GEOPHYSICAL REPORT FOR **PELE MOUNTAIN RESOURCES INC.** ON THE **TEXMONT EXTENSION PROPERTY** BARTLETTE AND GEIKIE TOWNSHIPS PORCUPINE MINING DIVISION NORTHEASTERN, ONTARIO

2.33239



Prepared by: J. C. Grant, October, 2006



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INTRODUCTION:

The services of Exsics Exploration Limited were retained by Mr. Alan Shefsky on behalf of the Company, Pele Mountain Resources Inc. to complete an Induced Polarization, (IP), survey across a selected group of 3 grid lines that were cut across a portion of their claim holdings in Bartlette and Geikie Townships. Both of these Townships are situated within the Porcupine Mining Division in Northeastern Ontario.

The property lies to the immediate south of the Texmont Mine site which is currently being drilled by Fletcher Nickel. Fletcher is currently drilling the Texmont ore zones to expand the historical economical nickel resource on the property. *In 1965 the reserves, to a depth of 1500 feet, were 4,770,000 tons averaging 1% nickel after dilution.* They will also be expanding their drilling to the north of the known ore zones after the completion of an IP survey which has extended the potential mineralized significantly to the north.

Routine mapping by D. Lalonde across the lines to be covered by this IP survey indicated the presence of spinifex texture exposed in outcrops on several locations along these lines. A spectacular identifying trait of komatiites is their spinifex texture which resembles a lacy mesh of needle-like olivine crystals, typically surrounded by light-colored minerals such as plagioclase, termolite and or chlorite. The elongated nature of the komatiite olivine crystals is quite distinct when compared with equant to tabular olivine crystals seen in most basaltic rocks.

Also significant is that drilling of the Texmont ore zones has shown that this spinifex texture is encountered in the holes prior to intersecting the ore grade nickel zones.

Pele decided to complete 3 lines of IP surveys approximately 250 meters directly south of the Texmont south ore zone first to follow up on a weak Horizontal Loop Electromagnetic, (HLEM), target located about 350 meters east of the base line as well as to better define two potential magnetic units that extend south from the Fletcher grid onto the Pele grid at about 300ME and 400ME. This most easterly mag trend is also coincidental with mapped spinifex textures within exposed outcrops.

Also, the presence of mapped spinifex textures in the vicinity of the HLEM target and magnetic trends added significantly to the potential for further nickel rich zones within the Pele grid.

The line cutting and IP surveys were completed between August 30th and September 3rd, 2006. During this period approximately 2 kilometers of lines were cut and surveyed.

PROPERTY LOCATION AND ACCESS:

The Texmont south property is located in the northwest corner of Geikie Township and the northeast corner of Bartlett Township both of which are situated in the Porcupine Mining Division of Northeastern, Ontario.

More specifically the property is situated directly south of McArthur Lake and to the immediate west of the Redstone River.

The entire claim block is situated approximately 30 to 35 kilometers south of the City of Timmins. Figures 1 and 2.

Access to the grid during the survey period was ideal. A good gravel road, locally called Pine Street travels south to southeast from Timmins and crosses through the central eastern section of Bartlett Township. At about kilometer 35, there is a good secondary gravel road that runs east to southeast that provides access to the Texmont Mine site. This road has been upgraded and maintained by current logging operations in the area of the mine site. Once at the mine site the Pele property is accessed by foot along the north-south base line cut by Fletcher Nickel along the township line between Bartlett and Geikie.

Traveling time from Timmins to the grid area is about 90 minutes. Refer to Figures 2 and 3.

CLAIM BLOCK:

