

2.17657

**GOSSELIN LAKE GRID  
NET LAKE GRID**

*Geophysical surveys — WINTER 1997*

presented to

**WABANA EXPLORATIONS INC.**

47 Bridgeport Road East  
WATERLOO ON N2J 2J4

APRIL 1997

C96113

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SEP 05 1997

GEOSCIENCE ASSESSMENT  
OFFICE



31M04SE0032 2.17657 CASSELS

010

**SIGMA GEOPHYSICS INC.**

2101-F RUE NOBEL  
STE-JULIE QC J3E 1Z8  
Téléphone : (514) 922-0994  
Télécopieur : (514) 922-0786

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## **1    INTRODUCTION**

In February 1997, **WABANA EXPLORATIONS INC.** mandated **Sigma Geophysics inc.** to carry out a geophysical survey on its properties of **Gosselin Lake and Net Lake**, in the **Temagami area, Ontario**.

The survey consisted of 15.7 km of induced polarization survey. It took place between February 26<sup>th</sup>, 1997 and March 2<sup>nd</sup>, 1997.

The tables on the next page list the line surveyed.

## **Net Lake IP survey coverage**

### **PROPERTY LOCATION, ACCESS AND DESCRIPTION**

The Net Lake property is situated in Strathy Township which lies in the east-central portion of the Temagami greenstone belt.

The property is in the east-central portion of the township, south of the North Temagami townsite and approximately three kilometres north-northeast of the town of Temagami. The property's geographic centre lies at approximately 47°05'45"N and 79°47'00"W. The Tri-town area consisting of the towns of Cobalt, Haileybury and New Liskeard lies approximately 45 kilometres to the north.

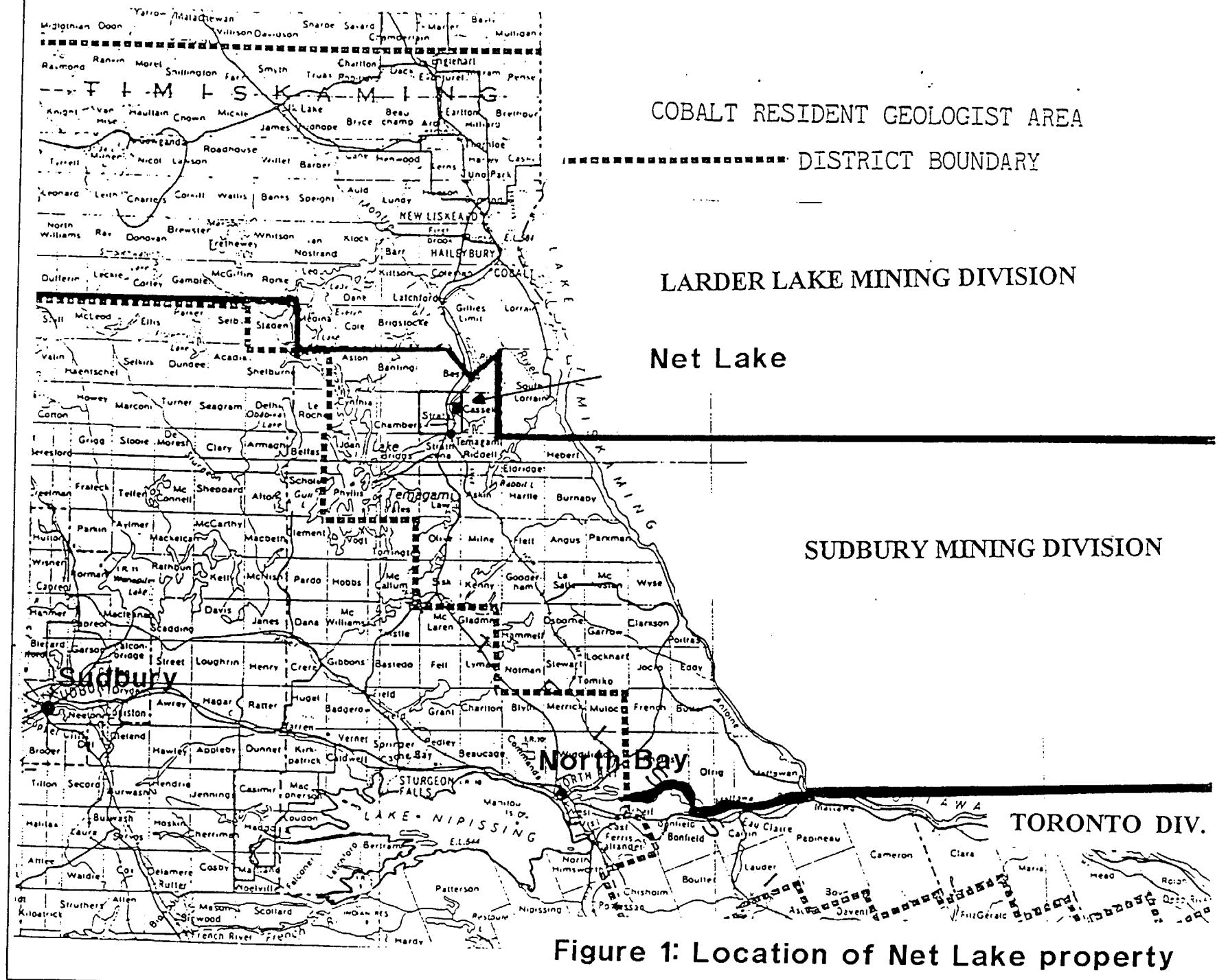
The claim group is bounded to the north by Net Lake, to the west by Provincial Highway 11 and to the east by the Strathy-Cassels township boundary.

Access to Temagami is by Provincial Highway 11 from North Bay, approximately 100 km to the south. Bush roads running east from Highway 11 provide good access to the property. Alternate access to the northern part of the property is via Net Lake by boat or by snowmachine in winter depending on ice conditions.

The property consists of 10 claims totaling fifteen 16 hectare units .

