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# Quantec IP Incorporated

# Geophysical Survey Logistical Report

Quantec

RECEIVED
JUL 07 1998
GEOSCIENCE ASSESSMENT OFFICE

*Regarding the*
***GRADIENT-REALSECTION INDUCED POLARIZATION and GROUND MAGNETIC SURVEYS at the OXBOW PROPERTY, South Lorrain Twp., near Cobalt, ON, on behalf of ISOMETRIC MINERAL CORPORATION, Sarnia, ON***

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QIP QIP QIP QIP QIP

GRJ Warne, R. Chasse
JM Legault, CWilliston
K. Blackshaw
January 1998
QIP Project P205

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## 1. INTRODUCTION

- **QIP Project No:** P205
- **Project Name:** Oxbow Property
- **Survey Period:** November 6th to 23rd, 1997
- **Survey Type:** 1) Time Domain Induced Polarization (TDIP)
  2) Total Field Ground Magnetics (TFM)
- **Client:** **ISOMETRIC MINERAL CORPORATION.**
  1298 Exmouth Street.
  Sarnia, ON, N7S 1W6
- **Representative:** Mr. John Moses
- **Objectives:**

  To locate and resolve potential zones of sulfide mineralization and map the host geology, investigating to depths of up to 300 meters with sampling resolution +/- 10 meters.

- **Report Type:** Logistical

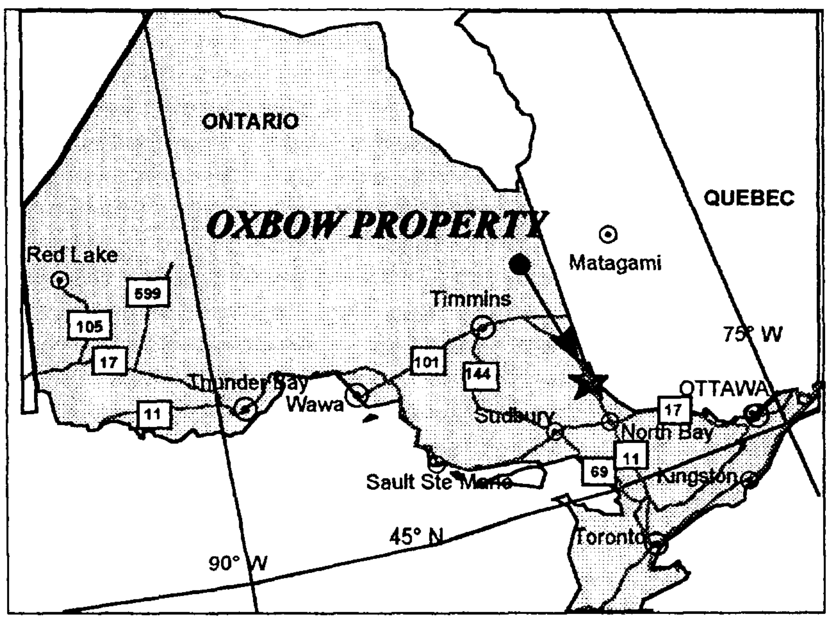


*Figure 1: General Location of Oxbow Property.*

## 2. GENERAL SURVEY DETAILS

### 2.1 LOCATION

- **Township:** South Lorrain Township
- **Mining Division:** Larder Lake Mining Division
- **Province:** Ontario
- **Country:** Canada
- **Nearest Settlement:** North Cobalt
- **NTS Map Reference:** 31 M

### 2.2 ACCESS

- **Base of Operations:** Maiden Bay Lodge, ON
- **Mode of Access:** Oxbow North was accessed from base by truck, traveling 25 km Southwest then by J-5 approx. 1 km via bush road and Oxbow South by J-5 approx. 3 km via bush road.

### 2.3 SURVEY GRIDS

- **Grid Names:** 1) North Oxbow<br>2) South Oxbow
- **Coordinate Reference System:** Local metric exploration grids established prior to survey execution
- **Line Directions:** North Oxbow: North 53° West<br>South Oxbow: North/South
- **Line Separations:** North Oxbow: 25 meters<br>South Oxbow: 100 meters
- **Station Intervals:** picked every 20 meters on both grids
- **Claims Covered:** North Oxbow - 1179631, 1198623<br>1198644, 1200714<br>South Oxbow - 1118450, 118544<br>1118545,<br>1198565 (TFM only)<br>1198568 (TFM only)<br>HR610 (TFM only)

## 3. SURVEY WORK UNDERTAKEN

### 3.1 GENERALITIES

#### 3.1.1 TDIP Survey

- **Survey Dates**: Nov 6th to Nov 22nd 1997
- **Survey Period**: 17 days
- **Survey Days (read time):** North Oxbow 4 days; South Oxbow 6.5 days
- **Down Days:** 2.5 days
- **Loop/Set up Days**: 4 days
- **Total km Surveyed:** North Oxbow 6.4 km; South Oxbow 10.67 km
- **Approximate Arial Coverage:** North Oxbow 0.16 $km^2$; South Oxbow 0.64 $km^2$

#### 3.1.2 TFM Survey

- **Survey Dates:** Nov 17th to 23rd 1997
- **Survey Period:** 7 days
- **Survey Days (read time):** North Oxbow 2 days; South Oxbow 5 days
- **Total km Surveyed:** North Oxbow 7.6 km; South Oxbow 17.34 km
- **Approximate Arial Coverage:** North Oxbow 0.17 $km^2$; South Oxbow 1.54 $km^2$

### 3.2 PERSONNEL

- **Project Supervisor:** G.R. Jeff Warne, Geophysicist, Porcupine, ON.
- **Field Supervisor:** Kevin Blackshaw, Geophysical Technician, Owen Sound, ON
- **Project Managers/ Operators:** Richard Chasse, Kirkland Lake, ON; Tyler Raleigh, Oakville, ON
- **Field Assistants:** Eric Hotvedt, Ramore, ON; Denis George, Matachewan, ON; Donald Maclaren, North Bay, ON

## 3.3 SPECIFICATIONS

### 3.3.1 TDIP Survey

- **Array:** Gradient (see also Figure 2 )
- **AB Reconnaissance Level:** North Oxbow 2000m<br>South Oxbow 1900m
- **MN (Rx dipole spacing):** 10 m
- **Sampling Interval:** 10 m
- **Total Gradient AB Blocks:** 2 (1 for each grid)
- **Total Realsections:** 3 (South Oxbow Grid only)

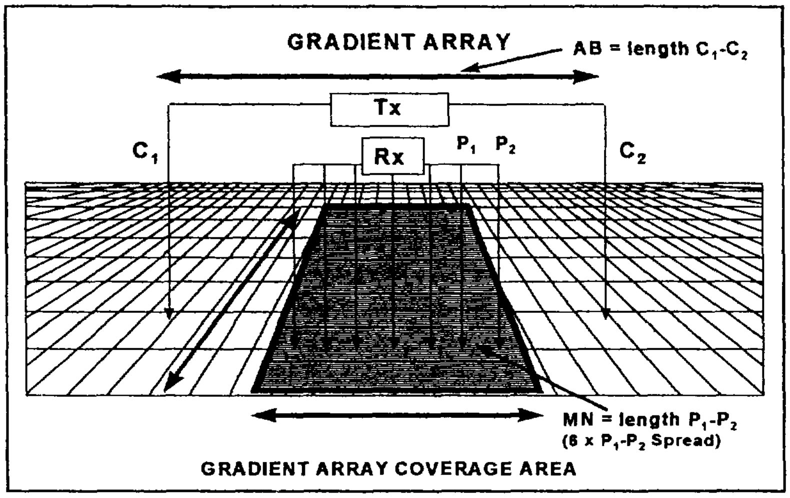


***Figure: 2 Gradient Array Layout.***

### 3.3.2 TFM SURVEY

- **Method :** "Walking Magnetics" line profiling
- **Sampling Interval:** 0.5 second cycle and 2 second cycle
- **Station Spacing:** Every 20 meters
- **Line Interval:** 50 m (North Oxbow) ,100 m (South Oxbow)
- **Diurnal Correction:** Base Station
- **Base Station Position:** @ Maiden Bay Lodge
- **Base Station Sampling Rate:** 3 seconds/cycle
- **Data Output Units:** Nanotesla (nT)
- **Magnetic Datum:** 58 500 nT
- **Magnetic Inclination/Declination:** 76degN/8degW

## 3.4 Survey Coverage

### 3.4.1 TDIP Survey

1. **Reconnaissance:** North Oxbow 6.40 km
   South Oxbow 6.37 km
2. **Realsections:** South Oxbow 4.30 km

| LINE | MIN EXTENT | MAX EXTENT | Length(m) |
|---|---|---|---|
| NORTH OXBOW | | | |
| 0+00N | 200W | 200E | 400 |
| 0+50N | 200W | 200E | 400 |
| 1+00N | 200W | 200E | 400 |
| 1+50N | 200W | 200E | 400 |
| 2+00N | 200W | 200E | 400 |
| 2+50N | 200W | 200E | 400 |
| 3+00N | 200W | 200E | 400 |
| 3+50N | 200W | 200E | 400 |
| 4+00N | 200W | 200E | 400 |
| 4+50N | 200W | 200E | 400 |
| 5+00N | 200W | 200E | 400 |
| 5+50N | 200W | 200E | 400 |
| 6+00N | 200W | 200E | 400 |
| 6+50N | 200W | 200E | 400 |
| 7+00N | 200W | 200E | 400 |
| 7+50N | 200W | 200E | 400 |
| | | **Total** | **6400** |
| | | | |
| SOUTH OXBOW | | | |
| 1+00E | 480S | 300N | 780 |
| 0+00E | 500S | 310N | 810 |
| 1+00W | 500S | 300N | 800 |
| 2+00W | 500S | 300N | 800 |
| 3+00W | 500S | 300N | 800 |
| 4+00W | 500S | 300N | 800 |
| 5+00W | 500S | 300N | 800 |
| 6+00W | 480S | 300N | 780 |
| | | **Total** | **6370** |

***Table I: Oxbow Property TDIP Reconnaissance Survey Coverage***

| LINE | # of Depth Levels | MIN EXTENT | MAX EXTENT | Length(m) |
|---|---|---|---|---|
| SOUTH OXBOW | | | | |
| 2+00W | 2 | 440S | 310N | 1410 |
| 3+00W | 2 | 450S | 300N | 1410 |
| 4+00W | 2 | 460S | 300N | 1480 |
| | | | **Total** | **4300** |

***Table II: Oxbow Property TDIP Detailed Survey Coverage***

### 3.4.2 TFM SURVEY

- Walking Magnetics: North Oxbow 7.6 km
  South Oxbow 17.34 km

| LINE | MIN EXTENT | MAX EXTENT | Length(m) |
|---|---|---|---|
| NORTH OXBOW | | | |
| 0+00N | 200W | 200E | 400 |
| 0+50N | 200W | 200E | 400 |
| 1+00N | 200W | 200E | 400 |
| 1+50N | 200W | 200E | 400 |
| 2+00N | 200W | 200E | 400 |
| 2+50N | 200W | 200E | 400 |
| 3+00N | 200W | 200E | 400 |
| 3+50N | 200W | 200E | 400 |
| 4+00N | 200S | 200N | 400 |
| 4+50N | 200S | 200N | 400 |
| 5+00N | 200S | 200N | 400 |
| 5+50N | 200S | 200N | 400 |
| 6+00N | 200S | 200N | 400 |
| 6+50N | 200S | 200N | 400 |
| 7+00N | 200S | 200N | 400 |
| 7+50N | 200S | 200N | 400 |
| 8+00N | 200S | 200N | 400 |
| BL | 0 | 800N | 800 |
| | | **Total** | **7600** |
| SOUTH OXBOW | | | |
| 7+00E | 500S | 300N | 800 |
| 6+00E | 500S | 300N | 800 |
| 5+00E | 500S | 300N | 800 |
| 4+00E | 500S | 300N | 800 |
| 3+00E | 500S | 300N | 800 |
| 2+00E | 440S | 300N | 740 |
| 1+00E | 500S | 300N | 800 |
| 0+00E | 500S | 300N | 800 |
| 1+00W | 460S | 300N | 760 |
| 2+00W | 500S | 300N | 800 |
| 3+00W | 500S | 300N | 800 |
| 4+00W | 500S | 300N | 800 |
| 5+00W | 500S | 300N | 800 |
| 6+00W | 500S | 300N | 800 |
| 7+00W | 40S | 300N | 340 |
| 8+00W | 500S | 300N | 800 |
| 9+00W | 500S | 300N | 800 |
| 10+00W | 500S | 300N | 800 |
| 11+00W | 500S | 300N | 800 |
| 12+00W | 500S | 300N | 800 |
| BL | 700E | 1200W | 1900 |
| | | **Total** | **17340** |

***Table III: Magnetic Survey Coverage at Oxbow Property.***

## 3.5 INSTRUMENTATION

### 3.5.1 TDIP SURVEY

- **Receiver:** IRIS IP-6 (time domain / 6 channels)
- **Transmitter:** Phoenix IPT-2B (15 kW / 200-2200V out)
- **Power Supply:** Kohler MG (2 cyl / 24 HP) with 30 kVA Westinghouse Alternator (400 Hz / 110V out)

### 3.5.2 TFM SURVEY

- **Magnetometers:** Two (1 base -station, 1 mobile receiver) GEM Instruments Ltd., GSM-19 model ( Overhauser - type proton precession).

## 3.6 TDIP PARAMETERS

- **Input Waveform:** 0.0625 Hz square wave at 50% duty cycle (8 seconds On/Off)
- **Receiver Sampling Parameters:** see Table IV
- **Measured Parameters**:

  1) Chargeability in millivolts/Volt (10 time slices + total area under decay curve)
  2) Primary Voltage in millivolts and Input Current in amperes for Resistivity calculation according to the gradient array geometry factor.

| Slice | Duration (msec) | Start (msec) | End (msec) | Mid-Point (msec) |
|---|---|---|---|---|
| Td | 60 | 0 | 60 | |
| $T_1$ | 60 | 60 | 120 | 80 |
| $T_2$ | 60 | 120 | 180 | 150 |
| $T_3$ | 60 | 180 | 240 | 210 |
| $T_4$ | 60 | 240 | 300 | 270 |
| $T_5$ | 360 | 300 | 660 | 480 |
| $T_6$ | 360 | 660 | 1020 | 840 |
| $T_7$ | 360 | 1020 | 1380 | 1200 |
| $T_8$ | 720 | 1380 | 2100 | 1740 |
| $T_9$ | 720 | 2100 | 2820 | 2460 |
| $T_{10}$ | 720 | 2820 | 3540 | 3180 |
| **Total $T_p$** | **3540** | | | |

***Table IV: Decay Curve Sampling.***

## 3.7 Measurement Accuracy and Repeatability

### 3.7.1 TDIP Survey

- **Chargeability**: generally less than ± 0.5 mV/V but acceptable to ±1.0 mV/V.
- **Resistivity:** less than 5% cumulative error from Primary voltage and Input current measurements.

### 3.7.2 TFM Survey

- **Instrument Accuracy:** ± 0.1 nT
- **Survey Accuracy:** ± 5 nT (at Baseline and Tielines)

## 3.8 Data Presentation

### 3.8.1 TDIP Survey

- **Maps:**

Geophysical Survey Plan Maps: Posted/contoured compilation plan map of Total Chargeability and Apparent Resistivity Plan Maps @ 1:2500, North and South Oxbow Grids. (4 maps)

"Realsection" Detail follow-up: Stacked posted/contoured Realsections of Total Chargeability and Apparent Resistivity @ 1:2500, South Oxbow Grid only.(3 Sections)

- **Digital:**

Raw data: IP-6 digital dump file (see Appendix C).

Processed data: Geosoft .XYZ format.

using the following format:

Column 1 = Line (X Position), in meters
Column 2 = Station (Y Position), in meters
Column 3 = Total Chargeability, in m V/V
Column 4 = Apparent Resistivity, in Ω-m
Column >5 = TDIP Spectral Estimates, derived using IPREDC™

3.8.2 TFM SURVEY

- **Maps:**

Total Field Magnetics: Posted/contoured and posted/profiled plan maps of Total Magnetic Field @ 1: 2500, North and South Oxbow Grids. (4 maps)

- **Digital:**

a) raw data files, according to acquisition date (DDMMYYk.dmp), where DDMMYY are the day, month and year and k represents either B (base station), or C (diurnal corrected), in GSM-19 format (refer to manual)

b) Processed XYZ ASCII data file: according to grid using the following format:

Column 1: Line or Station (EW position) (m)
Column 2: Station or Line (NS position) (m)
Column 3: Station position (m)
Column 4: Total magnetic field - uncorrected (nanotesla)
Column 5: Total magnetic field - diurnal-corrected (nanotesla)

RESPECTFULLY SUBMITTED

QUANTEC IP INC.

G.R. Jeffrey Warne
Senior Geophysicist

Jean M. Legault, P.Eng. (ON)
Senior Geophysicist

Kevin Blackshaw
Project Supervisor:

Christine Williston
Geophysicist

Porcupine, ON
December, 1997.

Richard Chasse
Field Geophysicist

## APPENDIX A

**STATEMENT OF QUALIFICATIONS:**

I, G.R. Jeffrey Warne, hereby declare that:

1. I am a geophysicist with residence in South Porcupine, Ontario and am presently employed in this capacity with Quantec IP Inc. of Waterdown, Ontario.
2. I studied Engineering Geophysics in the Faculty of Applied Science at Queen's University in Kingston, Ontario, completing all but two of the course requirements for a B.Sc.(Eng.) in 1981.
3. I have practiced my profession continuously since May, 1981 in Canada, the United States and Chile.
4. I have no interest, nor do I expect to receive any interest in the properties or securities of **Isometric Mineral Corporation**
5. 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.

Porcupine, Canada
December, 1997.

G.R. Jeffrey Warne
Senior Geophysicist
General Manager - QIP

## APPENDIX A

**STATEMENT OF QUALIFICATIONS:**

I, Jean M. Legault, declare that:

1. I am a consulting geophysicist with residence in South Porcupine, Ontario and am presently employed in this capacity with Quantec IP Inc. of Waterdown, Ontario.

2. I obtained a Bachelor's Degree, with Honors, in Applied Science (B.A.Sc.), Geological Engineering (Geophysics Option), from Queen's University at Kingston, Ontario, in Spring 1982.

3. I am a registered professional engineer, since 1985, with license to practice in the Province of Ontario.( Reg. # 90531542-09)

4. I have practiced my profession continuously, since May, 1982, in North-America, South-America and North-Africa.

5. I am a member of the Association of Professional Engineers of Ontario, the Quebec Prospectors Association, the Prospectors and Developers Association of Canada, and the Society of Exploration Geophysicists.

6. I have no interest, nor do I expect to receive any interest in the properties or securities of **Isometric Mineral Corporation.**

7. 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.

Porcupine, Ontario
December, 1997

Jean M. Legault, P.Eng. (ON)
Chief Geophysicist
Dir. Technical Services
Quantec Group

# APPENDIX A

## STATEMENT OF QUALIFICATIONS

I, Christine Williston, hereby declare that:

1. I am a processing geophysicist with residence in South Porcupine, Ontario and am presently employed in this capacity with Quantec Consulting Inc. of Porcupine, Ontario.

2. I am a graduate of York University, North York, ON, in 1994, with an Honours Bachelor of Science Degree in Earth and Atmospheric Science.

3. I have practiced my profession in Canada since graduation.

4. I have no interest nor do I expect to receive any interest, direct or indirect, in the properties or securities of **Isometric Mineral Corporation.**

5. I am the technical writer for this report. The maps created and statements made by me in this report accurately represent the information given to me at the time of the preparation of this report.

Porcupine, Ontario
December, 1997

C. Willist

Christine Williston, B.Sc.
Geophysicist
Quantec Technical Services

## APPENDIX A

**STATEMENT OF QUALIFICATIONS:**

I, Kevin Blackshaw, declare that:

1. I am currently employed by Quantec IP Inc. of Waterdown, Ontario as a field supervisor.
2. I graduated from Cambrian College in Sudbury, Ontario with a Geological Engineering Technology diploma in 1983.
3. I have continuously been employed in this field since graduation.
4. I have no interest nor do I expect to receive any interest in the properties or securities of **Isometric Mineral Corporation**
5. I am the technical writer for this report; I constructed this report and generated plots to the best of my ability with the current information available at the time.

Porcupine, Ontario
December, 1997.

