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**GEOPHYSICAL REPORT
FOR
MELKIOR RESOURCES INC.
ON THE
BIG MARSH EAST PROJECT
CARSCALLEN TOWNSHIP
PORCUPINE MINING DIVISION
NORTHEASTERN, ONTARIO**

2-56250



Prepared by: J. C. Grant,
September 2015

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INTRODUCTION:

The services of Exsics Exploration Limited were retained by Jens Hansen, on behalf of the Company, Melkior Resources Inc., to cut and survey approximately 5 kilometers of grid lines across a portion of their claim holdings in the central north section of Carscallen Township of the Porcupine Mining Division in northeastern Ontario.

The grid was done to cover a soil anomaly that had been outlined from a previous soil sampling program. The grid lines lie to the northeast of Bigmarsh Lake.

The Big Marsh Lake Project area is to the immediate northwest of the Lake Shore Gold Mine operation. The deposit is open both at depth and along strike and is being mined from a surface ramp and an underground operation. The resource at Lake Shore has been expanded lately into what is called the Gap Zone which has added significant ounces to the operation.

PROPERTY LOCATION AND ACCESS:

The Bigmarsh East Project is situated approximately 25 kilometers west-northwest of the City of Timmins. The entire claim block is situated in the north central section of Carscallen Township of the Porcupine Mining Division, Northeastern, Ontario. Refer to Figures 1 and 2 of this report.

More specifically the grid lies about 300 meters to the east northeast of Bigmarsh Lake and covers the eastern section of claims 4213967 and 4212370.

Access to the grid during the survey period is by way of Highway 101 west from Timmins to a good gravel road that runs north off of Highway 101 west about 6.5 kilometers west of the junction of Highway 144 and Highway 101 west. This gravel road provided good truck access to within 4 kilometers of the cut grid and then reasonable ATV access for approximately 5 kilometers along and old bush road to about 1700MS on both grid lines. Traveling time from Timmins to the grid is about 1.5 hours.

CLAIM BLOCK:

The claim numbers that represent a portion of the Bigmarsh East project can be found as Figure 3 of this report. Those claims covered by the geophysical survey are listed below.

| | |
|---------|---------|
| 4213967 | 4 units |
| 4212370 | 4 units |

Refer to Figure 3 copied from MNDM Plan Map of G-3040, Carscallen Township for the positioning of the grid and the claim numbers within the Township.



EXSICS EXPLORATION LTD.

P.O. Box 1880, P4N-7X1
Suite 13, Hollinger Bldg, Timmins Ont.
Telephone: 705-267-4151, 267-2424

CLIENT: MELKIOR RESOURCES INC.