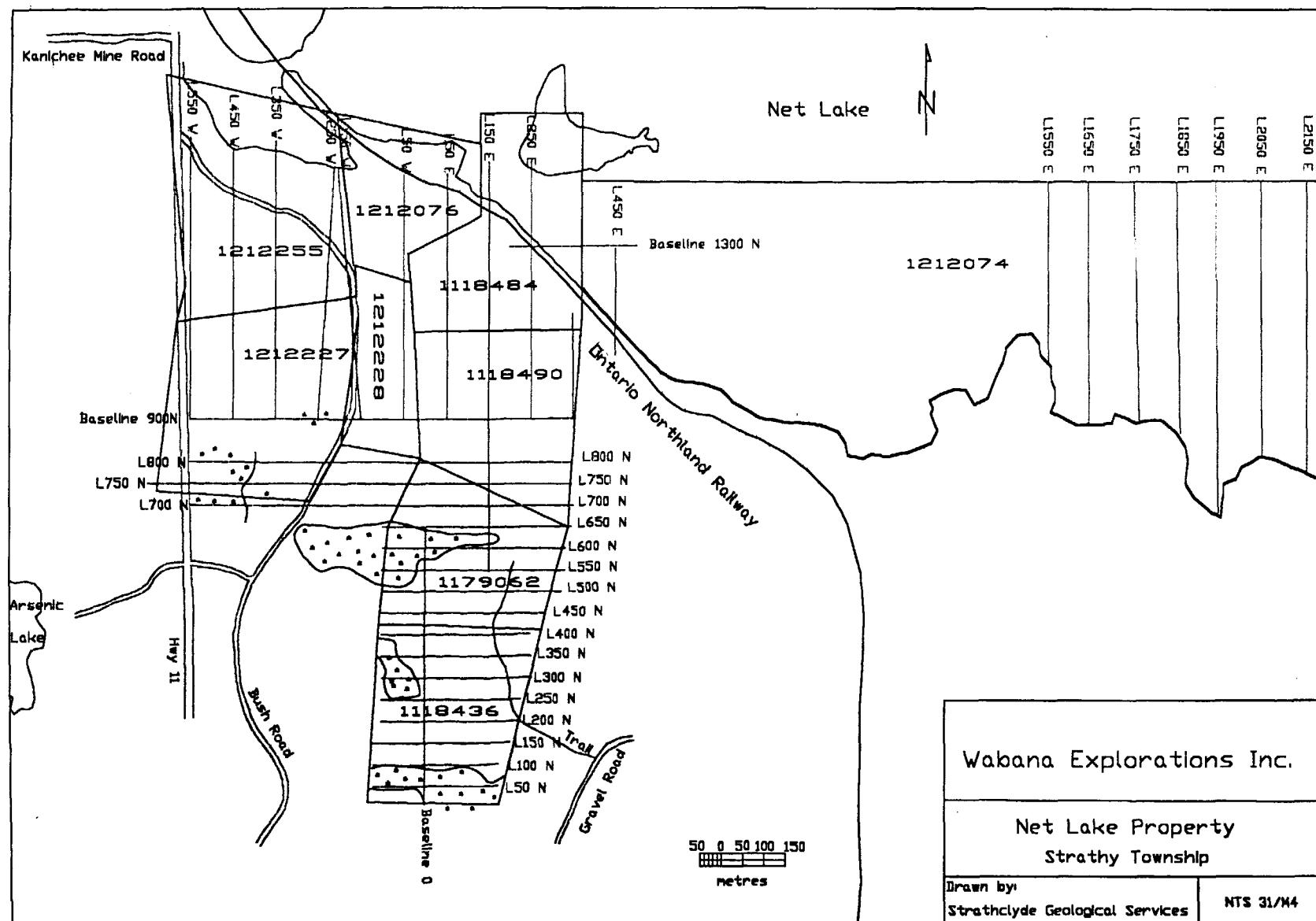
<u>claim number</u>	<u># claim units</u>
S1118436	1
S1118484	1
S1118490	1
S1179062	1
S1212074	6
S1212076	1
S1212227	1
S1212228	1
S1212254	1
S1212255	1

Claim S1212074 is under the waters of Net Lake, with the south shore of the lake marking the claim boundary. The rest of the property is on land and has an irregular claim fabric due to the inheritance of the preexisting fabric.



591200, 5217400

594260, 5217400



591200, 5215280

594260, 5215280

## **Gosselin Lake IP survey coverage**

### **PROPERTY LOCATION, ACCESS AND DESCRIPTION**

The Gosselin property is situated in Cassels township which is on the eastern edge of the Temagami greenstone belt. The township lies between latitudes 46°58'25"N and 47°08'00"N and longitudes 79°38'00W and 70°45'20"W. The property is in the central portion of the township and straddles the lower half of Gosselin Lake, a small elongate bay off Cassels Lake. The approximate geographic centre of the property lies at 47°05'45"N and 79°42'00"W. The property lies approximately eight kilometres northeast of the town of Temagami. The Tri-town area consisting of the towns of Cobalt, Haileybury and New Liskeard lies approximately 50 kilometres to the north.

Access to Temagami is by Provincial Highway 11 from North Bay, approximately 100 km to the south of the town. Access to the property is by gravel road from Temagami to within two kilometres and then by boat or by snowmachine in winter depending on ice conditions.

The property presently consists of thirteen claims totaling seventy two 16 hectare units

<u>claim number</u>	<u># claim units</u>
S1118463	1
S1118464	1
S1198118	1
S1198119	1
S1198120	1
S1198121	1
S1198122	1
S1118444	8

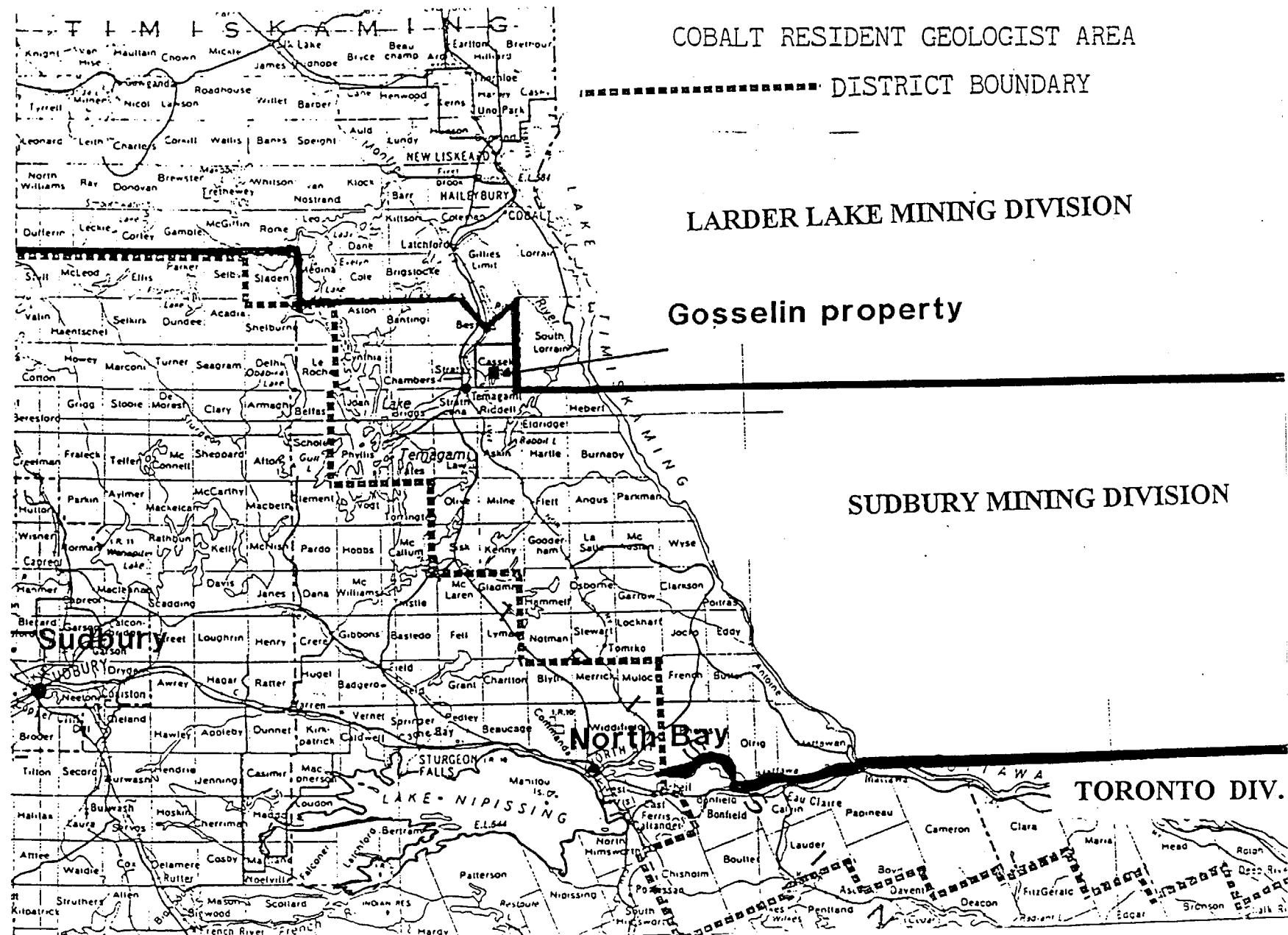
COBALT RESIDENT GEOLOGIST AREA  
..... DISTRICT BOUNDARY

## LARDER LAKE MINING DIVISION

## Gosselin property

## SUDBURY MINING DIVISION

TORONTO DIV.