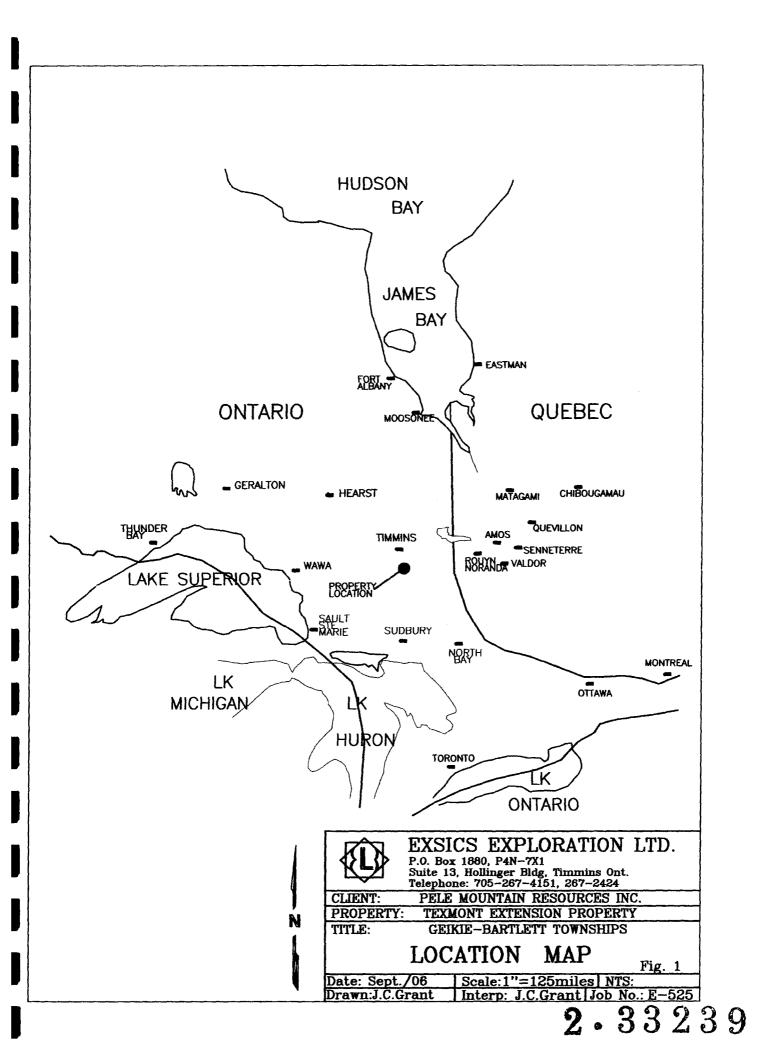
The claim number that was covered by the present ground program was P-1247562 which represents 11 units that straddle the Bartlett and Geikie Township line to the immediate south of the Texmont Patented claims. Refer to Figure 3 copied from MNDM Plan Map M-0320 for the positioning of the grid and claim within the area.

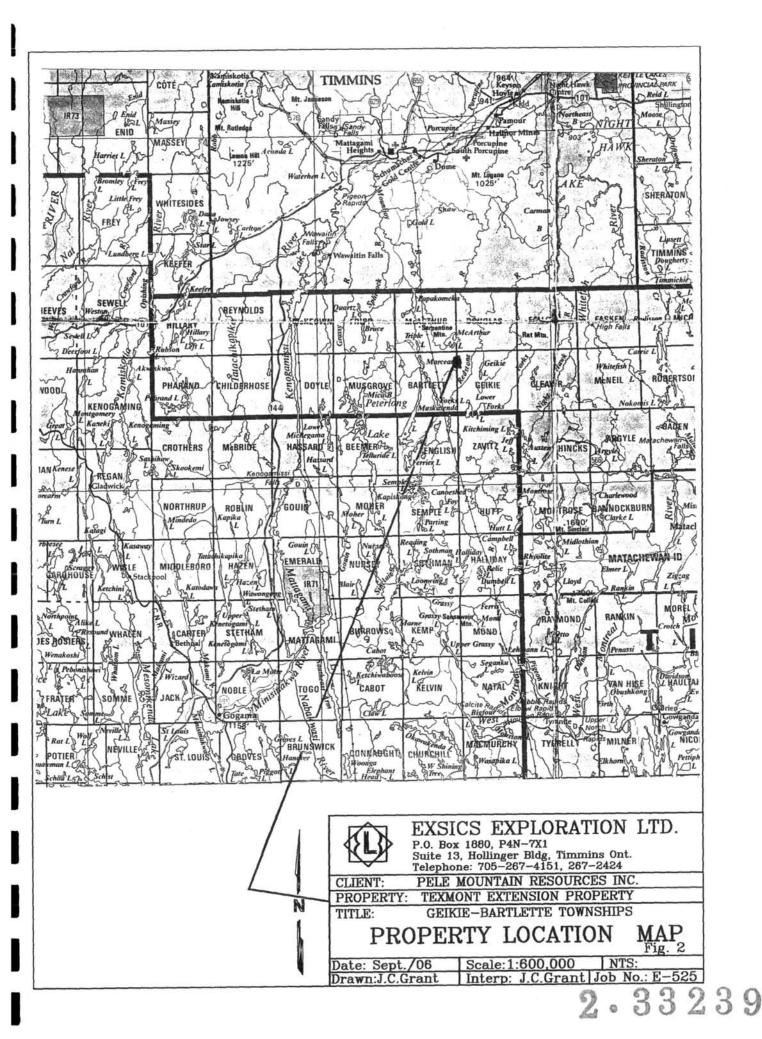
PERSONNEL:

