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NORTHGATE MINERALS CORPORATION

Induced Polarization Survey Over the

Young-Davidson Grid Powell and Yarrow Townships, Ontario

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1. SURVEY DETAILS

1.1 PROJECT NAME

This project is known as the **Young Davidson Grid**.

1.2 CLIENT

Northgate Minerals Corporation

Young-Davidson Project
Box 187
Matachewan, Ontario
P0K1M0

1.3 LOCATION

The Young-Davidson Grid is located west of the town of Matachewan, Ontario. It extends from the edge of Matachewan through to shores of Mistinikon Lake, approximately 6km west. This is located in the southern region of Powell Township and the Northern regions of Yarrow Township.

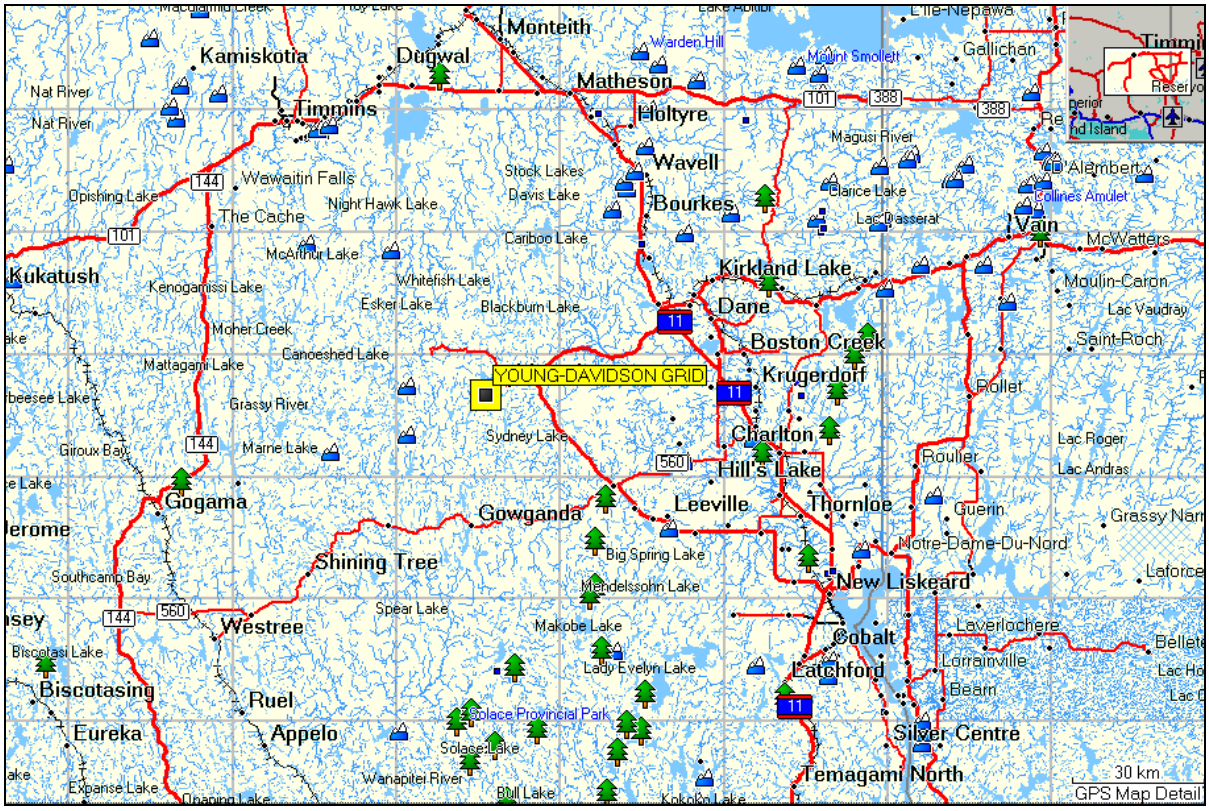


Figure 1: Location of Young-Davidson Grid

1.4 ACCESS

Access to the property was attained with a 4x4 truck via the Asbestos Mine Road and Highway 66 west of Matachewan, Ontario.

1.5 SURVEY GRID

The grid was established prior to survey execution and consisted of approximately 130 line kilometers of cut grid lines. The grid lines were spaced at 100 meter intervals with the stations picketed at 25m intervals with the northern grid baseline running at 0°N for a distance of 5.5km and the southern grid baseline running at 0°N for a distance of 2.2km.

