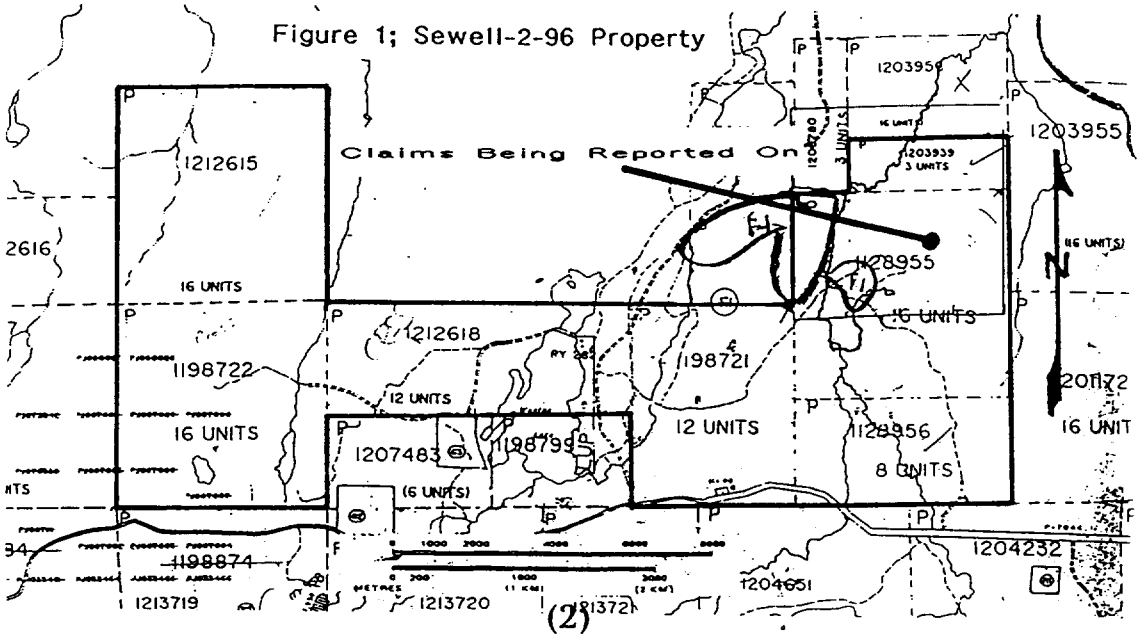
1.0 SUMMARY

Cross Lake Minerals Ltd., of Vancouver, B.C., completed exploration on the Sewell-1-96 Property comprised of line cutting, magnetics, and induced polarization surveys in the summer of 1996. The property is in Sewell Township, 50 km west of Timmins, ON, along HWY 101 West. It is jointly owned by two Timmins entrepreneurs and Cross Lake. Ensuing the geophysical survey, a geology survey was done by C. MacKenzie for Cross Lake. All gathered information encourages further work.

2.0 Introduction

Cross Lake Minerals Ltd., of Vancouver, B. C., awarded M. C. Exploration Services Inc. of South Porcupine, ON, a contract to do exploration on their Sewell-2-96 Property . The property is in Sewell Township, Porcupine Mining Division, near 50 km west of Timmins, ON, along HWY 101 West. A nickel showing on the property is what prompted Cross Lake to do exploration. Grab samples taken by C. MacKenzie in September 1996, returned 6300 ppm Ni & 4730 ppm Ni (refer to geological report C. MacKenzie, 1996). The 1996 work covers two claims, 1203939 and1128955 and is comprised of line cutting, total field magnetics, and induced polarization surveys. This report is only intended to be a summary of the geophysical results and not an assessment. The reader is asked to refer to a geological report written by C. MacKenzie, 1996, who mapped the property for Cross Lake. The property is jointly owned by Cross Lake Minerals and two Timmins prospectors. It is comprised of eight adjoining claim blocks (91 units) spread EW just north of HWY 101 West, near the west boundary of the Reeves - Sewell Township line.

Figure 1; Sewell-2-96 Property



3.0 GEOPHYSICAL AGENDA

3.1 Line Cutting

M. C. Exploration Services Inc., line cutting crews established a start point in June 1996 at claim post #3 of claim 1203939. Crews cut the baseline NS from this point up to 400 m S and 500 m N. Thirteen cross - lines were then cut at 90° to the baseline extending up to the east claim boundaries. Two tie lines, 500E and 1000E were cut parallel to the baseline. Lines are at 50 m and 100 m intervals, and are all picketed at a 25 m interval. All lines tally 17.056 km which were cut in the summer of 1996. It should be mentioned that the claim 1203939, recorded as a 1 X 3 unit block measures near 600 meters wide. Therefore, it should be recorded as a 4.5 unit block.

3.2 Total Field Magnetic Survey

3.2.1 Procedure

Geophysical crews used the GSM-19, Overhauser magnetometers to read the total field on the Sewell-1-96 Grid. The operators were unable to cross the Crawford River and therefore only read 14.275 km of the 17 km grid. All lines were read at a 12.5 m interval tallying 1119 readings ranging from 52102 to 70674. The data was smoothed using a similar GSM-19 magnetometer located along the access road. The drift was monitored every 30 seconds. The reader is asked to refer to the addendum for equipment specifications and survey theories.

3.2.2 Results

The total field magnetic survey results plotted on Plan 1 (pocket) labels the data with

a 58000 nT base removed. The survey was influenced by the power line which bisects the grid N of E accounting for the wide data range. The background of the property is 58571 nT. There are anomalous values reaching 1500 nT above background and others reaching 10,000 nT. The former, are believed to be responses over the diabase dikes while the latter postulates ultrabasic rocks underlying several locations on the grid.

3.3 Induced Polarization Survey

3.31 Procedure

The crews read the selected Pole Dipole Array with an A (dipole) spacing of 50 m. Six n levels were taken at each station using the Androtex TDR-6 Receiver in conjunction with the fixed Scintrex TSQ-3, time domain transmitter. The infinity electrode, C2 was located at co-ordinate 450S/1200W for the entire job with C1 logging west for all fourteen EW traverses. A total of 12.15 km of IP was read. The reader is asked to refer to the addendum for Equipment Specifications and Survey Theories.

3.3.2 Results

The IP results are plotted on fourteen (14) sections posting total chargeabilities in mV/V and resistivities in ohm's/ 50 meters. At this time the origin of the good chargeability effects (15 to 25 mV.V) are uncertain. The narrow intercalations of narrow low resistivities infers graphitic interbeds. Included in the report is a chargeability and a resistivity plan map of n1 results which compliments the geology map (C. MacKenzie, 1996). The prominent IP effects skirt the margins of the interpreted granit intrusion. Observing that the apparent resistivities remain moderate to high over the good IP effects infers that these areas are underlain by altered rocks.

3.3.3 Survey Statistics

Project; SW-2-96 Township Sewell Client;Cross Lake Minerals Survey Date;July 1996

Pole Dipole Array 50m Dipole Spacing n1 to n6 Levels

Androtex TDR6 Receiver Scintrex TSQ-3 Time Domain Transmitter Operator; D Collin

Section	Limits	Length	Bearing	Srvy Date	Plot Date	Media	Filename
L 400S	1000E to 0+00E	1.000km	E to W	July 12, 96		Mylar	SW400S
cmnt ; C1 450S/ 1200W & C2 lags W. Broad IP with narrow IP flanking West. Coincidal R Low.							
L 300S	0+00E to 1000E	1.000km	W to E	July 12, 96		Mylar	SW300S
cmnts; C1 & C2 same. Good IP with Narrow R Low. Appears to Dip East as 400S.							
L 200S	1000E to 0+00E	1.000km	E to W	July 11, 96		Mylar	SW200S
cmnts; C1 & C2 same. Broad Twin IP with R low and narrow IP flanking west.							
L 100S	0+00E to 1000E	1.000km	W to E	July 11, 96		Mylar	SW100S
cmnts; C1 & C2 same. Broad 600m IP open grid E with R low @ 500E. Surface IP flanks W.							
L 50S	1000E to 0+00E	1.000km	E to W	July 11, 96		Mylar	SW50S
cmnts; C1 & C2 same. As 100S broad assymetric IP response Easterly with surface IP effect W.							
L 0N	0+00E to 1000E	1.000km	W to E	July 08, 96		Mylar	SW000N
cmnts; C1 & C2 same. As 50S. IP effects open to the East.							
L 50N	1000E to 0+00E	1.000km	E to W	July 06, 96		Mylar	SW50N
cmnts; C1 & C2 same. As line 0.							
L 100N	100E to 1000E	.900km	W to E	July 06, 96		Mylar	SW100N
cmnts; C1 & C2 same. Tripple IP Axis east of 400E with central R low. Open Grid E.							
L 150N	1000E to 150E	.850km	E to W	July 05, 96		Mylar	SW150N
cmnts; C1 & C2 same. As 100N.							
L 200N	250E to 1000E	.750km	W to E	July 05, 96		Mylar	SW200N
cmnts; C1 & C2 same. As afore Chargeable Easerly from 400E with 4 detectable axis. Open E.							
L 250N	1000E to 250E	.750km	E to W	July 04, 96		Mylar	SW250N
cmnts; C1 & C2 same. 3 IP axis east with R low on W anomaly. Surface IP with R high flanks W.							
L 300N	350N to 1000E	.650km	W to E	July 04, 96		Mylar	SW300N
cmnts; C1 & C2 same. Broad IP East of 500E with 3 axis & R low at E limit. Open Grid E.							
L 400N	1000E to 350E	.650km	E to W	July 03, 96		Mylar	SW400N
cmnts; C1 & C2 same. AS 300N with narrow IP flanking west. All 3 easterly IP have R low.							
L 500N	400E to 1000E	.600km	W to E	July 03, 96		Mylar	SW500N
cmnts; C1 & C2 same. West Anomaly with R high & E anomaly with R low (Surface effect) Open E.							

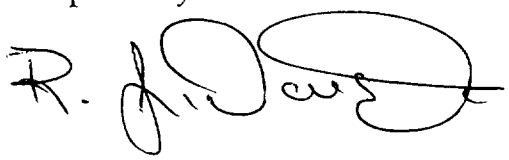
Total **12.150km** of EW traverses.

ipstat.012

4.0 CONCLUSION

The IP has successfully delineated a prominent area of high chargeabilities flanking west of the main showing on the property. This zone, along with other areas on the property warrant further testing.

Respectfully submitted,



Certification

I, Richard J Daigle residing at 1115 Maclean Drive, Unit 15, in the city of Timmins, ON, certify;

1.0 This is my 17th year of practice in mining exploration.

2.0 I am registered with the Ontario Association of Certified Technologist.

3.0 I have been employed by MC Exploration Services Inc since 1992 and presently have the job title **Geophysical Evaluator/ Manager Of Operations.**

4.0 Accomplished geophysical contracts (IP, HLEM,TFM, SP) and property assessments in Eastern Canada, 1987 to 1992.

5.0 Accomplished geophysical contracts in northeastern ON, 1985-87.

6.0 Geophysicist Assistant/ Senior Technician for Kidd Creek Mines under the supervision of Mr D Londry, 1981- 85.

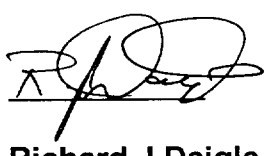
7.0 Experienced Max-Min (HLEM) surveys/ interpretations under the supervision of MR J Betz, 1979- 81.

8.0 Received Electronic Technologist Certificate in 1979.

9.0 **I have no direct interest in the property reported on.**

Date; Oct 31, 96

Timmins, ON.



Richard J Daigle

Induced Polarization

·Androtex TDR-6; The TDR-6 induced polarization receiver is a highly cost-effective instrument for the detailed measurements of IP effects and apparent resistivity phenomenon. Up to six dipoles can be measured simultaneously, thus increasing production. A wide input voltage range, up to 30V, simplifies surveys over the narrow shallow conductors of large resistivity contrast. Input signal indicators are provided for each dipole. All data are displayed on a 2x16 character display LCD module and any selected parameters con be monitored on a separate analogue meter for noise evaluation during the stacking/averaging. Although the TDR-6 receiver is automatic it allows full control and communications with the operator at all times during measurements. Since the input signal synchronizes the receiver at each cycle, the transmitter timing stability is not critical and any standard time domain transmitter can be used. Data are stored in the internal memory with a capacity of up to 2700 readings (450 stations). The data format is directly compatible with Geosoft without the necessity of an instrument conversion program.

Features

·Wide input signal range ·Automatic self-potential cancellation ·Staking/averaging of Vp and M for high measurement accuracy in noisy environments ·High rejection of power line interference ·Continuity resistance test ·Switch selectable delay and integration time ·Multiwindow chargeability measurements ·Digital output for data logger ·Six channel input provided ·Compatible with standard time domain transmitters ·Alpha-numeric LCD display ·Audio indicator for automatic SP compensation ·Portable

Specifications

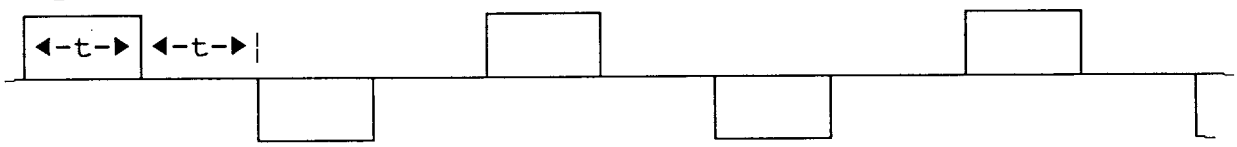
·Dipole	n1 to n6 simultaneously
·Input Impedance	10 megohm
·Input Voltage (Vp)	range:100μV to 30 Volts (automatic), accuracy:.25%, resolution:10μV.
·Self Potential (SP)	range:±2V,accuracy:1%,Automatic compensation ±1
·Chargeability (M)	range:300mV/V,accuracy:.25%,resolution:.1mV/V
·Automatic Stacking	2 to 32 cycles
·Delay Time	programmable
·Integration Time	programmable for each gate (10 gates)
·Total Chargeability Time	During integration time of all gates
·Synchronization Signal	programmable from channel 1 to 6
·Filtering	power lines:dual notch 60/180Hz or 50/150Hz, 100dB, other:Anti-alias, RF and spike rejection.
·Internal Test	Vp=1V,M=30mV/V
·Ground resistance test	0 to 200 Kohm
·Transmitting Time	1,2,4 and 8 sec pulse duration, ON/OFF.
·Digital Display	Two line 16 alphanumeric LCD.
·Analogue Meters	Six-monitoring input signal and course resistance testing.
·Controls	Push button reset, toggle start-stop, rotary Rs-in-test, rotary (data scroll) display, rotary (data scroll) Dipole, keypad 16 key 4x4.
·Memory Capacity	2700 readings, 450 stations (n1 to n6).
·Data Output	serial I/O RS-232 (programmable baud rate), Geosoft compatible output format.
·Temperature Range	Operating:-30°to +50°C,storage -40° to +60°C.
·Power Supply	Four 1.5V D cells.
·Dimensions	31x16x29 cm
·Weight	6.5 kg (14.3lbs)

Scintrex TSQ-3;The Motor-Generator set consists of a reliable Briggs and Stratton four stroke engine, coupled to a brushless permanent magnet alternator. The transmitter design employs solid-state components both for power switching and control circuits. Output waveforms and frequencies are selectable; square wave continuous for frequency domain and square wave interrupted for time domain. The programmer is crystal controlled for high stability. While care still must be taken when working with high voltages, the TSQ-3 features overload, underload and thermal protection for maximum safety. Stabilization circuitry ensures that the output current (Ig) is automatically controlled to within ±.1% for up to 20% external load or ±10% input voltage variations. Voltage, current and circuit resistance are presented on a LED digital display. The system functions as follows; The motor turn turns the generator (alternator) which produces 800Hz, three phase, 230VAC. This energy is transformed upwards according to a front panel voltage setting in a large transformer housed in the TSQ-3. The resulting AC is then rectified is a rectifier bridge. Commutator switches then control the DC voltage output according to the waveform and frequency selected.