**Figure 1: Location of Gosselin property**

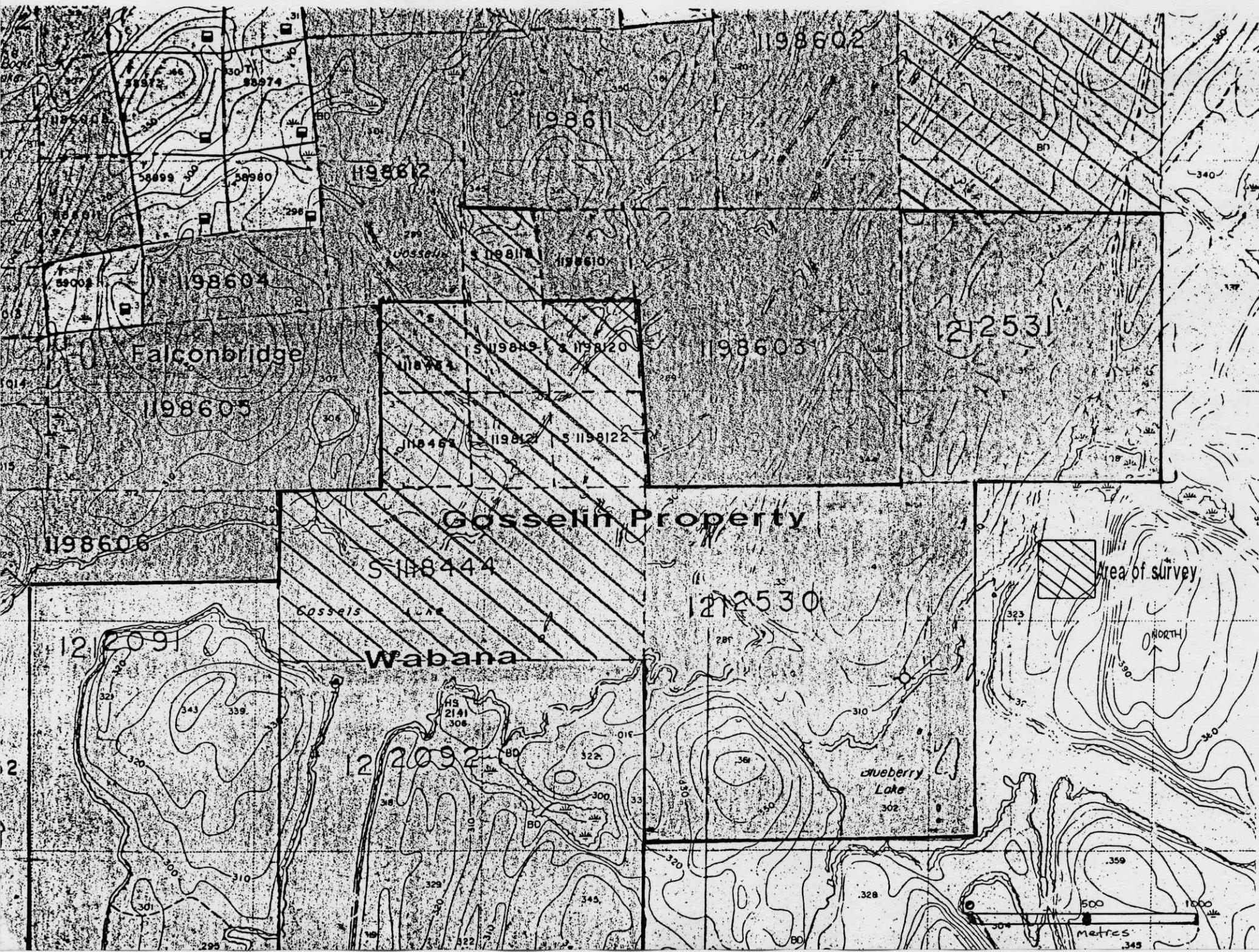
# GOSSELIN PROPERTY

IP Grid

1:10,000

0 100 200 300 400 500  
meters





■ GOSSELIN LAKE GRID — List of lines

LINE	START	END	LENGTH
200	-800	800	1600
800	-500	500	1000
850	-300	525	825
900	-500	525	1025
950	-525	600	1125
1000	-500	600	1100
1050	-525	600	1125
1100	-300	600	900
1200	-300	600	900
1500	-250	275	525
1550	-250	225	475
<b>TOTAL:</b>		<b>10600</b>	

■ NET LAKE GRID — List of lines

LINE	START	END	LENGTH
1550	900	1300	400
1650	900	1300	400
1750	900	1300	400
1850	650	1300	650
1950	800	1350	550
2050	800	1300	500
2150	750	1300	550
700	-475	350	825
800	-550	275	825
<b>TOTAL:</b>		<b>5100</b>	

## 2 METHODOLOGY

### 2.1 Induced polarization survey

The I.P. survey was carried out using a B.R.G.M. IP-6 receiver which allows for the recording of the chargeability decay curve using 10 preset windows. To inject the current in the ground, a 1 kVA Phoenix generator coupled to a Phoenix IPT-1 transmitter was used. The equipment also included a number of 90 cm stainless steel electrodes as well as IP wires and reels.

The following parameters were used:

SURVEY PARAMETERS	
Array used	dipole - dipole
Separation	$a = 25 \text{ m}$ , $a = 50 \text{ m}$
Number of dipoles	$n = 6$

The measurements were made using the time domain technique. The transmission cycle was 8 seconds (Pos-2s, Nul-2s, Neg-2s, Nul-2s). The partial chargeability (M1 through M10) were measured by breaking down the decay curve into ten preset windows (four 80 msec windows, followed by three 160 msec and three 320 msec windows) preceded by an 80 msec delay. In addition, the value of the primary voltage  $V_p$  was also measured for each dipole.

The injection current, the position of the reading as well as the geometrical factors were entered manually for each station.

Daily, the complete data set was transferred from the IP-6 memory to a microcomputer and preliminary results were available on site in the evening.

### 3 DATA PROCESSING AND PRESENTATION

#### 3.1 Pseudo-sections

In the first phase of the data processing sequence, each measurement was validated and edited to ensure that the position as well as the injection current, which are entered manually, were correct. Erroneous measurements were also removed from the database.

Following this first step, the chargeability and the resistivity were recomputed for each measurement using the edited data set.

Using these results, pseudo-sections of chargeability, resistivity and normalized chargeability were computed and drawn for each survey lines. In addition, the profiles of the filtered values of chargeability and resistivity, as well as the magnetic profiles are also included. The horizontal scale for the pseudo-sections is 1:2500 for the lines executed with a dipole spacing of 25 m and 1:5000 for the lines executed with a dipole spacing of 50 m.

#### 3.2 Surface maps

In order to obtain a global representation of the results, both the filtered values of the resistivity and the chargeability been plotted and contoured and are presented at a scale of 1:5000 inside the report.