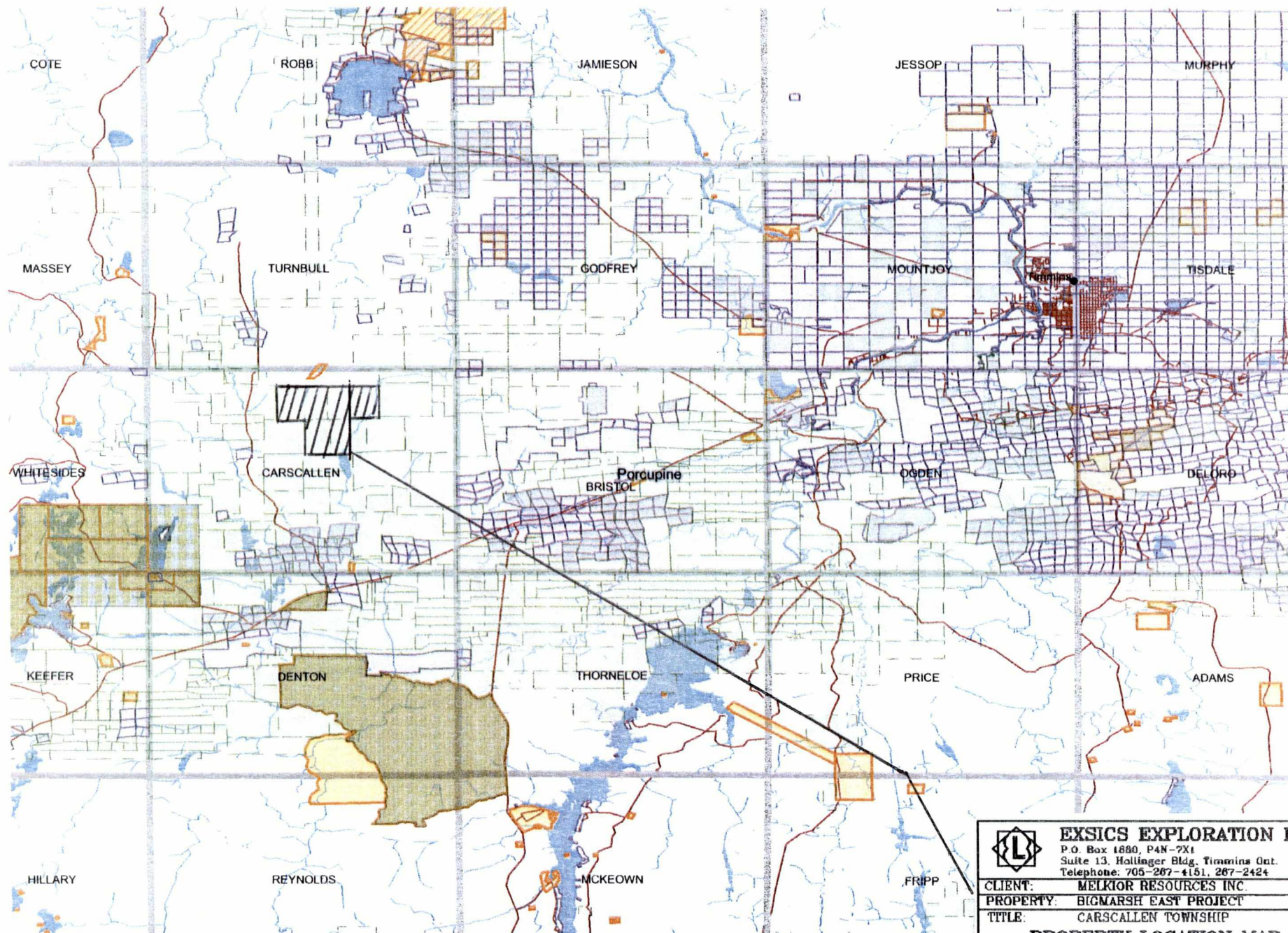
PROPERTY: BIGMARSH EAST PROJECT

TITLE: CARSCALLEN TOWNSHIP

LOCATION MAP

Fig. 1

Date: SEPT. 2015 Scale: NTS.
Drawn: J.C. Grant Interp: Job: E-943



NAD 83
5 degree grid



EXSICS EXPLORATION LTD.

P.O. Box 1880, P4N-7X1
Suite 13, Hollinger Bldg. Timmins Ont.
Telephone: 705-267-4151, 267-2424