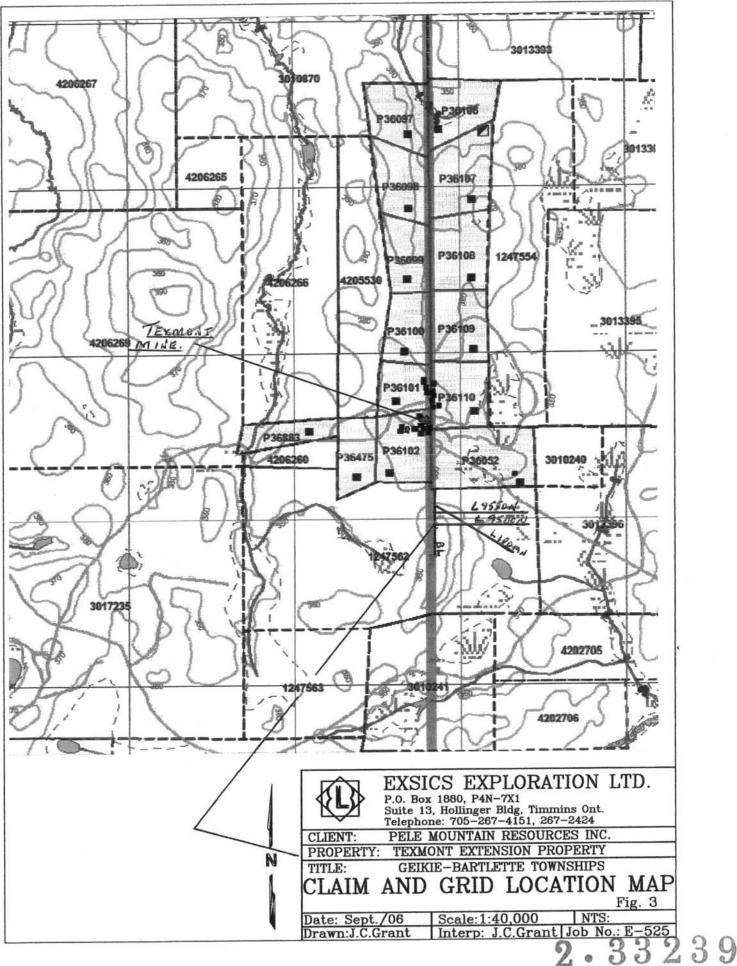
The field crew directly responsible for the collection of all the raw data were as follows.

E. Jaakkola	Timmins, Ontario
S. Lessard	Timmins, Ontario
D. Collins	Timmins, Ontario
B. McWhirter	Timmins, Ontario
R. Bradshaw	Timmins, Ontario

The plotting and interpretation as well as the report was completed by J. C. Grant of Exsics Exploration Limited.







GROUND PROGRAM:

The ground program was completed in two phases. The first phase was to re-cut and chain the 3 grid lines to be covered by the follow-up IP survey. Lines 9550MN and 9500MN were cut due east from the existing baseline established by Fletcher Nickel along the Bartlett and Geikie Township Line. Both of these lines were cut and chained with 25 meter pickets from the baseline to 600ME.

Line 100MN was cut at an azimuth of 120 degrees from the baseline at 9600MN to 600ME. This line represented the most northerly line established by Pele during a previous field program completed in 2002-2003.

These three lines were chosen based on the location of the spinifex textures located in outcrops at 400ME on line 100MN as well as a weak HLEM conductor located on line 100MN at 350ME.

Once the grid lines were cut then an IP survey was completed on all three lines. This survey was done using the IRIS Elrec 10 receiver and the GDD 3.6 kilowatt transmitter. Specifications for these units can be found as Appendix A of this report.

The following parameters were kept constant throughout the survey period.