Kevin Blackshaw
Field Supervisor:

## APPENDIX B

**PRODUCTION SUMMARY:**

| | | | | | | |
|---|---|---|---|---|---|---|
| **PROJECT** | **P-205 Isometric Mineral Corporation** | | | | | |
| **SURVEY** | **Gradient "Realsection" IP Survey, "Cobalt Ontario** | | | | | |
| **DATE** | **DESCRIPTION** | **Line** | **Block** | **Start** | **End** | **Total(m)** |
| Nov-6,97 | Arrange for chopper in a.m., sling from Price to Truck. AB Line not cut. Unload J5 at approx. 4 PM | | | | | |
| | Extra Man - sent to drop off J5 | | | | | |
| Nov-7,97 | Moved gear into grid with J5,setup Tx location | | S Oxbow | | | |
| | Establish AB 1900m | | | | | |
| Nov-8,97 | Kevin was up/Tyler doing mag/Survey | 300W | S Oxbow | 300N | 300S | 600 |
| | T.X. broken relay/drive to Porcupine/New relay/extra transmitter. | | | | | |
| | l/2 survey charge | | | | | |
| Nov-9,97 | RSIP Survey | 300W | S Oxbow | 300S | 500S | 200 |
| | Dropped off Tyler at Price grid landing | 200W | S Oxbow | 500S | 300N | 800 |
| | | 100W | S Oxbow | 300N | 300S | 600 |
| | Total | | | | | 1600 |
| Nov-10,97 | Down Day | | | | | |
| Nov-11,97 | RSIP Survey | 100W | S Oxbow | 180S | 500S | 320 |
| | | 0E | S Oxbow | 500S | 300N | 800 |
| | | 100E | S Oxbow | 300N | 480S | 780 |
| | Total | | | | | 1900 |
| Nov-12,97 | RSIP Survey | 400W | S Oxbow | 300N | 500S | 800 |
| | | 500W | S Oxbow | 500S | 300N | 800 |
| | | 600W | S Oxbow | 300N | BL | 300 |
| | Total | | | | | 1900 |
| Nov-13.97 | RSIP Survey | 600W | S Oxbow | BL | 500S | 500 |
| | Line 7+00W not chained at all/Skipped it | | | | | |
| | Establish Array | 400W | S Oxbow | 460S | 300N | 760 |
| | | 300W | S Oxbow | 300N | BL | 300 |
| | Total | | | | | 1560 |
| Nov-14,97 | RSIP Survey | 300W | S Oxbow | BL | 450S | 450 |
| | | 200W | S Oxbow | 440S | 300N | 740 |
| | Establish Array | 200W | S Oxbow | 300N | 60S | 360 |
| | Total | | | | | 1550 |
| Nov-15,97 | RSIP Survey | 200W | S Oxbow | 60S | 360S | 300 |
| | | 300W | S Oxbow | 360S | 300N | 660 |
| | | 400W | S Oxbow | 300N | 420S | 720 |
| | Total | | | | | 1680 |
| Nov-16,97 | Down Day | | | | | |
| | Total | | | | | 0 |
| Nov-17,97 | Moved gear into grid with J5,setup Tx location | | | | | |
| | Establish AB 2000m | | | | | |
| | Total | | | | | 0 |

| DATE | DESCRIPTION | Line | Block | Start | End | Total(m) |
|---|---|---|---|---|---|---|
| | | | | | | |
| Nov-18,97 | RSIP Survey | 400N | N Oxbow | 200E | 200W | 400 |
| | | 450N | N Oxbow | 200W | 200E | 400 |
| | | 500N | N Oxbow | 200E | 200W | 400 |
| | | 550N | N Oxbow | 200W | 200E | 400 |
| | Total | | | | | 1600 |
| Nov-19,97 | RSIP Survey | 600N | N Oxbow | 200E | 200W | 400 |
| | | 650N | N Oxbow | 200W | 200E | 400 |
| | | 700N | N Oxbow | 200E | 200W | 400 |
| | | 750N | N Oxbow | 200W | 200E | 400 |
| | Total | | | | | 1600 |
| Nov-20,97 | RSIP Survey | 350N | N Oxbow | 200E | 200W | 400 |
| | | 300N | N Oxbow | 200W | 200E | 400 |
| | | 250N | N Oxbow | 200E | 200W | 400 |
| | | 200N | N Oxbow | 200W | 200E | 400 |
| | Total | | | | | 1600 |
| Nov-21,97 | RSIP Survey | 150N | N Oxbow | 200E | 200W | 400 |
| | | 100N | N Oxbow | 200W | 200E | 400 |
| | | 50N | N Oxbow | 200E | 200W | 400 |
| | | 0N | N Oxbow | 200W | 200E | 400 |
| | Total | | | | | 1600 |
| | **TFM Survey** | | | | | |
| | | | | | | |
| Nov-17,97 | Magnetic survey | 1200W | S Oxbow | 500S | 300N | 800 |
| | | 1100W | S Oxbow | 300N | 500S | 800 |
| | | 1000W | S Oxbow | 500S | BL | 500 |
| | Total | | | | | 2100 |
| | | | | | | |
| | | | | | | |
| Nov-18,97 | Magnetic survey | BL | S Oxbow | 300E | 1100W | 1400 |
| | | 1000W | S Oxbow | BL | 300N | 300 |
| | | 900W | S Oxbow | 300N | 500S | 800 |
| | | 800W | S Oxbow | 500S | BL | 500 |
| | Total | | | | | 3000 |
| | | | | | | |
| | | | | | | |
| Nov-19,97 | Magnetic survey | 800W | S Oxbow | BL | 300N | 300 |
| | | 700W | S Oxbow | 300N | 40S | 340 |
| | | 600W | S Oxbow | 300N | 500S | 800 |
| | | 500W | S Oxbow | 500S | 300N | 800 |
| | | 400W | S Oxbow | 300N | 500S | 800 |
| | | 300W | S Oxbow | 500S | 300N | 800 |
| | | 200W | S Oxbow | 100N | 300N | 200 |
| | Total | | | | | 4040 |
| | | | | | | |
| | | | | | | |
| Nov-20,97 | Magnetic Survey | 200W | S Oxbow | 100N | 500S | 600 |
| | | 100W | S Oxbow | 460S | 300N | 760 |
| | | 0 | S Oxbow | 300N | 500S | 800 |
| | | 100E | S Oxbow | 500S | 300N | 800 |
| | | 200E | S Oxbow | 440S | 300N | 740 |
| | | 300E | S Oxbow | 500S | BL | 500 |
| | Total | | | | | 4200 |
| | | | | | | |

| DATE | DESCRIPTION | Line | Block | Start | End | Total(m) |
|---|---|---|---|---|---|---|
| | | | | | | |
| Nov-21,97 | Magnetic Survey | 300E | S Oxbow | BL | 300N | 300 |
| | | 400E | S Oxbow | 300N | 500S | 800 |
| | | 500E | S Oxbow | 500S | 300N | 800 |
| | | 600E | S Oxbow | 300N | 500S | 800 |
| | | 700E | S Oxbow | 500S | 300N | 800 |
| | | BL | S Oxbow | 700E | 300E | 400 |
| | Total | | | | | 3900 |
| Nov-22,97 | Pickup wire ,move gear to road | | | | | |
| | Total | | | | | 0 |
| | Magnetic Survey | BL | N Oxbow | 800N | 0N | 800 |
| | | 0N | N Oxbow | 200E | 200W | 400 |
| | | 50N | N Oxbow | 200W | 200E | 400 |
| | | 100N | N Oxbow | 200E | 200W | 400 |
| | | 150N | N Oxbow | 200W | 200E | 400 |
| | | 200N | N Oxbow | 200E | 200W | 400 |
| | | 250N | N Oxbow | 200W | 200E | 400 |
| | | 300N | N Oxbow | 200E | 200W | 400 |
| | | 350N | N Oxbow | 200W | 200E | 400 |
| | | 400N | N Oxbow | 200E | 200W | 400 |
| | | 450N | N Oxbow | 200W | 200W | 400 |
| | | 500N | N Oxbow | 200E | 200W | 400 |
| | | 550N | N Oxbow | 200W | 200E | 400 |
| | | 600N | N Oxbow | 200E | 200W | 400 |
| | | 650N | N Oxbow | 200W | 200E | 400 |
| | | 700N | N Oxbow | 200E | 200W | 400 |
| | | 750N | N Oxbow | 200W | 200E | 400 |
| | | 800N | N Oxbow | 200W | 60W | 140 |
| | Total | | | | | 7340 |
| | | | | | | |
| Nov-23,97 | Pack up / clean up cabin. Demob to Porcupine. | | | | | |
| | T. Chevrier Picked up J 5 | | | | | |
| | Total | 800N | N Oxbow | 60W | 200E | 260 |
| | | | | | | |
| | | | | | | |

## APPENDIX C

**INSTRUMENT SPECIFICATIONS:**

### IRIS ELREC 6 Receiver
(from IRIS Instruments IP 6 Operating Manual)

**Weather proof case**

| | |
|---|---|
| **Dimensions:** | 31 cm x 21 cm x 21 cm |
| **Weight:** | 6 kg with dry cells<br>7.8 kg with rechargeable bat. |
| **Operating temperature:** | -20°C to 70°C<br>(-40°C to 70°C with optional screen heater) |
| **Storage:** | (-40°C to 70°C) |
| **Power supply:** | 6 x 1.5 V dry cells (100 hr. @ 20°C) or<br>2 x 6 V NiCad rechargeable (in series) (50 hr. @ 20°C) or<br>1 x 12 V external |
| **Input channels:** | 6 |
| **Input impedance:** | 10 Mohm |
| **Input overvoltage protection:** | up to 1000 volts |
| **Input voltage range:** | 10 V maximum on each dipole<br>15 V maximum sum over ch. 2 to 6 |
| **SP compensation:** | 6 automatic ± 10 V with linear drift correction up to 1 mV/s |
| **Noise rejection:** | 50 to 60 Hz powerline rejection<br>100 dB common mode rejection (for Rs= 0)<br>automatic stacking |
| **Primary voltage resolution:** | 1 µV after stacking |
| **accuracy:** | 0.3% typically; maximum 1 over whole temperature range |
| **Secondary voltage windows:** programmable sampling. | up to 10 windows; 3 preset window specs .plus fully |
| **Sampling rate:** | 10 ms |
| **Synchronization accuracy:** | 10 ms, minimum 40 µV |
| **Chargeability resolution:** | 0.1 mV/V |
| **accuracy:** | typically 0.6%. maximum 2% of reading ± 1 mV/V for $V_p$ > 10 mV |
| **Battery test:** | manual and automatic before each measurement |
| **Grounding resistance:** | 0.1 to 467 kohm |
| **Memory capacity:** | 2505 records, 1 dipole/record |

**INSTRUMENT SPECIFICATIONS:**

**GSM-19**
(from GSM-19 Overhauser Magnetometer Operating Manual)

**Weather proof case**

| | |
|---|---|
| **Dimensions:** | Console 223 mm x 69 mm x 240 mm Sensor 170 mm x71 mm diameter cylinder |
| **Weight:** | Console 2.1 kg; Sensor 2.2 kg (staff included) |
| **Operating temperature:** | -40°C to 60°C |
| **Power supply:** | 12V 1.9 Ah sealed lead acid battery |
| **Power Consumption:** | 2 Ws per reading |
| **Resolution:** | 0.01 nT |
| **Relative Sensitivity:** | 0.02 nT |
| **Absolute Accuracy:** | 0.2 nT |
| **Range:** | 20,000 to 120,000 nT |
| **Gradient Tolerance:** | Over 10,000 nT/m |
| **Operating Modes:** | Base station- time, date, reading stored 3 to 60 sec Walking- time, date, reading stored at coordinates of fiducial with 0.5 to 2 sec. cycle time |
| **Memory Capacity:** | Base station- 43,000 readings standard<br>Walking- 131,000 readings |
| **Data transfer:** | Serial link @ 300 to 19200 baud; remote control capability through serial link @ 19200 baud |

## IRIS IP 6 Dump File Format

```
 *   IP 6  (V9.1) *
 *===================*

#77    Jul  1  1980        11:57
 dipole 1  trigger 1  domain Time  T wave
 Programmable wind.  Grad. RCTGL array

 V=  331.605 Sp= -319  I= 1350.00 Rs=  0.50
 Ro=   6679.4 Ohm-m    M=   11.97 E=  0.4
 M1= 40.44  M2= 33.55  M3= 29.48  M4= 26.68
 M5= 20.95  M6= 15.52  M7= 12.50  M8=  9.77
 M9=  7.50  M10=  6.05

 cycle  19 Time= 2000  V_D= 1260  M_D=   40
 T_M1=  20  T_M2=  30  T_M3=  30  T_M4=  30
 T_M5= 180  T_M6= 180  T_M7= 180  T_M8= 360
 T_M9= 360  T_M10= 360

 Spacing config. :  Imperial grid
  XP=-1300.0  Line=  400.0
   D= -100.0  AB/2= 2500.0

#78    Jul  1  1980        11:57
 dipole 2  trigger 1  domain Time  T wave
 Programmable wind.  Grad. RCTGL array

 V=  265.781 Sp=  388  I= 1350.00 Rs=  1.41
 Ro=   4687.7 Ohm-m    M=   26.75 E=  0.0
 M1= 76.18  M2= 66.06  M3= 59.31  M4= 54.53
 M5= 44.38  M6= 34.29  M7= 28.35  M8= 22.83
 M9= 18.06  M10= 14.96

 cycle  19 Time= 2000  V_D= 1260  M_D=   40
 T_M1=  20  T_M2=  30  T_M3=  30  T_M4=  30
 T_M5= 180  T_M6= 180  T_M7= 180  T_M8= 360
 T_M9= 360  T_M10= 360

 Spacing config. :  Imperial grid
  XP=-1400.0  Line=  400.0
   D= -100.0  AB/2= 2500.0
```

**INSTRUMENT SPECIFICATIONS:**

## Phoenix IP Transmitter Model IPT-2

| | |
|---|---|
| **Power Sources:** | Phoenix MG-19 (10KVA, 120V, 3 phase, 400 Hz) motor generator (30KVA, 120V, 3 phase) motor generator Phoenix MG-1, 2 or 3 can also be used, but will generate ½ the voltage |
| **Output Voltage:** | To 1400V in four ranges of resp. 250-375V, 420-630V, 6505V, 935-1400V. Voltage is continuously variable ± 20% from each nominal step value. |
| **Output Power:** | Maximum continuous output power is 10KW. Absolute maximum output power is 15KW. |
| **Maximum Current:** | 15 Amps |
| **Ammeter Ranges:** | 30m A, 100m A, 1A, 3A, 10A and 30A full scale. |
| **Meter Display:** | A meter function switch selects the display of current level, regulation status, input frequency, output voltage, control battery voltage or line voltage |
| **Current regulation:** | The change in output current is less than 0.2% for a 10% change in input voltage or electrode impedance. Regulation is achieved by feedback tothe alternator of the motor generator unit. |
| **Output waveform:** | Either DC, single frequency, two frequencies simultaneously, or time domain (50% duty cycle). Frequencies of 0.078, 0.156, 0.313, 1.25, 2.5 and 5.0 Hz are standard, whereas 0.062, 0.125, 0.25, 1.0, 2.0 and 4.0 Hz are optionally available. The simultaneous transmission mode has 0.313 and 5.0 Hz asstandard, whereas 0.156 and 2.5 Hz are optional. |
| **Output waveform IPT-2B option:** | 9 frequencies in binary progression: 1/16 - 1/32 - 1/16 - 1/8 -1/4 -1/2 -1 2 and 4, with variable duty cycle. Selectable to one of four values: 0.25, 0.5, 0.75, and 1.NOTE: Duty cycle = 1 is the operation equal to the standard frequency domain cycling, i.e. Full On, except for a 50m sec. gap at each half cycle. |
| **Operating Temperature:** | -40°C to +60°C |
| **Frequency Stability:** | ±1% from -40°C to +60°C is standard. A precision time base is optionally available for coherent detection and phase IP measurements. |
| **Transient Protection:** | Current is turned off automatically if it exceeds 150% full scale or is less than 5% full scale. |
| **Thermal Protection:** | Unit is fan-forced cooled. Thermostat turns transmitter off at 65°C andturns back on at 55°C internal temperature. |
| **Dimensions:** | 46 x 46 x 32 cm (18 x 18 x 13 in) |
| **Weight:** | 45 kg |
| **Shipping Weight:** | 56 kg |

## APPENDIX D

### REALSECTION THEORETICAL BASIS

The "Realsection" survey design uses multiple gradient arrays - with variable depths of investigation controlled by successive changes in array size/geometry. The method of data acquisition and the "Realsection" presentation are based on the specifications developed by Dr. Perparim Alikaj, of the Polytechnic University of Tirana, Albania, over the course of 10 years of application. This technique has been further developed for application in Canada during the past four years, in association with Mr. Dennis Morrison, president of Quantec IP Inc.

The Gradient Array measurements are unique in that they best represent a bulk average of the surrounding physical properties within a relatively focused sphere of influence, roughly equal to the width of the receiver dipole, penetrating vertically downward from surface to great depths. These depth of penetration and lateral resolution characteristics are showcased when presented in plan, however through the use of multiple-spaced and focused arrays, the advantages of the gradient array are further highlighted when the IP/Resistivity data are fully developed in cross-section, using Realsections.

The resistivity is among the most variable of all geophysical parameters, with a range exceeding $10^6$. Because most minerals are fundamentally insulators, with the exception of massive accumulations of metallic and submetallic ores (electronic conductors) which are rare occurrences, the resistivity of rocks depends primarily on their porosity , permeability and particularly the salinity of fluids contained (ionic conduction), according to Archie's Law. In contrast, the chargeability responds to the presence of polarizeable minerals (metals, submetallic sulphides and oxides, and graphite), in amounts as minute as parts per hundred. Both the quantity of individual chargeable grains present, and their distribution with in subsurface current flow paths are significant in controlling the level of response. The relationship of chargeability to metallic content is straightforward, and the influence of mineral distribution can be understood in geologic terms by considering two similar, hypothetical volumes of rock in which fractures constitute the primary current flow paths. In one, sulphides occur predominantly along fracture surfaces. In the second , the same volume percent of sulphides are disseminated throughout the rock. The second example will, in general, have significantly lower intrinsic chargeability.

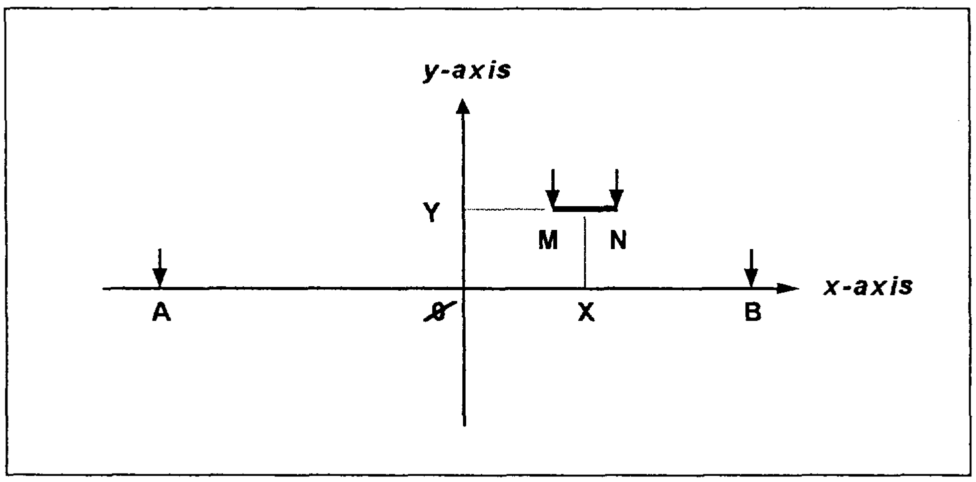


***Figure D1:: Gradient array configuration***

Using the diagram in Figure D1 for the gradient array electrode configuration and nomenclature:[1], the gradient array apparent resistivity is calculated:

where: the origin **0** is selected at the center of **AB**
the geometric parameters are in addition to **a = AB/2** and **b = MN/2**
**X** is the abscissa of the mid-point of **MN** (positive or negative)
**Y** is the ordinate of the mid-point of **MN** (positive or negative)

***Gradient Array Apparent Resistivity:***

$$\rho a = K \frac{VP}{I} \ ohm\text{-}metres$$

$$where: \quad K = \frac{2\pi}{(AM^{-1} - AN^{-1} - BM^{-1} + BN^{-1})}$$

$$AM = \sqrt{(a+x-b)^2 + y^2}$$

$$AN = \sqrt{(a+x+b)^2 + y^2}$$

$$BM = \sqrt{(x-b-a)^2 + y^2}$$

$$BN = \sqrt{(x+b-a)^2 + y^2}$$

Using the diagram in Figure D2 for the Total Chargeability:

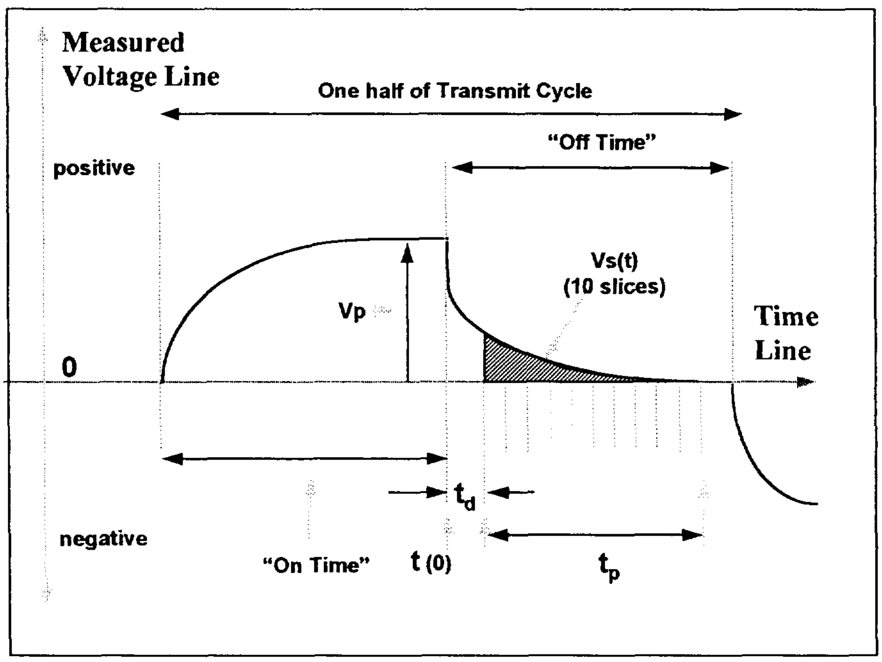


***Figure D2 The measurement of the time-domain IP effect***

[1] From Terraplus\BRGM, IP-6 Operating Manual, Toronto, 1987.

the total apparent chargeability is given by:

***Total Apparent Chargeability:***[2]

$$M_T = \frac{1}{t_p V_p} \sum_{i=1 \text{ to } 10} \int_{t_i}^{t_{i+1}} V_s \quad (t)\, dt \qquad \text{millivolts per volt}$$

where $t_i$, $t_{i+1}$ are the beginning and ending times for each of the chargeability slices,

More detailed descriptions on the theory and application of the IP/Resistivity method can be found in the following reference papers:

Cogan, H., 1973, Comparison of IP electrode arrays, Geophysics, 38, p 737 - 761.

Langore, L., Alikaj, P., Gjovreku, D., 1989, Achievements in copper sulphide exploration in Albania with IP and EM methods, Geophysical Prospecting, 37, p 925 - 941.

[2] From Telford, et al., Applied Geophysics, Cambridge U Press, New York, 1983..

# APPENDIX D

## MAGNETIC SURVEY PROCEDURE AND POST PROCESSING

Base station corrected Total Field Magnetic surveying is conducted using at least two synchronized magnetometers of identical type. One magnetometer unit is set in a fixed position in a region of stable geomagnetic gradient, and away from possible cultural effects (moving vehicles) to monitor and correct for daily diurnal drift. This magnetometer, given the term 'base station', stores the time, date and total field measurement at fixed time intervals over the survey day. The second, remote mobile unit stores the coordinates, time, date, total field and the gradient measurements simultaneously. The procedure consists of taking total magnetic measurements of the Earth's field at stations, along individual profiles, including Tie and Base lines. A 2 meter staff is used to mount the sensor, in order to optimally minimize localized near-surface geologic noise. The gradient reading is accomplished by a second sensor, encased below the total field sensor within the same unit. The difference between these readings is taken to be the vertical gradient at that location. At the end of a survey day, the mobile and base-station units are linked, via RS-232 ports, for diurnal drift and other magnetic activity (ionospheric and spheric) corrections using internal software.

# APPENDIX E

## LIST OF MAPS

| TYPE OF MAP | |
|---|---|
| **Magnetic Maps Scale 1:2500** | |
| Magnetic Contours | P205 - MAGCONT- North Oxbow Grid |
| Magnetic Contours | P205 - MAGCONT- South Oxbow Grid |
| Magnetic Profiles | P205 - MAGPROF- North Oxbow Grid |
| Magnetic Profiles | P205 - MAGPROF- South Oxbow Grid |
| | |
| Property Location Maps (2) | North Oxbow and South Oxbow Grids by Shortt Exploration, Dec 7, 1997 |
| | |
| **TDIP Plan Maps Scale 1:2500** | |
| | P205 - PLAN - CHG - North Oxbow |
| | P205 - PLAN - RES - North Oxbow |
| | P205 - PLAN - CHG - South Oxbow |
| | P205 - PLAN - RES - South Oxbow |
| TOTAL PLAN MAPS | 8 |
| | |
| **RSIP Scale 1:2500** | **South Oxbow** |
| Line 2+00W | P-205-RSIP-2+00W |
| Line 3+00W | P-205-RSIP-3+00W |
| Line 4+00W | P-205-RSIP-4+00W |
| TOTAL RSIP MAPS | 3 |

# APPENDIX F

**MAPS AND SECTIONS:**

**INTERPRETATION ADDENDUM TO**

**GEOPHYSICAL SURVEY LOGISTICAL REPORT (QIP PROJECT NO. P205B)**
**ISOMETRIC MINERAL CORPORATION, SARNIA, ON**
**OXBOW PROPERTY (NORTH AND SOUTH GRIDS), SOUTH LORRAIN TWP. ON.**
**GRADIENT-REALSECTION TDIP INDUCED POLARIZATION SURVEY**
**CONDUCTED IN NOVEMBER 1997, BY**
**QUANTEC IP INCORPORATED WATERDOWN ON**

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Senior Geophysicist

**PROJECT IN REVIEW**

At the request of **Isometric Mineral Corporation**, the following interpretation summarizes the results of ground geophysical surveys over the **Oxbow Project** (North and South Grids), in South Lorrain Township, near Cobalt, Ontario, obtained in November, 1997 by Quantec IP Inc. The surveys consist of time-domain induced polarization/resistivity, using the Gradient-Realsection technique and Total Field Magnetic survey, which were intended to locate and delineate potential zones of gold mineralization. This report serves as an addendum to the previously submitted logistics report (ref. P205b, 01/98) and conforms to the OMNDM assessment requirements.