CLIENT: **MELKIOR RESOURCES INC.**

PROPERTY: **BIGMARSH EAST PROJECT**

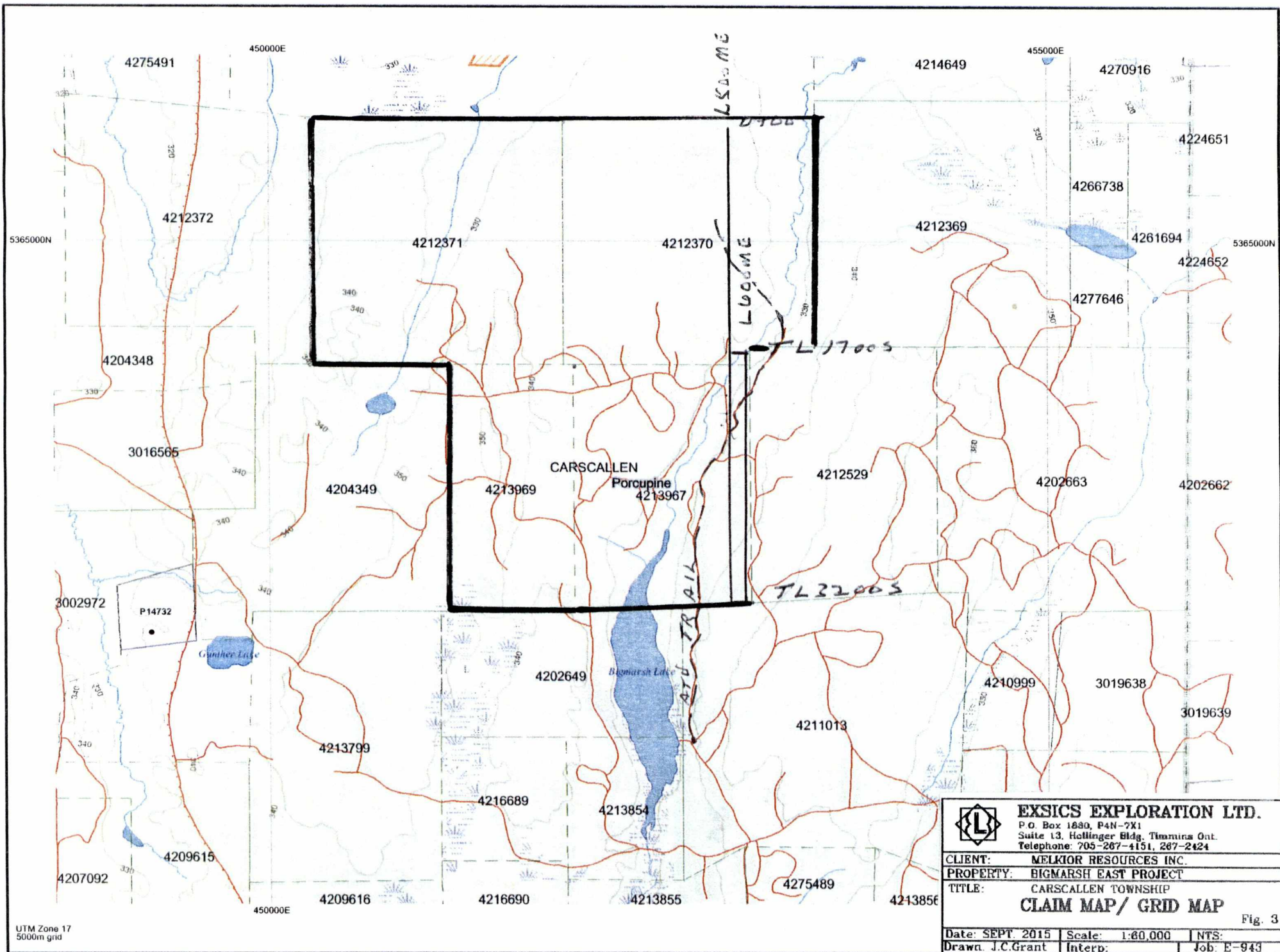
TITLE: **CARSCALLEN TOWNSHIP**

PROPERTY LOCATION MAP

Fig. 2

Date: SEPT. 2015 Scale: 1:600,000 NTS

Drawn: J.C. Grant Interp: Job: E-943



PERSONNEL:

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

| | |
|--------------|------------------|
| R. Bradshaw | Timmins, Ontario |
| J. Francoeur | Timmins, Ontario |
| Glen Coyne | Timmins, Ontario |
| D.J. Gibson | Timmins, Ontario |
| D. Clement | Timmins, Ontario |

The work was completed under the direct supervision of J. C. Grant of Exsics.

GROUND PROGRAM:

The ground program was completed in two phases. The first phase was to cut two metric grid lines across a portion of the claim block that would also cover the soil anomaly outlined in a previous survey. The grid lines were turned off at a location outlined by the client which represented the south boundary of grid line 500ME and 3200MS. This line was cut 3000 meters to the north from this start point and was cut across claims 4213967 and 421370. A second line 600ME was also cut from 3200MS to 1700MS 100 meters to the east of the start point of line 500ME. This line was cut across claim 4213967 and about 200 meters north into claim 4212370 and terminated at a river flowing northeast out of the northern tip of Bigmarsh Lake. Each line was then picketed with 25 meter station intervals. Upon the completion of the cutting the grid was then covered by an IP survey using the Instrumentation G. D. D. IP receiver and 3.6 kilowatt transmitter system. Specifications for these units can be found as Appendix A of this report. .

In all, a total of 4.9 kilometers were cut and surveyed between August 5th and September 2nd 2015.

IP SURVEYS:

The following parameters were kept constant throughout the survey procedure.

| | |
|------------------------------|--|
| Line spacing | 100 meters |
| Station spacing | 25 meters |
| Reading intervals | 25 meters |
| IP method | Time Domain |
| IP Array | Pole-Dipole |
| Electrode number and spacing | 6 stainless steel rods, 25 meter spacing |
| Parameters measured | Chargeability in Mv/volt and Apparent resistivity in ohms/meter |

Once the data was collected it was then presented in colored pseudo sections, one section for each grid line. These sections showed the contoured results of the chargeability and resistivity as well as the interpreted Metal factors. Any and all conductive zones have been interpreted on these section wherever possible. A copy of this colored contoured sections are included in the back pocket of this report.

IP SURVEY RESULTS:

The IP survey was successful in outlining a number of conductive zones across the two grid lines. All of these zones appear to lie to the south of the river that flows northeast from the northern tip of Bigmarsh Lake. Each of the zones will be discussed separately and in detail.

The first zone lies between 1975MS to about 2200MS and it appears to be striking slightly east-southeast from line 500ME to 600ME. The zone is associated with a moderate resistivity high and appears to strengthen as it strikes to the west and off of the grid to the west. It also seems to be getting shallower as it strikes westward.

The second zone lies between 2425MS and 2525MS again striking slightly east to southeast. This zone is associated with a modest resistivity low and appears to strengthen as it strikes to the east and off of the grid to the east.

A third zones lies between 2700MS and 2800MS that strikes east to slightly southeast. This zone appears to be deeper than the above to mention zones and it is associated with a modest a deep routed resistivity high zone.

The fourth and final zone lies between 3100MS and 3025MS and appears to be getting stronger as it strikes off of the grid to the east. This zone is also associated with a modest and deep resistivity high.

CONCLUSIONS AND RECOMMENDATIONS:

The current IP program was successful in locating and outlining at least four conductive zones across the two grid lines. The targets all appear to lie on the southern section of the grid, south of the river that flows northeast out of Bigmarsh Lake. The most predominant zones are the one the lie between 2100MS and 2150MS, 2450MS and 2500MS and the zone at the southern end of the grid lines. Each of the three main zones should be followed up further to better define the strike direction and lengths. All of the zones should be correlated with any and all magnetic surveys for the area as well as any and all soil anomalies that lie in and on strike with the zones.

Respectfully submitted


J. C. Grant

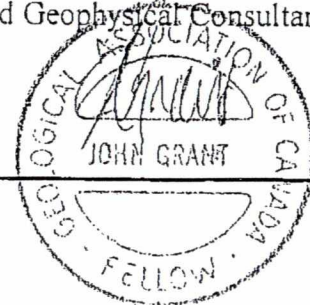
September 2015

CERTIFICATION

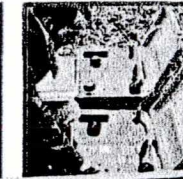
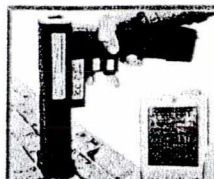
I, John Charles Grant, of 108 Kay Crescent, in the City of Timmins, Province of Ontario, hereby certify that:

- 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.
- 2). 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.