## 4 INTERPRETATION

When looking at the pseudo-sections, one has to remember the following points :

- The measured properties are the apparent chargeability and the apparent resistivity, meaning that each values is influenced by the surrounding values. A very resistive rock covered by thick conductive overburden will present much lower apparent resistivities than its true resistivity values. Also, mineralized body covered by a thick cover of sterile material will show much lower apparent chargeability than the true chargeability of the mineralized body, and lower than if the mineralized body was on the surface.
- The plotted "depth" of the measured data on a pseudo-section are only apparent depths. There is no direct and easy relation between the true depth of a source and the apparent depth plotted on a pseudo-section. The true depth depends on factors such as : resistivity and thickness of overburden, resistivity of the host rock, I.P.. array used, etc.

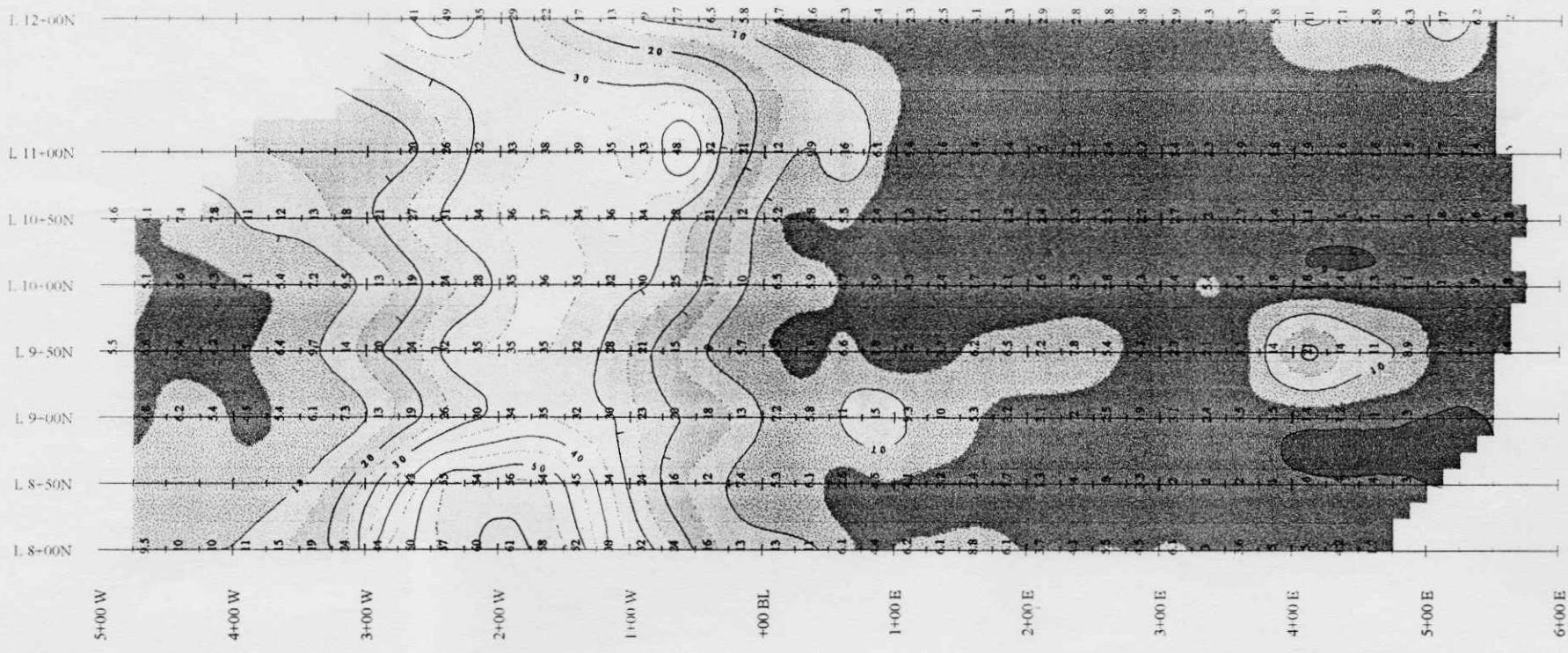
#### **4.1 Gosselin Lake Grid**

On the Gosselin Lake Grid, the survey was concentrated around the position of an old shaft located on line 10+00 N, near the Baseline. The purpose of the survey was to locate the extension of the mineralized zone and to verify the weak airborne anomaly in the east part of the grid and having a SW-NE direction.

The main part of the survey has been carried out using 25 m dipoles and was located between lines 8+00N and 12+00N. The data gathered over these lines have been used to produce the 2 surface maps located on the next pages.

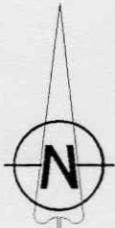
When looking at the chargeability map, the strong signature of an N-S structure is apparent and this structure has been previously identified as a diabase dike. This formation has a very high chargeability background as well as a high resistivity background. The highest values of chargeability within this dike have been observed on line 8+00N around 2+25W.

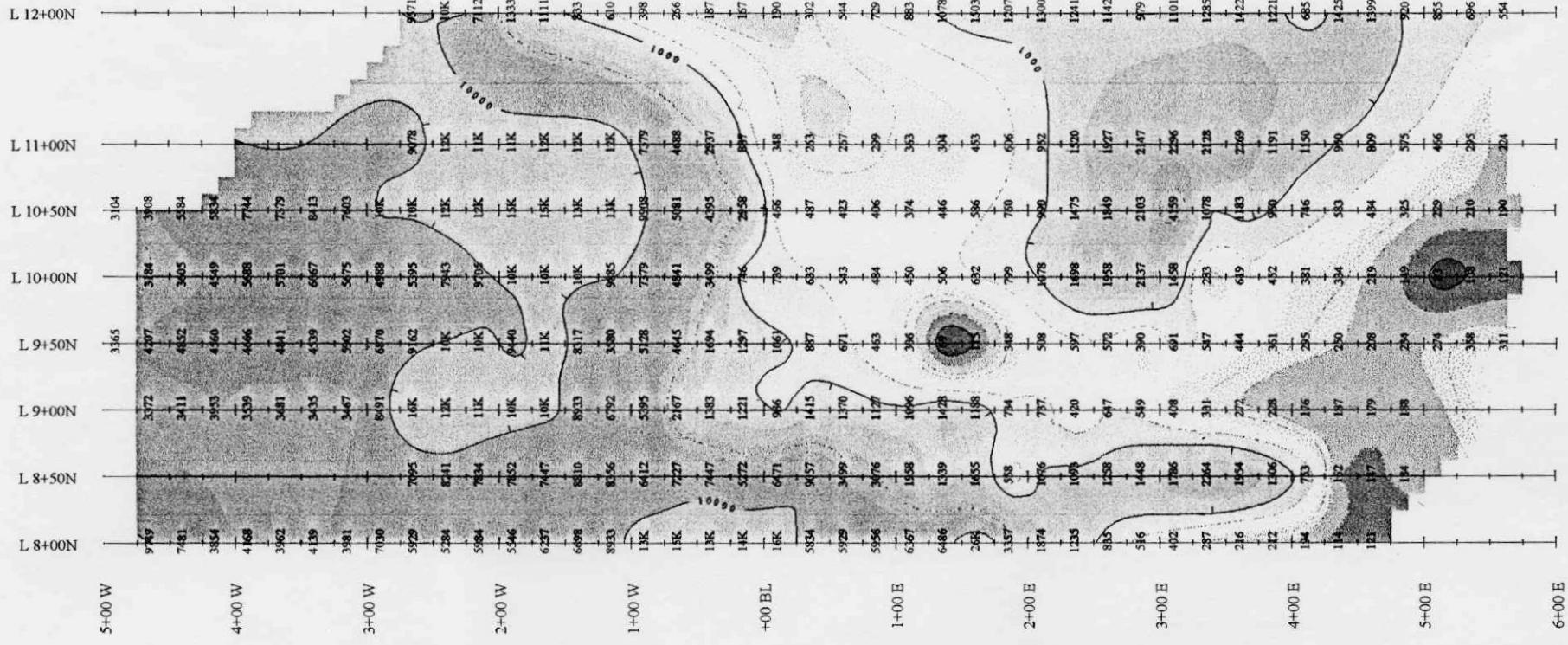
Outside the dike, the interpretation is complicated by the presence of branches of the Gosselin Lake that intersect the grid in different places. The bottom of the lake seems to be made from relatively conductive material, probably a silty clay, and presents some low values of resistivity. When looking at the resistivity map, the shape of the lake is visible.