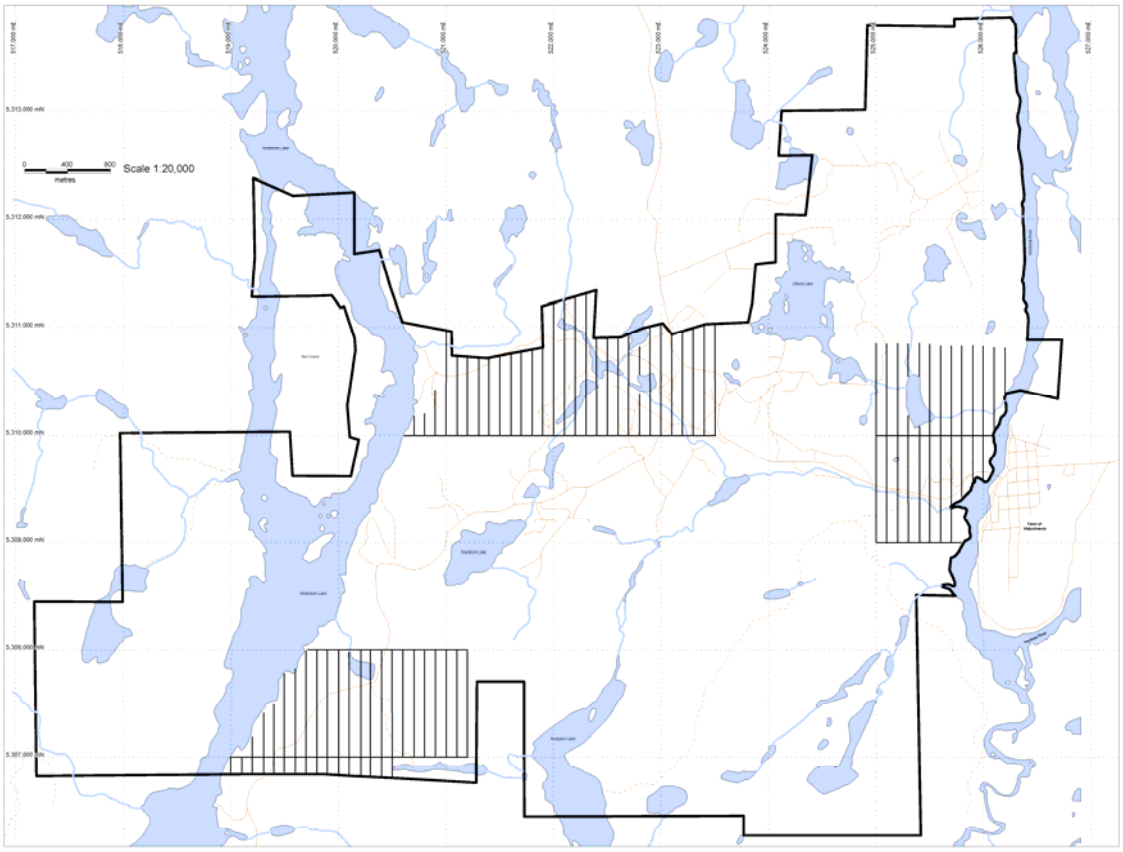


Figure 2: Claim Map with Young-Davidson Grid

2. SURVEY WORK UNDERTAKEN

2.1 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
11-Mar-08	Locate survey area and determine access to various points on grid.				
12-Mar-08	Begin establishing AB for block 1.				
13-Mar-08	Continue establishing AB. Northern location falls on lake and slush rises after holes drilled.				
14-Mar-08	Begin making holes and freezing in poles to raise power wire out of slush.				
18-Mar-08	Continue freezing in poles every 20-25 feet.				
19-Mar-08	Complete establishing and testing AB.				
20-Mar-08	Begin cutting holes in the ice for IP survey.				
24-Mar-08	Begin survey.	8900E	6700N	7000N	300
		9000E	6750N	7000N	250
		9100E	6750N	7200N	450
25-Mar-08	Continue survey, difficult terrain during breakup conditions.	9200E	6750N	7400N	650
		9300E	6750N	7500N	750
		9400E	6775N	7675N	900
		9500E	6775N	6925N	150
26-Mar-08	Continue survey, difficult terrain during breakup conditions.	9500E	6925N	7675N	750
		9600E	6800N	8000N	1200
		9700E	6825N	7275N	450
27-Mar-08	Continue survey, difficult terrain during breakup conditions.	9700E	7275N	7925N	650
		9800E	6775N	8000N	1225
28-Mar-08	Continue survey, difficult terrain during breakup conditions.	9900E	6775N	7675N	900
31-Mar-08	Complete block and recover wire.	9900E	7675N	8000N	325
1-Apr-08	Weather Day				
2-Apr-08	Snow conditions extremely poor and difficult to impossible progress. Locate gear covered in snow storm and begin establishing block 2.				
3-Apr-08	Complete establishing AB and begin survey of block 2.	10000E	7700N	8000N	300
4-Apr-08	Continue survey, difficult terrain during breakup conditions.	10000E	6800N	7700N	900
		10100E	6800N	7675N	875

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
7-Apr-08	Continue survey, difficult terrain during breakup conditions.	10100E	7675N	8000N	325
		10200E	6800N	8000N	1200
8-Apr-08	Continue survey, difficult terrain during breakup conditions.	10300E	6775N	8000N	1225
		10400E	7625N	8000N	375
9-Apr-08	Continue survey, difficult terrain during breakup conditions.	10400E	6800N	7625N	825
10-Apr-08	Continue survey, difficult terrain during breakup conditions.	10500E	7000N	8000N	1000
		10600E	7400N	8000N	600
11-Apr-08	Continue survey, difficult terrain during breakup conditions.	10600E	6950N	7400N	450
		10700E	6925N	8000N	1075
		10800E	6950N	8000N	1050
14-Apr-08	Continue survey, difficult terrain during breakup conditions.	10900E	6950N	8000N	1050
		11000E	7100N	8000N	900
		11100E	7000N	7700N	700
15-Apr-08	Complete AB2 and recover wire	11100E	7700N	8000N	300
16-Apr-08	Establish AB3.				
17-Apr-08	Complete AB and begin survey.	600E	10000N	10150N	150
		700E	10000N	10175N	175
		800N	10000N	10375N	375
18-Apr-08	Continue survey, difficult terrain during breakup conditions.	900N	10000N	10700N	700
		1000N	10000N	10750N	750
		1110N	10000N	10600N	600
		1200N	10500N	10600N	100
21-Apr-08	Continue survey, difficult terrain during breakup conditions.	1200N	10000N	10500N	500
		1300N	10000N	10600N	600
		1400N	10000N	10600N	600
		1500N	10000N	10700N	700
22-Apr-08	Continue survey, difficult terrain during breakup conditions.	1600N	10000N	10400N	400
		1700N	10000N	10700N	700
		1800N	10000N	10700N	700
		1900N	10000N	10700N	700
23-Apr-08	Complete AB3 and recover wire.	1900N	10675N	11150N	475
24-Apr-08	Establish new AB block.				
25-Apr-08	Extremely wet area and difficult. Decide to pull out to allow ground to dry. Re-cover AB sections in areas visible from road.	2000E	10975N	11175N	200
5-May-08	Continue survey crew bypasses flooded	2000E	10075N	10975N	900

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
	areas.				
		2100E	10100N	11100N	1000
		2200E	10000N	10150N	150
6-May-08	Continue survey crew bypasses flooded areas.	2100E	11100N	11200N	100
		2200E	10400N	11250N	850
		2300E	10000N	10250N	250
		2400E	10000N	10450N	450
7-May-08	Continue survey crew bypasses flooded areas.	2300E	10700N	10925N	225
		2400E	10600N	10875N	275
		2500E	10000N	10875N	875
		2600E	10000N	10475N	475
		2700E	10000N	10425N	425
		2800E	10000N	10300N	300
8-May-08	Grid destroyed by drilling activity.	2600E	10675N	10875N	200
		2700E	10550N	10750N	200
		2800E	10600N	10700N	100
9-May-08	Grid destroyed by drilling activity.	2900E	10000N	10700N	700
		3000E	10000N	10200N	200
		3100E	10000N	10100N	100
		3300E	10000N	10100N	100
12-May-08	Recover wire and estblish new AB block.				
13-May-08	Continue survey.	6000E	10000N	10500N	500
		6100E	9750N	10800N	1050
14-May-08	Continue survey.	5800E	9600N	10800N	1200
		5900E	9500N	10800N	1300
		6000E	9500N	10000N	500
15-May-08	Continue survey.	5500E	9400N	10000N	600
		5600E	9250N	10800N	1550
		5700E	9300N	10800N	1500
		5800E	9300N	9600N	300
16-May-08	Continue survey.	5300E	9400N	10800N	1400
		5400E	10600N	10800N	200
		5500E	10250N	10800N	550
20-May-08	Continue survey.	5000E	9450N	9650N	200
		5100E	9400N	10800N	1400
		5200E	9400N	10800N	1400
		5400E	9400N	10000N	600
21-May-08	Continue survey.	4900E	9350N	9500N	150
		5000E	9650N	10800N	1150
22-May-08	Continue survey.	4900E	9000N	9350N	400
		5000E	9000N	9425N	400
		5100E	9000N	9400N	400
		5200E	9000N	9400N	400
		5300E	9000N	9400N	400
		5400E	9000N	9400N	400
		5500E	9000N	9400N	400
23-May-08	Continue survey.	5500E	9000N	9400N	400
		5600E	9000N	9200N	200

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
		5700E	9000N	9100N	100
		5800E	9000N	9200N	200
26-May-08	Recover wire AB and demob from Matachewan.				

Table 1: Survey log

2.2 PERSONNEL

Chris Prest of Kirkland Lake was crew chief and operated the IP receiver. His crew consisted of Marc Champion, Matthew Charnonneau, Kevin Coombs and Claude Bisson.