John Charles Grant, CET., FGAC.



APPENDIX A



Canadian Manufacturer of Geophysical Instrumentation since 1976
Sales, Rental, Customer Service, R&D and Field training

WWW.GDD.CA

32 Channels IP Receiver Model GRx8-32

«Field users have reported that the GDD IP Receiver provided more repeatable readings than any other time domain IP receiver and it read a few additional dipoles.»



Features

- 8 channels expandable to 16, 24 or 32
- Reads up to 32 ch. simultaneously in poles or dipoles
- PDA menu-driven software / simple to use
- 32 channels configuration allows 3D Survey:
4 lines X 8 channels - 2 lines X 16 channels or
1 line X 32 channels
- Link to a PDA by Bluetooth or RS-232 port
- Real-time data and automatic data stacking (Full Wave)
- Screen-graphics: decay curves, resistivity, chargeability
- Automatic SP compensation and gain setting
- 20 programmable chargeability windows
- Survey capabilities: Resistivity and Time domain IP
- One 24 bit A/D converter per channel
- Gain from 1 to 1,000,000,000 (10^9)
- Shock resistant, portable and environmentally sealed

GRx8-32: This new receiver is a compact and low consumption unit designed for high productivity Resistivity and Induced Polarization surveys. It features high ruggedness allowing to work in any field conditions

Reception poles/dipoles: 8 simultaneous channels expandable to 16, 24 or 32, for dipole-dipole, pole-dipole or pole-pole arrays.

Programmable windows: The GRx8-32 offers twenty fully programmable windows for a higher flexibility in the definition of the IP decay curve.

User modes available: Arithmetic, logarithmic, semi-logarithmic, Cole-Cole, IPR-12 and user define.

IP display: Chargeability values, Resistivity values and IP decay curves can be displayed in real time. The GRx8-32 can be used for monitoring the noise level and checking the primary voltage waveform.

Internal memory: The memory of 64 megabytes can store 64,000 readings. Each reading totalizes one kilobyte and includes the full set of parameters characterizing the measurements on 8 channels. The data is stored in flash memories not requiring any lithium battery for safeguard. A flash card stores the full wave signal for post-treatment processing.

New IP Receiver Model GRx8-32 with PDA

GRX8-32: This new receiver is a compact and low consumption unit designed for high productivity Resistivity and Induced Polarization surveys. It features high ruggedness allowing to work in any field conditions

Reception poles/dipoles: 8 simultaneous channels expandable to 16, 24 or 32, for dipole-dipole, pole-dipole or pole-pole arrays.

Programmable windows: The GRX8-32 offers twenty fully programmable windows for a higher flexibility in the definition of the IP decay curve.

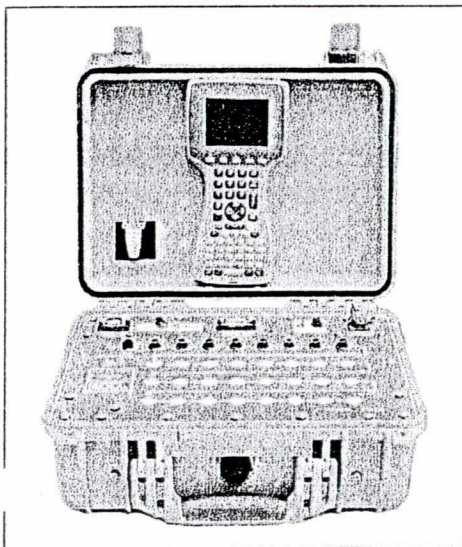
User modes available: Arithmetic, logarithmic, semi-logarithmic, Cole-Cole and user define.

IP display: Chargeability values, Resistivity values and IP decay curves can be displayed in real time. The GRX8-32 can be used for monitoring the noise level and checking the primary voltage waveform.

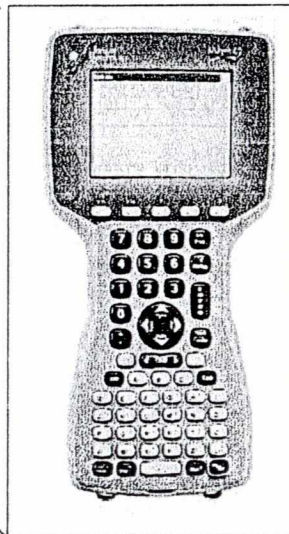
Internal memory: The memory of 64 megabytes can store 64,000 readings. Each reading totalizes one kilobyte and includes the full set of parameters characterizing the measurements on 8 channels. The data is stored in flash memories not requiring any lithium battery for safeguard. The memory can hold many days worth of data. It also stores fullwave form of the signal at each electrode for post-treatment.