### GOSELIN LAKE GRID

CONTOURS OF APPARENT CHARGEABILITY - SCALE 1:5,000





GOSSELIN LAKE GRID

## CONTOURS OF APPARENT RESISTIVITY - SCALE 1:5,000

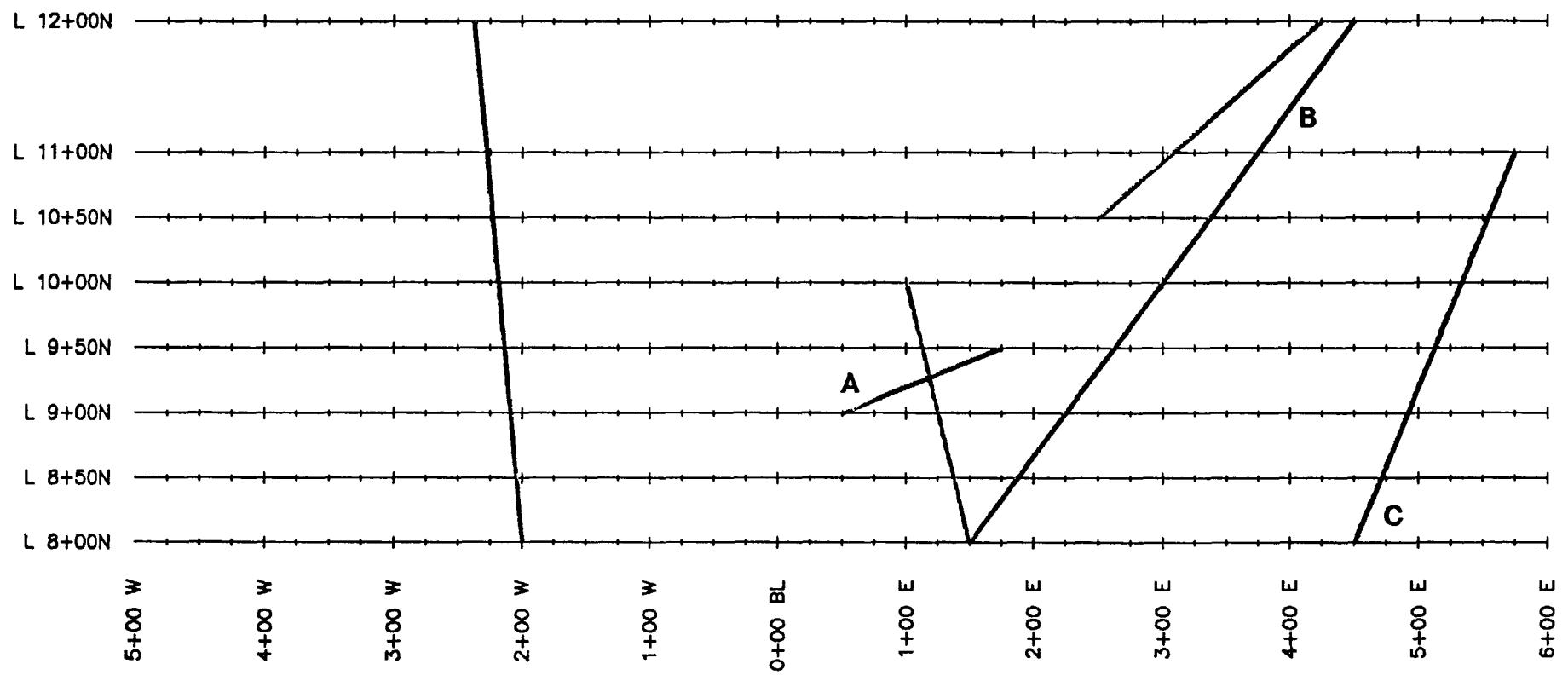
However, it was possible to identify some axis that presents values of high chargeability and low resistivity. Those axis have been placed on the interpretation map located on the next page. From this map, we can observe the strong conductive zone "A", along line 9 + 50N and line 9 + 00N. This zone is wide and also presents some high chargeability values. We consider this zone as a primary drilling target.

The conductive axis "B" is weaker and is also associated with a chargeability axis on its west side, and we also suggest a drilling target in this zone.

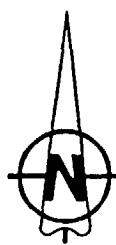
The third axis "C", located over the lake, seems to correspond to the position of the airborne EM axis. This anomaly could be caused by the presence of conductive sediments in then lake bottom, as the chargeability values are almost non-existent in this area.

Three other lines have been carried out on this grid, with a dipole spacing of 50 m. The resistivity pseudo-section of line 2 + 00N, carried out entirely over the lake, indicates that the deepest portion of the lake seems to be located around 1 + 50W. The thickness of sediment seems to be considerable, but the two last separation (N5 and N6) seems to penetrate into the rock. However, no anomalies is detected.

Two other lines, 15 + 00N and 15 + 50N, has been carried out. These two lines show some interesting values of high chargeability and low resistivity. However, they are too short and should be extended to the east.



### GOSSELIN LAKE GRID



INTERPRETATION MAP - SCALE 1:5,000

— Low resistivity axis

— High chargeability axis

## 4.2 Net Lake Grid

On the Net Lake Grid, most of the survey was executed over the lake with a dipole separation of 50 m, between line 15 + 50E and 21 + 50E. There is not much to be said concerning the survey done over these lines: they are very short and should be extended past the border of the lake in the south direction. The cover of sediment on the lake bottom seems to be thick and the survey penetrate only partially into the rock.

Two other lines have been executed on this grid, with a dipole separation of 25 m. Line 7 + 00N presents some high values of resistivity around 0 + 75E, just east of a relatively low resistivity zone.

The line 8 + 00N presents a gentle drop of resistivity around 1 + 00W and around 1 + 50W. These drop are not very pronounced and the survey should be extended over adjacent lines in order to get a better picture of the situation. On the west extremity of line 8 + 00N, we can see the effect of a swamp that causes some low resistivity values.

## 5 CONCLUSION

The geophysical survey carried out in the winter of 1997 on the Gosselin Lake Grid and the Net Lake Grid has allowed for the identification of some zones that present some interesting features and could contain some mineralization.