Specifications

•Output Power	3000 VA maximum
•Output Voltages	300,400,500,600,750,900,1050,1200,1350 & 1500V
•Output Current	10 amperes maximum
•Output Current Stability	Automatic controlled to within ±.1% for up to 20% external load variation or up to ±10% input voltage variation.
•Stabilization Protection	(Over-range) High Voltage shuts off automatically if the control range exceeds 20%.
•Digital Display	Light emitting diodes permit display up to 1999 with variable decimal point; switch selectable to read input voltage, output current, external circuit resistance, dual current range, switch selectable.
•Current Reading Resolution	10mA on coarse range (1-10A) and 1mA on fine range (0-2A).
•Time Domain Cycle	t:t:t:t; ON:OFF:ON:OFF:automatic
•Polarity Change	Each 2t, automatic.
•Pulse Duration	Standard t=1,2,,4,8,16 and 32 seconds, optional
•Stability	Crystal controlled to better than .1% with external clock option better than 20ppm over operating temperature range.
•Efficiency	.78
•Operating Temperature	Range; -30°C to +50°C
•Overload Protection	Automatic shut-off at 3000VA.
•Underload Protection	Automatic shut-off at current below 85mA.
•Thermal Protection	Automatic shut-off at internal temp. of 85°C.
•Dimensions	350cm x 530cm x 320cm (transmitter).
•Motor	Briggs and Stratton, four stroke 8HP.
•Alternator	Permanent magnet type, 800Hz, three phase 230VAC at full load.
•Output Power	3000 VA maximum.
•Dimensions	520cm x 715cm x 560cm (generator assembly).
•Weight	Transmitter;25.0kg, Generator Assembly 72.5kg.

Output DC interrupted squarewave used for survey.



t= 2 seconds, ON & OFF time. Total duty Cycle Used; 8 seconds.

HUNTEC M-2 7.5KW Transmitter; The Huntec 7.5KW time domain induced polarization transmitter contains circuitry and front panel controls to step up and convert the primary AC voltage from a motor generator into a rectangular low frequency output waveform. The output amplitude may be selected by the operator for transmission into the ground via current electrodes. Some of the features designed to provide simple, reliable operation includes;solid -state (SCR) current ON-OFF switching; automatic protection from excessive input voltage excursions;independent measurements of current electrode contact resistance. A dummy load and voltage regulator are used to uniform the circuitry ensuring a steady delivered current (Ig).

Specifications

·Power Input	96- 144V line to neutral 3 phase, 400Hz, 7.5KVA.
·Output	Voltage;100 to 3200 VDC in 10 steps, Current; 0.4 to 16 Amp regulated.
·Current Regulation	Less than ±0.2% change for ±10% load change.
·Cycling Rate	2 seconds ON, 2 seconds OFF.
·Current Output Meter	0 to 10 Amps & 0 to 20 Amps.
·Ground Resistance	Two ranges; 0 to 10kohms & 0 to 100Kohms.
·Input Voltage Meter	0 to 150VAC.
·Dummy Load	two levels; 2000 watts & 6000 watts.
·Temperature Range	-30°F to +120°F.
·Weight	Transmitter; 50kg, Generator ≈200kg.

The high voltages on the output lines is dangerous to life.

output; DC interrupted square wave.

t= 2 seconds, ON & OFF time. Total duty Cycle Used; 8 seconds.

IP Method

The phenomena of Induced Polarization (IP) was reported as early as 1920 by Schlumberger. The IP survey technique allows a variety of arrays (which all have advantages and disadvantages) and reads two separate elements;(1)The chargeability or IP effect (M) and Apparent Resistivity. The IP technique is useful for detecting sulphide bodies and is also useful as a structural mapping tool. The IP effect is the measurement of the residual voltage in rocks that remains after the interception of a primary voltage. It includes many types of dipolar charge distributions set up by the passage of current through consolidated or unconsolidated rocks. Among the causes are concentration polarization and electrokinetic effects in rocks containing electronic conductors such as metallic sulphides and graphite. The term overvoltage applies to secondary voltages set up by a current in the earth which decays when it is interrupted. These secondary effects are measure by a receiver via potential electrodes. The current flow is actually maintained by charged ions in the solutions. The IP effect is created when this ionic current flow is converted to electronic current flow at the surface of metallic minerals (or some clays, and platy silicates). The IP method is generally used for prospecting low grade (or disseminated) sulphide ores where metallic particles, sulfides in particular, give an anomalous response. Barren rock (with certain exceptions) gives a low response. In practice, IP is measured in one or two ways;(1) In a pure form, a steady current of some seconds (nominally 2 seconds) is passed and abruptly interrupted. The slowly decaying transient voltage existing in the ground are measured after interruption. This is known as the time domain method. The factor Vs/ Vp is the integrated product for a specified time, and several readings are averaged (suppressing noise and coupling effects). The resultant chargeability, M is essentially an unitless value but it is usually represented in mV/V. The second method entails a comparison of the apparent resistivity using sinusoidal alternating currents of 2 frequencies within the normal range of 0.1 to 10.0 cps.. The factor used to represent the IP effect by this frequency domain method is the percent frequency effect (PFE) and is defined by (R1-R2)/R1x100% where R1 and R2 are the apparent resistivities at the low and high frequencies.

Use and Limitations

The effective depth of penetration of any IP survey is a function of the resistivity of the surface layer('s) with respect to the resistivity of the lower layer. All arrays have different effects from this resistivity contrast, some are less affected than others. When the surface layer is 0.01 of the lower layer, the effective penetration is very poor hence the term masking. Masking occurs most often in areas of thick clay cover. The size of the target therefore becomes important when detection is desirous under a conductive surface layer. The frequency domain methods are the most adversely affected by masking as inductive coupling can be much greater than the response.

Standard Definitions of Chargeability

The IP parameter, chargeability (M) varies with time. For practical reasons the entire decay curve is not sampled. Instead the secondary voltage is sampled one or more times at various intervals. Because the secondary voltage is received at extremely low levels in many prospecting situations, measurements of its amplitude at any given time is extremely susceptible to noise. Therefore, the secondary voltage is usually integrated for a period of time called a gate. Thus, if the noise has a zero mean, the integration will tend to cancel the noise. The Newmount M Factor is a standard time domain IP parameter. The gate delay, of 80 mSeconds (used by the TDR-6) was chosen to allow time for normal electromagnetic effects and capacitive coupling effects between the transmitter and receiver to attenuate so that the secondary voltage consists only of the IP decay voltage. The TDR-6 total integration time of 1580 milliSeconds (gate) is divided into ten individual gates. The time-constant of the IP dispersion curve, Cole-Cole dispersion (W H Pelton, 1977), obtained from the ten individual gates (windows) is directly related to the physical size of the metallic particles. This data is available at the clients request since all of the obtained field data is archived (downloaded) to computer.

GEM Systems Advanced Magnetometers GSM-19 V 4.0

GEM Systems Inc
52 West Beaver Creek Road, Unit 14
Richmond Hill, Ontario **Phone; (905) 764- 8008**
Canada, L4B-1L9 **Fax ; (905) 764- 9329**

1.0 Instrument Description

·The sensor is a dual coil type designed to reduce noise and improve gradient tolerance. The coils are electrostatically shielded and contain a proton rich liquid in a pyrex bottle, which also acts as an RF resonator.

·The sensor cable is coaxial, typically RG-58/U, up to 100m long.

·The staff is made of strong aluminum tubing sections. This construction allows for a selection of sensor elevations above the ground during surveys. For best precision the full staff length should be used. Recommended sensor separation in gradiometer mode is one staff section, although two or three section separations are sometimes used for maximum sensitivity.

·The console contains all the electronic circuitry. It has a sixteen key keyboard, a 4x20 character alphanumeric display, and sensor and power input/ output connectors. The keyboard also serves as an ON-OFF switch.

·The power input/output connector also serves as a RS232 input/output and optionally as analog output and contact closure triggering input.

·The keyboard front panel, and connectors are sealed (can operate under rainy conditions)

·The charger has two levels of charging, full and trickle, switching automatically from one to another. Input is normally 110V 50/60Hz. Optionally, 12V DC can be provided.

·The all-metal housing of the console guarantees excellent EM protection.

2.0 Instrument Specifications

Resolution	0.01 nT, magnetic field and gradient
Accuracy	0.20 nT over operating range
Range	20,000 to 120,000 nT automatic tuning, requiring initial setup
Gradient Tolerance	over 10,000 nT/m
Operating Interval	3 seconds minimum, faster optional. Reading initiated from keyboard, external trigger, or carriage return via RS-232
Input/Output	6 pin weatherproof connectors
Power Requirements	12V, 200mA peak, 30mA standby, 300mA peak with Gradiometer
Power Source	Internal 12V, 1.9Ah sealed lead-acid battery standard, external source optional.
Battery Charger	Input; 110/ 220VAC, 50/60Hz and/or 12VDC Output; 12V dual level charging
Operating Ranges	Temperatures; -40°C to +60°C Battery Voltages; 10.0 V min to 15.0V max Humidity; up to 90% relative, non condensing
Storage Temperature	-50°C to +65°C

Dimensions Console; 223 X 69 X 240 cm
Sensor Staff; 4 x 450mm sections
Sensor; 170 x 71 mm diameter
Weight; Console 2.1Kg Staff 0.9Kg Sensors; 1.1Kg

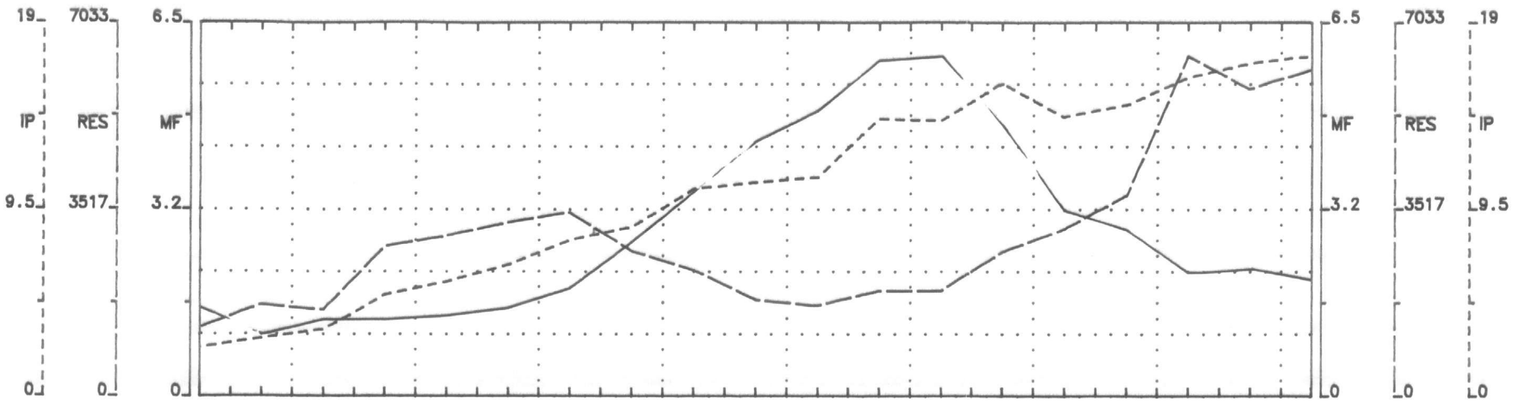
Magnetic Survey

Theory;

The magnetic method is based on measuring alteration in the shape and magnitude of the earth's naturally occurring magnetic field caused by changes in the magnetization of the rocks in the earth. These changes in magnetization are due mainly to the presence of the magnetic minerals, of which the most common is magnetite, and to a lesser extent ilmenite, pyrrhotite, and some less common minerals. Magnetic anomalies in the earth's filed are caused by changes in two types of magnetization; (1) Induced, caused by the magnetic field being altered and enhanced by increases in the magnetic susceptibility of the rocks, which is a function of the concentration of the magnetic minerals. (2) Remanent magnetism is independent of the earth's magnetic field, and is the permanent magnetization of the magnetic particles (magnetite, etc..) in the rocks. This is created when these particles orient themselves parallel to the ambient field when cooling. This magnetization may not be in the same direction as the present earth's field, due to changes in the orientation of the rock or the field. The ***unit*** *of measurement (variations in intensity) is commonly known as the Gamma which is equivalent to the nanotesla (nT).*

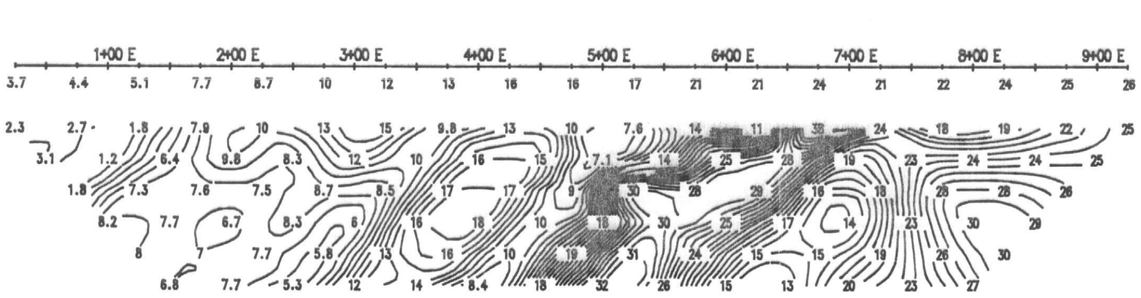
Method;

The magnetometer, ***GSM-19*** *with an Overhauser sensor measures the* ***Total Magnetic Field*** *(TFM) perpendicular to the earth's field (horizontal position in the polar region). The unit has no moving parts, produces an absolute and relatively high resolution measurement of the field and displays the measurement on a digital lighted display and is recorded (to memory). Initially, the tuning of the instrument should agree with the nominal value of the magnetic field for each particular area. The Overhauser procession magnetometer collected the data with a* ***0.2 nanoTesla accuracy.*** *The operator read each and every line at a* ***12.5 m interval*** *with the sensor attached to the top of three (56cm) aluminum tubing sections. The readings were corrected for changes in the earth's magnetic field (diurnal drift) with a similar GSM-19 magnetometer, >>base station<< which automatically read and stored the readings at every 30 seconds. The data from both units was then downloaded to PC and base corrected values were computed.*



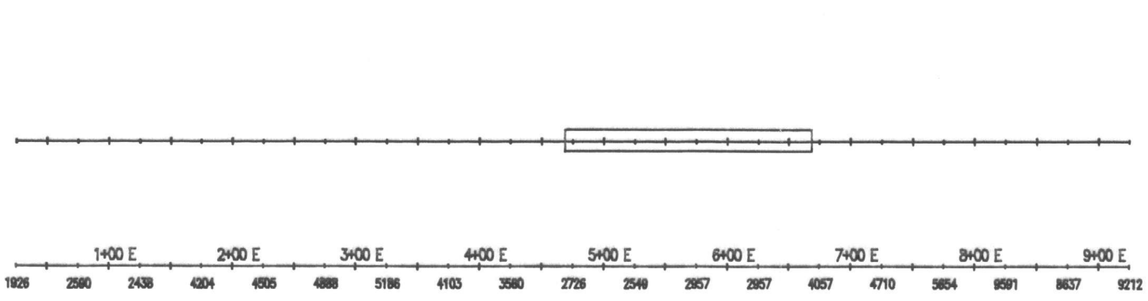
Topo

Interpretation



Chargeability
mV/V

Interpretation



Resistivity
ohm/meters

Topo

Interpretation

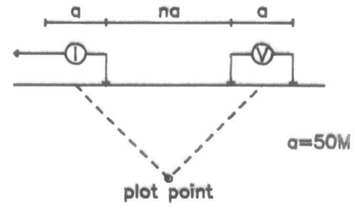
Chargeability
mV/V

Interpretation

Resistivity
ohm/meters

L- 50S

Pole-Dipole Array



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	Cont. Intervals	Profiles
Resistivity ;	500 ohm/meter	-- -- -- --
Chargeability ;	1.0 mV/V	- - - - - -
Metal Factor ;	1 %	----------

INSTRUMENTS

Androtex TDR6, Time Domain Receiver

1760mSec Total Intergration Time, 80mS Delay.