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# 4 RESULTS AND INTERPRETATION

## 4.1 OVERVIEW

The geophysical surveys at the **Oxbow** property were designed to define and delineate chargeability, resistivity and magnetic signatures associated both with potential Archean lode-gold type as well as Cobalt-type precious and base metal mineralization on the property, investigating to depths up to 300 metres. The target model is based on shear-hosted, disseminate to massive/stringer sulphides, associated with pervasive quartz-carbonate alteration, and occurring along subvertical structures – either occuring within the underlying volcanics, in the case of Archean targets at North and South Oxbow, or, in the case of North Oxbow, in association with Nippissing diabase and extending into the surrounding country rocks. The present geophysical program consists of reconnaissance gradient IP\Resistivity and ground Total Field magnetics (TFM) coverage, with detailed Realsection/multiple-gradient coverage limited to **3** (three) lines at South Oxbow grid. The Gradient-Realsection technique was chosen based on its high resolution and deep penetration characteristics.

### 4.1.1 North Oxbow Grid

The **North Oxbow** survey area is underlain by two rock types (W.H. McIlwaine, ODM Regional Geological Map, South Lorrain Township, Map 2194, 1in = ½ mile scale). West of the baseline, the rocks are flat lying to shallow west-dipping Huronian Coleman Formation quartzose siltstones, arkoses and conglomerates. East of the baseline, these rocks are in intrusive contact with younger NE-trending (grid NNW) Nippissing diabase rocks, which extend from Oxbow Lake and form a prominent, grid NNW trending, topographic high feature. The Huronian rocks likely form a thin sheet and overlie older Archean mafic to intermediate volcanics which outcrop northeast of the survey area. Structurally, the NW-trending (grid EW) Bulldog Fault zone crosscuts the property. Known mineral occurrences include the Ramardo carbonate-altered sulphide Ag-Co showing northeast of the property (ref. MNR ERLIS File MDI 31MO4NE000 53) and the Silver Center mining camp to the northwest. The full extent of exploration and DDH-drilling are not known to the authors. Recent geophysical exploration on the property consists of:

i) ground magnetics and VLF-electromagnetics by Meegwich (D. Laronde, 1994), as well as spectral time-domain IP\Resistivity by JVX Ltd. (B. Webster, 1994) to the grid east (ref. MNR ERLIS File 31M03NW005),
ii) ground magnetics by Meegwich (D. Laronde,1997) to the grid west (ref. MNR ERLIS File 31M03NW041),
iii) ground magnetics and VLF-electromagnetics by Meegwich (D. Laronde, 1997) northwest of the survey area (ref. MNR ERLIS File 31M03NW0035), and
iv) airborne magnetics and VLF-electromagnetics by H Ferdeber (1993) southeast of the property (ref. MNR ERLIS File 31M03NW9740)

These results were neither fully available nor used in the interpretation of the present survey data.

### 4.1.2 South Oxbow Grid

The geology at **South Oxbow** consists of a mixture of mafic to felsic, ENE to ESE striking, steeply dipping Archean metavolcanics which represent the older basement rocks and form an NE-trending band covering most of the southern survey area (W.H. McIlwaine, ODM Regional Geological Map, South Lorrain Township, Map 2194, 1in = ½ mile scale). To the west and north of the baseline, younger Nippissing diabase rocks lie in intrusive contact and form the topographic highs. These extend northeastward and eventually linking with the diabase observed at North Oxbow. Younger flat-lying Coleman Formation metasediments form the topographic highs that surround these units to the west, south and east. Structurally, the sinuous NS-trending Beaver Lake / Four Claim Fault zone extends along a pronounced drainage feature in the west grid, while a similar, but unnamed/unmapped lineament lies along the NS drainage extending from Oxbow Lake in the central grid.

Known mineral occurrences on the property consist of: a) the Clifton-Oxbow Bi-Co mine workings, in the central grid area, b) further east, the Oslund-Hermiston/Silver Tower Ag-Co-Cu-Pb pits and mine workings, and c) the Bulldog mine workings east of the property (IBID + ERLIS database). The full extent of mineral exploration and DDH-drilling are not known to the authors. Recent geophysical exploration on the property consists of ground magnetics and VLF-electromagnetics by Meegwich (D. Laronde) covering the southern survey area and extending eastward (ref. MNR ERLIS File 31M03NW0040). While the VLF results were available, these could not be compared reliably due to differences in the line-locations/cut-grid (as compared to the current claim sketch) and as a result were not used in the interpretation of the present survey data

The present geophysical interpretation concentrates mainly on the IP\Resistivity results, particularly the chargeability, which represents an near-direct indicator for sulphides ranging from disseminate to massive. In contrast, the resistivity and, possibly magnetics, provide the better information on lithology, alteration and structure - all elements presented in the interpretation plan have been interpreted using Realsection and plan contour results. The geophysical compilation/interpretation plans highlight both the strength and the resistivity-association of the IP axes, which relates to their likely source/alteration type, i.e.

a) High resistivity IP axes, related to disseminated sulphides possibly associated with the key **quartz-alteration systems** or, alternatively, within **more felsic/less porous** geology – including bedrock topographic effects;
**b)** Low resistivity IP axes, possibly related to **clay altered systems**, or alternatively, within more **porous geology** or **fault-fracture** zones- as well as possibly higher concentrations of sulphides, **stringer** to **massive sulphides** or **iron formation**; and
c) Nil ρ and contact-type IP axes, likely corresponding to either more **weakly-altered** mineralization, or in cases of **more deeply buried** silicified and/or **clay/sulphide**-rich mineralization (due to the fact that resistivity highs/lows are poorly resolved below deep conductive overburden), or possibly mineralization occuring along **geologic/geoelectric contacts**;

It is clear, therefore, that while the high resistivity/high chargeability association is the base model as the key geophysical target signature, based on comparative evidence in the field, all anomaly types (high ρ / low ρ / nil ρ), could potentially represent equally valid exploration targets. It is also worthwhile noting that, because of the inherent sensitivity of geoelectric methods to conductive phenomena, the low-porosity/high resistivity signatures associated with any possible attendant quartz-silicic alteration would most likely be overprinted by the conductivity associated with coincident fault-fracture structures, i.e. silicified zones could appear as nil or low resistivity axes when cross-cut by fractures or buried in deep overburden troughs or in the presence of massive to stringer sulphides.

The chargeability axes identified on the anomaly axis map and tabled in Appendix B have been: a) categorized according to their strength (weak, moderate, strong, very strong) using symbols, b) classified according to their resistivity association (high ρ, nil ρ/contact-type, low ρ) using colored axes, and c) where Realsection coverage is available, assigned an optimal DDH-target-depth, next to the axis symbol. The line-to-line correlation of anomalies into axes is based primarily on the resistivity association (i.e. resistive and conductive anomalies never aligned along the same axis due to likely dissimilar mineralogy/alteration/origin) – thereby providing some measure of geologic/geophysical control to the interpretation.

In addition to the Interpretation Plan Map has been created which combines the essential elements of the geophysical interpretation, presenting these in a better visual format. In order to better highlight the close relationship between the IP (sulphides) and Resistivity (lithology, structure, alteration) and Magnetics (Nippissing diabase), the following areas of interest have been identified on the interpretation plan, using variable cross-hatching styles: a) contrasting zones of high resistivity, highlighting potential geological contacts, alteration zones and fault-fracture structure, b) zones of high chargeability, highlighting potential increased sulphide mineralization and c) zones of high magnetics highlighting potential mineralized fault-fracture structures and presence of late-mafic dykes and/or Nippissing diabase. Fault structures have been interpreted based on corroborative evidence from both the apparent resistivity and ground magnetic results.

## 4.2 GRADIENT-REALSECTION SURVEY RESULTS

The IP\Resistivity and TFM results over the **Oxbow Grids** successfully discriminate signatures potentially associated with lithology, fault-fracture structures, chemical alteration, and, most importantly, chargeability responses related to sulphides and, potentially, precious and base metals mineralization. The reconnaissance gradient information presented plan maps were specifically designed to provide information on the bulk sulphide and porosity from surface to 300m depths. However, despite their high lateral resolution and deep penetration, the gradient IP\Resistivity results and the ground magnetics, by their nature, will show the influences of both subvertical and subhorizontal features not only occurring at mid-level depths, but also those at the near-surface, as well as, to a lesser extent, causative bodies occurring at greater depths. In contrast, detailed follow-up using Realsections provides an excellent means of depth-control for causative sources – particularly for DDH-targeting purposes – despite the fact that detailed coverage is generally limited to specific areas of interest, due to exploration economics.

### 4.2.1 South Oxbow Grid

In plan, the **South Oxbow** IP\Resistivity results are characterized by moderate to strong chargeabilities and moderate to high resistivities, having a broad range ($M_A$ = 4-34 millivolts per Volt / $\rho_A$ = 1k-64k ohm-m). These high bulk averages (IP avg. = 13mV, Res. avg. = 10k $\Omega$-m) are consistent with a combination of thin overburden cover, the relative absence of barren Coleman Formation rocks, and the dominant presence of subcropping, relatively sulphide rich, non-porous Archean volcanic and Nippissing diabase rocks which make up the bulk of the survey area. The peak chargeability values likely reflect to the presence of strong concentrations of sulphides, ranging from disseminate to near-stringer mineralization; except in areas of peak magnetism whose associated high chargeability may indicate magnetite or pyrrhotite mineralization – for example at least two of the strongest chargeability linears coincide with magnetic highs to the grid NW and center-east. On the other hand, the absence of strong conductivity associated with chargeability highs indicates the unlikelyhood of thick, massive sulphide bodies on the property – although several weakly conductive chargeability axes could indicate either narrow stringers or fault-fracturing.

Although, for the most part, both the chargeability and resistivity lineaments display a dominant ENE to EW trend, the IP\Resistivity plans define a possible NE lithologic banding which parallels the magnetics and agrees with the mapped geology. The lithologic-like NW to SE alternating sequence consists of a) high resistivity/high chargeability/mod magnetic rocks to the NW, below the mapped Nippissing diabase, b) low resistivity/low chargeability/low magnetic rocks, along the mapped Nippissing/Archean contact, possibly indicating faulting or contact-metamorphism/alteration, c) mod resistive/mod-highly polarizeable/highly magnetic rocks, consistent with the mapped mafic volcanics, and d) high resistivity/mod chargeability/moderately magnetic rocks, to the SE, coinciding with more felsic volcanic units mapped locally. Lower chargeabilities and resistivities are also indicated near the southern perimeter of the IP\Resistivity survey area, likely reflecting the presence of the Coleman Formation sediments overlying the Archean volcanics locally. The narrower ENE IP and resistivity linears clearly crosscut all the NE-trending units suggesting that this discordance reflects a later, structurally controlled overprinting of the subvertical mineralization onto the lithologic fabric, agreeing with the metallogenic model.

As indicated on the interpretation plan, at least thirty (**30**) highly anomalous chargeability anomalies have been identified which can be aligned along as many as twelve (**12**) strong to very strong chargeability axes and therefore reflect a high mineralized potential. Although IP axes are distributed throughout the grid area, they are mainly concentrated in the NW, within the Nippissing diabase rocks, and in the mafic volcanics within the central grid area, where the showings and mine workings occur. The IP axes mainly feature high and nil/contact-type resistivity associations part of strong to very strong chargeability axis (about 75 %) is associated with high, nil/contact type trends, with low resistivities being the least frequent – which suggests that the sulphide mineralization is predominantly associated with quartz-carbonate alteration, particularly in the central and northern survey area. The more conductive IP linears are mainly concentrated in the south-central survey area and may reflect either stronger fault-fracturing, weaker silicification or stronger clay-alteration and/or possibly more massive-like mineralization locally, within the mafic volcanic units.

The Realsections, which are limited to three profiles in the center of the survey area, indicate that the IP axes are subvertical to steeply dipping, narrow (<30m) and sub-cropping to partly buried (insufficient RSIP coverage to accurately map the OB/bedrock interface) and predominantly associated with nil/high resistivity structures. The Realsections also suggest that the sulphide mineralization is fairly continuous vertically, pinching slightly at mid-depth levels and mainly strengthening at depth – consistent with a deeper hydrothermal source. The results also indicate that, for many, the best portion of these zones could be tested at shallow depths while, for others, at least two target depths are warranted. Although nearly all the strongest chargeability anomalies represent good targets for Cobalt-type mineralization, possibly even the more moderate IP axes having nil to high resistivities in the Archean rocks could also constitute good qtz-carbonate altered, lode-gold type targets. The list presented in Table I is designed to help direct DDH-testing and ground follow-up into the best portion of each major axis.

| LINE | STATION | STRENGTH | RESISTIVITY ASSOCIATION | MAG ASSOC. | TARGET DEPTH | PRIORITY | COMMENT |
|---|---|---|---|---|---|---|---|
| 100E | 130N | Strong | High | Low | – | 3 | Possible qtz-altered sulphide mineralization – requires RSIP prior to DDH targeting |
| 100E | 5N | Very strong | Low | High | – | 3 | Possible stringer to massive sulphides and/or magnetite – requires RSIP for DDH targeting |
| 100E | 90S | Strong | High | Nil | – | 3 | Possible qtz-altered sulphide mineralization – requires RSIP prior to DDH targeting |
| 100E | 115S | Strong | High | High | – | 3 | Possible qtz-altered sulphide &/or magnetite mineralization – requires RSIP. |
| 100E | 285S | Strong | High | Nil | – | 3 | Possible qtz-altered sulphide mineralization - requires RSIP prior to DDH targeting |
| 0 | 165S | Very Strong | High | Weak | – | 3 | Possible qtz-altered sulphide mineralization – requires RSIP prior to DDH targeting |
| 0 | 245S | Strong | High | High | – | 3 | Possible weak altered sulphide and /or magnetite – requires RSIP |
| 100W | 165S | Very strong | Low | High | – | 3 | Possible massive sulphides and/or magnetite – requires RSIP prior to DDH targeting |
| 100W | 255S | Strong | Nil | High | – | 3 | Possible massive sulphides and/or magnetite – requires RSIP prior to DDH targeting |
| 200W | 15N | Very strong | Low | Weak | <170m & >250m | 1.5 | Possible narrow stringer to massive sulphides – possibly near surface and deep DDH target |
| 200W | 175S | Very strong | Nil | Low | <170m & >250m | 1 | Possible thick stringer to massive sulphides – probable near-surface and deep DDH target |
| 200W | 435S | Very strong | High | Low | >200m? | 2 | Possible narrow qtz-altered sulphide mineralization – requires additional RSIP |
| 300W | 260N | Strong | High | Low | <170m & >250m | 2 | Possible narrow qtz-altered sulphide mineralization – target with 225N |
| 300W | 225N | Strong | High | Nil | <170m & >250m | 2 | Possible narrow qtz-altered sulphide mineralization – target with 260N |
| 300W | 210S | Strong | Nil | Low | <170m & >250m | 2 | Possible qtz-altered sulphide mineralization – stronger at depth |
| 300W | 255S | Strong | High | Nil | <170m & >250m | 2 | Possible qtz-altered sulphide mineralization – stronger at depth |
| 300W | 340S | Strong | High | Nil | <170m & >250m | 3 | Possible qtz-altered sulphide mineralization – target deep zone |
| 300W | 420S | Moderate | High | Nil | >250m | 3 | Possible qtz-altered sulphide mineralization – target deep zone |
| 400W | 215N | Very strong | High | Nil | <170m & >250m | 1 | Possible thick qtz-altered sulphides – probable near surface and deep DDH targets |
| 400W | 105S | Very strong | Nil | Low | <170m & >250m | 1 | Possible thick stringer to massive sulphides – probable near-surface and deep DDH targets |
| 400W | 245S | Strong | Low | Low | <170m & >250m | 2 | Possible narrow stringer to massive sulphides – test with 275S and 295S |

***Table I: Recommended Targets for DDH Test and Follow-up at South Oxbow Property***

| LINE | STATION | STRENGTH | RESISTIVITY ASSOCIATION | MAG ASSOC. | TARGET DEPTH | PRIORITY | COMMENT |
|---|---|---|---|---|---|---|---|
| 400W | 275S | Strong | High | Low | <170m & >250m | 2 | Possible narrow qtz-altered sulphide mineralization – test with 245S and 295S |
| 400W | 295S | Strong | Nil | Low | <170m & >250m | 2 | Possible qtz-altered sulphide mineralization – test with 275S and 295S |
| 400W | 375S | Strong | Nil | Nil | >200m ? | 2 | Possible qtz-altered sulphide mineralization – test deep zone |
| 500W | 195N | Very strong | Nil | High | – | 3 | Possible weak altered sulphides &/or magnetite – requires RSIP follow-up |
| 500W | 145S | Very Strong | High | Low | – | 3 | Possible qtz-altered sulphide mineralization– requires RSIP follow-up |
| 500W | 175S | Very strong | Nil | Low | – | 3 | Possible qtz-altered sulphide mineralization – requires RSIP follow-up |
| 500W | 235S | Strong | Nil | Low | – | 3 | Possible qtz-altered sulphide mineralization – requires RSIP follow-up |
| 500W | 315S | Strong | Nil | Low | – | 3 | Possible qtz-altered sulphide mineralization – requires RSIP follow-up |
| 600W | 165N | Strong | High | Nil | – | 3 | Possible qtz-altered sulphide mineralization – requires RSIP follow-up |
| 600W | 135N | Strong | High | High | – | 3 | Possible weak altered sulphides &/or magnetite – requires RSIP follow-up |
| 600W | 145S | Very Strong | Low | Low | – | 3 | Possible stringer to massive sulphides – requires RSIP follow-up |
| 600W | 285S | Very Strong | Low | Low | – | 3 | Possible stringer to massive sulphides – requires RSIP follow-up |

***Table II: Recommended Targets for DDH Testing and Follow-up at South Oxbow Property***

### 4.2.2 North Oxbow Grid

Unlike the South Oxbow (SO) grid, the IP\Resistivity and ground magnetic plan maps at **North Oxbow** (NO) display similar patterns, characterized by well-defined grid NNW trending chargeability, resistivity and magnetic banding which coincide with the Nippissing-Coleman Group contact and paralleling topographic features. The measured chargeabilities and resistivities display a slightly narrower range than at SO ($M_A$ = 9-27 mV/V / $\rho_A$ = 1k-47k Ω-m), but on average, they also lie in the moderate to strong range (IP avg. = 15mV/V, Res. avg. = 12k Ω-m) – which is surprisingly high, considering the outcropping rocks types, and indicates presence of both anomalous concentrations of sulphide mineralization and likely also quartz-silicification within the rocks. Considering the depth penetration range of the gradient results, it also likely reflects the properties of the underlying Archean basement rocks to the southwest. Unfortunately, in contrast with SO, the lack of Realsection coverage precludes the definition of source-depths to the geophysical anomalies at North Oxbow.

The gradient plans are characterized by the presence of two major polarizeable/highly resistive zones through the center and to the west which are separated by a well defined linear region of resistivity and chargeability low – possibly reflecting a clay-altered/oxydized zone, a fault-fracture structure and/or an overburden graben. The westernmost chargeable zone's is more diffuse and weaker and possibly corresponds to mineralization (Au-bearing?) within deeper Archean basement rocks below the Coleman. The central chargeability linear is of the greatest interest as it generally lies on the mapped Coleman-Nippissing contact, and potentially represents quartz-silicified, strongly disseminate to stringer-like Cobalt-type sulphide mineralization – consistent with the geologic model. To the south, the IP linear lies within a magnetic low – either reflecting negative remanence within the Nippissing, or magnetite-depletion associated with the alteration; whereas to the north, the chargeability highs coincide with a magnetic high – either indicating the presence of magnetite or possibly more pyrrhotitic sulphides. Finally, visible correlated offsets and breaks in the IP, Resistivity and Magnetics indicate the likely presence of late strike-slip fault-fracture zones – including the grid EW Bulldog Fault between 200N-250N.

As indicated on the interpretation plan map, more than **40** separate moderate to strong charge ability axes have been identified. In contrast with South Oxbow, not only do the strong to moderate chargeability axes parallel the geologic trends, but these are also almost all equally divided between high, nil/contact-type and low resistivity trends, with a slight predominance of conductive trends, particularly for the strongest linears to the north. This likely reflects the dominance of Cobalt-type mineralization locally – with the high to nil resistivity anomaly types, potentially associated with silicifation/alteration, generally associated with continuous, medium to long strike axes. In contrast, the more conductive IP axes, potentially associated with more massive mineralization, are generally expressed with shorter strike axes. As with South Oxbow, all the strongest chargeability anomalies represent good targets for Cobalt-type mineralization, particularly through the center and north-east - while the weaker, more resistive IP axes to the south-west are possibiy better Archean lode-gold targets in the deeper basement.

With the absence of Realsection coverage, a source-depth determination for the chargeability anomalies defined at North Oxbow, however, while we recommend additional RSIP coverage prior to DDH-targeting, the list presented in Table I is designed to help direct follow-up into the best portion of each major axis.

| LINE | STATION | STRENGTH | RESISTIVITY ASSOCIATION | MAG ASSOC. | PRIORITY | COMMENT |
|---|---|---|---|---|---|---|
| 0 | 135E | Strong | Low | Weak | 2.5 | Probable clay-altered diss. or stringer to massive sulphides – requires RSIP prior to DDH targeting |
| 100N | 175W | Strong | Nil | Nil | 2.5 | Probable weak qtz-altered diss. sulphides – requires RSIP prior to DDH targeting (Au target) |
| 200N | 165E | Moderate | Nil | High | 2.5 | Possible weakly qtz-altered diss. sulphides ±, magnetite, south of Bulldog Fault (Au target ?) |
| 200N | 140E | Moderate | Nil | Low | 2.5 | Possible weakly qtz altered diss. sulphides, south of Bulldog Fault – requires RSIP prior to DDH |
| 250N | 105E | Moderate | High | Low | 2.5 | Possible qtz-altered diss. sulphides, north of Bulldog Fault (Au target ?) – requires RSIP |
| 250N | 85E | Strong | High | Weak | 2 | Probable qtz-altered diss. to stringer sulphides, north of Bulldog fault (Au target ?) requires RSIP |
| 350N | 105W | Moderate | High | Nil | 3 | Possible qtz-altered duss. Sulphides, buried in Archean rocks? (Au target) – requires RSIP |
| 450N | 15E | Strong | High | Weak | 2.5 | Probable qtz-altered diss. to stringer sulphides – requires RSIP prior to DDH targeting |
| 450N | 5W | Strong | Nil | Weak | 2 | Probable weakly qtz-altered diss. to stringer sulphides – requires RSIP prior to DDH targeting |
| 450N | 145W | Moderate | Nil | Low | 3 | Possible weakly qtz-altered diss. sulphides (Au target) – requires RSIP prior to DDH targeting |
| 500N | 140E | Strong | High | Nil | 2.5 | Probable qtz-altered diss. to stringer sulphides – requires RSIP prior to DDH targeting |
| 600N | 65E | Strong | Nil | Low | 2 | Probable weakly qtz-altered diss. to stringer sulphides – requires RSIP prior to DDH targeting |
| 600N | 45E | Strong | Nil | Nil | 2.5 | Probable weakly qtz-altered diss. to stringer sulphides – requires RSP prior to DDH targeting |
| 600N | 25E | Strong | Nil | Weak | 2.5 | Probable weakly qtz-altered diss. to stringer sulphides – requires RSP prior to DDH targeting |
| 600N | 15W | Strong | High | Nil | 2.5 | Probable qtz-altered diss. to stringer sulphides – requires RSP prior to DDH targeting |
| 650N | 55E | Strong | High | High | 2 | Probable qtz-altered diss. to stringer sulphides ± magnetite or Po– requires RSIP prior to targeting |
| 650N | 15W | Strong | High | Nil | 2 | Probable qtz-altered diss. to stringer sulphides – requires RSP prior to DDH targeting |
| 750N | 45E | Strong | High | Low | 2.5 | Probable qtz-altered diss. to stringer sulphides – requires RSP prior to DDH targeting |
| 750N | 25E | Strong | Nil | High | 2.5 | Probable weakly qtz-altered diss. to stringer sulphides ± magnetite or Po– requires RSIP |
| 750N | 35W | Strong | Low | Nil | 2.5 | Probable clay altered or stringer to massive sulphides – requires RSIP prior to DDH targeting |
| 750N | 65W | Strong | Low | Nil | 2.5 | Probable clay altered or stringer to massive sulphides – requires RSIP prior to DDH targeting |

***Table III: Recommended Targets for DDH Test and Follow-up at North Oxbow Property***

## 5 CONCLUSION AND RECOMMENDATIONS

The Gradient Realsection IP/Resistivity and Magnetics results at the **North** and **South Oxbow Projects** identify potential chargeability, resistivity and susceptibility signatures relating to the subsurface geology, including possible lithologic discrimination, concordant and discordant fault-fracture structures, geochemical alteration and, more importantly, to potential disseminate to semi-massive sulphides, potentially associated with both Archean lode-gold as well as Cobalt-type polymetallic-mineralized, structurally controlled and hydrothermally altered targets. In response to the geologic objectives, as many as **(9)** high priority targets have been identified which host significant chargeability, width, strike-length and geoelectric characteristics to possibly warrant drill testing. At least (**45**) other 2$^{ND}$ priority targets are also identified which either feature similar but weaker signatures and are not sufficiently characterized by Realsection coverage – for which accurate DDH depths are not available and resulting in a lower priority.