Line spacing	50, 100 meters
Station spacing	25 meters
IP method	Time domain
IP array	Pole-dipole
Number of electrodes	6
Electrode spacing	25 meters
Transmitter	GDD 3.6 kilowatt
Time base cycle	2 seconds on, 2 seconds off
Receiver	IRIS Elrec 10
Mdly	240ms, delay time before 1 st Msample measurement
Vdly	1260ms, delay time before 1 st Vp primary voltage sample.
Sample stack time	6
Parameters measured	Apparent chargeability in MV/V and Resistively in OHM/M

Once the lines were read the data was presented as individual line pseudosections showing the contoured results of the chargeability and resistively values. These color sections are plotted at a scale of 1:2500 and are included in the back pocket of this report.

SURVEY RESULTS:

The IP survey was successful in enhancing the weak HLEM zone as well as defining several other targets across the grid lines. These results will be done on a line to line basis.

LINE 9550MN:

This line identified two potential target areas. The first is situated between 200ME and 275ME which would represent the northern extension of the magnetic trend striking off of the Pele grid at 275ME. This zone has a good chargeability high that extends to depth but appears to come to surface. The zone lies at the western edge of a narrow resistivity low.

The second target area lies between 350ME and 425ME that appears to correlate to the magnetic trend and weak HLEM zone that also strikes off of the Pele grid at 350 to 400ME. This zone is a good strong chargeability high that extends to depth and appears to come near or to surface. It correlates to a weak resistivity high bordered by to lows.

LINE 9500MN:

This line identified three possible target areas. The first is situated between 50ME and 100ME and it appears to relate to a potential iron rich formation that has been mapped in the area. The second area is situated between 200ME and 275ME and is represented by a strong chargeability high that extends to depth and comes to surface at 225ME. The zone has a modest resistivity high association. This zone is the extension of the magnetic trend at striking off of the Pele grid at 275ME.

The third zone is situated between 350ME and 400ME and it again is a strong zone that may extend to depth and comes to surface at about 375ME. This zone correlates with the magnetic trend and HLEM zone striking north off of line 100MN of the Pele grid. It lies on the western edge of a resistivity low and correlates to a broad resistivity high.

LINE 100MN(PELE GRID):

This line was successful in locating a good strong IP zone as well as a paralle zone at depth. The main zone is situated between 350 and 425ME and correlates directly with the HLEM zone as well as the magnetic high trend. Spinifex texture was also mapped in outcrop at 400ME on this line.

This zone is a good strong chargeability high that extends to depth and appears to come to surface at 375 to 400ME. The zone also lies to the immediate west of a resistivity low.

A second weaker and deeper zone was noted at 300ME that appears to continue at depth. This zone correlates to the magnetic trend that continues off of the grid at 300ME on this line. The zone correlates to a modest resistivity high that also appears to continue at depth.

CONCLUSION AND RECOMMENDATIONS:

The IP survey was successful in enhancing the existing albeit weak HLEM target that was initially outlined on line 100MN of the Pele grid and appeared to continue off of the grid to the north. This would suggest that the zone is more than likely a highly disseminated zone that reacted better to the IP survey method.

The IP survey also suggested that there is at least three structural trends striking across the three grid lines. The first would be strike across lines 9500MN and 9550MN from 75ME to 50ME and may relate to a known iron rich formation. This zone appears to be open to the south.

The second zone would strike northward from line 100MN at 275 to 300ME to line 9550Mn at 200 to 250ME. This zone continues in both directions.

The third zone strikes across northward from line 100MN at 360ME to 375ME to line 9550MN at 350ME to 420ME and continues off of the grid in both directions. The southern extension of this zone correlates to the HLEM zone as well as a magnetic high trend striking northward.

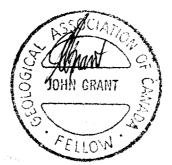
Diamond drilling to test the conductive zones is recommended as a follow up to the IP surveys. Four relatively shallow holes in the range of 150 to 200 meters would be required to define the source of these target areas.

Further ground geophysics would then be based on the results of this drilling. IP surveys would be the best surveys to be used in any future ground program.

At the time of this writing, drilling of the three zones is in progress. Results from this drilling will be commented on at a later date.

Respectfully submitted

J.C. Grant, CET, FGAC October, 2006.



