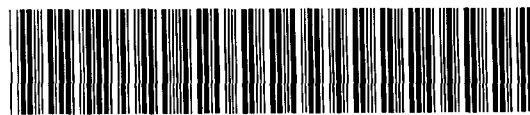




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**A REPORT ON GEOPHYSICAL WORK  
(INDUCED POLARIZATION SURVEY)**  
performed on the  
**WELSH STANWICK PROJECT**  
District of Matachewan  
submitted to  
**SEDEX MINING CORPORATION**  
Kirkland Lake, Ontario  
96-N125 December 1996



41P15NE0021 2.17203 POWELL

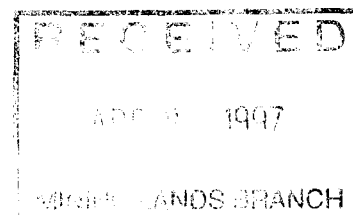
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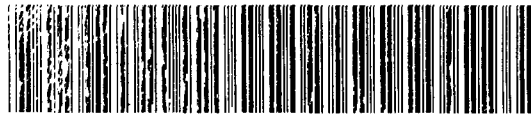
## SUMMARY

From November 18 to 21, 1996, an induced polarization and resistivity (IP) survey (9,3 line-kilometres) was performed on behalf of SEDEX MINING CORPORATION over the WELSH STANWICK PROPERTY located in Powell Township, in Northern Ontario.

The IP survey detected 10 polarization axes mostly associated with bedrock uplifts (outcropping areas) However, three of these axes likely represent disseminated mineralization and could constitute drilling targets.

2 17203





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## APPENDICES

### Attached to this report :

#### **Pseudosections :**

Dipole–dipole pseudosections (10) of the apparent resistivity, apparent chargeability and metal factor (scale 1:2500).

### Inside a plastic jacket (scale 1:5000) :

#### **Maps :**

96–N125–4.0 Geophysical interpretation

96–N126–4.2 Contours and readings of the apparent resistivity (Fraser filter values)

96–N126–4.3 Contours and readings of the apparent chargeability (Fraser filter values)

### Colour copy submitted separately :

#### **Pseudosections :**

Dipole–dipole pseudosections (10) of the apparent resistivity, apparent chargeability and metal factor (scale 1:2500).

#### **Maps (scale 1:5000) :**

96N–126–4.2c:        Contours of the apparent resistivity (Fraser filter)

96N–126–4.3c:        Contours of the apparent chargeability (Fraser filter)

## **1. INTRODUCTION**

At the request of Mr. Tom Obradovich, of SEDEX MINING CORPORATION, VAL D'OR SAGAX INC. has performed an induced polarization survey over the WELSH STANWICK PROJECT located 6 kilometres north-east of Kirkland Lake, Ontario (NTS 41P/15). Field work was completed by Mr. Jean Meunier from November 18 to 21, 1996. A total of 9,3 line-kilometres were covered by the IP survey (see also section 3.1). The general purpose of this survey was to detect the presence of gold-bearing mineralization or structure.

After a brief description of the method employed, we discussed the results obtained and attempt to interpret them in light of the available geoscientific information. Based on this information, we established what further work, if any, should be performed.

## **2. THE WELSH STANWICK PROPERTY**

### **2.1 Location and access**

The Welsh Stanwick Property is located 6 kilometres, as the crow flies, north-east of Matachewan, Ontario (Figure 1). The property is accessible from Matachewan by using Highway 117 in direction of Rouyn-Noranda for about 10 kilometres up to the junction to an old mine road which runs west of the highway. From there, several gravel roads give an excellent access to the different parts of the present survey area (see also section 2.3).

### **2.2 Description**

The Welsh Stanwick Project consists of 28 mining claims located in the eastern part of the Powell Township (Figure 2). A total of 17 claims were totally or partially surveyed (Figure 3).

### **2.3 Survey grid**

Along the baseline (TL 8+75N), a total of 10 survey lines striking N 150° were covered every 100 or 200 metres from L14+00W to L2+00W (Figure 3). All survey lines have different coverages for a total of 9,3 kilometres.

Figure 1: General localisation

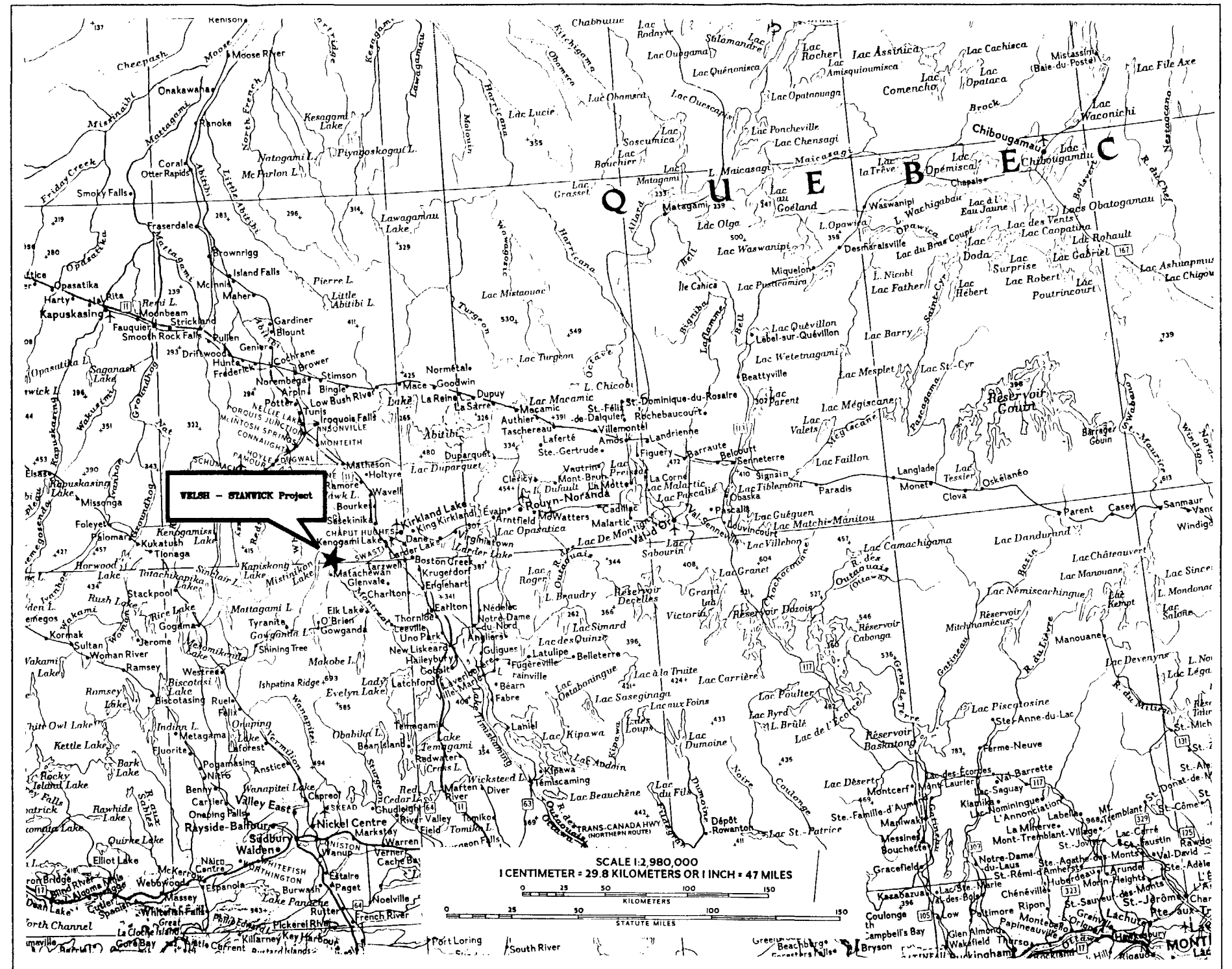


Figure 2: Index of claims

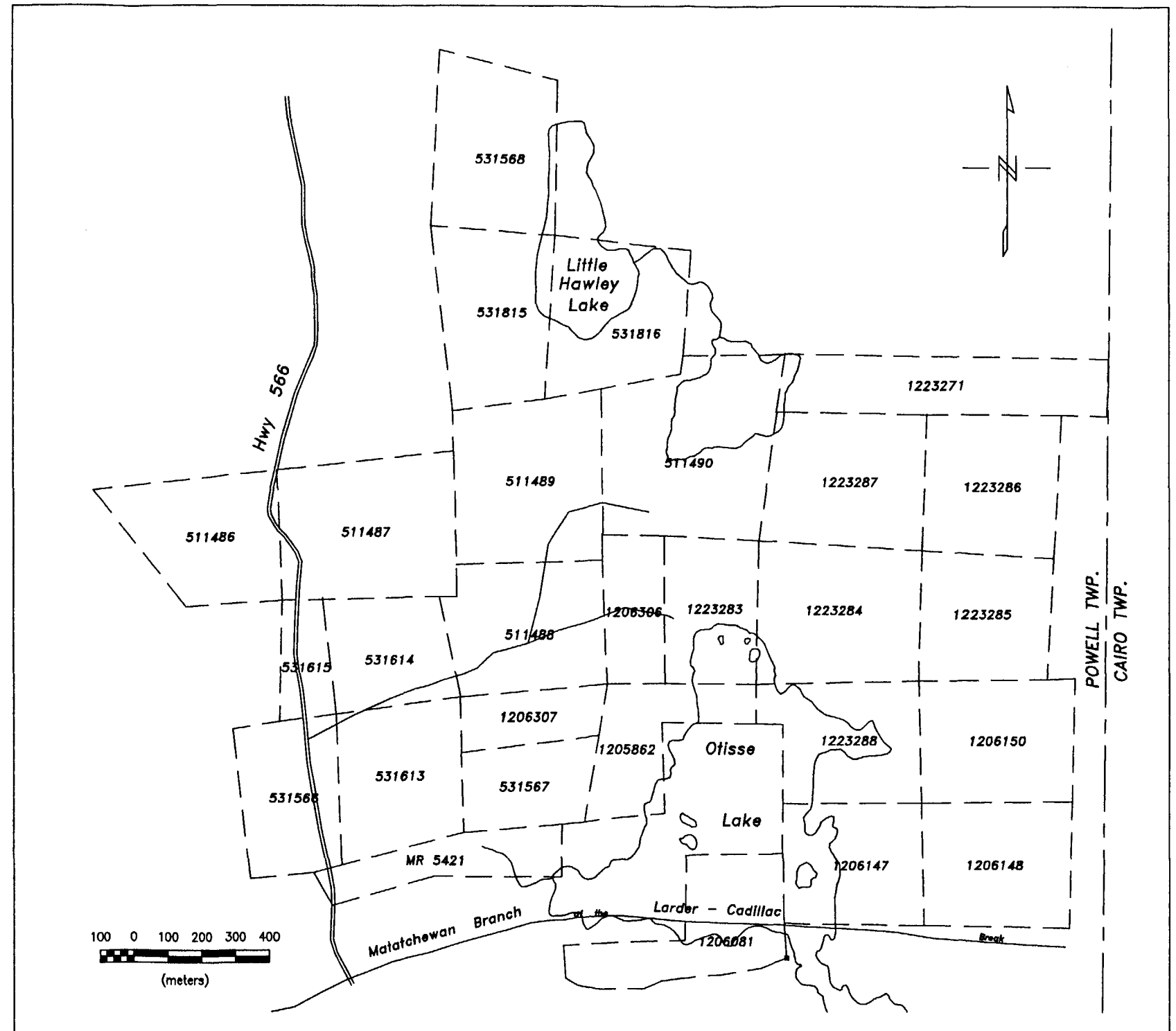
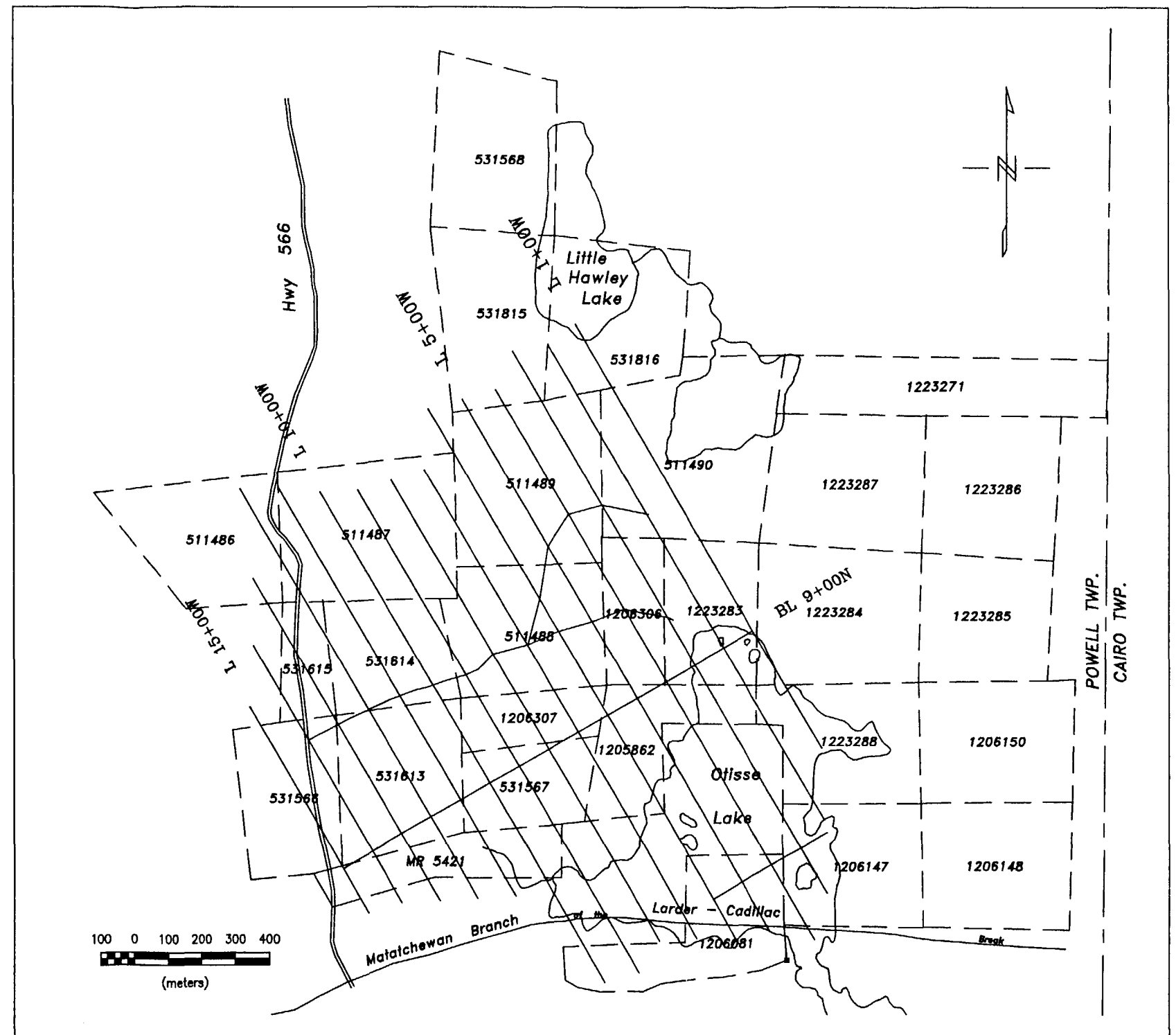


Figure 3: Index of claims and survey area





### 3. TECHNICAL SPECIFICATIONS OF THE IP SURVEY

#### 3.1 Electrode array

The dipole-dipole array (Figure 4) was used for the investigation of all ten survey lines performed over the Welsh Stanwick Project. The nominal spacing  $a$  between the electrodes was set at 25 metres and separation factor  $n$  between dipoles ranged from 1 to 5.

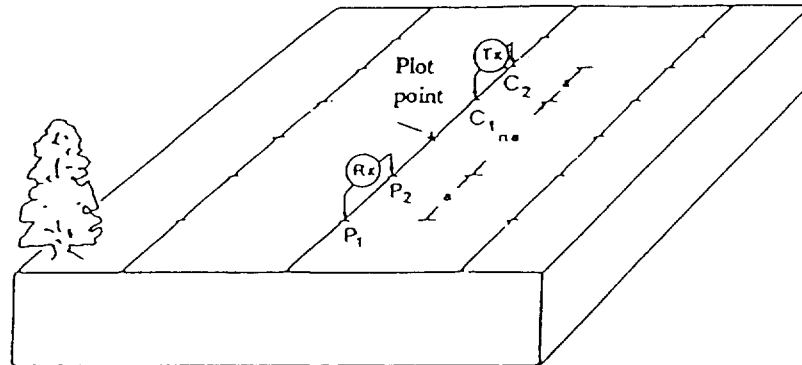


Figure 4: The dipole-dipole array

#### 3.2 Equipment

The induced polarization equipment employed consisted of a transmitting device as well as a receiving device, both working in pulse current mode. A Phoenix Geophysics Ltd. model IPT-1 transmitter, powered by a motor generator capable of supplying 2 kW of continuous power, was used to provide a stable current. Stainless steel electrodes were used to transmit current. The transmitted current was a bipolar on-off (50% duty cycle) square wave (Figure 5).

