



**TECK COMINCO LIMITED EXPLORATION**

**RESISTIVITY/INDUCED POLARIZATION SURVEY**

**LIZAR MINING PROPERTY**

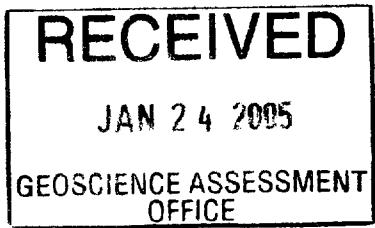
BRECKENRIDGE, LIZAR, MOSAMBIK AND NAMEIGOS TWPS  
SAULT STE. MARIE MINING DIVISION, ONTARIO, CANADA

**LOGISTICS AND INTERPRETATION REPORT**

04N778

OCTOBER 2004

2, 29129



42C15SE2006 2.29129 LIZAR

010

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## TABLE OF CONTENTS

ABSTRACT .....	1
1. THE MANDATE .....	2
2. THE LIZAR PROPERTY .....	3
3. RESISTIVITY / INDUCED POLARIZATION SURVEY .....	5
4. DATA PROCESSING AND DELIVERABLES .....	8
5. RESULTS AND RECOMMENDATIONS .....	11
6. FOLLOW-UP SUMMARY .....	14

## LIST OF FIGURES

GENERAL LOCATION OF THE LIZAR PROPERTY.....	2
INDEX OF CLAIMS AND SURVEY AREA COVERED BY THE PRESENT SURVEY .....	4
THE POLE-DIPOLE ARRAY .....	5
TRANSMITTED SIGNAL ACROSS C <sub>1</sub> – C <sub>2</sub> .....	5
ELREC-10 TIME GATES.....	6
<i>image2D</i> <sup>TM</sup> DEMO ON SYNTHETIC DATASETS .....	10

## APPENDIX

DESCRIPTION OF THE IP ANOMALIES OF THE LIZAR PROPERTY .....	16
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## ABSTRACT

*On behalf of Teck Cominco Limited Exploration, a resistivity/induced polarization survey was performed on part of the Lizar property, located 90 km north of the town of Wawa, in the Sault Ste. Marie Mining District of Ontario. This work is part of an ongoing gold exploration program.*

*During September 2004, a total of 40.1 km of line cutting and 34.7 km of IP survey (pole-dipole,  $a = 50$  m,  $n = 1$  to 6) was carried out. Survey specifications, instrumentation control, data acquisition, processing and interpretation were all successfully performed within our Quality Assurance System framework.*

*Fifteen IP trends were mapped on the Lizar SW and NE grids. Follow-up includes prospecting and/or diamond drilling on eight of them as a first priority (L-5 & L-9), second priority (L-3 & L-4) or third priority (L-7, L-8, L-11 and L-12). A survey extension is mandatory for L-13 and L-14 lying in the NE grid.*

## 1. THE MANDATE

**PROJECT ID**

**Lizar Property**  
 (Our reference: 04N778)

**GENERAL LOCATION**

90 km north of Wawa, Ontario.

**CUSTOMER**

**Teck Cominco Limited Exploration**

855 Field Street  
 Thunder Bay, Ontario, P7B 6B6  
 Telephone: (807) 577-4828

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**REPRESENTATIVE**

**Mr. Jari Paakki**

Project geologist  
[jpaakki.teckex@sympatico.ca](mailto:jpaakki.teckex@sympatico.ca)

**Chad Hewson**

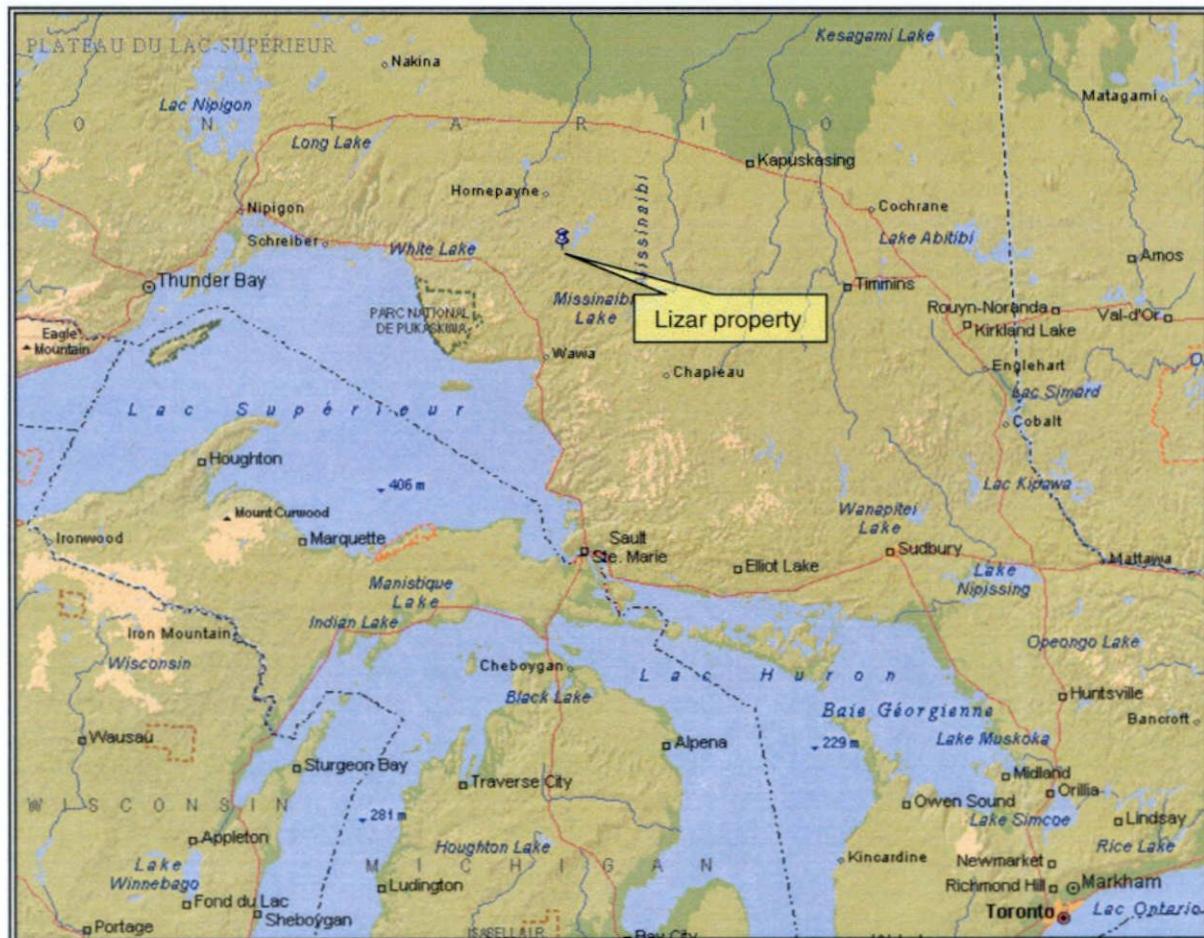
Exploration Geophysicist  
[chad.hewson@teckcominco.com](mailto:chad.hewson@teckcominco.com)

**SURVEY TYPE**

**Time domain resistivity/spectral IP**

**GEOPHYSICAL OBJECTIVE**

Detect potential gold mineralization associated with disseminated to stringer sulphides, from surface to a depth of roughly 100 m.



## 2. THE LIZAR PROPERTY

- LOCATION*

**Breckenridge, Lizar, Mosambik and Nameigos Townships**  
 Sault Ste. Marie Mining District, Ontario, Canada  
 Centred on 48° 48' N and 84° 35' W  
 or 678000 mE, 5409000 mN (UTM Nad 83).  
 NTS map number: 42C/09, 10, 15 and 16
- NEAREST SETTLEMENTS*

White River: 55 km to the SW  
 Wawa: 90 km to the south
- ACCESS*

Access to the grid cut area is via a network of well marked logging roads east of HWY 631, approximately 15 km south of Hornepayne. The recommended route is east at South Larken Road then south on Haken Lake Road, for a total trip of about 60 km to the centre of the property.
- CULTURAL FEATURES*

Many logging roads cross the Lizar property, but they had no effect on the IP measurements.
- LAND TENURE*

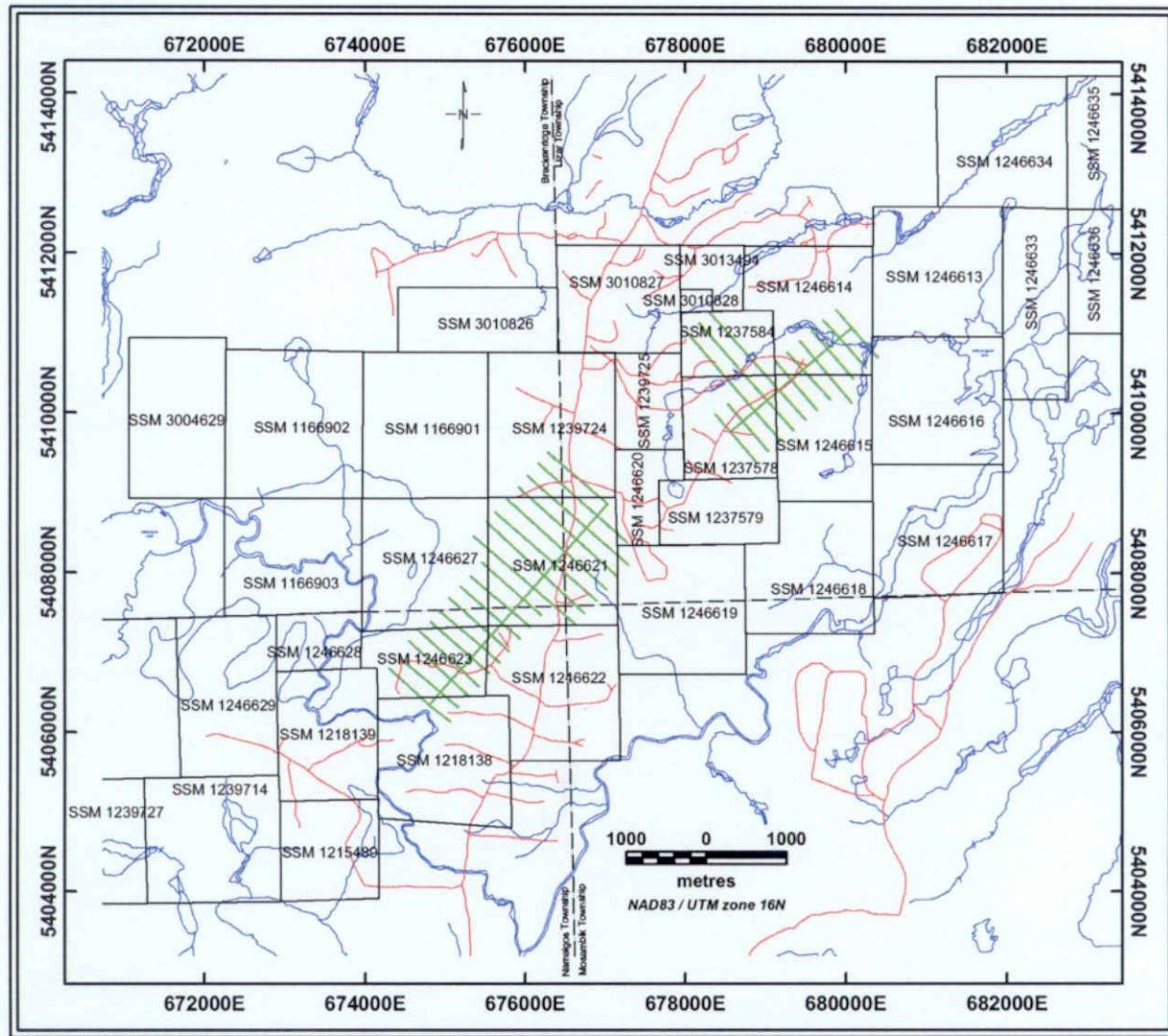
The claim numbers encompassed in the present survey are illustrated on the following page. The Lizar property is wholly owned by Teck Cominco Limited Exploration.
- SURVEY GRID*

Two new survey grids were cut by Lunick Exploration, subcontractor, prior to the IP campaign. Both grid areas tie-on to an existing grid.

The SW grid BL 0+00 runs at 040° and started at the north-westernmost station of the existing grid (677030 mE, 5408860 mN). Cross lines were cut every 200 m from 45+00W to 11+00 W.

The NE grid BL 0+00 runs at 050° and started at the north-easternmost station of the same existing grid (678570 mE, 5409770 mN). Cross lines were cut every 200 m from 9+00E to 29+00E.
- COORDINATE SYSTEM*

Projection: Universal Transverse Mercator  
 Datum: NAD83  
 Central meridian: 87°00' W (UTM Zone 16)

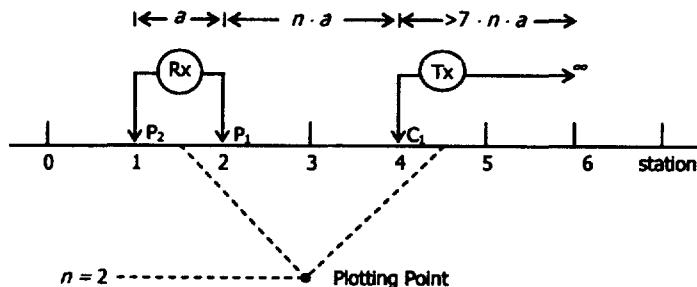


#### INDEX OF CLAIMS AND SURVEY GRID COVERED BY THE PRESENT SURVEY

### 3. RESISTIVITY / INDUCED POLARIZATION SURVEY

**TYPE OF SURVEY**

Time domain resistivity/spectral induced polarization  
**Pole-dipole array, "a" = 50 m, "n" = 1 to 6**



**PERSONNEL**

Jacques Demers,	crew chief
Nathan Grenier,	field assistant
Maxime Cloutier,	field assistant
Maxime Poirier,	field assistant
Sébastien Leclerc,	field assistant
Martin Dubois, Geo.,	fieldwork supervision, logistics & QC
Annie Lacasse, B.Sc.,	data processing & plotting
Pierre Bérubé, Eng.,	interpretation

**DATA ACQUISITION**

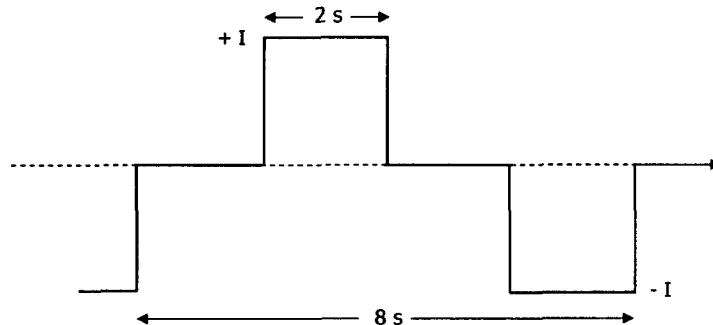
From September 14 to October 02, 2004  
 We did not experience any down time due to instrument breakdown or telluric noise

**SURVEY COVERAGE**

**34.7 km**

**IP TRANSMITTER (TX)**

GDD Instruments TxIII, s/n 215  
 Power supply: Kodiak 1800 W  
 Maximum output: up to 1.8 kW or 10 A or 2000 V  
 Electrodes: stainless steel stakes  
 Resolution: 1 mA on output current display I  
 Waveform: bipolar square wave with 50% duty cycle  
 Pulse duration: 2 seconds



**IP RECEIVER (Rx)**

IRIS Elrec-6, s/n 153 (6 input channels)

Electrodes: stainless steel stakes

**V<sub>P</sub>** Primary voltage measurement:

◊ Input impedance: 10 MΩ

◊ Resolution: 1 µV

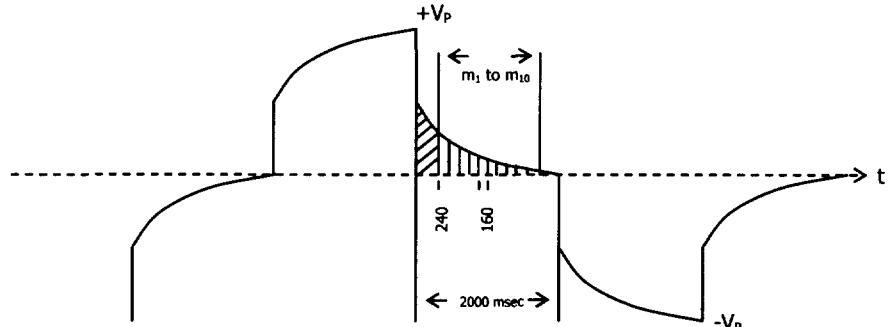
◊ Typical accuracy: 0.3%

**M<sub>a</sub>** Apparent chargeability measurement:

◊ Resolution: 0.1 mV/V

◊ Typical accuracy: 0.6%

◊ Arithmetic sampling mode, 10 time slices (M<sub>1</sub> to M<sub>10</sub>)



◊ All gates are normalized with respect to a standard decay curve for QC in the field.

**APPARENT RESISTIVITY CALCULATION**

$$\rho_a = \pi \cdot n \cdot (n+1) \cdot (n+2) \cdot a \cdot \frac{V_p}{I} \quad (\text{in } \Omega \cdot \text{m})$$

Cumulative error: 5% max, mainly due to chaining accuracy.

**QUALITY CONTROL (RECORDS AVAILABLE UPON REQUEST)**

**Before the survey:**

- ✓ Transmitter & motor generator were checked for maximum output using calibrated loads.
- ✓ Receiver was checked using the Abitibi Geophysics SIMP™ certified and calibrated V<sub>P</sub> & M<sub>a</sub> signal simulator.

**During data acquisition:**

- ✓ Rx & Tx cable insulation was verified every morning.
- ✓ Proprietary Software *Refusilo™* allowed a daily thorough monitoring of data quality and survey efficiency.
- ✓ Enough pulses were stacked: 6 pulses for every reading.

**At the Base of Operations:**

- ✓ Field QCs were inspected & validated.
- ✓ Each IP decay curve was analyzed with *Refusilo™*. The few gates that were rejected were not included in the calculation of the plotted M<sub>a</sub>.

**QUALITY STATISTICS**

<b>Pole-dipole: <math>a = 50 \text{ m}</math>, <math>n = 1 \text{ to } 6</math></b>	<b>Lizar Property</b>
Average contact resistance at the $R_x$	1.2 k $\Omega$
Average output current across $C_1-C_2$	1263 mA
Average measured voltage $V_p$ across $P_1-P_2$ at $n = 6$	421 mV
Observed gates found to fit a pure electrode polarization relaxation curve	99.4 %
Average deviation of the validated normalized gates with respect to the plotted mean chargeabilities	0.09 mV/V at $n = 1$ 0.17 mV/V at $n = 6$

## 4. DATA PROCESSING AND DELIVERABLES

### *SPECTRAL IP PROCESSING*

The spectral analysis of the measured IP decay curve results in a quantitative evaluation of the IP time constant of the various sources. This parameter is the fingerprint of the mineral causing the IP response whereas chargeability is indicative of the amount of this polarizable mineral; both are complementary.

So spectral analysis may lead to mineral discrimination based upon the textural characteristics of the source (graphite, sulphides, oxides, ultramafic rocks, clay minerals). Inversion of the IP decay curves was done using the Australian AGR robust core algorithm. A map of the time constant at a depth of 40 m is presented in addition to the resistivity, chargeability and metal factor maps.

### *TRUE-DEPTH IP SECTIONS*

Apparent resistivity and chargeability pseudosections were inverted using our proprietary *image2D™* package. The process is fully automated as there is no need to guess a starting model or to filter the pseudosection to generate one. The ground is divided in cells of  $\frac{3}{4}$  side and a back-projection of the raw data is performed.

The result is a smooth earth model showing all conductive, resistive and polarizable sources. The resulting true-depth sections integrate all possible solutions, highlighting the most probable ones.

A synthetic example showing the ability of *image2D™* to resolve sources and to facilitate the location of DDH is presented on page 10.

### *PRECISIONS CONCERNING *image2D™**

Imaging cannot create information that is not in the raw data set (pseudosections), i.e., the limitations of the technique and array that was used will still prevail. With pole-dipole, for instance, resolution is asymmetrical and vertical sources may show a false dip. However, noise is efficiently rejected, near-surface effects are easily identified and complex responses, such as two adjoining sources, a wide body or a dipping geological contact, are well resolved.

This imaging process will not recover intrinsic resistivities unless the source is very wide. However, as opposed to pseudosections, geological data from drill-holes may be superimposed on *image2D™* true-depth sections.



**MAPS PRODUCED**

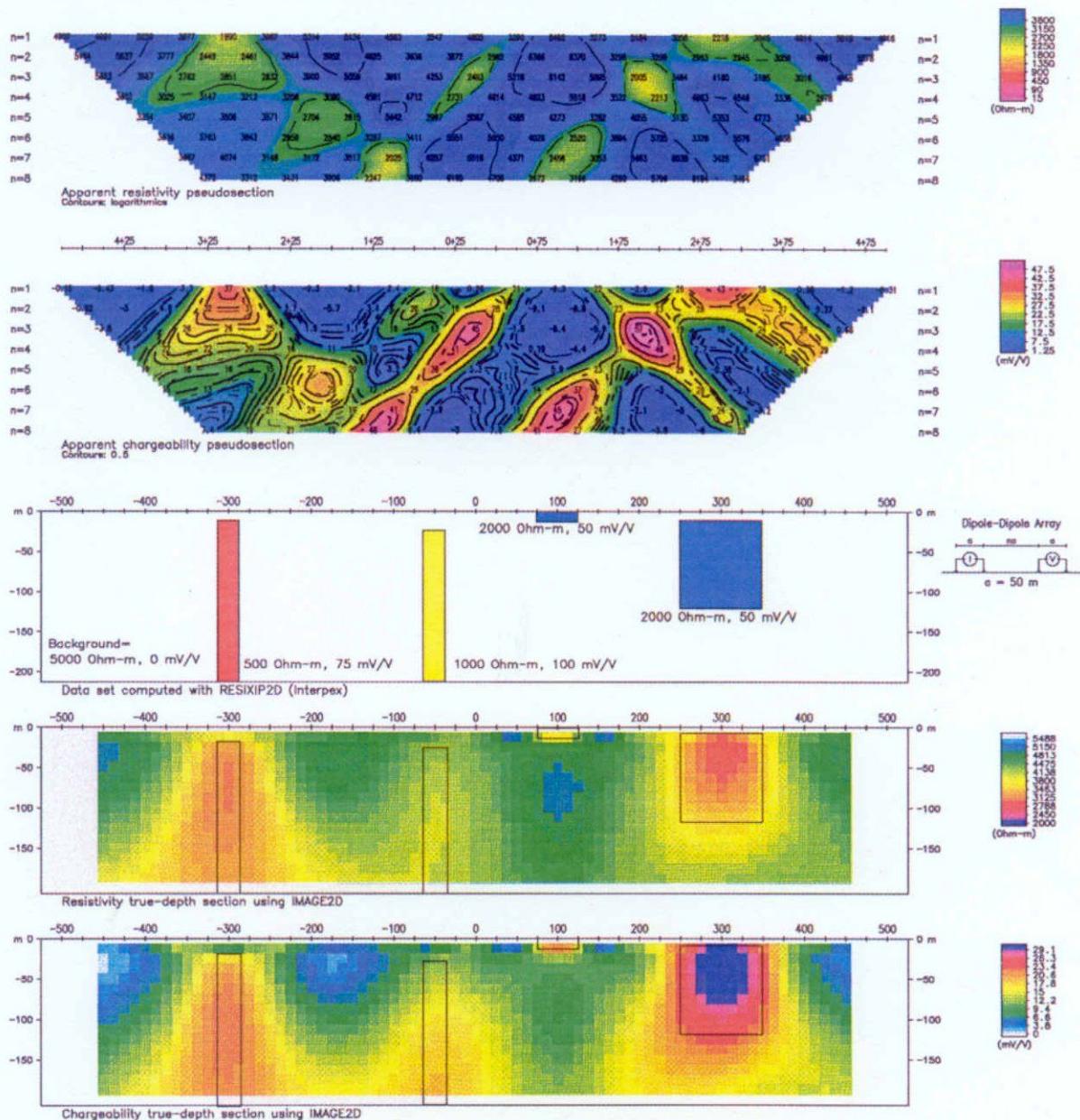
The following colour maps are delivered or inserted in pouches at the end of this report. Our Quality System requires that every final map be inspected by at least two qualified persons before being approved and included within a final report.

Map Number	Description	Scale
Line 45W to 11W and 9E to 29E (29 plates)	Colour Apparent Resistivity & Chargeability Pseudosections and <i>image2D™</i> True-depth Sections with interpretation	1:5 000
8.2	IP Survey - <i>image2D™</i> Resistivity at a depth of 63 m	1:10 000
8.3	IP Survey - <i>image2D™</i> Chargeability at a depth of 63 m	1:10 000
8.5	IP Survey - <i>image2D™</i> Time Constant at a depth of 63 m	1:10 000
10.0	Geophysical Interpretation	1:10 000

### image2D™ demo on synthetic datasets

**Top half of figure:** classic apparent resistivity and chargeability pseudosections.

**Centre of plate:** the synthetic model that generates these pseudosections.



**Bottom half of figure:** the reconstructed resistivity and chargeability true-depth sections after inversion of the pseudosections using **image2D™**.

The model is superimposed on these sections.

## 5. RESULTS AND RECOMMENDATIONS

### RESISTIVITY MAP

Three types of features are noteworthy on the *image2D™* resistivity map (#8.2):

- E-W to N-S trending lows interpreted to be faults. These structures would be younger than most of the sources of the polarizable trends.
- Ovoid-shaped resistive zones, mainly lying in the center of the SW grid.

Both these conductive and resistive features have been reported on the Geophysical Interpretation Map (#10.0). The conductors have been traced as green lines with a superimposed geophysically inferred fault symbol and the 10000  $\Omega\text{m}$  contour line (in blue) was chosen to delineate the resistive zones. Bedrock is believed to be outcropping or sub-cropping within these blue-shaded areas. A few IP trends are embedded in these resistive zones and could probably be investigated by prospecting (stripping/trenching) before being further assessed by diamond drilling.

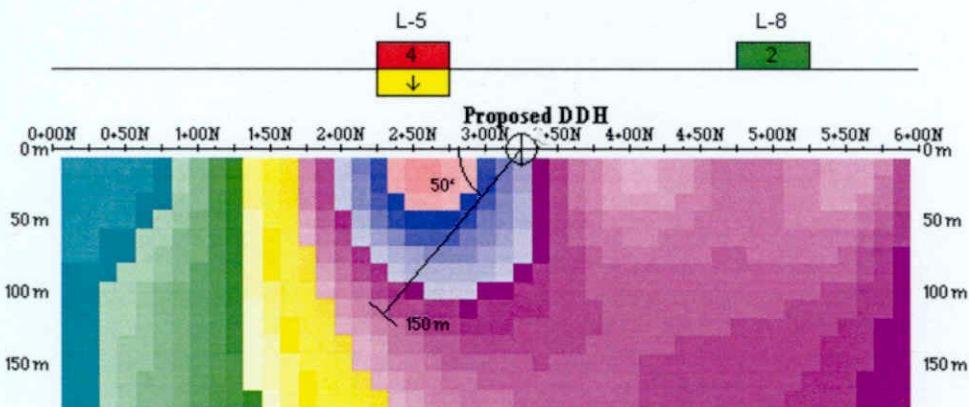
### CHARGEABILITY MAP

The *image2D™* chargeability map (#8.3), plotted at a depth of 63 m, shows a good general correlation with the resistivity map. Many of the anomalous IP responses are located within or alongside resistive zones. In many cases, the chargeability high may simply be sympathetic to these resistivity highs (bedrock ridge effect where the polarizability is of constrictive nature). This may also suggest altered units (silicified/carbonatized) having resisted weathering, with or without minor disseminated sulphides.