MT= (80+80+80+80+160+160+160+320+320+320) mSec

Scintrex TSQ-3 Transmitter

8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

- Low Effect
  Poorly Chargeable mV/V, IP effect
  Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
  Good Chargeability mV/V, IP effect
  High Apparent Resistivity, rho

Scale 1:5000

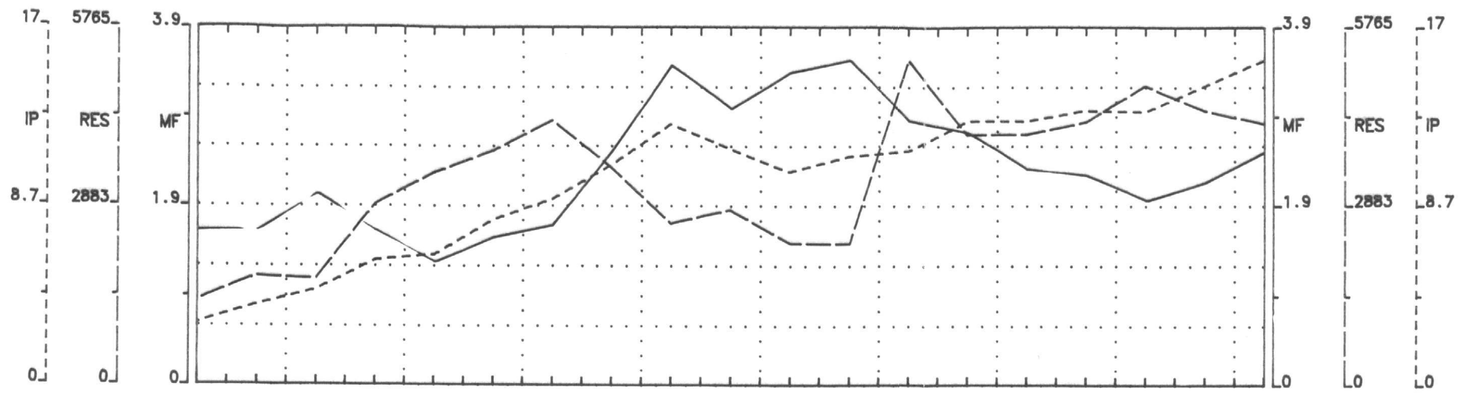
50 0 50 100 150 200 250 300

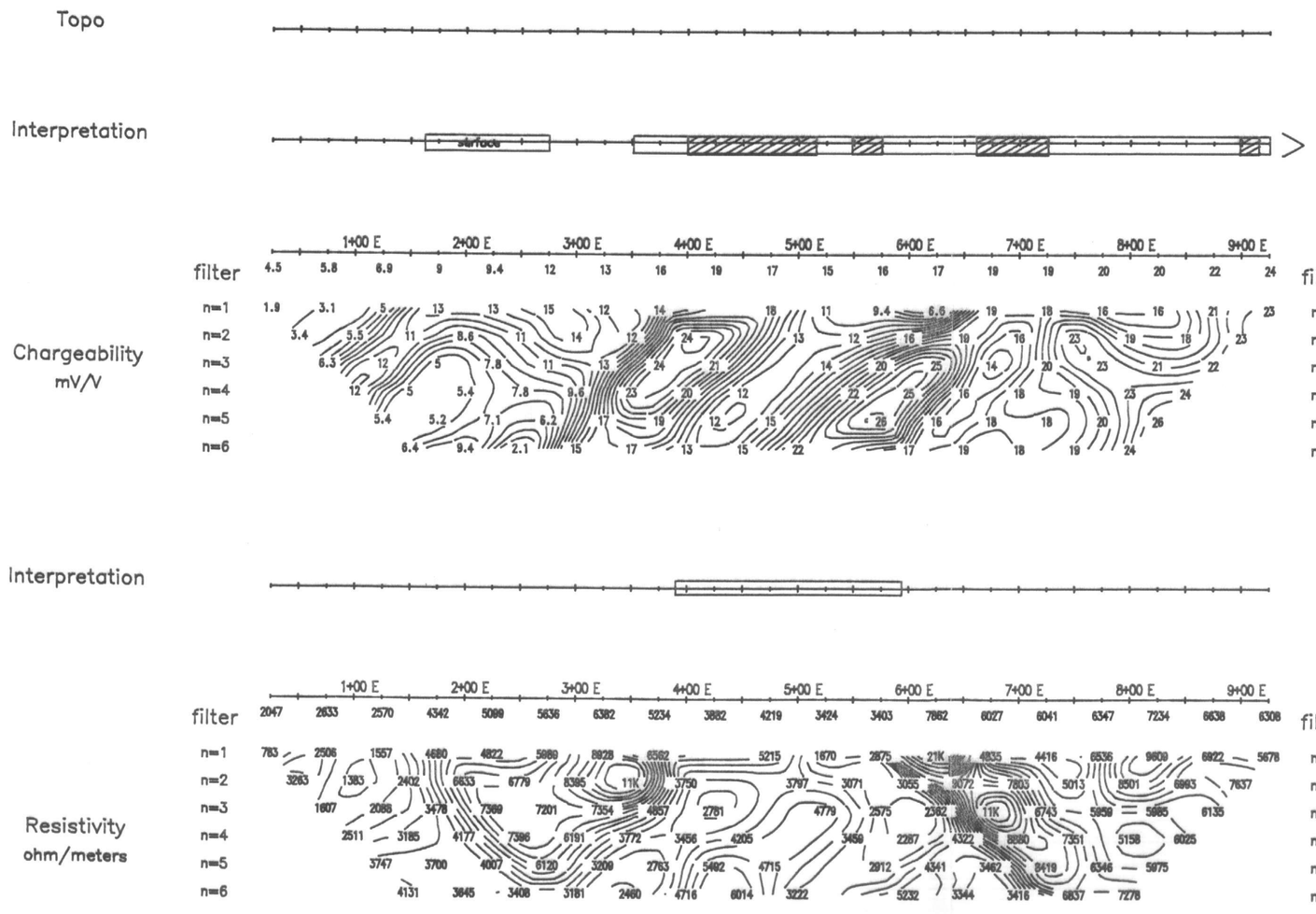
(meters)

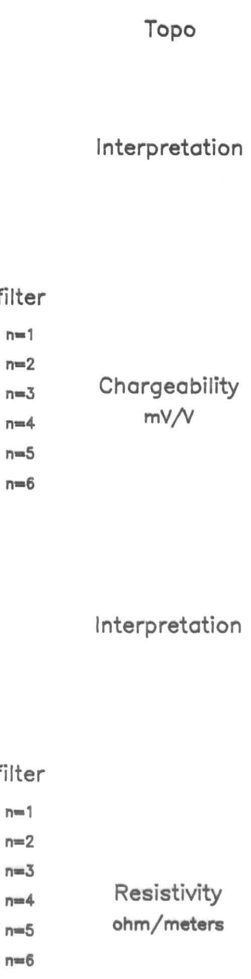
Cross Lake Minerals Ltd

Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.

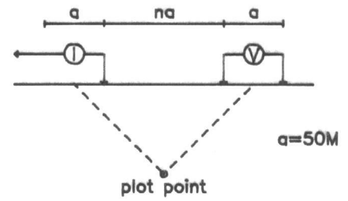






L- 100S

Pole-Dipole Array



Filter

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	Cont. Intervals	Profiles
Resistivity ;	500 ohm/meter	-- -- -- --
Chargeability ;	1.0 mV/V	- - - - - -
Metal Factor ;	1 %	----------

INSTRUMENTS

Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho

Moderately Low Effect

Moderately High Effect

High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho

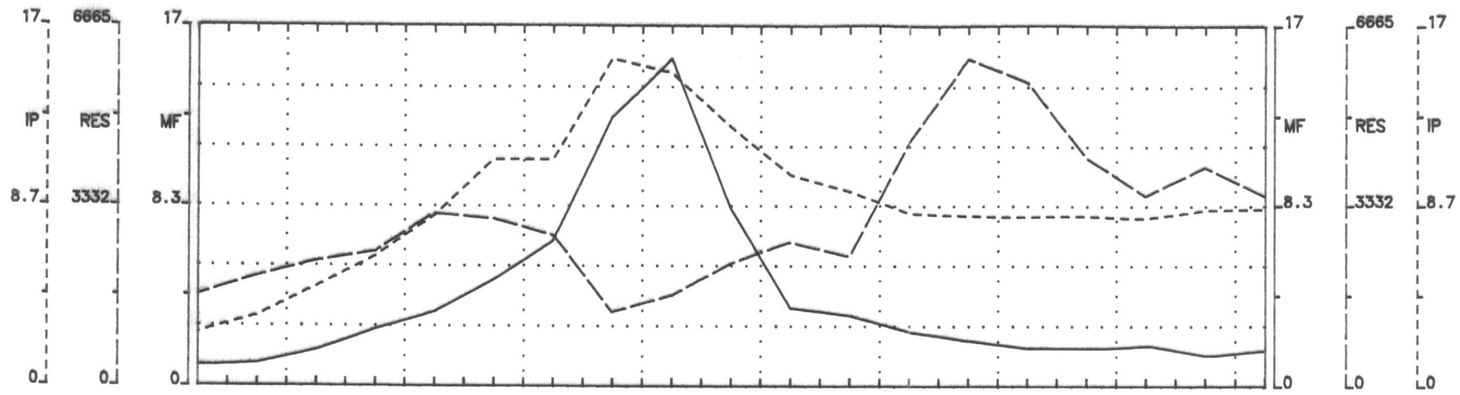
Scale 1:5000

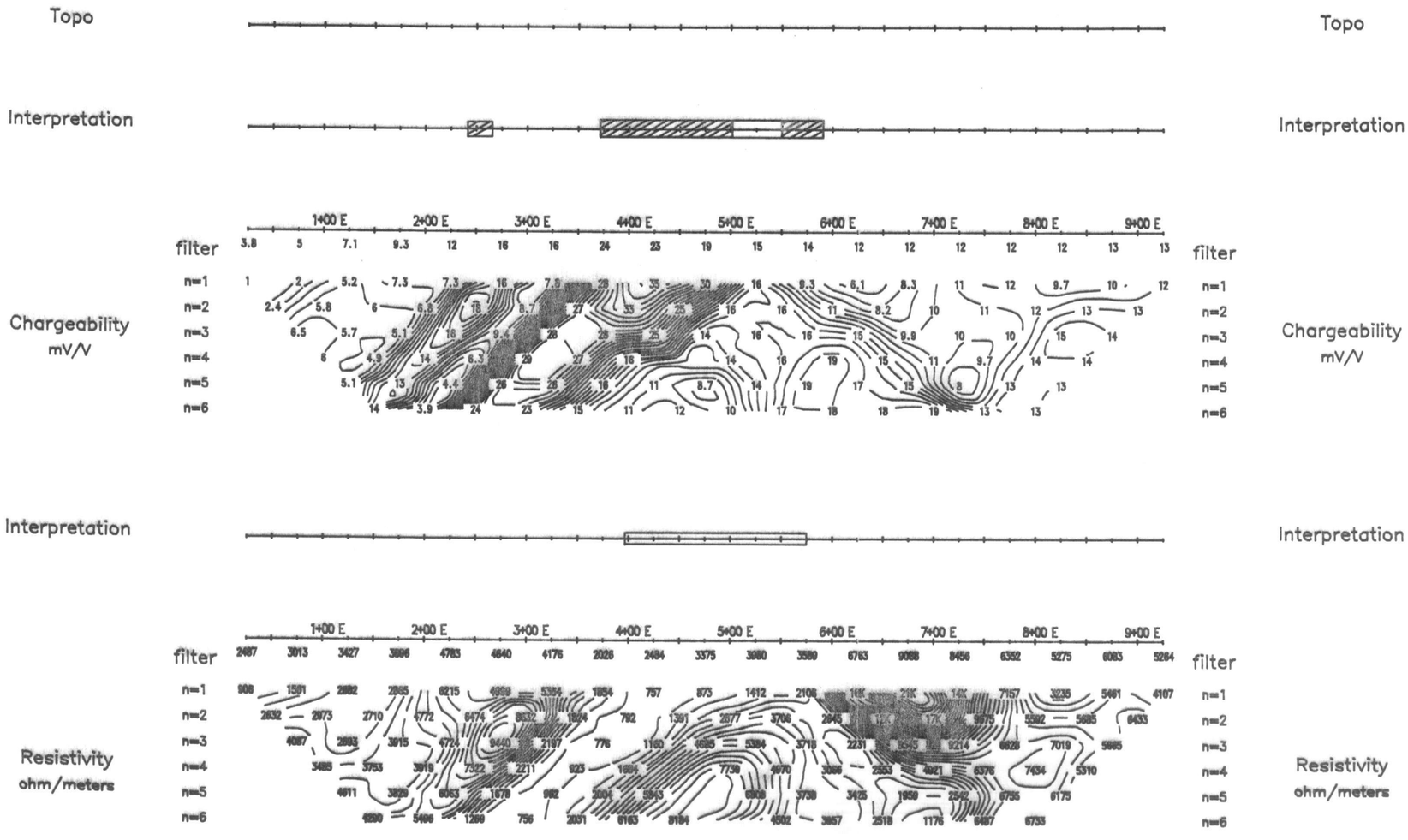
50 0 50 100 150 200 250 300
(meters)

Cross Lake Minerals Ltd

Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

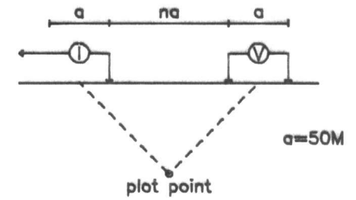
Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.





L- 200S

Pole-Dipole Array



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	Cont. Intervals	Profiles
Resistivity ;	500 ohm/meter	-- -- -- --
Chargeability ;	1.0 mV/V	- - - - - -
Metal Factor ;	1 %	----------

INSTRUMENTS

Androtex TDR6, Time Domain Receiver

1760mSec Total Intergration Time, 80mS Delay.

MT= (80+80+80+80+160+160+160+320+320+320) mSec

Scintrex TSQ-3 Transmitter

8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho

Moderately Low Effect

Moderately High Effect

High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho

Scale 1:5000

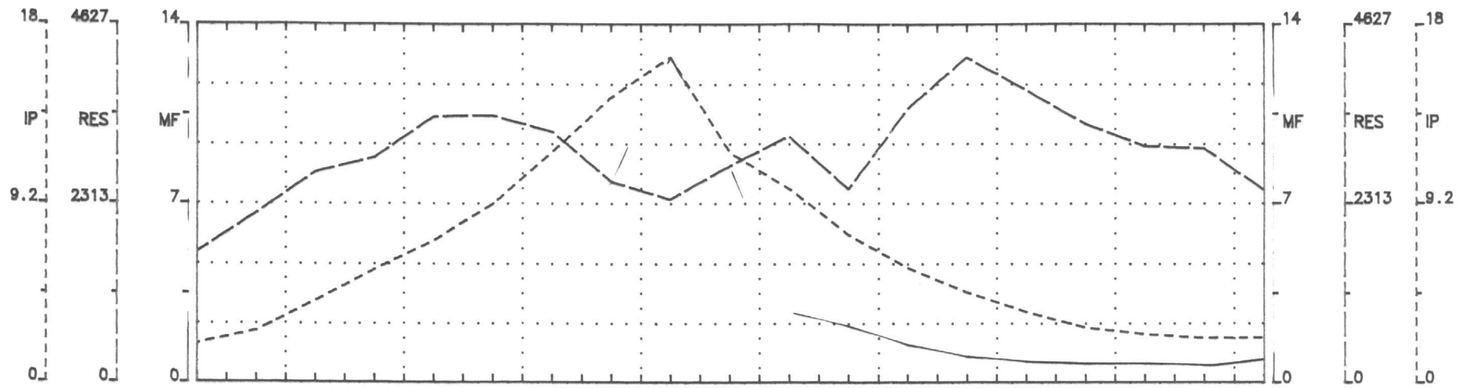
50 0 50 100 150 200 250 300

(meters)

Cross Lake Minerals Ltd

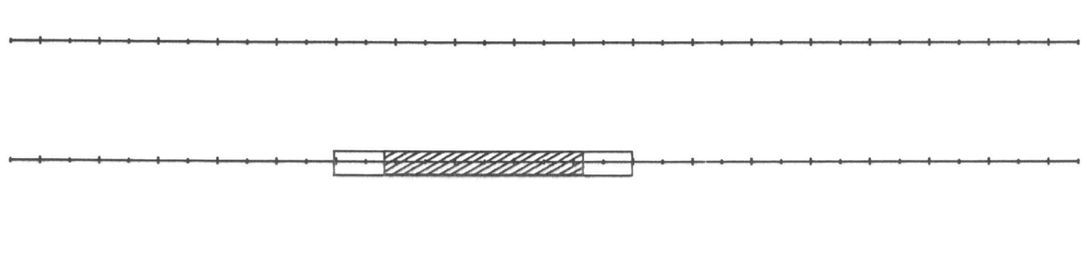
Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

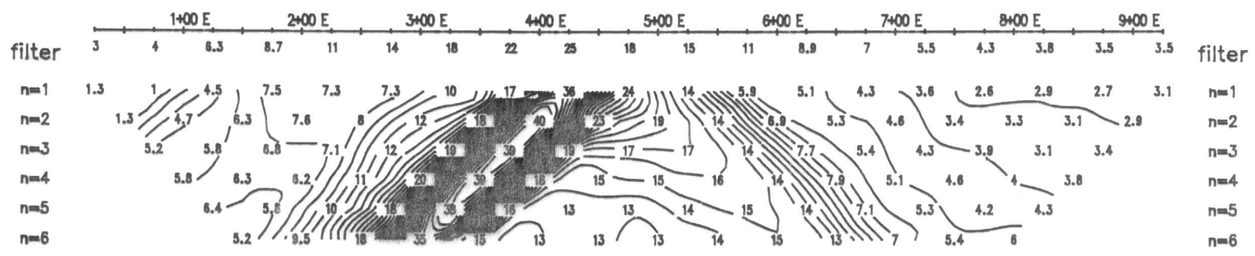
Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.