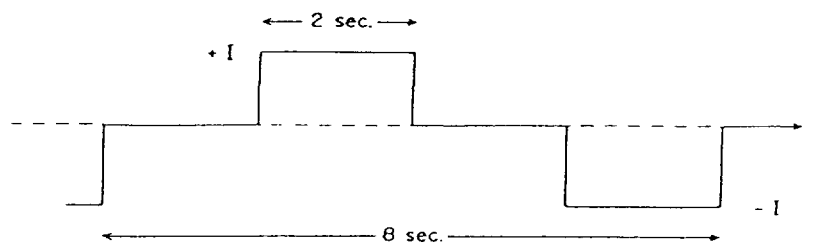


Figure 5: The transmitted signal at  $C_1-C_2$

Primary voltage  $V_p$  and the apparent resistivity were measured using an ELREC-6 receiver from Iris Instruments. The integration of the transient voltage current shut-off was performed in ten gates of 160 ms (Figure 6).

Parameters  $M_1$  to  $M_{10}$  are automatically normalized with respect to a Standard Newmont curve, where the voltage decrease is due to pure electrode polarization. Any parasitic effect on the received signal can then be detected and filtered out using the deviation from the norm of the values of  $M_1$  to  $M_{10}$  read at the receiver. Stainless steel electrodes were used for the receiving dipole.

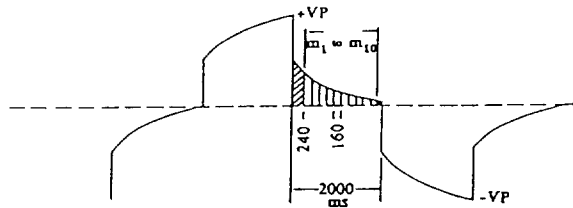


Figure 6: The signal integration windows at  $P_1-P_2$

### 3.3 IP survey parameter calculations

Apparent resistivity was determined using the following equation:

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

Where

- $a$  = dipole length (25 m)
- $n$  = dipole separation factor
- $V_p$  = primary voltage (mV)
- $I$  = injected current (mA)

Chargeability  $M$  is the average of the ten normalized windows, expressed in mV/V.

The metal factor is calculated with the following equation:

$$FM = \frac{1000 \cdot M}{\sqrt{\rho_a}}$$

The Fraser filter used consisted of an equal weight of fifteen data point triangle.

### 3.4 Quality Control

The apparent resistivity is essentially that of the analog current  $I$  readout and the nominal spacing  $a$  between the electrodes, approximately 5% in all.

Final chargeability measurements ( $M_1$  to  $M_{10}$ ) represent the average of 6 to 10 measuring cycles. However, the difference between the ten normalized windows is the best indicator of the quality and the purity of a chargeability reading. Hence, if parasitic signal such as telluric noise and electromagnetic coupling are encountered, the repeatability and the stability of an induced polarization measurement (chargeability, frequency effect, or phase angle) do not necessarily mean quality, because these parasitic signals are periodic and affect each measurement in a similar fashion. Normalization enables us to compare precisely and *in situ* the shape of the voltage curve with that of a curve caused by a pure electrode polarization effect.

Due to the presence of wide area of sandy overburden, the contact resistances measured at the electrodes with the dipole-dipole array were locally very high (1 to 30 k $\Omega$ ·m) which resulted in low transmitted current and subsequently in low signal measured at the potential dipoles.

The characteristics of the IP measured parameters are summarized in Table 1.

**Table 1: Characteristics of the IP measured parameters**

Injected current	60 to 1500 mA
Measured voltage ( $n = 5$ )	5 to 50 mV
Accuracy of apparent resistivity measurements	5%
Accuracy of apparent chargeability measurements ( $n = 5$ )	2 to 5 mV/V
Contact resistance	1 to 15 k $\Omega$ ·m

## 4. DISCUSSION OF SURVEY RESULTS

### 4.1 Data presentation

The results of the induced polarization survey are presented in the form of interpreted pseudosections of the apparent resistivity, the apparent chargeability and the metal factor at a scale of 1:2500. The results are also presented in the form of contour maps at a scale of 1:5000, using the Fraser filter values of resistivity and chargeability (96-N126-4.2 and 96-N126-4.3). One copy of the colour contour maps is submitted separately as well as one set of colour IP pseudosections.

## 4.2 Analysis of survey results

A first overview of the contour map of the apparent resistivity and chargeability over the eastern area of the survey reveals the presence of a very resistive area oriented NW–SE including several IP axes (labelled from IP–01 to IP–10). In general, the anomalous signature observed is more typical of the one induced by a bedrock up–lift (outcropping area). However, three major polarizable axes are recognized on the present survey grid, (labelled IP–02, IP–04 and IP–06) and likely represent favourable IP targets. Very weak isolated anomalies were also identified but not labelled.

The determination of the physical characteristics of the induced polarization anomalies was established and summarized in Table 2, next page.

**Table 2: Physical characteristics of the induced polarization anomalies of the Welsh Stanwick Property**

Name	Localisation		Contrast of		Remarks and Recommendations	Priority
	Lines	Stations	Chargeability	Resistivity		
IP-01	L14+00W	14+50N	2	+1	Moderate IP response partially covered by the survey (end of line). Associated with slight increase of the apparent resistivity close to the border of an overburden basin. Additional IP coverage recommended westward.	4
IP-02	L12+00W L10+00W L8+00W	16+65N 13+90N 12+75N	4 2 2	+2 +2 +1	Moderate to strong polarizable axis in a very resistive area, close to the border of an overburden basin (fault). The chargeability anomaly source is relatively deep (about 50 metres). For a better comprehension of this anomaly, an IP coverage every 100 metres is recommended. After the evaluation of other geoscientific information, a DDH target might be recommended on L12+00W (see Table 3).	1
IP-03	L12+00W L10+00W	7+00N 8+50N	2 1	+1 +1	Weak to moderate IP axis associated with an increase of the apparent resistivity. Near the border of an overburden basin (fault).	4
IP-04	L10+00W L8+00W L7+00W L6+00W L5+00W L4+00W	18+10N 16+50N 15+60N 15+75N 15+65N 15+00N	2 2 4 4 3 3	+2 +1 +1 +2 +2 +2	Moderate to strong polarizable axis in a very resistive area. The IP signature is stronger eastwards. The chargeability anomaly origin is relatively deep (about 50 metres). For a better comprehension of the west part of this anomaly, a coverage every 100 metres is recommended. After the evaluation of the other geoscientific information, a DDH target might be recommended on L6+00W (see Table 3).	1

Name	Localisation		Contrast of		Remarks and Recommendations	Priority
	Lines	Stations	Chargeability	Resistivity		
IP-05	L10+00W	12+25N	1	+2	Weak IP axis in an overburden basin. Limited strike extension (only one line).	4
IP-06	L7+00W	13+90N	1		Strong polarizable axis in a very resistive area. IP signature opened and stronger eastwards. Additional IP coverage recommended for a better comprehension of this anomaly. The chargeability anomaly origin is relatively deep (about 50 metres). After the evaluation of other geoscientific information, a DDH target might be recommended on L4+00W (see Table 3).	1
	L6+00W	13+60N	1	+1		
	L5+00W	13+50N	4	+2		
	L4+00W	13+50N	4	+2		
	L3+00W	13+25N	4	+1		
IP-07	L6+00W	12+40N	+2	+1	Moderate IP axis in a resistive area. Border of an overburden basin. Limited strike extension (only one line).	3
IP-08	L4+00W	16+00N	2	-1	Moderate IP axis associated with a significant decrease of the apparent resistivity. Open eastward. Additional IP coverage recommended for a better comprehension of this anomaly and to determine a DDH target with more precision. (see table 3).	2
	L3+00W	16+25N	2	-2		
	L2+00W	16+00N	2	-2		
IP-09	L2+00W	18+50N	2	-2	Similar IP response as IP-08 but not covered completely by the survey (end of line). Open on both sides. Additional IP coverage recommended for a better comprehension of this anomaly.	3
IP-10	L2+00W	17+10N	2	+1	Moderate IP axis associated with an increase of the apparent resistivity. Open on both sides.	3

For legend please refer to the legend on enclosed maps.

## 5. CONCLUSION AND RECOMMENDATIONS

The present IP survey highlights an important resistive area (outcrops) where three important polarizable axes are encountered (IP-02, IP-04 and IP-06). These polarizable axes could represent a silicification alteration (quartz veins) with moderately disseminated mineralization. The IP-08 anomaly is also interesting, it's polarizable axis being associated with a significant decrease of the apparent resistivity.

As first priority, the completion of a DDH program is recommended. As second priority, the extension of the IP coverage would provide a better comprehension of the anomalies, help determine more precisely the DDH targets and possibly detect other potential ones (see Table 3).

**Table 3: Recommended work to be completed on the Welsh Stanwick Project**

Anomaly	Work proposed and target coordinates	Priority
IP-02	IP coverage every 100 metres Geological mapping work DDH target : L : 12+00W, S : 16+65N, D : -50 m	1
IP-04	DDH target : L : 6+00W, S : 15+75N, D : -50 m	1
IP-06	DDH target : L : 4+00W, S : 13+50N, D : -50 m	1
IP-08	Extension of IP coverage	1
	DDH target : L : 3+00W, S : 16+25N, D : -25 m	2

Note : DRILLING TARGET represents the target coordinates and not the collar location.  
L : Line, S : Station, D : Depth

Respectfully submitted,

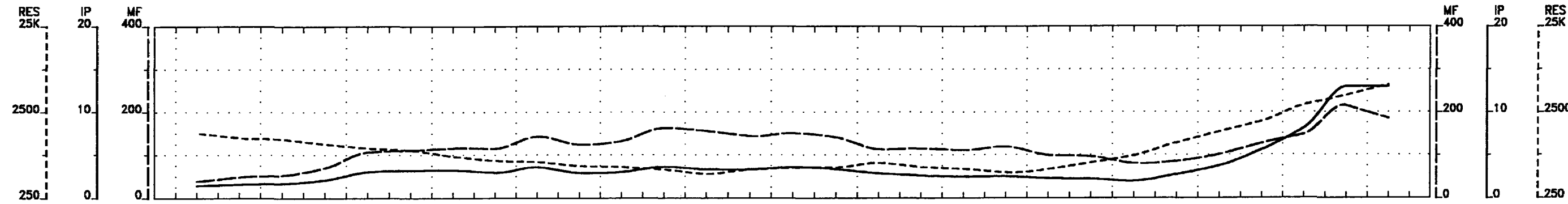
VAL D'OR SAGAX INC.

*Martin Dubois*  
for *Martin Dubois*  
Martin Dubois  
Geophysicist

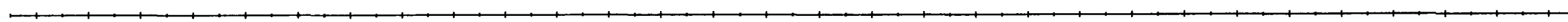
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## **PSEUDOSECTIONS**

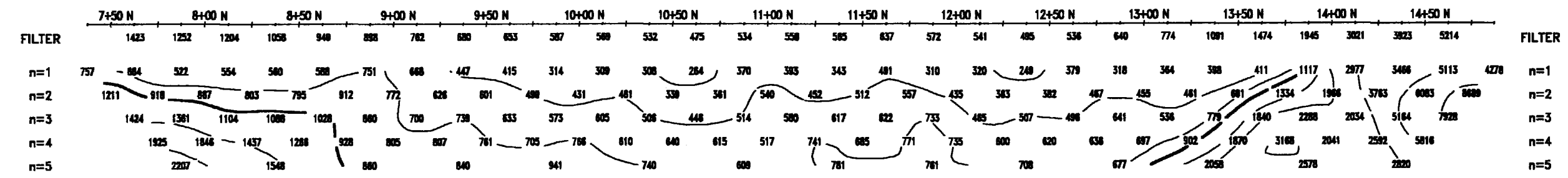




TOPOGRAPHY

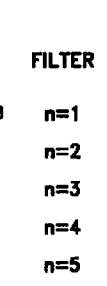


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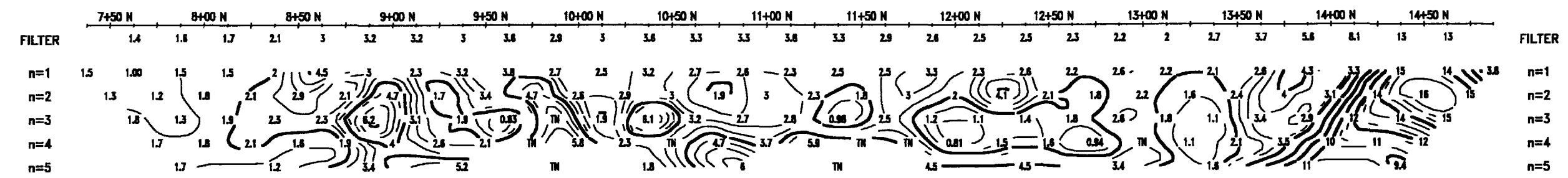


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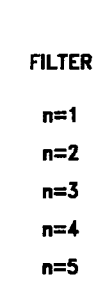
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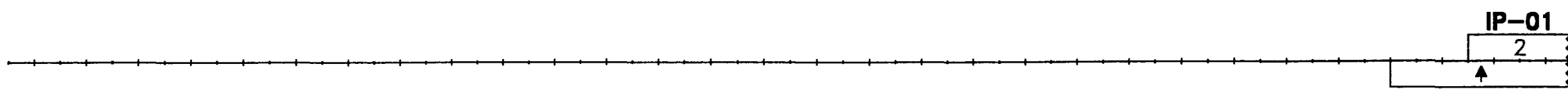
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APPARENT POLARISABILITY (mV/V)

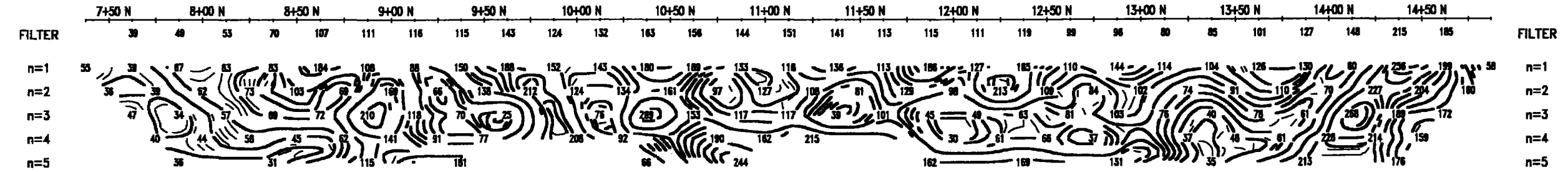


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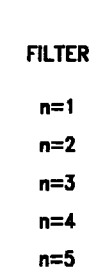


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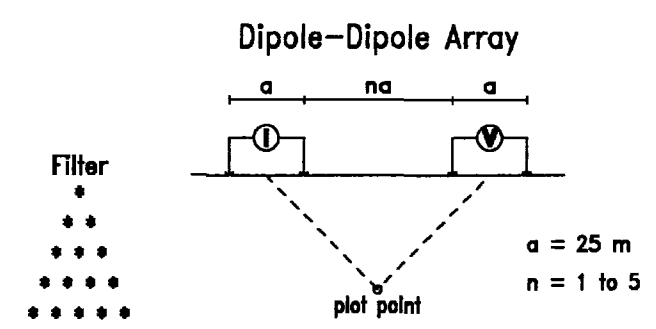
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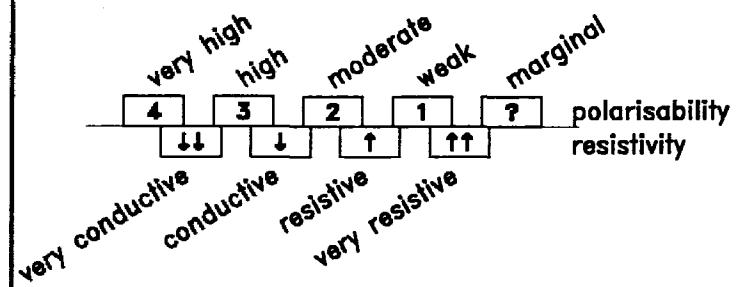
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INDUCED POLARIZATION SURVEY