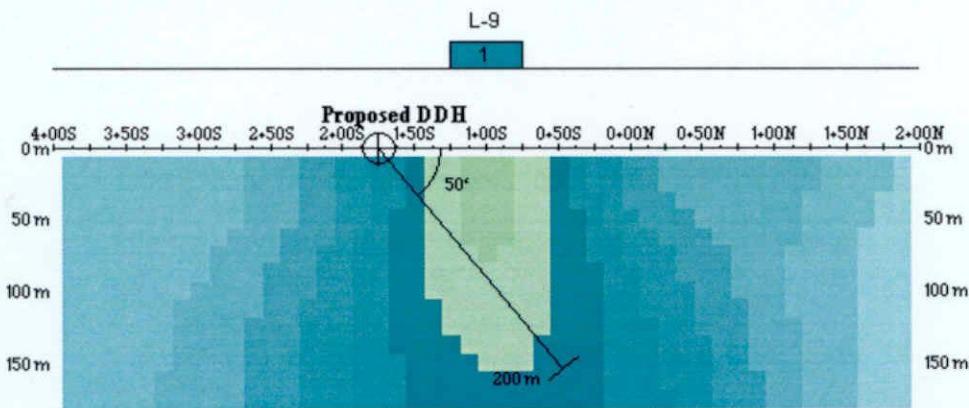
Following a meticulous interpretation of the pseudosections and with the help of the *image2D™* true-depth sections, a total of 15 resistivity/IP anomalies were compiled. The inferred surface projection of the resistivity/IP signatures are shown along the survey lines on both the Geophysical Interpretation Map and the pseudosection plates. These anomalies have been correlated from line-to-line according to their strength, resistivity association, strike-trends, Cole-Cole time constant and other similar characteristics. They are fully described in Appendix A.

□ FIRST-PRIORITY EXPLORATION TARGETS (**L-5 AND L-9**)

IP trend **L-5** is the most interesting exploration target on both survey grids. Polarizability is at a maximum on lines 27+00W and 25+00W where the source is also somewhat conductive. According to the resistivity and chargeability *image2D™* True-depth sections, the source of **L-5** is sub-cropping, allowing a first investigation by prospecting between lines 27+00W and 25+00W. If results prove encouraging, it should then be drill-tested on line 25+00W:

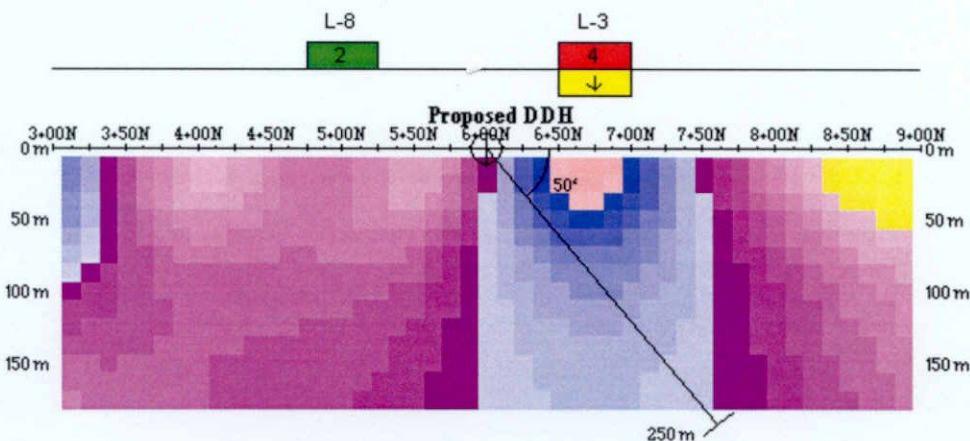


IP trend **L-9** shows a weak chargeability response. However, the *image2D™* resistivity True-depth section suggests an important conductive overburden layer. The source should therefore contain at least 10% of polarizable minerals. The best response is on line 19+00W where it should be drill-tested as a first-priority:



**SECOND-PRIORITY EXPLORATION TARGETS (L-3 AND L-4)**

IP trend **L-3** represents a strongly polarizable source, possibly of formational nature. It strikes NNE at the western boundary of the Lizar SW grid. The southernmost portion is not well defined at the end of the survey lines. On the northernmost portion, the anomaly definition is better and the **image2D™** chargeability True-depth section shows a poor depth extension. The **image2D™** resistivity True-depth section suggests no or very little overburden in the area allowing an investigation of **L-3** by prospecting along its northernmost section (from line 25+00W). Alternatively a DDH could be implemented on line 25+00W:



IP trend **L-4** shows a different signature from the above-described anomalies. The chargeability response is fairly strong but it is embedded in a very resistive zone. The source might therefore be disseminated sulphides in a silicified or carbonatized zone. Prospecting is recommended between lines 35+00W and 33+00W.

**THIRD-PRIORITY EXPLORATION TARGETS**

- L-7, L-8, L-11 and L-12:** prospecting recommended.
- L-13 and L-14:** survey extension required for a better appraisal.
- L-2:** magnetic field data could definitely classify this one as a magnetite-rich source.

## 6. FOLLOW-UP SUMMARY

*PROSPECTING*

Priority	Anomaly	Target
1	L-5	From [27+00W, 2+75N] To [25+00W, 2+50N]
2	L-3	From [25+00W, 6+75N] To [19+00W, 8+50N]
	L-4	From [35+00W, 0+25N] To [33+00W, 0+25N]
3	L-7	Circa [27+00W, 1+25S]
	L-8	From [27+00W, 4+25N] To [25+00W, 5+00N]
	L-11	Circa [17+00W, 6+00N]
	L-12	Circa [15+00E, 2+25N]

*DRILL-TESTING*

Priority	Anomaly	DDH Target		
		line	station	depth
1	L-5*	25+00W	2+50N	75 m
	L-9	19+00W	1+00S	100 m
2	L-3*	25+00W	6+75N	100 m

\* Prospecting is recommended first

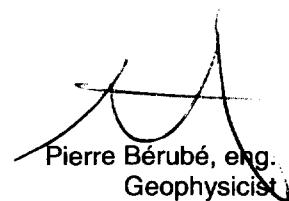
*SURVEY EXTENSION*

Priority	Anomaly
3	L-13
	L-14



The interpretation of the geophysical data embodied in this report is essentially a geophysical appraisal of the Lizar property. As such, it incorporates only as much geoscientific information as the author has on hand at the time. Geologists thoroughly familiar with the area are in a better position to evaluate the geological significance of the various geophysical signatures. Moreover, as time passes and information provided by follow-up programs are compiled, exploration targets recognized in this study might be down-graded or up-graded.

Respectfully submitted,  
Abitibi Geophysics Inc.



Pierre Bérubé, eng.  
Geophysicist

PB/cp

## Appendix A

### Description of the IP anomalies on the Lizar Property



Anomaly	Location		Contrast			Comments	Priority
	Line	Station	Charg.	Res.	Time K		
L-1	41+00W	2+75N	?	↑	2.0	Constriction polarization due to silicate minerals? No further work recommended for now.	4
	39+00W	3+25N	1	↑	2.0		
L-2	39+00W	1+75S	1	↑(R)	1.9	Low time constant typical of oxides. Disseminated magnetite? <b>To be confirmed with the magnetic field results.</b>	3
	37+00W	1+63S	2	↑↑(R)	1.7		
	35+00W	2+25S	1	↑(R)	1.4		
	33+00W	2+25S	1	↑(R)	1.5		
L-3	39+00W	5+50N	2	-	2.0	Strongly polarizable NNE lineament lying at the western boundary of the SW grid. III defined from 39+00W to 27+00W. Limited depth extension of the polarizable source. Sub-cropping source. Formation response? <b>Prospecting recommended from lines 25+00W to 19+00W, alternatively a DDH could be implemented on line 25+00W.</b>	2
	37+00W	North end	3	-	2.0		
	35+00W	North end	2	-	1.9		
	31+00W	North end	3	-	1.8		
	29+00W	North end	4	-	2.0		
	27+00W	North end	3	-	2.1		
	25+00W	6+75N	4	↓	2.2		
	23+00W	7+25N	3	-	2.1		
	21+00W	8+00N	3	↓	2.0		
	19+00W	8+50N	3	-	2.0		
L-4	37+00W	0+00N	2	↑↑(R)	2.0	Anomalous chargeability response embedded in a wide resistive and polarizable zone. Silicified/carbonatized zone having resisted weathering? <b>Prospecting recommended between lines 35+00W and 33+00W.</b>	2
	35+00W	0+25N	3	↑(R)	2.1		
	33+00W	0+25N	3	↑(R)	2.2		
L-5	35+00W	3+25N	2	-	2.0	Sub-cropping polarizable source. <b>First-priority target to be prospected between lines 27+00W and 25+00W, if prospecting is positive, then it should be drilled on line 25+00W.</b>	1
	33+00W	2+25N	2	-	2.2		
	31+00W	2+38N	2	-	2.1		
	29+00W	2+50N	3	-	2.0		
	27+00W	2+75N	4	↓	2.0		
	25+00W	2+50N	4	↓	2.1		
	23+00W	3+25N	2	-	2.0		
L-6	29+00W	0+00N	1	-	2.0	Constriction polarization due to silicate minerals? No further work recommended for now.	4
	27+00W	0+75N	1	(R)	2.0		

## Appendix A

### Description of the IP anomalies on the Lizar Property



Anomaly	Location		Contrast			Comments	Priority
	Line	Station	Charg.	Res.	Time K		
L-7	27+00W	1+25S	2	↑ (R)	2.0	NE extension of L-4? <b>Prospecting recommended on line 27+00W.</b>	3
	25+00W	1+25S	1	↑	2.0		
	23+00W	1+50S	?	↑	2.0		
L-8	27+00W	4+25N	3	(R)	2.0	Polarizable source embedded in a resistive zone. <b>Prospecting recommended between lines 27+00W and 25+00W.</b>	3
	25+00W	5+00N	2	(R)	2.0		
L-9	21+00W	0+75S	1	-	2.0	Very weakly polarizable source lying under an important conductive layer of overburden. <b>First-priority DDH recommended on line 19+00W.</b>	1
	19+00W	1+00S	1	-	2.0		
	17+00W	1+00S	?	-	2.0		
L-10	21+00W	1+25N	1	↑	2.0	Single-line response on trend with L-6. Likely to be abandoned.	5
L-11	19+00W	5+50N	?	-	2.0	Sub-cropping polarizable source embedded in a resistive zone. <b>Prospecting recommended on line 17+00W.</b>	3
	17+00W	6+00N	2	(R)	2.0		
L-12	13+00E	1+25N	?	↑	2.0	Silicified/carbonatized zone having resisted weathering with minor sulphides? <b>Prospecting is recommended on line 15+00E.</b>	3
	15+00E	2+25N	1	↑	2.0		
L-13	13+00E	8+75N	1	-	2.0	Very weakly polarizable source. Open-ended at both ends. <b>Survey extension required.</b>	3
	15+00E	9+25N	1	-	2.1		
	17+00E	8+75N	1	↑	2.0		
L-14	15+00E	6+50N	?	-	2.1	Very weakly polarizable source. Open-ended to the NE. <b>Survey extension required.</b>	3
	17+00E	6+25N	1	-	2.0		
L-15	21+00E	1+00N	?	(R)	2.0	Constriction polarization due to silicate minerals? Likely to be abandoned.	5
	23+00E	2+00N	?	(R)	2.0		

**LEGEND:**

<b>Chargeability Increase</b>	<b>Resistivity Increase</b>
? = Marginal	↑ = Resistive
1 = Weak	↑↑ = Very Resistive
2 = Moderate	(R) = Wide Resistive Zone
3 = High	<b>Decrease</b>
4 = Very High	↓ = Conductive
	↓↓ = Very Conductive

Work Report Summary

Transaction No: W0550.00122 Status: APPROVED

Recording Date: 2005-JAN-24 Work Done from: 2004-SEP-14

Approval Date: 2005-FEB-03 to: 2004-OCT-02

## Client(s):

300786 RESSOURCES FREEWEST CANADA INC., FREEWEST RESOURCES CANADA INC.

## Survey Type(s):

IP LC

Work Report Details:

Claim#	Perform	Perform Approve	Applied	Applied Approve	Assign	Assign Approve	Reserve	Reserve Approve	Due Date
SSM 1218138	\$1,505	\$1,505	\$0	\$0	\$0	0	\$1,505	\$1,505	2006-SEP-10
SSM 1237578	\$7,712	\$7,712	\$0	\$0	\$0	0	\$7,712	\$7,712	2006-NOV-01
SSM 1237584	\$4,890	\$4,890	\$0	\$0	\$0	0	\$4,890	\$4,890	2006-NOV-01
SSM 1239724	\$2,257	\$2,257	\$0	\$0	\$0	0	\$2,257	\$2,257	2006-JUN-12
SSM 1246614	\$7,335	\$7,335	\$0	\$0	\$0	0	\$7,335	\$7,335	2006-FEB-15
SSM 1246615	\$5,079	\$5,079	\$0	\$0	\$0	0	\$5,079	\$5,079	2006-FEB-15
SSM 1246619	\$376	\$376	\$0	\$0	\$0	0	\$376	\$376	2006-FEB-15
SSM 1246620	\$376	\$376	\$0	\$0	\$0	0	\$376	\$376	2006-FEB-15
SSM 1246621	\$25,957	\$25,957	\$0	\$0	\$0	0	\$25,957	\$25,957	2006-FEB-15
SSM 1246622	\$1,693	\$1,693	\$0	\$0	\$0	0	\$1,693	\$1,693	2006-FEB-15
SSM 1246623	\$11,662	\$11,662	\$0	\$0	\$0	0	\$11,662	\$11,662	2006-FEB-15
SSM 1246627	\$1,881	\$1,881	\$0	\$0	\$0	0	\$1,881	\$1,881	2006-MAR-07
	\$70,723	\$70,723	\$0	\$0	\$0	\$0	\$70,723	\$70,723	

External Credits: \$0

## Reserve:

\$70,723 Reserve of Work Report#: W0550.00122

\$70,723 Total Remaining

Status of claim is based on information currently on record.



42C15SE2006 2.29129 LIZAR

900

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

Date: 2005-FEB-03



GEOSCIENCE ASSESSMENT OFFICE  
933 RAMSEY LAKE ROAD, 6th FLOOR  
SUDBURY, ONTARIO  
P3E 6B5

RESSOURCES FREEWEST CANADA INC.,  
FREEWEST RESOURCES CANADA INC.  
615 BOULEVARD RENE LEVESQUE  
SUITE 1200  
MONTREAL, QUEBEC  
H3B 1P5 CANADA

Tel: (888) 415-9845  
Fax:(877) 670-1555

**Submission Number:** 2.29129  
**Transaction Number(s):** W0550.00122

Dear Sir or Madam

**Subject: Approval of Assessment Work**

We have approved your Assessment Work Submission with the above noted Transaction Number(s). The attached Work Report Summary indicates the results of the approval.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

If you have any question regarding this correspondence, please contact STEVEN BENETEAU by email at steve.beneteau@ndm.gov.on.ca or by phone at (705) 670-5855.

Yours Sincerely,

A handwritten signature in black ink that reads "Ron C. Gashinski".

Ron C. Gashinski  
Senior Manager, Mining Lands Section

**Cc:** Resident Geologist

Assessment File Library

Teck Cominco Limited  
(Agent)

Ressources Freewest Canada Inc., Freewest  
Resources Canada Inc.  
(Claim Holder)

Ressources Freewest Canada Inc., Freewest  
Resources Canada Inc.  
(Assessment Office)

Date / Time of Issue: Mon Feb 21 09:57:50 EST 2005

**TOWNSHIP / AREA  
NAMEIGOS**

**PLAN  
G-2283**

## **ADMINISTRATIVE DISTRICTS / DIVISIONS**

**Mining Division  
Land Titles/Registry Division  
Ministry of Natural Resources District**

Sault Ste. Marie  
ALGOMA  
WAWA

## TOPOGRAPHIC

- | Administrative Boundaries |                      | Freehold Patent                     |   |
|---------------------------|----------------------|-------------------------------------|---|
|                           | Township             | <input checked="" type="checkbox"/> | Surface And Mining Rights               |
|                           | Concession, Lot      | <input type="checkbox"/>            | Surface Rights Only                     |
|                           | Provincial Park      | <input type="checkbox"/>            | Mining Rights Only                      |
|                           | Indian Reserve       |                                     | Leasehold Patent                        |
|                           | Cliff, Pit & Pile    | <input type="checkbox"/>            | Surface And Mining Rights               |
|                           | Contour              | <input type="checkbox"/>            | Surface Rights Only                     |
|                           | Mine Shafts          | <input type="checkbox"/>            | Mining Rights Only                      |
|                           | Mine Headframe       |                                     | Licence of Occupation                   |
|                           | Railway              | <input type="checkbox"/>            | Uses Not Specified                      |
|                           | Road                 | <input type="checkbox"/>            | Surface And Mining Rights               |
|                           | Trail                | <input type="checkbox"/>            | Surface Rights Only                     |
|                           | Natural Gas Pipeline | <input type="checkbox"/>            | Mining Rights Only                      |
|                           | Utilities            | <input type="checkbox"/>            | Land Use Permit                         |
|                           | Tower                | <input type="checkbox"/>            | Order in Council (Not open for staking) |

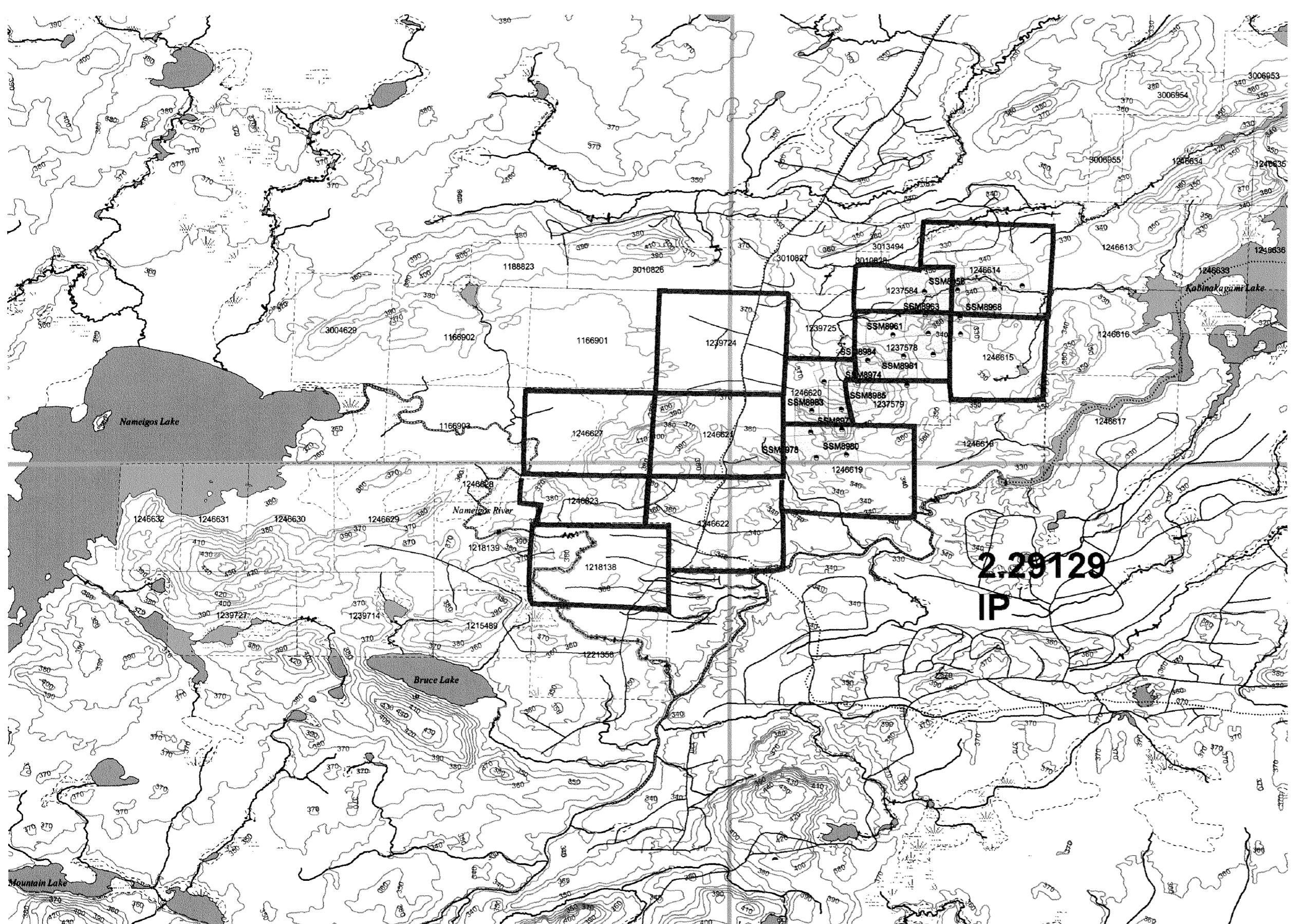


ND TENURE WITHDRAWALS	
1234	Area Withdrawn from Disposition
Wem	Mining Acts Withdrawal Types
Ww	Surface And Mining Rights Withdrawn
Wm	Surface Rights Only Withdrawn
W'sm	Mining Rights Only Withdrawn
W's	Order In Council Withdrawal Types
W'm	Surface And Mining Rights Withdrawn
W'	Surface Rights Only Withdrawn
Wm	Mining Rights Only Withdrawn.

#### **IMPORTANT NOTICES**

Page 4/54331

**0km** **3000m**



Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands above known. This map is not intended for educational or scientific purposes as the information shown on this map may also be obtained through the

#### **General Information and Limitations**

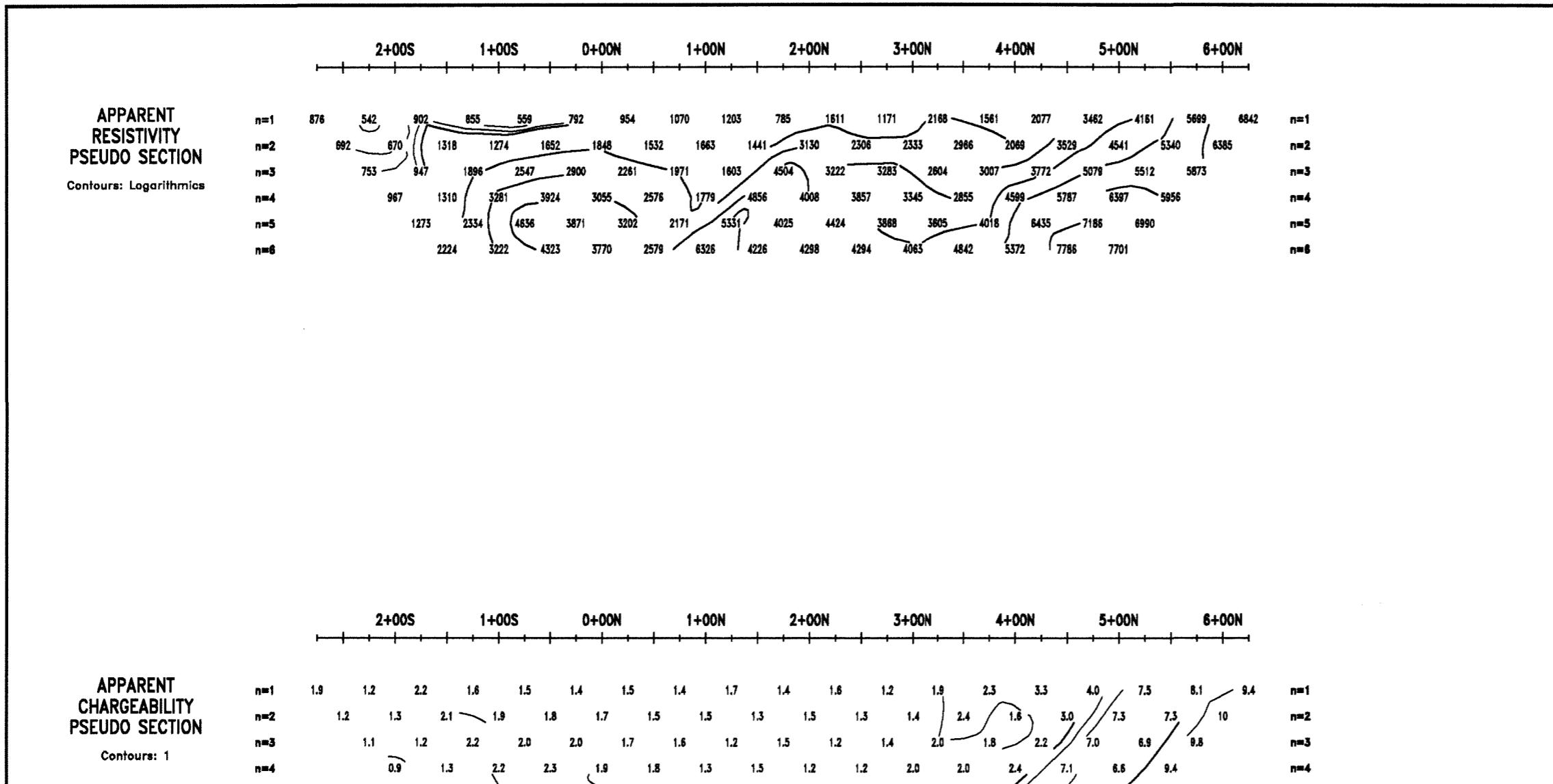
**Contact Information:**  
Provincial Mining Recorders' Office  
Willet Green Miller Centre 933 Ramsey Lake Road  
 Sudbury ON P3E 6B5  
Home Page: [www.mndm.gov.on.ca/MNDM/MINES/LAN](http://www.mndm.gov.on.ca/MNDM/MINES/LAN)

Map Datum: NAD 83  
Projection: Geographic Coordinates  
Topographic Data Source: Landmine  
Mining Land Tenure Source: LMS  
[S/misnmppge.htm](http://lms.mnmpge.htm)

This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licences, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.