These results highlight the high resolution and deep penetration capabilities of the gradient Realsection technique, in combination with ground magnetics to provide better quantitative geologic/geophysical characterization of the target geology. We recommend that the current priority targets be carefully evaluated during the DDH-testing stage - particularly concerning the target model and the apparently favorable low magnetic association. When DDH-targeting, particular attention should also be given to optimal target depth as well as the probable type of mineralization/alteration indicated by the resistivity association. Additional Realsection surveying is also recommended over targets of interest having received only reconnaissance gradient coverage.

RESPECTFULLY SUBMITTED

Jean M. Legault, P.Eng.
Senior Geophysicist
Reg. No. 90531542

Genc Kallfa
Senior Geophysicist

Porcupine, ON
April 1998

## APPENDIX A

**STATEMENT OF QUALIFICATIONS:**

I, Jean M. Legault, declare that:

1. I am a consulting geophysicist with residence in South Porcupine, Ontario and am presently employed in this capacity with Quantec IP Inc. of Waterdown, Ontario.

2. I obtained a Bachelor's Degree, with Honors, in Applied Science (B.A.Sc.), Geological Engineering (Geophysics Option), from Queen's University at Kingston, Ontario, in Spring 1982.

3. I am a registered professional engineer, since 1985, with license to practice in the Province of Ontario (Reg. # 90531542).

4. I have practiced my profession continuously since May 1982, in North America, South-America and North Africa.

5. I am a member of the Society of Engineers of Quebec, the Quebec Prospectors Association, the Prospectors and Developers Association of Canada, and the Society of Exploration Geophysicists.

6. I have no interest, nor do I expect to receive any interest in the properties or securities of **Isometric Mineral Corporation.**

7. I am the co-author of this report and the statements contained represent my professional opinion based on my consideration of the information available to me at the time of writing this report.

Porcupine, Ontario
April, 1998

Jean M. Legault, P.Eng. (ON)
Chief Geophysicist
Dir. Technical Services
Quantec Group

# 6 APPENDIX A

**STATEMENT OF QUALIFICATIONS:**

I, Genc Kallfa, declare that:

1. I am a consulting geophysicist with residence in South Porcupine, Ontario and am presently employed in this capacity with Quantec IP Inc. of Waterdown, Ontario.
2. I obtained a Master's of Science Degree, (M.Sc.), Geophysics, from the Polytechnic University, in Tirana, Albania, in Spring 1987.
3. I have practiced my profession continuously since May 1987, in North America and Albania.
4. I have no interest, nor do I expect to receive any interest in the properties or securities of **Isometric Mineral Corporation**.
5. I assisted in the interpretation of the data and the information contained represent my professional opinion based on my consideration of the information available to me at the time of writing this report.

Porcupine, Ontario
April, 1998

Genc Kallfa
Senior Geophysicist
QIP /Technical Services

# APPENDIX B

## 6.1 ANOMALY TABLE

### 6.1.1 North Oxbow Property

| GRID | LINE | STATION | RES. ASSOCIATION | QUALITY |
|---|---|---|---|---|
| North Oxbow | 750N | 25E | Nil | Mod-Strong |
| North Oxbow | 750N | 45E | High | Mod-Strong |
| North Oxbow | 750N | 75E | Nil | Moderate |
| North Oxbow | 750N | 95E | High | Moderate |
| North Oxbow | 750N | 130E | Low | Moderate |
| North Oxbow | 750N | 175E | Low | Moderate |
| North Oxbow | 750N | 35W | Low | Mod-Strong |
| North Oxbow | 750N | 65W | Low | Mod-Strong |
| North Oxbow | 750N | 95W | Nil | Moderate |
| North Oxbow | 750N | 145W | Nil | Weak |
| North Oxbow | 750N | 175W | High | Moderate |
| North Oxbow | 700N | 5E | Nil | Moderate |
| North Oxbow | 700N | 25E | Low | Moderate |
| North Oxbow | 700N | 45E | Nil | Mod-Strong |
| North Oxbow | 700N | 65E | Low | Moderate |
| North Oxbow | 700N | 105E | Low | Moderate |
| North Oxbow | 700N | 135E | Low | Moderate |
| North Oxbow | 700N | 170E | Nil | Moderate |
| North Oxbow | 700N | 15W | Low | Mod-Strong |
| North Oxbow | 700N | 45W | High | Moderate |
| North Oxbow | 700N | 85W | Low | Moderate |
| North Oxbow | 700N | 115W | Low | Weak |
| North Oxbow | 700N | 135W | Nil | Weak |
| North Oxbow | 700N | 155W | High | Weak |
| North Oxbow | 700N | 175W | Nil | Weak |
| North Oxbow | 650N | 15E | Low | Moderate |
| North Oxbow | 650N | 55E | High | Mod-Strong |
| North Oxbow | 650N | 115E | Nil | Moderate |
| North Oxbow | 650N | 155E | Low | Moderate |
| North Oxbow | 650N | 180E | Low | Moderate |
| North Oxbow | 650N | 15W | High | Mod-Strong |
| North Oxbow | 650N | 35W | Low | Moderate |
| North Oxbow | 650N | 55W | High | Weak |
| North Oxbow | 650N | 90W | Nil | Weak |
| North Oxbow | 650N | 115W | Nil | Weak |
| North Oxbow | 650N | 135W | High | Weak |
| North Oxbow | 650N | 155W | Low | Weak |
| North Oxbow | 650N | 185W | Low | Moderate |
| North Oxbow | 600N | 25E | Nil | Mod-Strong |
| North Oxbow | 600N | 45E | Nil | Mod-Strong |
| North Oxbow | 600N | 65E | Nil | Mod-Strong |
| North Oxbow | 600N | 95E | High | Moderate |
| North Oxbow | 600N | 135E | Low | Moderate |
| North Oxbow | 600N | 175E | High | Moderate |
| North Oxbow | 600N | 15W | High | Mod-Strong |
| North Oxbow | 600N | 35W | Nil | Moderate |
| North Oxbow | 600N | 85W | Nil | Weak |
| North Oxbow | 600N | 115W | High | Weak |
| North Oxbow | 600N | 135W | Low | Weak |
| North Oxbow | 600N | 180W | Nil | Moderate |
| North Oxbow | 550N | 15E | Nil | Mod-Strong |
| North Oxbow | 550N | 55E | Low | Mod-Strong |
| North Oxbow | 550N | 75E | Low | Mod-Strong |
| North Oxbow | 550N | 105E | High | Moderate |

| GRID | LINE | STATION | RES. ASSOCIATION | QUALITY |
|---|---|---|---|---|
| North Oxbow | 550N | 135E | Low | Moderate |
| North Oxbow | 550N | 175E | Low | Weak |
| North Oxbow | 550N | 15W | High | Moderate |
| North Oxbow | 550N | 35W | Low | Weak |
| North Oxbow | 550N | 65W | Nil | Weak |
| North Oxbow | 550N | 85W | Low | Weak |
| North Oxbow | 550N | 105W | Low | Weak |
| North Oxbow | 550N | 135W | Nil | Weak |
| North Oxbow | 550N | 155W | Nil | Weak |
| North Oxbow | 550N | 195W | High | Moderate |
| North Oxbow | 500N | 5E | Nil | Mod-Strong |
| North Oxbow | 500N | 35E | Nil | Moderate |
| North Oxbow | 500N | 65E | Nil | Moderate |
| North Oxbow | 500N | 105E | Low | Moderate |
| North Oxbow | 500N | 135E | High | Mod-Strong |
| North Oxbow | 500N | 165E | High | Moderate |
| North Oxbow | 500N | 15W | Low | Mod-Strong |
| North Oxbow | 500N | 45W | Nil | Weak |
| North Oxbow | 500N | 75W | Nil | Weak |
| North Oxbow | 500N | 95W | Low | Weak |
| North Oxbow | 500N | 155W | High | Moderate |
| North Oxbow | 500N | 175W | High | Moderate |
| North Oxbow | 450N | 15E | High | Mod-Strong |
| North Oxbow | 450N | 95E | Nil | Weak |
| North Oxbow | 450N | 115E | High | Moderate |
| North Oxbow | 450N | 135E | Nil | Moderate |
| North Oxbow | 450N | 155E | Nil | Moderate |
| North Oxbow | 450N | 185E | High | Moderate |
| North Oxbow | 450N | 5W | Nil | Mod-Strong |
| North Oxbow | 450N | 45W | Low | Weak |
| North Oxbow | 450N | 65W | Low | Weak |
| North Oxbow | 450N | 85W | Nil | Weak |
| North Oxbow | 450N | 145W | Nil | Moderate |
| North Oxbow | 450N | 185W | Nil | Moderate |
| North Oxbow | 400N | 25E | High | Moderate |
| North Oxbow | 400N | 45E | Low | Moderate |
| North Oxbow | 400N | 75E | Nil | Moderate |
| North Oxbow | 400N | 130E | Nil | Weak |
| North Oxbow | 400N | 165E | Nil | Moderate |
| North Oxbow | 400N | 185E | Nil | Moderate |
| North Oxbow | 400N | 20W | Nil | Weak |
| North Oxbow | 400N | 55W | Low | Weak |
| North Oxbow | 400N | 75W | Low | Weak |
| North Oxbow | 400N | 115E | Nil | Moderate |
| North Oxbow | 400N | 145E | High | Moderate |
| North Oxbow | 400N | 175W | Nil | Moderate |
| North Oxbow | 350N | 15E | Nil | Weak |
| North Oxbow | 350N | 35E | Nil | Moderate |
| North Oxbow | 350N | 65E | Nil | Moderate |
| North Oxbow | 350N | 145E | High | Weak |
| North Oxbow | 350N | 185E | High | Moderate |
| North Oxbow | 350N | 15W | Low | Weak |
| North Oxbow | 350N | 50W | Nil | Weak |
| North Oxbow | 350N | 105W | High | Moderate |
| North Oxbow | 350N | 175W | High | Moderate |
| North Oxbow | 300N | 75E | High | Mod-Strong |
| North Oxbow | 300N | 135E | High | Moderate |
| North Oxbow | 300N | 160E | Nil | Weak |
| North Oxbow | 300N | 5W | Low | Weak |
| North Oxbow | 300N | 50W | Nil | Weak |
| North Oxbow | 300N | 95W | High | Moderate |
| North Oxbow | 300N | 135W | Nil | Moderate |
| North Oxbow | 300N | 155W | Nil | Moderate |

| GRID | LINE | STATION | RES. ASSOCIATION | QUALITY |
|---|---|---|---|---|
| North Oxbow | 250N | 45E | Nil | Weak |
| North Oxbow | 250N | 85E | High | Mod-Strong |
| North Oxbow | 250N | 105E | High | Moderate |
| North Oxbow | 250N | 145E | High | Moderate |
| North Oxbow | 250N | 185E | High | Weak |
| North Oxbow | 250N | 5W | Low | Weak |
| North Oxbow | 250N | 35W | Nil | Weak |
| North Oxbow | 250N | 80W | Nil | Moderate |
| North Oxbow | 250N | 145W | Low | Moderate |
| North Oxbow | 250N | 175W | Low | Moderate |
| North Oxbow | 200N | 15E | Low | Weak |
| North Oxbow | 200N | 130E | Nil | Moderate |
| North Oxbow | 200N | 165E | Nil | Moderate |
| North Oxbow | 200N | 15W | Nil | Weak |
| North Oxbow | 200N | 85W | Nil | Moderate |
| North Oxbow | 200N | 125W | High | Moderate |
| North Oxbow | 200N | 165W | Low | Moderate |
| North Oxbow | 150N | 20E | Low | Weak |
| North Oxbow | 150N | 120E | Nil | Moderate |
| North Oxbow | 150N | 155E | Nil | Moderate |
| North Oxbow | 150N | 5W | Nil | Weak |
| North Oxbow | 150N | 35W | Nil | Weak |
| North Oxbow | 150N | 55W | Nil | Weak |
| North Oxbow | 150N | 85W | Nil | Moderate |
| North Oxbow | 150N | 115W | Low | Weak |
| North Oxbow | 150N | 135W | Nil | Moderate |
| North Oxbow | 150N | 175W | Low | Moderate |
| North Oxbow | 100N | 5E | High | Weak |
| North Oxbow | 100N | 25E | Nil | Weak |
| North Oxbow | 100N | 65E | Nil | Weak |
| North Oxbow | 100N | 115E | Nil | Moderate |
| North Oxbow | 100N | 165E | High | Moderate |
| North Oxbow | 100N | 195E | High | Weak |
| North Oxbow | 100N | 35W | Nil | Weak |
| North Oxbow | 100N | 55W | High | Moderate |
| North Oxbow | 100N | 105W | High | Moderate |
| North Oxbow | 100N | 125W | High | Moderate |
| North Oxbow | 100N | 175W | Nil | Mod-Strong |
| North Oxbow | 50N | 20E | Nil | Weak |
| North Oxbow | 50N | 65E | Low | Weak |
| North Oxbow | 50N | 105E | High | Weak |
| North Oxbow | 50N | 135E | Nil | Moderate |
| North Oxbow | 50N | 170E | Nil | Moderate |
| North Oxbow | 50N | 25W | Low | Weak |
| North Oxbow | 50N | 75W | High | Weak |
| North Oxbow | 50N | 95W | Low | Weak |
| North Oxbow | 50N | 135W | Nil | Weak |
| North Oxbow | 50N | 155W | High | Moderate |
| North Oxbow | 50N | 175W | Low | Moderate |
| North Oxbow | 0N | 15E | Nil | Weak |
| North Oxbow | 0N | 50E | Nil | Weak |
| North Oxbow | 0N | 135E | Low | Mod-Strong |
| North Oxbow | 0N | 190E | Nil | Weak |
| North Oxbow | 0N | 5W | High | Weak |
| North Oxbow | 0N | 35W | Low | Weak |
| North Oxbow | 0N | 65W | Low | Weak |
| North Oxbow | 0N | 105W | Nil | Weak |
| North Oxbow | 0N | 155W | High | Weak |
| North Oxbow | 0N | 185W | Low | Moderate |

## 6.1.2 South Oxbow Property

| GRID | LINE | STATION | RES. ASSOCIATION | QUALITY |
|---|---|---|---|---|
| South Oxbow | 600W | 5N | Low | Moderate |
| South Oxbow | 600W | 35N | Low | Weak |
| South Oxbow | 600W | 55N | Nil | Weak |
| South Oxbow | 600W | 75N | High | Weak |
| South Oxbow | 600W | 135N | High | Mod-Strong |
| South Oxbow | 600W | 165N | High | Mod-Strong |
| South Oxbow | 600W | 195N | Nil | Moderate |
| South Oxbow | 600W | 235N | High | Moderate |
| South Oxbow | 600W | 285N | Low | Moderate |
| South Oxbow | 600W | 15S | Nil | Weak |
| South Oxbow | 600W | 35S | Nil | Weak |
| South Oxbow | 600W | 75S | High | Moderate |
| South Oxbow | 600W | 125S | Nil | Moderate |
| South Oxbow | 600W | 165S | Nil | Moderate |
| South Oxbow | 600W | 195S | Low | Very Strong |
| South Oxbow | 600W | 235S | Nil | Moderate |
| South Oxbow | 600W | 285S | Low | Very Strong |
| South Oxbow | 600W | 335S | Nil | Moderate |
| South Oxbow | 600W | 355S | Nil | Moderate |
| South Oxbow | 600W | 400S | Nil | Moderate |
| South Oxbow | 600W | 445S | Low | Moderate |
| South Oxbow | 500W | 15N | Nil | Weak |
| South Oxbow | 500W | 35N | Nil | Weak |
| South Oxbow | 500W | 55N | Nil | Weak |
| South Oxbow | 500W | 95N | High | Weak |
| South Oxbow | 500W | 140N | Nil | Weak |
| South Oxbow | 500W | 165N | High | Moderate |
| South Oxbow | 500W | 195N | Nil | Mod-Strong |
| South Oxbow | 500W | 255N | High | Moderate |
| South Oxbow | 500W | 285N | High | Moderate |
| South Oxbow | 500W | 45S | Low | Moderate |
| South Oxbow | 500W | 75S | High | Weak |
| South Oxbow | 500W | 95S | Nil | Moderate |
| South Oxbow | 500W | 145S | High | Very Strong |
| South Oxbow | 500W | 175S | Nil | Mod-Strong |
| South Oxbow | 500W | 235S | Nil | Mod-Strong |
| South Oxbow | 500W | 295S | High | Moderate |
| South Oxbow | 500W | 315S | Nil | Mod-Strong |
| South Oxbow | 500W | 345S | High | Moderate |
| South Oxbow | 500W | 405S | Nil | Moderate |
| South Oxbow | 500W | 465S | Low | Moderate |
| South Oxbow | 500W | 485S | Nil | Moderate |
| South Oxbow | 400W | 25N | Nil | Weak |
| South Oxbow | 400W | 80N | Nil | Weak |
| South Oxbow | 400W | 115N | High | Weak |
| South Oxbow | 400W | 160N | Nil | Weak |
| South Oxbow | 400W | 210N | High | Mod-Strong |
| South Oxbow | 400W | 230N | Nil | Moderate |
| South Oxbow | 400W | 275N | High | Moderate |
| South Oxbow | 400W | 15S | High | Weak |
| South Oxbow | 400W | 35S | Nil | Moderate |
| South Oxbow | 400W | 110S | Nil | Very Strong |
| South Oxbow | 400W | 175S | Nil | Moderate |
| South Oxbow | 400W | 215S | Low | Moderate |
| South Oxbow | 400W | 245S | Low | Mod-Strong |

| GRID | LINE | STATION | RES. ASSOCIATION | QUALITY |
|---|---|---|---|---|
| South Oxbow | 400W | 275S | High | Mod-Strong |
| South Oxbow | 400W | 295S | Nil | Mod-Strong |
| South Oxbow | 400W | 370S | Nil | Mod-Strong |
| South Oxbow | 400W | 430S | Nil | Moderate |
| South Oxbow | 400W | 455S | Low | Moderate |
| South Oxbow | 400W | 485S | High | Weak |
| South Oxbow | 300W | 10N | Nil | Weak |
| South Oxbow | 300W | 40N | Nil | Weak |
| South Oxbow | 300W | 75N | High | Weak |
| South Oxbow | 300W | 135N | Low | Weak |
| South Oxbow | 300W | 165N | Low | Weak |
| South Oxbow | 300W | 230N | High | Mod-Strong |
| South Oxbow | 300W | 260N | High | Moderate |
| South Oxbow | 300W | 285N | Low | Weak |
| South Oxbow | 300W | 25S | Low | Moderate |
| South Oxbow | 300W | 55S | High | Moderate |
| South Oxbow | 300W | 75S | Nil | Weak |
| South Oxbow | 300W | 115S | High | Weak |
| South Oxbow | 300W | 150S | Nil | Moderate |
| South Oxbow | 300W | 205S | Nil | Moderate |
| South Oxbow | 300W | 255S | High | Moderate |
| South Oxbow | 300W | 305S | High | Moderate |
| South Oxbow | 300W | 335S | High | Moderate |
| South Oxbow | 300W | 375S | High | Weak |
| South Oxbow | 300W | 420S | High | Moderate |
| South Oxbow | 300W | 475S | High | Moderate |
| South Oxbow | 200W | 15N | Low | Mod-Strong |
| South Oxbow | 200W | 65N | Low | Weak |
| South Oxbow | 200W | 95N | High | Weak |
| South Oxbow | 200W | 130N | Nil | Weak |
| South Oxbow | 200W | 160N | Nil | Weak |
| South Oxbow | 200W | 205N | Low | Weak |
| South Oxbow | 200W | 225N | Nil | Weak |
| South Oxbow | 200W | 285N | High | Weak |
| South Oxbow | 200W | 25S | High | Weak |
| South Oxbow | 200W | 45S | Nil | Weak |
| South Oxbow | 200W | 105S | High | Weak |
| South Oxbow | 200W | 170S | Nil | Mod-Strong |
| South Oxbow | 200W | 250S | Nil | Weak |
| South Oxbow | 200W | 295S | Nil | Moderate |
| South Oxbow | 200W | 325S | High | Moderate |
| South Oxbow | 200W | 365S | Nil | Weak |
| South Oxbow | 200W | 435S | High | Mod-Strong |
| South Oxbow | 200W | 485S | Nil | Weak |
| South Oxbow | 100W | 5N | High | Weak |
| South Oxbow | 100W | 35N | High | Weak |
| South Oxbow | 100W | 65N | Nil | Weak |
| South Oxbow | 100W | 105N | Nil | Weak |
| South Oxbow | 100W | 135N | Low | Weak |
| South Oxbow | 100W | 160N | High | Weak |
| South Oxbow | 100W | 185N | Nil | Weak |
| South Oxbow | 100W | 205N | Nil | Weak |
| South Oxbow | 100W | 235N | High | Weak |
| South Oxbow | 100W | 275N | High | Weak |
| South Oxbow | 100W | 15S | Nil | Weak |
| South Oxbow | 100W | 45S | Nil | Weak |
| South Oxbow | 100W | 75S | Low | Weak |
| South Oxbow | 100W | 105S | High | Weak |

| GRID | LINE | STATION | RES. ASSOCIATION | QUALITY |
|---|---|---|---|---|
| South Oxbow | 100W | 125S | Nil | Moderate |
| South Oxbow | 100W | 165S | Low | Mod-Strong |
| South Oxbow | 100W | 185S | High | Moderate |
| South Oxbow | 100W | 210S | Low | Weak |
| South Oxbow | 100W | 255S | Nil | Mod-Strong |
| South Oxbow | 100W | 275S | High | Moderate |
| South Oxbow | 100W | 295S | High | Moderate |
| South Oxbow | 100W | 345S | Nil | Moderate |
| South Oxbow | 100W | 375S | Nil | Moderate |
| South Oxbow | 100W | 395S | High | Moderate |
| South Oxbow | 100W | 415S | Nil | Moderate |
| South Oxbow | 100W | 465S | Nil | Weak |
| South Oxbow | 100W | 485S | Nil | Weak |
| South Oxbow | 0E | 15N | Low | Moderate |
| South Oxbow | 0E | 50N | Nil | Moderate |
| South Oxbow | 0E | 85N | High | Moderate |
| South Oxbow | 0E | 125N | High | Moderate |
| South Oxbow | 0E | 195N | Low | Weak |
| South Oxbow | 0E | 225N | Nil | Moderate |
| South Oxbow | 0E | 275N | Low | Moderate |
| South Oxbow | 0E | 15S | High | Moderate |
| South Oxbow | 0E | 55S | High | Moderate |
| South Oxbow | 0E | 75S | High | Moderate |
| South Oxbow | 0E | 115S | High | Moderate |
| South Oxbow | 0E | 145S | High | Moderate |
| South Oxbow | 0E | 165S | High | Mod-Strong |
| South Oxbow | 0E | 215S | High | Moderate |
| South Oxbow | 0E | 245S | High | Mod-Strong |
| South Oxbow | 0E | 275S | Low | Moderate |
| South Oxbow | 0E | 305S | Nil | Moderate |
| South Oxbow | 0E | 335S | Low | Moderate |
| South Oxbow | 0E | 365S | Nil | Moderate |
| South Oxbow | 0E | 395S | Low | Moderate |
| South Oxbow | 0E | 415S | High | Moderate |
| South Oxbow | 0E | 445S | Low | Moderate |
| South Oxbow | 0E | 475S | High | Moderate |
| South Oxbow | 100E | 5N | Low | Mod-Strong |
| South Oxbow | 100E | 75N | Nil | Moderate |
| South Oxbow | 100E | 105N | High | Moderate |
| South Oxbow | 100E | 130N | High | Moderate |
| South Oxbow | 100E | 175N | High | Moderate |
| South Oxbow | 100E | 205N | Low | Moderate |
| South Oxbow | 100E | 230N | Nil | Moderate |
| South Oxbow | 100E | 265N | Low | Moderate |
| South Oxbow | 100E | 285N | Nil | Moderate |
| South Oxbow | 100E | 45S | High | Moderate |
| South Oxbow | 100E | 90S | High | Moderate |
| South Oxbow | 100E | 115S | High | Mod-Strong |
| South Oxbow | 100E | 155S | Nil | Moderate |
| South Oxbow | 100E | 225S | Nil | Moderate |
| South Oxbow | 100E | 265S | Nil | Weak |
| South Oxbow | 100E | 285S | High | Moderate |
| South Oxbow | 100E | 315S | Low | Moderate |
| South Oxbow | 100E | 345S | High | Moderate |
| South Oxbow | 100E | 385S | High | Moderate |
| South Oxbow | 100E | 405S | High | Moderate |
| South Oxbow | 100E | 445S | Nil | Moderate |