2.3 INSTURMENTATION

A 10 channel Elrec Pro receiver was employed for this survey. The transmitter consisted of a VIP 3000 (3kW) with a Honda 5000 as a power plant.

2.4 SURVEY SPECIFICATIONS

Gradient Array
The gradient survey configuration was used for a reconnaissance survey over the entire grid. This survey was performed in both east-west and north-south directions. This was done to test the possibility of multi-directional geological systems.

This required six 2.4km AB setups to cover the entire property. The electrode array consists of 11 mobile stainless steel electrodes (10 dipoles) at a spacing of 25m. The entire spread would move up 250m at a time allowing for quick coverage of the survey area. A two second transmit cycle time was used with a minimum number of receiver stacks of 16.

A total of 57.65 line kilometers of gradient IP over 5 AB blocks was performed between March 11th, 2008 and May 26th, 2008.

APPENDIX A

STATEMENT OF QUALIFICATIONS

I, C. Jason Ploeger, hereby declare that:

1. I am a geophysicist (non-professional) with residence in Larder Lake, Ontario and am presently employed as president of Larder Geophysics Ltd. of Larder Lake, Ontario.

2. I graduated with a Bachelor of Science degree in geophysics from the University of Western Ontario, in London Ontario, in 1999.

3. I have practiced my profession continuously since graduation in Africa, Bulgaria, Canada, Mexico and Mongolia.

4. I am a member of the Ontario Prospectors Association.

5. I do not have nor expect an interest in the properties and securities of **Northgate Minerals Corporation.**

6. I am responsible for the final processing and validation of the survey results and the compilation of the presentation of this report. The statements made in this report represent my professional opinion based on my consideration of the information available to me at the time of writing this report.

Larder Lake, ON
June 2008

C. Jason Ploeger, B.Sc. (geophysics)
President of Larder Geophysics Ltd.

APPENDIX B

THEORETICAL BASIS AND SURVEY PROCEDURES

Induced Polarization Surveys

Time domain IP surveys involve measurement of the magnitude of the polarization voltage (Vp) that results from the injection of pulsed current into the ground.

Two main mechanisms are known to be responsible for the IP effect although the exact causes are still poorly understood. The main mechanism in rocks containing metallic conductors is electrode polarization (overvoltage effect). This results from the build up of charge on either side of conductive grains within the rock matrix as they block the flow of current. On removal of this current the ions responsible for the charge slowly diffuse back into the electrolyte (groundwater) and the potential difference across each grain slowly decays to zero.

The second mechanism, membrane polarization, results from a constriction of the flow of ions around narrow pore channels. It may also result from the excessive build up of positive ions around clay particles. This cloud of positive ions similarly blocks the passage of negative ions through pore spaces within the rock. On removal of the applied voltage the concentration of ions slowly returns to its original state resulting in the observed IP response.

In TD-IP the current is usually applied in the form of a square waveform, with the polarization voltage being measured over a series of short time intervals after each current cut-off, following a short delay of approximately 0.5s. These readings are integrated to give the area under the decay curve, which is used to define Vp. The integral voltage is divided by the observed steady voltage (the voltage due to the applied current , plus the polarization voltage) to give the apparent chargeability (Ma) measured in milliseconds. For a given charging period and integration time the measured apparent chargeability provides qualitative information on the subsurface geology.

The polarization voltage is measured using a pair of non-polarizing electrodes similar to those used in spontaneous potential measurements and other IP techniques.

APPENDIX C

Iris Elrec Pro Receiver

ELREC Pro unit with its graphic LCD screen

Specifications

- 10 CHANNELS / IP RECEIVER FOR MINERAL EXPLORATION
- 10 simultaneous dipoles
- 20 programmable chargeability windows
- High accuracy and sensitivity

ELREC Pro: this new receiver is a new compact and low consumption unit designed for high productivity Resistivity and Induced Polarization measurements. It features some high capabilities allowing to work in any field conditions.

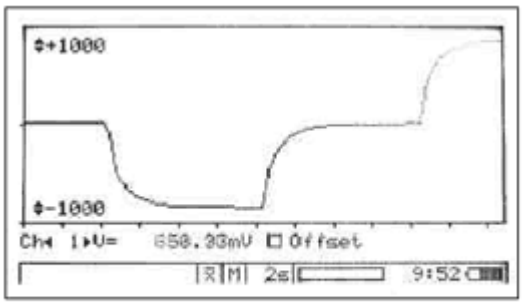
Reception dipoles: the ten dipoles of the ELREC Pro offer an high productivity in the field for dipole-dipole, gradient or extended poly-pole arrays.

Programmable windows: beside classical arithmetic and logarithmic modes, ELREC Pro also offers a Cole-Cole mode and a twenty fully programmable windows for a higher flexibility in the definition of the IP decay curve.

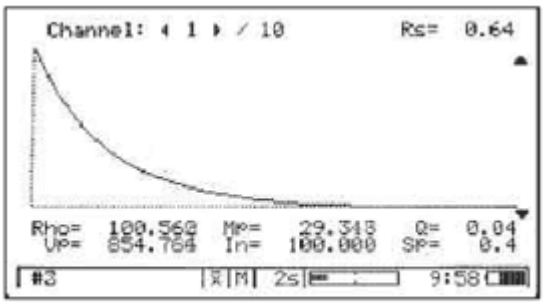
IP display: chargeability values and IP decay curves can be displayed in real time thanks to the large graphic LCD screen. Before data acquisition, the ELREC Pro can be used as a one channel graphic display, for monitoring the noise level and checking the primary voltage waveform, through a continuous display process.

Internal memory: the memory can store up to 21 000 readings, each reading including the full set of parameters characterizing the measurements. The data are stored in flash memories not requiring any lithium battery for safeguard.

Switching capability: thanks to extension Switch Pro box(es) connected to the ELREC Pro unit, the 10 reception electrodes can be automatically switched to increase the productivity in-the-field.



Monitoring of the Primary voltage waveform before acquisition



Display of numeric values and IP decay curve during acquisition

FIELD LAY-OUT OF AN ELREC PRO UNIT

The ELREC Pro unit has to be used with an external transmitter, such as a VIP transmitter.
The automatic synchronization (and re-synchronization at each new pulse) with the transmission signal, through a waveform recognition process, gives an high reliability of the measurement.

Before starting the measurement, a grounding resistance measuring process is automatically run ; this allows to check that all the electrodes are properly connected to the receiver.

Extension Switch Pro box(es), with specific cables, can be connected to the ELREC Pro unit for an automatic switching of the reception electrodes according to preset sequence of measurements ; these sequences have to be created and uploaded to the unit from the
ELECTRE II software.

The use of such boxes allows to save time in case of the user needs to measure more than 10 levels of investigation or in case of large 2D or 3D acquisition.

DATA MANAGING

PROSYS software allows to download data from the unit. From this software, one has the opportunity to visualize graphically the apparent resistivity and the chargeability sections together with the IP decay curve of each data point. Then, one can process the data (filter, insert topography, merge data files…) before exporting them to “txt” file or to interpretation software:

RES2DINV or RESIX software for pseudo-section inversion to true resistivity (and IP) 2D section.
RES3DINV software, for inversion to true resistivity (and IP) 3D data.