42C15SE2006 2.29129 LIZA

200

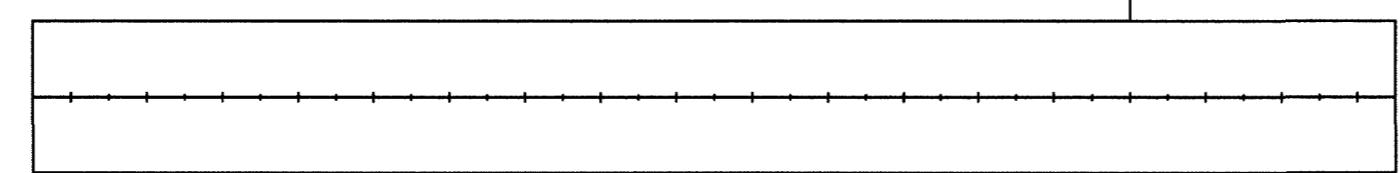


210



LIZAR 42C155E2006 2.29129

INTERPRETATION

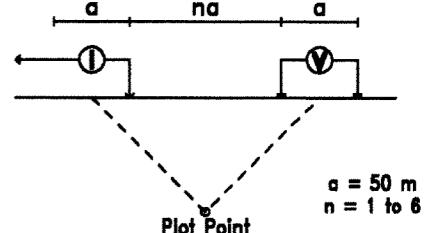
chargeability  
resistivity

Very Strong  
Strong  
Moderate  
Weak  
Questionable

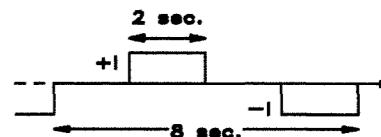
Very Conductive  
Conductive  
Resistive  
Very Resistive

## INDUCED POLARIZATION SURVEY

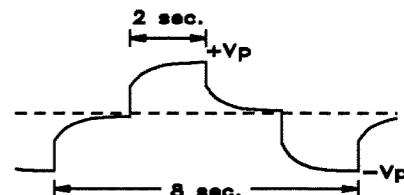
Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

50    0    50    100    150    200    250    300m

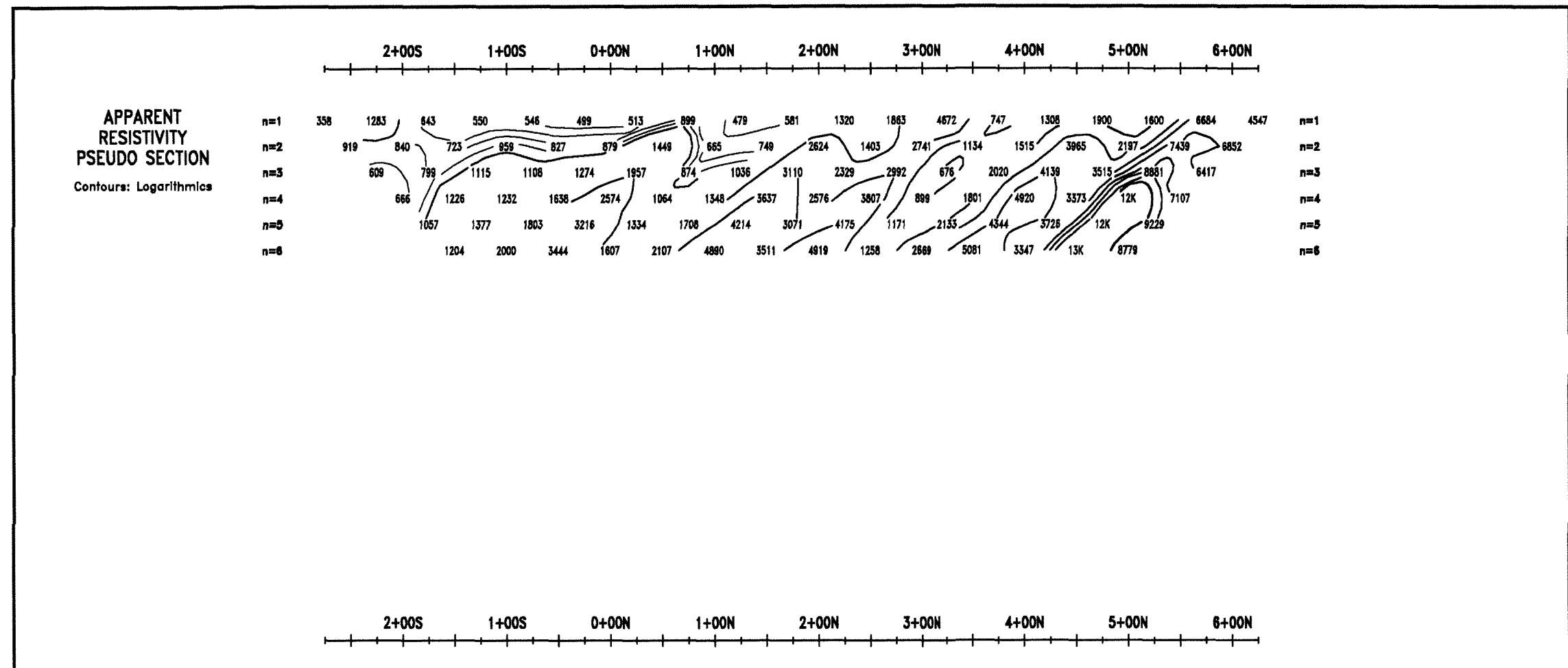
TECK COMINCO LIMITED EXPLORATION

Lizar Property  
Lizar, Nameigos, Breckenridge and  
Mosambik Townships, Ontario

Line 45+00W

Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

ABITIBI  
GEOPHYSICS

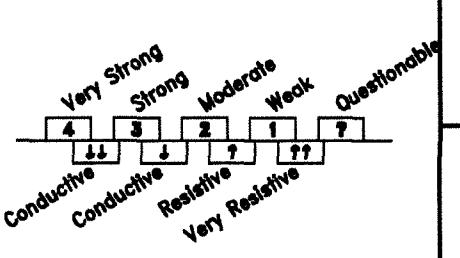
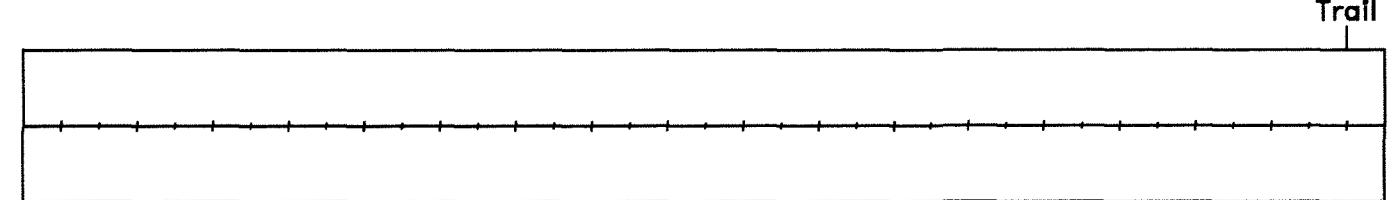
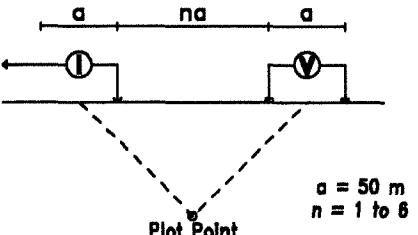


220

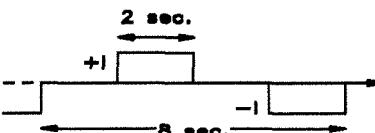


LIZAR

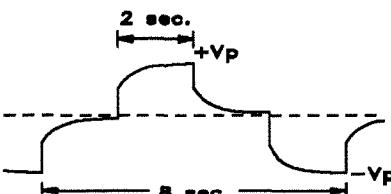
42C15SE2006 2.29129

**INTERPRETATION**chargeability  
resistivity**INDUCED POLARIZATION SURVEY****Pole-Dipole Array**

Transmitter: TX-III (GDD), 1.8 kW



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

50 0 50 100 150 200 250 300m

**TECK COMINCO LIMITED EXPLORATION**

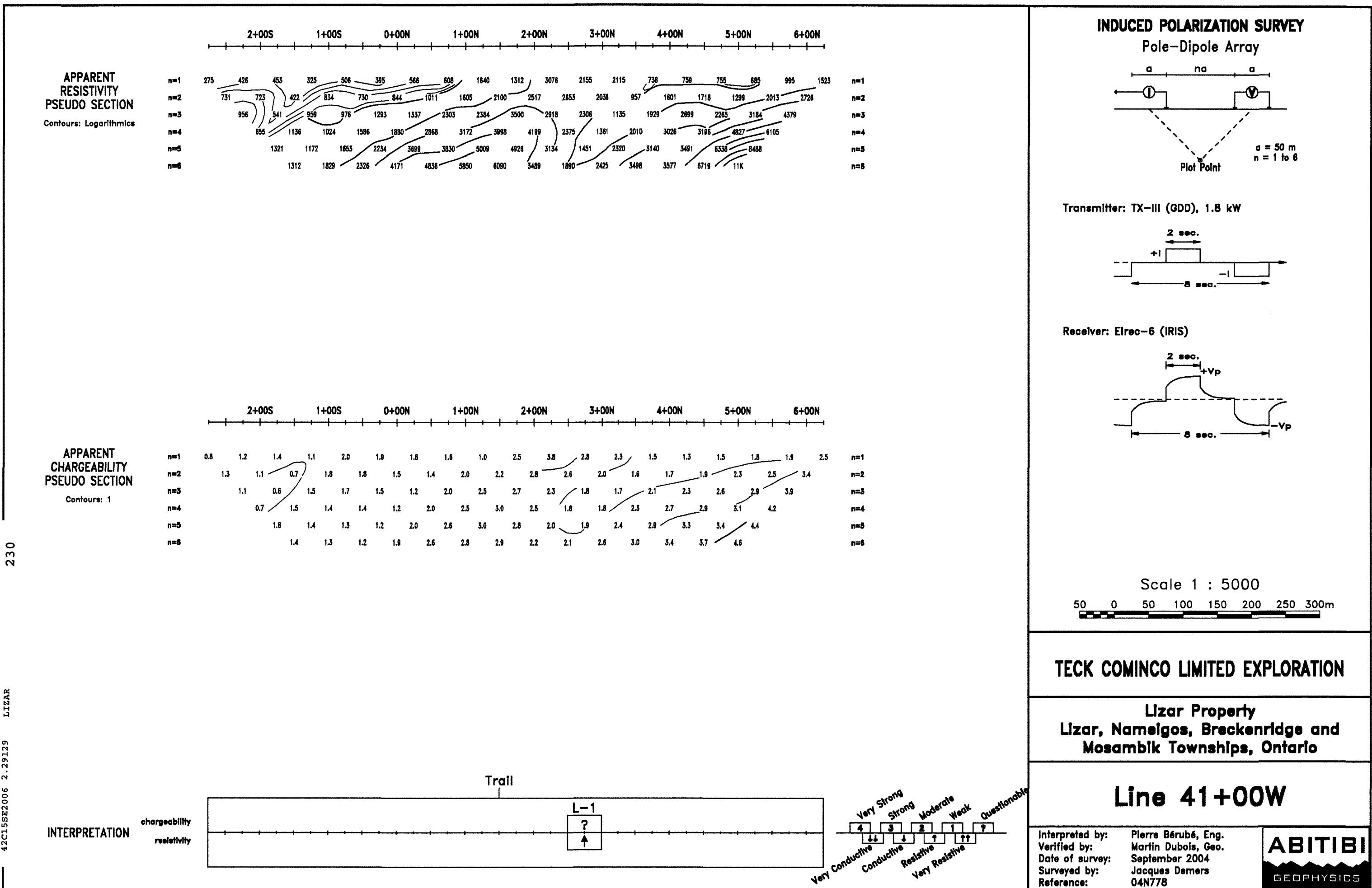
**Lizar Property**  
**Lizar, Nameigos, Breckenridge and**  
**Mosambik Townships, Ontario**

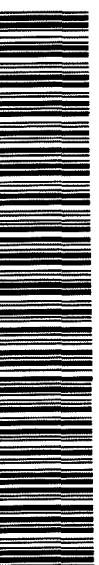
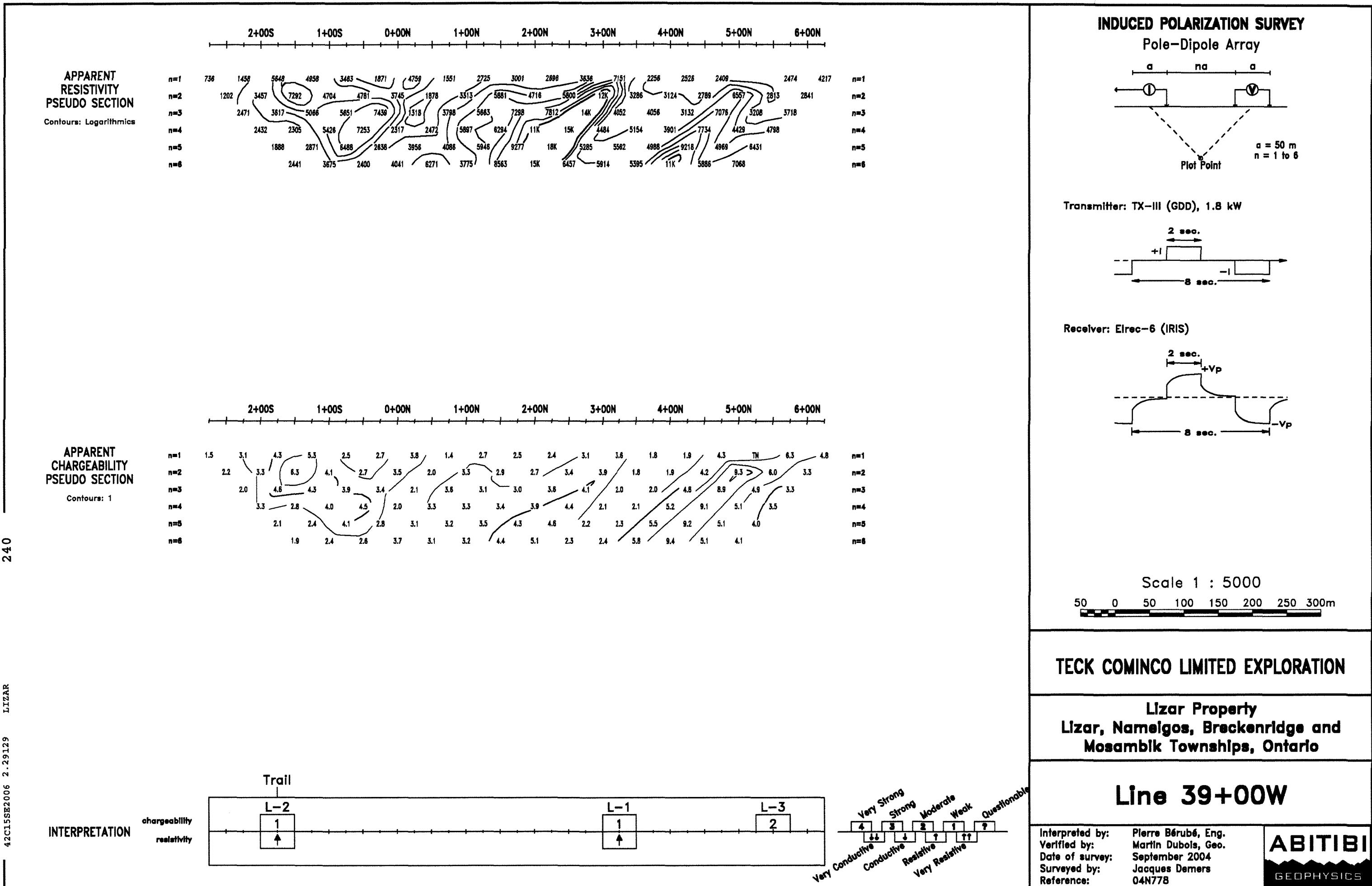
**Line 43+00W**

Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

**ABITIBI**

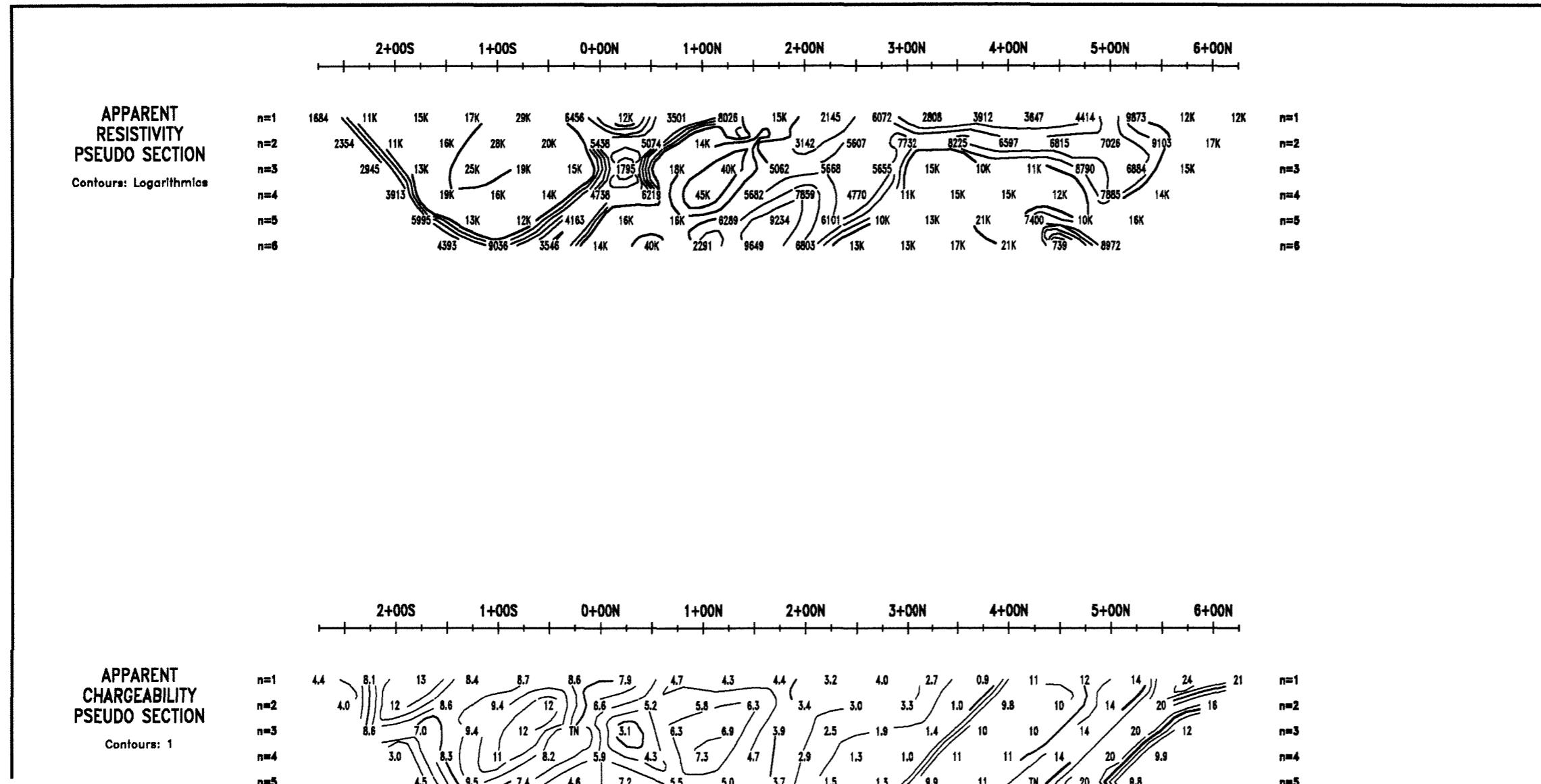
GEOPHYSICS





LIZAR 2.29129

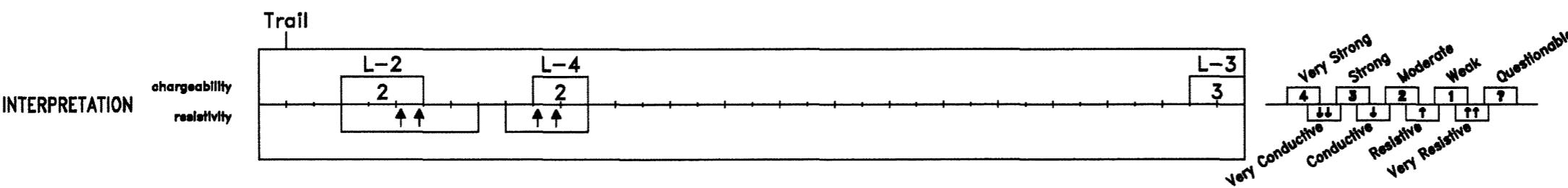
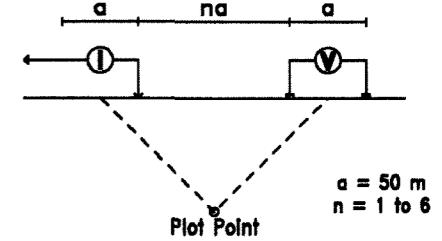
42C15SE2006 2.29129



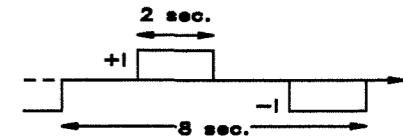
250



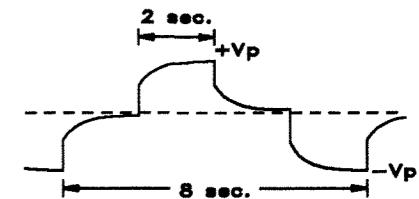
42C15SE2006 2.29129

**INDUCED POLARIZATION SURVEY****Pole-Dipole Array**

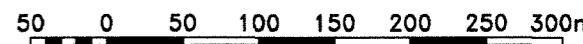
Transmitter: TX-III (GDD), 1.8 kW



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

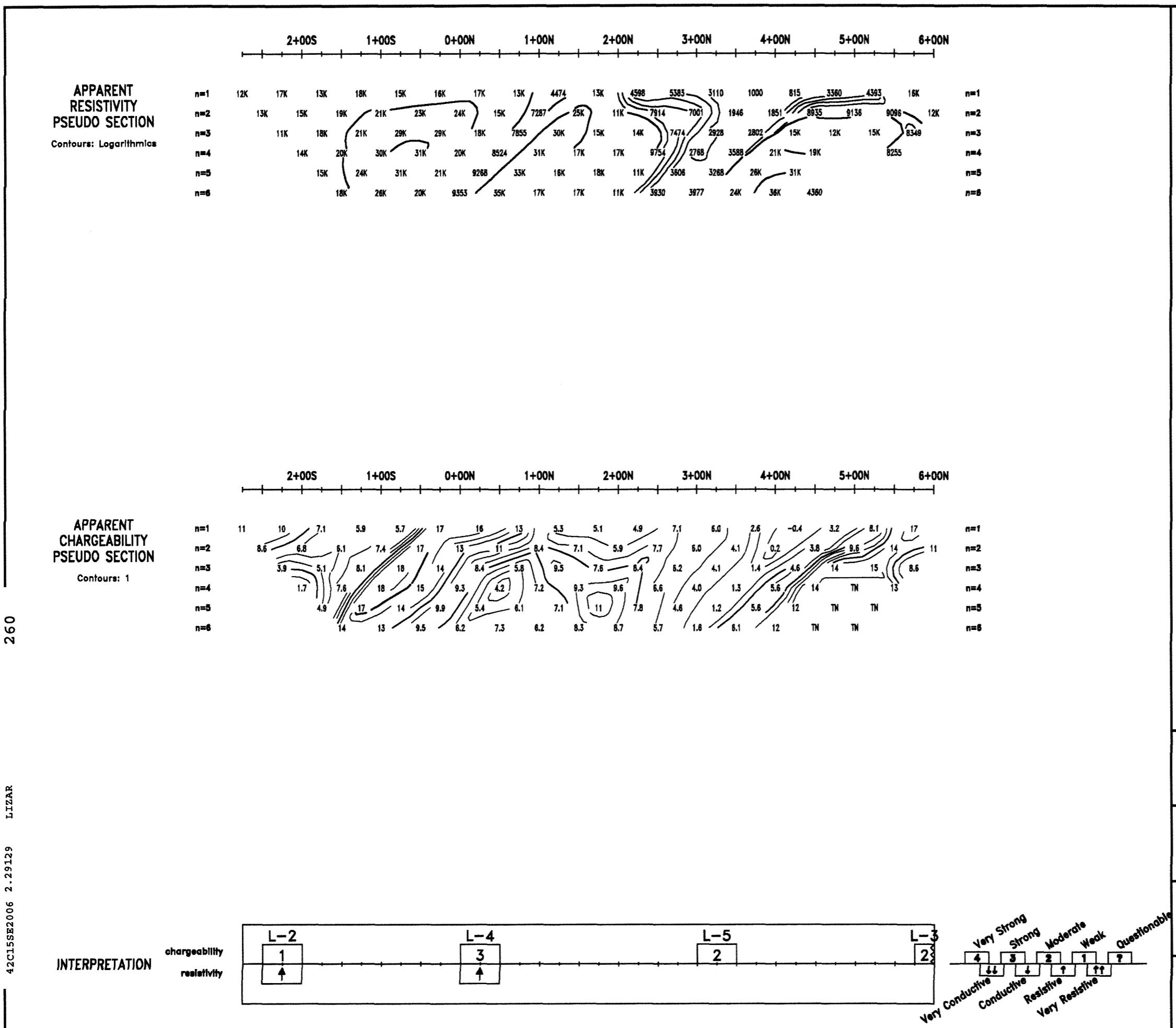
**TECK COMINCO LIMITED EXPLORATION**

**Lizar Property**  
**Lizar, Nameigos, Breckenridge and**  
**Mosambik Townships, Ontario**

**Line 37+00W**

Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

**ABITIBI**  
GEOPHYSICS



## TECK COMINCO LIMITED EXPLORATION

**Lizar Property**  
**Lizar, Nameigos, Breckenridge and**  
**Mosambik Townships, Ontario**

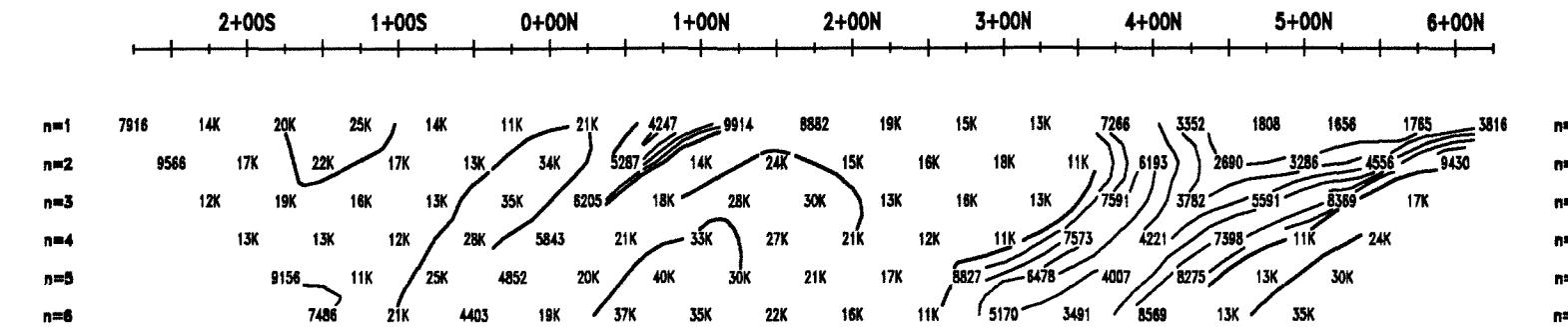
**Line 35+00W**

Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

**ABITIBI**  
GEOPHYSICS

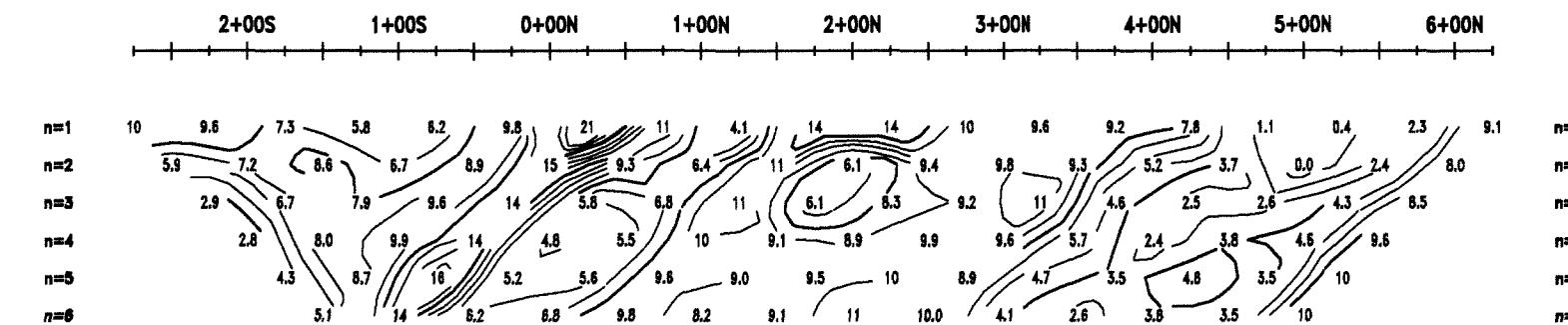
**APPARENT  
RESISTIVITY  
PSEUDO SECTION**