Features:

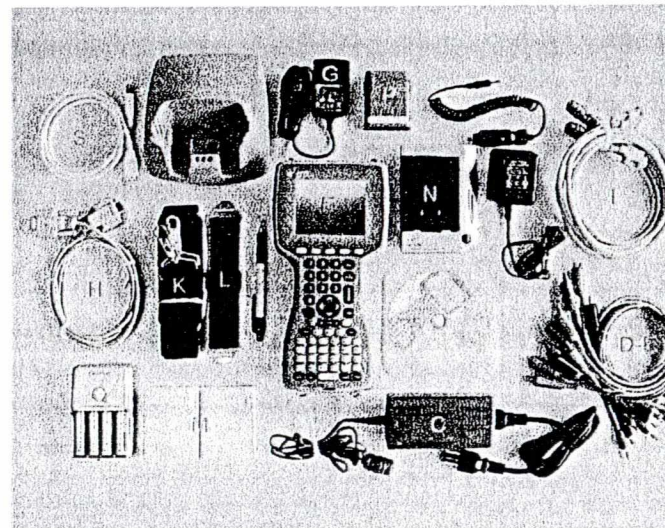
- 8 channels expandable to 16, 24 or 32
- Reads up to 32 ch. simultaneously in poles or dipoles configuration
- PDA menu-driven software / simple to use
- 32 channels configuration allows 3D Survey: 4 lines X 8 channels, 2 lines X 16 channels or 1 line X 32 channels
- Link to a PDA by Bluetooth or RS-232 port
- Real-time data and automatic data stacking
- Self-test diagnostic
- Screen-graphics: decay curves, resistivity, chargeability
- Automatic SP compensation and gain setting
- 20 programmable chargeability windows
- Survey capabilities: Resistivity and Time domain IP
- One 24 bit A/D converter per channel
- Gain from 1 to 1,000,000,000 (10^9)
- Shock resistant, portable and environmentally sealed



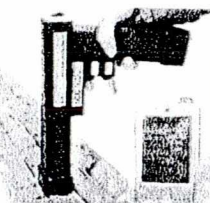
GDD IP Receiver model GRx8-32



PDA included with GRX8-32
Standard Juniper -
Allegro CX mobile PDA



Components included with
GDD IP Receiver GRx8-32

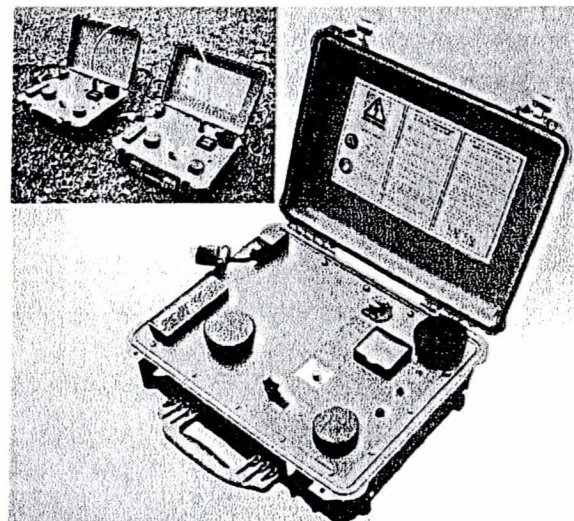
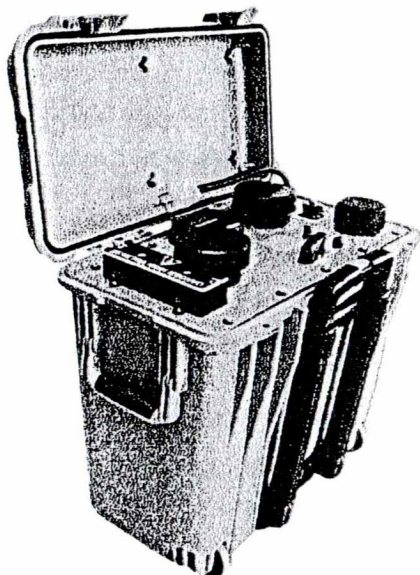


Canadian Manufacturer of Geophysical Instrumentation since 1976
Sales, Rental, Customer Service, R&D and Field training

Induced Polarization Transmitter

TxIII-1800W-2400V-10A Model

TxII-3600W-2400V-10A Model



New feature: link two GDD 1800W or 3600W IP TX together and double the voltage (4800V) and power .

Its high power combined with its light weight and a Honda generator makes it particularly suitable for dipole-dipole Induced Polarization surveys

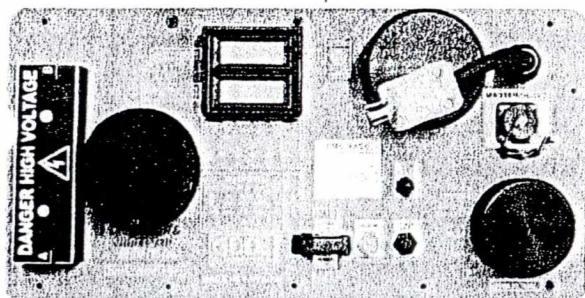
- Protection against short circuits even at zero (0) ohm
- Output voltage range: 150 V – 2400 V / 14 steps
- Power source: 120 V – Optional: 220 V, 50 / 60 Hz
- Displays electrode contact, transmitting power and current
- One-year warranty on parts and labour

This backpackable 1800 watts Induced Polarization (I.P.) transmitter works from a standard 120 V source and is well adapted to rocky environments where a high output voltage of up to 2400 volts is needed. Moreover, in highly conductive overburden, at 150 V, the highly efficient TxII-1800W transmitter is able to send current up to 10 A. By using this I.P. transmitter, you obtain fast and high-quality I.P. readings even in the worst conditions. Link two GDD 1800 W IP TX together and transmit up to 3600 watts – 4800 volts – 10 amps.