TECHNICAL SPECIFICATIONS

- Input voltage:
    - Max. for channel 1: 15 V
    - Max. for the sum from channel 2 to channel 10: 15 V
    - Protection: up to 800V
- Voltage measurement:
    - Accuracy: 0.2 % typical
    - Resolution: 1 µV
- Chargeability measurement:
    - Accuracy: 0.6 % typical
- Induced Polarization (chargeability) measured over to 20 automatic or user defined windows

- Input impedance: 100 MW
- Signal waveform: Time domain (ON+,OFF,ON-, OFF) with a pulse duration of 500 ms - 1 s - 2 s - 4 s -8 s
- Automatic synchronization and re-synchronization process on primary voltage signals
- Computation of apparent resistivity, average chargeability and standard deviation
- Noise reduction: automatic stacking number in relation with a given standard deviation value
- SP compensation through automatic linear drift correction
- 50 to 60Hz power line rejection
- Battery test

GENERAL SPECIFICATIONS.

- Data flash memory: more than 21 000 readings
- Serial link RS-232 for data download
- Power supply: internal rechargeable 12V, 7.2 Ah battery ; optional external 12V standard car battery can be also used
- Weather proof
- Shock resistant fiber-glass case
- Operating temperature: -20 °C to +70 °C
- Dimensions: 31 x 21 x 21 cm
- Weight: 6 kg

APPENDIX C

VIP 3000/VIP 4000

Specifications

IP AND RESISTIVITY ADVANCED TRANSMITTER

Features
3000V output voltage
Full microprocessor control
Ease-of-use
Standard motor generator

General
The VIP family of transmitters is now available in either a 3000 or 4000 watt version. Both VIP Systems are power current regulated Time Domain and Frequency Domain electrical transmitters.

VIP 3000/VIP 4000 Major Benefits
Light in weight and provided with a high voltage (3000V) output, the VIP 3000/VIP 4000 are particularly convenient for IP surveys in high resistivity rugged areas and for deep resistivity soundings. Microprocessor controlled for ease of operation and protection against misuse, all injection parameters (current, voltages, ...) are controlled. The VIP 3000/VIP 4000 can also be operated through its remote control port (RS232).

The VIP 3000/VIP 4000 eight output dipoles provide for higher productivity in the field. Powered from a standard 220V single phase motor generator, the VIP 3000/VIP 4000 eliminate the maintenance and supply problems associated with custom power sources. It also reduces the costs and problems of shipping motor generators over long distances, namely by plane.

High Outputs

The VIP 3000/VIP 4000 will generate up to 3000 volts for work in high resistivity areas and up to 5 amperes at 600 volts (VIP 3000) / 800 volts (VIP 4000) for low resistivity regions.

With its weight of only 16kg, the VIP 3000/VIP 4000 are the lightest 3000W/4000W units on the market.

Heavy Duty Construction

Very high quality connectors, and heavy duty industrial components are used throughout. The VIP3000/VIP 4000 are shock resistant and weatherproof, for a higher reliability.

Fully Automated

The VIP 3000/VIP 4000 are designed for ease of operation. They have a much simplified front panel: current, dipole and frequency (in the frequency domain) settings are the only parameters to be selected by the operator. All the other functions, like voltage range setting, are fully automated.

Programmable

Programming functions are also available, either through the front panel, with a suitable key, or from an external computer terminal. These functions are used to select the parameters and options that are not normally changed during a survey: operating mode, time or frequency domain, cycle time, frequencies, etc.

This approach reduces front panel cluttering and drastically reduces the possibility of operator mistake. Instrument reliability is also increased. For example, it is not possible to switch dipoles when transmitting. This eliminates the possibility of burning out the selector switch or the output circuitry.

Error Messages

Intelligent messages and warnings are displayed in case of problem or malfunction. Furthermore, the permanent storage of all the parameters related to the operation of the unit make easier the remote identification of a trouble by the manufacturer for quicker instrument servicing.

Complete Display

A large backlighted LCD alphanumeric display is provided for the simultaneous indication of all output parameters. Output current, output voltage, contact resistance and output power are continuously displayed.

Intelligent Regulation

The VIP 3000/VIP 4000 internal microprocessor is capable of excellent current regulation in almost any load.

Current is operator selectable in preprogrammed steps from 50mA to 5 amperes. Intelligent current adjustment algorithms are always in operation. For example, the contact resistance will occasionally be too high for the VIP 3000/VIP 4000 to provide the requested current setting. In such cases, the VIP 3000/VIP 4000 will display a warning message and will set the current to the maximum value allowable under that combination of current setting and contact resistance. Some reserve current capacity will always be kept to insure that the current stays constant during the measurements, whatever the contact resistance fluctuations.

Remote Control

The VIP 3000/VIP 4000 are provided with a remote control port. By using radio modems, it can be operated from a remote location.

The VIP 3000/VIP 4000 can also be linked to an intelligent receiver such as the ELREC 6 or the ELREC 10, or to a computer, for the automatic recording of current settings. Finally, synchronization with a receiver or system is also possible in both directions (i.e. Rx to Tx or Tx to Rx).

Works With Almost Any Power Generator

The VIP 3000/VIP 4000 IP transmitter can be powered by almost any motor generator providing a nominal 230V, 45-450 Hz output, single phase, at a suitable KVA rating.

Low cost commercial generator sets, available at local hardware or equipment rental stores are perfectly suitable.

For related interpretation software see RESIX IP, RESIX 2DI, and RESIX IP2DI.

Specifications

- Output Power: 3000/4000VA maximum

- Output Voltage: 3000 V maximum, automatic voltage range selection
- Output Current: 5 amperes maximum, current regulated
- Current accuracy: better than 1%
- Current stability: 0.1%
- Dipoles: 8, selected by push button
- Output Connectors: connectors accept bare wire or plug of up to 4mm. diameter.
- Tune Domain Waveforms: On+, off, on-, off, (on = off) preprogrammed cycle. Automatic circuit opening in off time. Preprogrammed on times from 0.5 to 8 seconds by factor of two. Other cycles programmable by user.
- Frequency Domain Waveforms: Square wave, Preprogrammed frequencies from 0.0625 Hz to 4 Hz by factors of 2. Alternate or simultaneous transmission of any two frequencies. Other frequencies programmable by user.
- Time and Frequency Stability: 0.01%, 1 PPB optional
- Display: Alphanumeric liquid crystal display. Simultaneous display of output current, output voltage, contact resistance, and output power.
- Protection: Short circuit at 20 ohms, Open loop at 60000 ohms, Thermal, Input overvoltage and undervoltage.
- Remote Control: Full duplex RS-232A, 300-19200 bauds. Direct wire sync for on-time and polarity.

Miscellaneous

- Dimensions (h w d): 41 x 32 x 24 cm.
- Weight: 16 kg
- Power Source: 175 to 270 VAC, 45-450 Hz, single phase Motor Generator
- Operating Temperature: -40 to +50 degrees Celsius.
- Standard Components
- VIP 3000 or VIP 4000 Console, Programming Key, RS-232 Interface Cable, Motor Generator Cable, Operations Manual and Shipping Case.