Contours: Logarithmic



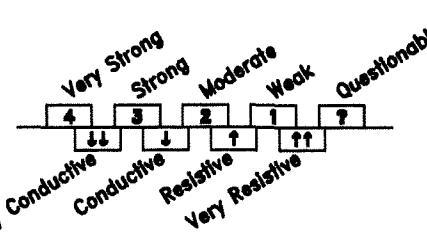
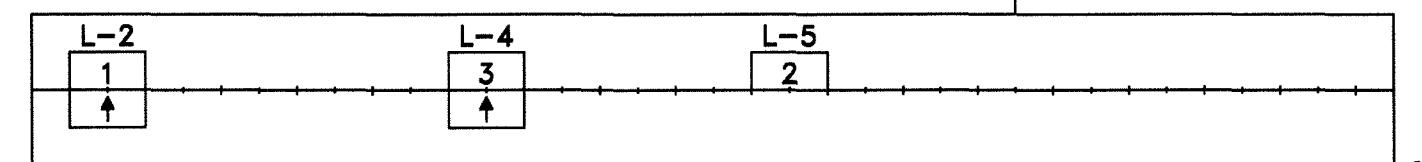
**APPARENT  
CHARGEABILITY  
PSEUDO SECTION**

Contours: 1



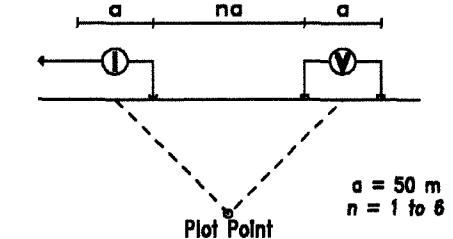
**INTERPRETATION**

chargeability  
resistivity

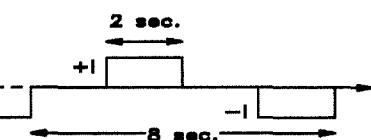


**INDUCED POLARIZATION SURVEY**

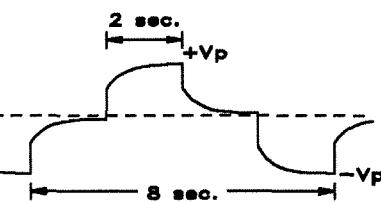
Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

50 0 50 100 150 200 250 300m

**TECK COMINCO LIMITED EXPLORATION**

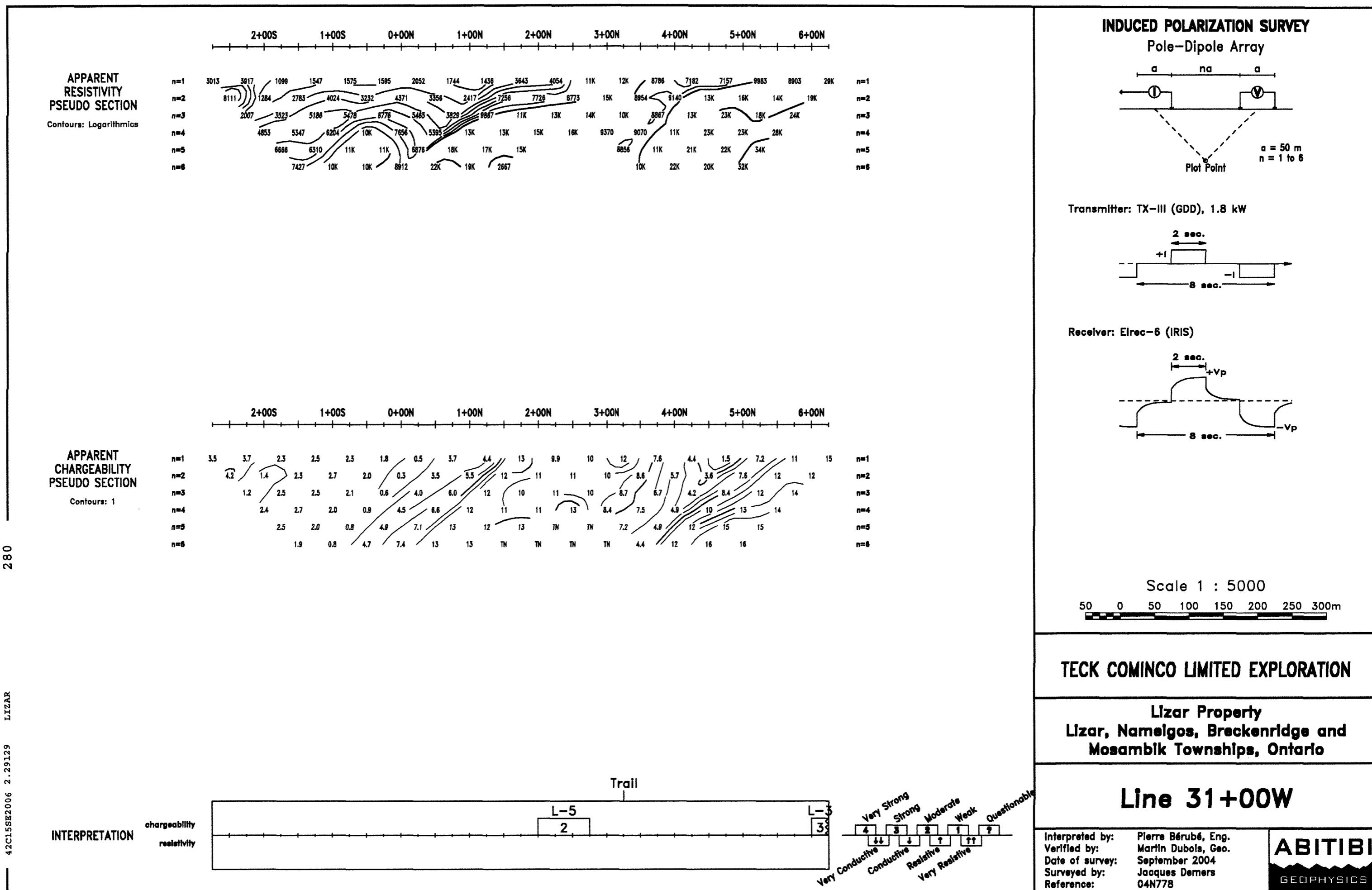
**Lizar Property**  
**Lizar, Nameigos, Breckenridge and**  
**Mosambik Townships, Ontario**

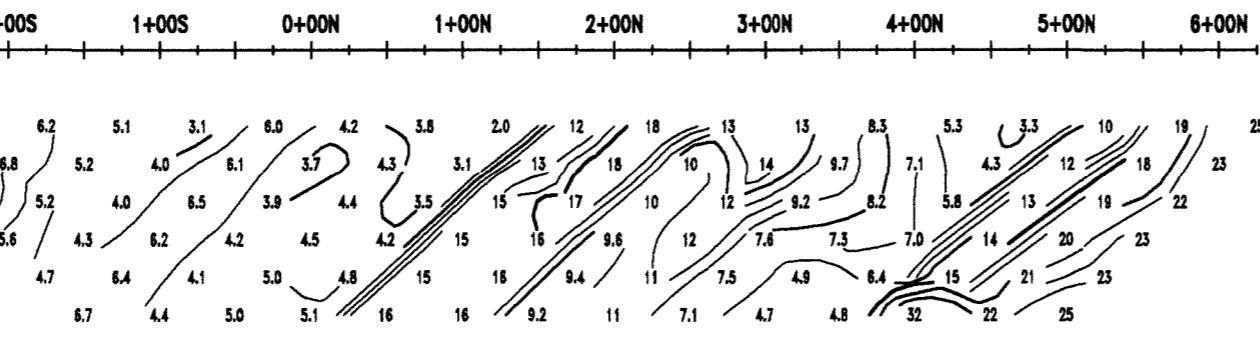
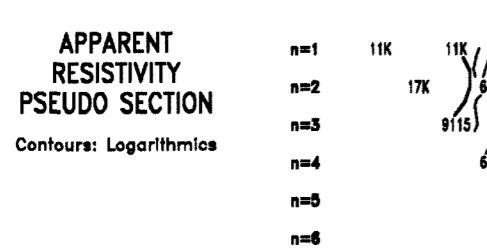
**Line 33+00W**

Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

**ABITIBI**  
GEOPHYSICS







290

LIZAR

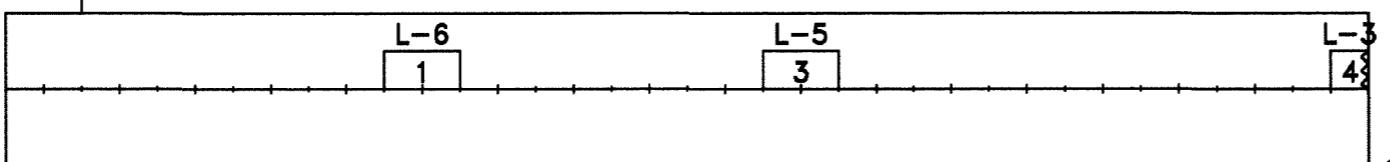
06 2:29129

113C15SE2006 2.29129

## **INTERPRETATION**

**chargeability**  
**resistivity**

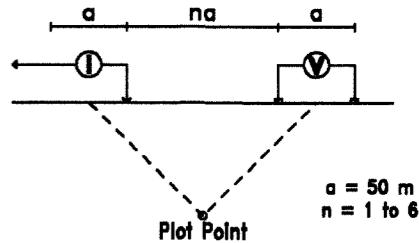
Trai



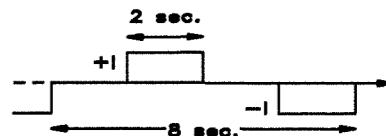
A horizontal scale with seven boxes labeled from 'Very Strong' to 'Questionable'. Below the scale are four categories: 'Very Conductive', 'Conductive', 'Resistive', and 'Very Resistive'. To the left is a vertical scale from 1 to 7.

## **INDUCED POLARIZATION SURVEY**

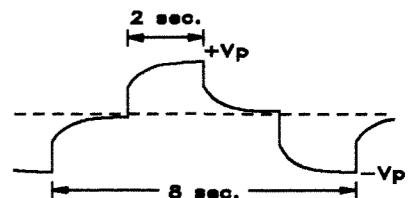
## Pole-Dipole Array



**Transmitter: TX-III (GDD), 1.8 kW**



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

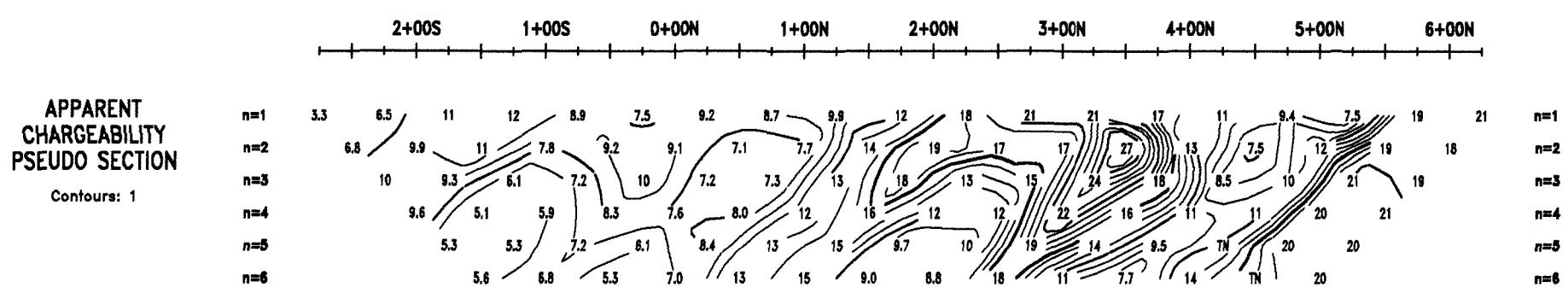
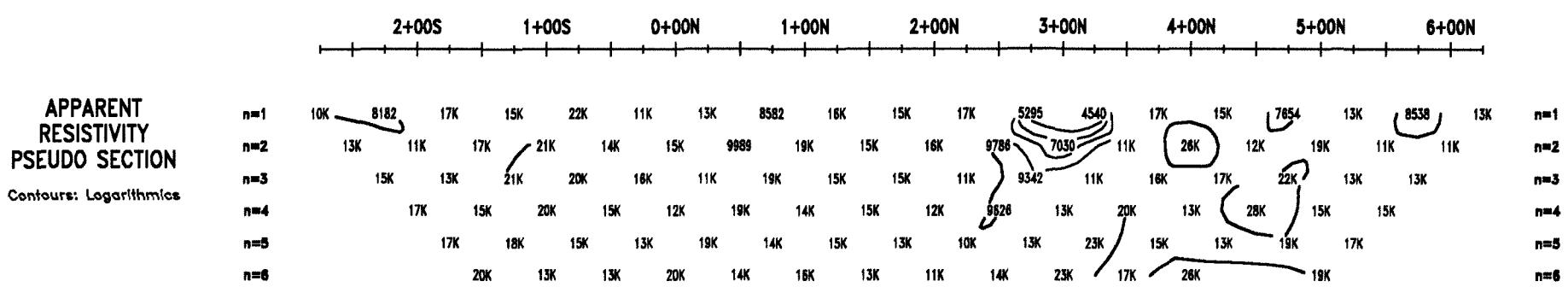
## TECK COMINCO LIMITED EXPLORATION

# Lizar Property Lizar, Nameigos, Breckenridge and Mosamblk Townships, Ontario

**Line 29+00W**

**Interpreted by:** Pierre Bérubé, Eng.  
**Verified by:** Martin Dubois, Geo.  
**Date of survey:** September 2004  
**Surveyed by:** Jacques Demers  
**Reference:** 04N778

**ABITIBI**  
GEOPHYSICS

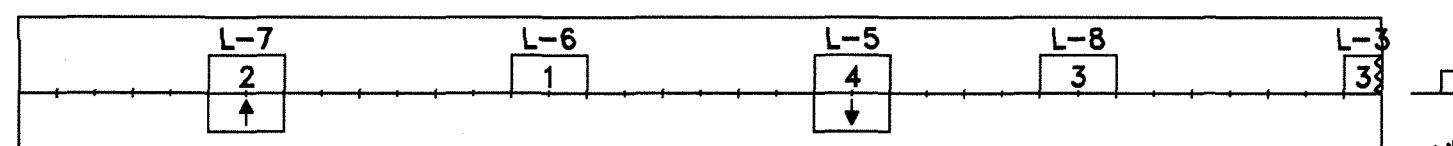


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३

22C15SE2006 2.29129 LIZAR

## **INTERPRETATION**

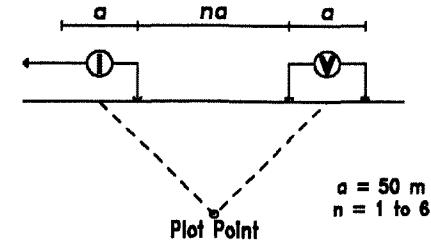
**chargeability**  
**resistivity**



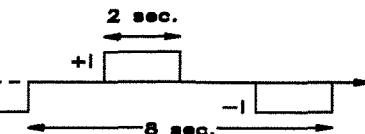
A horizontal Likert scale consisting of five rectangular boxes arranged horizontally. Each box contains a number from 1 to 5. Above the scale, the numbers are labeled with descriptive words: "Very Strong" (4), "Strong" (3), "Moderate" (2), "Weak" (1), and "Questionable" (5). Below the scale, the numbers are labeled with categories: "Very Conductive" (4), "Conductive" (3), "Resistive" (2), and "Very Resistive" (1).

# INDUCED POLARIZATION SURVEY

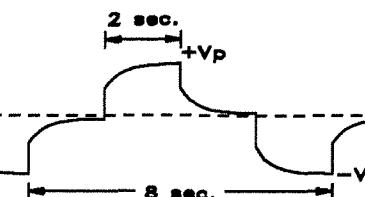
## Pole-Dipole Array



**Transmitter: TX-III (GDD), 1.8 kW**



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

50 0 50 100 150 200 250 300m

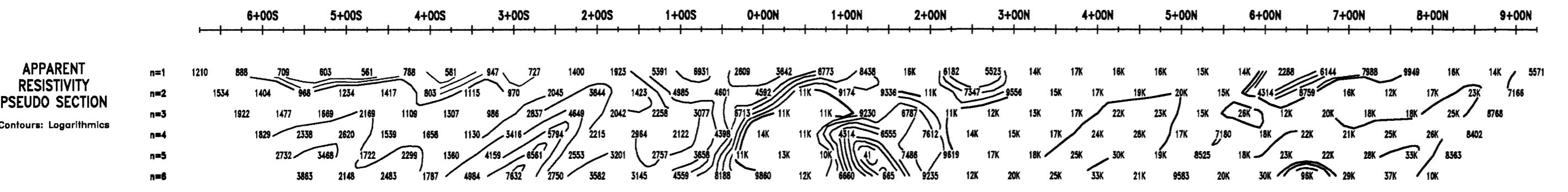
ECK COMINCO LIMITED EXPLORATION

**Lizar Property  
Lizar, Namsigos, Breckenridge and  
Mosambik Townships, Ontario**

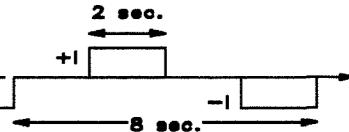
**Line 27+00W**

Interpreted by: Pierre Bérubé, Eng.  
Qualified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N728

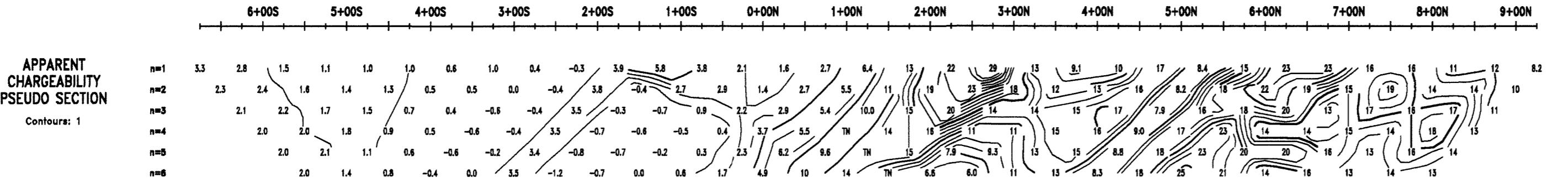
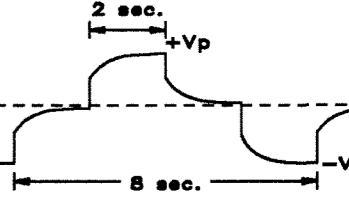
**ABITIBI**  
GEOPHYSICS



**Transmitter: TX-III (GDD), 1.8 kw**



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

0 50 100 150 200 250 300m

# **TECK COMINCO LIMITED EXPLORATION**

**Lizar Property  
Lizar, Namaigos, Breckenridge and  
Mosamblik Townships, Ontario**

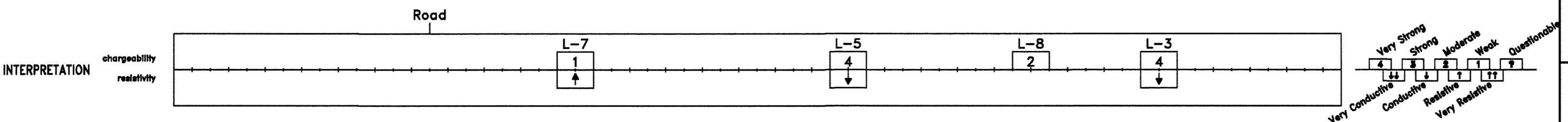
Line 25+00W

310

LIZAR

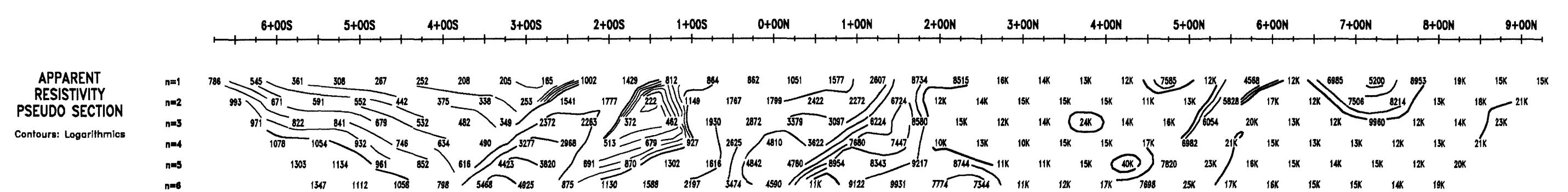
2C15SE2006 2.29129

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Interpreted by: Pierre Bérubé, Eng.  
Filed by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: QAN778

**ABITIBI**  
GEOPHYSICS



#### **Castaway: Longships**

Transmitter: TX-III (GDD), 1.8 kW

The diagram illustrates the transmission cycle of the TX-III (GDD) transmitter. It features a single rectangular pulse labeled '+1' centered within a horizontal double-headed arrow labeled '2 sec.'. Below this pulse is a horizontal dashed line. A second, identical pulse labeled '-1' is positioned below the first, also centered within its own '2 sec.' interval. The entire sequence is contained within a large horizontal double-headed arrow at the bottom labeled '8 sec.', representing the total duration between consecutive transmission cycles.

Receiver: Eirec-6 (IRIS)

2 sec.

+Vp

6+00S    5+00S    4+00S    3+00S    2+00S    1+00S    0+00N    1+00N    2+00N    3+00N    4+00N    5+00N    6+00N    7+00N    8+00N    9+00N

**APPARENT  
CHARGEABILITY  
PSIUDO SECTION**

## **FOURTH SECTION**

320

THE BOSTONIAN

LITZAR

2C15SE2006 2.29129

4

## INTERPRETATION

**chargeability**  
**resistivity**

Road

L-7 ?

L-5 2

L-3 3

A horizontal scale diagram showing five levels of receptiveness:

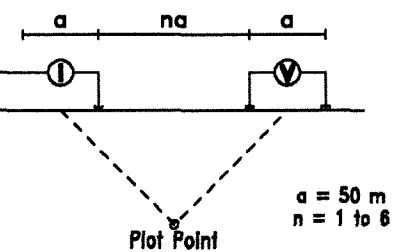
- Inductive**: Box contains 4, arrows point down.
- Conductive**: Box contains 3, arrow points down.
- Resistive**: Box contains 2, arrow points up.
- Very Resistive**: Box contains 1, arrow points up.
- Questionable**: Box contains 1, arrows point up and down.

# Line 23+00W

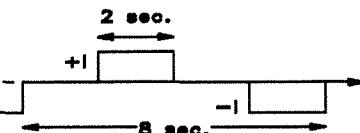
# INDUCED POLARIZATION SURVEY

## Pole-Dipole Array

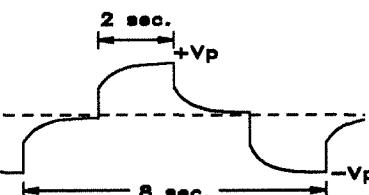
## e-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



receiver: Elrec-6 (IRIS)



Scale 1 : 5000

**KICK COMINCO LIMITED EXPLORATION**

**Lizar Property  
Lizar, Nameigos, Breckenridge and  
Mosambik Townships, Ontario**

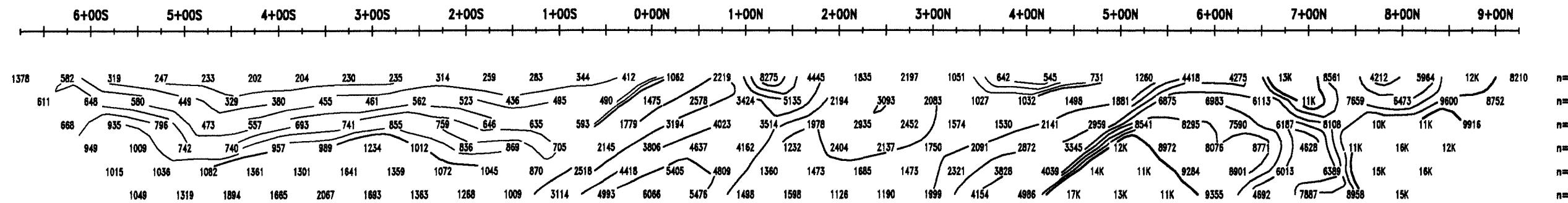
line 23+00W

42C15 SE2006 2.29129 LIZAR

330

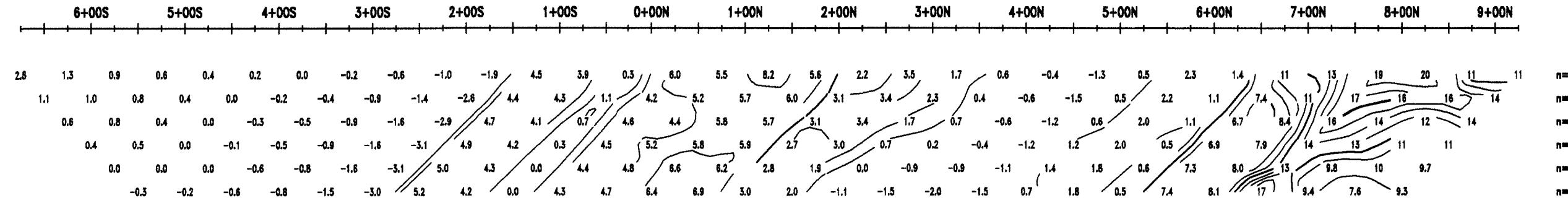
**APPARENT  
RESISTIVITY  
PSEUDO SECTION**

Contours: Logarithmic



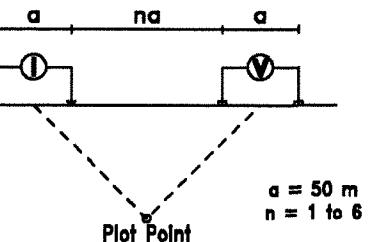
**APPARENT  
CHARGEABILITY  
PSEUDO SECTION**

Contours: 1

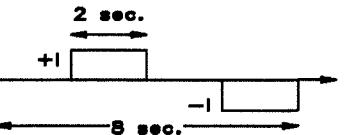


**INDUCED POLARIZATION SURVEY**

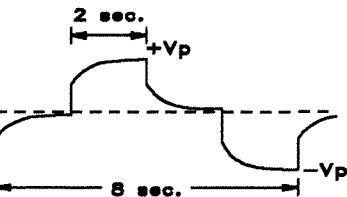
Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



Receiver: Eirec-6 (IRIS)