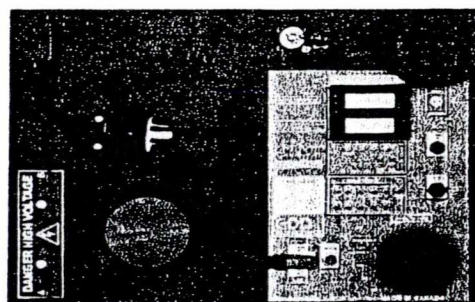
Its high power combined with a Honda generator makes it particularly suitable for pole-dipole Induced Polarization surveys

- Protection against short circuits even at zero (0) ohm
- Output voltage range: 150 V – 2400 V / 14 steps
- Power source: 220 V, 50 / 60 Hz - standard 220 V generator
- Displays electrode contact, transmitting power and current
- One-year warranty on parts and labour

This 3600 watts Induced Polarization (I.P.) transmitter works from a standard 220 V source and is well adapted to rocky environments where a high output voltage of up to 2400 volts is needed. Moreover, in highly conductive overburden, at 350 V, the highly efficient TxII-3600W transmitter is able to send current up to 10 A. By using this I.P. transmitter, you obtain fast and high-quality I.P. readings even in the most difficult conditions. Link two GDD 3600 W IP TX together and transmit up to 7200 watts – 4800 volts – 10 amps



Face plate of the
—1800W
and
3600W —
IP Tx



SPECIFICATIONS

TxII-1800W

- Size: 50cm x 30.5cm x 45.7 cm
- Weight: approximately 28 kg
- Operating temperature: -40 °C to 65 °C

TxII-3600W

- Size: 51 X 41.5 X 21.5 cm – built in transportation box from Pelicar
- Weight: approximately 32 kg
- Operating temperature: -40 °C to 65 °C

ELECTRICAL CHARACTERISTICS

TxII-1800W and TxII-3600W

- Standard time base of 2 seconds for time-domain: 2 seconds ON, 2 seconds OFF
- Optional time base: DC, 0.5, 1, 2, 4 or DC, 1, 2, 4, 8 seconds
- Output current range: 0.030 to 10 A (normal operation)
0.000 to 10 A (cancel open loop)
- Output voltage range: 150 to 2400 V / 14 steps
- Ability to link 2 GDD Tx to double power using optional Master / Slave cable

CONTROLS

TxII-1800W and TxII-3600W

- Power ON/OFF
- Output voltage range switch: 150 V, 180 V, 350 V, 420 V, 500 V, 600 V, 700 V, 840 V, 1000 V, 1200 V, 1400 V, 1680 V, 2000 V, 2400 V

DISPLAYS

TxII-1800W and TxII-3600W – now 2 displays

- Output current LCD: reads to ± 0.0010 A.
- Electrode contact displayed when not transmitting.
- Output power displayed when transmitting.
- Automatic thermostat controlled LCD heater for read-out.
- Total protection against short circuits even at zero (0) ohm.
- Indicator lamps in case of overload:
 - High voltage ON/OFF
 - Generator over or undervoltage
 - Output overcurrent
 - Overheating
 - Open Loop Protection

POWER

TxII-1800W

Recommended generator:

- Standard 120 V / 60 Hz backpackable Honda generator
- Suggested models: Honda EU1000iC, 1000 W, 13.5 kg or
Honda EU2000iC, 2000 W, 21.0 kg

TxII-3600W

Recommended generator :

- Standard 220 V, 50 / 60 Hz Honda generator
- Suggested models: EM3500XK1C, 3500 W, 62 kg or
EM5000XK1C, 5000 W, 77 kg

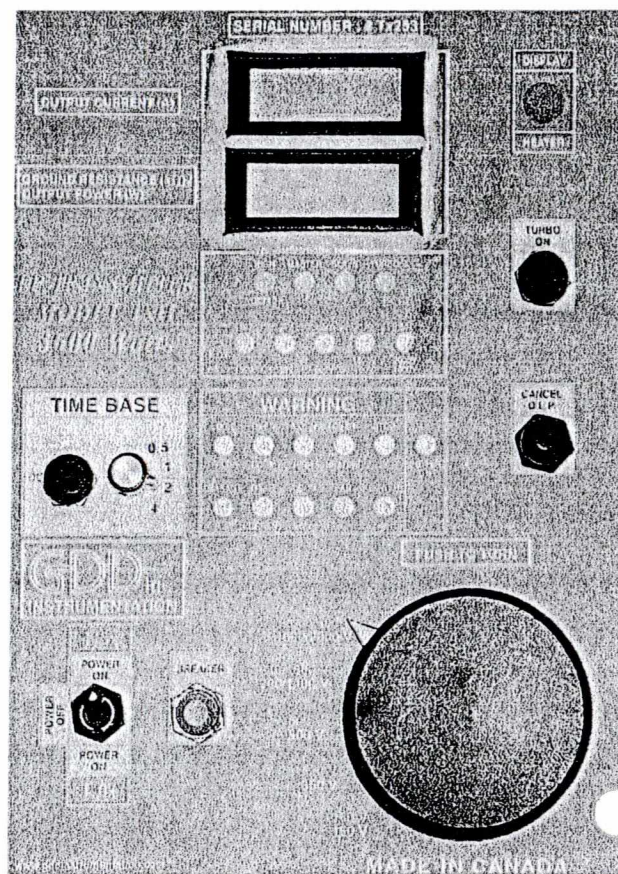
DESCRIPTION

TxII-1800W

- Includes shipping box, instruction manual and 110 V plug
- Optional backpackable Tx frame, Master / Slave optional cable

TxII-3600W

- Includes built-in shipping box, instruction manual and 220 V plug
- Optional 220 V extension, Master / Slave optional cable



PURCHASE

Can be shipped anywhere in the world.