Topo

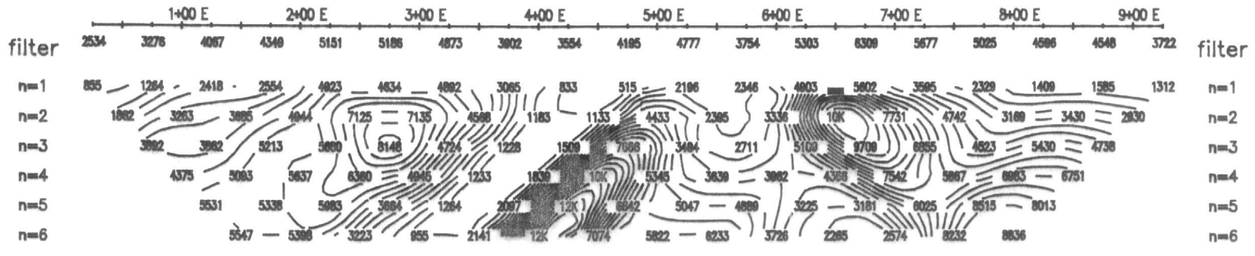
Interpretation





Chargeability
mV/V

Interpretation



Resistivity
ohm/meters

Topo

Interpretation

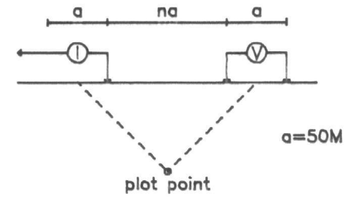
Chargeability
mV/V

Interpretation

Resistivity
ohm/meters

L- 300S

Pole-Dipole Array



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	Cont. Intervals	Profiles
Resistivity ;	500 ohm/meter	-- -- -- --
Chargeability ;	1.0 mV/V	- - - - - -
Metal Factor ;	1 %	----------

INSTRUMENTS

Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

- Low Effect
  Poorly Chargeable mV/V, IP effect
  Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
  Good Chargeability mV/V, IP effect
  High Apparent Resistivity, rho

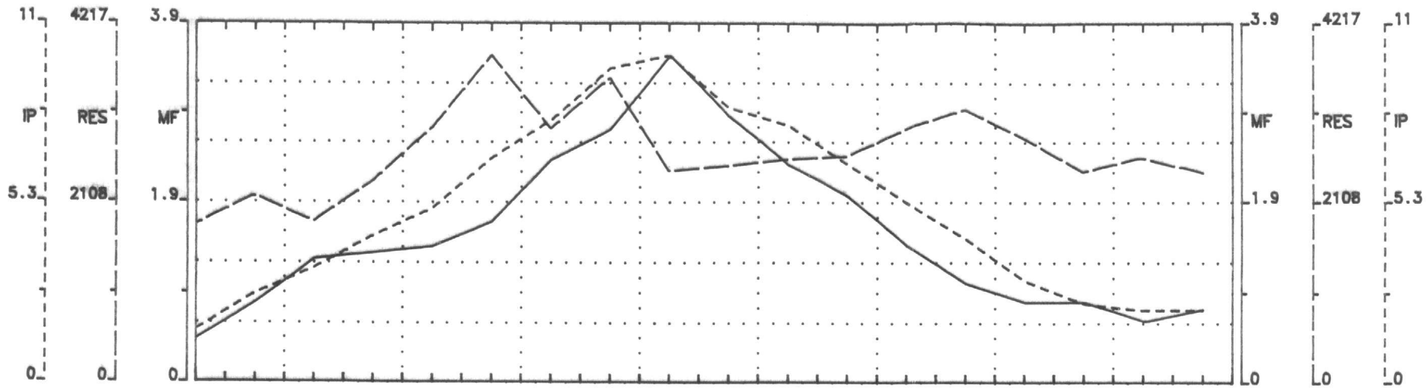
Scale 1:5000

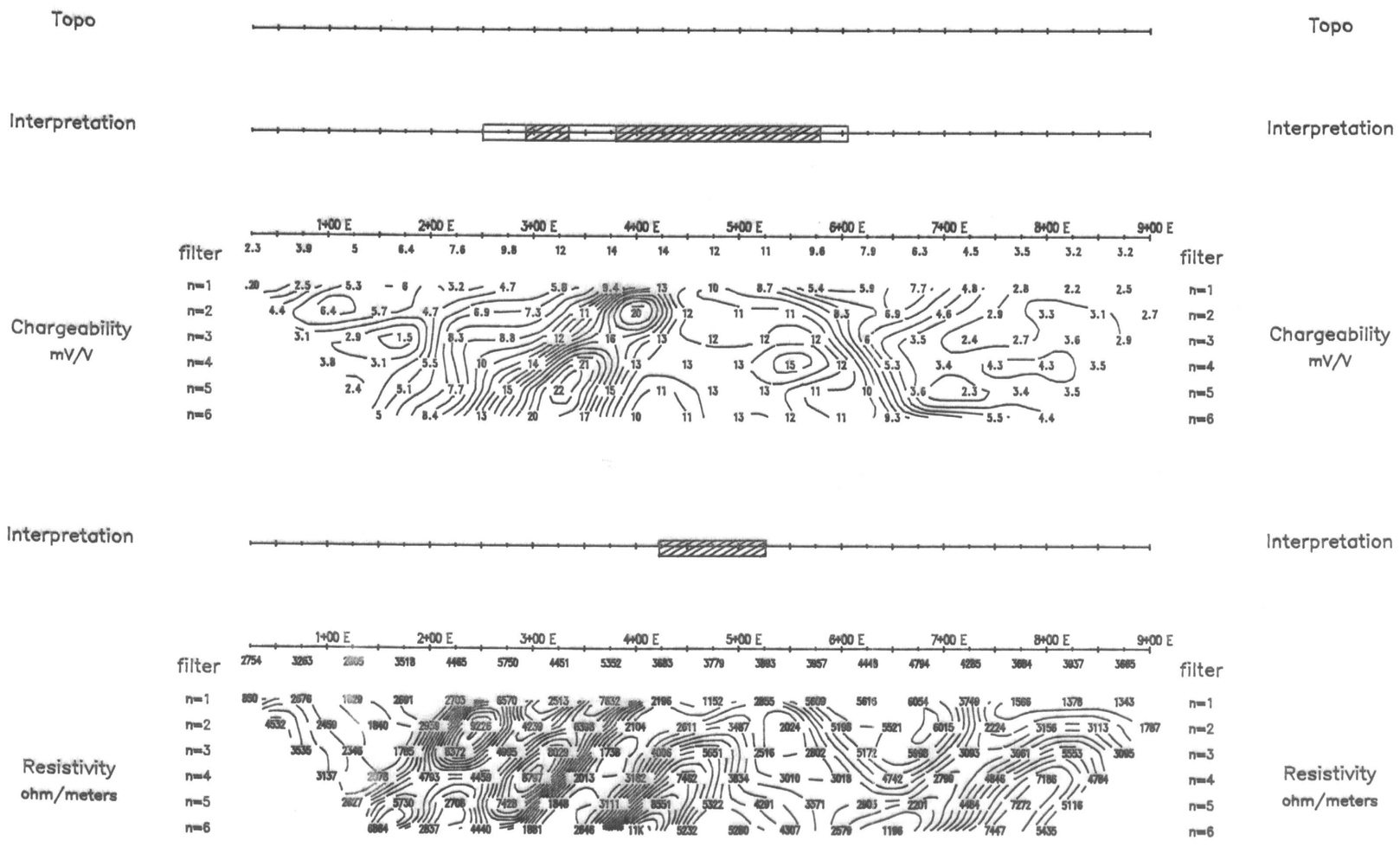
50 0 50 100 150 200 250 300
(meters)

Cross Lake Minerals Ltd

Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

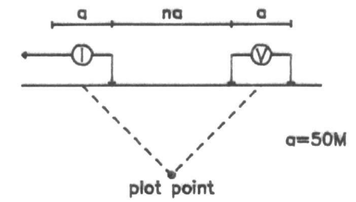
Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.





L- 400S

Pole-Dipole Array



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	Cont. Intervals	Profiles
Resistivity ;	500 ohm/meter	-- -- -- --
Chargeability ;	1.0 mV/V	- - - - - -
Metal Factor ;	1 %	----------

INSTRUMENTS
Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

- Low Effect
  Poorly Chargeable mV/V, IP effect
  Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
  Good Chargeability mV/V, IP effect
  High Apparent Resistivity, rho

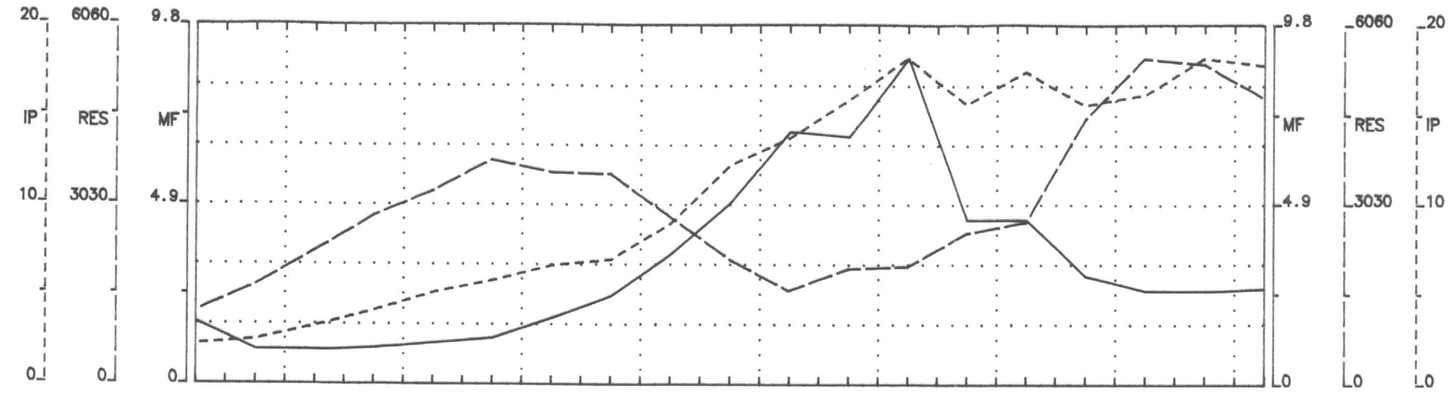
Scale 1:5000

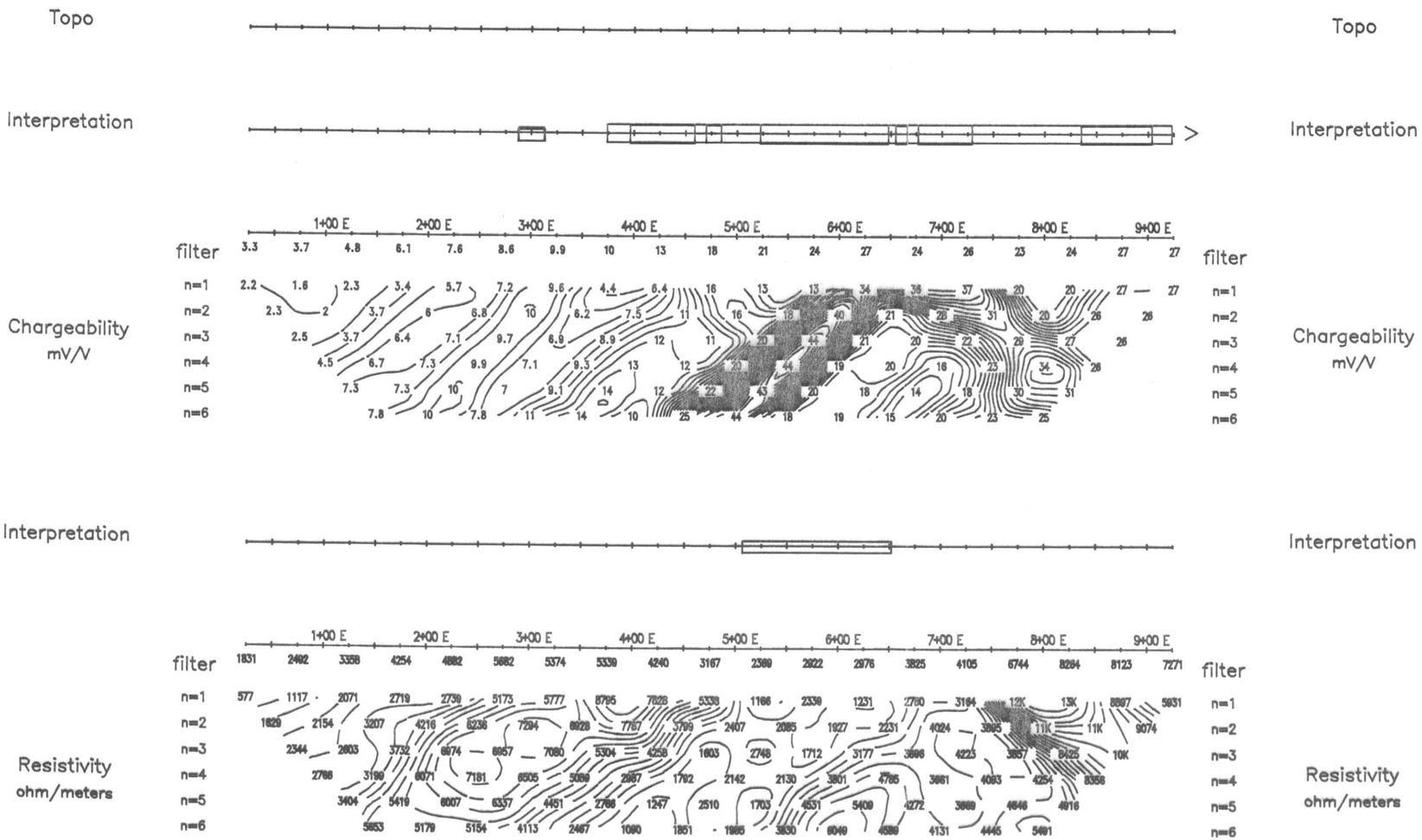
50 0 50 100 150 200 250 300
(meters)

Cross Lake Minerals Ltd

Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

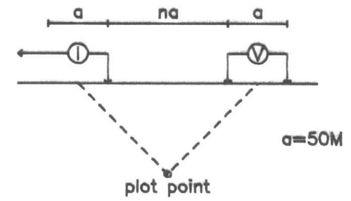
Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.