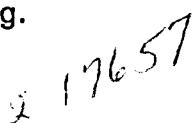
We also recommend that the survey should be extended in the following locations:

- East of line 15+00N and 15+50N on the Gosselin Lake Grid.
- South of lines 15+50E to 21+50E on the Net Lake Grid.
- North and south of lines 7+00N and 8+00N on the Net Lake Grid.

This report was written by Claude Provost, P. engineer, geophysicist.



Claude Provost, P. eng.  
Geophysicist

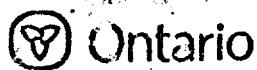


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## APPENDIX

### **DRAWINGS :**

- Induced polarization pseudo-sections**



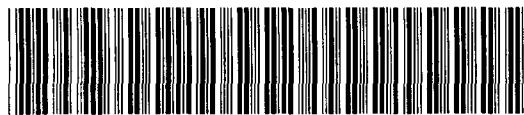
Ministry of  
Northern Development  
and Mines

# Declaration of Assessment Work Performed on Mining Land

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

Transaction Number (office use)  
**119770.00843**  
Assessment File Research Imaging

Personal Information c  
Mining Act, the informa  
Questions about this  
933 Ramsey Lake Roa



31M04SE0032 2.17657 CASSELS

6(3) of the Mining Act. Under section 8 of the  
work and correspond with the mining land holder.  
Northern Development and Mines, 6th Floor,

900

Instructions: - F  
- Please type or print in ink.

use form 0240.

**2.17657**

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

Name	Client Number
DAVID LARONDE / BRIAN YOUNGS / FRED BLAKE	157346 / 300274 / 109028
Address	Telephone Number
% P.O. BOX 482	(705) 569-2904
TEMAGAMI, ONT. POH 2H0	Fax Number
Name	Client Number
Address	Telephone Number
	Fax Number

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

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

Work Type	Office Use
IP SURVEYS.	Commodity
Dates Work Performed	Total \$ Value of Work Claimed
From 26 02 97 Day Month Year	5,535.00
To 02 03 97 Day Month Year	NTS Reference
Global Positioning System Data (if available)	Mining Division
Township/Area STRATHY	Resident Geologist District
M or G-Plan Number G 3451	Sudbury

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.

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

Name	Telephone Number
SIGMA GEOPHYSICS (Claude Provost)	(514) 922-0994
Address	Fax Number
2101-F RUE NOBEL Ste-Julie, QC J3E 1Z8	(514) 922-0786
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

**RECEIVED**

9:45 AM

SEP 05 1997

## 4. Certification by Recorded Holder or Agent

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

Signature of Recorded Holder or Agent	Date
<u>C. D. Stephenson</u>	Sept 2nd 1997
Agent's Address	Telephone Number
WABANA EXPL. INC. GENERAL DELIVERY TEMAGAMI, ONT	(705) 569-2700
	Fax Number
	(705) 569-2701

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

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 1179062	1	\$476 ✓	∅ ✓	∅	\$476
2 1212227	1	\$476	∅ ✓	∅	\$476
3 1212228	1	\$504	∅ ✓	∅	\$504
4 1212074	6	\$4,079	∅ ✓	\$700	\$3,379
5 1118484	1	∅	\$350 ✓	∅	∅
6 1118490	1	∅	\$350 ✓	∅	∅
7					
8					
9					
10					
11				RECEIVED	
12		RECEIVED	SEP 09 1997		
13		SEP 09 1997	OSCIENCE ASSESSMENT OFFICE		
14					
15		GEOSCIENCE ASSESSMENT OFFICE			
Column Totals		\$5,535	\$700	\$700	\$4,835

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

Signature of Recorded Holder or Agent Authorized in Writing

Date

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

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

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

CUT BACK FROM CLM 1212074 First.

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

#### For Office Use Only

Received Stamp

Deemed Approved Date

Date Notification Sent

Date Approved

Total Value of Credit Approved

Approved for Recording by Mining Recorder (Signature)

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work	Cost Per Unit of work	Total Cost
IP SURVEY LINES	KILOMETRES (14.245km)	\$948/km.	\$13,504. <sup>26</sup>
MAP/REPORT	/	/	\$1,995. <sup>74</sup>
Associated Costs (e.g. supplies, mobilization and demobilization).	MOB/DEMOB	\$ 2,500. <sup>00</sup>	
Transportation Costs			
Food and Lodging Costs			
	<b>RECEIVED</b> 9:45 AM SEP 05 1997 GEOSCIENCE ASSESSMENT OFFICE		
			\$ 18,000.

#### Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK                    x 0.50 =                    Total \$ value of worked claimed.

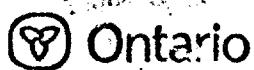
#### Note:

- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

#### Certification verifying costs:

I, CLIVE D. STEPHENSON, do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature	Date
<u>C.D. Stephenson</u>	Sept 2/97



Ministry of  
Northern Development  
and Mines

## Declaration of Assessment Work Performed on Mining Land

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

Transaction Number (office use)
W9770.00844
Assessment File Research Imaging

Personal information collected on this form is obtained under the authority of subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

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

**2.17657**

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

Name	DAVID LARONDE	Client Number	157346
Address	P.O. BOX 482	Telephone Number	(705) 569-2904
	TEMAGAMI, ONT. POH 2HO	Fax Number	(705) 569-2817
Name		Client Number	
Address		Telephone Number	
		Fax Number	

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

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

Work Type	Office Use		
IP SURVEYS.			
Dates Work Performed	From 26 02 97 Day Month Year	To 02 03 97 Day Month Year	Commodity
Global Positioning System Data (if available)	Township/Area <b>CASSELS</b>		Total \$ Value of Work Claimed <b>10,971.00</b>
	M or G-Plan Number <b>G 3415</b>		NTS Reference
			Mining Division <b>Sudbury</b>
			Resident Geologist District <b>Sudbury</b>

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.

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

Name	SIGMA GEOPHYSICS (CLAUDE PROVOST)	Telephone Number	(514) 922-0994
Address	2101-F RUE NOBEL. Ste-Julie QC J3E 1Z8	Fax Number	(514) 922-0786
Name		Telephone Number	
Address		Fax Number	<b>RECEIVED</b>
Name		Telephone Number	SEP 05 1997 9:45 AM
Address		Fax Number	<b>GEOSCIENCE ASSESSMENT OFFICE</b>

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

I, CLIVE D. STEPHENSON, 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 <u>C. D. Stephenson</u>	Date <b>SEPT 2<sup>ND</sup>/97</b>
Agent's Address WABANA EXPL. INC. GENERAL DELIVERY TEMAGAMI, ONT	Telephone Number (705) 569-2700
	Fax Number (705) 569-2701

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

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 1118444	8	\$1,832 ✓	∅		\$1,832
2 1118463	1	\$2,436 ✓	∅		\$2,436
3 1198121	1	\$3,094 ✓	∅		\$3,094
4 1198122	1	\$1,426 ✓	∅		\$1,426
5 1198119	1	\$998 ✓	∅		\$998
6 1198120	1	\$263 ✓	∅		\$263
7 1118464	1	\$922 ✓	∅		\$922
8					
9					
10					
11					
12					
13					
14					
15					
mn Totals		\$10,971	∅	∅	\$10,971

RECEIVED

SEP 15 1997

GEOSCIENCE ASSESSMENT  
OFFICE

I, CLIVE D. STEPHENSON, 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

C. D. Stephenson

Date

Sept. 2nd 97

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

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

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

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

#### For Office Use Only

Received Stamp

Deemed Approved Date

Date Notification Sent

Date Approved

Total Value of Credit Approved

Approved for Recording by Mining Recorder (Signature)

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines



November 6, 1997

DAVID DENNIS LARONDE  
P.O. BOX 482  
407 LAKESHORE  
TEMAGAMI, Ontario  
P0H-2H0

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

Telephone: (888) 415-9846  
Fax: (705) 670-5863

Dear Sir or Madam:

**Submission Number:** 2.17657

**Status**

**Subject: Transaction Number(s):** W9770.00843 Deemed Approval  
W9770.00844 Deemed Approval

---

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

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

If you have any questions regarding this correspondence, please contact Lucille Jerome by e-mail at jerome\_l@torv05.ndm.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,

A handwritten signature in black ink that reads "Blair Kite".