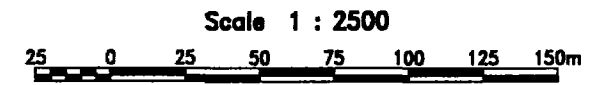
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Metal Factor: 2

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Line 1400W

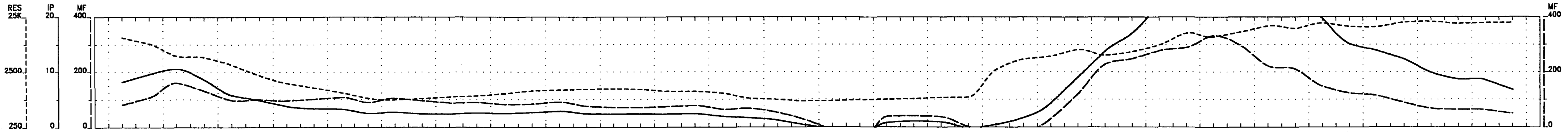


SEDEX MINING CORPORATION

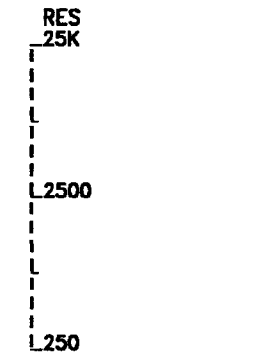
Welsh Stanwick Project  
Powell Township  
District of Matachewan

Interpreted by: M. Dubois, B. Sc.  
Date of survey: November 1996  
Surveyed by: Jean Meunier  
Reference: 96-N125

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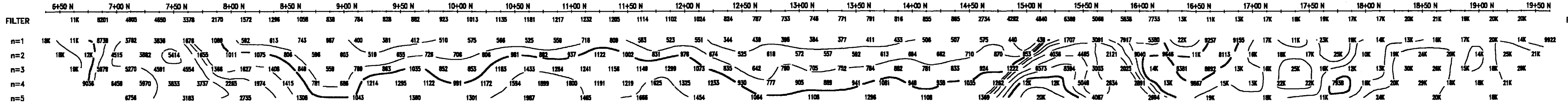


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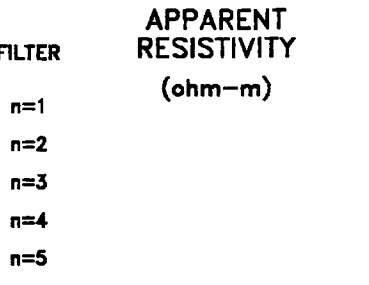


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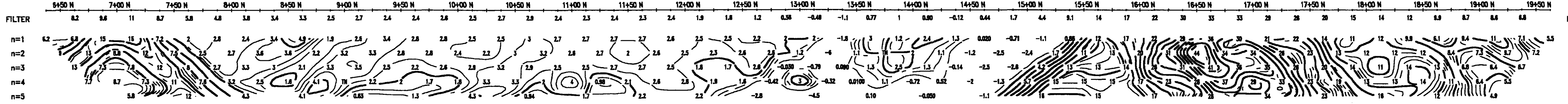
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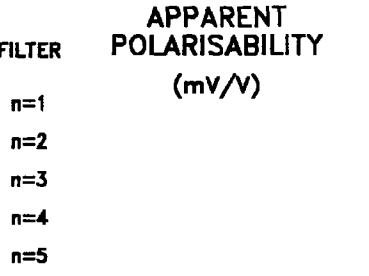
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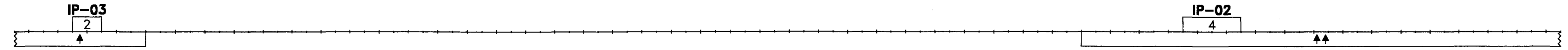
APPARENT POLARISABILITY (mV/V)



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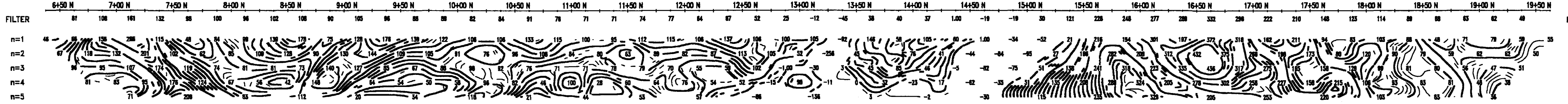


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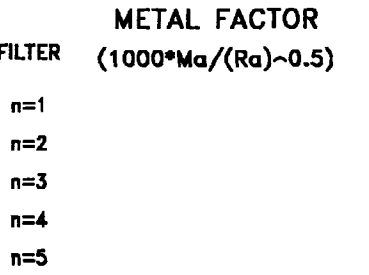


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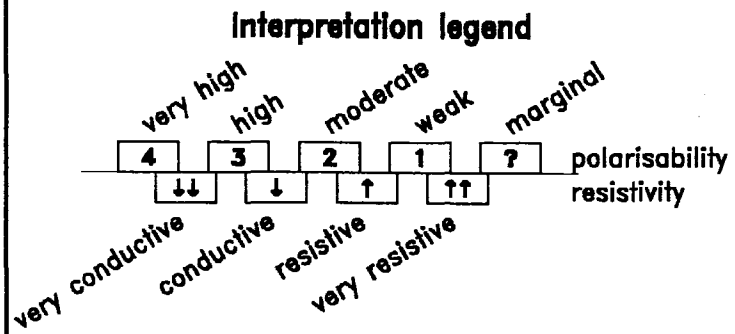
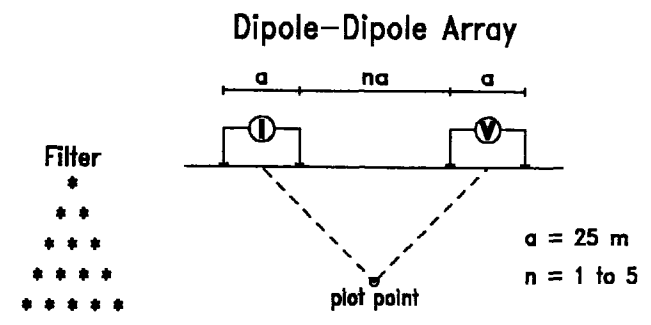
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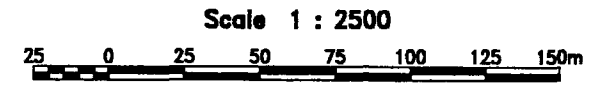
INDUCED POLARIZATION SURVEY



Contour interval:  
 Resistivity: 1, 1.5, 2, 3, 5, 7.5, 10, ...  
 Polarisability: 0.5  
 Metal Factor: 2

Instruments: IRIS ELREC-6, PHOENIX IPT-1, MG-1

Line 1200W

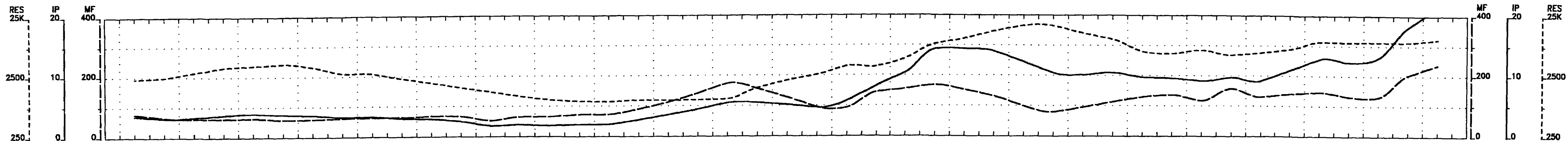


SEDEX MINING CORPORATION

Weish Stanwick Project  
 Powell Township  
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Interpreted by: M. Dubois, B. Sc.  
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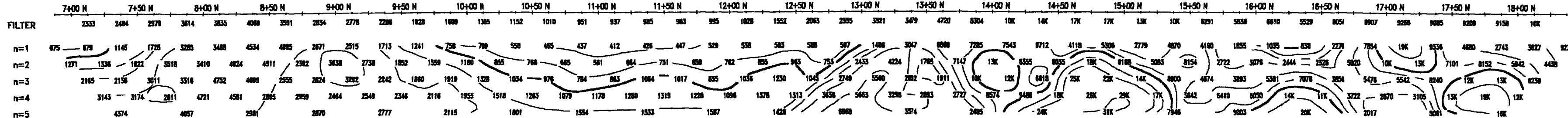




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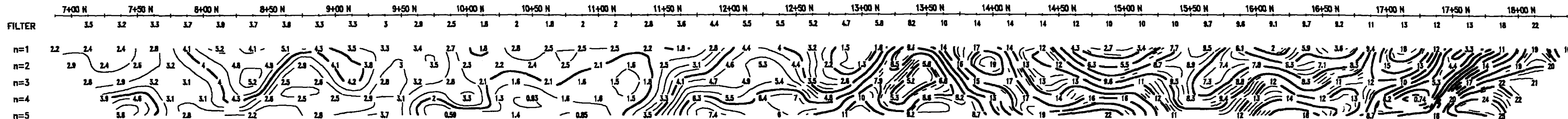
TOPOGRAPHY

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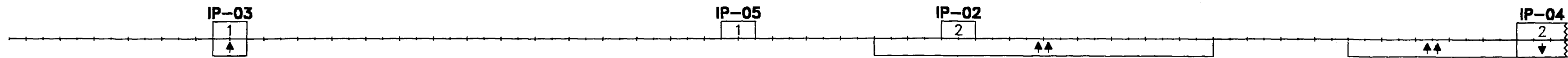
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APPARENT POLARISABILITY (mV/V)



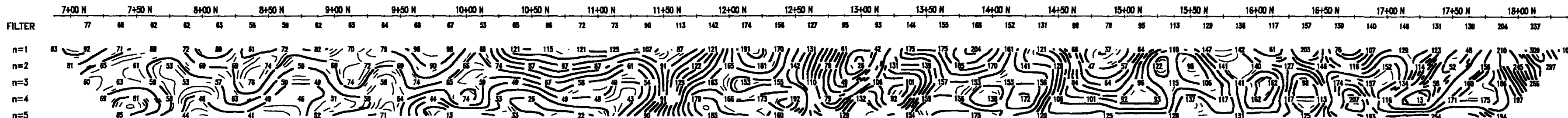
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INTERPRETATION



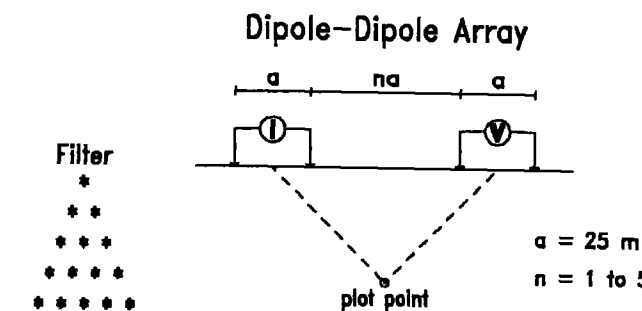
INTERPRETATION

METAL FACTOR (1000\*Ma/(Ra)~0.5)



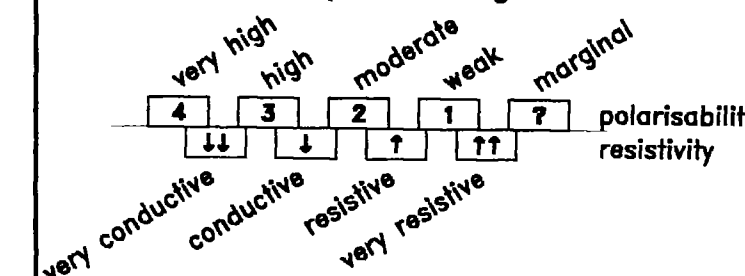
METAL FACTOR (1000\*Ma/(Ra)~0.5)

INDUCED POLARIZATION SURVEY



a = 25 m  
n = 1 to 5

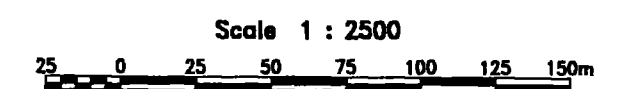
Interpretation legend



Contour interval:  
Resistivity: 1, 1.5, 2, 3, 5, 7.5, 10, ...  
Polarisability: 0.5  
Metal Factor: 2

Instruments: IRIS ELREC-6, PHOENIX IPT-1, MG-1

Line 1000W

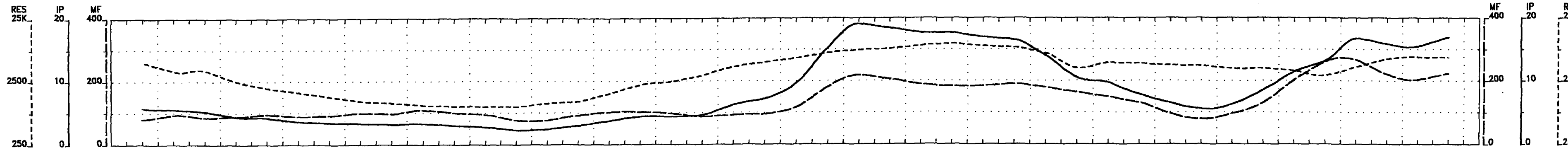


SEDEX MINING CORPORATION

Welsh Stanwick Project  
Powell Township  
District of Matachewan

Interpreted by: M. Dubois, B. Sc.  
Date of survey: November 1996  
Surveyed by: Jean Meunier  
Reference: 96-N125

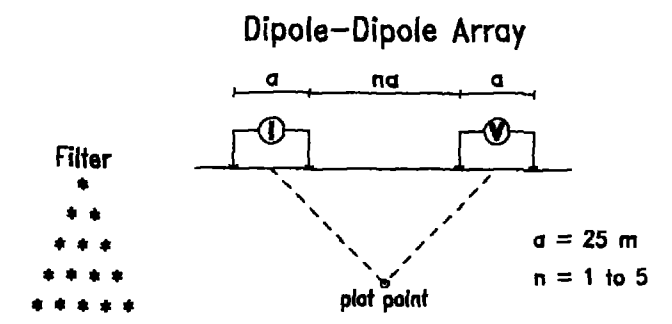




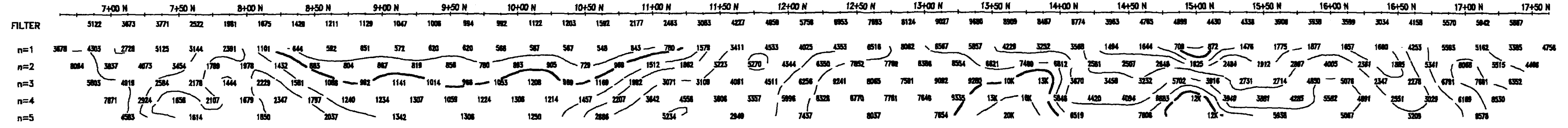
TOPOGRAPHY

TOPOGRAPHY

**INDUCED POLARIZATION SURVEY**

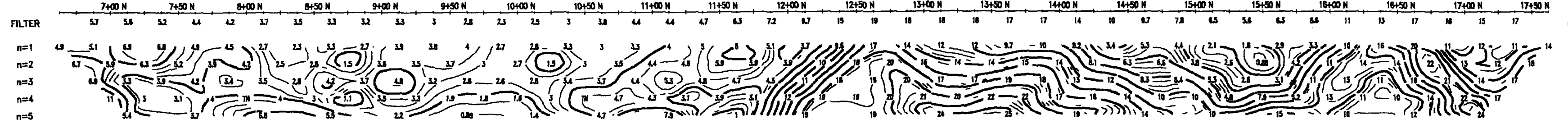


APPARENT RESISTIVITY (ohm-m)



APPARENT RESISTIVITY (ohm-m)

APPARENT POLARISABILITY (mV/V)

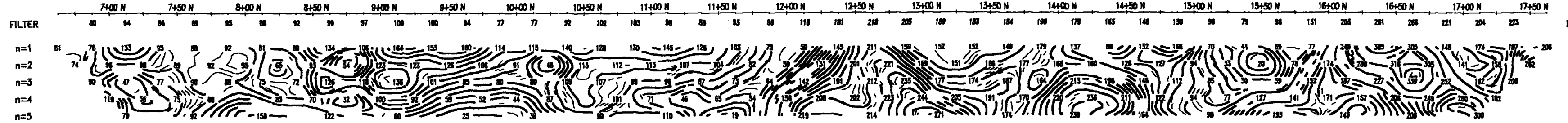


APPARENT POLARISABILITY (mV/V)