## APPENDIX C

**LIST OF MAPS:**

- **Geophysical Interpretation/ Compilation Plan Maps, with topographic and claim base, at 1:2500 scale**

| MAP TYPE | MAP NUMBER |
|---|---|
| INTERPRETATION | P-205b -INT-1 South Oxbow |
| INTERPRETATION | P-205b -INT-1 North Oxbow |
| TOTAL | 2 |

Ontario | Ministry of Northern Development and Mines

# Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use): W9880.00495

Assessment Files Research Imagi

31M03NW2002 2.18723 SOUTH LORRAIN 900

…of subsections 65(2) and 66(3) of the Mining Act. Under section 8 of t… to review the assessment work and correspond with the mining land hold… Recorder, Ministry of Northern Development and Mines, 6th Flo…

**Instructions:** - For work performed on Crown Lands before recording a claim, use form 0240.
- Please type or print in ink.

**1. Recorded holder(s)** (Attach a list if necessary)

| | |
|---|---|
| Name: John A. Gore | Client Number: 138273 |
| Address: 31 Ruby st. Cobalt ON P0J 1C0 | Telephone Number: 1-705 679 5710 / 1 705 672 2071 |
| | Fax Number: 1 |
| Name | Client Number |
| Address | Telephone Number |
| | Fax Number |

**2. Type of work performed:** Check ( ✓ ) and report on only ONE of the following groups for this declaration.

☑ Geotechnical: prospecting, surveys, assays and work under section 18 (regs) ☐ Physical: drilling, stripping, trenching and associated assays ☐ Rehabilitation

| | | Office Use |
|---|---|---|
| Work Type: - Ground Magnetic Geophysical Surveys - Ground TDIP\Resistivity Surveys (Gradient Realsection) (Quantec IP Inc.) - ~~Geoph~~ Line Cutting (Short Exp. Stroles) | | Commodity |
| | | Total $ Value of Work Claimed: 36,807 |
| Dates Work Performed: From 06 (Day) 11 (Month) 97 (Year) To 23 (Day) 4 (Month) 98 (Year) | | NTS Reference |
| Global Positioning System Data (if available) | Township/Area: South Lorrain | Mining Division: Larder Lake |
| | M or G-Plan Number | Resident Geologist District: Kirkland Lake |

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

RECEIVED AUG 12 1998 9:15 GEOSCIENCE ASSESSMENT OFFICE

LICENSED PROFESSIONAL ENGINEER J. M. LEGAULT PROVINCE OF ONTARIO

Ok [initials]

**3. Person or companies who prepared the technical report** (Attach a list if necessary)

| | |
|---|---|
| Name: J. M. Legault (et al.) P.Eng. | Telephone Number: 705 235 2164 |
| Address: Quantec Consulting Inc./Quantec IP Inc. | Fax Number: 705 235 2255 |
| Name: P.O. Box 580, 101 King st. | Telephone Number |
| Address: Porcupine ON P0N 1C0 | Fax Number |
| Name | Telephone Number |
| Address | Fax Number |

2.18723

**4. Certification by Recorded Holder or Agent**

I, JOHN A. GORE (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

| | | |
|---|---|---|
| Signature of Recorded Holder or Agent: John A. Gore | | Date: Aug. 10/98 |
| Agent's Address: As Above | Telephone Number | Fax Number |

0241 (02/96)

Deemed Nov 10/98

**5. Work to be recorded and distributed.** Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W9880.00495

| | Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map. | Number of Claim Units. For other mining land, list hectares. | Value of work performed on this claim or other mining land. | Value of work applied to this claim. | Value of work assigned to other mining claims. | Bank. Value of work to be distributed at a future date |
|---|---|---|---|---|---|---|
| eg | TB 7827 | 16 ha | $26,825 | N/A | $24,000 | $2,825 |
| eg | 1234567 | 12 | 0 | $24,000 | 0 | 0 |
| eg | 1234568 | 2 | $ 8,892 | $ 4,000 | 0 | $4,892 |
| 1 | L-1179631 ✓ | 4 | $6144. | $6144. | | |
| 2 | L-1200714 ✓ | 2 | $10368. | $2400. | $7,968. | |
| 3 | | | | | | |
| 4 | L-1118450 | 10 | $5760. | $5760. | | |
| 5 | L-1118545 ✓ | 2 | $ 384. | $ 384. | | |
| 6 | L-1118544 | 6 | $1920. | $1920. | | |
| 7 | L-1198568 | 2 | $11463. ✓ | $2400. | $9063. | |
| 8 | L-1198565 | 1 | $ 768. | $ 768. | | |
| 9 | | | | | | |
| 10 | | | | | | |
| 11 | | | | | | |
| 12 | | | | | | |
| 13 | | | | | | |
| 14 | | | | | | |
| 15 | | | | | | |
| | Column Totals | 27 | $36807. | $19776. | $17031. | |

Page 1 of 2 gug.

I, JOHN A. GORE (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

| Signature of Recorded Holder or Agent Authorized in Writing | Date |
|---|---|
| John A. Gore | August, 10 /98 |

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**6. Instruction for cutting back credits that are not approved.**

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☐ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

**For Office Use Only**

| Received Stamp | Deemed Approved Date | Date Notification Sent |
|---|---|---|
| | Date Approved | Total Value of Credit Approved |
| | Approved for Recording by Mining Recorder (Signature) | |

0241 (03/97)

2.18722

Ontario Ministry of Northern Development and Mines

# Statement of Costs for Assessment Credit

Transaction Number (office use): W9880.00495/496



| Work Type | Units of work (Depending on the type of work, list the number of hours/day worked, metres of drilling, kilometres of grid line, number of samples, etc.) | Cost Per Unit of work | Total Cost |
|---|---|---|---|
| a) Ground TEM Magnetics | 24.26 km (Northoxbow) | 150.00 | 3 639.0 |
| Ground TDIP\Resistivity (company) | 14.5 days (Southoxbow) | 1650.00 | 23 925.0 |
| (Quantec IP Inc. - see attached invoice) | | | |
| b) Line-cutting | 17.9 km (South oxbow) | 350.00 | 6 265.0 |
| (Shortt Exploration Services - see attached invoice) | | | |
| | 13.76 km (Northoxbow) | 400.00 | 5 504.0 |
| **Associated Costs (e.g. supplies, mobilization and demobilization).** | | | |
| a) TDIP demobilization | | 1200.00 | 1200. |
| JS demobilization | | 500.00 | 500.00 |
| (QIP Inc. - see invoice) | | | |
| **Transportation Costs** | | | |
| a) * Truck, J-S, helicopter + food & lodging (Quantec IP - see invoice) | | 488.74 | 5909.6? |
| **Food and Lodging Costs** | | | |
| b) ATV Rental (Shortt Exploration) | Northoxbow | 500.00 | 500.00 |
| | Southoxbow | 500.00 | 500.00 |
| | | **Total Value of Assessment Work** | 47 942.6 |

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* Equals total cost of additional expenses (transport + assoc + food & ... divided proportionally 14 of 34 survey days spent at North & South Oxbow grids

**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 ____ x 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.

**Certification verifying costs:**

I, JOHN A. GORE (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 John A. Gore Recorded Holder (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature: John A. Gore    Date: Aug. 10/98

0212 (03/97)

Ok ml 05/27

18723

15684.68

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W9880. 00495

| | Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map. | Number of Claim Units. For other mining land, list hectares. | Value of work performed on this claim or other mining land. | Value of work applied to this claim. | Value of work assigned to other mining claims. | Bank. Value of work to be distributed at a future date. |
|---|---|---|---|---|---|---|
| eg | TB 7827 | 16 ha | $26, 825 | N/A | $24,000 | $2,825 |
| eg | 1234567 | 12 | 0 | $24,000 | 0 | 0 |
| eg | 1234568 | 2 | $ 8, 892 | $ 4,000 | 0 | $4,892 |
| 1 | L-1118545 ✓ | 2 | | $1305. | | |
| 2 | L-1118546 ✓ | 1 | | $1200. | | |
| 3 | L-1118497 ✓ | 1 | | $ 860. | | |
| 4 | L-1118536 ✓ | 1 | | $1200. | | |
| 5 | L-1118537 ✓ | 6 | | $7200. | | |
| 6 | L-1118621 ✓ | 2 | | $1600. | | |
| 7 | L-1179630 ✓ | 1 | | $ 66. | | |
| 8 | L-1198564 ✓ | 1 | | $ 400. | | |
| 9 | L-1198565 ✓ | 1 | | $ 400. | | |
| 10 | L-1198566 ✓ | 1 | | $ 400. | Page 2 of 2 | |
| 11 | L-1198567 ✓ | 1 | | $ 400. | | |
| 12 | L-1200715 ✓ | 1 | | $ 400. | | |
| 13 | L-1202621 ✓ | 2 | | $ 800. | | |
| 14 | L-1198568 ✓ | 2 | | $ 800. | | |
| 15 | | | | | | |
| | | Column Totals | $36807. | $36807. | $17031. | |

I, JOHN A.GORE (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing: John A. Gore

Date: Aug.10 /98

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6. **Instructions for cutting back credits that are not approved.**

Some of the credits claimed in this declaration may be cut back. Please check ( ✓ ) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☐ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

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Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

**For Office Use Only**

| Received Stamp | Deemed Approved Date | Date Notification Sent |
|---|---|---|
| | Date Approved | Total Value of Credit Approved |
| | Approved for Recording by Mining Recorder (Signature) | |

0241 (02/96)

Ontario | Ministry of Northern Development and Mines

# Declaration of Assessment Work Performed on Mining Land

**Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990**

| Transaction Number (office use) |
|---|
| W9880.00496 |
| Assessment Files Research Imaging |

**Personal information collected on this form is obtained under the authority of subsections 65(2) and 66(3) of the Mining Act. 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.**

**Instructions:** - For work performed on Crown Lands before **recording** a claim, use form 0240.
- Please type or print in ink.

**1. Recorded holder(s)** (Attach a list if necessary)

| | |
|---|---|
| Name: HUGH A. MOORE | Client Number: 171975 |
| Address: 38 Wellington Street, P.O.Box#10 | Telephone Number: (705)647-5179 |
| NEW LISKEARD Ontario POJ 1PO | Fax Number: |
| Name: | Client Number: |
| Address: | Telephone Number: |
| | Fax Number: |

**2. Type of work performed:** *Check ( ✓ ) and report on only ONE of the following groups for this declaration.*

- [✓] Geotechnical: prospecting, surveys, assays and work under section 18 (regs)
- [ ] Physical: drilling, stripping, trenching and associated assays
- [ ] Rehabilitation

| | | Office Use |
|---|---|---|
| Work Type: Ground Magnetic Geophysical Surveys<br>Ground Resistivity, Gradient Real Section by Quantec IP Inc.<br>Line cutting by Shortt Exploration Services | | Commodity: |
| | | Total $ Value of Work Claimed: 11,136 |
| Dates Work Performed: From 06 (Day) 11 (Month) 97 (Year) | To 23 (Day) 4 (Month) 98 (Year) | NTS Reference: |
| Global Positioning System Data (if available) | Township/Area: South lorrain Township | Mining Division: Larder Lake |
| | M or G-Plan Number: G-3448 | Resident Geologist District: Kirkland Lake |

Please remember to:
- obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

RECEIVED AUG 12 1998 9:15 GEOSCIENCE ASSESSMENT OFFICE

**3. Person or companies who prepared the technical report** (Attach a list if necessary)

| | |
|---|---|
| Name: Jean M. Legault P.Eng. | Telephone Number: (705)235-2166 |
| Address: 101 King St. P.O.Box580, Porcupine Ont. | Fax Number: (705)235-2255 |
| Name: | Telephone Number: |
| Address: | Fax Number: |
| Name: | Telephone Number: |
| Address: | Fax Number: |

2.18723

**4. Certification by Recorded Holder or Agent**

I, John A.Gore (as Agent) (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

| | | |
|---|---|---|
| Signature of Recorded Holder or Agent | | Date: August, /98 |
| Agent's Address: 31 Ruby St. Box#212, Cobalt, Ont. POJ 1CO | Telephone Number: (705) 679-5710 | Fax Number: N.A. |

0241 (02/96)

Deemed Nov 10/98

5. **Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.** * Amendment W9880.00496

| | Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map. | Number of Claim Units. For other mining land, list hectares. | Value of work performed on this claim or other mining land. | Value of work applied to this claim. | Value of work assigned to other mining claims. | Bank. Value of work to be distributed at a future date. |
|---|---|---|---|---|---|---|
| eg | TB 7827 | 16 ha | $26, 825 | N/A | $24,000 | $2,825 |
| eg | 1234567 | 12 | 0 | $24,000 | 0 | 0 |
| eg | 1234568 | 2 | $ 8, 892 | $ 4,000 | 0 | $4,892 |
| 1 | L-1198623 | 1 | $ 768. | $ 768. ✓ | | |
| 2 | L-1198644 | 6 | $ 10,368. | $ 7,422. ✓ | $ 2,946. | |
| 3 | | | | | | |
| 4 | L-119843 | 1 | | $ 1,237. ✓ | | |
| 5 | L-1198622 | 1 | | $ 1,237. ✓ | | |
| 6 | L-1198623 | 1 | | $ 472. ✓ | | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |
| 10 | | | | | | |
| 11 | | | | | | |
| 12 | | | | | | |
| 13 | | | | | | |
| 14 | | | | | | |
| 15 | | | | | | |
| | | Column Totals | $11,136. | $11,136. | $2946. | |

I, JOHN A. GORE (as Agent) (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing: John A. Gore | Date: August 12/98

6. **Instructions for cutting back credits that are not approved.**

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☐ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

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Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

**For Office Use Only**

| Received Stamp | Deemed Approved Date | Date Notification Sent |
|---|---|---|
| | Date Approved | Total Value of Credit Approved |
| | Approved for Recording by Mining Recorder (Signature) | |

0241 (02/96)



Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

**For Office Use Only**

| Received Stamp | Deemed Approved Date | Date Notification Sent |
|---|---|---|
| | Date Approved | Total Value of Credit Approved |
| | Approved for Recording by Mining Recorder (Signature) | |

0241 (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: (888) 415-9846
Fax: (877) 670-1555

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

September 9, 1998

JOHN AUBREY GORE
31 Ruby Street
P.O. Box 212
Cobalt, Ontario
P0J-1C0

**Submission Number:** 2.18723

Dear Sir or Madam:

| **Subject: Transaction Number(s):** | | **Status** |
|---|---|---|
| | W9880.00495 | Deemed Approval |
| | W9880.00496 | Deemed 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. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

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

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

Yours sincerely,

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 12754

Copy for: Assessment Library

# Work Report Assessment Results

**Submission Number:** 2.18723

**Date Correspondence Sent:** September 09, 1998 **Assessor:** Steve Beneteau

| Transaction Number | First Claim Number | Township(s) / Area(s) | Status | Approval Date |
|---|---|---|---|---|
| W9880.00495 | 1179631 | SOUTH LORRAIN | Deemed Approval | September 08, 1998 |

**Section:**
14 Geophysical IP
14 Geophysical MAG

| Transaction Number | First Claim Number | Township(s) / Area(s) | Status | Approval Date |
|---|---|---|---|---|
| W9880.00496 | 1198623 | SOUTH LORRAIN | Deemed Approval | September 08, 1998 |

**Section:**
14 Geophysical IP
14 Geophysical MAG

**Correspondence to:**

Resident Geologist
Kirkland Lake, ON

Assessment Files Library
Sudbury, ON

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

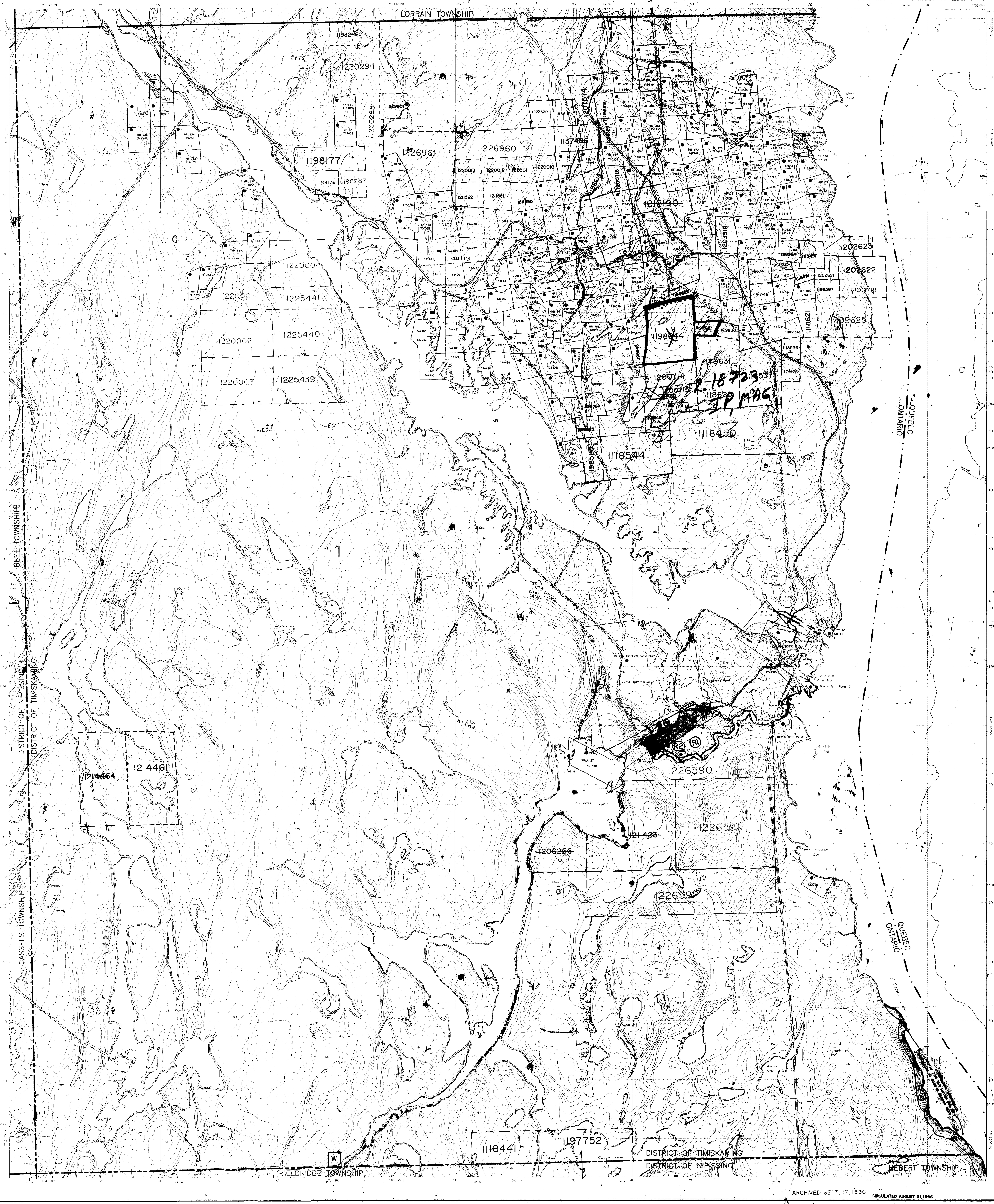
JOHN AUBREY GORE
Cobalt, Ontario

HUGH ALLEN MOORE
NEW LISKEARD, Ontario



Correspondence ID: 12754

[redacted]




ARCHIVED SEPT. 17, 1996

CIRCULATED AUGUST 21, 1996

**AREAS WITHDRAWN FROM DISPOSITION**

MRO – Mining Rights Only
SRO – Surface Rights Only
M+S – Mining and Surface Rights

| Description | Order No. | Date | Disposition | File |
|---|---|---|---|---|
| (R1) SEC 35/90 COMPREHENSIVE PLANNING COUNCIL | W-ONT-63/96 | SEPT 17/96 | M+S | |

(R2) NOT OPEN FOR STAKING - CONSERVATION RESERVE SECTION I OF THE MINING ACT

(R3) SURFACE RIGHTS ONLY WITHDRAWN W-L-58/96 NER SEPT 17/96 FILE 134327

31M03NW2002 2.18723 SOUTH LORRAIN 200

W SEC 35 1990 W-L-56/96NER 17/09/96 M&S

## DISPOSITION OF CROWN LANDS

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
Cancelled
Reservation
Sand & Gravel
Land Use permit

W AREA DEEMED IN NEED OF PROTECTION BY THE CROWN AND WILL REMAIN WITHDRAWN INDEFINITELY.