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

# Work Report Assessment Results

**Submission Number:** 2.17657

**Date Correspondence Sent:** November 06, 1997

**Assessor:** Lucille Jerome

<b>Transaction Number</b>	<b>First Claim Number</b>	<b>Township(s) / Area(s)</b>	<b>Status</b>	<b>Approval Date</b>
W9770.00843	1179062	STRATHY	Deemed Approval	November 06, 1997
<b>Section:</b> 14 Geophysical IP				

<b>Transaction Number</b>	<b>First Claim Number</b>	<b>Township(s) / Area(s)</b>	<b>Status</b>	<b>Approval Date</b>
W9770.00844	1118444	CASSELS	Deemed Approval	November 06, 1997
<b>Section:</b> 14 Geophysical IP				

**Correspondence to:**

Resident Geologist  
Sudbury, ON

Assessment Files Library  
Sudbury, ON

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

Clive D. Stephenson  
TEMAGAMI, ONTARIO, CANADA

DAVID DENNIS LARONDE  
TEMAGAMI, Ontario

BRIAN EDWARD YOUNGS  
TEMAGAMI, ONTARIO

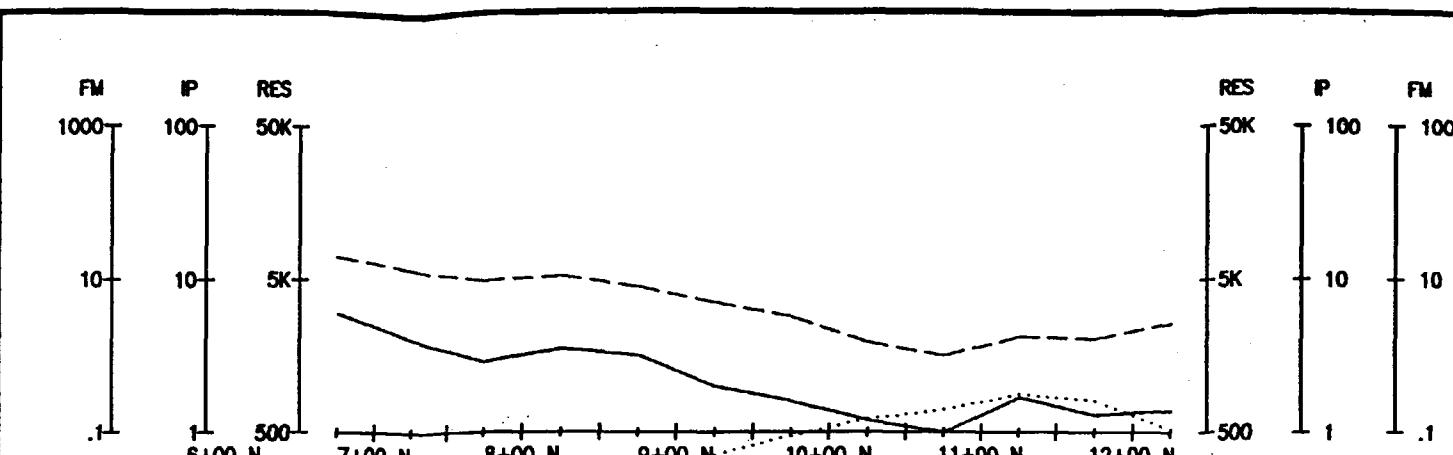
FREDERICK BLAKE  
TEMAGAMI, Ontario



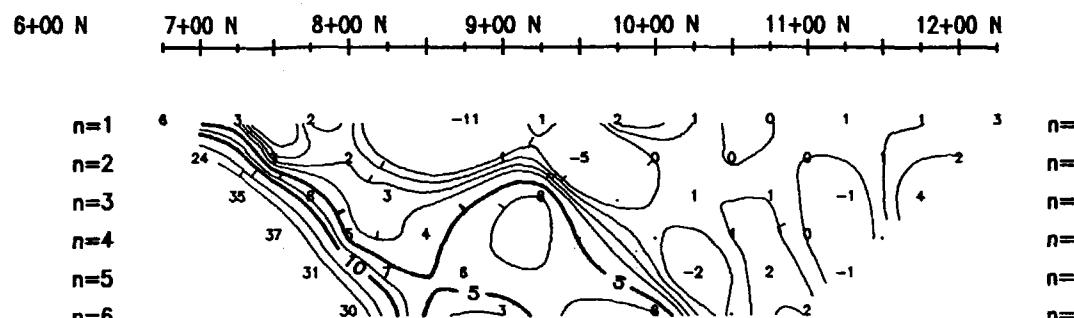




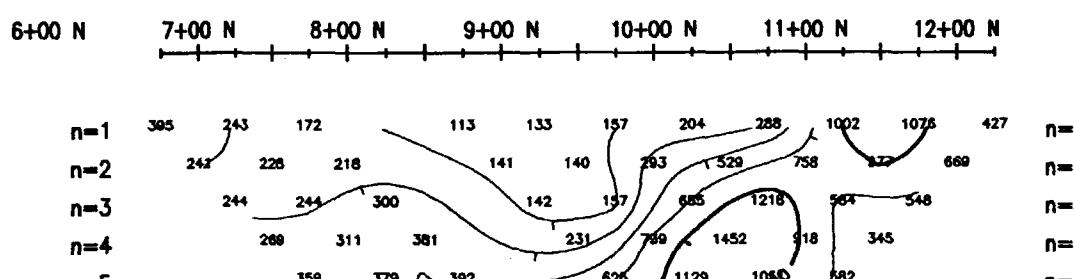
31M04SE0032 2.17657 CASSIERS