L- 000N

Pole-Dipole Array



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	Cont. Intervals	Profiles
Resistivity ;	500 ohm/meter	-- -- -- --
Chargeability ;	1.0 mV/V	- - - - - -
Metal Factor ;	1 %	----------

INSTRUMENTS

Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

- Low Effect
  Poorly Chargeable mV/V, IP e
  Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
  Good Chargeability mV/V, IP e
  High Apparent Resistivity, rho

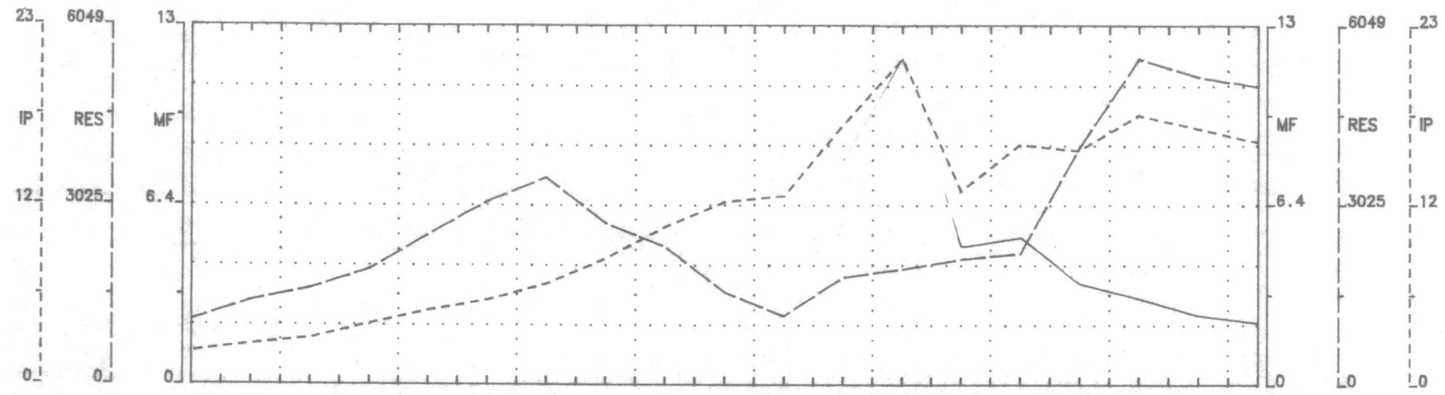
Scale 1:5000

50 0 50 100 150 200 250 300
(meters)

Cross Lake Minerals Ltd

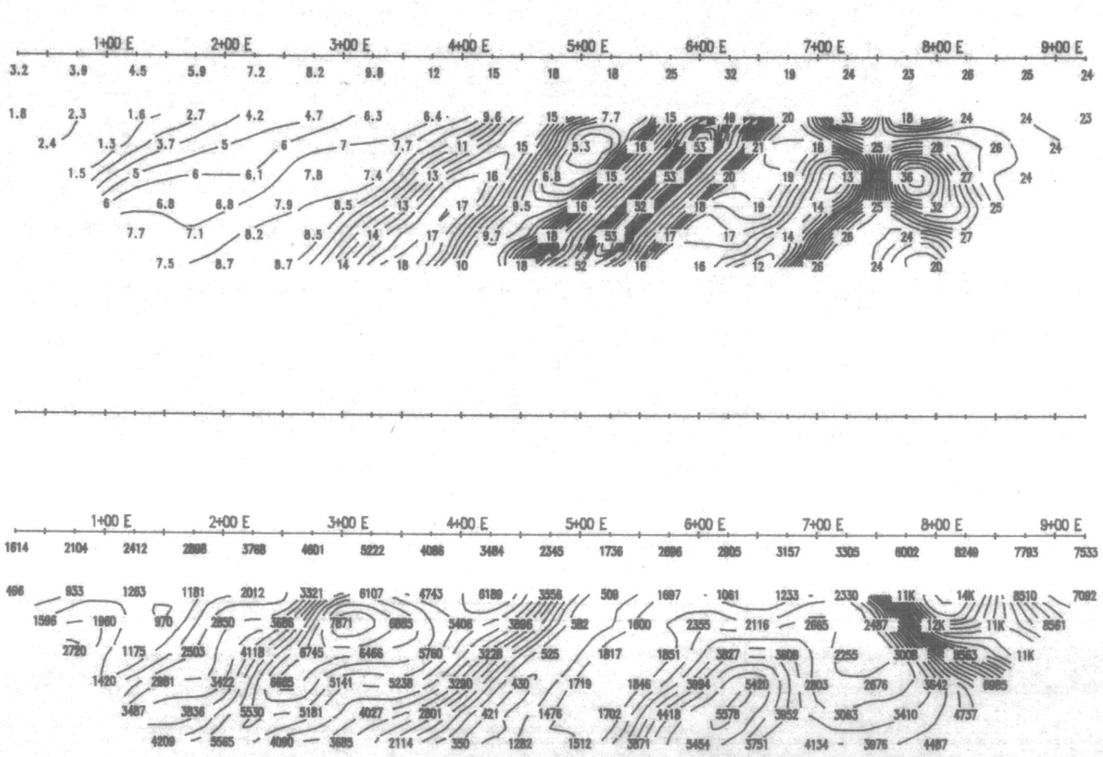
Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.



Topo

Interpretation



Topo

Interpretation

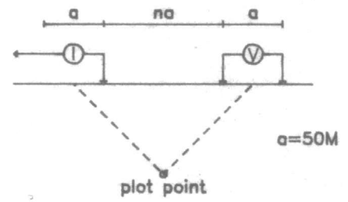
Chargeability
mV/V

Interpretation

Resistivity
ohm/meters

L- 50N

Pole-Dipole Array



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	Cont. Intervals	Profiles
Resistivity ;	500 ohm/meter	-- -- -- --
Chargeability ;	1.0 mV/V	- - - - - -
Metal Factor ;	1 %	----------

INSTRUMENTS

Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

- Low Effect
  Poorly Chargeable mV/V, IP effect
  Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
  Good Chargeability mV/V, IP effect
  High Apparent Resistivity, rho

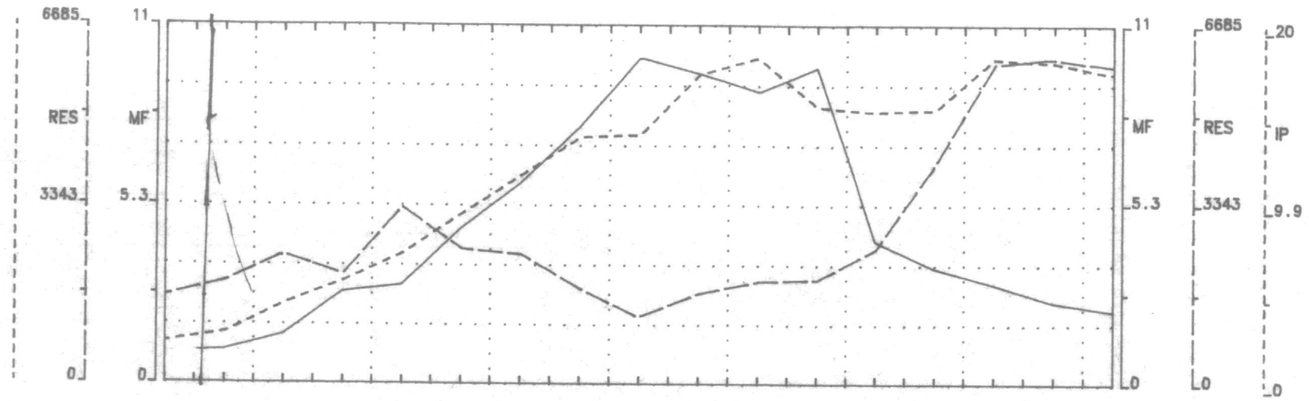
Scale 1:5000

50 0 50 100 150 200 250 300
(meters)

Cross Lake Minerals Ltd

Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.



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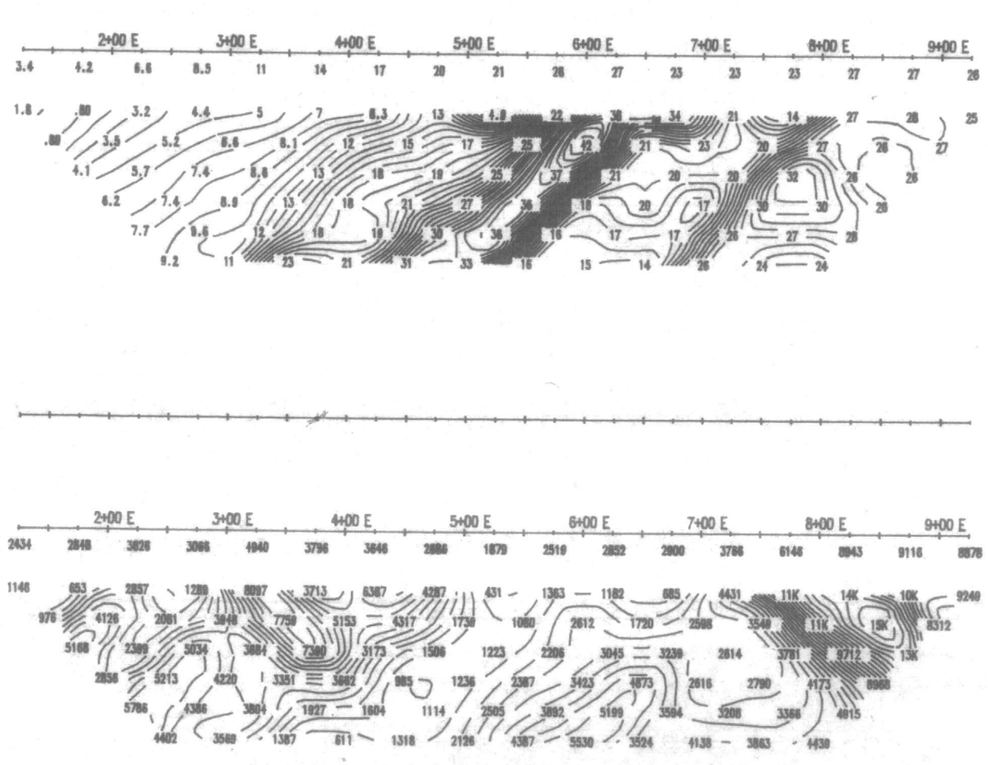
Interpretation



Chargeability
mV/V

Interpretation

Resistivity
ohm/meters

Topo

Interpretation

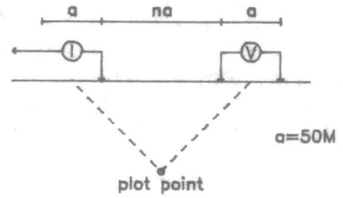
Chargeability
mV/V

Interpretation

Resistivity
ohm/meters

L- 100N

Pole-Dipole Array



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	Cont. Intervals	Profiles
Resistivity ;	500 ohm/meter	-- -- -- --
Chargeability ;	1.0 mV/V	- - - - - -
Metal Factor ;	1 %	----------

INSTRUMENTS

Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho

Moderately Low Effect

Moderately High Effect

High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho

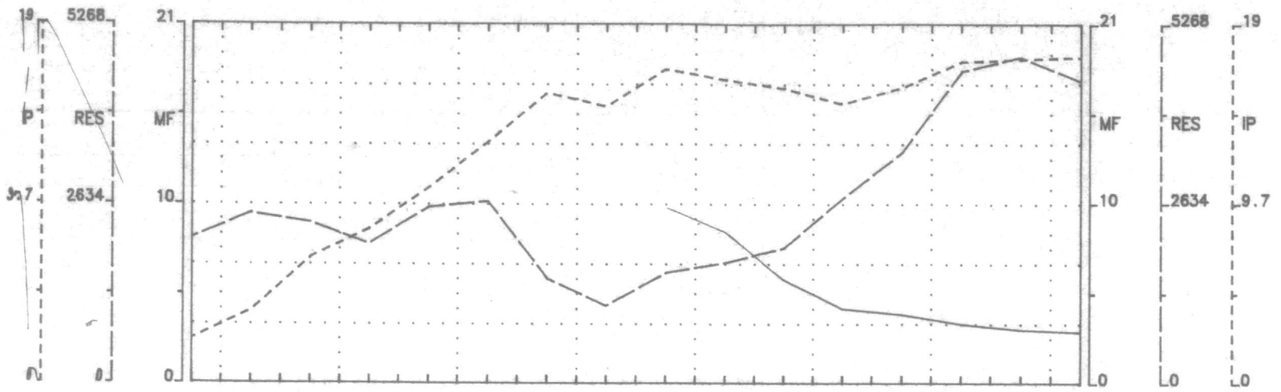
Scale 1:5000

50 0 50 100 150 200 250 300
(meters)

Cross Lake Minerals Ltd

Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.



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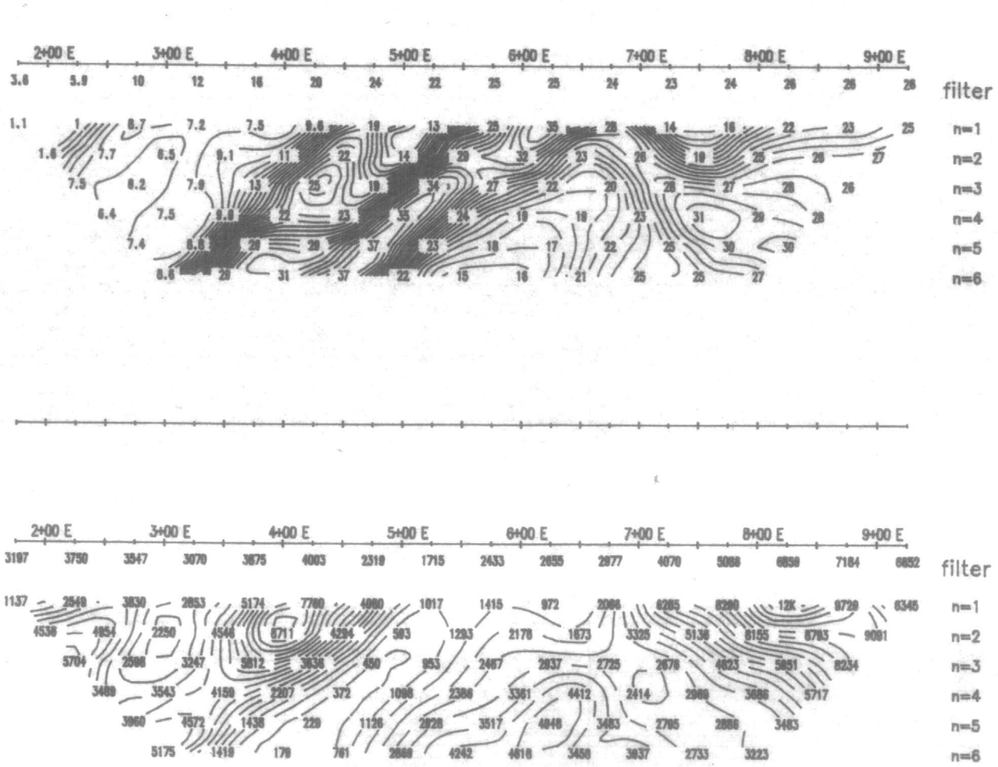
Interpretation



Topo

Interpretation

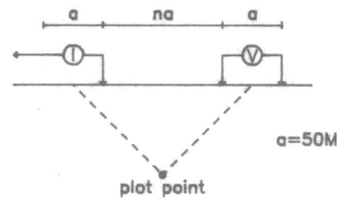
Chargeability
mV/V

Interpretation

Resistivity
ohm/meters

L- 150N

Pole-Dipole Array



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	Cont. Intervals	Profiles
Resistivity ;	500 ohm/meter	-- -- -- --
Chargeability ;	1.0 mV/V	- - - - - -
Metal Factor ;	1 %	----------

INSTRUMENTS

Androtex TDR6, Time Domain Receiver

1760mSec Total Intergration Time, 80mS Delay.