CERTIFICATION

I, John Charles Grant, of 108 Kay Crescent, in the City of Timmins, Province of Ontario, hereby certify that:

- 1). I am a graduate of Cambrian College of Applied Arts and Technology, 1975, Sudbury Ontario Campus, with a 3 year Honors Diploma in Geological and Geophysical Technology.
- I have worked subsequently as an Exploration Geophysicist for Teck Exploration Limited, (5 years, 1975 to 1980), and currently as Exploration Manager and Chief Geophysicist for Exsics Exploration Limited, since May, 1980.
- 3). I am a member in good standing of the Certified Engineering Technologist Association, (CET), since 1984.
- 4). I am in good standing as a Fellow of the Geological Association of Canada, (FGAC), since 1986.
- 5). I have been actively engaged in my profession since the 15th day of May, 1975, in all aspects of ground exploration programs including the planning and execution of field programs, project supervision, data compilation, interpretations and reports.
- 6). I have no specific or special interest nor do I expect to receive any such interest in the herein described property. I have been retained by the property holders and or their Agents as a Geological and Geophysical Consultant and Contract Manager.

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John Charles Grant, CET., FGAC.

APPENDIX A

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Elrec 10 Specifications @ Fugro Instruments

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Technical specifications

- Ten input dipoles

- Signal waveform: Time Domain (ON+, OFF, ON

-, OFF) with pulse duration of 0.5 , 1 , 2 , 4 or δ seconds

- Up to twenty arithmetic, logarithmic or fully programmable IP chargeability windows

- Computation of apparent resistivity,

average chargeability and standard deviation - Input impedance: >50 Mohms

- Input overvoltage protection up to 1000

Volts

 Automatic SP bucking ±15V with linear drift connection

- Internal calibration generator for a true

calibration on request of the operator - Automatic synchronization and re-

synchronization process on primary voltage signals whenever needed

- Automatic stacking number in relation with

a given standard deviation value

- Proprietary intelligent stacking process

rejecting strong non-linear SP drifts

- Common mode rejection: more than 100 dB (for Rs = 0)

- Ground resistance measurement from 0.1

to 100 kohms

- Battery test: graphic plot of battery status

- Primary voltage: range: 10 μV to 15V,

resolution: 1µV, accuracy: typ. 0.3%

- Chargeability; range: 10µV to 15V,

accuracy: typ. 0.6%

- Self Potential: range: ±15V, resolution: 0.1 mV

- Time constant (tau) range: Cole-Cole

inversion continuous from 10 milliseconds to 100 seconds ; Customized range on request

- Dimensions: 31x21x25 cm

- Display: 16 lines by 40 characters, 128 x

ELREC 10, Ten dipole IP receiver

The With graphics display for data quality monitoring

TEN SIMULTANEOUS DIPOLES TWENTY PROGRAMMABLE CHARGEABILITY WINDOWS HIGH ACCURACY AND SENSITIVITY

ELREC 10 is a ten dipole Time Domain Induced Polarization receiver designed for high productivity surveys in Mineral Exploration. ELREC 10 is a highly sensitive receiver and features a large graphic display for user friendly operation and a Cole-Cole parameter computation for in-the-field time constant analysis.

Ten dipoles:

The ten dipoles of ELREC 10 offer an increased productivity in the field for dipole-dipole, gradient or extended polypole arrays. It is also possible to measure five differential (non adjacent) dipoles, for special electrode configurations.

Twenty programmable windows:

Beside classical arithmetic and logarithmic modes, ELREC 10 also offers twenty fully programmable windows for a higher flexibility in the definition of the IP decay curve.

User Friendly Interface:

user friendly interface has been set up in ELREC 10 with a minimal number of key strokes for each operation.

Intelligent Stacking Process:

When the electric noise has strong nonlinear effects, the standard arithmetic stacking process requires a long acquisition time to measure the IP effect ; a proprietary intelligent stacking Weight: 8 kg including internal battery
Operating temperature: -30°C to +70°C
Power supply: 12V internal rechargeable battery with more than 20 hours service at +20°C ; a 12V external battery can be also used.

SP bursts and minimize the acquisition time for a given reading accuracy

Monitoring Display:

A large graphic LCD (128x240 dots) permits the operator to display simultaneously the IP decay curves of the ten dipoles during the acquisition, for a global visualization of the readings and for better quality control. Before the acquisition, the ELREC 10 can be used as a one channel DC graphic display, for monitoring the noise level and checking the primary voltage waveform, through a continuous display process.