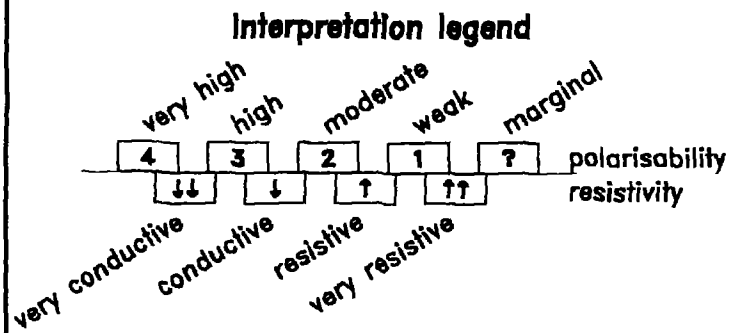
INTERPRETATION

INTERPRETATION

METAL FACTOR (1000\*Ma/(Ra)~0.5)

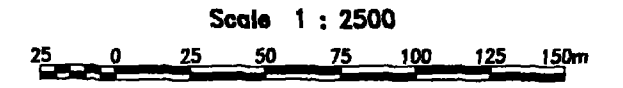


METAL FACTOR (1000\*Ma/(Ra)~0.5)



Contour interval:  
 Resistivity: 1, 1.5, 2, 3, 5, 7.5, 10, ...  
 Polarisability: 0.5  
 Metal Factor: 2  
 Instruments: IRIS ELREC-6, PHOENIX IPT-1, MG-1

**Line 800W**

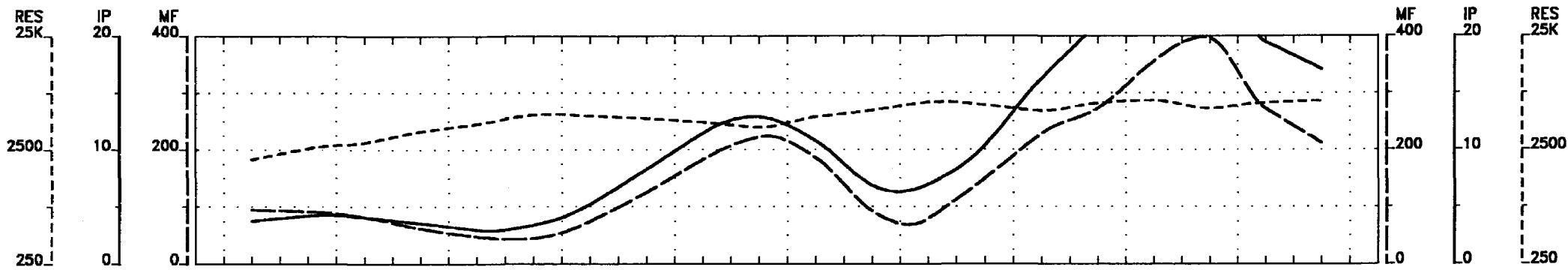


**SEDEX MINING CORPORATION**

Walsh Stanwick Project  
 Powell Township  
 District of Matachewan

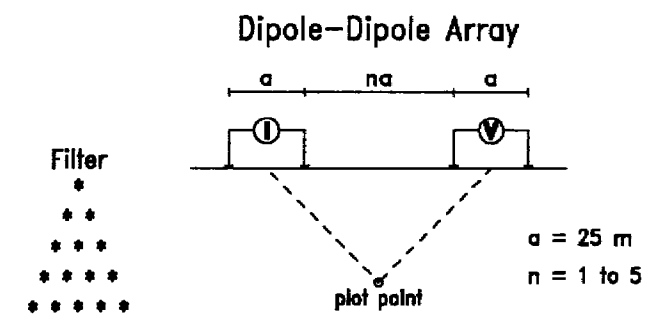
Interpreted by: M. Dubois, B. Sc.  
 Date of survey: November 1996  
 Surveyed by: Jean Meunier  
 Reference: 96-N125





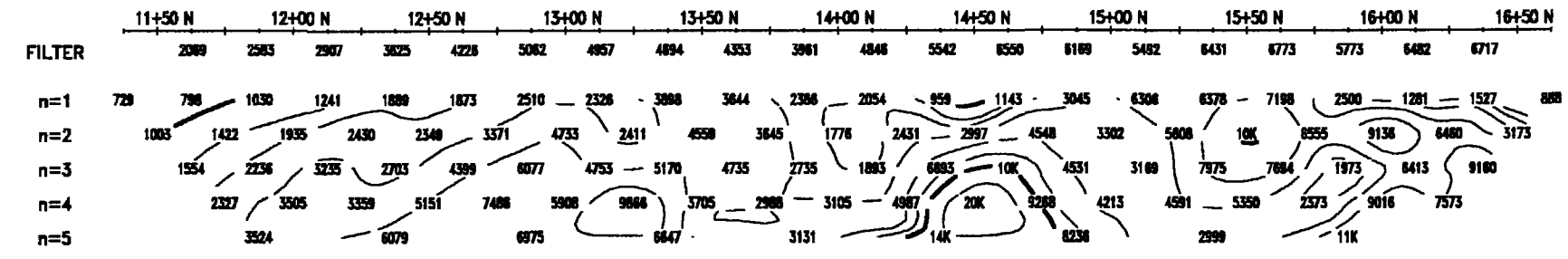
TOPOGRAPHY

**INDUCED POLARIZATION SURVEY**

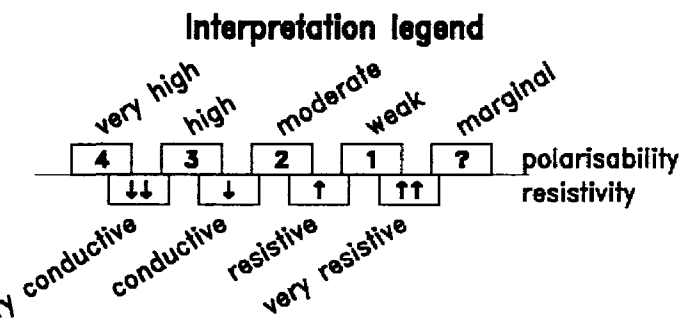
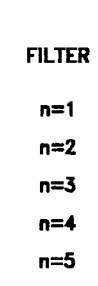


TOPOGRAPHY

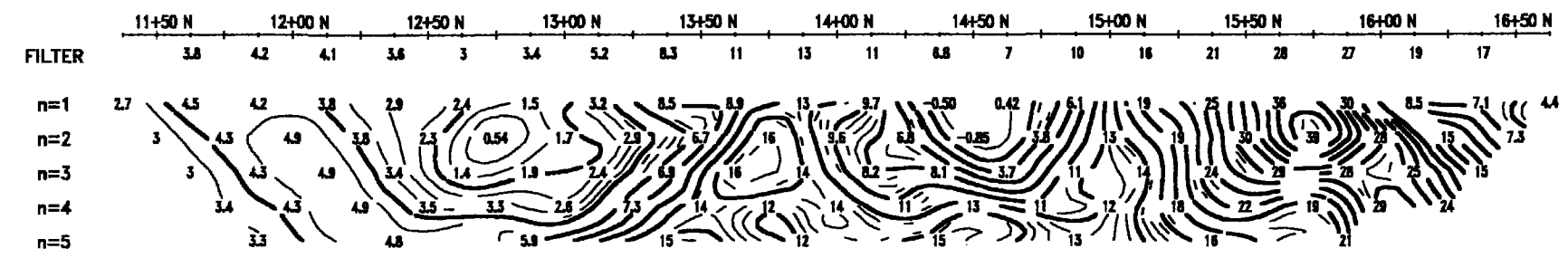
**APPARENT RESISTIVITY (ohm-m)**



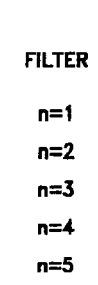
**APPARENT RESISTIVITY (ohm-m)**



**APPARENT POLARISABILITY (mV/V)**

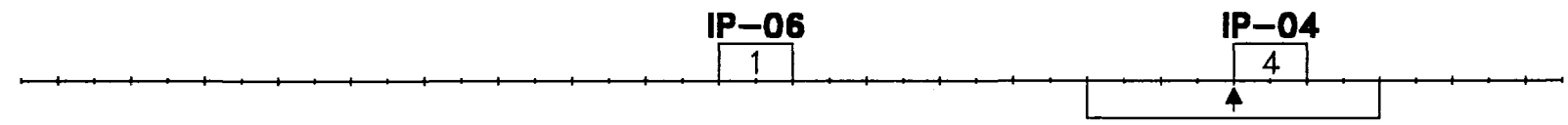


**APPARENT POLARISABILITY (mV/V)**



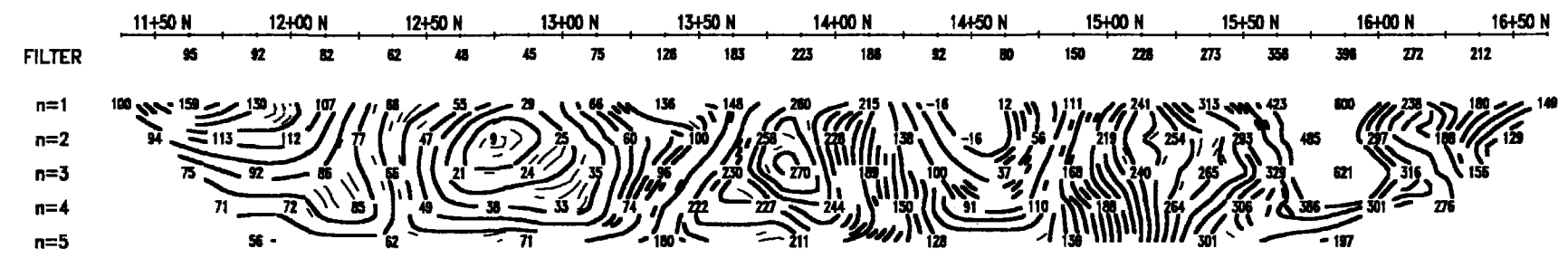
Contour interval:  
 Resistivity: 1, 1.5, 2, 3, 5, 7.5, 10, ...  
 Polarisability: 0.5  
 Metal Factor: 2  
 Instruments: IRIS ELREC-6, PHOENIX IPT-1, MG-1

INTERPRETATION

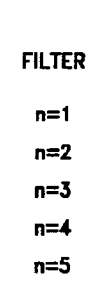


INTERPRETATION

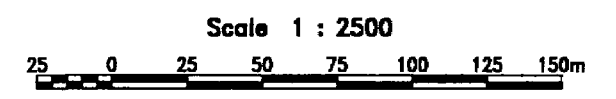
**METAL FACTOR (1000\*Ma/(Ra)~0.5)**



**METAL FACTOR (1000\*Ma/(Ra)~0.5)**



**Line 700W**

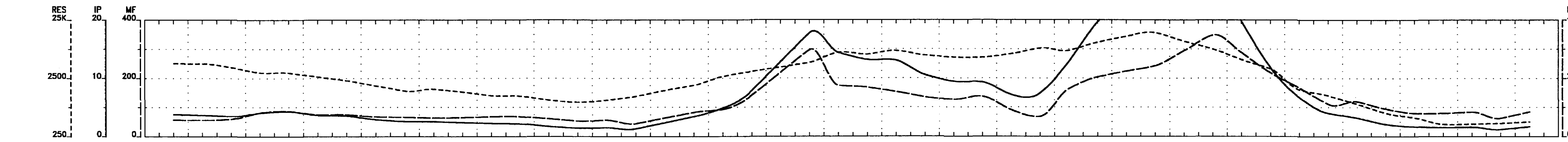


**SEDEX MINING CORPORATION**

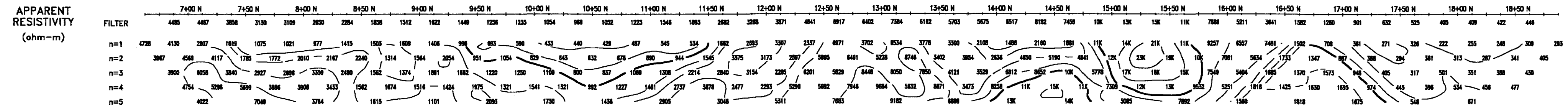
**Welsh Stanwick Project  
 Powell Township  
 District of Matachewan**

Interpreted by: M. Dubois, B. Sc.  
 Date of survey: November 1996  
 Surveyed by: Jean Meunier  
 Reference: 96-N125

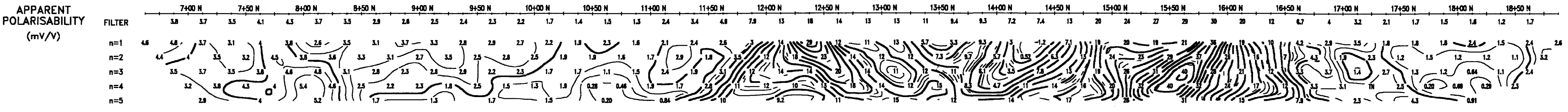
**VAL D'OR  
 SAGAX**



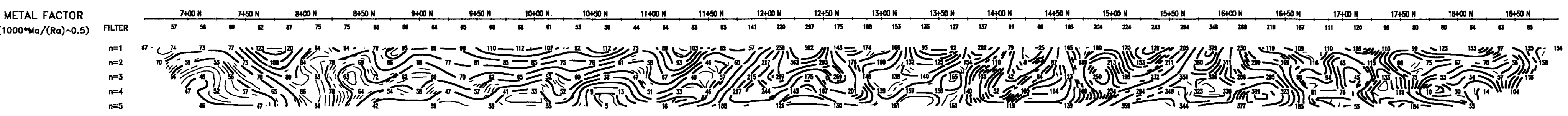
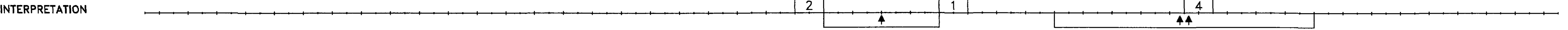
TOPOGRAPHY



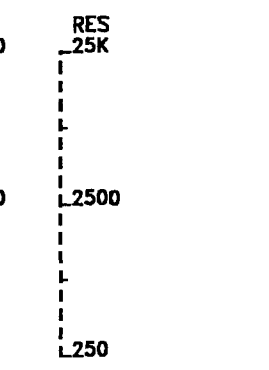
APPARENT RESISTIVITY (ohm-m)



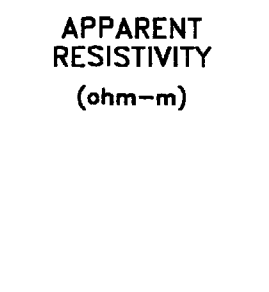
APPARENT POLARISABILITY (mV/V)



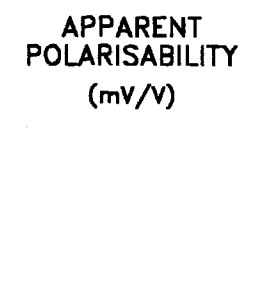
METAL FACTOR (1000\*Ma/(Ra)~0.5)



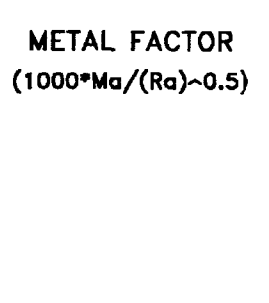
TOPOGRAPHY



APPARENT RESISTIVITY (ohm-m)

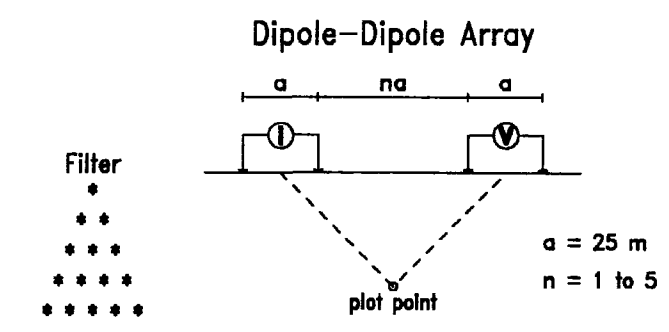


APPARENT POLARISABILITY (mV/V)