MT= (80+80+80+80+160+160+160+320+320+320) mSec

Scintrex TSQ-3 Transmitter

8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

- Low Effect
  Poorly Chargeable mV/V, IP effect
  Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
  Good Chargeability mV/V, IP effect
  High Apparent Resistivity, rho

Scale 1:5000

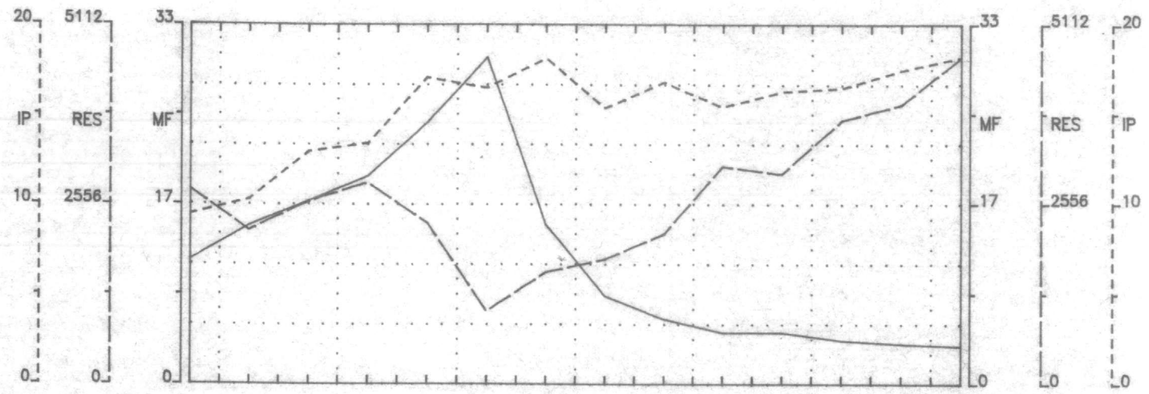
50 0 50 100 150 200 250 300

(meters)

Cross Lake Minerals Ltd

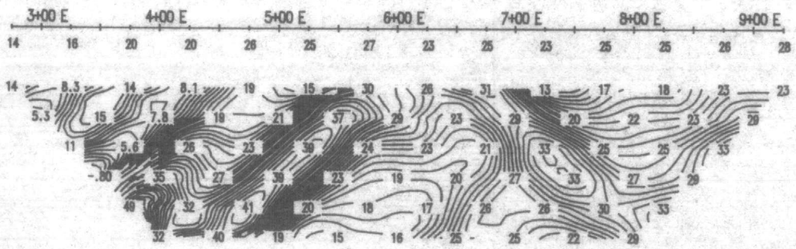
Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.



Topo

Interpretation



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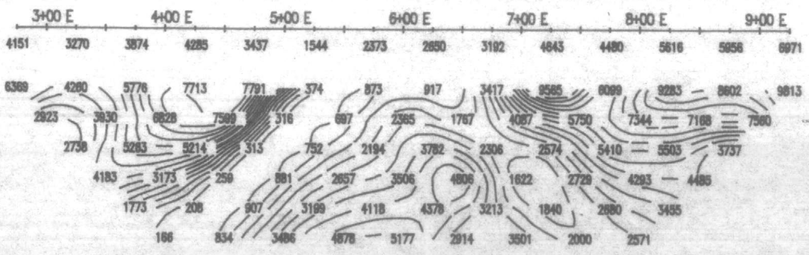


Topo

Interpretation

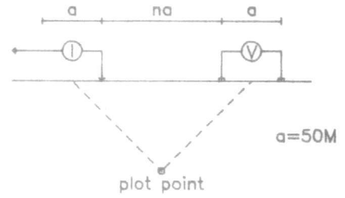
Chargeability
mV/V

Interpretation

Resistivity
ohm/meters

L- 200N

Pole-Dipole Array



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	Cont. Intervals	Profiles
Resistivity ;	500 ohm/meter	-- -- -- --
Chargeability ;	1.0 mV/V	- - - - - -
Metal Factor ;	1 %	----------

INSTRUMENTS

Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

- Low Effect
  Poorly Chargeable mV/V, IP effect
  Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
  Good Chargeability mV/V, IP effect
  High Apparent Resistivity, rho

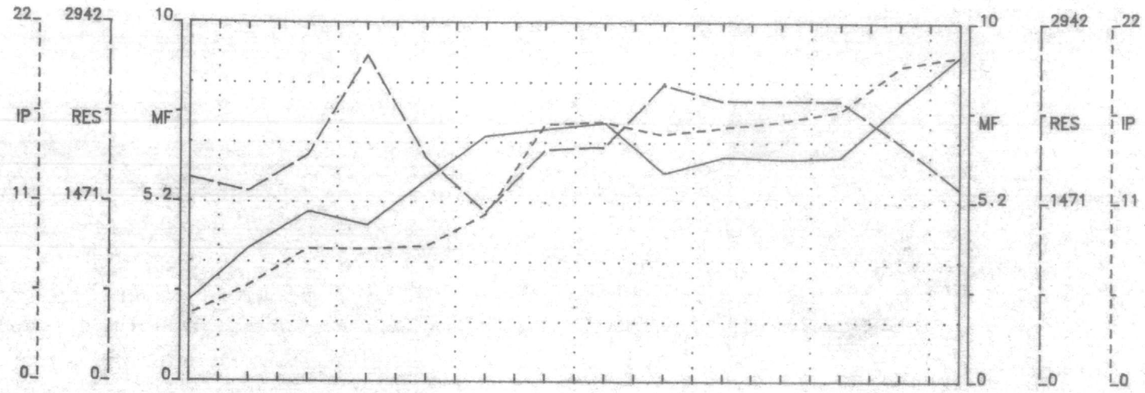
Scale 1:5000

50 0 50 100 150 200 250 300
(meters)

Cross Lake Minerals Ltd

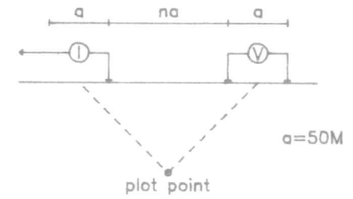
Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.



L- 250N

Pole-Dipole Array



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	Cont. Intervals	Profiles
Resistivity ;	500 ohm/meter	-- -- -- --
Chargeability ;	1.0 mV/V	- - - - - -
Metal Factor ;	1 %	----------

INSTRUMENTS

Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho

Moderately Low Effect

Moderately High Effect

High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho

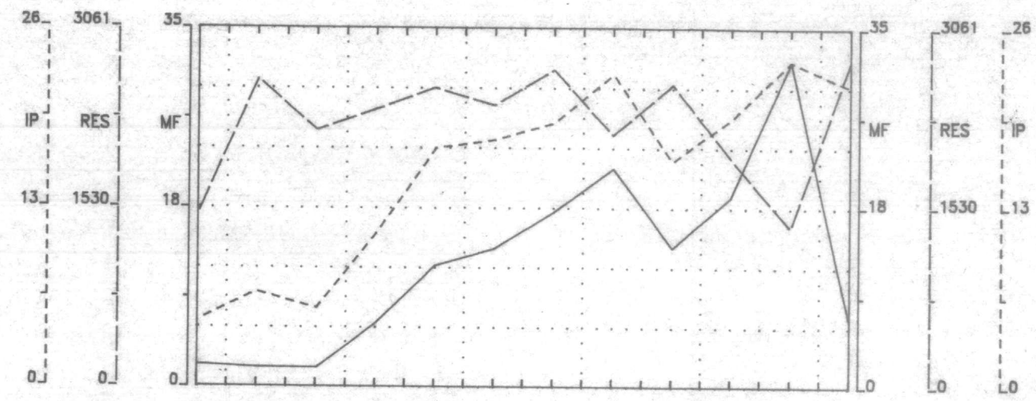
Scale 1:5000

50 0 50 100 150 200 250 300
(meters)

Cross Lake Minerals Ltd

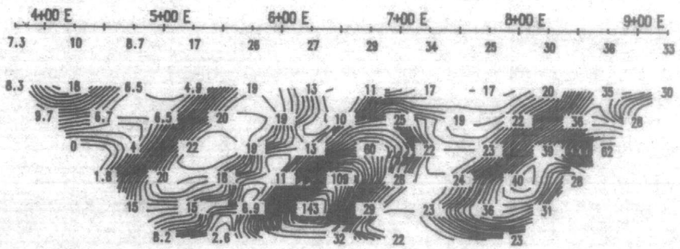
Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.

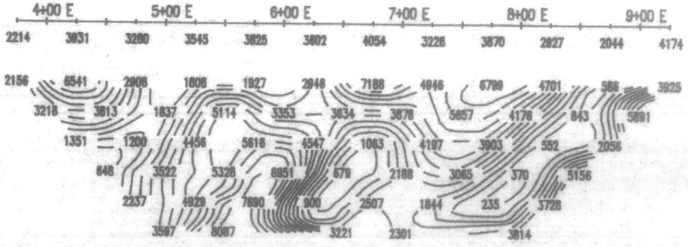


Topo

Interpretation



Chargeability
mV/V



Resistivity
ohm/meters

Topo

Interpretation

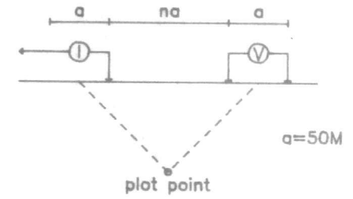
Chargeability
mV/V

Interpretation

Resistivity
ohm/meters

L- 300N

Pole-Dipole Array



Filter

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	Cont. Intervals	Profiles
Resistivity	; 500 ohm/meter	-- -- -- --
Chargeability	; 1.0 mV/V	- - - - - -
Metal Factor	; 1 %	----------

INSTRUMENTS

Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
MT= (80+80+80+80+160+160+160+320+320+320) mSec
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho

Moderately Low Effect

Moderately High Effect

High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho

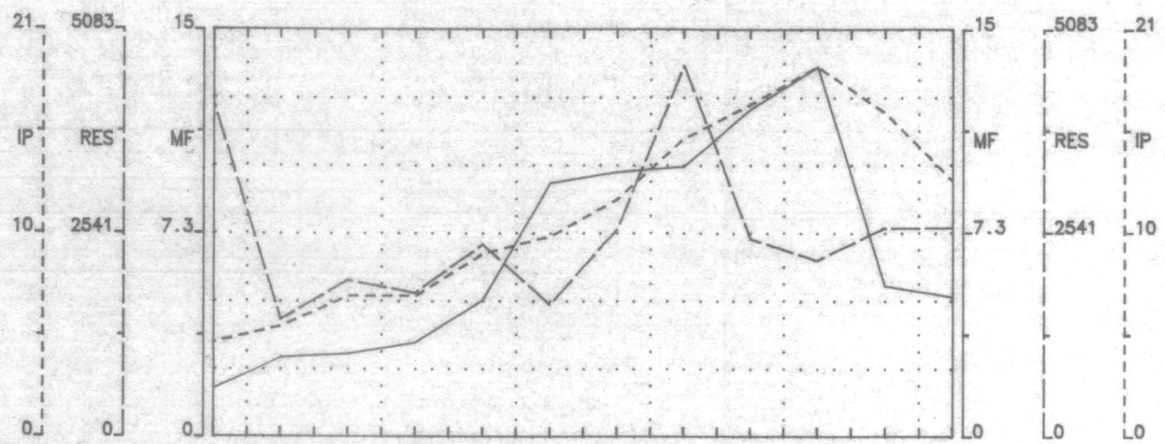
Scale 1:5000

50 0 50 100 150 200 250 300
(meters)

Cross Lake Minerals Ltd

Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.

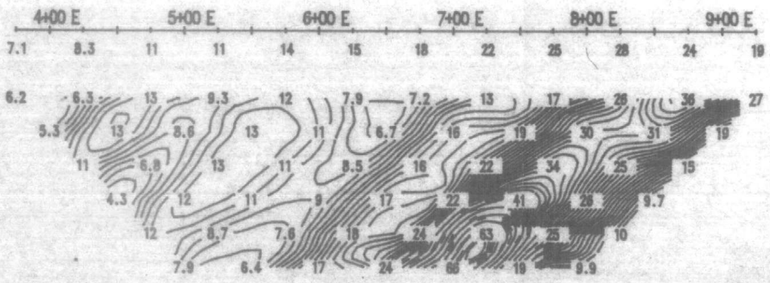


Topo

Topo

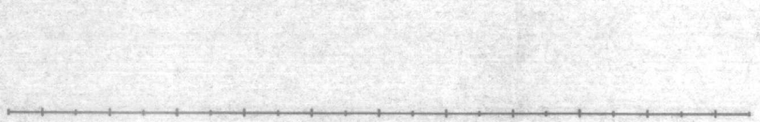
Interpretation

Interpretation

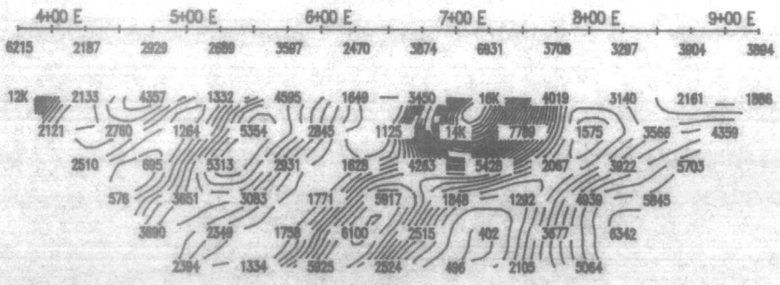


Chargeability
mV/V

Interpretation



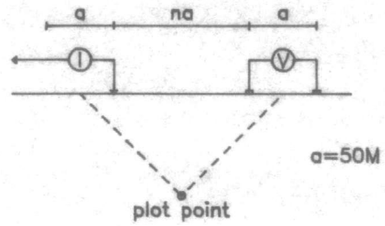
Interpretation



Resistivity
ohm/meters

L- 400N

Pole-Dipole Array



Filter

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	Cont. Intervals	Profiles
Resistivity ;	500 ohm/meter	-- -- -- --
Chargeability ;	1.0 mV/V	- - - - - -
Metal Factor ;	1 %	----------

INSTRUMENTS

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High Apparent Resistivity, rho

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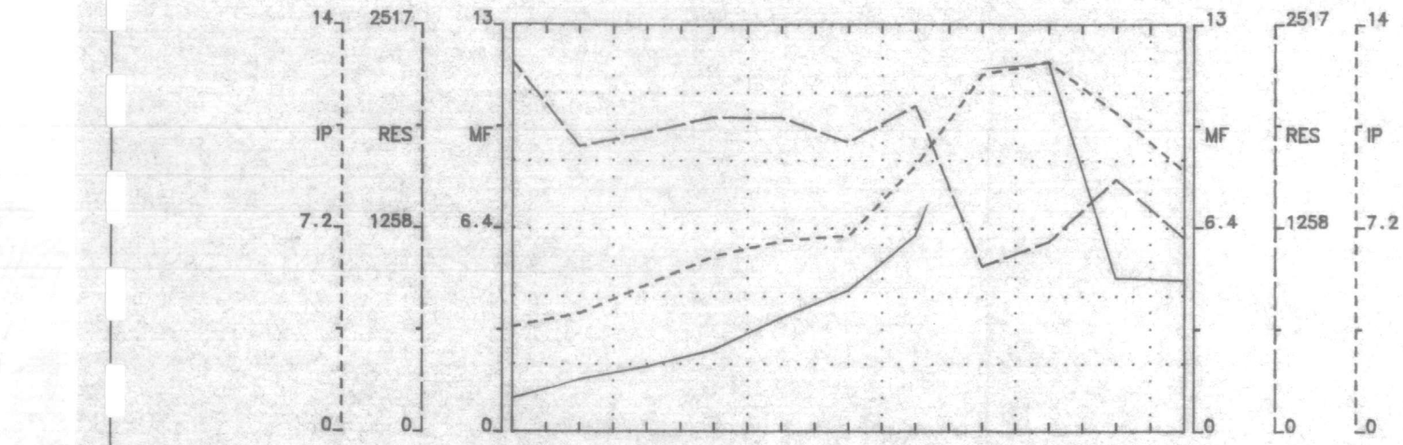
50 0 50 100 150 200 250 300

(meters)

Cross Lake Minerals Ltd

Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.