Ontario Ministry of Natural Resources
Ministry of Northern Development and Mines

# INDEX TO LAND DISPOSITION

PLAN
**G – 3448**

TOWNSHIP
# SOUTH LORRAIN

M.N.R. ADMINISTRATIVE DISTRICT
**TEMAGAMI**

MINING DIVISION
**LARDER LAKE**

LAND TITLES/REGISTRY DIVISION
**TIMISKAMING**

Scale 1:20 000

Metres 1000 0 1000 2000 Metres
Feet 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10 000 Feet

Contour Interval 10 Metres

**DATE OF ISSUE**
SEP 10 1998
PROVINCIAL RECORDING OFFICE - SUDBURY

## SYMBOLS

Boundary
- Administrative District
- Township, Meridian, Baseline
- Road allowance; surveyed
- shoreline
- Lot/Concession; surveyed
- unsurveyed
- Parcel; surveyed
- unsurveyed
- Right-of-way; road
- railway
- utility
- Reservation

Cliff, Pit, Pile
Contour
- Interpolated
- Approximate
- Depression

Control point (horizontal)

Flooded land
Mine shaft
Pipeline (above ground)
Railway; single track
- double track
- abandoned

River/Stream/Creek
- Intermittent

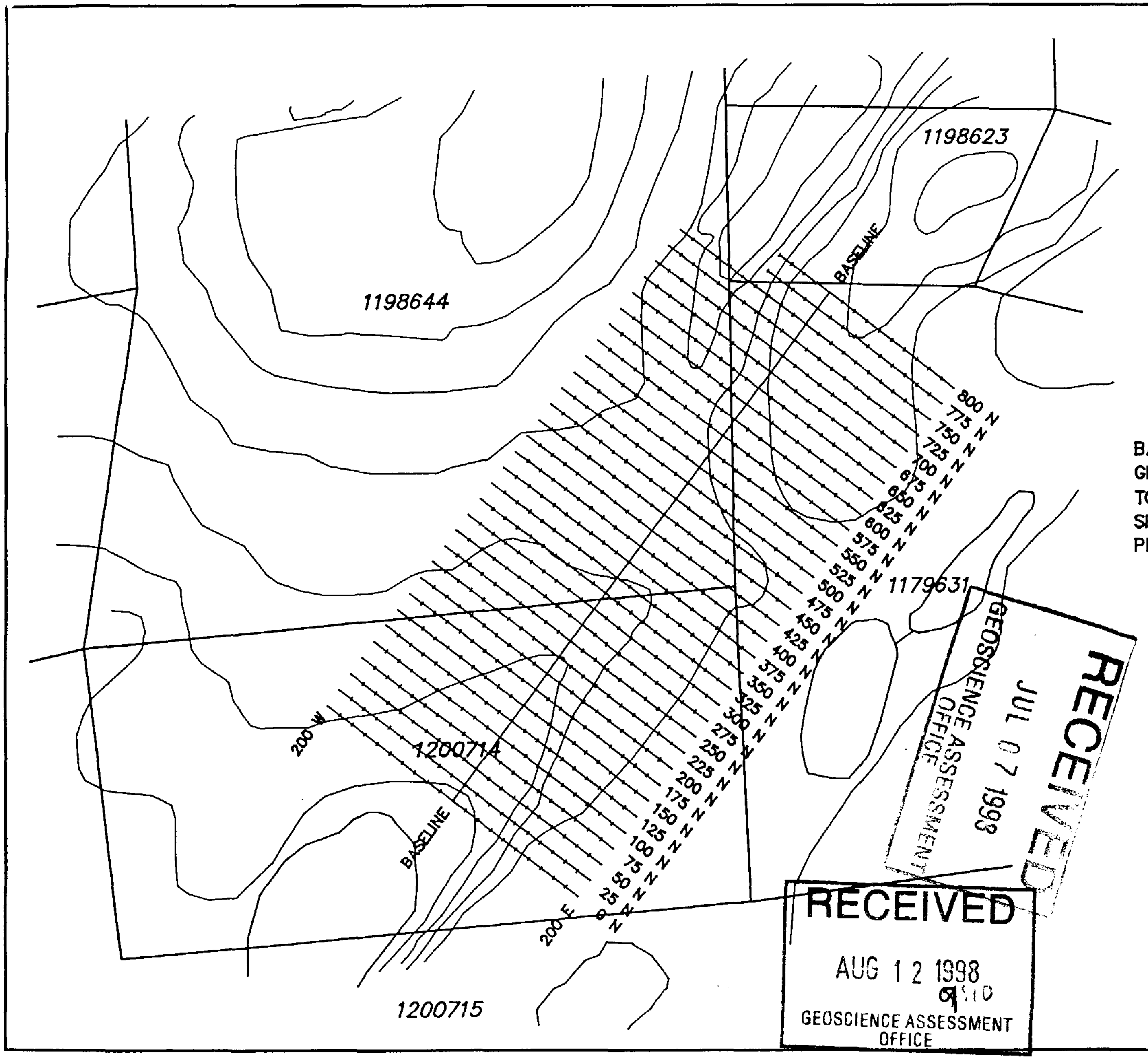
Road; highway, county, township
- access
- trail, bush

Shoreline (original)
Transmission line
Wooded area

400' Surface Rights along the shores of all lakes and rivers

THIS TOWNSHIP FALLS ... COMPREHENSIVE PLANNING ... CONDITIONS ... FOR MORE DETAILS ... DISTRICT ... NORTH BAY ... MINISTRY NATURAL ...

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.




**1997 LINECUTTING DATA**

| | |
|---|---|
| BASELINE | 800 M |
| GRID LINES | 12960 M |
| TOTAL | 13760 M |
| SPACING | 25 M |
| PICKETS | 20 M |

100 0 100 200

RECEIVED
JUL 07 1998
GEOSCIENCE ASSESSMENT OFFICE

RECEIVED
AUG 12 1998
GEOSCIENCE ASSESSMENT OFFICE

**SHORTT EXPLORATION SERVICES**
36 5TH AVENUE
ENGLEHART, ON P0J 1H0
TEL. (705)544-8485 FAX (705)544-8582

CLIENT:
**ISOMETRIC MINERAL CORPORATION**

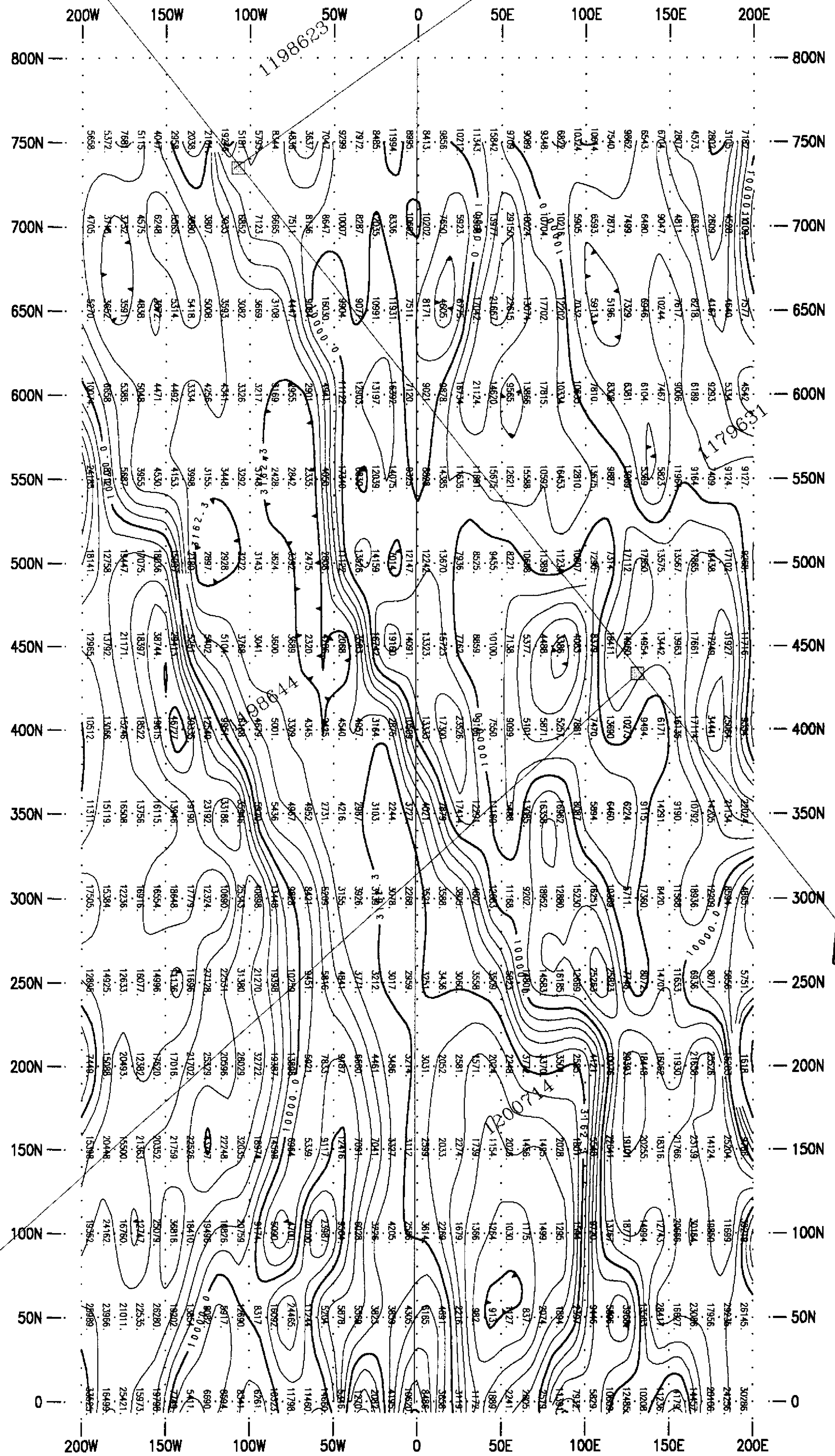
PROJECT
1997 LINECUTTING PROGRAM
NORTH OXBOW GRID

SCALE 1 : 5000

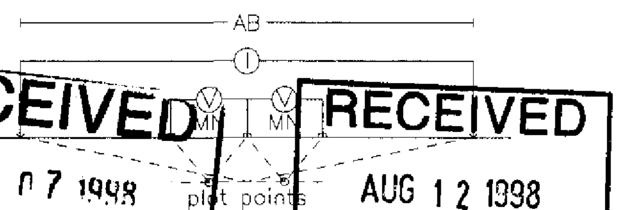
| | | |
|---|---|---|
| ACAD by: ML | DECEMBER 7, 1997 | |
| REVISIONS by: | | |

31M03NW2002 2.18723 SOUTH LORRAIN 210

# APPARENT RESISTIVITY (ohm-metres)




Gradient Array






Scale 1:2500

25 0 25 50 75 100 125 150

(meters)

## ISOMETRIC MINERAL CORPORATION

NORTH OXBOW GRID, OXBOW PROPERTY

South Lorrain Township, ON

TIME DOMAIN IP SURVEY

Gradient Array

APPARENT RESISTIVITY

AB= Base Level

| | |
|---|---|
| Transmitter Frequency | 0.0625 Hz (50% duty cycle) |
| Transmitter Current | 1.3 Amps |
| Decay Curve: | QIP IP-6 Custom Semilogarithmic Windows 10 Gates (60ms to 3540ms) |
| Station Interval: | 10 Meters |
| Resistivity Contour Interval: | 10 levels/log decade |
| Colour Scale: | Equal Area Zoning |
| Date: | November, 1997 |
| Instrumentation: | Rx = IRIS IP-6 (6 channels) Tx = PHOENIX IPT-2B(15 kW) + MG-30(30 kVA) |

*Surveyed & Processed by:*

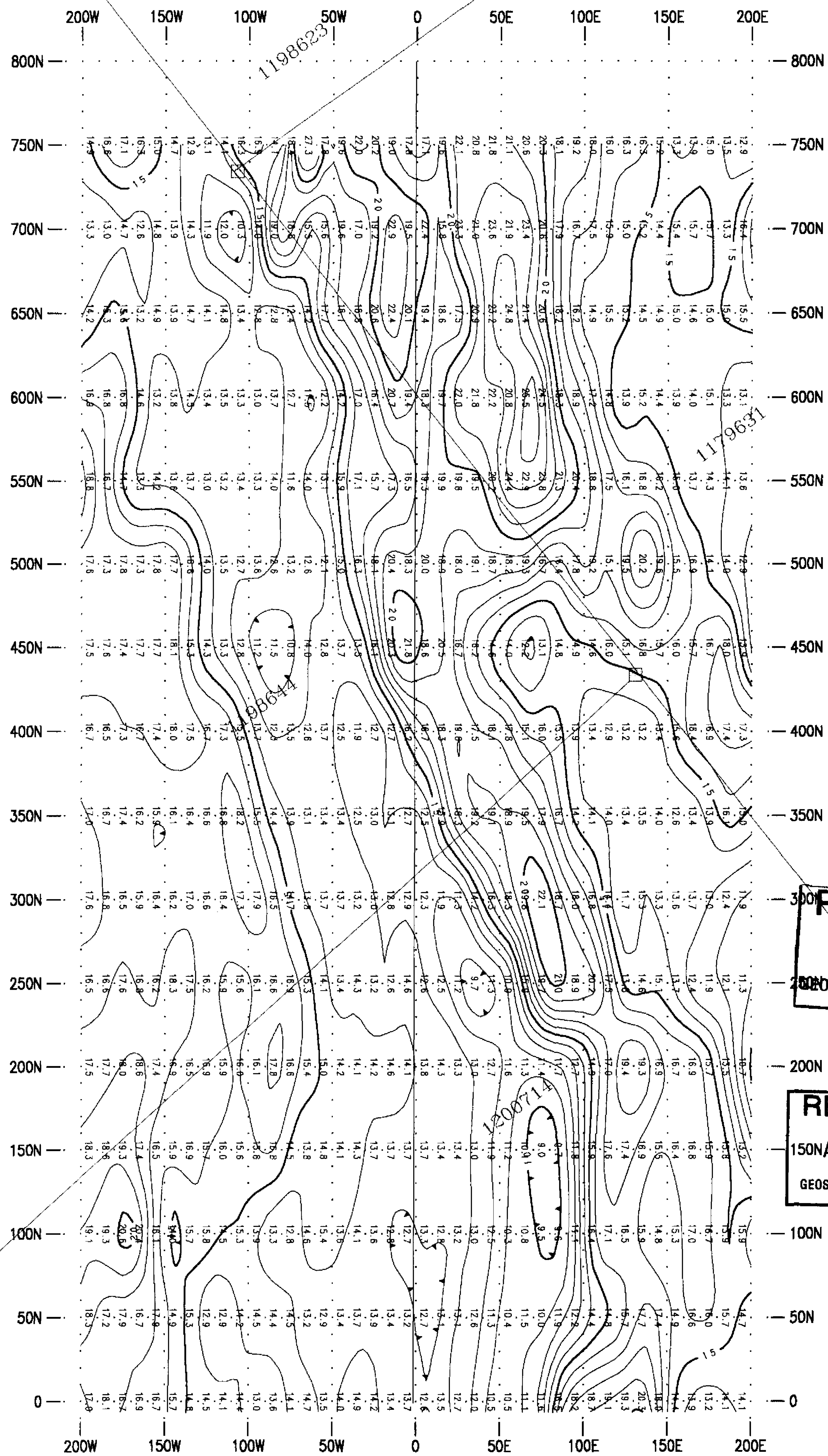
***QUANTEC IP INC.***

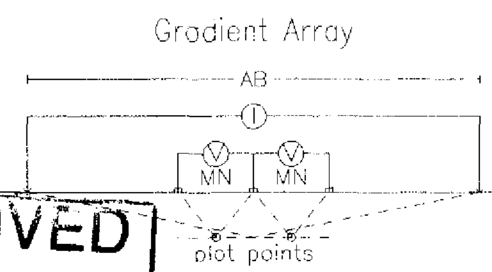
DWG. #: P-205-PLAN-RES-North Oxbow

Note: Topographic base and claim information digitized from North Oxbow line-cutting/claim location map Shortt Exploration Services, Dec., 1997.

31M03NW2002 2.18723 SOUTH LORRAIN 220

# TOTAL CHARGEABILITY (mV/V)






Scale 1:2500

25 50 75 100 125 150

(meters)

## ISOMETRIC MINERAL CORPORATION

NORTH OXBOW GRID, OXBOW PROPERTY

South Lorrain Township, ON



TIME DOMAIN IP SURVEY

Gradient Array

TOTAL CHARGEABILITY

AB= Base Level

| | |
|---|---|
| Transmitter Frequency | 0.0625 Hz (50% duty cycle) |
| Transmitter Current | 1.3 Amps |
| Decay Curve: | QIP IP-6 Custom Semilogarithmic Windows 10 Gates (60ms to 3540ms) |
| Station Interval: | 10 Meters |
| Chargeability Contour Interval: | 1, 5 mV/V |
| Colour Scale: | Equal Area Zoning |

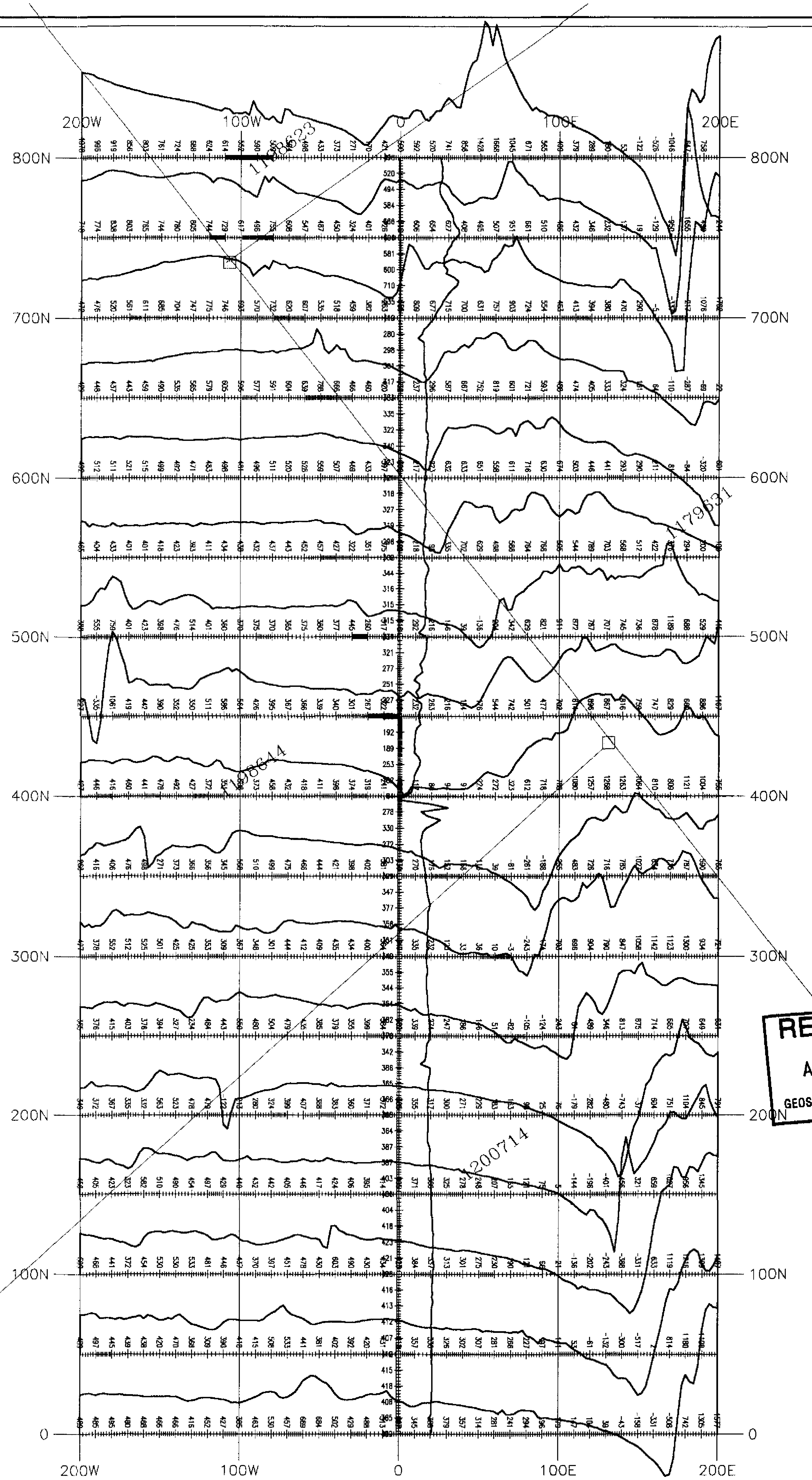
| | |
|---|---|
| Date: | November, 1997 |
| Instrumentation: | Rx = IRIS IP-6 (6 channels) Tx = PHOENIX IPT-2B(15 kW) + MG-30(30 kVA) |

*Surveyed & Processed by:*

***QUANTEC IP INC.***

DWG. #: P-205-PLAN-CHG-North Oxbow

Note: Topographic base and claim information digitized from North Oxbow line-cutting/claim location map Shortt Exploration Services, Dec., 1997.