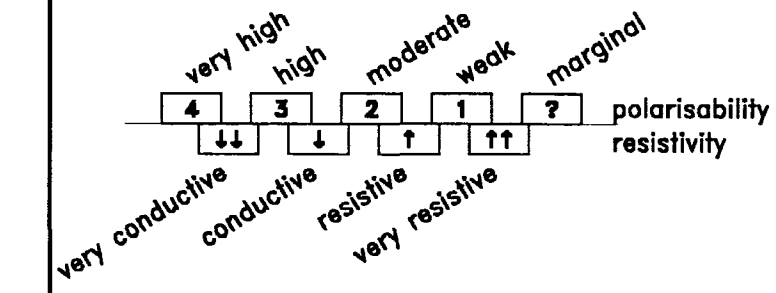


METAL FACTOR (1000\*Ma/(Ra)~0.5)

**INDUCED POLARIZATION SURVEY**

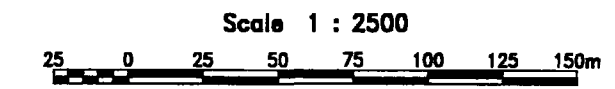


**Interpretation legend**



Contour interval:  
 Resistivity: 1, 1.5, 2, 3, 5, 7.5, 10,..  
 Polarisability: 0.5  
 Metal Factor: 2  
 Instruments: IRIS ELREC-6, PHOENIX IPT-1, MG-1

**Line 600W**



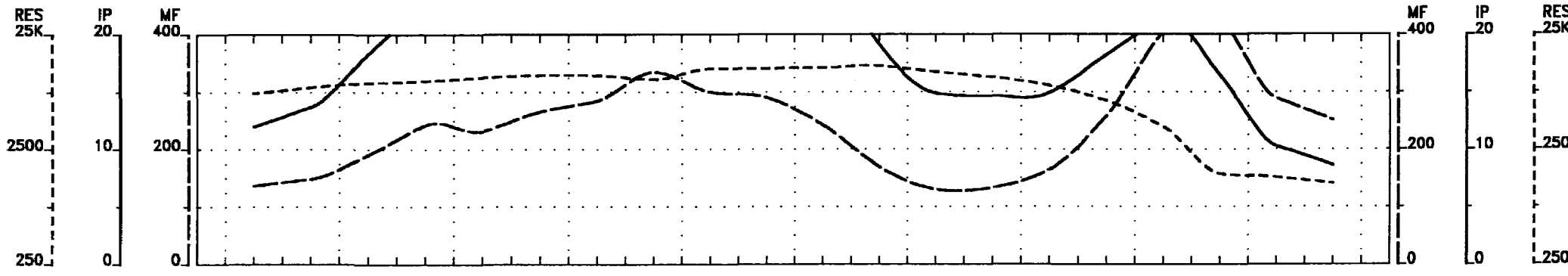
**SEDEX MINING CORPORATION**

**Welsh Stanwick Project  
 Powell Township  
 District of Matachewan**

Interpreted by: M. Dubois, B. Sc.  
 Date of survey: November 1996  
 Surveyed by: Jean Meunier  
 Reference: 96-N125

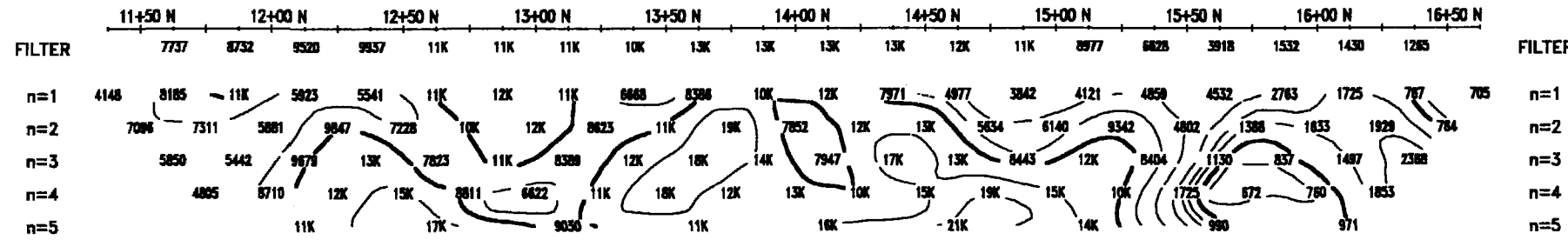




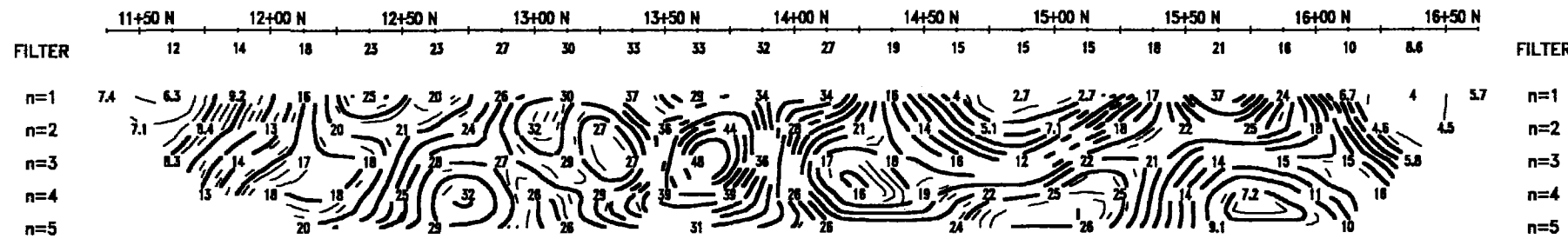


TOPOGRAPHY

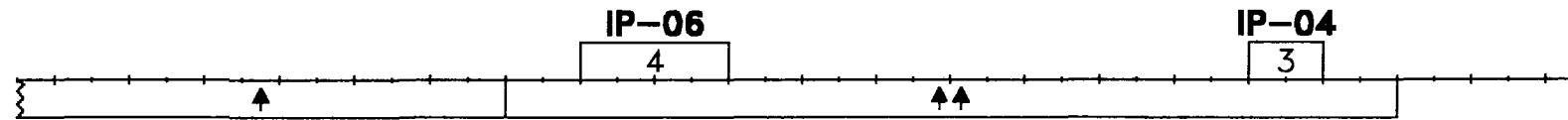
APPARENT RESISTIVITY (ohm-m)



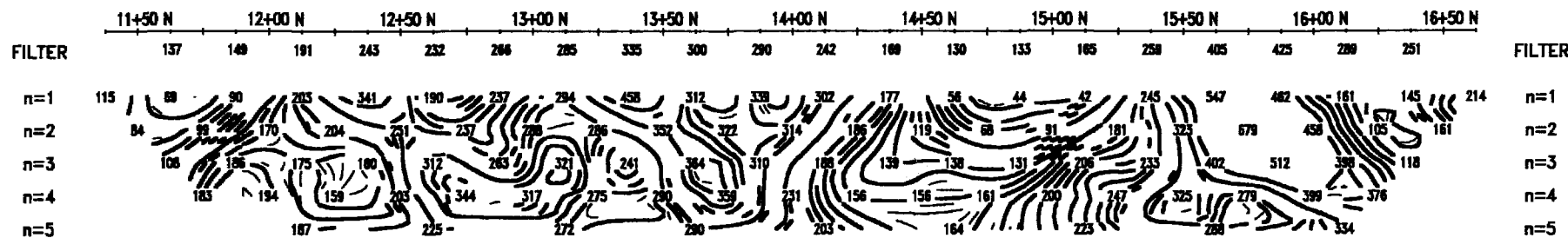
APPARENT POLARISABILITY (mV/V)



INTERPRETATION

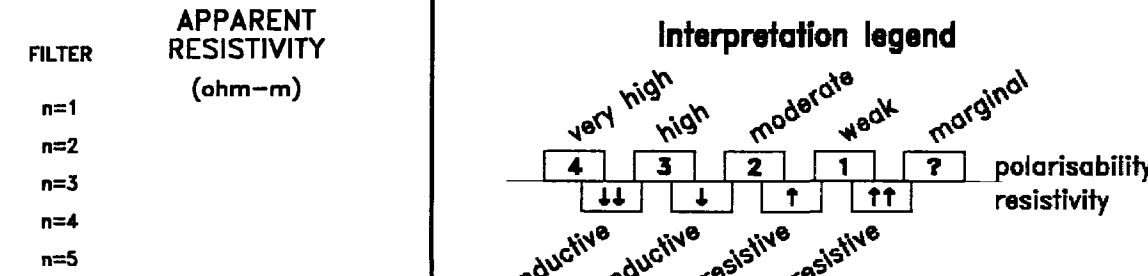


METAL FACTOR (1000\*Ma/(Ra)~0.5)

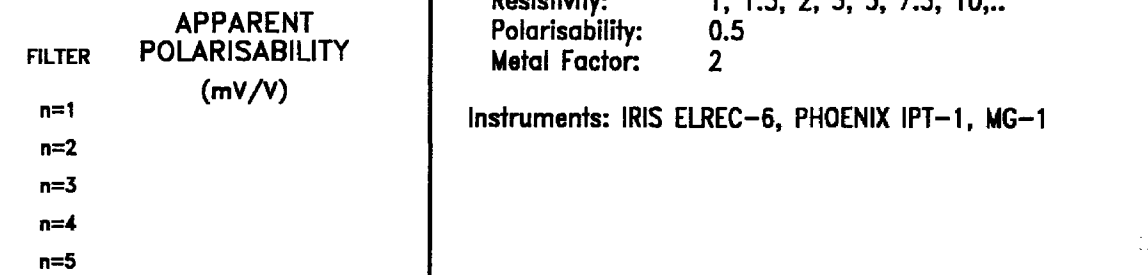


TOPOGRAPHY

APPARENT RESISTIVITY (ohm-m)



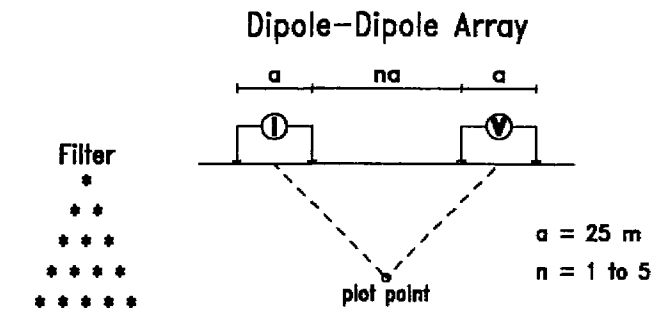
APPARENT POLARISABILITY (mV/V)



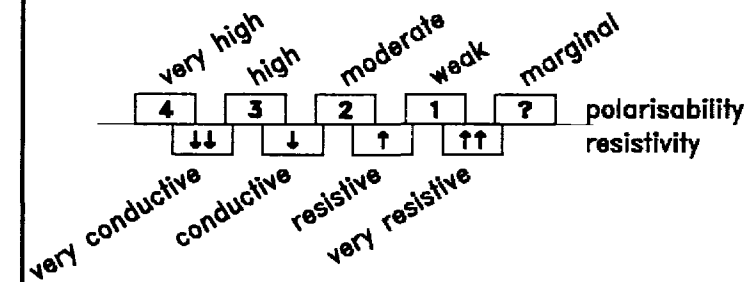
INTERPRETATION

METAL FACTOR (1000\*Ma/(Ra)~0.5)

INDUCED POLARIZATION SURVEY



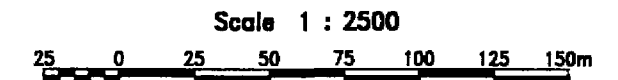
Interpretation legend



Contour interval:  
 Resistivity: 1, 1.5, 2, 3, 5, 7.5, 10,...  
 Polarisability: 0.5  
 Metal Factor: 2

Instruments: IRIS ELREC-6, PHOENIX IPT-1, MG-1

Line 500W

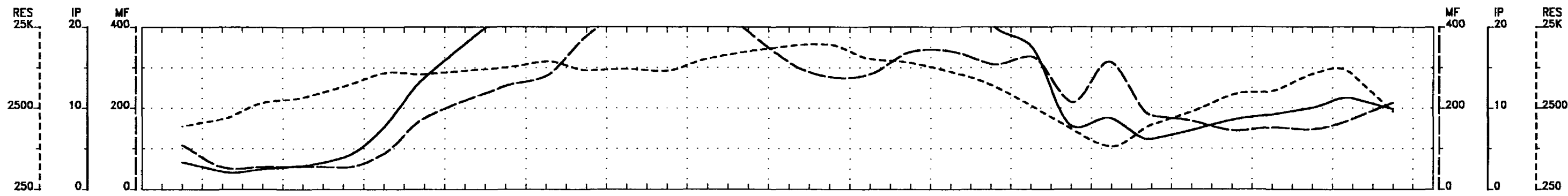


SEDEX MINING CORPORATION

Welsh Stanwick Project  
 Powell Township  
 District of Matachewan

Interpreted by: M. Dubois, B. Sc.  
 Date of survey: November 1996  
 Surveyed by: Jean Meunier  
 Reference: 96-N125

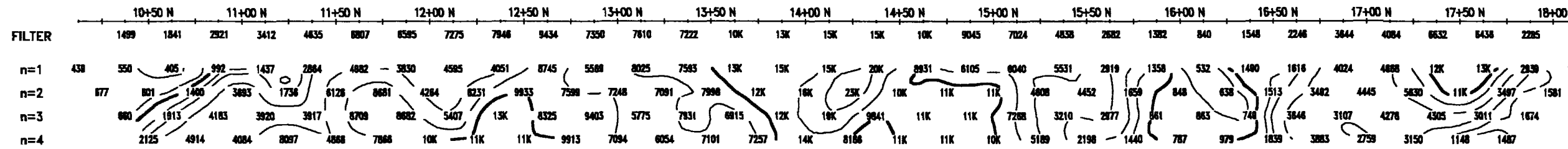
VAL D'OR  
 SAGAX



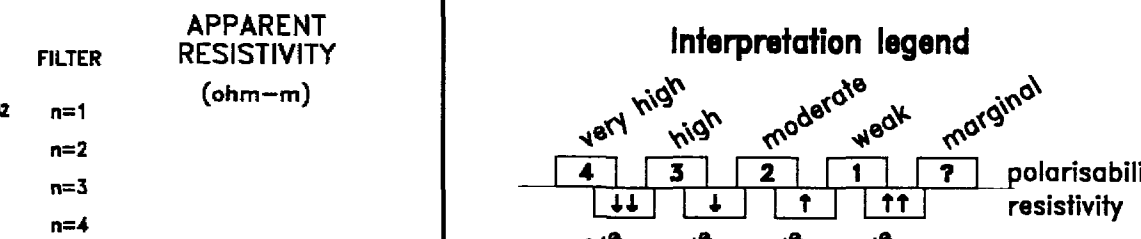
TOPOGRAPHY

TOPOGRAPHY

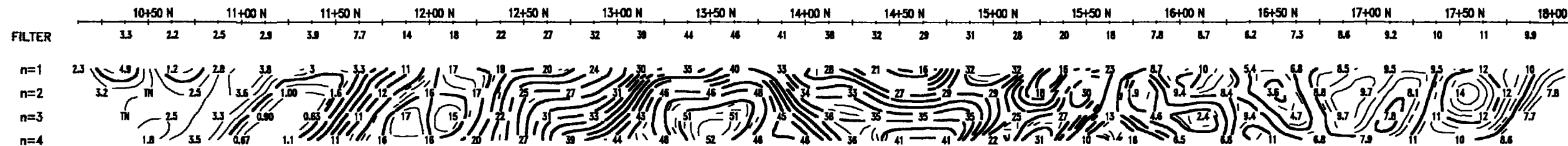
APPARENT RESISTIVITY (ohm-m)



APPARENT RESISTIVITY (ohm-m)



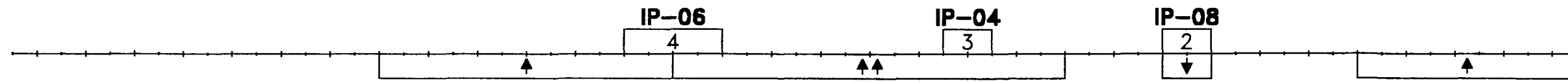
APPARENT POLARISABILITY (mV/V)



APPARENT POLARISABILITY (mV/V)