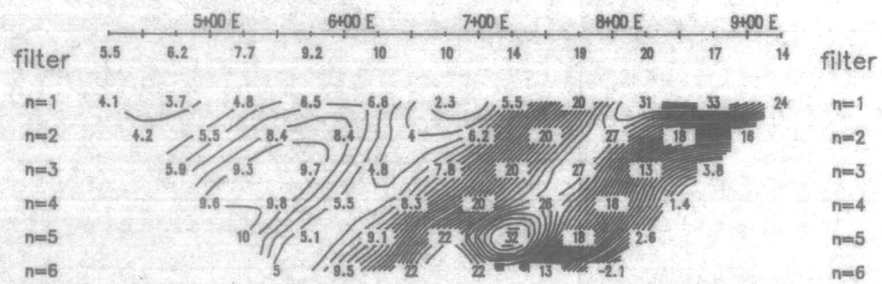


Topo

Topo

Interpretation

Interpretation

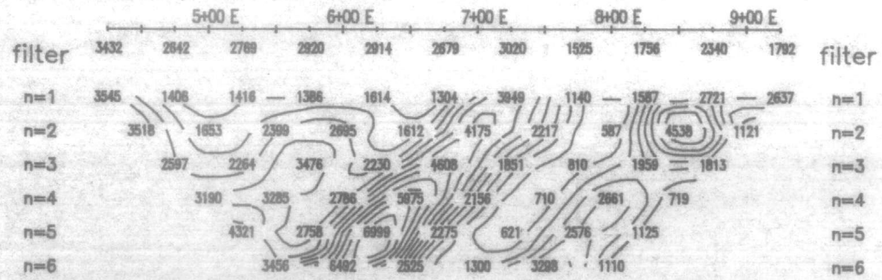


Chargeability
mV/V

Chargeability
mV/V

Interpretation

Interpretation

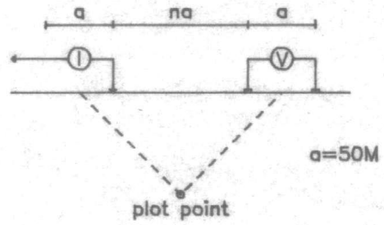


Resistivity
ohm/meters

Resistivity
ohm/meters

L- 500N

Pole-Dipole Array



Filter

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	Cont. Intervals	Profiles
Resistivity ;	500 ohm/meter	-- -- -- --
Chargeability ;	1.0 mV/V	- - - - - -
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Scale 1:5000

50 0 50 100 150 200 250 300
(meters)

Cross Lake Minerals Ltd

Induced Polarization Survey
Sewell-2-96
Sewell Township, NTS: 42- A/ SW

Porcupine Mining Division
M. C. Exploration Services Inc. July 1996.

Ministry of Northern Development and Mines
Ontario

Report of Work Conducted After Recording Claim

W9660.00588

Mining Act

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

D [redacted] 16962

Instructions: - Please type or print and submit in duplicate.
- Refer to t[redacted] ssment work or consult the Mining Recorder.
- A separat[redacted]
- Technical [redacted] 900 this form.
- A sketch,

42A05SW0006 2.16962 SEWELL

Recorded Holder(s) CROSS LAKE MINERALS LTD.		Client No. #122562
Address 1018-475 HOWE STREET VANCOUVER B.C V6C-2B8		Telephone No. 604-688-5448
Mining Division PORCUPINE	Township/Area SEWELL TWP	M or G Plan No.
Dates Work Performed From: JUNE 10/96	To: OCT 31/96	

Work Performed (Check One Work Group Only)

	Work Group	Type
	Geotechnical Survey	LINECUTTING - MAG-SURVEY - I.P. SURVEY
	Physical Work, Including Drilling	
	Rehabilitation	
	Other Authorized Work	
	Assays	
	Assignment from Reserve	

RECEIVED
DEC 27 1996
MINING LANDS BRANCH

Total Assessment Work Claimed on the Attached Statement of Costs $ 17,483.00

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
M.C EXPLORATION SERVICES	P.O BOX 362 PORCUPINE ONTARIO P0N-1C0

(attach a schedule if necessary)

Certification of Beneficial Interest * **See Note No. 1 on reverse side**

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date NOV 9/96	Recorded Holder or Agent (Signature) AGENT [signature]

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying
MIKE CARON P.O BOX 362 PORCUPINE, ONTARIO P0N-1C0

Telepone No. 705-235-8660	Date NOV 9/96	Certified By (Signature) [signature]

For Office Use Only

Total Value Cr. Recorded $17,483.	Date Recorded	Mining Recorder Updated Gary White	Received Stamp RECEIVED (c) NOV 12 1996 8:50 PORCUPINE MINING DIVISION
	Deemed Approval Date [redacted]	Date Approved	
	Date Notice for Amendments Sent		

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	1203939	3	$8,506.00	$1,200.00	$5,423.00	$1,883.00
	1128955	16	$8,977.00	$6,400.00	$2,577.00	
	1128956	8	⊘	$3,200.00		
	1198721	12	⊘	$4,800.00		
	4	(39 UNIT)	$17,483.00	$15,600.00	$8,000.00	$1,883.00
	Total Number of Claims		Total Value Work Done	Total Value Work Applied	Total Assigned From	Total Reserve

2.1696 2

RECEIVED DEC 27 1996 MINING LANDS BRANCH

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to priorize the deletion of credits. Please mark (✓) one of the following:

1. ☑ Credits are to be cut back starting with the claim listed last, working backwards.
2. ☐ Credits are to be cut back equally over all claims contained in this report of work.
3. ☐ Credits are to be cut back as priorized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature	Date

Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use)
W9660.00588

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

2.16962

Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
LINECUTTING	17 Km	$300.00 per Km	$5,100.00
MAG SURVEY	14.275 Km	$144.00 per Km	$2,055.00
I.P SURVEY	12.15 Km	$850.00 per Km	$10,327.50
Associated Costs (e.g. supplies, mobilization and demobilization).			
Transportation Costs			
Food and Lodging Costs			
		Total Value of Assessment Work	$17,483.00

RECEIVED
DEC 27 1996
MINING LANDS BRANCH

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK × 0.50 = Total $ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

RECEIVED
NOV 12 1996
TB 8:50

Certification verifying costs:

I, MIKE CARON (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as AGENT (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature	Date
M A Caron	Nov 9/96

0212 (02/96)

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (705) 670-5853
Fax: (705) 670-5863

January 20, 1997

Gary White
Mining Recorder
60 Wilson Avenue, 1st Floor
Timmins, ON
P4N 2S7

Dear Sir or Madam:

Submission Number: 2.16962

Subject: Transaction Number(s):		Status
	W9660.00588	Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

NOTE: This correspondence may affect the status of your mining lands. Please contact the Mining Recorder to determine the available options and the status of your claims.

If you have any questions regarding this correspondence, please contact Steve Beneteau by e-mail at beneteau_s@torv05.ndm.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,

ORIGINAL SIGNED BY
Ron C. Gashinski
Senior Manager, Mining Lands Section
Mines and Minerals Division

Correspondence ID: 10492
Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.16962

Date Correspondence Sent: January 20, 1997 **Assessor:** Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9660.00588	1203939	SEWELL	Approval	January 17, 1997

Section:

14 Geophysical IP
14 Geophysical MAG

Correspondence to:

Mining Recorder
Timmins, ON

Resident Geologist
Timmins, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

Mike Caron
PORCUPINE, ONTARIO

CROSS LAKE MINERALS LTD.
VANCOUVER, B.C.

Correspondence ID: 10492

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

variation	Order No.	Date	Disposition	File
SEC 43/70 W 30/77		13/7/77	S.R.O.	135748
FC 43/70 W 9/78		10/4/78	S.R. -M.R.	98543
SEC 43/70 W 10/78		14/11/78	S.R.O.	135748
DUMP ATTENUATION ZONE				
(R5) SEC 36/80 W 46/83		14/8/83	S.R. -M.R.	

(R6) NOT OPEN FOR STAKING, BONA VIDE APPLICATION UNDER PUBLIC LANDS ACT PENDING 21/01/87

(F1)* THIS TWP SUBJECT TO FORESTRY ACTIVITY IN 1995 - 96. AREAS DESIGNATED EXACTLY AS SUBMITTED BY MNR TIMMINS.

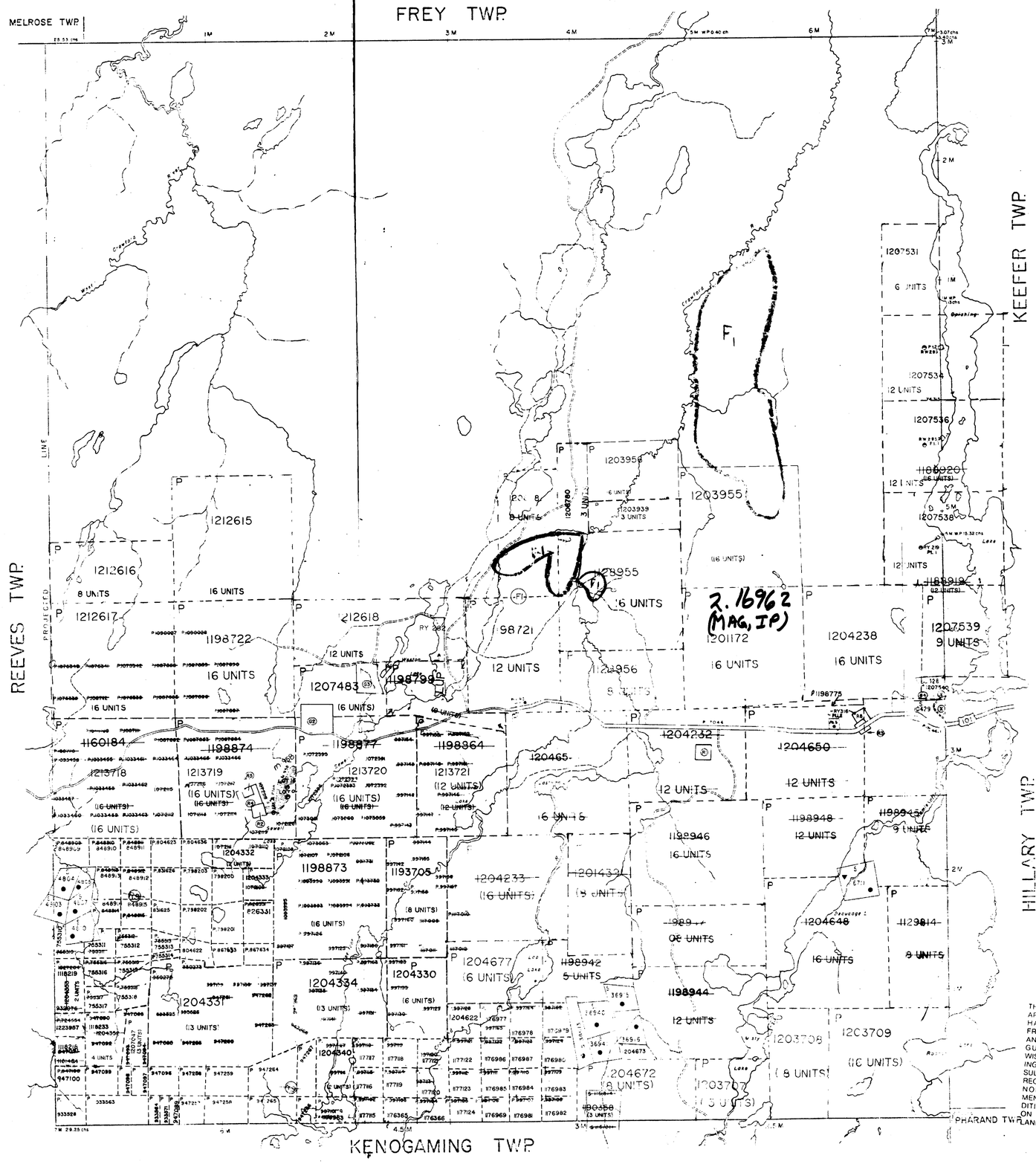
~~(R4) SURFACE AND MINING RIGHTS WITHDRAWN FROM PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT, R.S.O. 1990 DATED 95-MAY-29 ORDER NO. W-P-7/95 NER~~

(R9) SURFACE AND MINING RIGHTS RE-OPENED FOR PROSPECTING STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT, R.S.O. 1990 DATED 96-NOV-16 AT 1247 P.M. ORDER NO. O-P-31/96 NER (EXCLUDING P-724554)

(R9) SURFACE AND MINING RIGHTS RE-OPENED FOR PROSPECTING STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT, R.S.O. 1990 DATED 96-NOV-20 AT 13:00 P.M. ORDER NO. O-P-34/96 NER (724554)
(R9) THIS ORDER COMES INTO EFFECT ON DEC. 9, 1996 AT 8.00 A.M.

SAND AND GRAVEL

(G2) M. T. C. PIT 1577
(G3) M. T. C. PIT SM-1 FILE 135748
(G4) M. T. C. PIT 1576



THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES: TOWNSHIPS, BASE LINES, ETC.
- SURVEYED LINES: LOTS, MINING CLAIMS, PARCELS, ETC
- UNSURVEYED LINES: LOT LINES
- UNSURVEYED LINES: PARCEL BOUNDARY
- UNSURVEYED LINES: MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◒
" , MINING RIGHTS ONLY	◓
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	▣
" , MINING RIGHTS ONLY	▤
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	R
CANCELLED	C
SAND & GRAVEL	S

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 2000
(1 KM) (2 KM)

L.U.P. LAND USE PERMIT ON FILE.

1996
not updated

2.16962

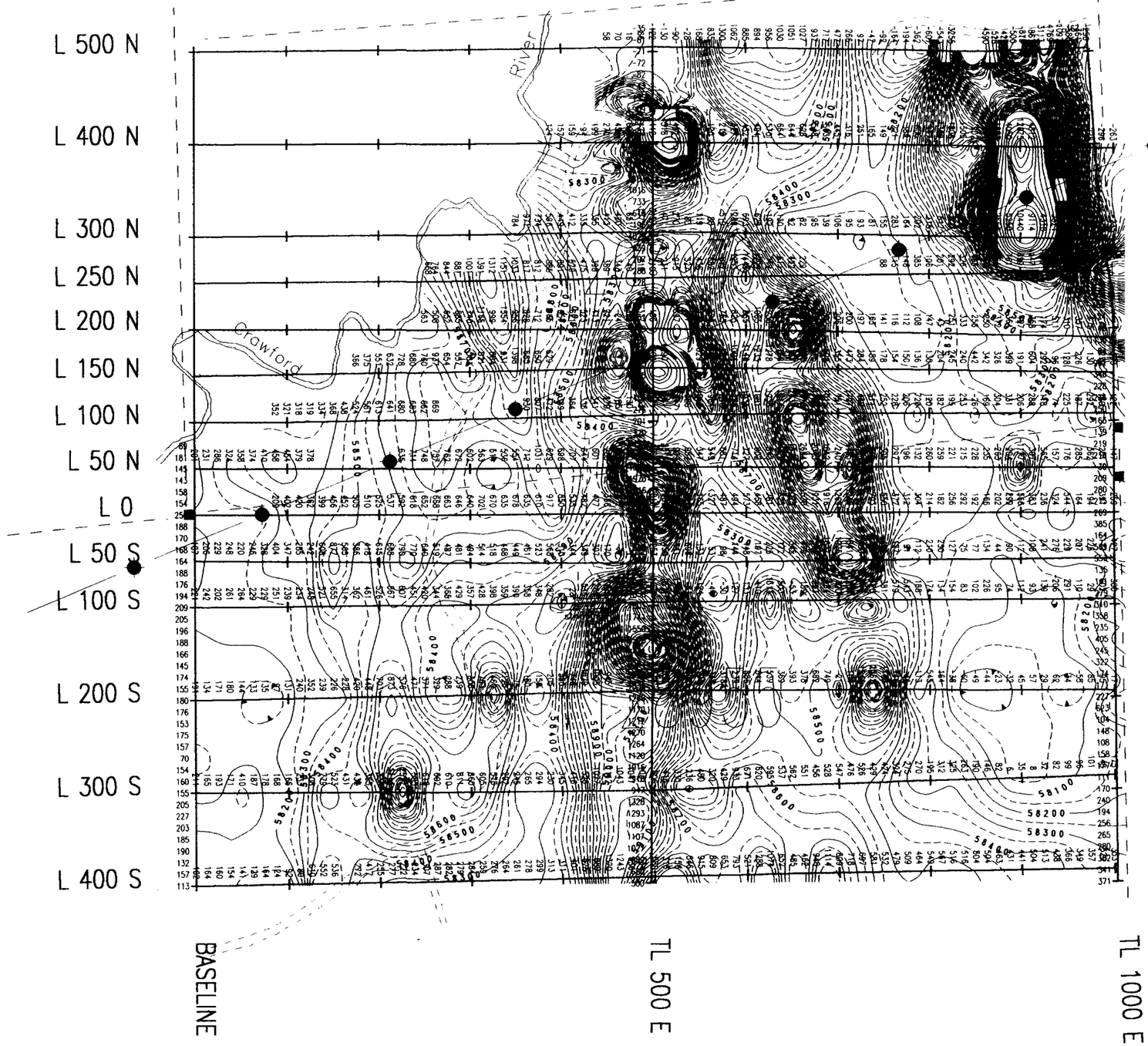
TOWNSHIP
SEWELL
M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
SUDBURY