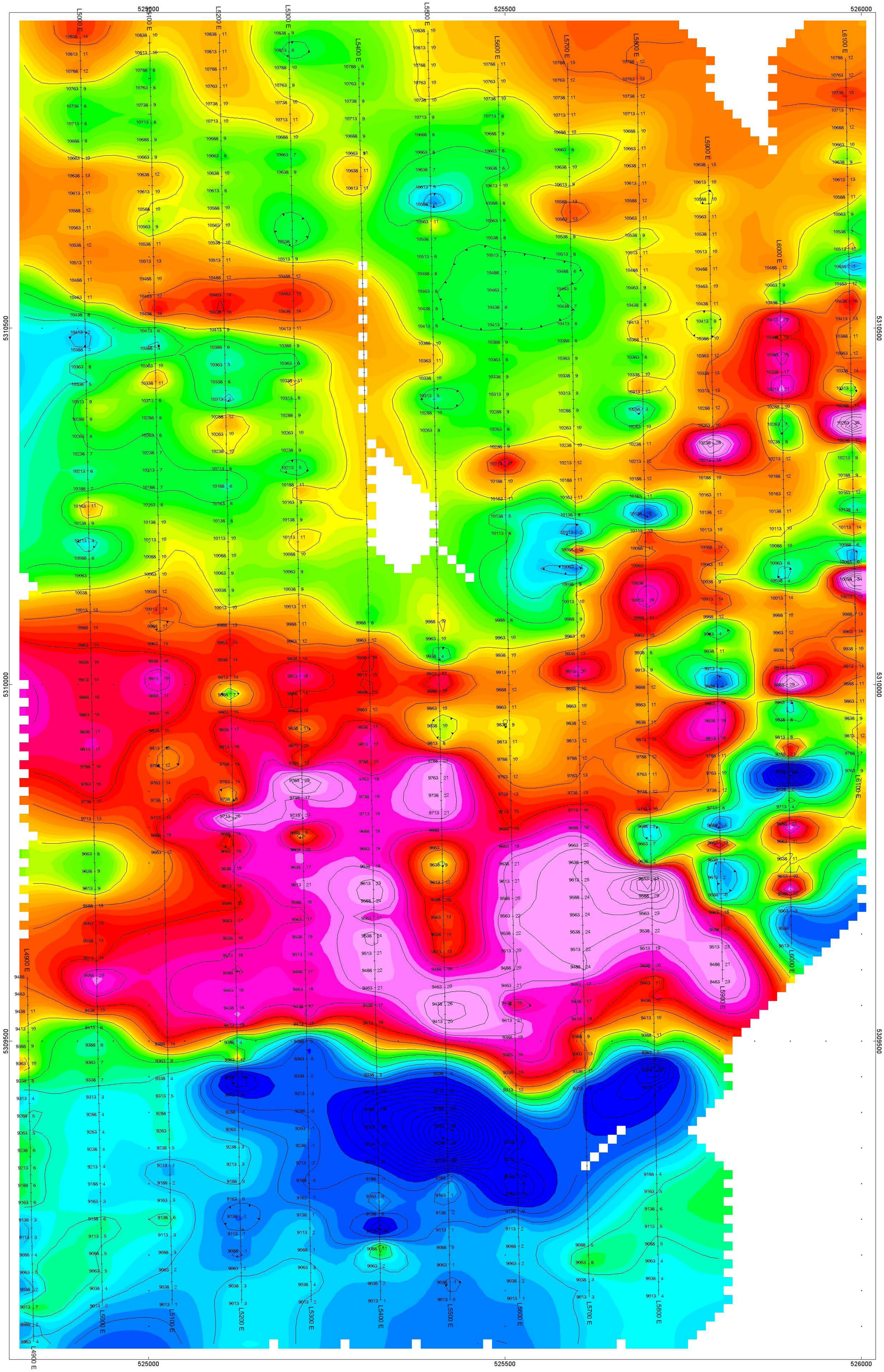
APPENDIX D

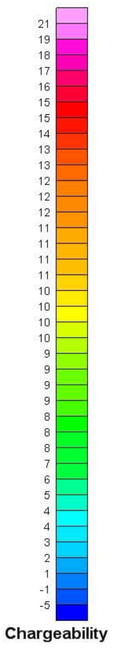
LIST OF MAPS (IN MAP POCKET)

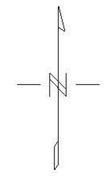
Posted plan maps (1:2500)

1) NORTHGATE-YOUNG DAVIDSON-SOUTH-IP-GRAD-RES
2) NORTHGATE-YOUNG DAVIDSON-SOUTH-IP-GRAD-RES
3) NORTHGATE-YOUNG DAVIDSON-NORTHWEST-IP-GRAD-RES
4) NORTHGATE-YOUNG DAVIDSON-NORTHWEST-IP-GRAD-CHARGE
5) NORTHGATE-YOUNG DAVIDSON-NORTHEAST-IP-GRAD-CHARGE
6) NORTHGATE-YOUNG DAVIDSON-NORTHEAST-IP-GRAD-CHARGE

TOTAL MAPS=6







Scale 1:2500

50 0 50 100 150

(meters)

NAD83 / UTM zone 17N

NORTHGATE MINERALS CORPORATION

YOUNG DAVIDSON PROPERTY
NORTHEAST GRID - BLOCK 5
Matachewan, Ontario

Chargeability Map

Gradient IP
Current: 200mA
AB Location: 5500E, 8750N to 11150N
Rx: Iris Elrec Pro
Tx: Iris VIP 3000 (3kW Time Domain)
Interval: 2 seconds