## North Oxbow Grid

Scale 1:2500

25 0 25 50 75 100

(meters)



# ISOMETRIC MINERAL CORPORATION

NORTH OXBOW GRID, OXBOW PROPERTY

South Lorrain Township, ON

## WALKING GROUND MAGNETIC SURVEY

### TOTAL FIELD PROFILE PLAN MAP

(Diurnal Corrected)

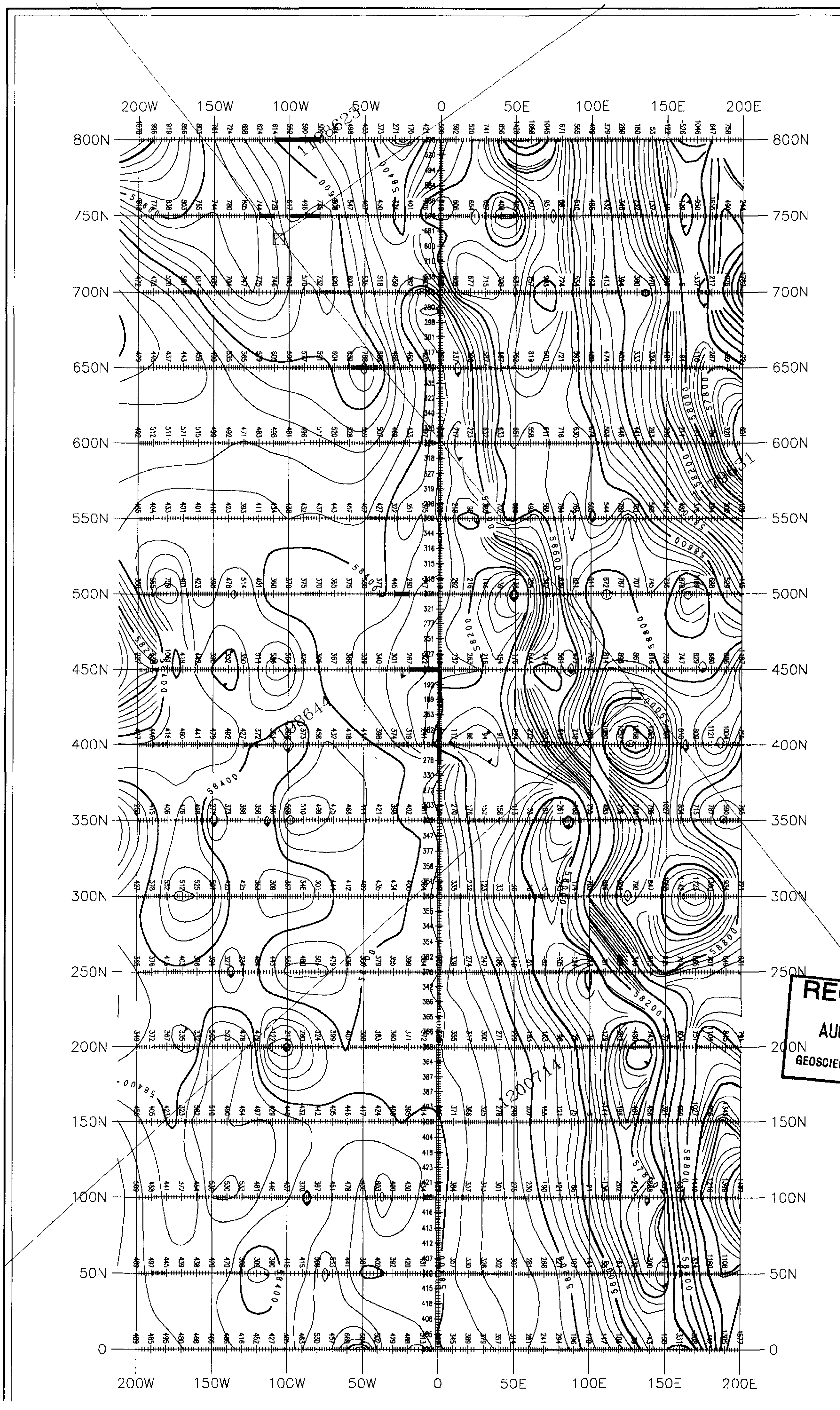
| | |
|---|---|
| Magnetic Datum: | 58,500 nT |
| Magnetic Inclination | 76degN |
| Magnetic Declination | 8degW |
| Diurnal Correction: | Base Station (3 sec/cyc) |
| Sampling Interval: | approx. every 2m |
| Postings: | splined at even intervals of 10m |
| Base Level Removed on Postings: | 58000 nT |
| Base Level Removed on Profiles: | 58000 nT |
| TFM Vertical Profile Scale: | 500 nT/cm |
| Survey Date: | November, 1997 |
| Instrumentation: | GEM GSM-19 Walking Mag |
| Operator: | Tyler Raleigh |

*Surveyed & Processed by:*

***QUANTEC CONSULTING INC.***

DWG. NO. P-205-MAGPROF-North Oxbow Grid

Note: Topographic base and claim information digitized from North Oxbow line-cutting/claim location map Shortt Exploration Services, Dec., 1997.






North Oxbow Grid

Scale 1:2500

25 0 25 50 75 100
(meters)

# ISOMETRIC MINERAL CORPORATION

NORTH OXBOW GRID, OXBOW PROPERTY

South Lorrain Township, ON

## WALKING GROUND MAGNETIC SURVEY

TOTAL FIELD CONTOUR PLAN MAP
(Diurnal Corrected)

| | |
|---|---|
| Magnetic Datum: | 58,500 nT |
| Magnetic Inclination | 76degN |
| Magnetic Declination | 8degW |
| Diurnal Correction: | Base Station (3 sec/cyc) |
| Sampling Interval: | approx. every 2m |
| Postings: | splined at even 10m intervals |
| Base Level Removed on Postings: | 58000 nT |
| Gridding Method: | Random (12.5m Grid Cell Size) |
| Contour Interval: | 40, 200, 1000 nT |
| Colour Zoning: | Equal Area / Colour.tbl |

| | |
|---|---|
| Survey Date: | November, 1997 |
| Instrumentation: | GEM GSM-19 Walking Mag |
| Operator: | Tyler Raleigh |

Surveyed & Processed by:
**QUANTEC IP INC.**
DWG. NO. P-205-MAGCONT-North Oxbow Grid

Note: Topographic base and claim information digitized from North Oxbow line-cutting/claim location map Shortt Exploration Services, Dec., 1997.


31M03NW2002 2.18723 SOUTH LORRAIN 260






## ISOMETRIC MINERAL CORPORATION

SOUTH OXBOW GRID, OXBOW PROPERTY

South Lorrain Township, ON

### WALKING GROUND MAGNETIC SURVEY

TOTAL FIELD CONTOUR PLAN MAP

(Diurnal Corrected)

| | |
|---|---|
| Magnetic Datum: | 58,500 nT |
| Magnetic Inclination | approx. 76degN |
| Magnetic Declination | approx. 8degW |
| Diurnal Correction: | Base Station (3 sec/cyc) |
| Sampling Interval: | approx. every 2m |
| Postings: | splined at even 10m intervals |
| Base Level Removed on Postings: | 58000 nT |
| Gridding Method: | Random (12.5m Grid Cell Size) |
| Contour Interval: | 50, 250, 1000 nT |
| Colour Zoning: | Equal Area / Colour.tbl |

| | |
|---|---|
| Survey Date: | November, 1997 |
| Instrumentation: | GEM GSM-19 Walking Mag |
| Operator: | Tyler Raleigh |

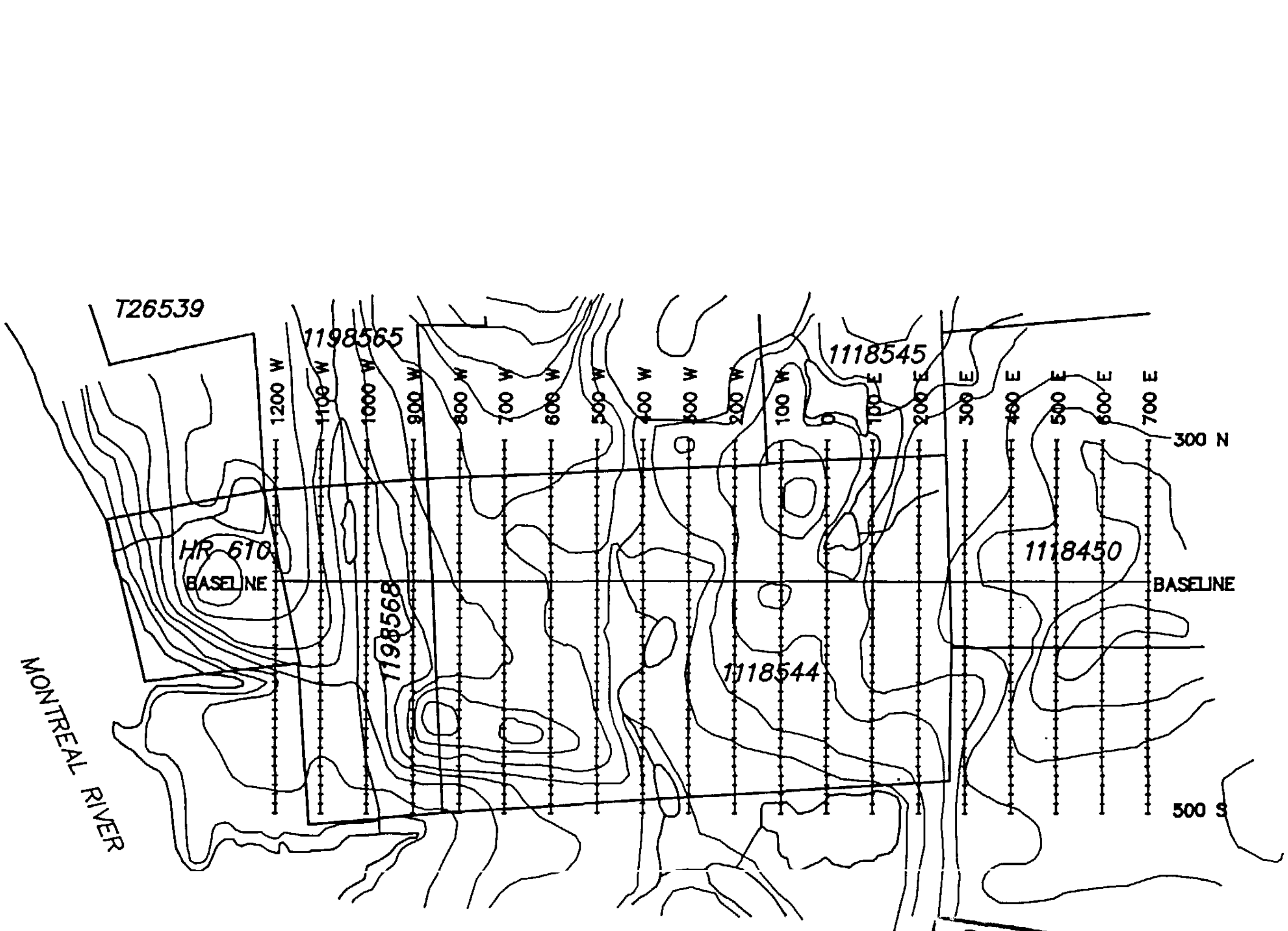
Surveyed & Processed by:

**QUANTEC IP INC.**

DWG. NO. P-205-MAGCONT-South Oxbow Grid

Note: Topographic base and claim information digitized from South Oxbow line-cutting/claim location map, Shortt Exploration Services, Dec., 1997.

31M03NW2002 2.18723 SOUTH LORRAIN 270




## 1997 LINECUTTING DATA

| | |
|---|---|
| BASELINES | 1900 M |
| GRID LINES | 16000 M |
| TOTAL | 17900 M |
| SPACING | 100 M |
| PICKETS | 20 M |

200 0 200 400

## SHORTT EXPLORATION SERVICES


38 5TH AVENUE
ENGLEHART, ON P0J 1H0
TEL. (705)544-8485 FAX (705)544-8582


CLIENT:
***ISOMETRIC MINERAL CORPORATION***

PROJECT
1997 LINECUTTING PROGRAM
SOUTH OXBOW GRID

SCALE 1 : 10,000

| ACAD by: ML | DECEMBER 7, 1997 | |
|---|---|---|
| REVISIONS by: | | |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AUG 12 1998
9:10
GEOSCIENCE ASSESSMENT OFFICE

RECEIVED
JUL 07 1998
GEOSCIENCE ASSESSMENT OFFICE

# APPARENT RESISTIVITY (ohm-metres)






## ISOMETRIC MINERAL CORPORATION

SOUTH OXBOW GRID, OXBOW PROPERTY
South Lorrain Township, ON

TIME DOMAIN IP SURVEY
Gradient Array
APPARENT RESISTIVITY
AB= 1900m

| | |
|---|---|
| Transmitter Frequency | 0.0625 Hz (50% duty cycle) |
| Transmitter Current | 1.1 to 1.5 Amps |
| Decay Curve: QIP IP-6 Custom Semilogarithmic Windows | 10 Gates (60ms to 3540ms) |
| Station Interval: | 10 Meters |
| Resistivity Contour Interval: | 20 levels/log decade |
| Colour Scale: | Equal Area Zoning |
| Date: | November, 1997 |
| Instrumentation: | Rx = IRIS IP-6 (6 channels) |
| | Tx = PHOENIX IPT-2B(15 kW) + MG-30(30 kVA) |

*Surveyed & Processed by:*
***QUANTEC IP INC.***
DWG. #: P-205-PLAN-RES-South Oxbow

31M03NW2002 2.18723 SOUTH LORRAIN 290




Scale 1:2500

0 25 50 75 100 125 150 (meters)

# ISOMETRIC MINERAL CORPORATION

SOUTH OXBOW GRID, OXBOW PROPERTY

South Lorrain Township, ON

## TIME DOMAIN IP SURVEY
### Gradient Array
## TOTAL CHARGEABILITY
AB= 1900m

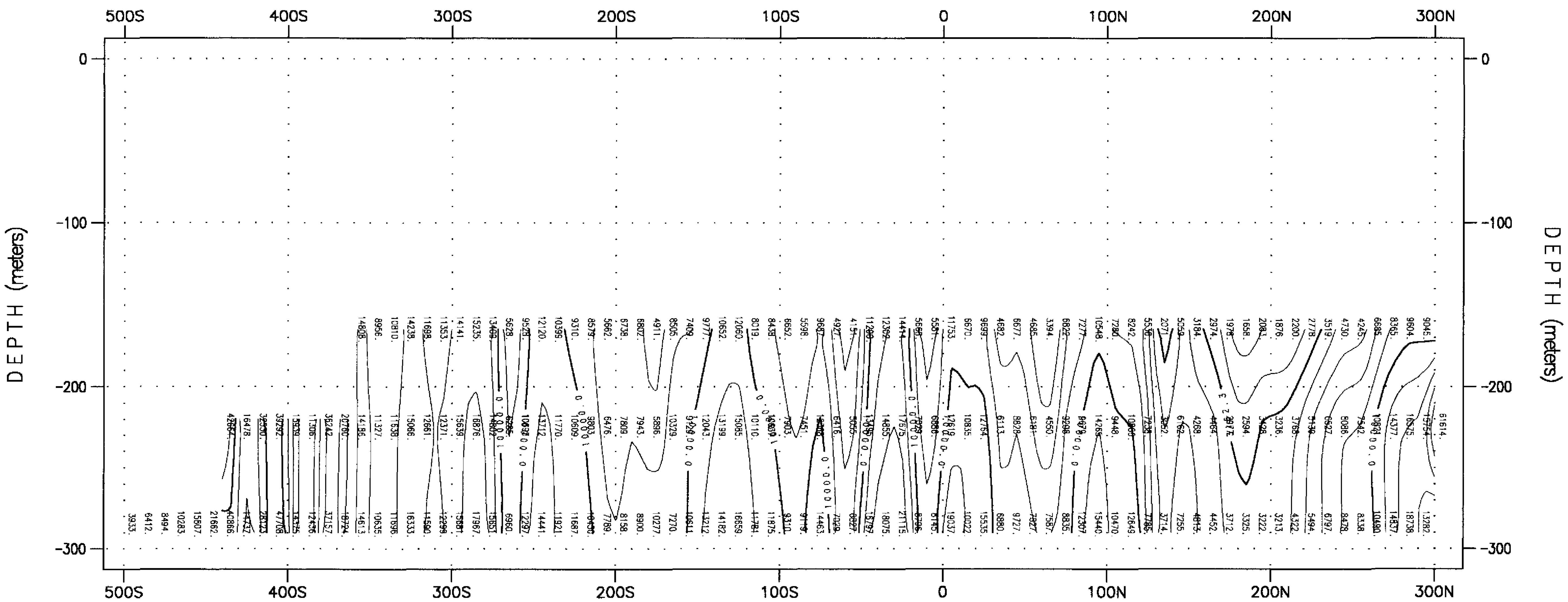
| | |
|---|---|
| Transmitter Frequency | 0.0625 Hz (50% duty cycle) |
| Transmitter Current | 1.1 to 1.5 Amps |
| Decay Curve: QIP IP-6 Custom Semilogarithmic Windows | 10 Gates (60ms to 3540ms) |
| Station Interval: | 10 Meters |
| Chargeability Contour Interval: | 1, 5 mV/V |
| Colour Scale: | Equal Area Zoning |
| Date: | November, 1997 |
| Instrumentation: | Rx = IRIS IP-6 (6 channels) |
| | Tx = PHOENIX IPT-2B(15 kW) + MG-30(30 kVA) |

*Surveyed & Processed by:*

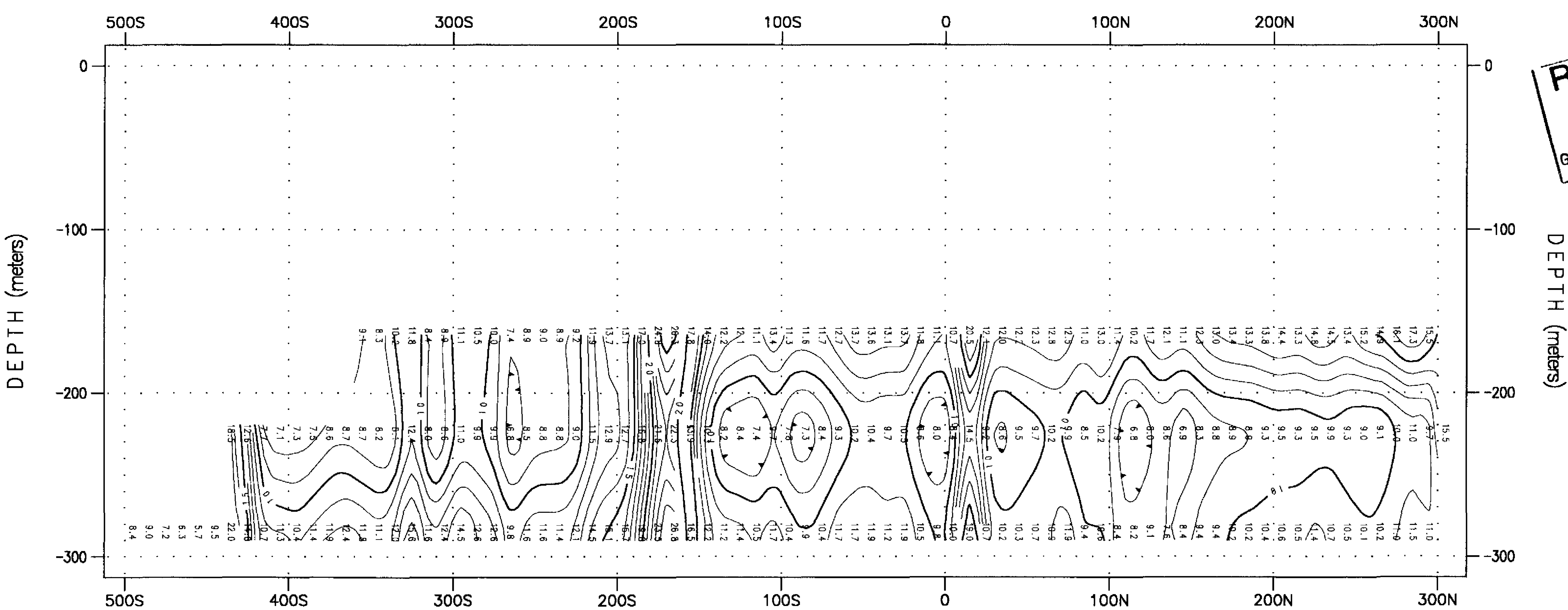
***QUANTEC IP INC.***

DWG. #: P-205-PLAN-CHG-South Oxbow

## APPARENT RESISTIVITY (ohm-metres)

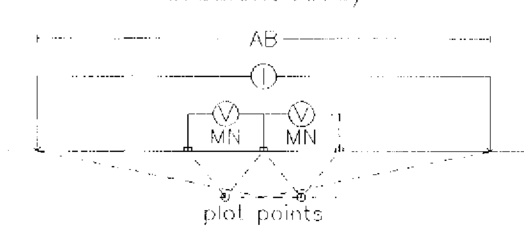



## TOTAL CHARGEABILITY (mV/V)




# LINE 2+00W

Gradient Array




Scale 1:2500

25 0 25 50 75 100 125 150

(meters)





**ISOMETRIC MINERAL CORPORATION**

SOUTH OXBOW GRID, OXBOW PROPERTY

South Lorrain Twp,. ON

TIME DOMAIN IP SURVEY

REALSECTION L2+00W

AB=3 levels

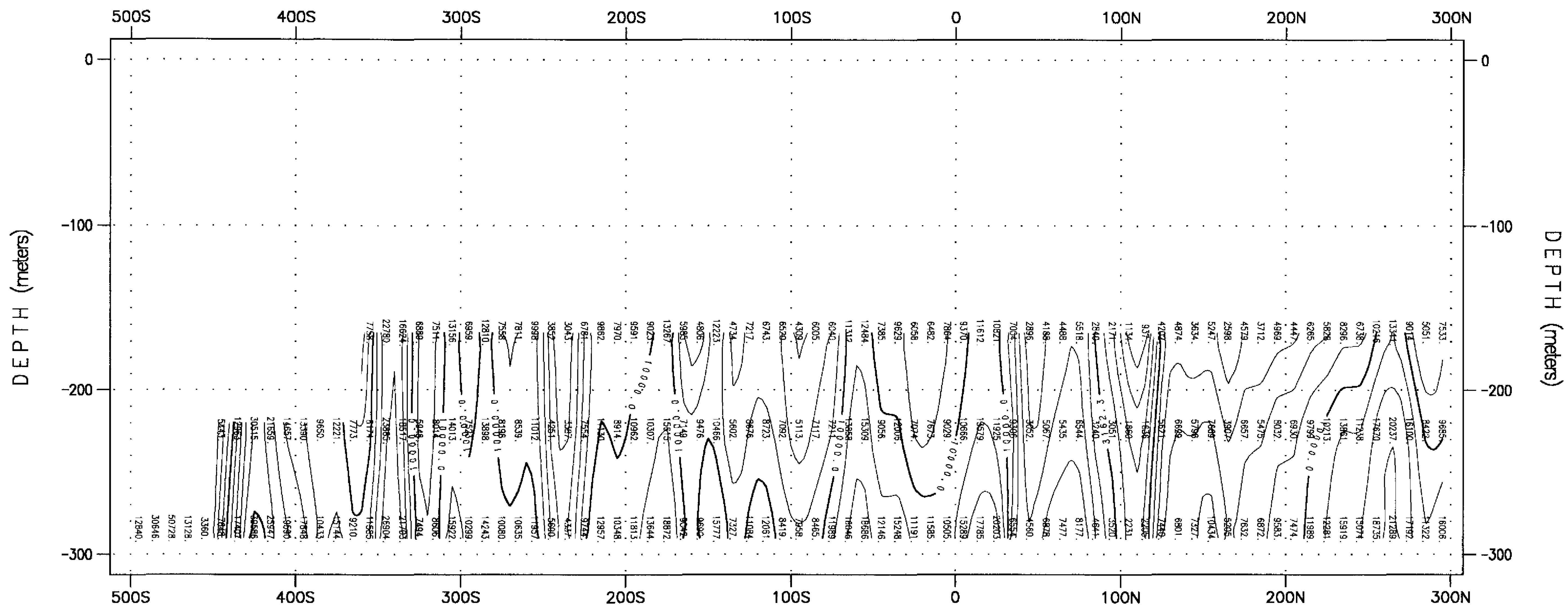
| | |
|---|---|
| Transmitter Frequency | 0.0625 Hz (50% duty cycle) |
| Transmitter Current | 1.3 to 1.5 Amps |
| Decay Curve: | QIP IP-6 Custom Semilogarithmic Windows 10 Gates (60ms to 3540ms) |
| Station Interval: | 10 Meters |
| Resistivity Contour Interval: | 10 levels/log decade |
| Chargeability Contour Interval: | 1, 5 mV/V |
| Colour Scale: | Equal Area Zoning |
| Date: | November, 1997 |
| Instrumentation: | Rx = IRIS IP-6 (6 channels) Tx = PHOENIX IPT-2B (15 kW) + MG-30(30 kVA) |