Cole-Cole Parameters:

An inversion procedure has been implemented to compute Cole-Cole time constant at the end of the acquisition. This allows a possible grain size discrimination analysis.

Internal Memory:

The memory can store up to 3200 dipole readings, each reading including the full set of parameters characterizing the measurements. An explicit data storage procedure has been developed including the display of warning messages for data not yet stored. File names are available for a better memory management of sets of readings.

Field proof Instrument:

ELREC 10 operates in a wide temperature range and features a fiberglass case for resistance to field shocks and vibrations.

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1.2 Transmitter description

In this section, the Tx II components are shown, named and explained.

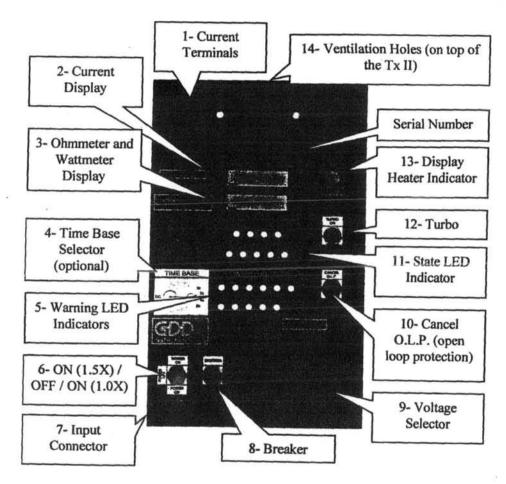


Figure 1 : Transmitter components

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6. SPECIFICATIONS

Size : $51 \times 41.5 \times 21.5$ cm-built in transportation box from Pelican

Weight : approximately 32 kg

Cycle :

Operating temperature : -40 °C to 65 °C

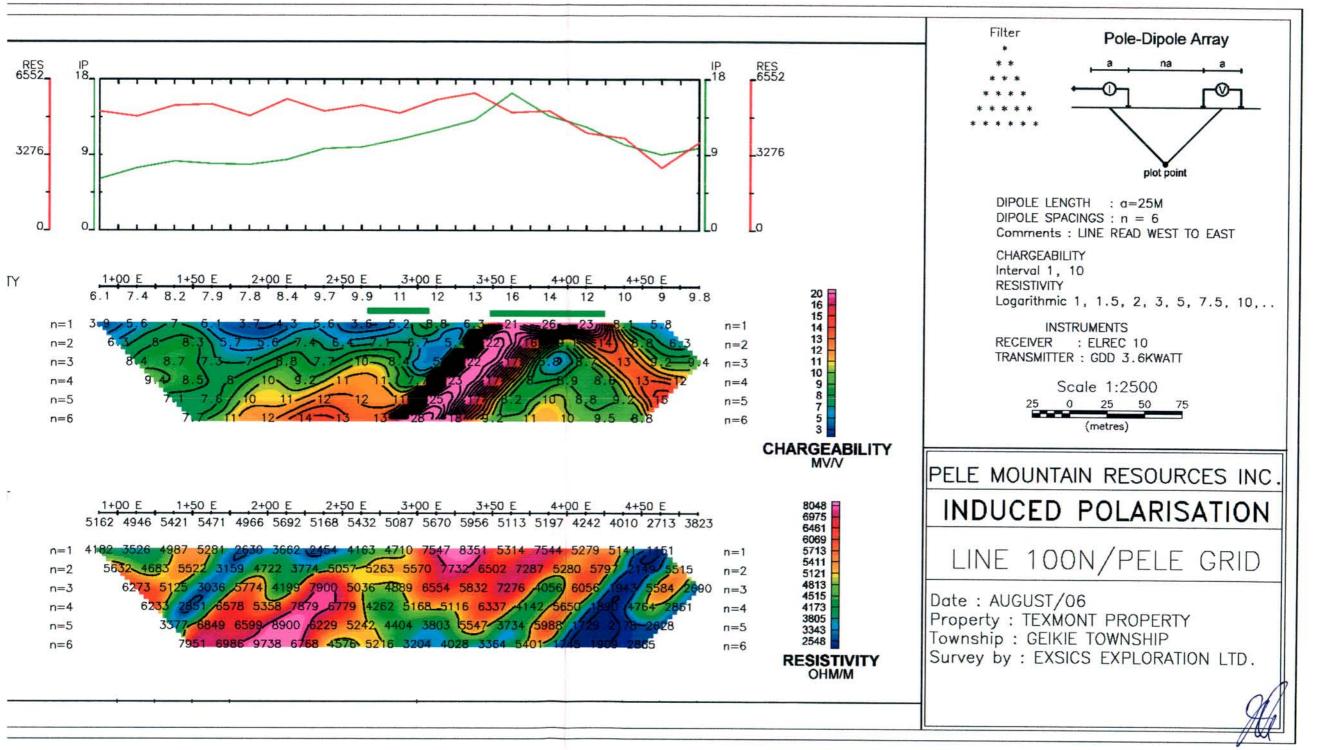
time domain : 2 s ON, 2 s OFF Optional: 1, 2, 4 or 8 s 0.5, 1, 2 or 4 s DC