Processed by: C Jason Ploeger, B.Sc.
Map Drawn By: Belinda Bailey
May, 2008

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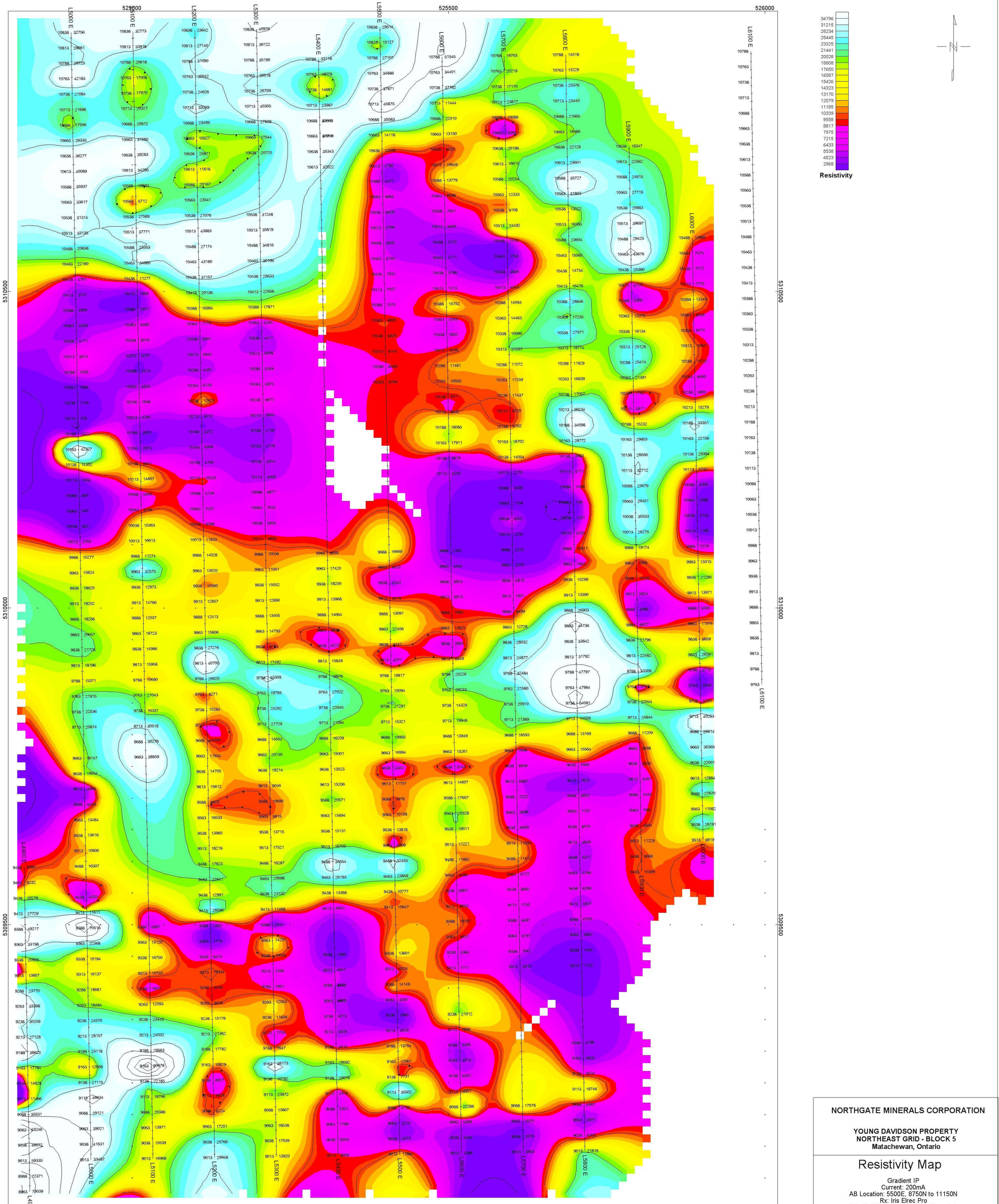
Drawing #08-025-NORTHGATE-NORTHEAST-GRAD-Charg



Scale 1:2500

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(meters)

NAD83 / UTM zone 17N

NORTHGATE MINERALS CORPORATION

YOUNG DAVIDSON PROPERTY
NORTHEAST GRID - BLOCK 5
Matachewan, Ontario

Resistivity Map

Gradient IP
Current: 200mA
AB Location: 5500E, 8750N to 11150N
Rx: Iris Elrec Pro
Tx: Iris VIP 3000 (3kW Time Domain)
Interval: 2 seconds

Processed by: C Jason Ploeger, B.Sc.
Map Drawn By: Belinda Bailey
May, 2008

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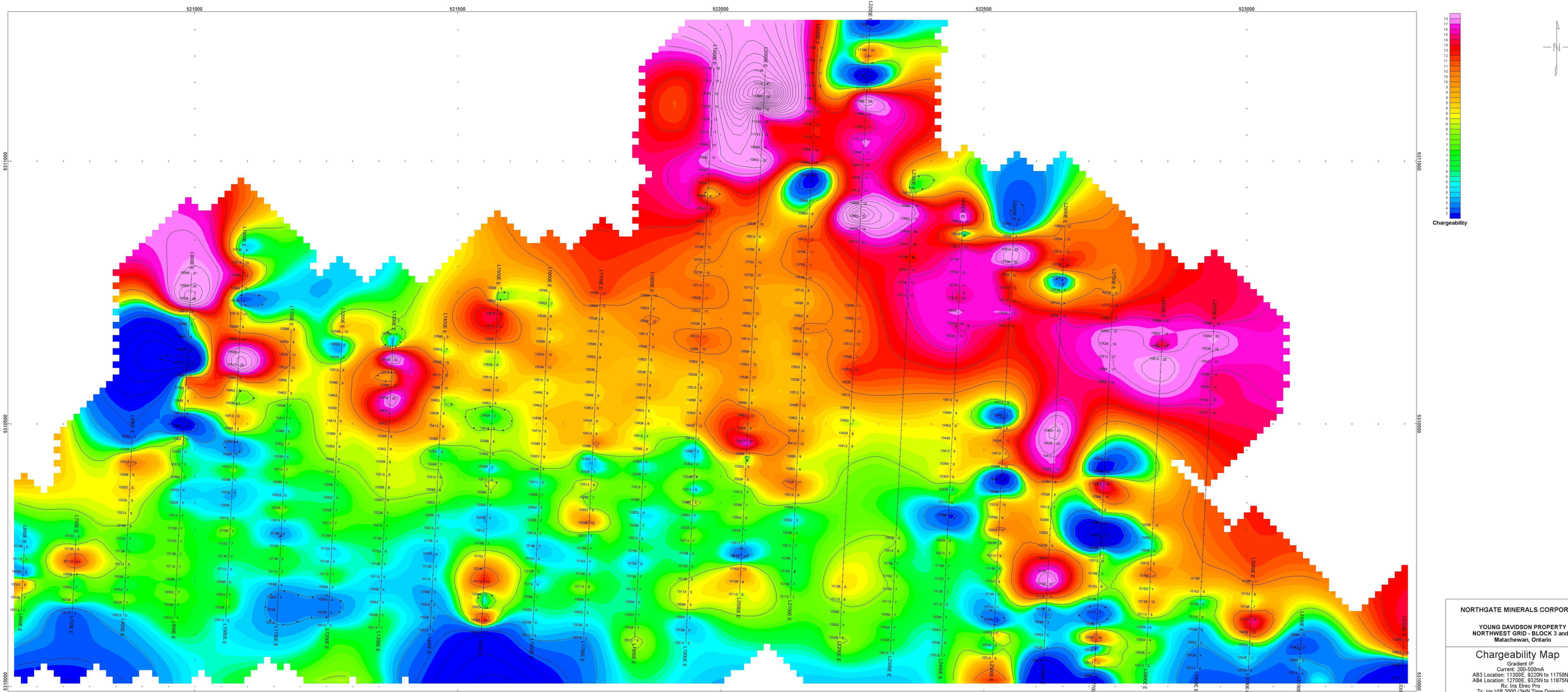
Drawing #08-025-NORTHGATE-NORTHEAST-GRAD-RES



NORTHGATE MINERALS CORPORATION

YOUNG DAVIDSON PROPERTY
NORTHWEST GRID - BLOCK 3 and 4
Matachewan, Ontario

Chargeability Map

Gradient IP
Current: 200-500mA
AB3 Location: 11300E, 9220N to 11750N
AB4 Location: 12700E, 9325N to 11875N
Rx: Iris Elrec Pro
Tx: Iris VIP 3000 (3kW Time Domain)
Interval: 2 seconds