Scale 1 : 5000

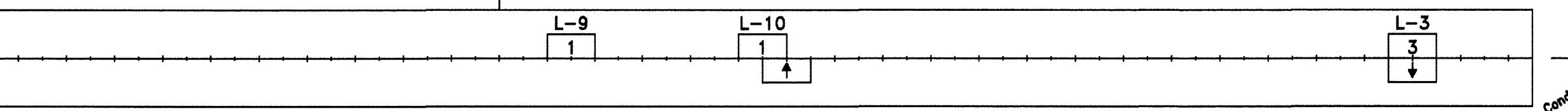
50 0 50 100 150 200 250 300m

**TECK COMINCO LIMITED EXPLORATION**

**Lizar Property**  
**Lizar, Nameigos, Breckenridge and**  
**Mosamblik Townships, Ontario**

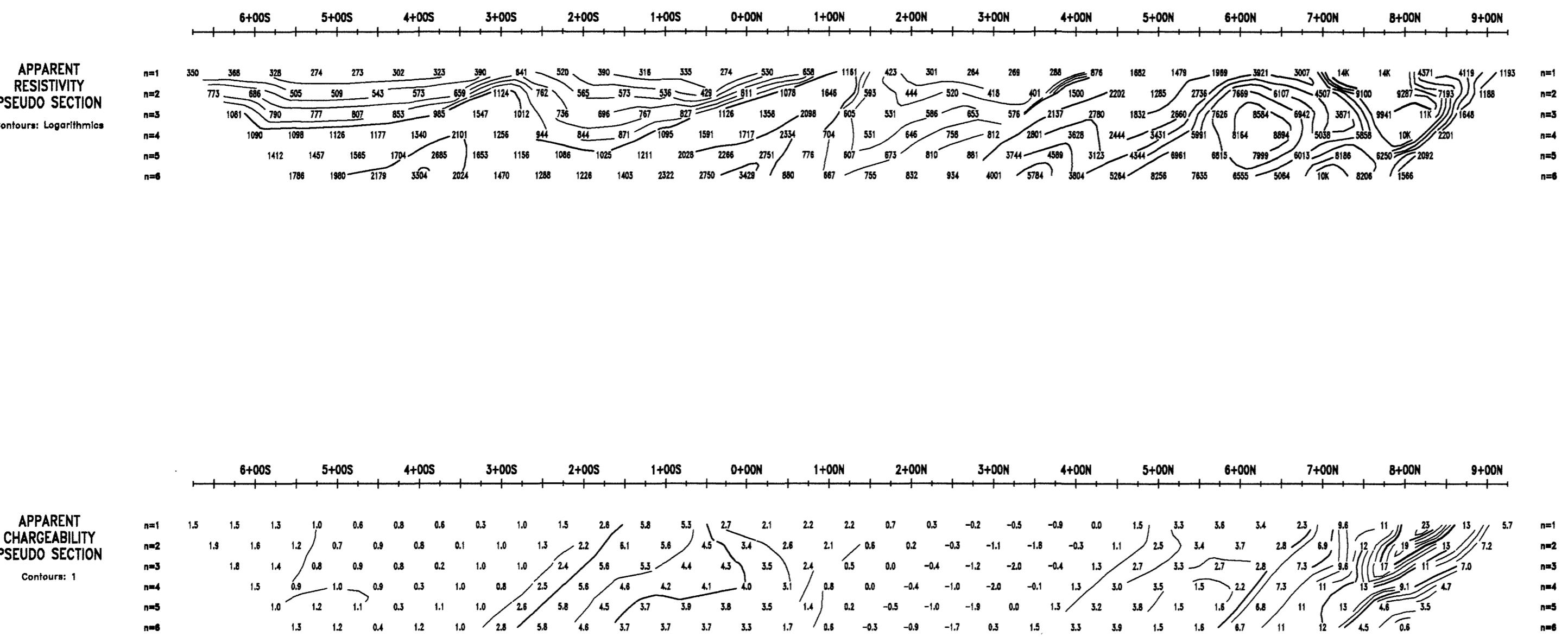
**Line 21+00W**

INTERPRETATION chargeability resistivity



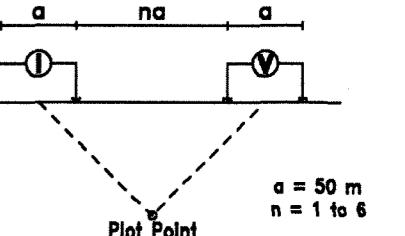
Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

**ABITIBI**  
GEOPHYSICS

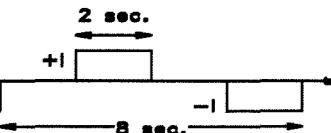


### INDUCED POLARIZATION SURVEY

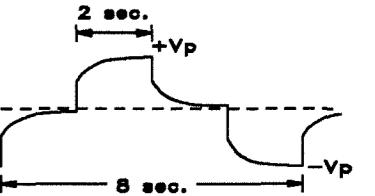
Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



Receiver: Elrec-6 (IRIS)



340

Scale 1 : 5000

50 0 50 100 150 200 250 300m

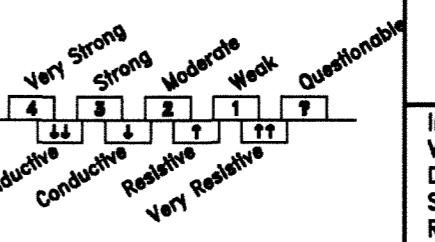
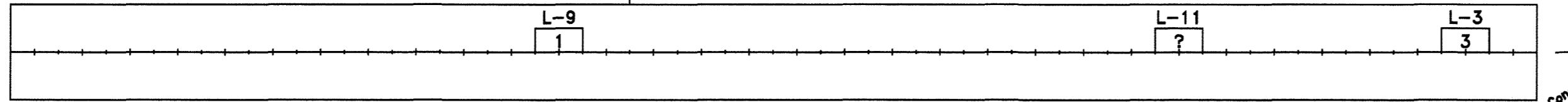
### TECK COMINCO LIMITED EXPLORATION

Lizar Property  
Lizar, Namaigos, Breckenridge and  
Mosambik Townships, Ontario

Line 19+00W

INTERPRETATION

chargeability  
resistivity



Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

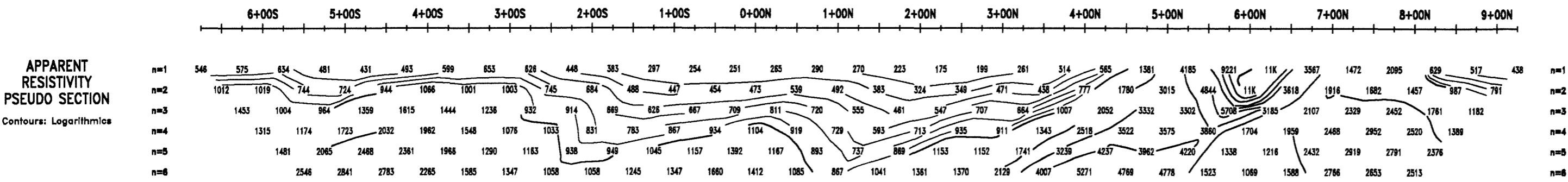
ABITIBI  
GEOPHYSICS



LIZAR

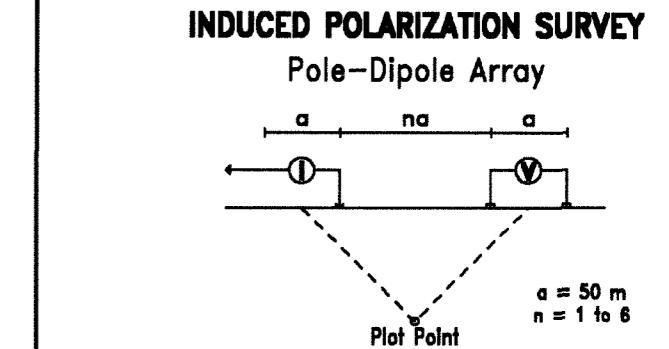
2.29129

42C15SE2006

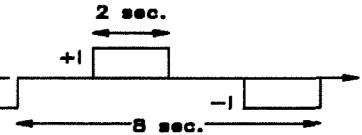


# RESISTIVITY PSEUDO SECTION

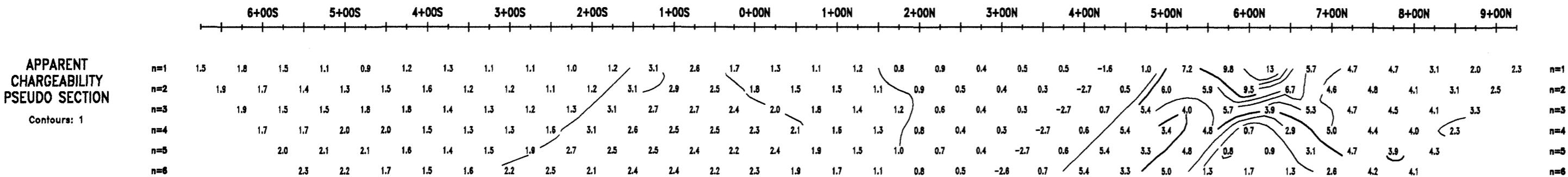
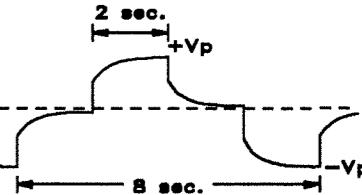
## Contours: Logarithms



mitter: TX-III (GDD), 1.8 kW



Receiver: Elrec-6 (IRIS)



**APPARENT  
CHARGEABILITY  
PSEUDO SECTION**

Contour

350

LIZAR

2.29129

442C15SE2006

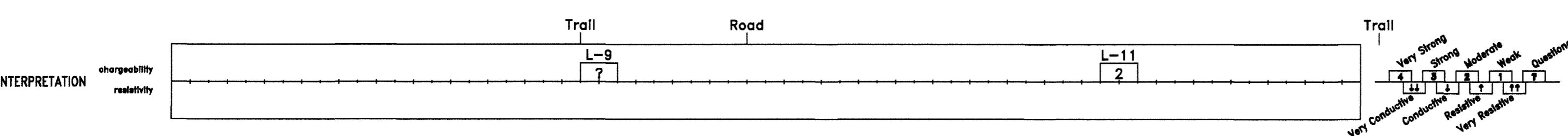
Scale 1 : 5000

0 50 100 150 200 250 300m

# TECK COMINCO LIMITED EXPLORATION

**Lizar Property  
Lizar, Namelgos, Breckenridge and  
Mosambik Townships, Ontario**

Line 17+00W



## **INTERPRETATION**

**chargeability**  
**realativity**

A horizontal scale with two numbered boxes, L-9 and L-11, positioned above a series of small tick marks. Below each box is a rectangular box containing a number: a question mark for L-9 and the number 2 for L-11. To the right of the scale, there is a legend with five categories: "Very Conductive" (number 4), "Conductive" (number 3), "Resistive" (number 2), "Weak" (number 1), and "Question" (number 7). Each category has a corresponding arrow pointing to its respective number: "Very Conductive" points to 4, "Conductive" points to 3, "Resistive" points to 2, "Weak" points to 1, and "Question" points to 7.

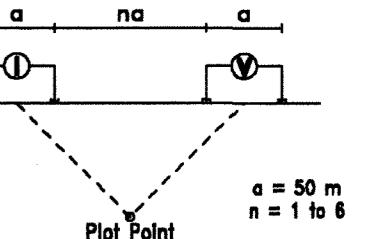
**Interpreted by:** Pierre Bérubé, Eng.  
**Verified by:** Martin Dubois, Geo.  
**Date of survey:** September 2004  
**Surveyed by:** Jacques Demers  
**Reference:** 04N778

# **ABITIBI**

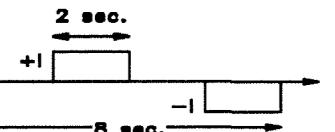


# INDUCED POLARIZATION SURVEY

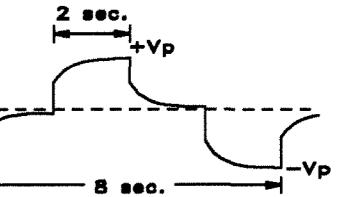
Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



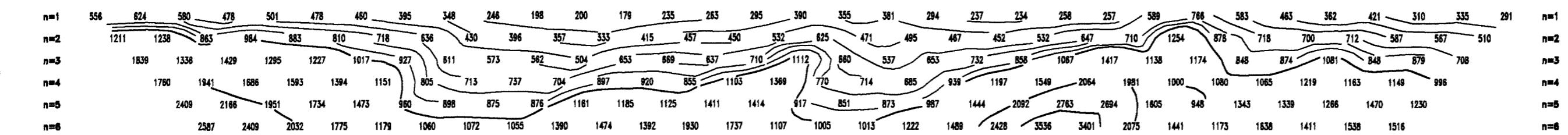
Receiver: Elrec-6 (IRIS)



6+00S 5+00S 4+00S 3+00S 2+00S 1+00S 0+00N 1+00N 2+00N 3+00N 4+00N 5+00N 6+00N 7+00N 8+00N 9+00N

## APPARENT RESISTIVITY PSEUDO SECTION

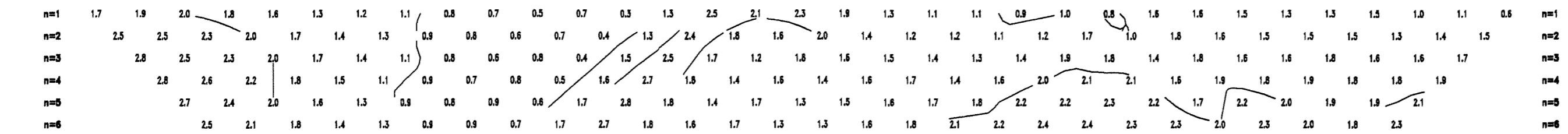
Contours: Logarithmic



6+00S 5+00S 4+00S 3+00S 2+00S 1+00S 0+00N 1+00N 2+00N 3+00N 4+00N 5+00N 6+00N 7+00N 8+00N 9+00N

## APPARENT CHARGEABILITY PSEUDO SECTION

Contours: 1



360

Scale 1 : 5000

50 0 50 100 150 200 250 300m

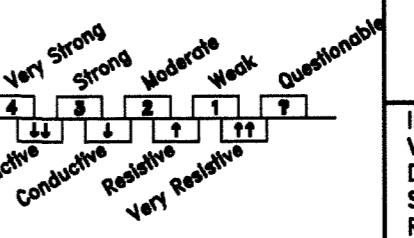
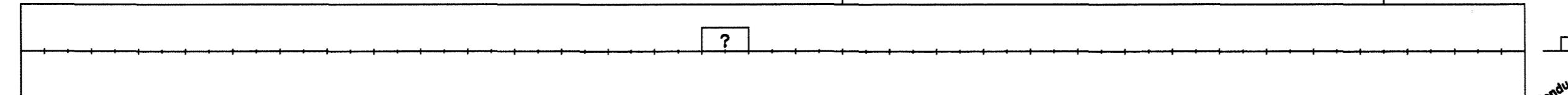
TECK COMINCO LIMITED EXPLORATION

Lizar Property  
Lizar, Namaigos, Breckenridge and  
Mosambik Townships, Ontario

Line 15+00W

## INTERPRETATION

chargeability  
resistivity



Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

ABITIBI  
GEOPHYSICS



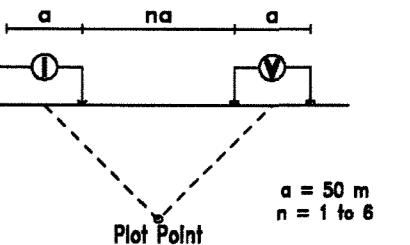
LIZAR

2.29129

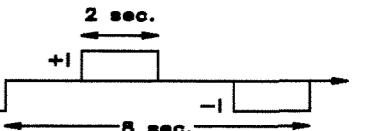
42C15SB2006

# INDUCED POLARIZATION SURVEY

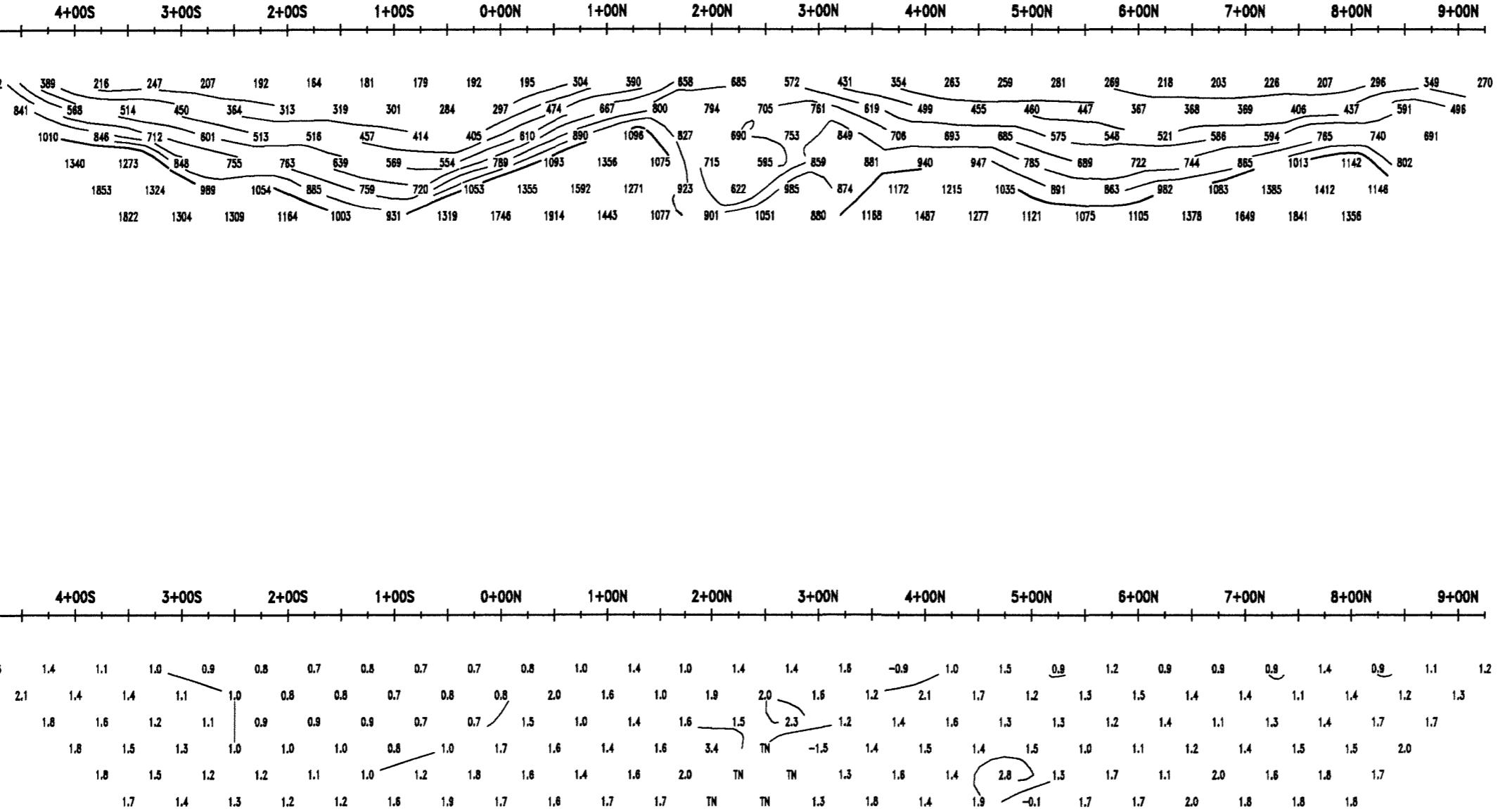
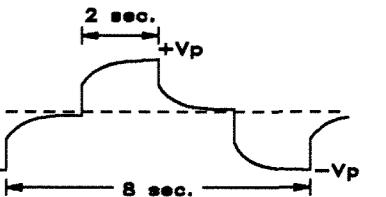
Pole-Dipole Array



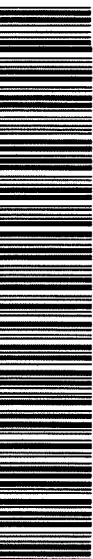
Transmitter: TX-III (GDD), 1.8 kW



Receiver: Elrec-6 (IRIS)



370

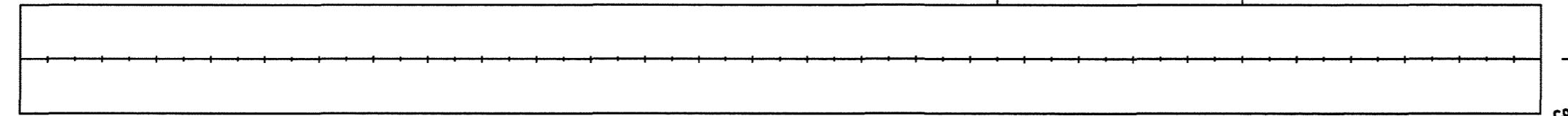


2.29129

42C15SE2006

INTERPRETATION

chargeability  
resistivity



Very Strong  
Strong  
Moderate  
Weak  
Questionable  
4 3 2 1 ?  
Very Conductive  
Conductive  
Resistive  
Very Resistive

Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

ABITIBI  
GEOPHYSICS

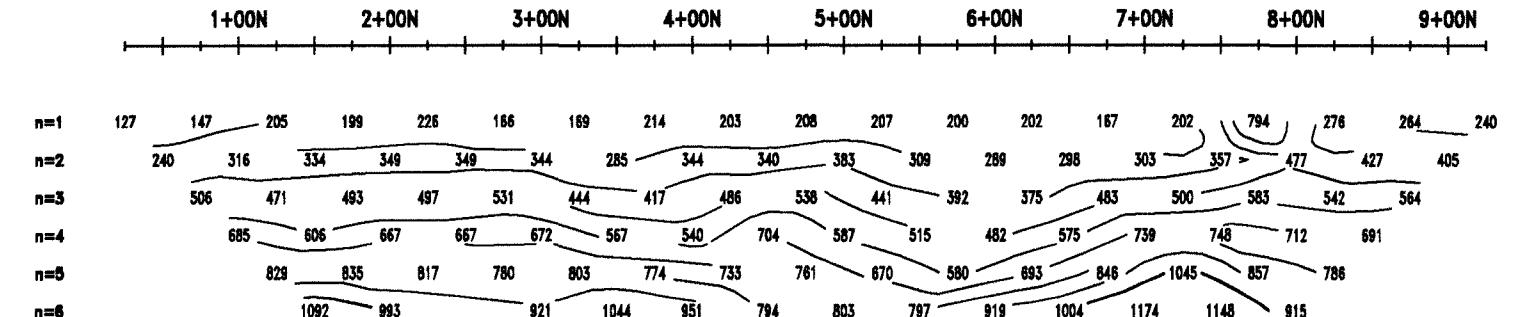
TECK COMINCO LIMITED EXPLORATION

Lizar Property  
Lizar, Nameigos, Breckenridge and  
Mosamblik Townships, Ontario