Ontario Ministry of Natural Resources — Land Management Branch

Date MARCH, 1985
Number G-3247

CHECKED BY MCR. PLACED ON ACTIVE FILE 10/05/08. BK

42A05SW0006 2.16962 SEWELL



L 500 N
L 400 N
L 300 N
L 250 N
L 200 N
L 150 N
L 100 N
L 50 N
L 0
L 50 S
L 100 S
L 200 S
L 300 S
L 400 S

210

LEGEND

Total Field Magnetic Plan

58000nT subtracted from Data

CONTOURS

Pen 1; 50 nT Interval, 55050-65000nT
Pen 2; 100 nT Interval, 52000-65000nT
Pen 3; 500 nT Interval, 52000-70000nT

Base Station ; along access road
Reference Field; 58100 nT
1119 Stations @ 12.5m intervals= 13.78 km
52102 to 70674nT Range, 58571 nT mean

INSTRUMENTS

TerraPlus GSM- 19, Overhauser Mag

PLAN 1

Scale 1:5000

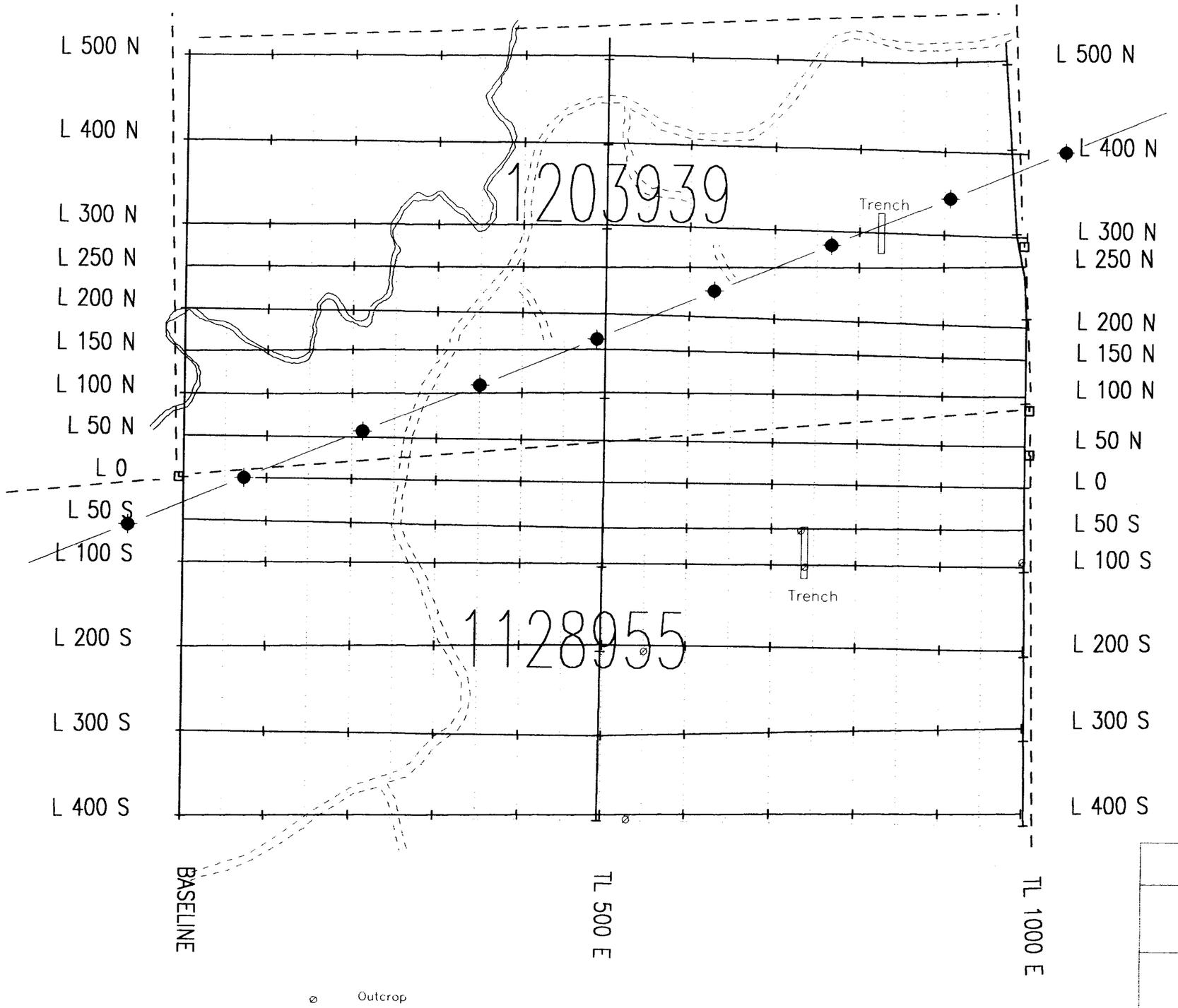
50 0 50 100 150 200 250 300 350
(meters)

Cross Lake Minerals Ltd

Sewell-2-96 Property
Magnetic Survey

Sewell Townships NTS: 42-A / SW
Porcupine Mining Division

M. C. Exploration Services Inc. Oct 1996.



L 500 N
L 400 N
L 300 N
L 250 N
L 200 N
L 150 N
L 100 N
L 50 N
L 0
L 50 S
L 100 S
L 200 S
L 300 S
L 400 S

220

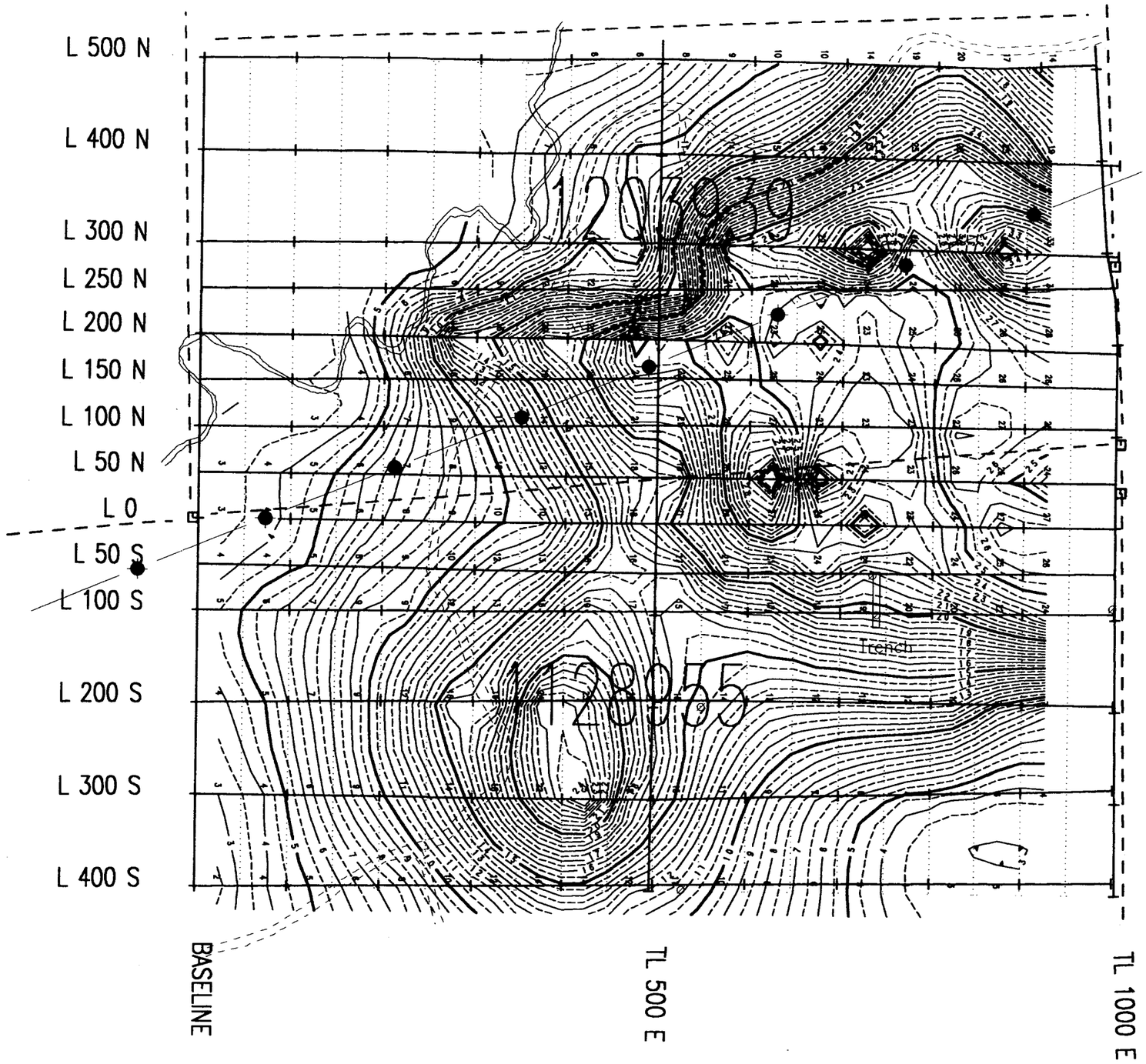
PLAN 4

Scale 1:5000

50 0 50 100 150 200 250 300 350

(meters)

Cross Lake Minerals Ltd
Sewell-2-96 Property Base Map
Sewell Townships NTS: 42-A / SW Porcupine Mining Division
M. C. Exploration Services Inc. Oct 1996.



Plan 2

PIPOLE DIPOLE ARRAY
Chargeability Plan Map
mV/ V

Filtered Product n1 to n4

227 Plot Points
0.2mV/V to 48.8 mV/V Data Range
13.0 mV/V Average
1 mV/V Contour Interval

INSTRUMENTS
Scintrex TSQ-3 Transmitter
8 Second Ttl Duty Cycle

2 Second ON/OFF Time
Androtex TDR-6 Receiver
80mSec Time Delay
1720mSec Total Intergration Time
MT=(80+80+80+80+120+120+120+160+160+160)mSec's

Scale 1:5000

50 0 50 100 150 200 250 300 350
(meters)

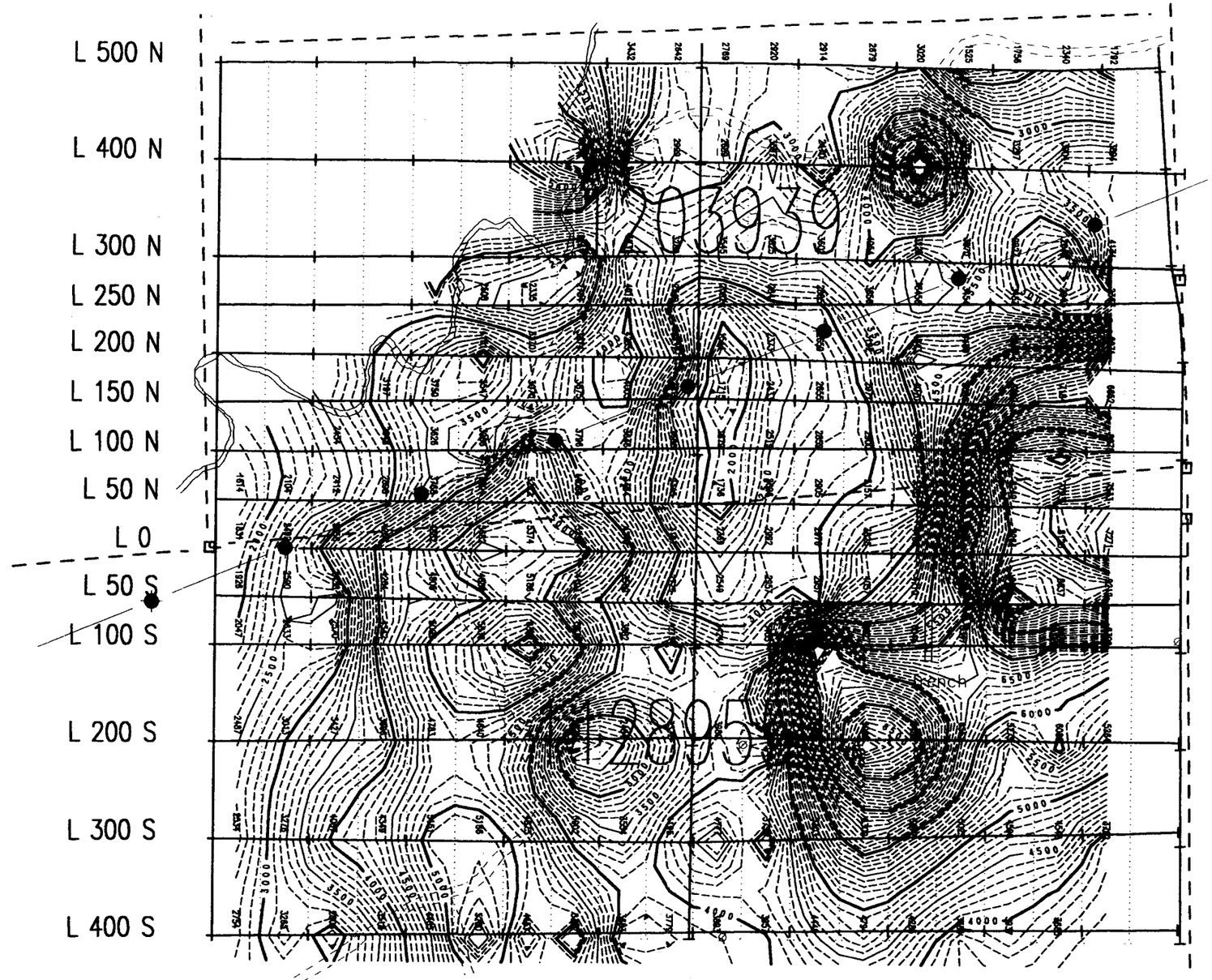
42A05SW0006 2.16962 SEWELL

Cross Lake Minerals Ltd

Sewell-2-96 Property
Induced Polarization Survey

Sewell Townships NTS: 42-A / SW
Porcupine Mining Division

M. C. Exploration Services Inc. Oct 1996.



Plan 3

L 500 N
L 400 N
L 300 N
L 250 N
L 200 N
L 150 N
L 100 N
L 50 N
L 0
L 50 S
L 100 S
L 200 S
L 300 S
L 400 S

240

PIPOLE DIPOLE ARRAY

Resistivity Plan Map
ohm/ 50 meters
Filtered Product n1 to 4

227 Plot Points
1525 ohm/m to 9591 ohm/m Range
4125 ohm/m Average

100 ohm/m Contour Interval

INSTRUMENTS
Scintrex TSQ-3 Transmitter
8 Second Ttl Duty Cycle

2 Second ON/OFF Time
Androtex TDR-6 Receiver
80mSec Time Delay
1720mSec Total Intergration Time
MT=(80+80+80+80+120+120+120+160+160+160)mSec's

Scale 1:5000

50 0 50 100 150 200 250 300 350
(meters)

Cross Lake Minerals Ltd

Sewell-2-96 Property
Induced Polarization Survey

Sewell Townships NTS: 42-A / SW
Porcupine Mining Division

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