Processed by: C Jason Ploeger, B.Sc.
Map Drawn By: Belinda Bailey
May, 2008

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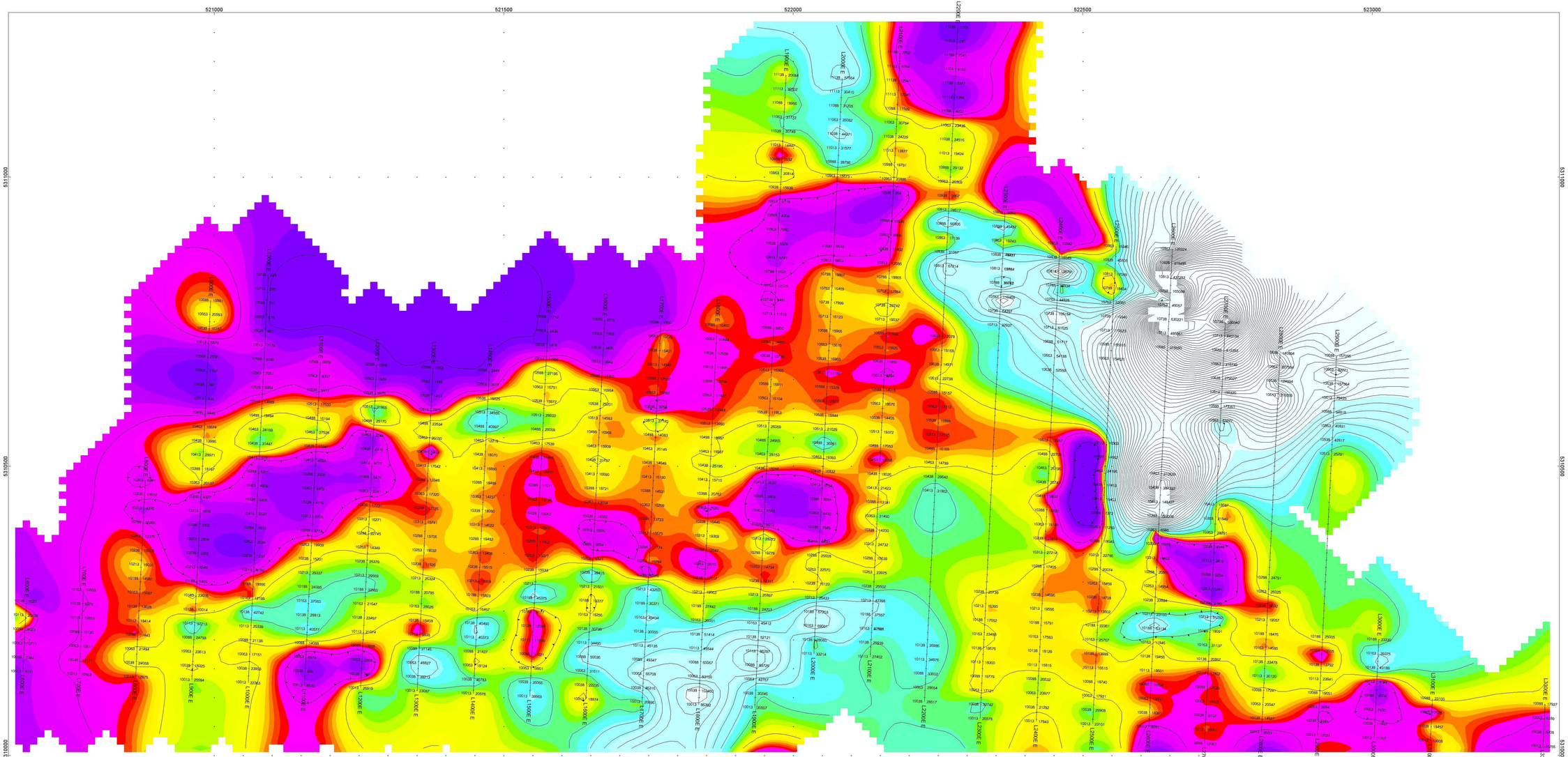
(705) 443-1122

Drawing #08-025-NORTHGATE-NORTHWEST-GRAD-CHRG



NORTHGATE MINERALS CORPORATION

YOUNG DAVIDSON PROPERTY
NORTHWEST GRID - BLOCK 3 and 4
Matachewan, Ontario

Resistivity Map

Gradient IP
Current: 200-500mA
AB3 Location: 11300E, 9220N to 11750N
AB4 Location: 12700E, 9325N to 11875N
Rx: Iris Elrec Pro
Tx: Iris VIP 3000 (3kW Time Domain)
Interval: 2 seconds

Processed by: C Jason Ploeger, B.Sc.
Map Drawn By: Belinda Bailey
May, 2008

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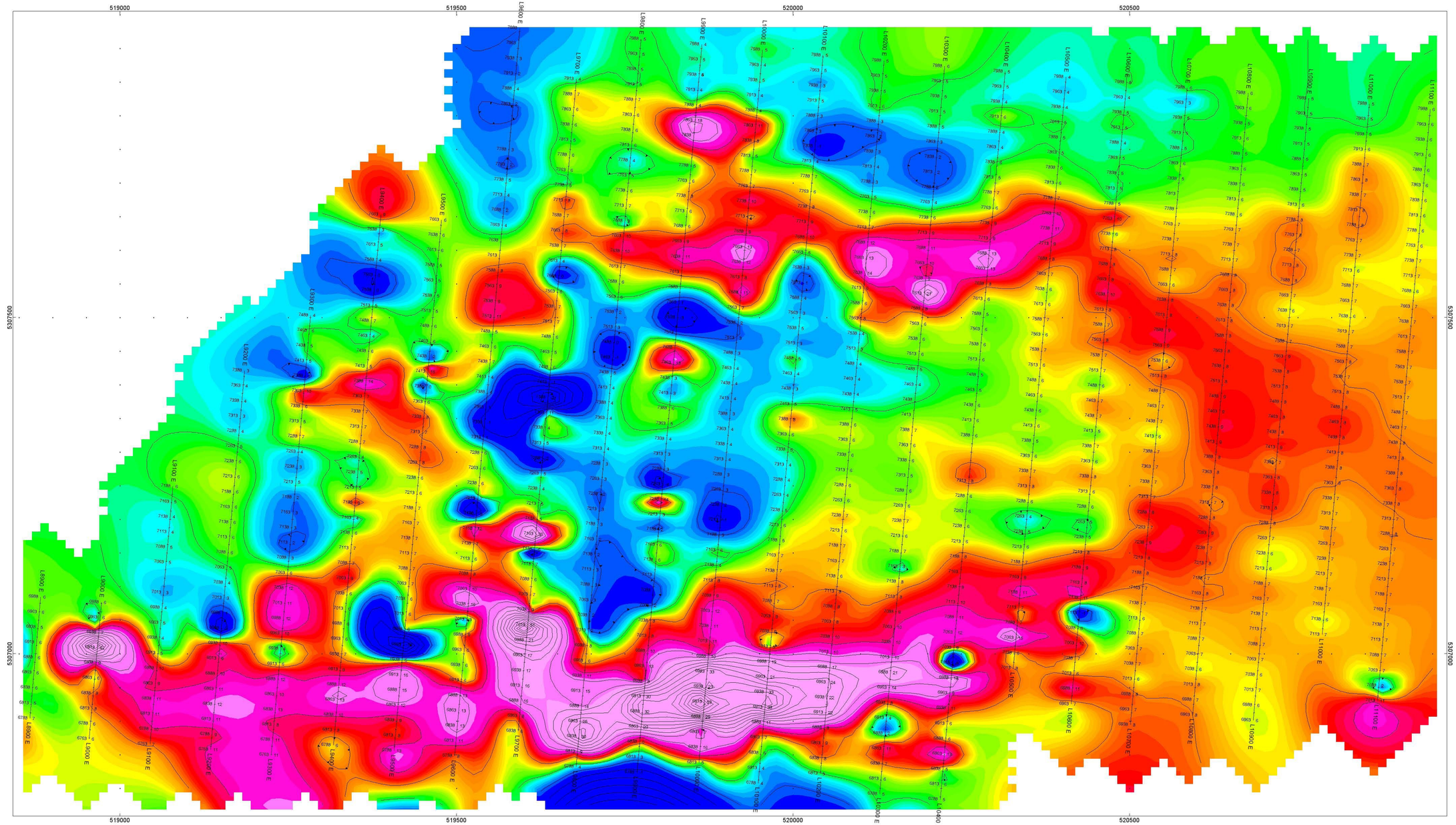
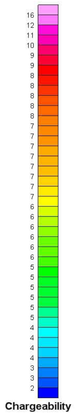
Drawing #08-025-NORTHGATE-NORTHWEST-GRAD-RES