RENTAL – available in Canada and USA only

Starts on the day the instrument leaves GDD office in Quebec to the day of its return in GDD office. 50% of the rental fees up to a maximum of 4 months can be credited towards the purchased of the rented instrument.

WARRANTY

All GDD instruments are covered by a one-year warranty. All repairs will be done free of charge at our office in Quebec, Quebec, Canada.

OTHER COSTS

Shipping, insurances, customs and taxes are extra if applicable.

PAYMENT

Checks, credit cards, bank transfer, etc

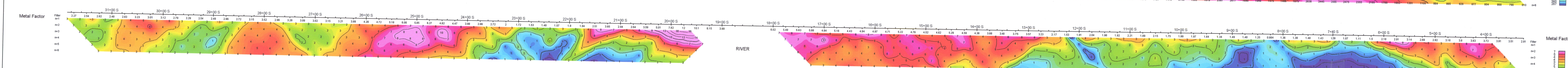
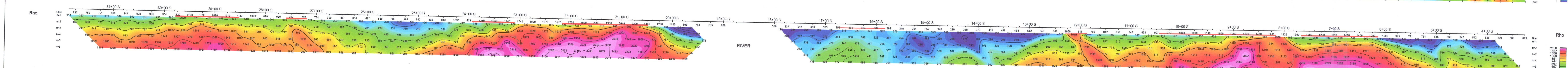
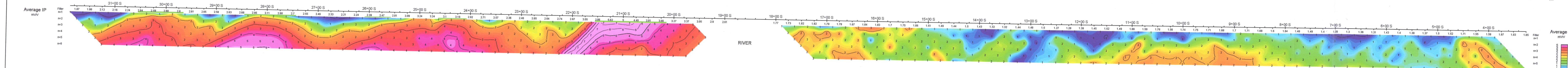
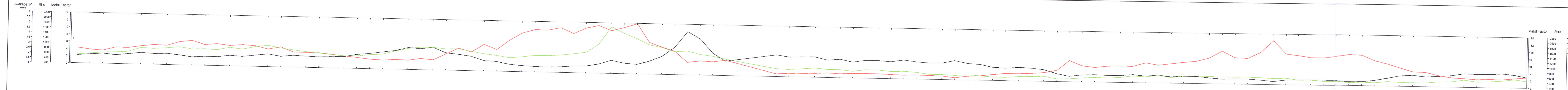
SERVICE

If an instrument manufactured by GDD breaks down while under warranty or service contract, it will be replaced free of charge during repairs (upon request and subject to instruments availability).



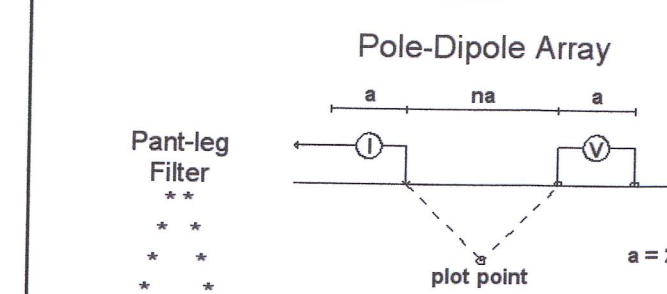
3700, boul. de la Chaudière, suite 200
Québec (Québec)
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Phone: +1 (418) 877-4249
Fax: +1 (418) 877-4054
E-Mail: gdd@gddinstrumentation.com
Web Site: www.gddinstrumentation.com

Specifications are subject to change without notice
Printed in Quebec, Canada, 2008



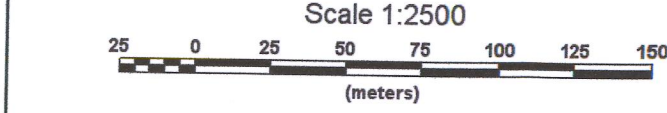
Geosoft Software for the Earth Sciences

Pseudo Section Plot LINE 500ME



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

- INTERPRETATION**
- Strong increase in polarization accompanied by marked decrease in resistivity.
 - Well defined increase in polarization without marked resistivity increase.
 - Poorly defined polarization increase with no resistivity signature.
 - ▼ Low resistivity feature.
 - ▼ HIGH resistivity feature.