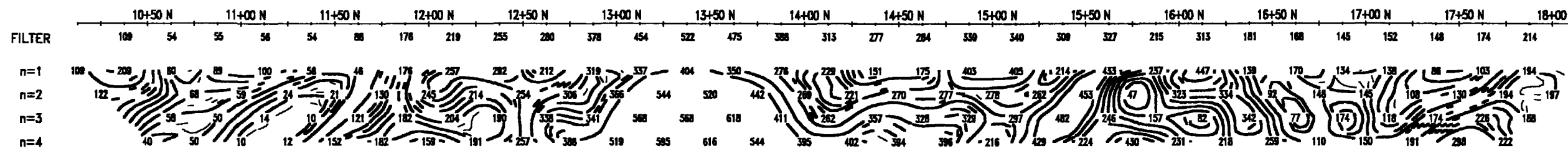


INTERPRETATION

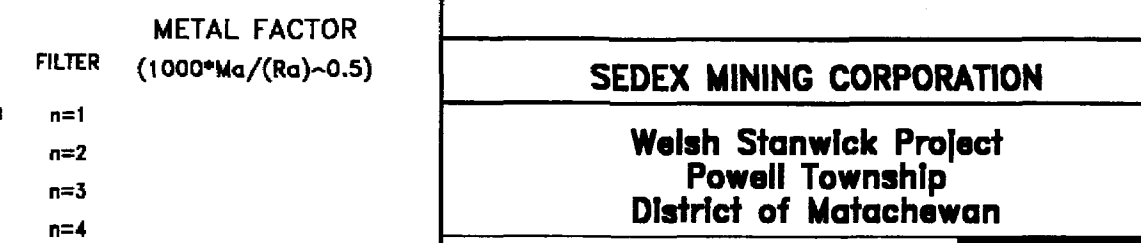


INTERPRETATION

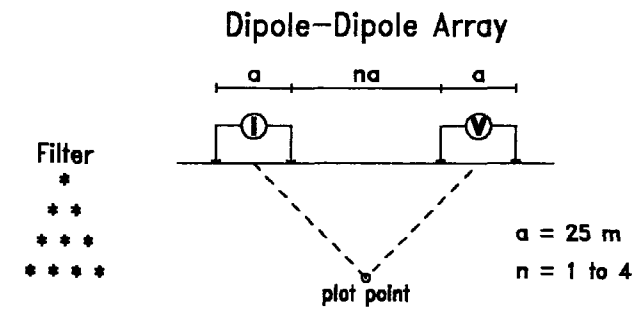
METAL FACTOR (1000\*Ma/(Ra)-0.5)



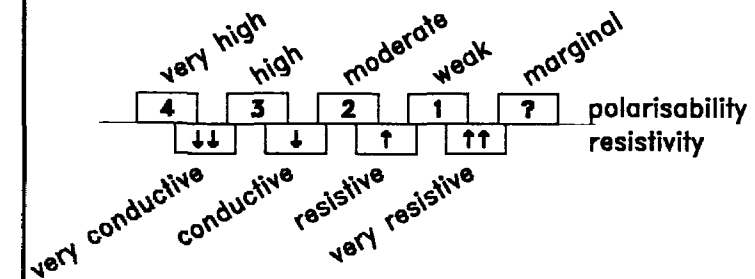
METAL FACTOR (1000\*Ma/(Ra)-0.5)



INDUCED POLARIZATION SURVEY



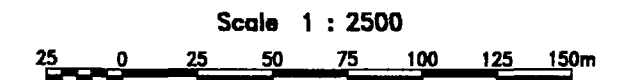
Interpretation legend



Contour interval:  
Resistivity: 1, 1.5, 2, 3, 5, 7.5, 10, ...  
Polarisability: 0.5  
Metal Factor: 2

Instruments: IRIS ELREC-6, PHOENIX IPT-1, MG-1

Line 400W



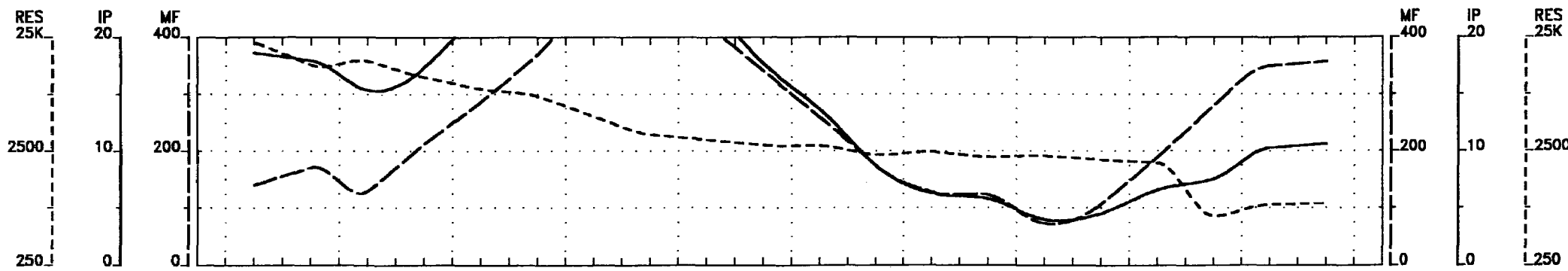
SEDEX MINING CORPORATION

Welsh Stanwick Project  
Powell Township  
District of Matachewan

Interpreted by: M. Dubois, B. Sc.  
Date of survey: November 1996  
Surveyed by: Jean Meunier  
Reference: 96-N125

VAL D'OR  
SAGAX

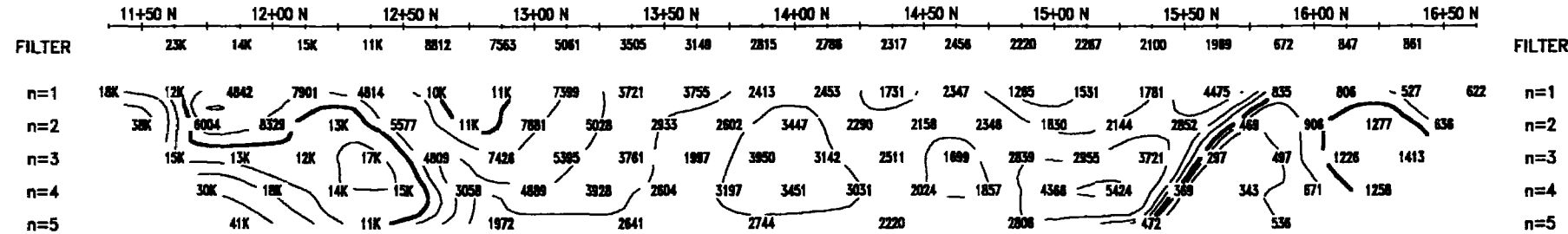




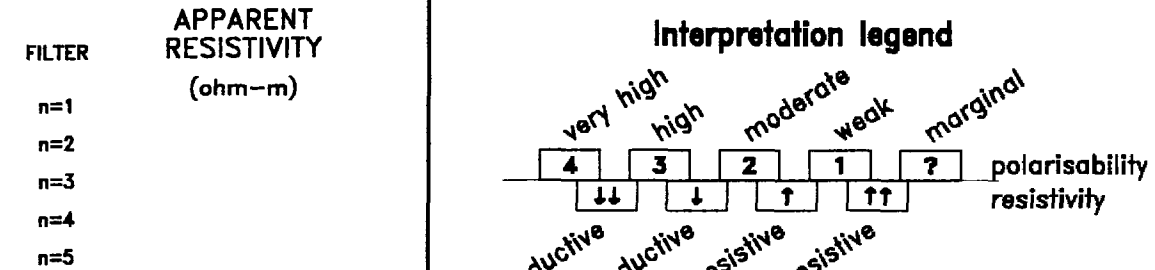
TOPOGRAPHY

TOPOGRAPHY

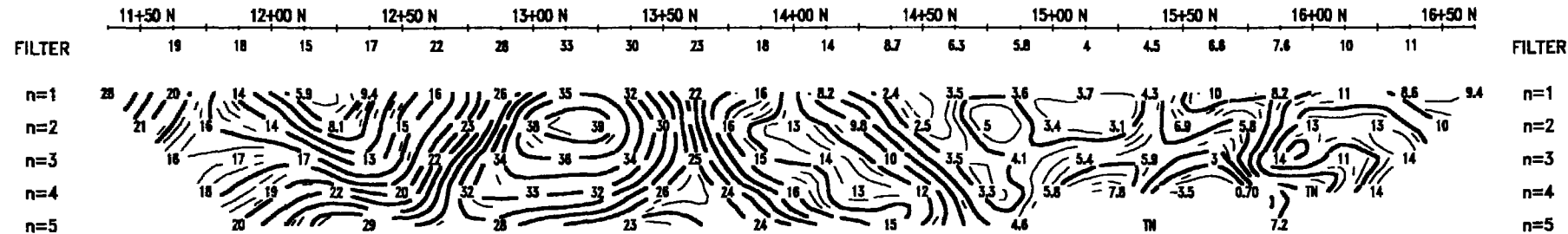
APPARENT RESISTIVITY (ohm-m)



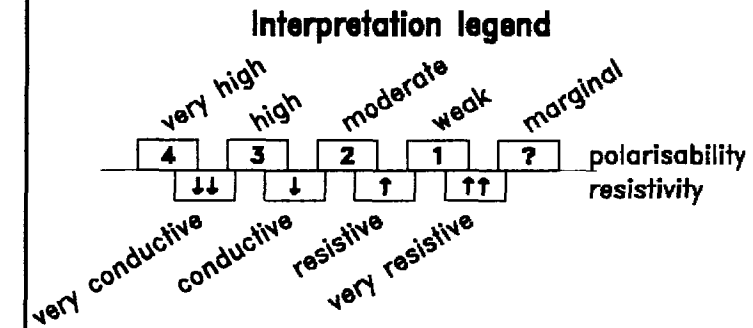
APPARENT RESISTIVITY (ohm-m)



APPARENT POLARISABILITY (mV/V)



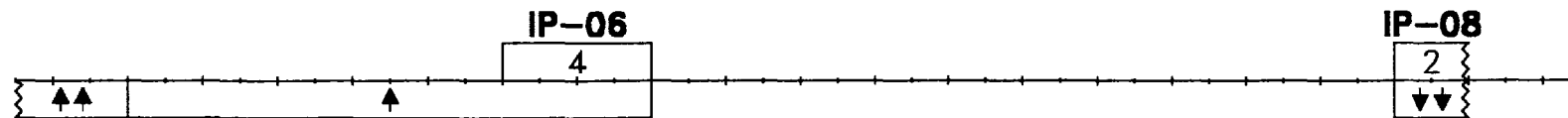
APPARENT POLARISABILITY (mV/V)



Contour interval:  
Resistivity: 1, 1.5, 2, 3, 5, 7.5, 10, ...  
Polarisability: 0.5  
Metal Factor: 2

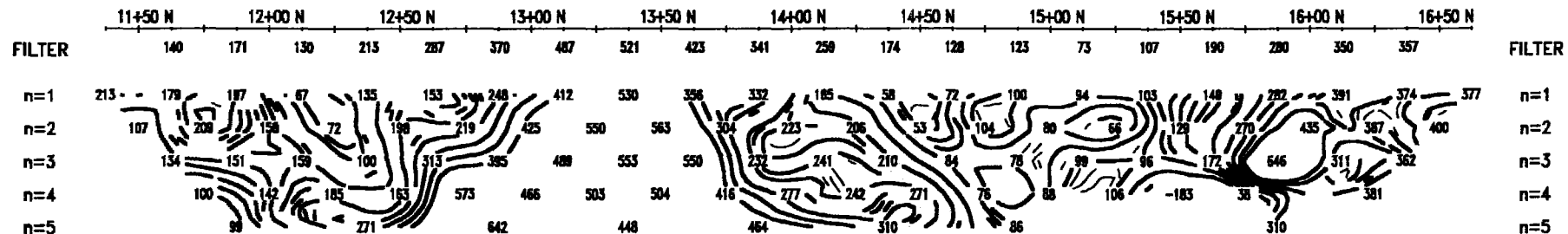
Instruments: IRIS ELREC-6, PHOENIX IPT-1, MG-1

INTERPRETATION

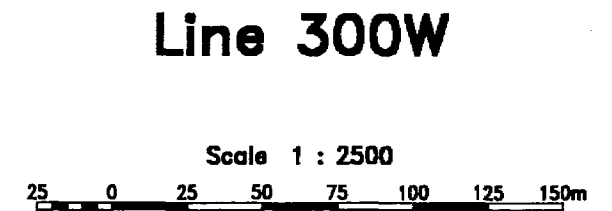


INTERPRETATION

METAL FACTOR (1000\*Ma/(Ra)~0.5)



METAL FACTOR (1000\*Ma/(Ra)~0.5)

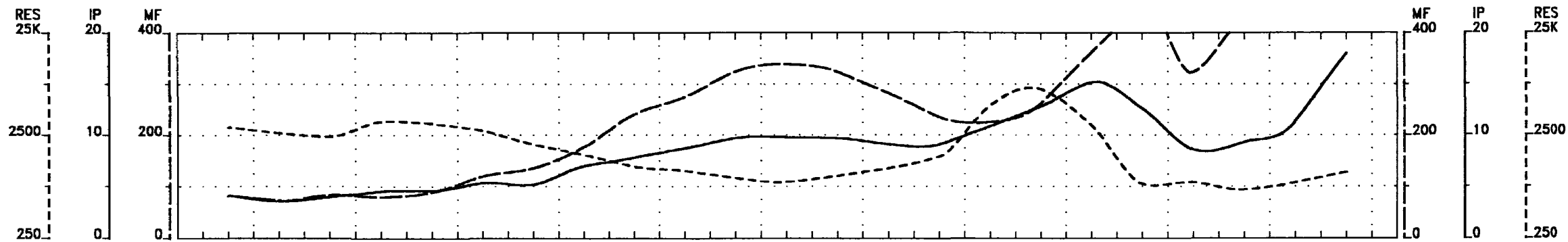


SEDEX MINING CORPORATION

Welsh Stanwick Project  
Powell Township  
District of Matachewan

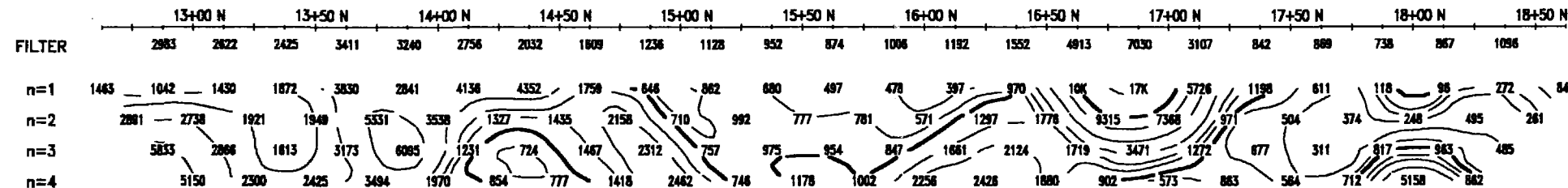
Interpreted by: M. Dubois, B. Sc.  
Date of survey: November 1996  
Surveyed by: Jean Meunier  
Reference: 96-N125

VAL D'OR  
SAG AX

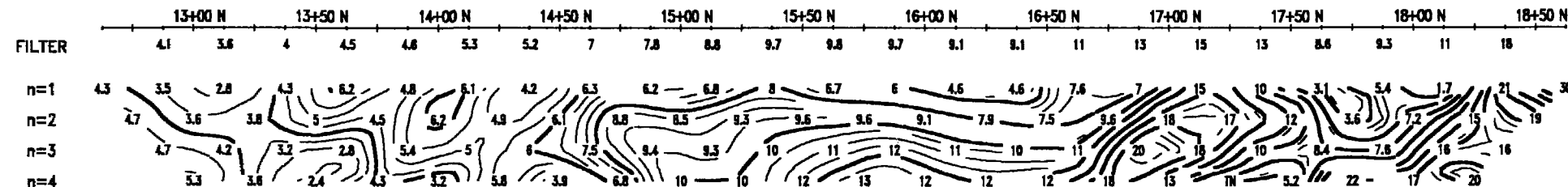


TOPOGRAPHY

APPARENT RESISTIVITY (ohm-m)

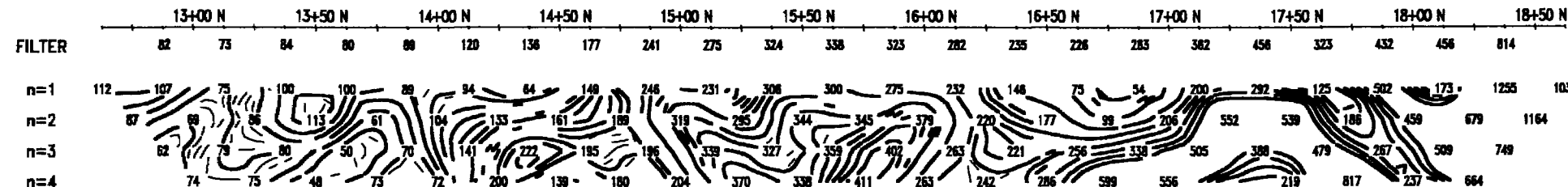


APPARENT POLARISABILITY (mV/V)