Line 13+00W

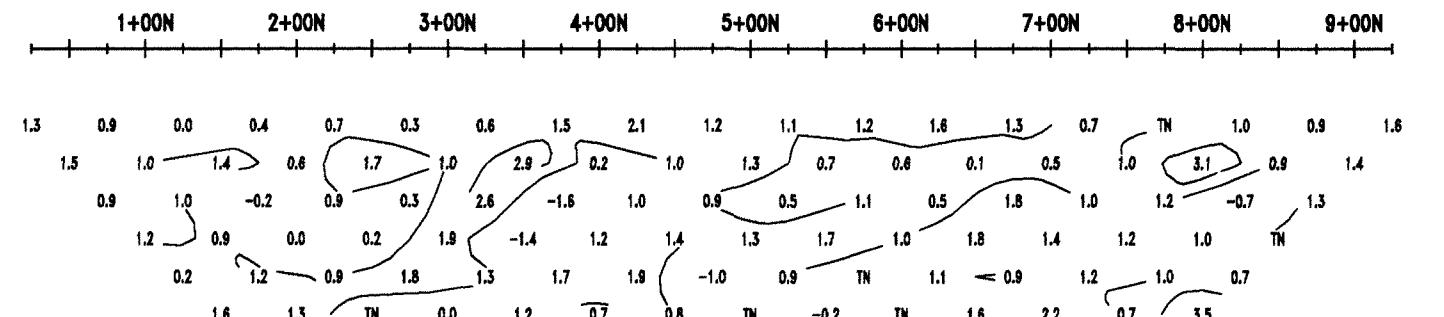


## Contours: Logarithmics



## APPARENT CHARGEABILITY PSEUDO SECTION

### **Contours:**



०८३

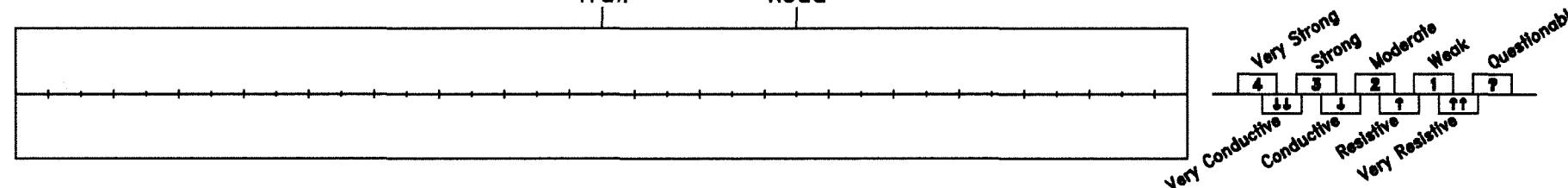
LIZAR

2.29129

42C15SE200

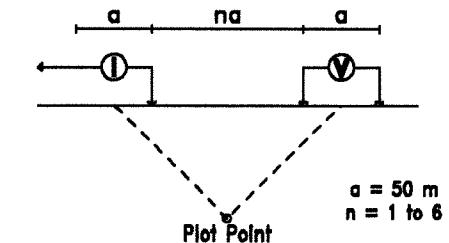
## INTERPRETATION

**chargeability**  
**resistivity**

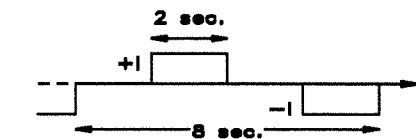


## INDUCED POLARIZATION SURVEY

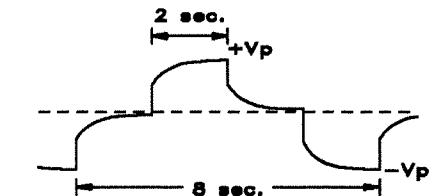
### Pole-Dipole Array



**Transmitter: TX-III (GDD), 1.8 kW**



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

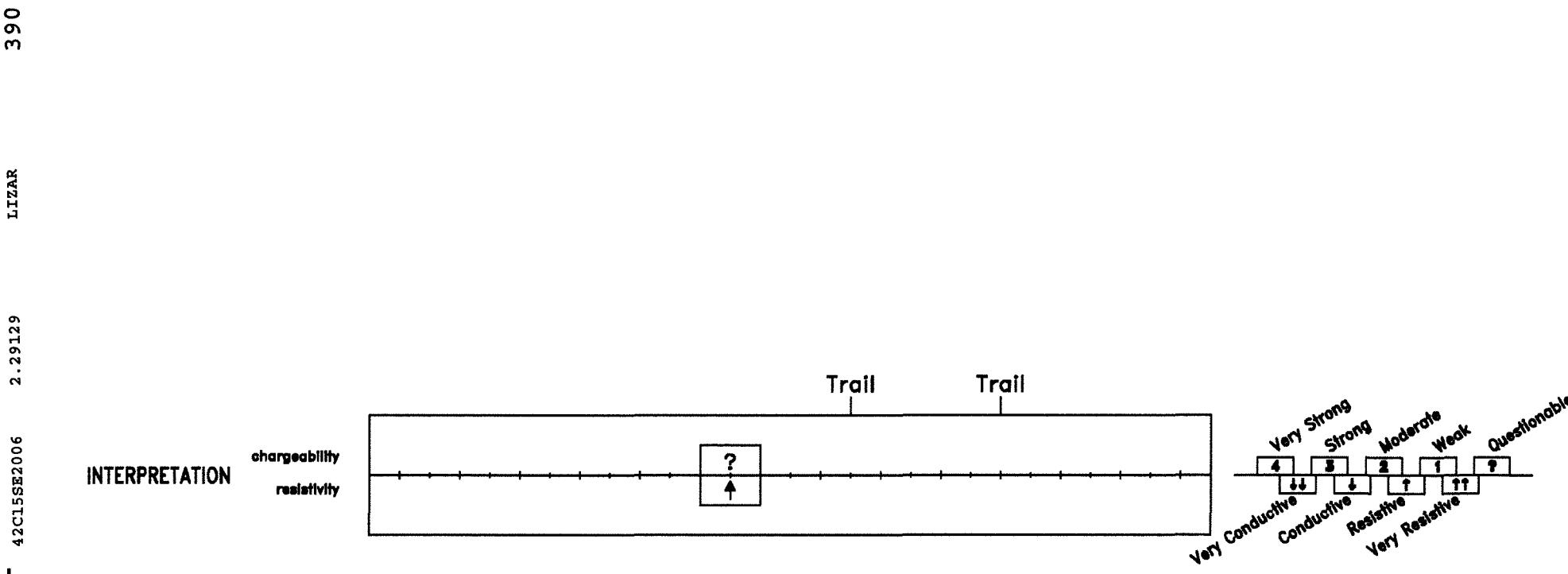
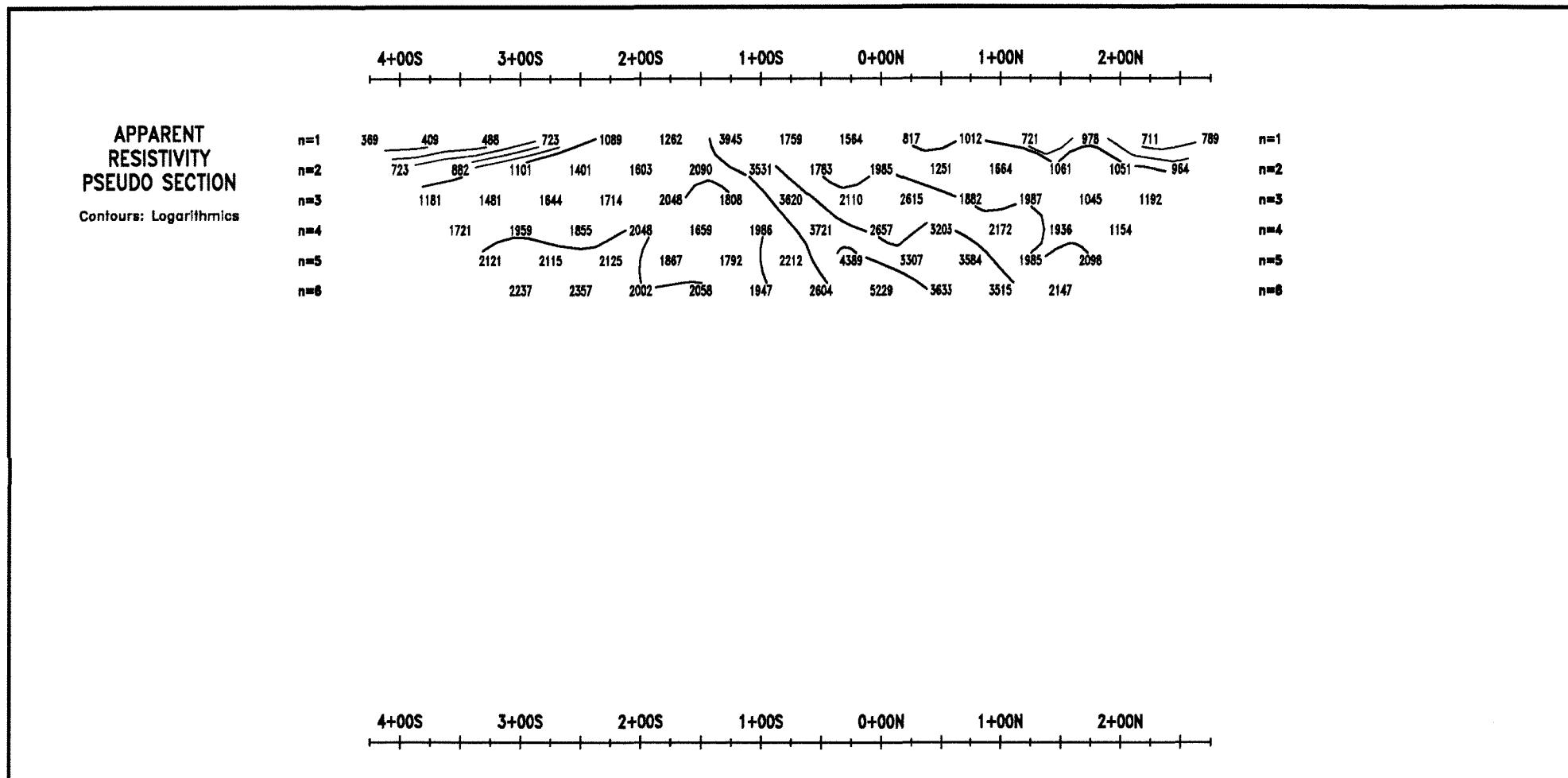
TECK COMINCO LIMITED EXPLORATION

**Lizar Property  
Lizar, Nameigos, Breckenridge and  
Mosambik Townships, Ontario**

**Line 11+00W**

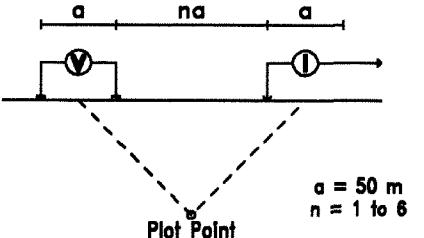
**Interpreted by:** Pierre Bérubé, Eng.  
**Verified by:** Martin Dubois, Geo.  
**Date of survey:** September 2004  
**Surveyed by:** Jacques Demers  
**Reference:** 04N778

**ABITIBI**  
GEOPHYSICS

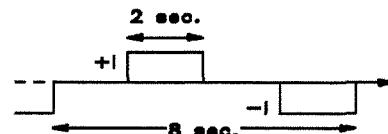


## INDUCED POLARIZATION SURVEY

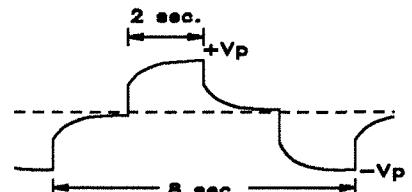
### Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

50    0    50    100    150    200    250    300m

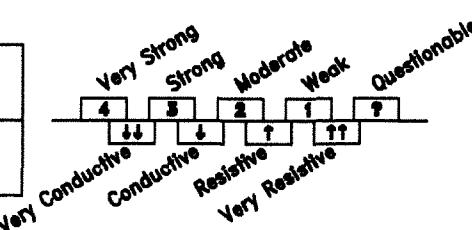
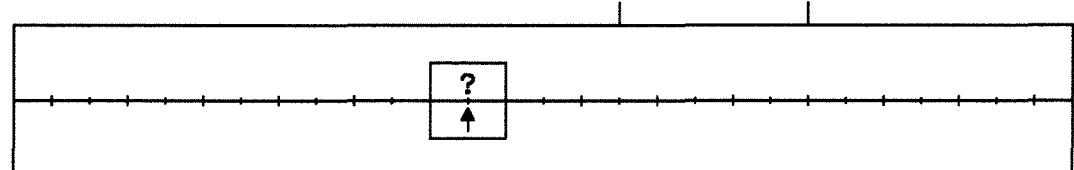
**TECK COMINCO LIMITED EXPLORATION**

**Lizar Property**  
**Lizar, Nameigos, Breckenridge and**  
**Mosambik Townships, Ontario**

**Line 9+00E**

INTERPRETATION

chargeability  
resistivity



Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

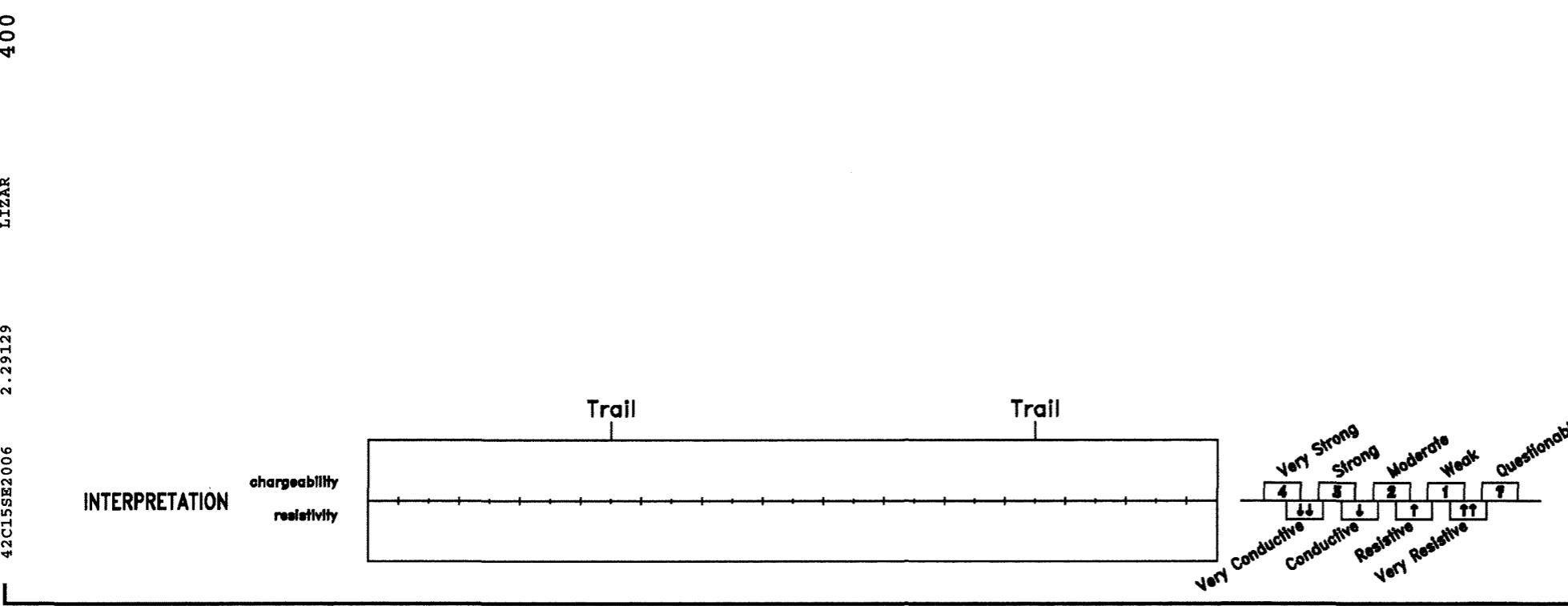
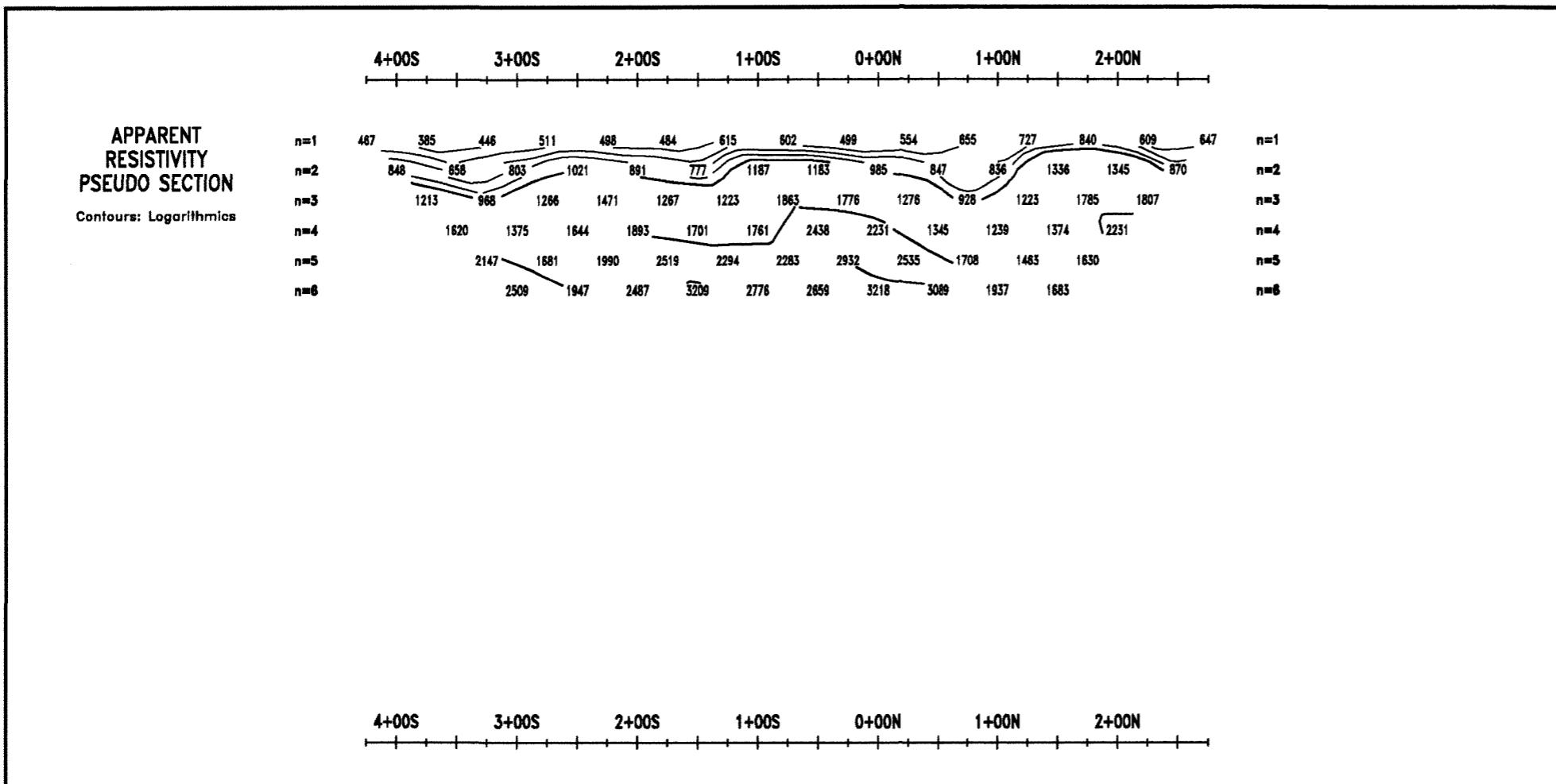
**ABITIBI**  
GEOPHYSICS

390

LIZAR

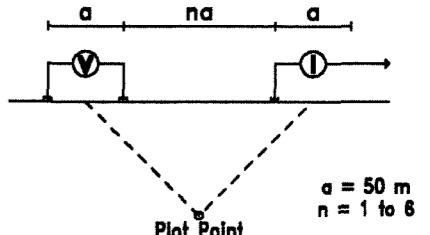
2.29129

42C15SE2006

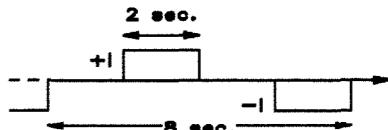


## INDUCED POLARIZATION SURVEY

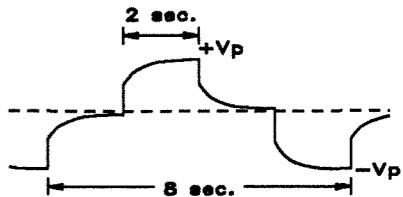
### Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

50      0      50      100      150      200      250      300m

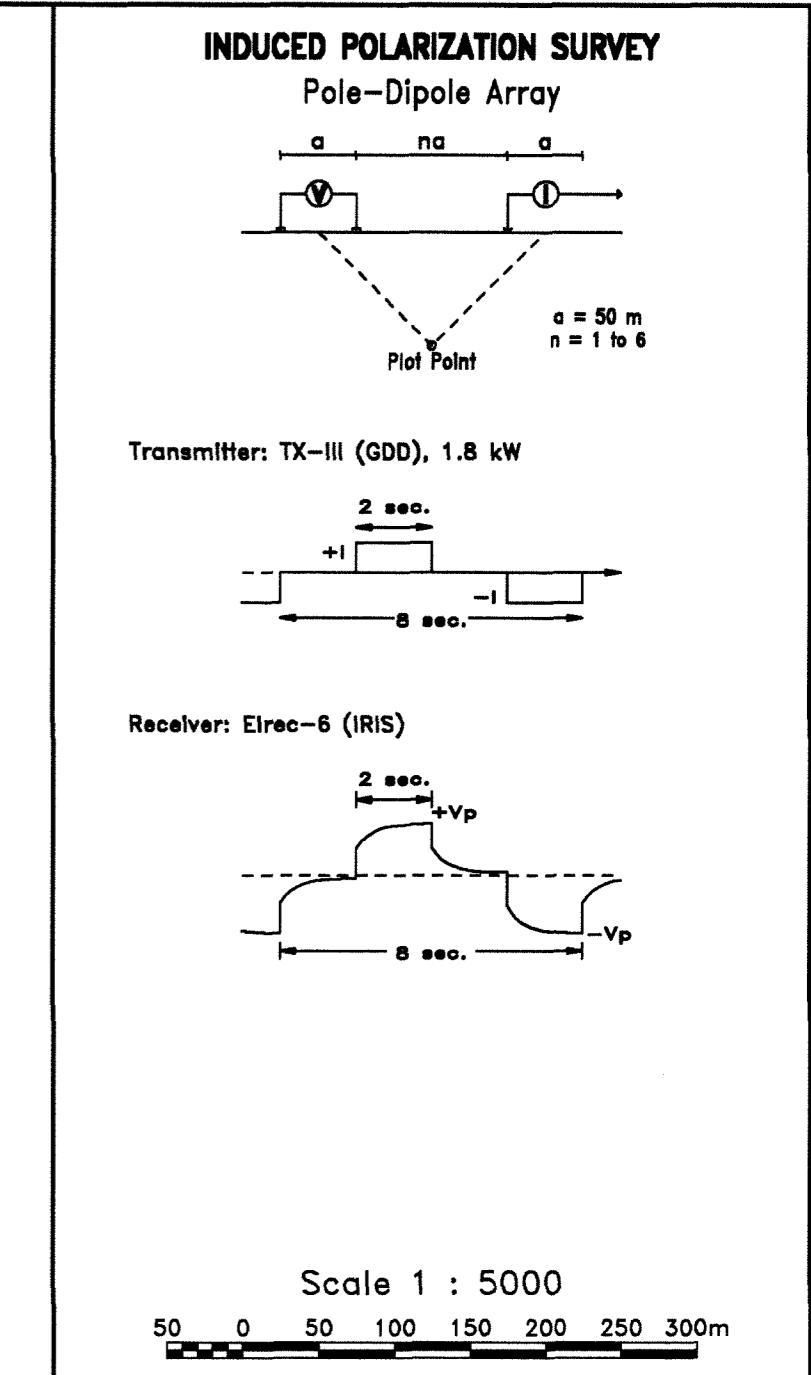
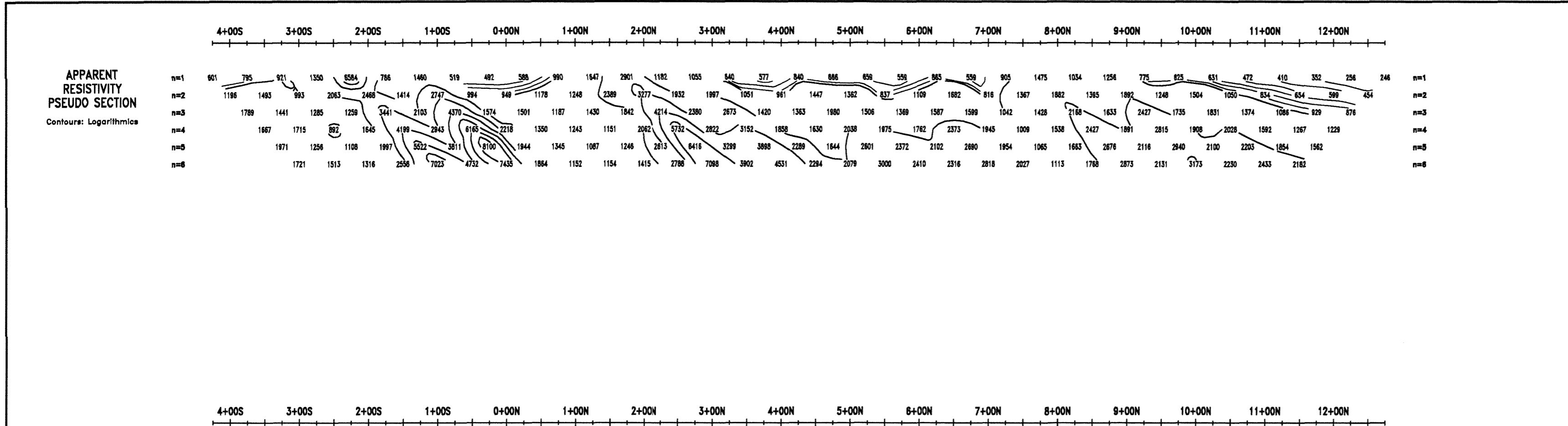
**TECK COMINCO LIMITED EXPLORATION**

**Lizar Property**  
**Lizar, Nameigos, Breckenridge and**  
**Mosambik Townships, Ontario**

**Line 11+00E**

Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

**ABITIBI**  
GEOPHYSICS



# **TECK COMINCO LIMITED EXPLORATION**

**Lizar Property  
ur, Namelgos, Breckenridge and  
Mosamblik Townships, Ontario**

Line 13+00E

Interpreted by: Pierre Bérubé, Eng.  
Qualified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Stamp: D4N7Z8

**ABITIBI**  
GEOPHYSICS

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LIZAR

410

卷之三

29

2C15SE2006

**INTERPRETATION** chargeability resistivity

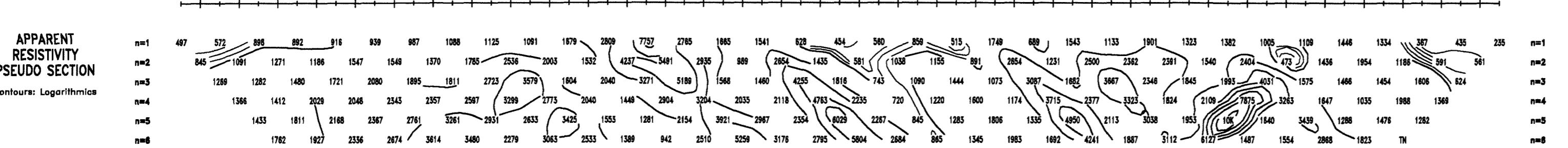
L-12      k      L-13

?

?

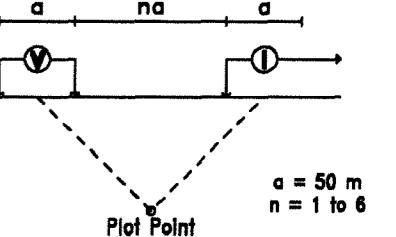
1

A 5-point Likert scale diagram showing the relationship between conductivity and resistivity. The scale ranges from 'Very Strong' (4) to 'Questionable' (1). Below the scale, arrows indicate the direction of increasing conductivity (left to right) and resistivity (right to left).