*Surveyed & Processed by:*

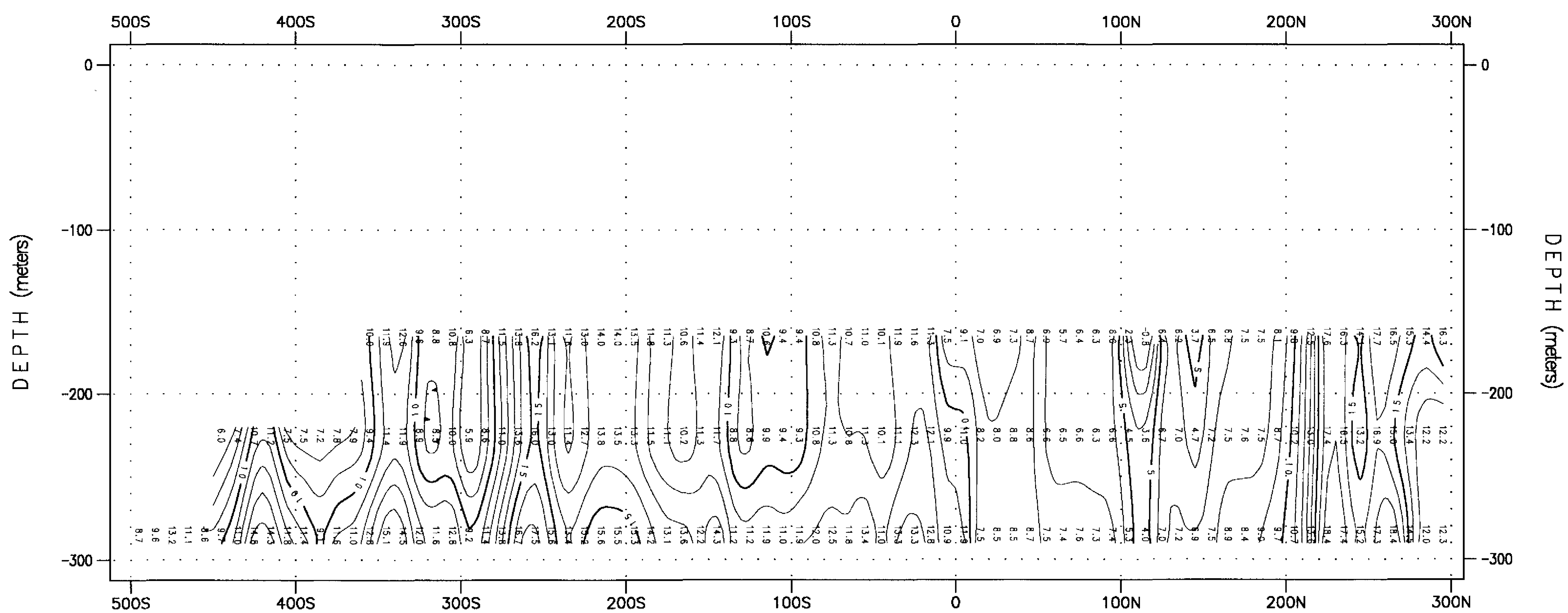
***QUANTEC IP INC.***

DWG. #: P-205-RSIP-2+00W

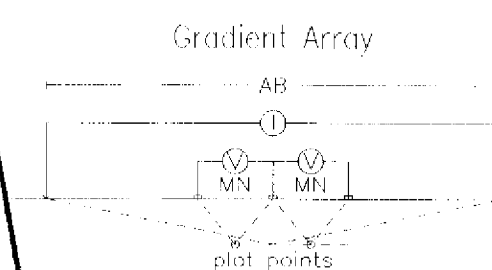
## APPARENT RESISTIVITY (ohm-metres)




## TOTAL CHARGEABILITY (mV/V)




# LINE 3+00W




Scale 1:2500

25 0 25 50 75 100 125 150

(meters)



**ISOMETRIC MINERAL CORPORATION**

SOUTH OXBOW GRID, OXBOW PROPERTY

South Lorrain Twp,. ON

TIME DOMAIN IP SURVEY

REALSECTION L3+00W

AB=3 levels

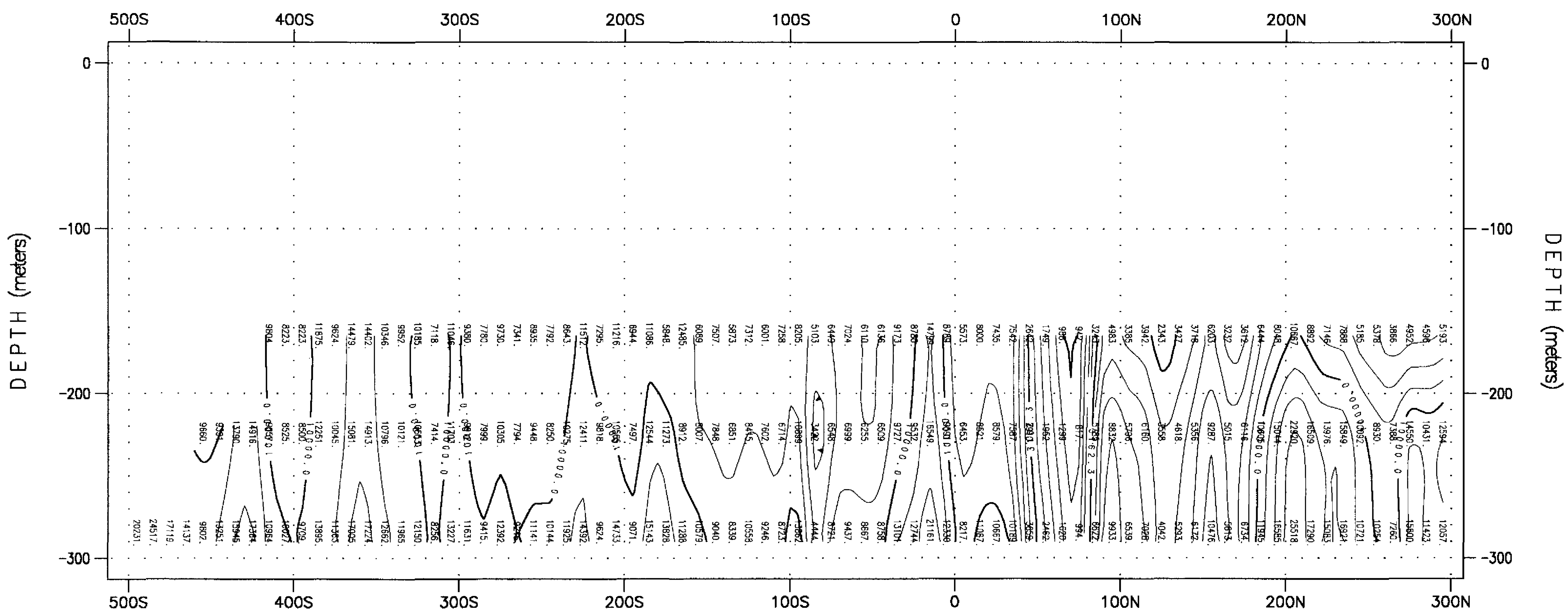
| | |
|---|---|
| Transmitter Frequency | 0.0625 Hz (50% duty cycle) |
| Transmitter Current | 1.3 to 1.5 Amps |
| Decay Curve: | QIP IP-6 Custom Semilogarithmic Windows 10 Gates (60ms to 3540ms) |
| Station interval: | 10 Meters |
| Resistivity Contour Interval: | 10 levels/log decade |
| Chargeability Contour Interval: | 1, 5 mV/V |
| Colour Scale: | Equal Area Zoning |
| Date: | November, 1997 |
| Instrumentation: | Rx = IRIS IP-6 (6 channels) Tx = PHOENIX IPT-2B (15 kW) + MG-30(30 kVA) |

*Surveyed & Processed by:*

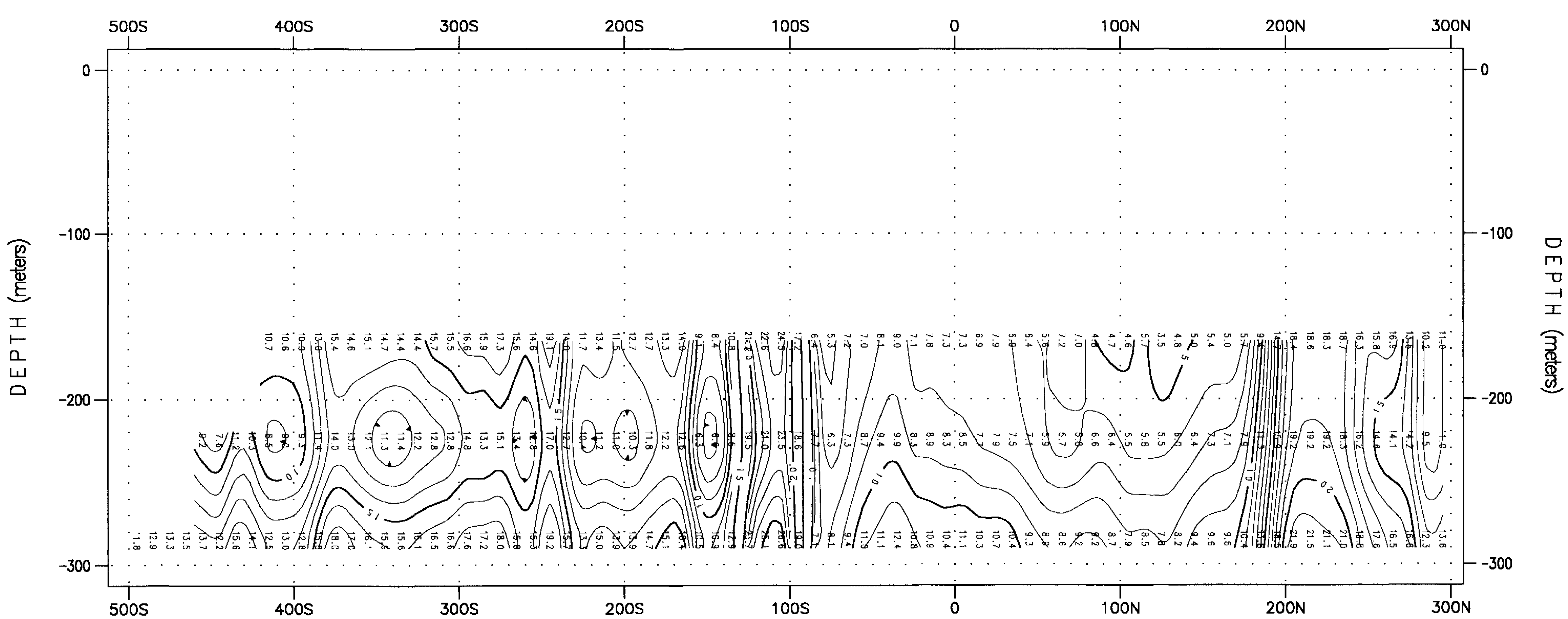
***QUANTEC IP INC.***

DWG. #: P-205-RSIP-3+00W

## APPARENT RESISTIVITY (ohm-metres)

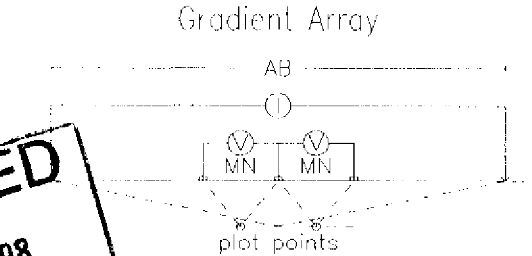



## TOTAL CHARGEABILITY (mV/V)




# LINE 4+00W

Gradient Array






Scale 1:2500

25 0 25 50 75 100 125 150

(meters)

**ISOMETRIC MINERAL CORPORATION**

SOUTH OXBOW GRID, OXBOW PROPERTY

South Lorrain Twp,. ON



TIME DOMAIN IP SURVEY

REALSECTION L4+00W

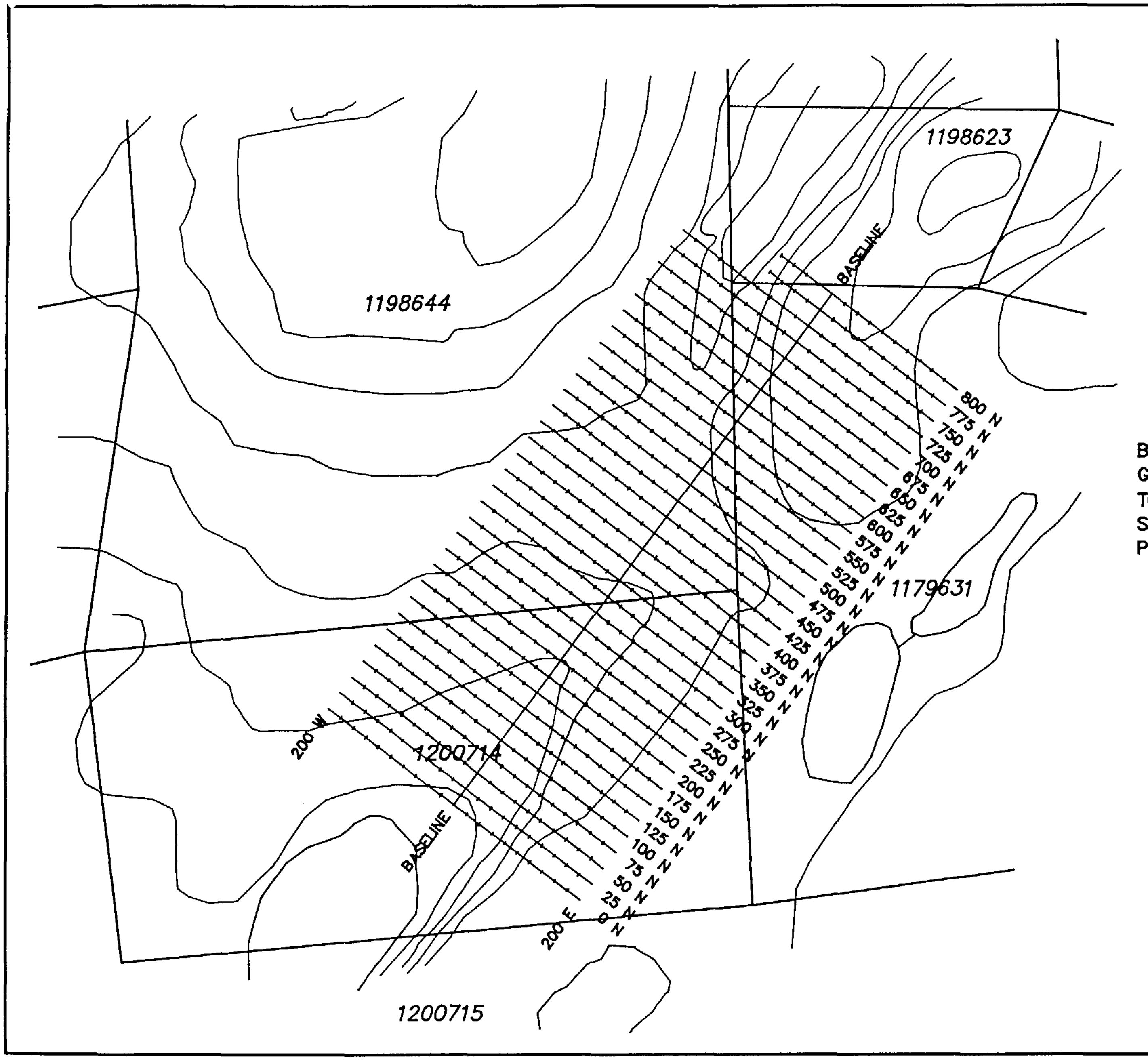
AB=3 levels

| | |
|---|---|
| Transmitter Frequency | 0.0625 Hz (50% duty cycle) |
| Transmitter Current | 1.2 to 1.4 Amps |
| Decay Curve: | QIP IP-6 Custom Semilogarithmic Windows 10 Gates (60ms to 3540ms) |
| Station Interval: | 10 Meters |
| Resistivity Contour Interval: | 10 levels/log decade |
| Chargeability Contour Interval: | 1, 5 mV/V |
| Colour Scale: | Equal Area Zoning |
| Date: | November, 1997 |
| Instrumentation: | Rx = IRIS IP-6 (6 channels) Tx = PHOENIX IPT-2B (15 kW) + MG-30(30 kVA) |

*Surveyed & Processed by:*

***QUANTEC IP INC.***

DWG. #: P-205-RSIP-4+00W






1997 LINECUTTING DATA

| | |
|---|---|
| BASELINE | 800 M |
| GRID LINES | 12960 M |
| TOTAL | 13760 M |
| SPACING | 25 M |
| PICKETS | 20 M |

100 0 100 200

**SHORTT EXPLORATION SERVICES**
38 5TH AVENUE
ENGLEHART, ON P0J 1H0
TEL. (705)544-8485 FAX (705)544-8582

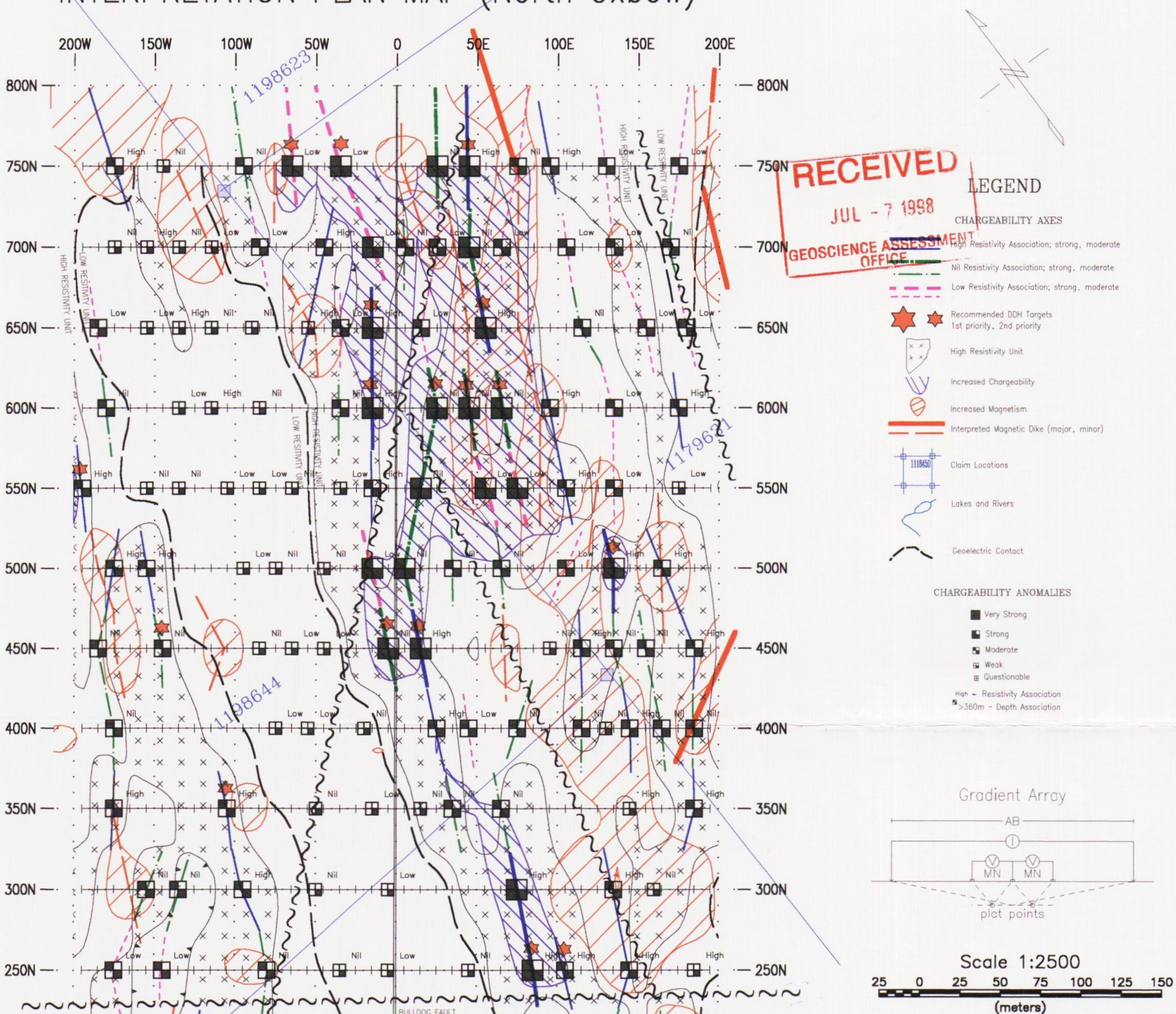
CLIENT:
**ISOMETRIC MINERAL CORPORATION**

PROJECT
1997 LINECUTTING PROGRAM
NORTH OXBOW GRID

SCALE 1 : 5000

| ACAD by: ML | DECEMBER 7, 1997 | |
|---|---|---|
| REVISIONS by: | | |

# INTERPRETATION PLAN MAP (North Oxbow)






**ISOMETRIC MINERAL CORPORATION**
NORTH OXBOW PROPERTY
South Lorrain Twp., ON

TIME DOMAIN IP SURVEY
Gradient Array
INTERPRETATION PLAN MAP
AB= Base Level

| | |
|---|---|
| Transmitter Frequency | 0.0625 Hz (50% duty cycle) |
| Transmitter Current | 1.3 Amps |
| Decay Curve: | QIP IP-6 Custom Semilogarithmic Windows 10 Gates (60ms to 3540ms) |
| Station Interval: | 10 meters |
| Interpretation by: | JLegault |
| Date: | November, 1997 |
| Instrumentation: | Rx = IRIS IP-6 (6 channels) Tx = PHOENIX IPT-2B(15 kW) + MG-30(30 kV) |

*Surveyed & Processed by:*
***QUANTEC IP INC.***
DWG. #: P-205b-INT-1 North Oxbow

Note: Topographic base and claim information digitized from North Oxbow line-cutting/claim location map Shortt Exploration Services, Dec., 1997.

INTERPRETATION PLAN MAP (South Oxbow)
79° 30'
BEAVER LAKE FAULT (Mapped)
HR610
1198565
1198566
1118545
1118450
1118544
LOW RESISTIVITY UNIT
MOD RESISTIVITY UNIT
HURONIAN CONTACT?
LEGEND
CHARGEABILITY AXES
High Resistivity Association; strong, moderate
Nil Resistivity Association; strong, moderate
Low Resistivity Association; strong, moderate
Recommended DDH Targets
1st priority, 2nd priority
High Resistivity Unit
Increased Chargeability
Increased Magnetism
Interpreted Magnetic Dike (major, minor)
Claim Locations
Lakes and Rivers
Fault Structure
Geoelectric Contact
CHARGEABILITY ANOMALIES
Very Strong
Strong
Moderate
Weak
Questionable
High - Resistivity Association
>360m - Depth Association
Gradient Array
AB
MN
plot points
47°
10'
Scale 1:2500
(meters)
ISOMETRIC MINERAL CORPORATION
SOUTH OXBOW PROPERTY
South Lorrain Twp., ON
TIME DOMAIN IP SURVEY
Gradient Array
INTERPRETATION PLAN MAP
AB= 1900
Transmitter Frequency 0.0625 Hz (50% duty cycle)
Transmitter Current 1.3 Amps
Decay Curve: QIP IP-6 Custom Semilogarithmic Windows
10 Gates (60ms to 3540ms)
Station Interval: 10 meters
Interpretation by: JLegault
Date: November, 1997
Instrumentation: Rx = IRIS IP-6 (6 channels)
Tx = PHOENIX IPT-2B(15 kW) + MG-30(30 kV)
Surveyed & Processed by:
QUANTEC IP INC.
DWG. #: P-205b-INT-1 South Oxbow
Note: Topographic base and claim information digitized from
South Oxbow line-cutting/claim location map,
Shortt Exploration Services, Dec., 1997.