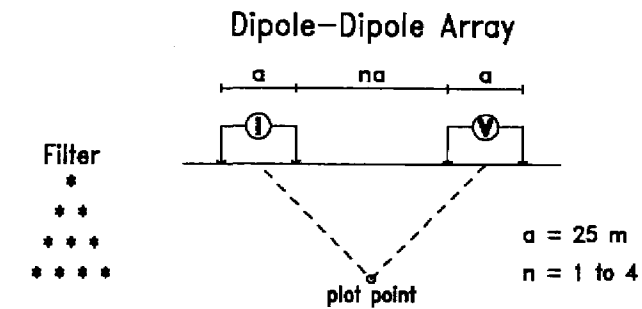


INTERPRETATION

METAL FACTOR (1000\*Ma/(Ra)~0.5)

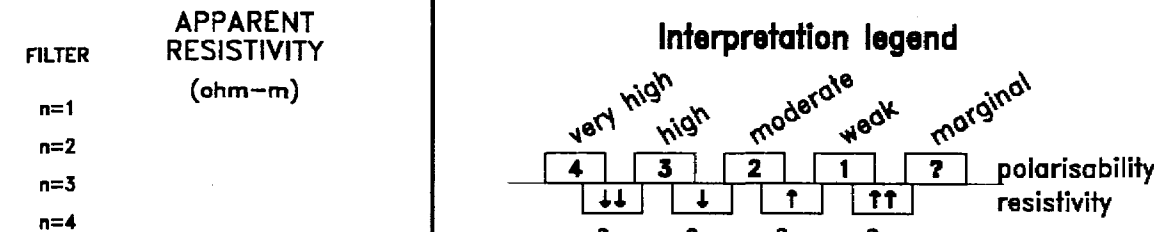


INDUCED POLARIZATION SURVEY

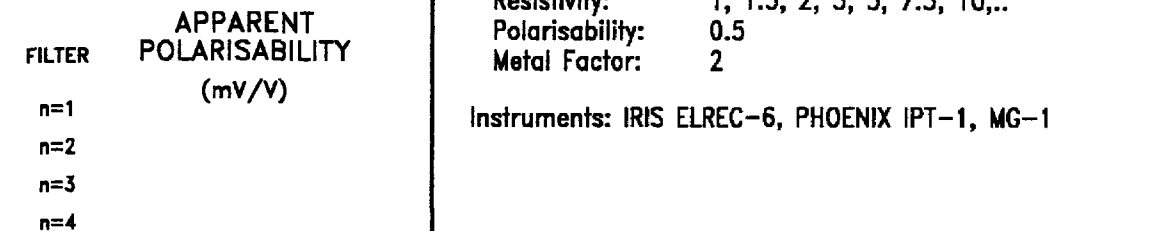


TOPOGRAPHY

APPARENT RESISTIVITY (ohm-m)

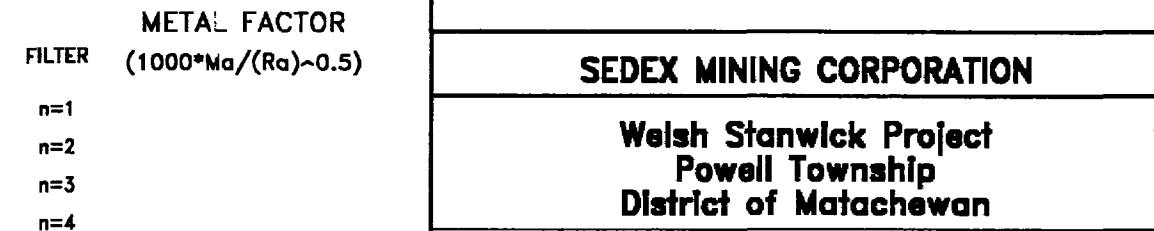


APPARENT POLARISABILITY (mV/V)

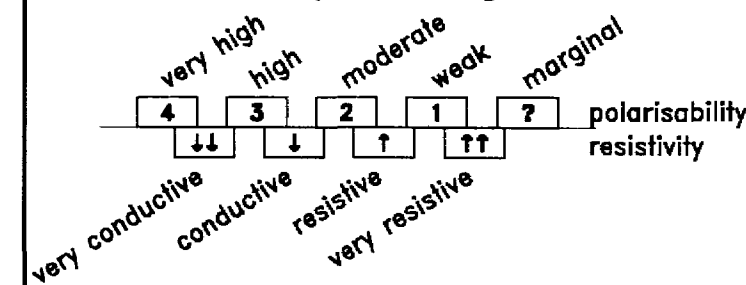


INTERPRETATION

METAL FACTOR (1000\*Ma/(Ra)~0.5)



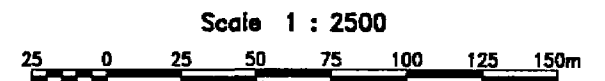
Interpretation legend



Contour interval:  
Resistivity: 1, 1.5, 2, 3, 5, 7.5, 10,..  
Polarisability: 0.5  
Metal Factor: 2

Instruments: IRIS ELREC-6, PHOENIX IPT-1, MG-1

Line 200W



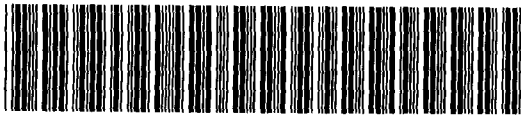
SEDEX MINING CORPORATION

Welsh Stanwick Project  
Powell Township  
District of Matachewan

Interpreted by: M. Dubois, B. Sc.  
Date of survey: November 1996  
Surveyed by: Jean Meunier  
Reference: 96-N125

VAL D'OR  
SAGAX

Personal information cc Mining Act, the informat questions about this 33 Ramsey Lake Road



900

SDN: Welsh/Stanwick 8(3) of the Mining Act. Under section 8 of the Act and correspond with the mining land holder. Northern Development and Mines, 6th Floor, 3KA, OKA-Two, OKA-Four.

2.17203

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)

Table with 2 columns: Name/Address and Client/Telephone/Fax Numbers. Includes Tom Obradovich and several redacted entries.

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) [checked] Physical: drilling, stripping, trenching and associated assays [unchecked] Rehabilitation [unchecked]

Work Type: Induced Polarization. Office Use: Commodity, Total \$ Value of Work Claimed: 9887. Dates Work performed: From 17/11/96 To 21/11/96. Township/Area: Powell. Mining Division: Lac Seul Lake. 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.

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

Table with 2 columns: Name/Address and Telephone/Fax Numbers. Includes Val d'Or Sagax. Includes RECEIVED stamp dated APR 9 1997.

Certification by Recorded Holder or Agent

Tom Obradovich (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: [Signature]. Date: April 01/97. Telephone Number: (705) 567-6883. Fax Number: (705) 567-6873.

Deemed - June 30/97

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

W9780.00254

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 L511486	1	\$ 194	400	-	
2 S11487	1	970	400	570	
3 S11488	1	1746	400	1346	
4 S11489	1	2127	400	240	81487
5 S11490	1	582	400	182	
6 S31566	1	388	-	388	
7 S31567	1	582	-	582	
8 <del>S31568</del>	1	-	-		
9 S31613	1	1164	-	1164	
10 S31614	1	582	-	582	
11 S31615	1	388	-	388	
12 <del>S31815</del>	1	-	-		
13 S31816	1	194	-	194	
-14 L1205862	1	194	-	194	
15 L1206306	1	388	400	-	
Column Totals		\$9499	\$2400	\$5830	\$1487

2.17203

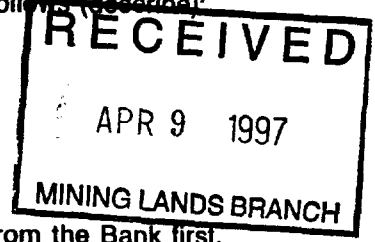
I, Tom Obradovich, do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing: [Signature] Date: April 01, 1997

**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 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 <sup>first</sup> ~~last~~, working <sup>for</sup> ~~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: APR 1 1997

Deemed Approved Date: <u>June 30/97</u>	Date Notification Sent:
Date Approved: <u>[Signature]</u>	Total Value of Credit Approved:
Approved for Recording by Mining Recorder (Signature): <u>[Signature]</u>	





Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines



Geoscience Assessment Office  
933 Ramsey Lake Road  
6th Floor  
Sudbury, Ontario  
P3E 6B5

June 19, 1997

Roy Spooner  
Mining Recorder  
4 Government Road East  
Kirkland Lake, ON  
P2N 1A2

Telephone: (705) 670-5853  
Fax: (705) 670-5863

Dear Sir or Madam:

Submission Number: 2.17203

**Status**

**Subject: Transaction Number(s):** W9780.00254    Approval After Notice

---

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.

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

NOTE: This correspondence may affect the status of your mining lands. Please contact the Mining Recorder to determine the available options and the status of your claims.

If you have any questions regarding this correspondence, please contact Steve Beneteau by e-mail at [beneteau\\_s@torv05.ndm.gov.on.ca](mailto:beneteau_s@torv05.ndm.gov.on.ca) or by telephone at (705) 670-5855.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Ron C. Gashinski".

ORIGINAL SIGNED BY  
Ron C. Gashinski  
Senior Manager, Mining Lands Section  
Mines and Minerals Division

# Work Report Assessment Results

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**Submission Number:** 2.17203

**Date Correspondence Sent:** June 19, 1997

**Assessor:** Steve Beneteau

---

<b>Transaction Number</b>	<b>First Claim Number</b>	<b>Township(s) / Area(s)</b>	<b>Status</b>	<b>Approval Date</b>
W9780.00254	511486	POWELL	Approval After Notice	June 16, 1997

**Section:**

14 Geophysical IP

Thank you for your response to the 45 Day Notice dated May 01, 1997. Review of the additional information you provided has resulted in the approval of assessment credit as outlined in the original Report of Work form.



# Work Report Assessment Results

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**Submission Number:** 2.17203

**Correspondence to:**

Mining Recorder  
Kirkland Lake, ON

Resident Geologist  
Kirkland Lake, ON

Assessment Files Library  
Sudbury, ON

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

THOMAS JOHN ELI OBRADOVICH  
KIRKLAND LAKE, Ontario

2973090 CANADA INC.  
VAL D'OR, QUEBEC

DONALD JOSEPH CAMPBELL  
MATACHEWAN, Ontario

FRED STAN KIERNICKI  
KIRKLAND LAKE, Ontario

GINO PAUL CHITARONI  
COBALT, Ontario

STEVEN WILLIAM STANWICK  
MATACHEWAN, Ontario

ETHEL WELSH  
KIRKLAND LAKE, Ontario

ALCANEX LTD.  
MISSISSAUGA, ONTARIO

---

LIST OF OTHER RECORDED HOLDERS

Don Campbell 115087  
241 Amabilis Avenue  
P.O. Box 176  
Matachewan, Ontario P0K 1M0

Fred Kiernicki 152022  
P.O. Box 1143  
82 Bernhard Drive  
Kirkland Lake, Ontario P2N 3M7

Gino Chitaroni 117974  
P.O. Box 699  
50 Silver Street  
Cobalt, Ontario P0J 1C0

**2.17203**

Steve Stanwick 197212  
P.O. Box 82  
Dale Street  
Matachewan, Ontario P0K 1M0

Ethel Welsh 207586  
79 Gov't Road East, Apt. 4  
Kirkland Lake, Ontario P2N 1A6

Alcanex Limited 101512  
1365 Clarkson Road North  
Mississauga, Ontario L5J 2W6





200



Ministry of Natural Resources

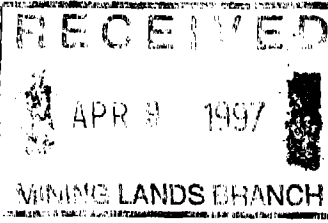
Ministry of Northern Development and Mines

### INDEX TO LAND DISPOSITION

PLAN  
G-3218  
TOWNSHIP

M.N.R. ADMINISTRATIVE DISTRICT  
KIRKLAND LAKE  
MINING DIVISION  
LARDER LAKE  
LAND TITLES/REGISTRY DIVISION  
TIMISKAMING

## POWELL



Scale 1:20 000



Contour Interval 10 Metres

### AREAS WITHDRAWN FROM DISPOSITION

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

Description	Order No.	Date	Disposition	File
W-L-18/95	MAR. 30/95	M+S		
W-L-19/95	MAR. 30/95	M+S		
W-L-20/95	MAR. 30/95	M+S		

### SYMBOLS

- Boundary
- 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 head frame
- Pipeline (above ground)
- Railway; single track
- double track
- abandoned
- Road; highway, county, township
- access
- trail, bush
- Shoreline (original)
- Transmission line
- Wooded area

### NOTES

L.O. 7601 COVERS FLOODING RIGHTS IN THIS TOWNSHIP TO CONTOUR 870 TO ONTARIO HYDRO. FILE #12290 VOL. 2.

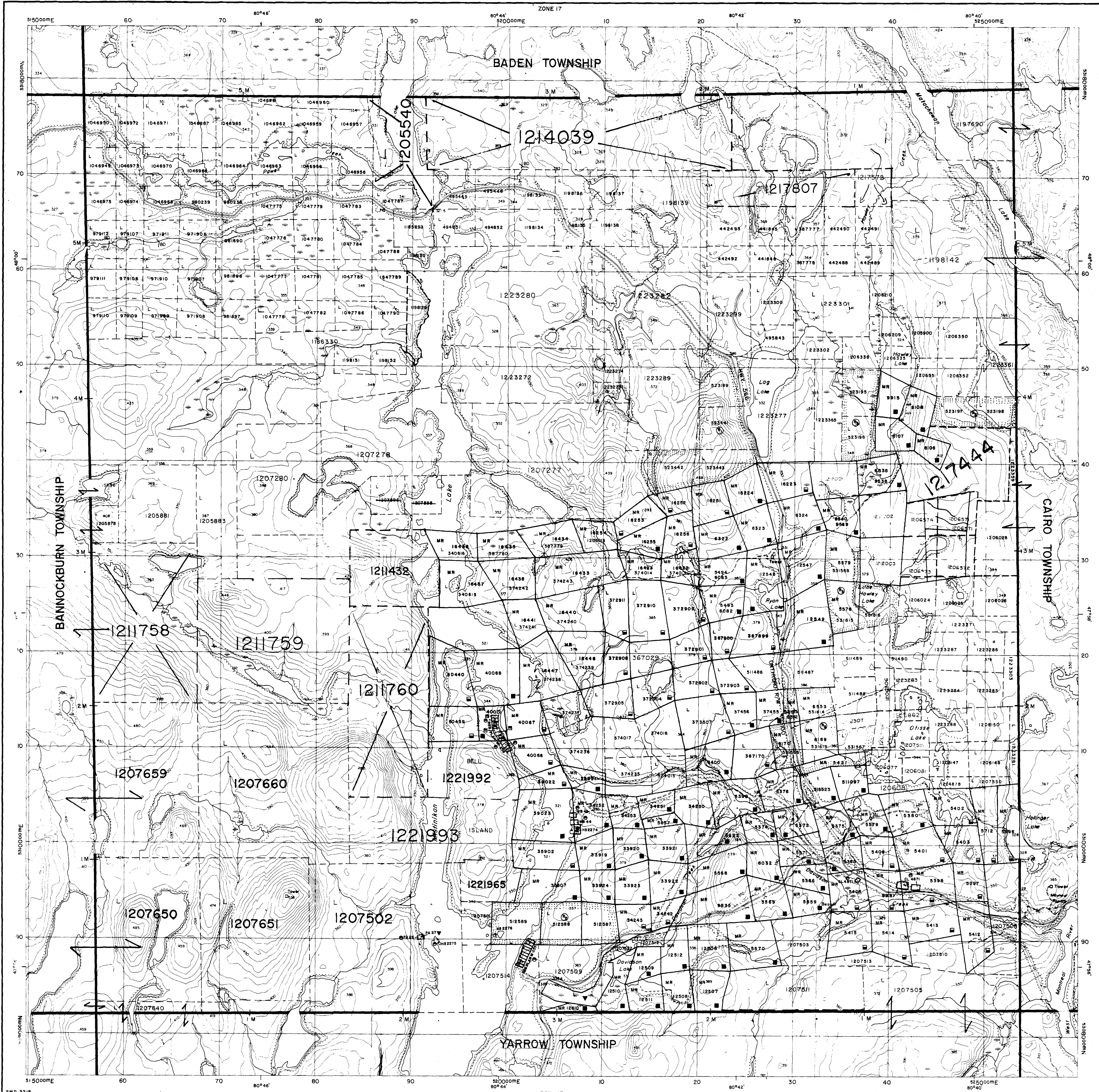
### DISPOSITION OF CROWN LANDS

- 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
- Cancelled
- Reservation
- Sand & Gravel

CIRCULATED DEC 14, 1995 KP

Map base and land disposition drafting by Surveys and Mapping Branch, Ministry of Natural Resources.