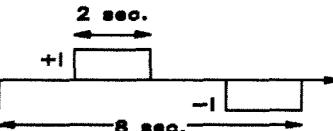


### INDUCED POLARIZATION SURVEY

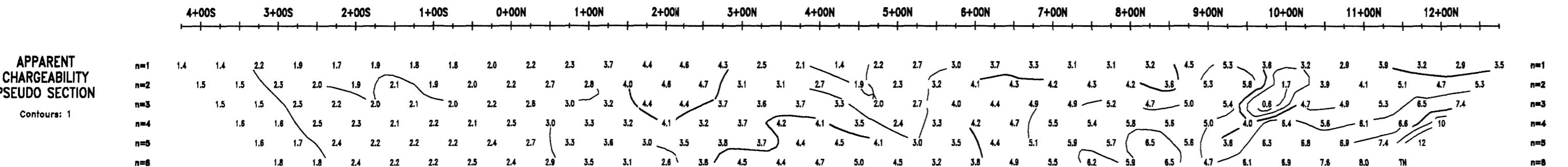
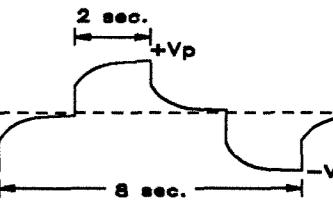
Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

50 0 50 100 150 200 250 300m

TECK COMINCO LIMITED EXPLORATION

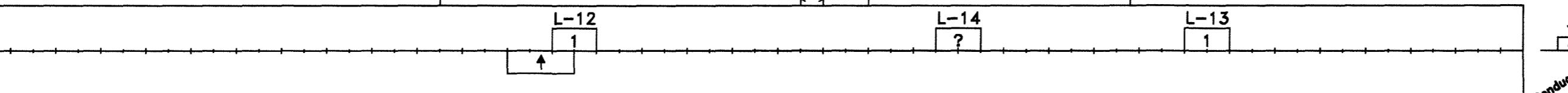
Lizar Property

Lizar, Nameigos, Breckenridge and  
Mosambik Townships, Ontario

Line 15+00E

INTERPRETATION

chargeability  
resistivity



Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

**ABITIBI**  
GEOPHYSICS

42C15SE2006

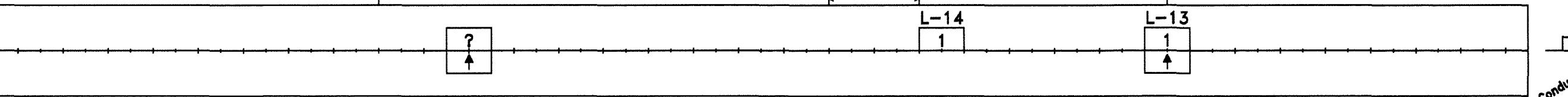
LIZAR

2.29129

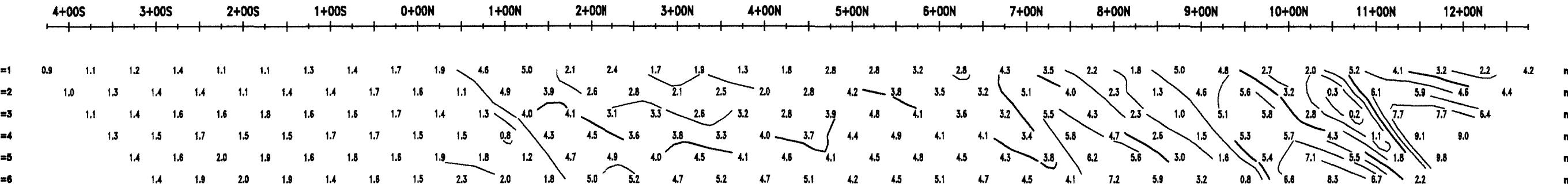
2.29129

430

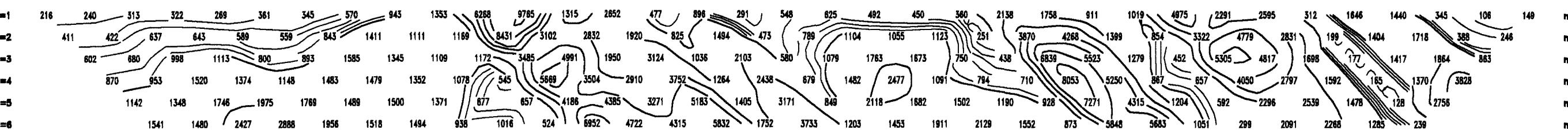
## INTERPRETATION

chargeability  
resistivityAPPARENT  
CHARGEABILITY  
PSEUDO SECTION

Contours: 1

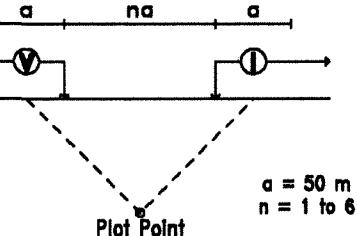
APPARENT  
RESISTIVITY  
PSEUDO SECTION

Contours: Logarithmic

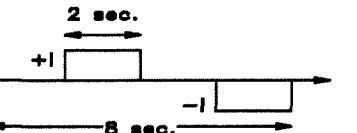


## INDUCED POLARIZATION SURVEY

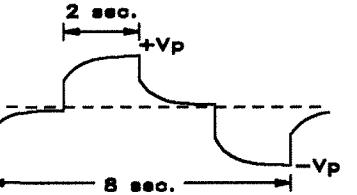
Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

50 0 50 100 150 200 250 300m

## TECK COMINCO LIMITED EXPLORATION

Lizar Property  
Lizar, Namaigos, Breckenridge and  
Mosamblik Townships, Ontario

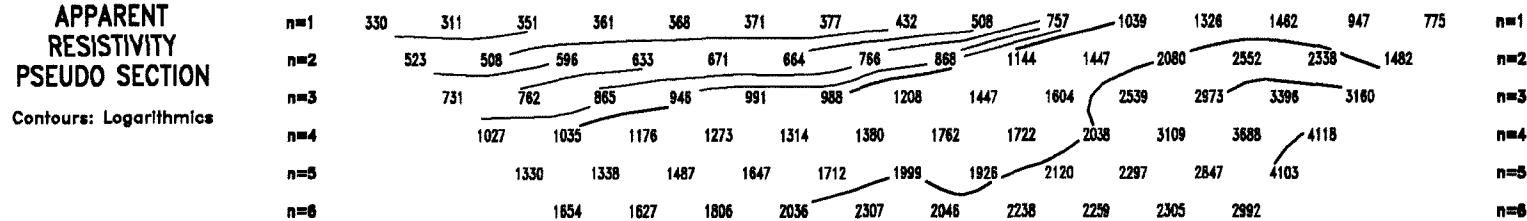
Line 17+00E

Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778ABITIBI  
GEOPHYSICS

**APPARENT  
RESISTIVITY  
PSEUDO SECTION**

Contours: Logarithmic

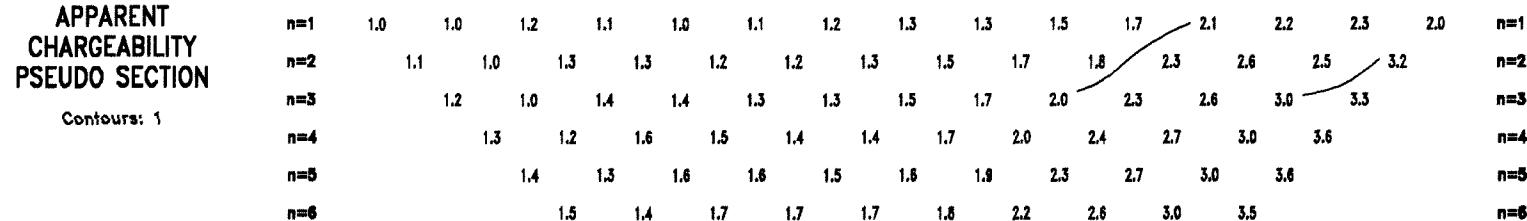
4+00S      3+00S      2+00S      1+00S      0+00N      1+00N      2+00N



**APPARENT  
CHARGEABILITY  
PSEUDO SECTION**

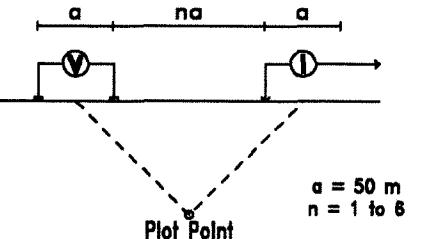
Contours: 1

4+00S      3+00S      2+00S      1+00S      0+00N      1+00N      2+00N

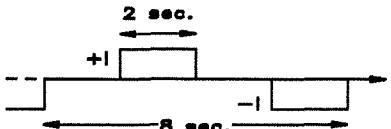


**INDUCED POLARIZATION SURVEY**

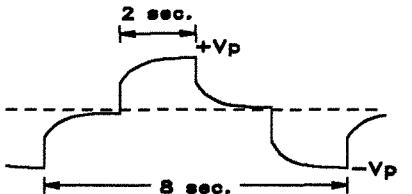
Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



Receiver: Eirec-6 (IRIS)



Scale 1 : 5000

50      0      50      100      150      200      250      300m

**TECK COMINCO LIMITED EXPLORATION**

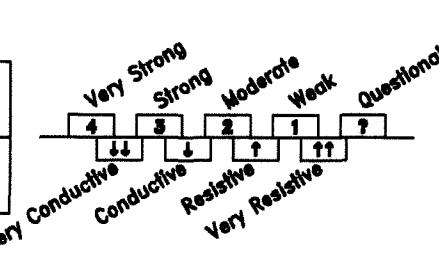
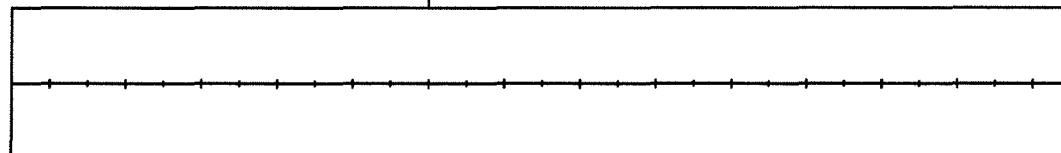
**Lizar Property**  
**Lizar, Namaigos, Breckenridge and**  
**Mosambik Townships, Ontario**

**Line 19+00E**

**INTERPRETATION**

chargeability  
resistivity

Troll



Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

**ABITIBI**  
GEOPHYSICS



440

2.29129

42C15SE2006

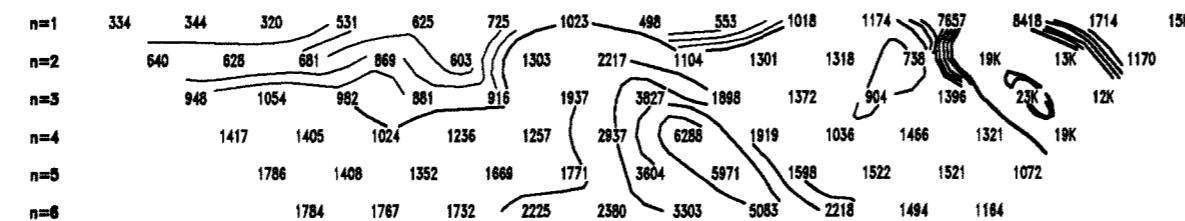
Contours: Logarithmic

Contours: 1

**APPARENT  
RESISTIVITY  
PSEUDO SECTION**

Contours: Logarithmic

4+00S      3+00S      2+00S      1+00S      0+00N      1+00N      2+00N

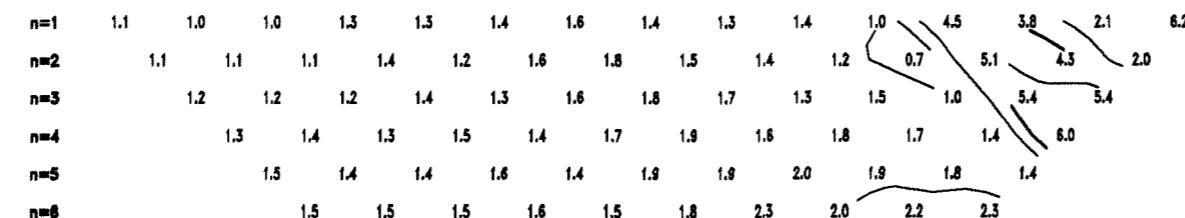


n=1      n=2      n=3      n=4      n=5      n=6

**APPARENT  
CHARGEABILITY  
PSEUDO SECTION**

Contours: 1

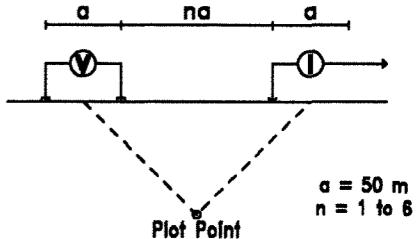
4+00S      3+00S      2+00S      1+00S      0+00N      1+00N      2+00N



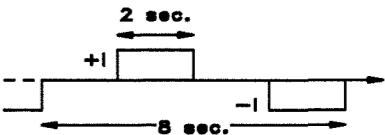
n=1      n=2      n=3      n=4      n=5      n=6

**INDUCED POLARIZATION SURVEY**

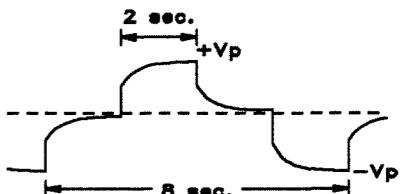
Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



Receiver: Eirec-6 (IRIS)



Scale 1 : 5000

50    0    50    100    150    200    250    300m

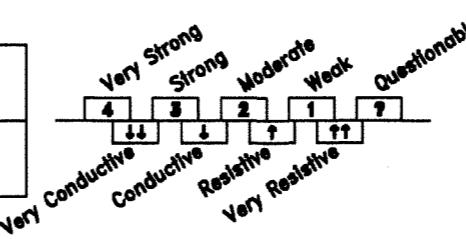
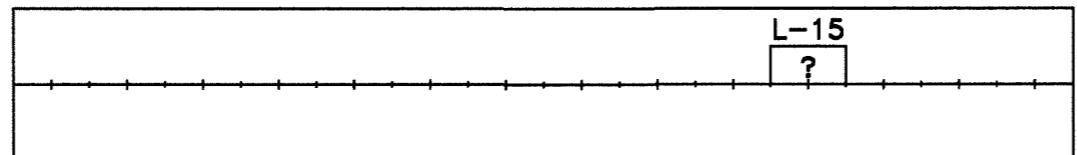
**TECK COMINCO LIMITED EXPLORATION**

**Lizar Property**  
**Lizar, Nameigos, Breckenridge and**  
**Mosambik Townships, Ontario**

**Line 21+00E**

**INTERPRETATION**

chargeability  
resistivity



Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

**ABITIBI**  
GEOPHYSICS



450

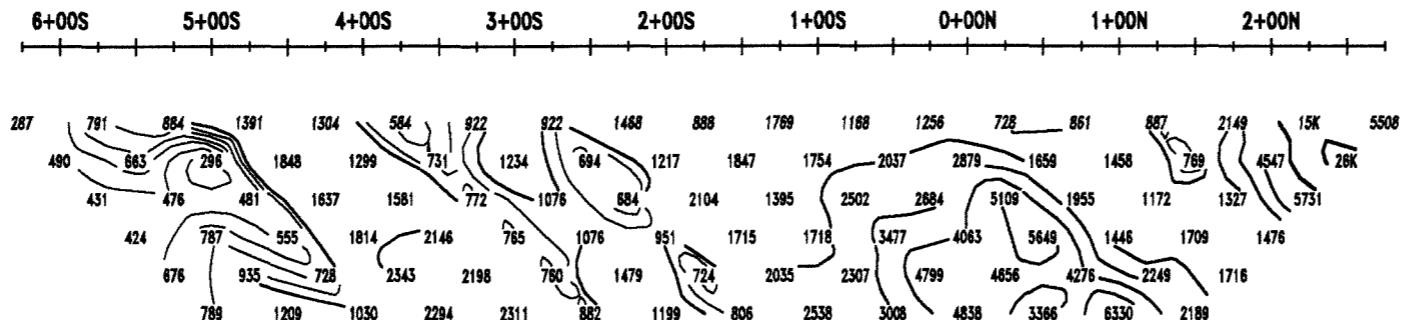
LIZAR

2.29129

42C15SE2006

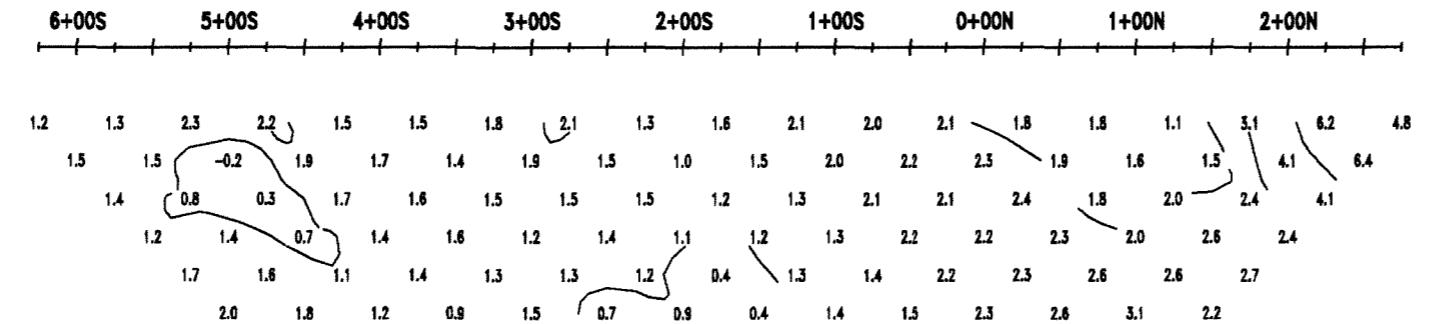
**APPARENT  
RESISTIVITY  
PSEUDO SECTION**

Contours: Logarithmic



**APPARENT  
CHARGEABILITY  
PSEUDO SECTION**

Contours: 1



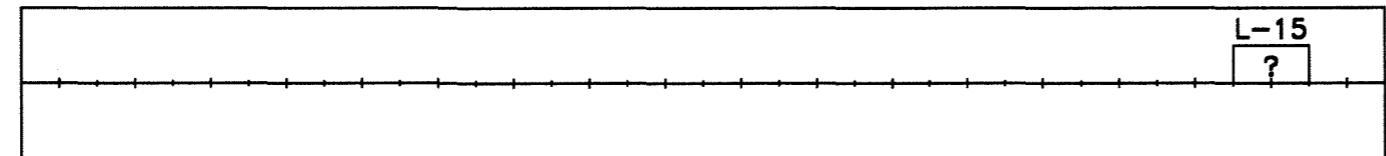
460

LIZAR

2.29129

42C15SE2006

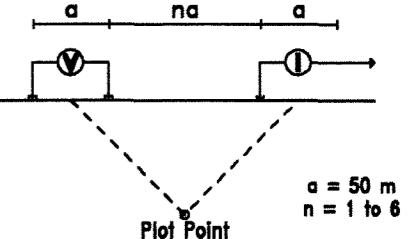
INTERPRETATION  
chargeability  
resistivity



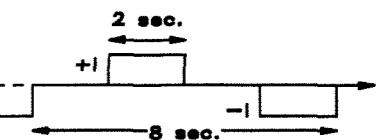
Very Conductive      Very Resistive  
Very Strong      Strong      Moderate      Weak      Questionable  
4      3      2      1      ?  
↓↓      ↓      ?      ↑↑      ?  
Conductive      Resistive

**INDUCED POLARIZATION SURVEY**

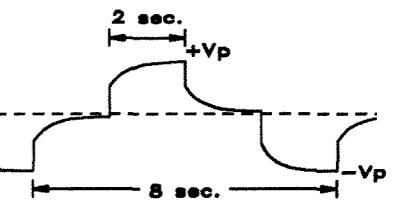
Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

50 0 50 100 150 200 250 300m

**TECK COMINCO LIMITED EXPLORATION**

**Lizar Property**  
**Lizar, Nameigos, Breckenridge and**  
**Mosambik Townships, Ontario**

**Line 23+00E**

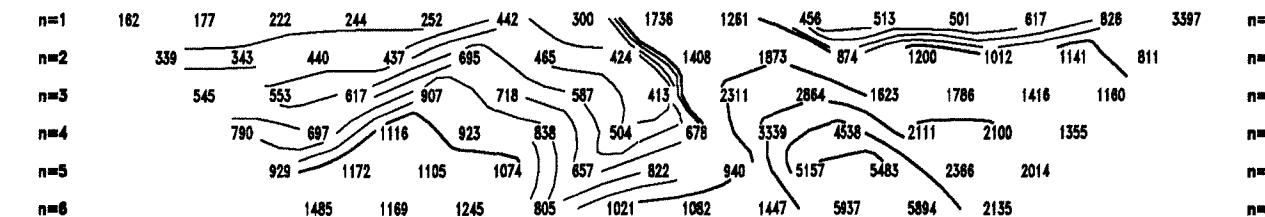
Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

**ABITIBI**  
GEOPHYSICS

**APPARENT  
RESISTIVITY  
PSEUDO SECTION**

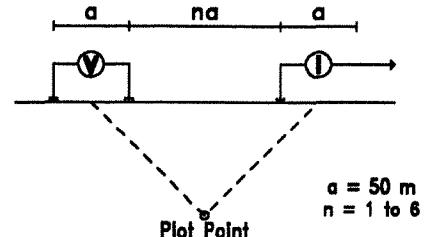
Contours: Logarithmic

4+00S      3+00S      2+00S      1+00S      0+00N      1+00N      2+00N

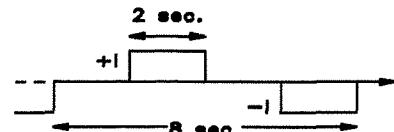


**INDUCED POLARIZATION SURVEY**

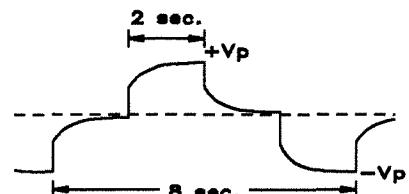
Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



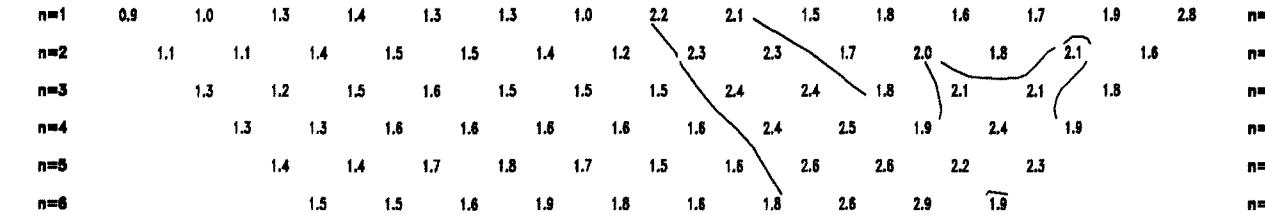
Receiver: Elrec-6 (IRIS)



**APPARENT  
CHARGEABILITY  
PSEUDO SECTION**

Contours: 1

4+00S      3+00S      2+00S      1+00S      0+00N      1+00N      2+00N



Scale 1 : 5000

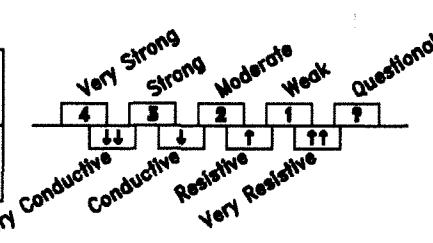
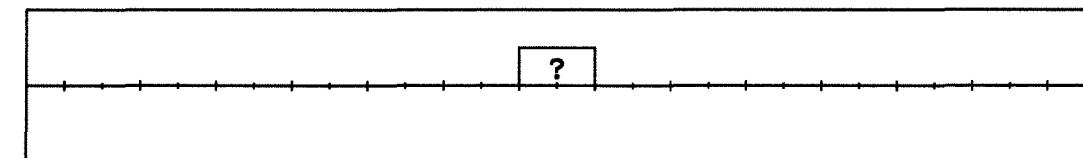
50    0    50    100    150    200    250    300m

**TECK COMINCO LIMITED EXPLORATION**

**Lizar Property**  
**Lizar, Nameigos, Breckenridge and**  
**Mosamblik Townships, Ontario**

**INTERPRETATION**

chargeability  
resistivity



Interpreted by: Pierre Bérubé, Eng.  
Verified by: Martin Dubois, Geo.  
Date of survey: September 2004  
Surveyed by: Jacques Demers  
Reference: 04N778

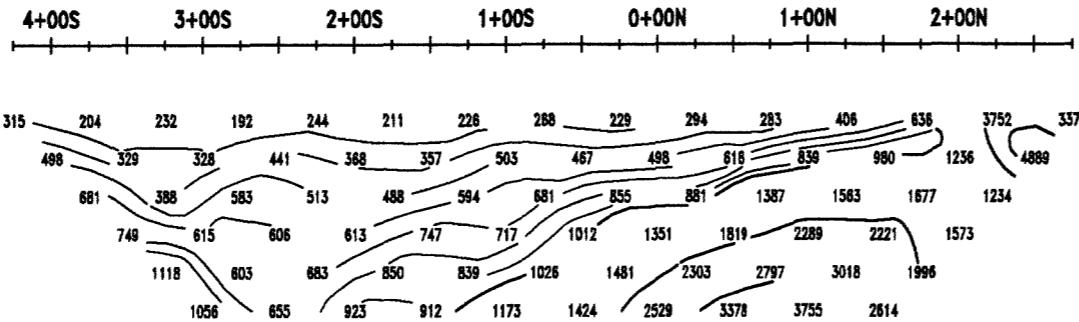
**ABITIBI**  
GEOPHYSICS

42C15SE2006  
2.29129



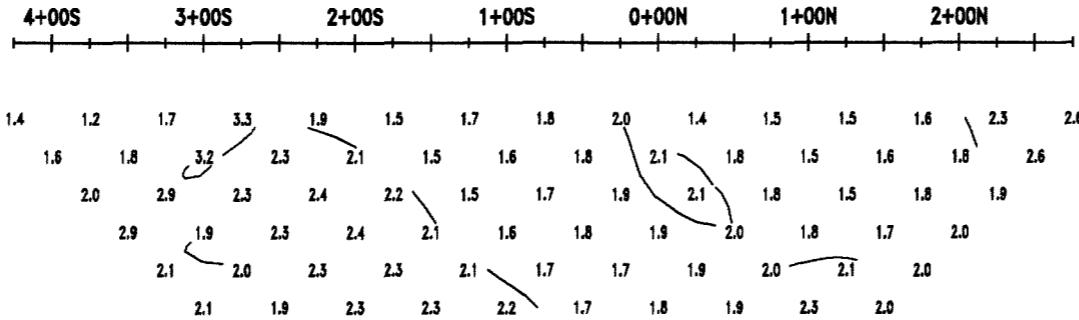
**APPARENT  
RESISTIVITY  
PSEUDO SECTION**

Contours: Logarithmic



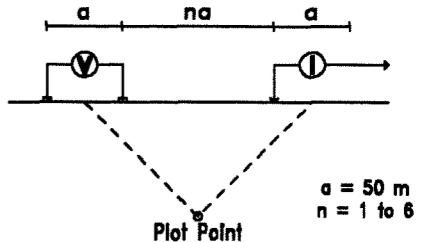
**APPARENT  
CHARGEABILITY  
PSEUDO SECTION**

Contours: 1

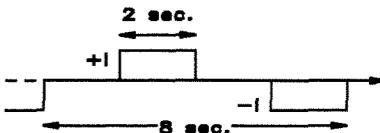


**INDUCED POLARIZATION SURVEY**

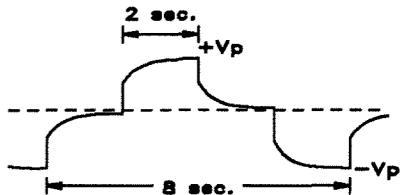
Pole-Dipole Array



Transmitter: TX-III (GDD), 1.8 kW



Receiver: Elrec-6 (IRIS)



Scale 1 : 5000

50      0      50      100      150      200      250      300m

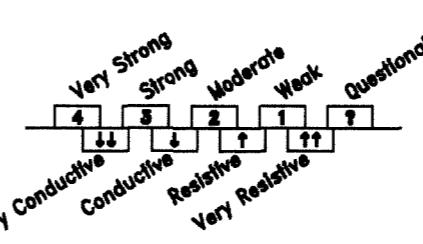
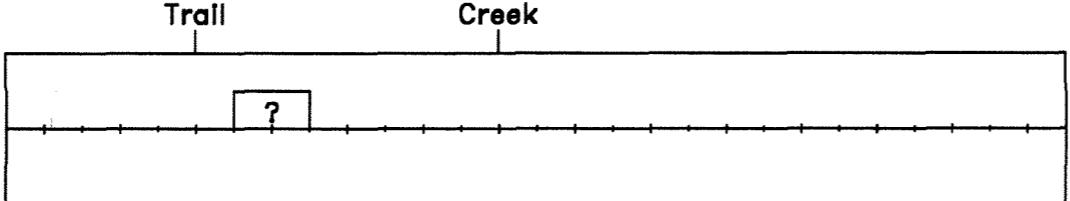
**TECK COMINCO LIMITED EXPLORATION**

**Lizar Property**  
**Lizar, Nameigos, Breckenridge and**  
**Mosamblik Townships, Ontario**

**Line 27+00E**

INTERPRETATION

chargeability  
resistivity



Interpreted by:  
Verified by:  
Date of survey:  
Surveyed by:  
Reference:

Pierre Bérubé, Eng.  
Martin Dubois, Geo.  
September 2004  
Jacques Demers  
04N778