Output current :	0.030 A to 10 A (normal operation) 0.000 A to 10 A (cancel open loop)
Output voltage :	150 V to 2400 V
Display :	LCD, reads to 0,001 A
Power source :	240 V / 60 Hz (220 V / 50 Hz)

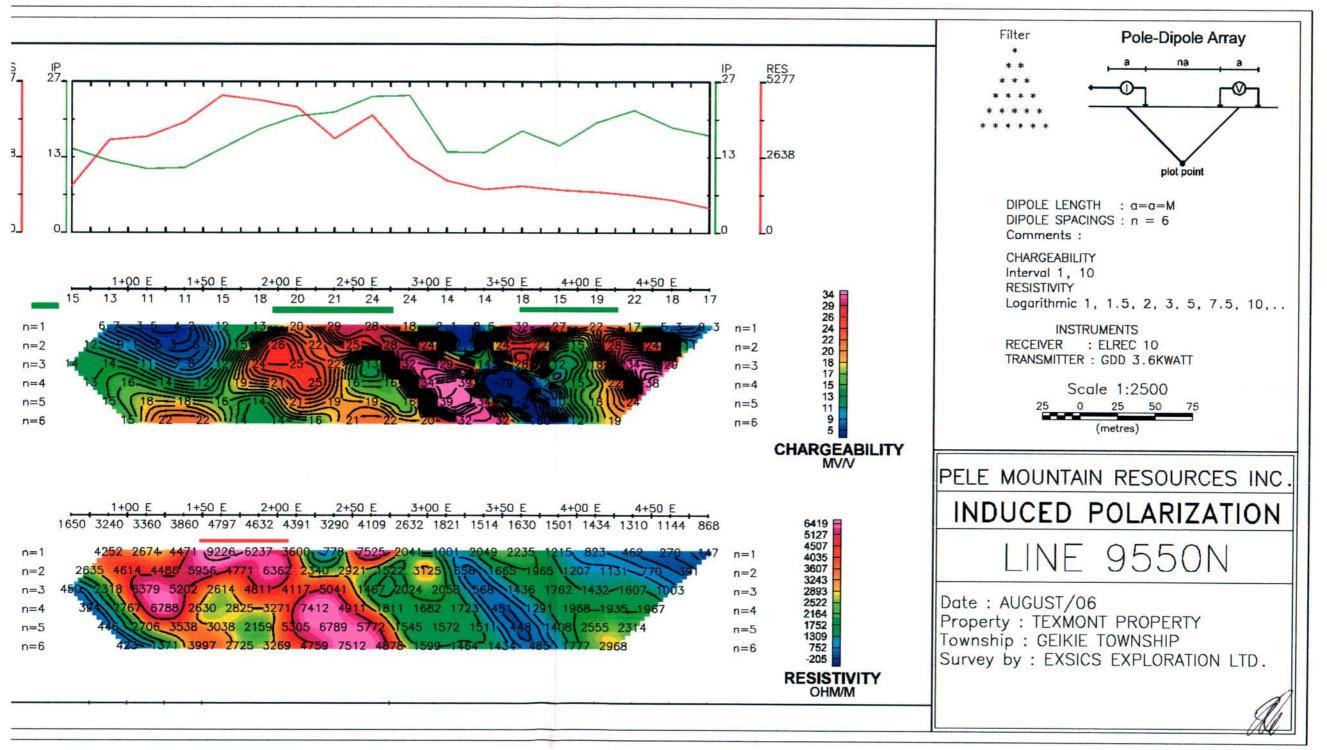
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