The disposition of land, location of lot fabric and parcel boundaries on this index was compiled for administrative purposes only.



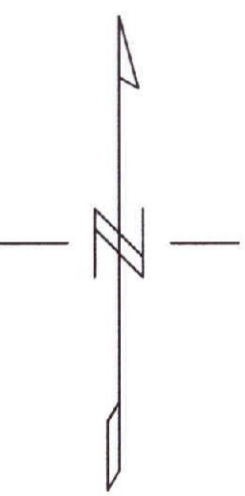
80221.2

G-3218

POWELL TWP.

G-3218



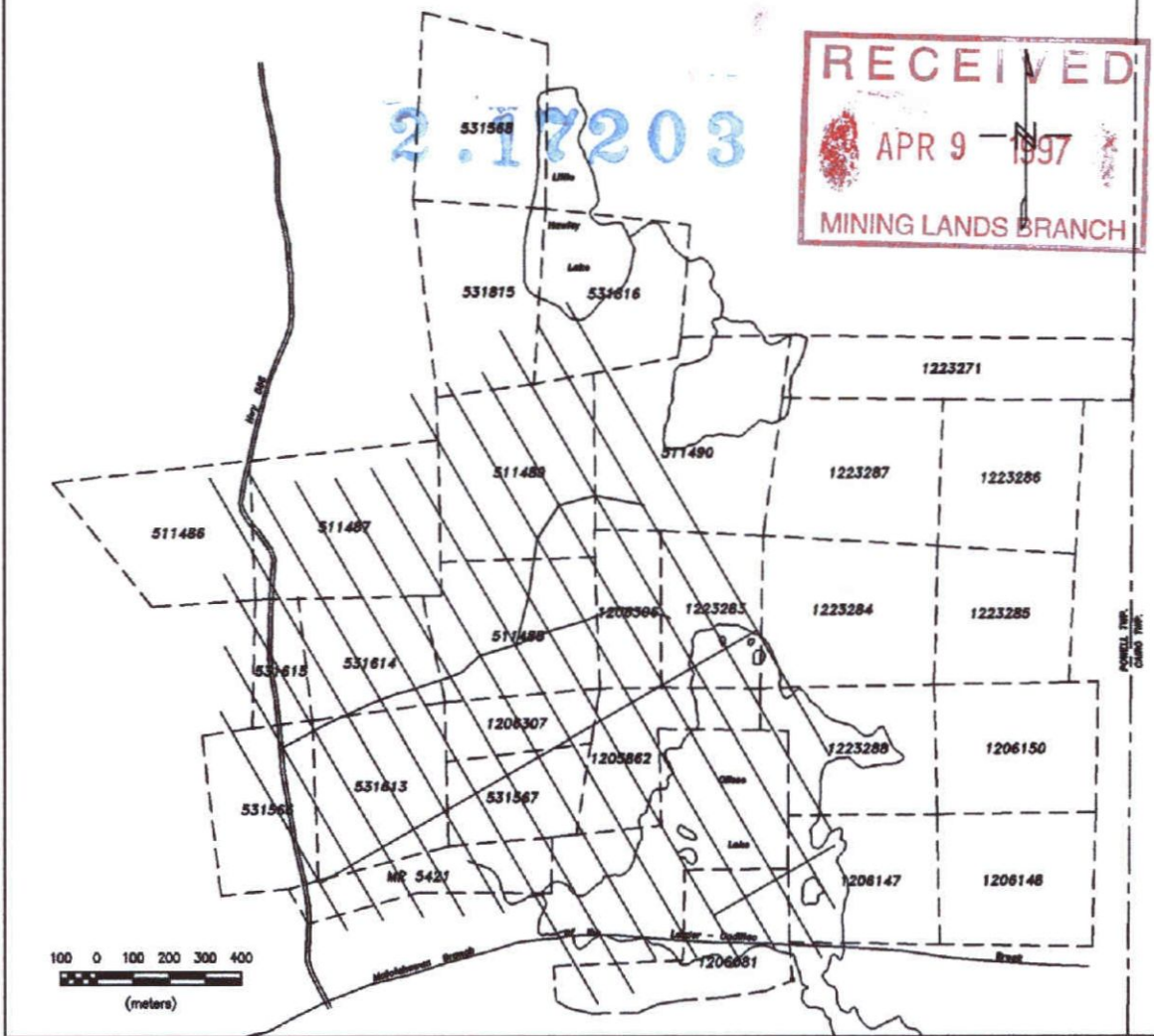
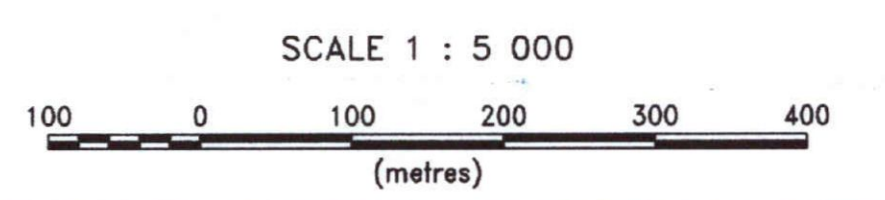


**LEGEND**  
INDUCED POLARIZATION

POLARIZATION	RESISTIVITY
Very high	Very resistive
High	Resistive
Moderate	Conductive
Weak	Very conductive
Marginal	



210



SEDEX MINING CORPORATION  
WELSH - STANWICK PROJECT

GEOPHYSICAL INTERPRETATION

VAL D'OR SAGAX INC.



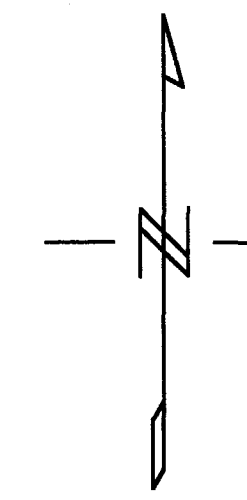
Interpreted by: M. Dubois, B. Sc.

Date: 01/97

Scale 1 : 5 000

Drawing no: 96-N125-4.0





**LEGEND**

**CONTOUR INTERVALS (mV/V)**

Linear contours:

- 0.5
- 2.0
- 10.0

Electrode array: Dipole-dipole  
 $a = 25\text{ m}$   $n = 1, 2, 3, 4, 5$

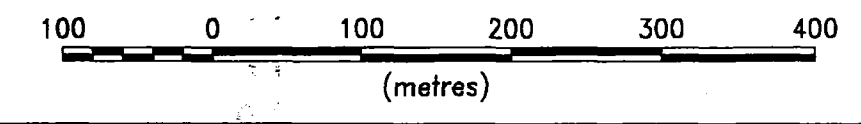
Instruments: IRIS ELREC-6, PHOENIX IPT-1, MG-1

Time cycle: 2 sec.

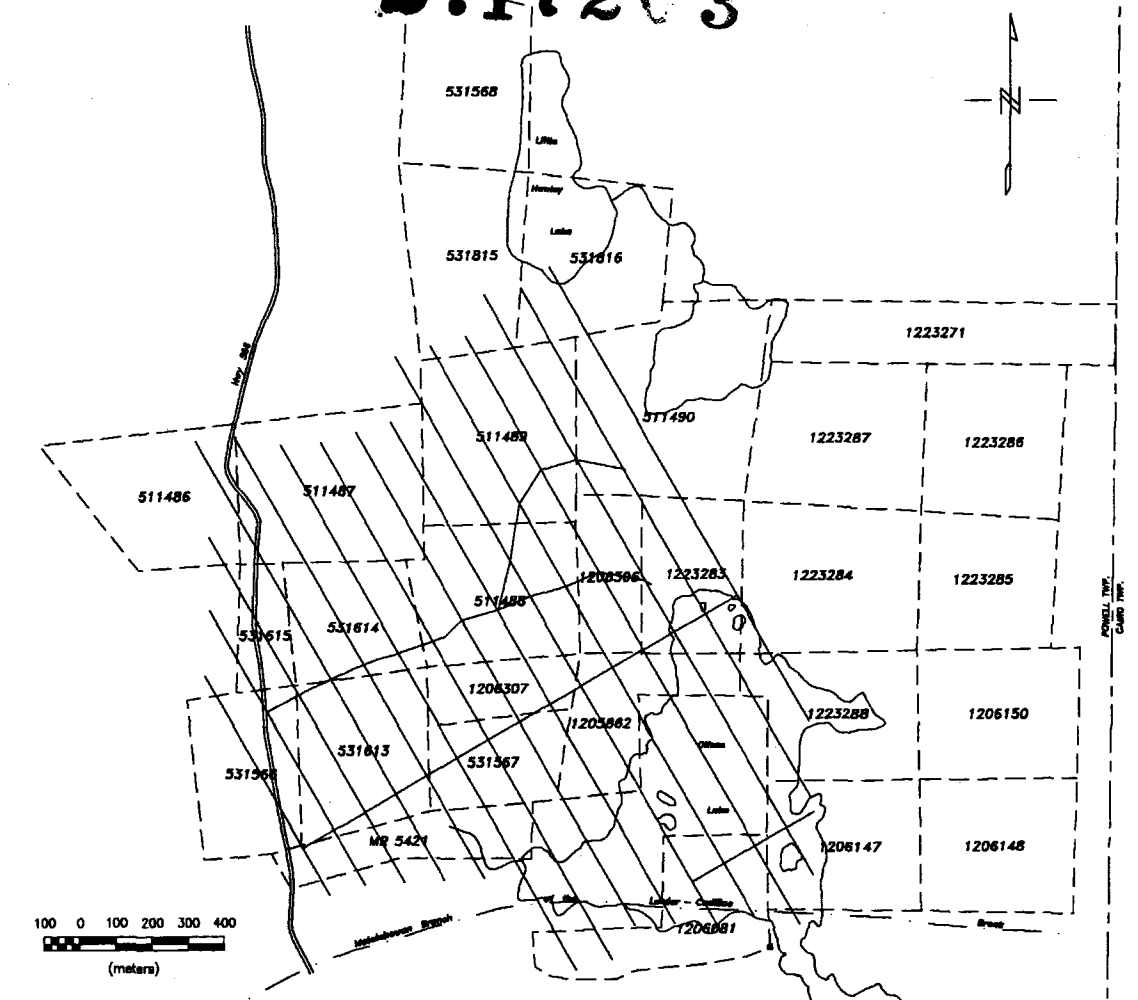


220

SCALE 1 : 5 000



2.17203



**SEDEX MINING CORPORATION**  
**WELSH - STANWICK PROJECT**

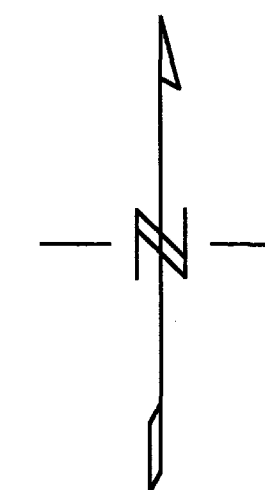
**INDUCED POLARIZATION SURVEY**  
**CHARGEABILITY CONTOURS (FILTER)**

VAL D'OR SAGAX INC.



Interpreted by: M. Dubois, B. Sc. Date: 01/97

Scale 1 : 5 000 Drawing no: 96-N125-4.3



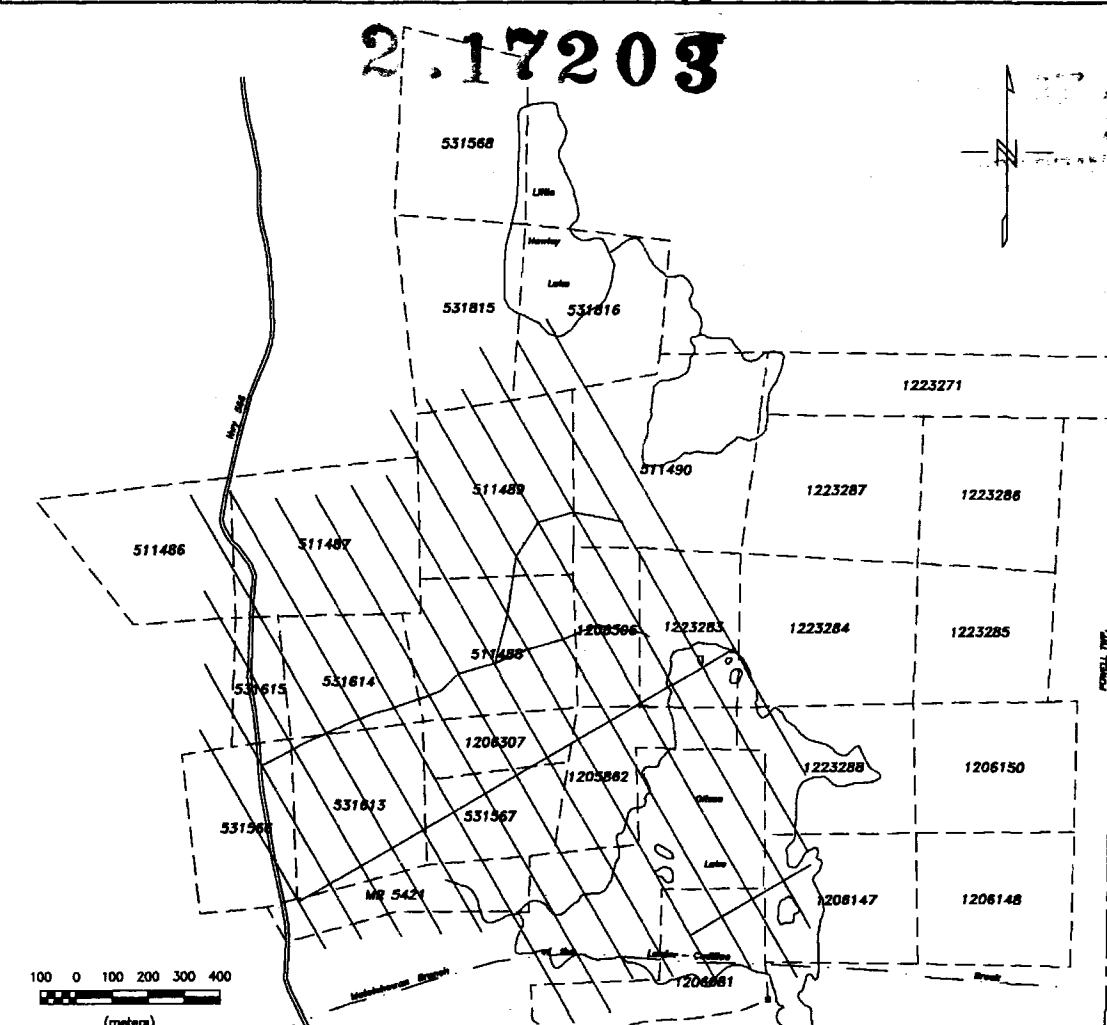
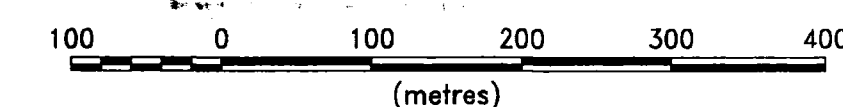
**LEGEND**  
**CONTOUR INTERVALS (Ohm-m)**  
Logarithmic contours:  
----- 0.1 10,11,12,12.5,14.1,16,18,20,22 ..  
----- 0.5 10, 12.5, 16, 20, 25, 32, 40 ..

Electrode array: Dipole-dipole  
a = 25 m n = 1,2,3,4,5  
Instruments: IRIS ELREC-6, PHOENIX IPT-1, MG-1  
Time cycle: 2 sec.



230

SCALE 1 : 5 000



**SEDEX MINING CORPORATION**  
**WELSH - STANWICK PROJECT**

**INDUCED POLARIZATION SURVEY**  
**RESISTIVITY CONTOURS (FILTER)**

VAL D'OR SAGAX INC.



Interpreted by: M. Dubois, B. Sc. Date: 01/97

Scale 1 : 5 000 Drawing no: 96-N125-4.2