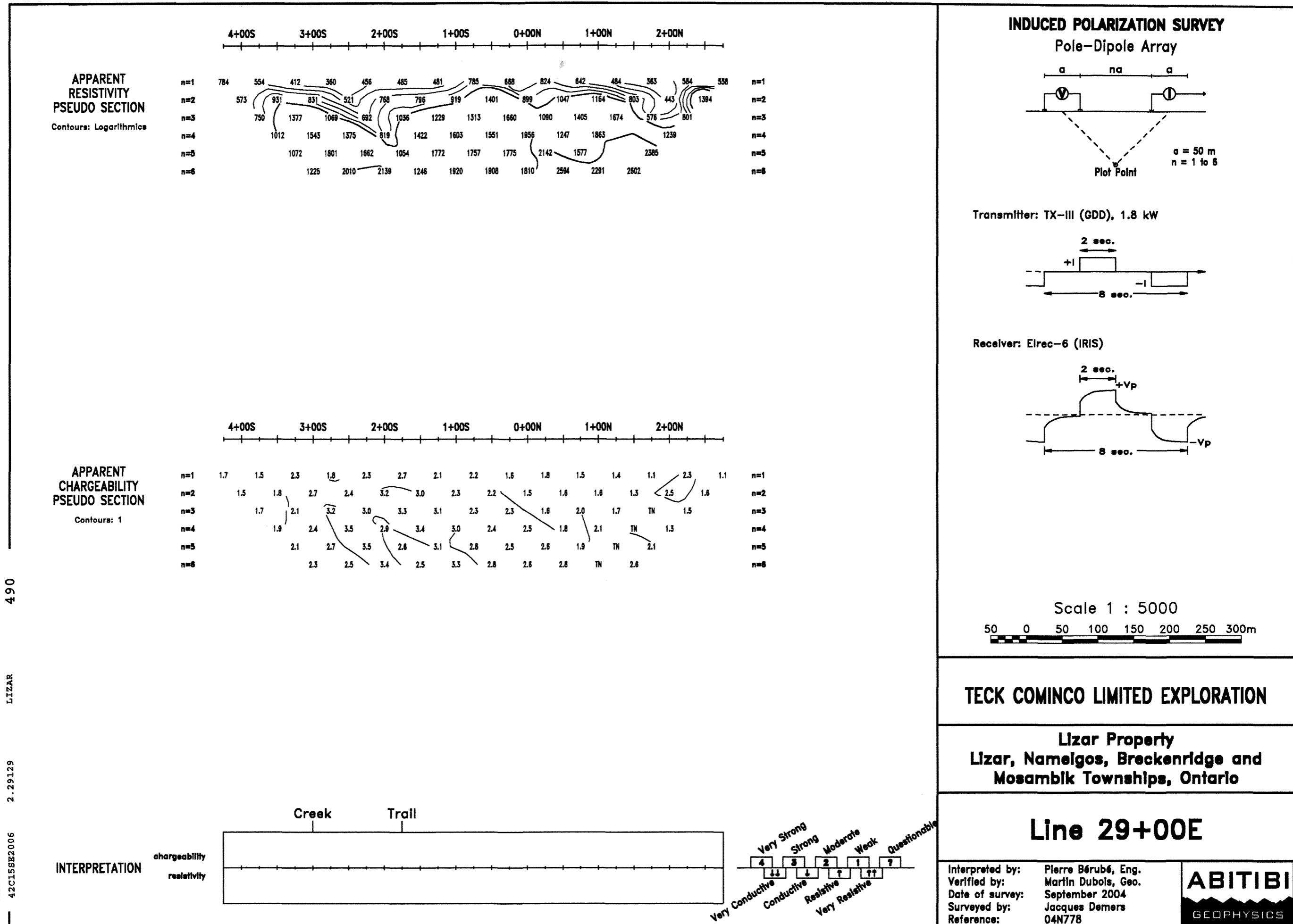
**ABITIBI**  
GEOPHYSICS

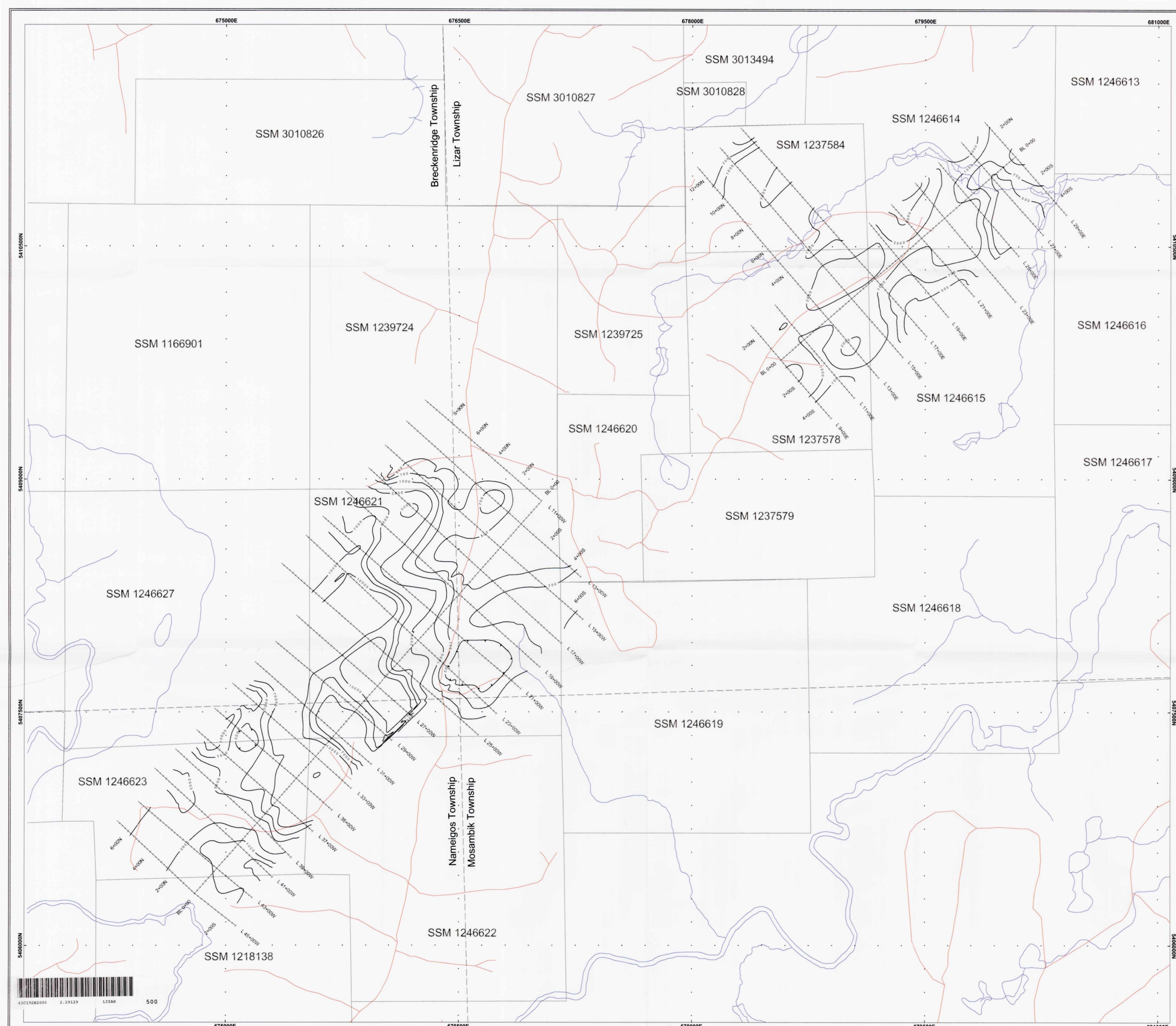
480

LIZAR

2.29129

42CL5SE2006





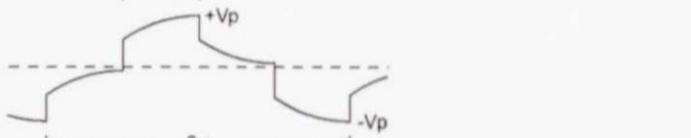
## Resistivity Contours

Log spacing: 500, 700, 1000, 2000, 5000,  
7000, 10000, 20000

Units: Ohm-m  
Transmitter: Tx-III from GDD Instruments



Receiver: ELREC-6 from Iris Instruments

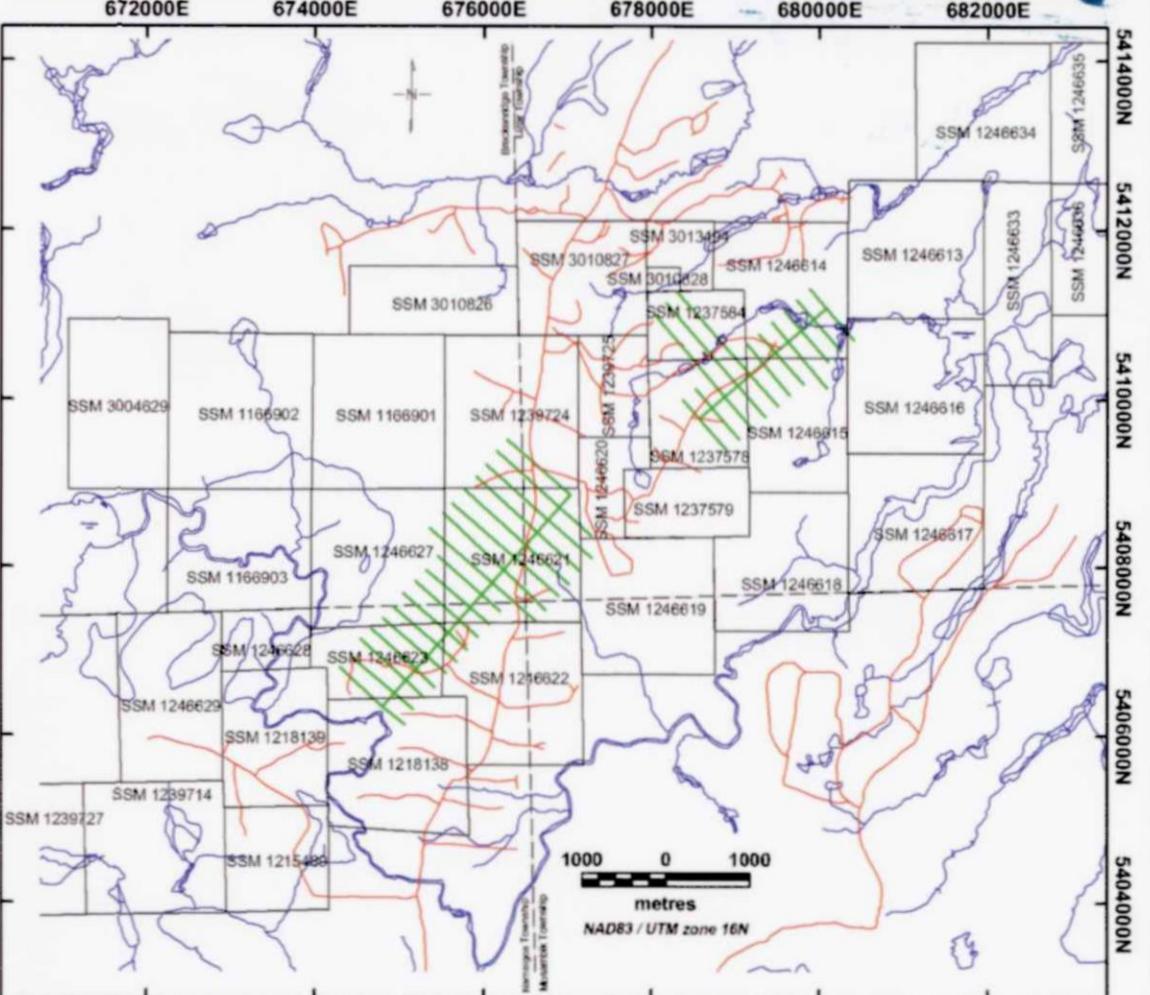


Pole-Dipole Array

$$a = 50 \text{ m}$$

A scale bar at the bottom left shows distances from 0 to 600 meters. A north arrow is positioned above the scale bar.

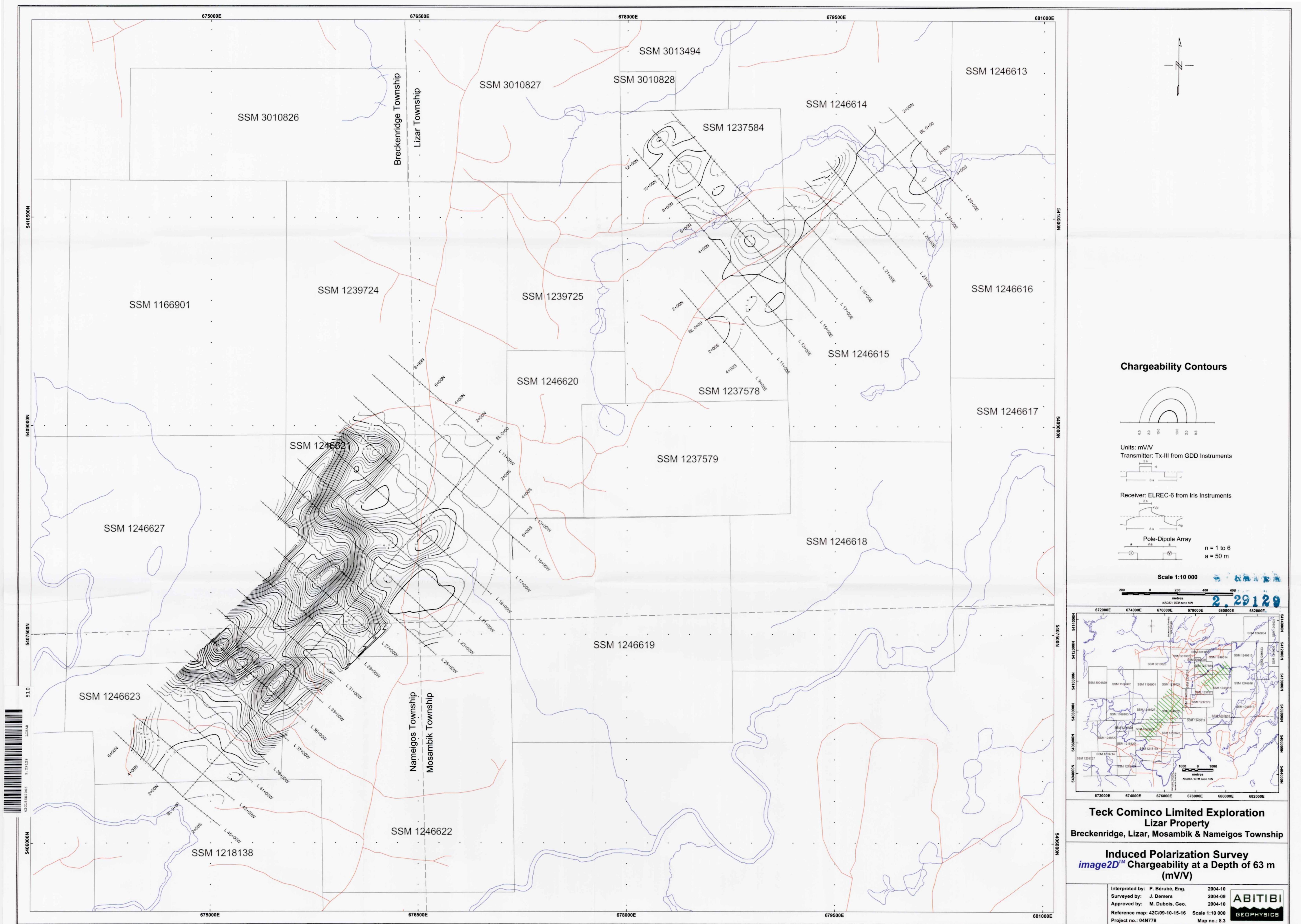
metres  
NAD83 / UTM zone 16N

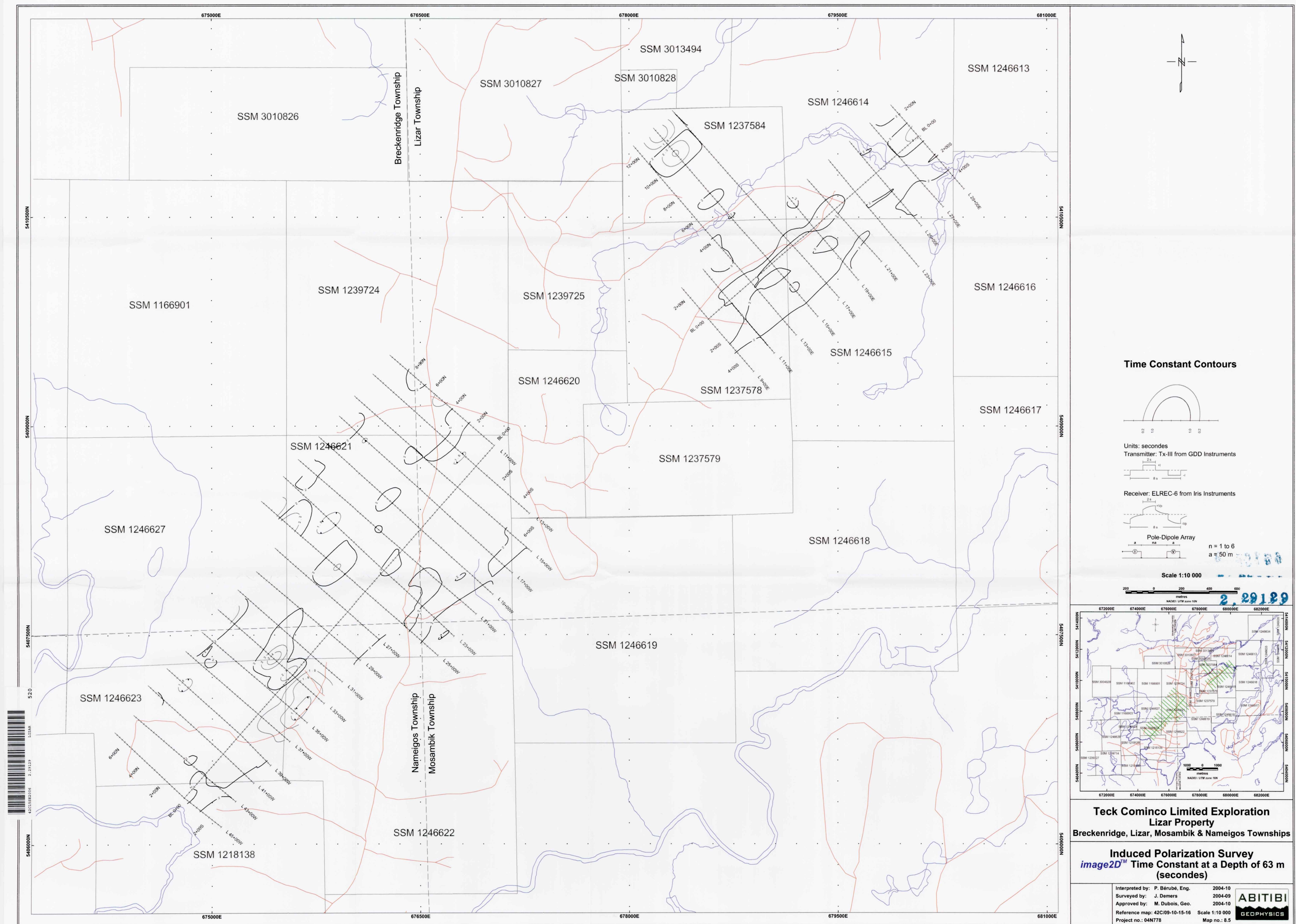


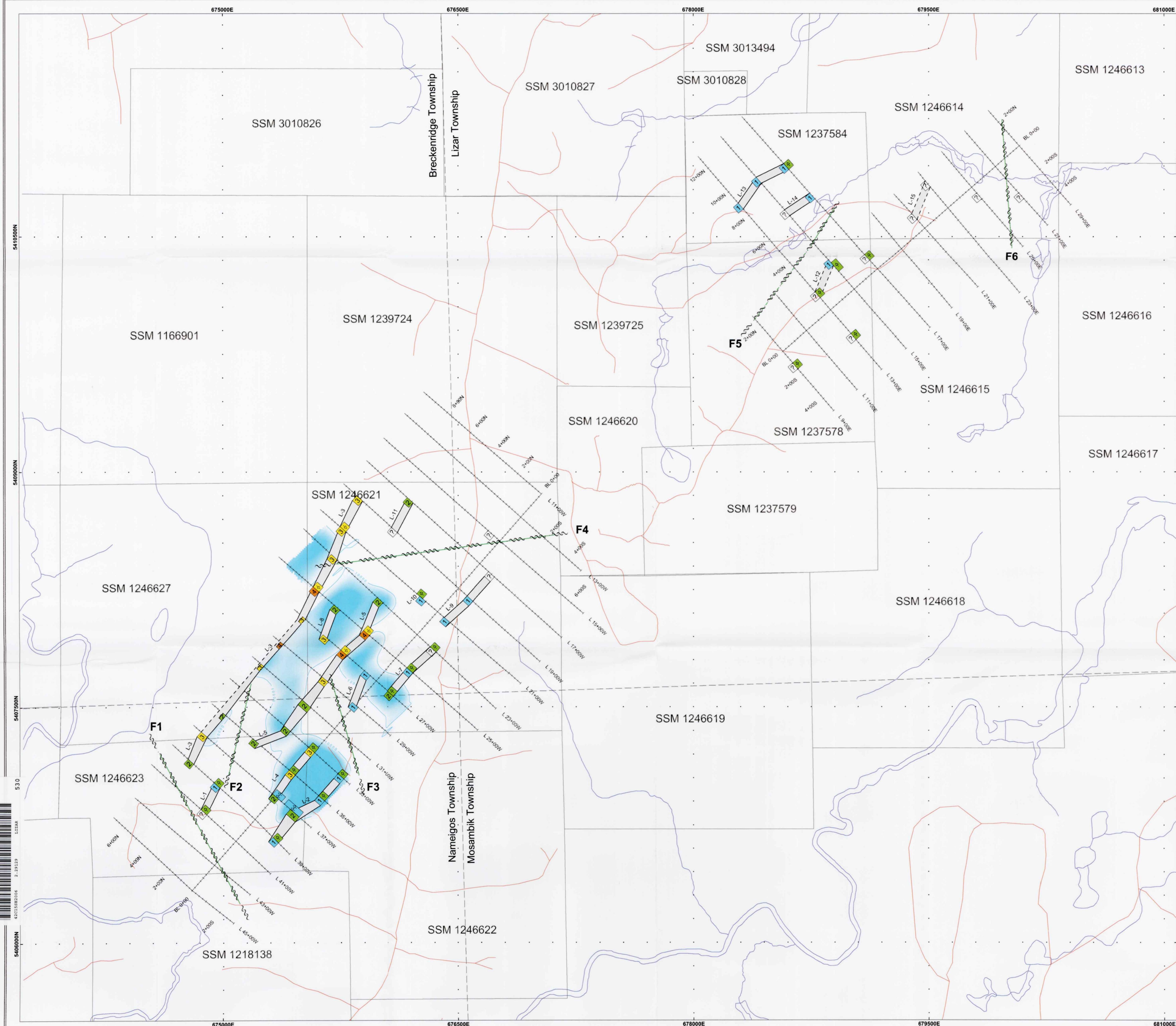
# **Teck Cominco Limited Exploration Lizar Property**

## Induced Polarization Survey *image2D™* Resistivity at a Depth of 63 m ( $\Omega \text{m} \cdot \text{m}$ )

Interpreted by: P. Bérubé, Eng.	2004-10
Surveyed by: J. Demers	2004-09
Approved by: M. Dubois, Geo.	2004-10
Reference map: 42C/09-10-15-16	Scale 1:10 000
Project no.: 04N778	Map no.: 8.2







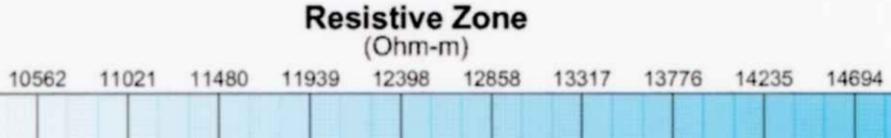
## LEGEND

INDUCED POLARIZATION SURVEY

The figure consists of two vertical scales. The left scale, labeled "IP Contrast", has five levels: "Very Strong" (4), "Strong" (3), "Moderate" (2), "Weak" (1), and "Questionable" (?). The right scale, labeled "Source Electrically...", has four levels: "Very Resistive" (top), "Resistive", "Conductive", and "Very Conductive" (bottom).

IP Trends

- Questionable Continuity
- \_\_\_\_\_ Definite Continuity
- \_\_\_\_\_   Conductive Trend



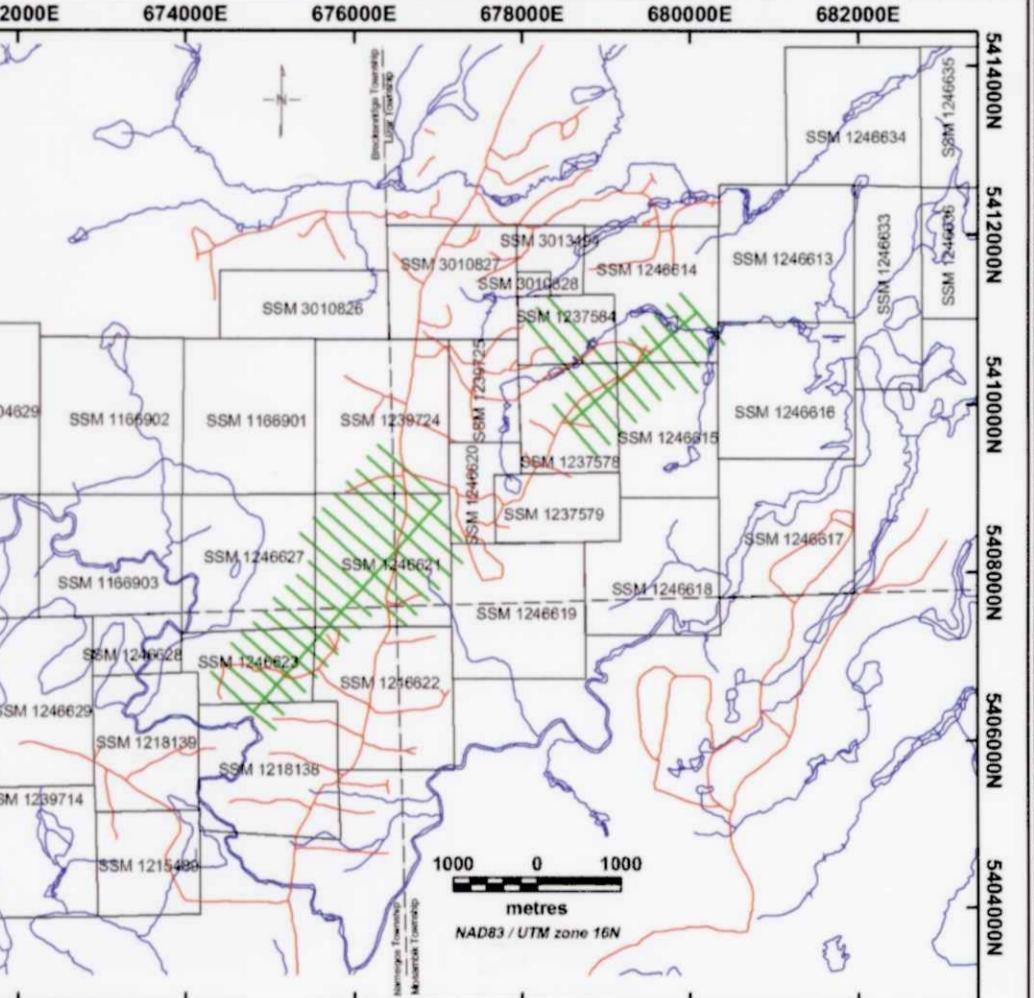
## Miscellaneous Symbols

~~~~~ Observed Fault  
 ~~~ . ~~~ Geophysically Inferred Fault

2.59162

Scale 1:10 000

Scale 1:10 000



# **Teck Cominco Limited Exploration Lizar Property**

## Geophysical Interpretation

Interpreted by: P. Bérubé, Eng. 2004-10  
Surveyed by: J. Demers 2004-09  
Approved by: M. Dubois, Geo. 2004-10  
Reference map: 42C/09-10-15-16 Scale 1:10 000  
Project no.: 04N778 Map no.: 10-0