Scale 1:2500

50 0 50 100 150

(meters)

NAD83 / UTM zone 17N

NORTHGATE MINERALS CORPORATION

YOUNG DAVIDSON PROPERTY
SOUTH GRID - BLOCKS 1 and 2
Matachewan, Ontario

Chargeability Map

Gradient IP
Current: 200-500mA
AB1 Location: 9600E, 6300N to 8800N
AB2 Location: 10700E, 6450N to 8800N
Rx: Iris Elrec Pro
Tx: Iris VIP 3000 (3kW Time Domain)
Interval: 2 seconds

Processed by: C Jason Ploeger, B.Sc.
Map Drawn By: Belinda Bailey
May, 2008

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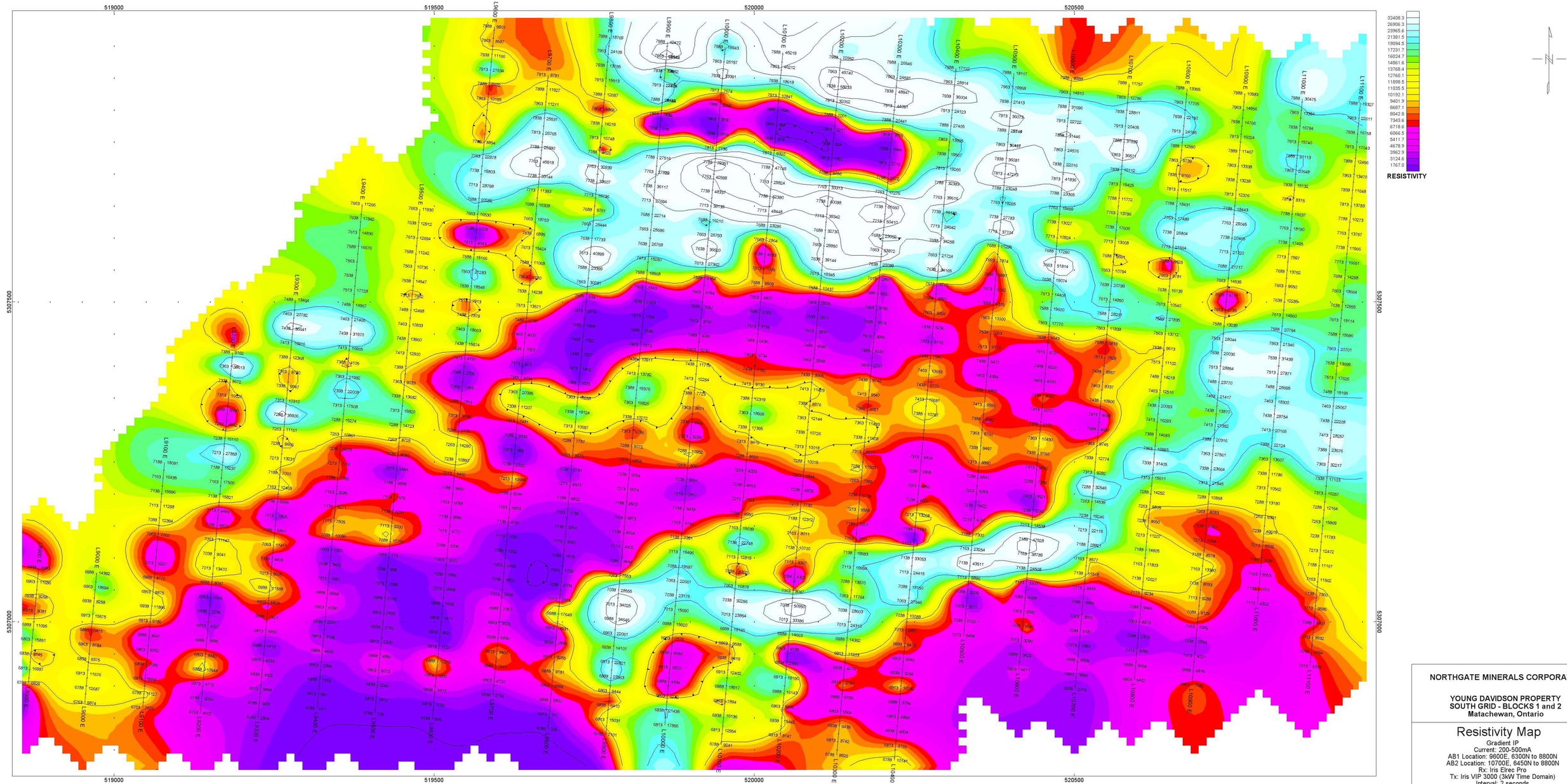
Drawing #08-025-NORTHGATE-SOUTH-GRAD-CHRG



NORTHGATE MINERALS CORPORATION

YOUNG DAVIDSON PROPERTY
SOUTH GRID - BLOCKS 1 and 2
Matachewan, Ontario

Resistivity Map

Gradient IP
Current: 200-500mA
AB1 Location: 9600E, 6300N to 8800N
AB2 Location: 10700E, 6450N to 8800N
Rx: Iris Elrec Pro
Tx: Iris VIP 3000 (3kW Time Domain)
Interval: 2 seconds

Processed by: C Jason Ploeger, B.Sc.
Map Drawn By: Belinda Bailey
May, 2008

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Drawing #06-025-NORTHGATE-SOUTH-GRAD-RES

POWELL TWP

YARROW

NORTHEAST GRID

NORTHWEST GRID

SOUTH GRID

BL10000

BL8000

BL6750

L10000

L11000

L9000

L6000

L5000

Northgate Minerals Corporation

Katrine Grid - Larder Geophysics Survey

1:20 000

N

Tie Line

Grid Line

BL8000 Tie Line Co-ordinate

L8000 Line Co-ordinate

May,2008