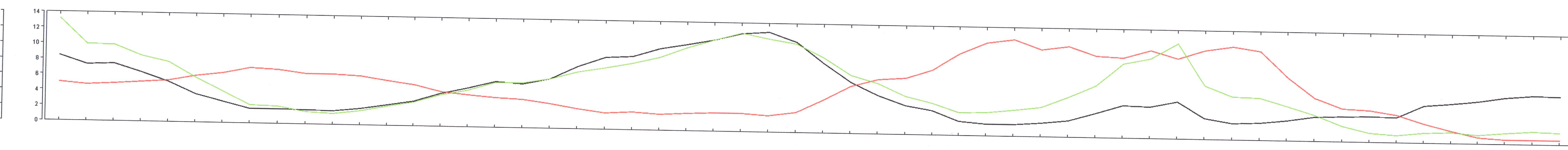
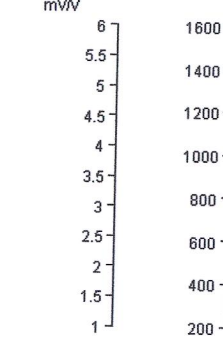


MELKIOR RESOURCES INC.
INDUCED POLARIZATION SURVEY
Bighmarsh East Grid
Line 500ME
Date: 03/09/2015
Interpretation: J. C. Grant
Exsics Exploration Limited

Average IP
mV/V

Rho

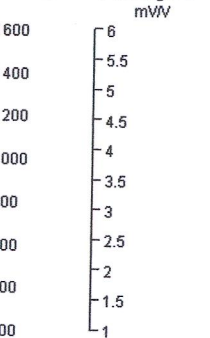
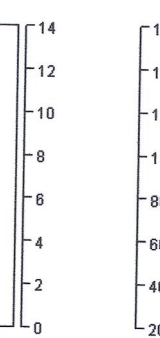
Metal Factor



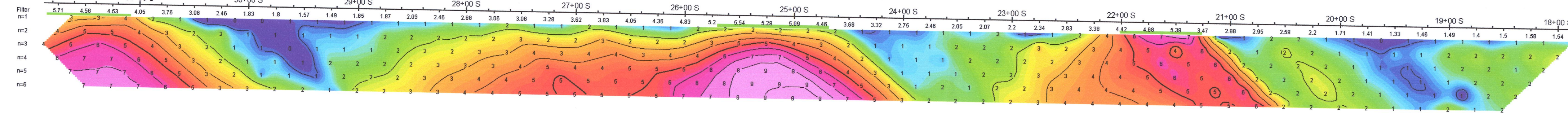
Metal Factor

Rho

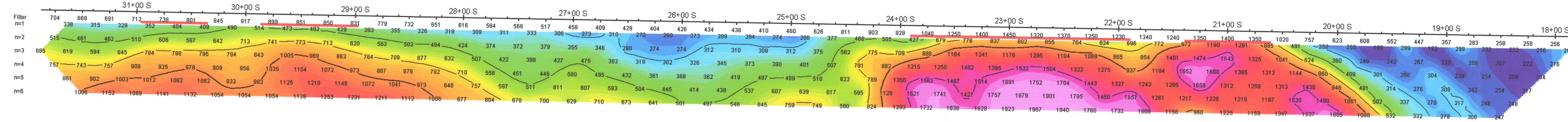
Average IP
mV/V



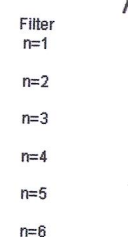
Average IP
mV/V



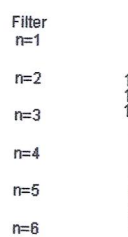
Rho



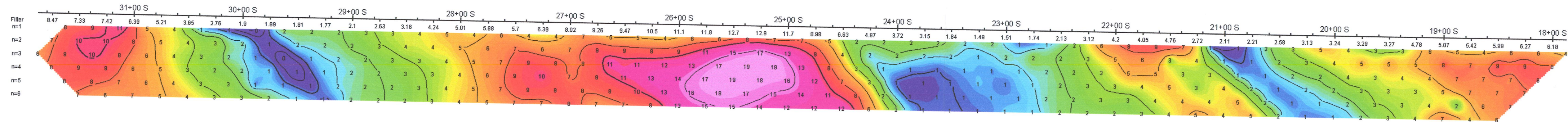
Average IP
mV/V



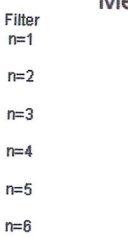
Rho



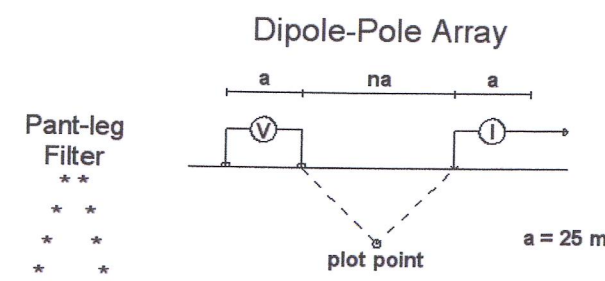
Metal Factor



Metal Factor



Pseudo Section Plot LINE 600ME

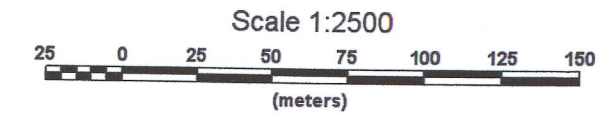


Logarithmic
Contours

1, 1.5, 2, 3, 5, 7.5, 10,...

INTERPRETATION

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Line 600ME

Date: 03/09/2015
Interpretation: J. C. Grant

Exsics Exploration Limited