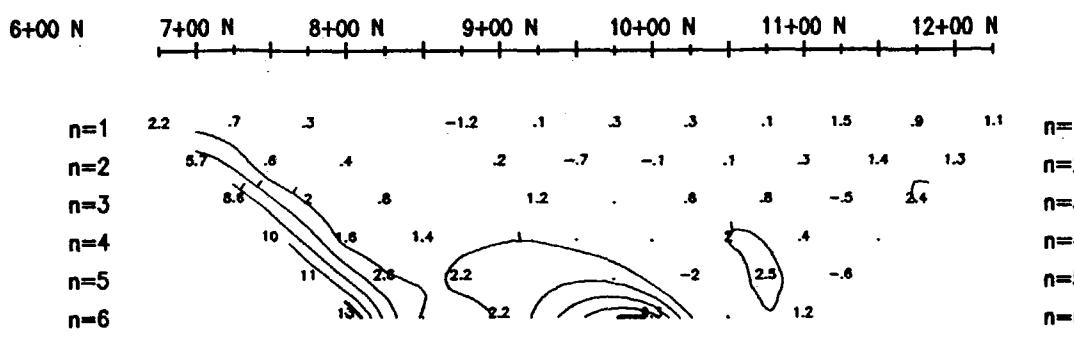
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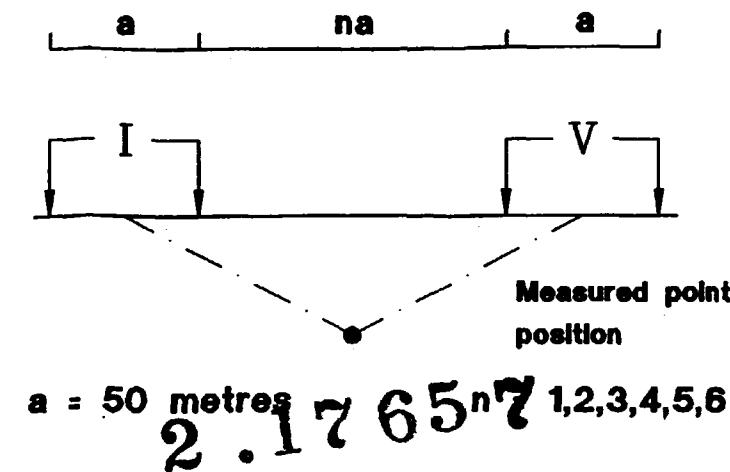
NORMALIZED APPARENT CHARGEABILITY (ip/res \* 1000)



APPARENT RESISTIVITY (ohm-m)



APPARENT CHARGEABILITY (mV/V)

**Profiles:**

- Filtered chargeability      Filter      x
- .... Filtered resistivity      x x
- - - Filtered Metal Factor      x x x x

**EQUIPMENT**

Generator :Phoenix MG-1	Receiver :EDA IP-6
Transmitter :Phoenix IPT-1	Electrodes:Stainless steel

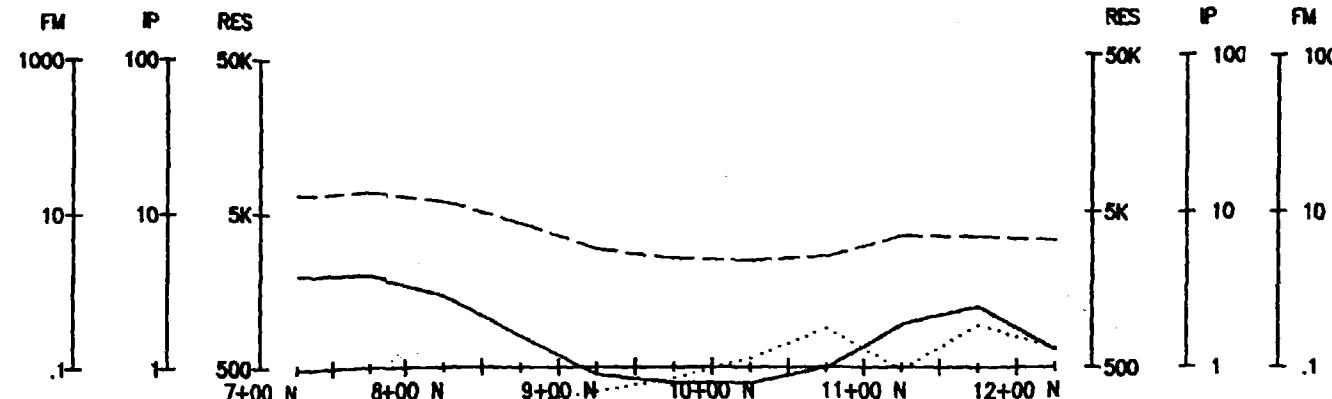
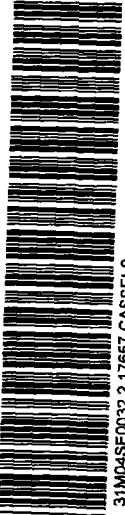
SCALE 1:5,000	SURVEY DATE FEB-MARCH 1997
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**SIGMA** SIGMA  
GEOPHYSICS INC.

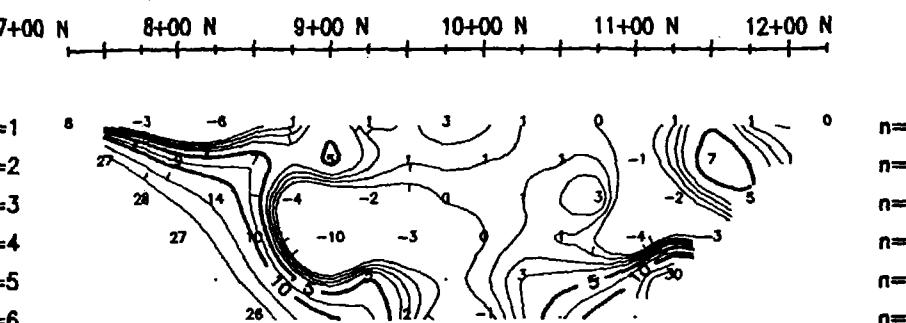
2101-F, rue Nobel  
Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994 Fax: (514) 922-0786

**Induced Polarization Survey****Wabana Exploration Inc.****Net Lake Project****LINE 21+50 E**

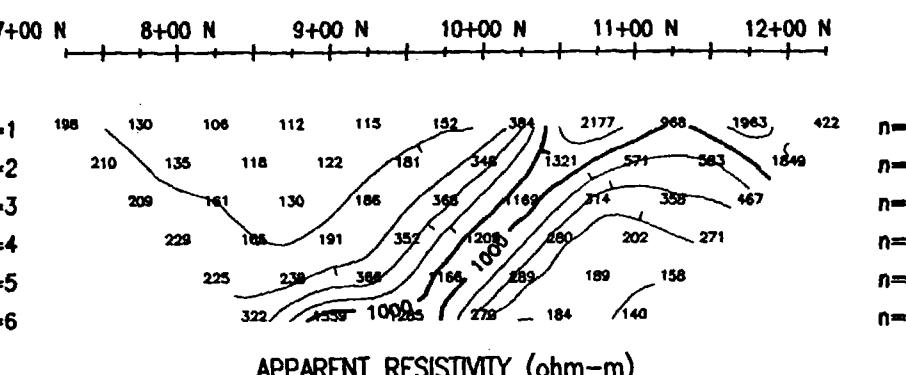
DATE 900315 CONTRACT Nb C 96113



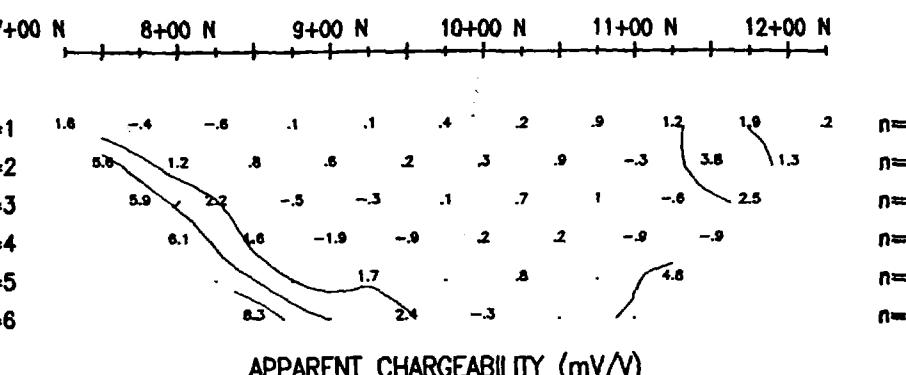
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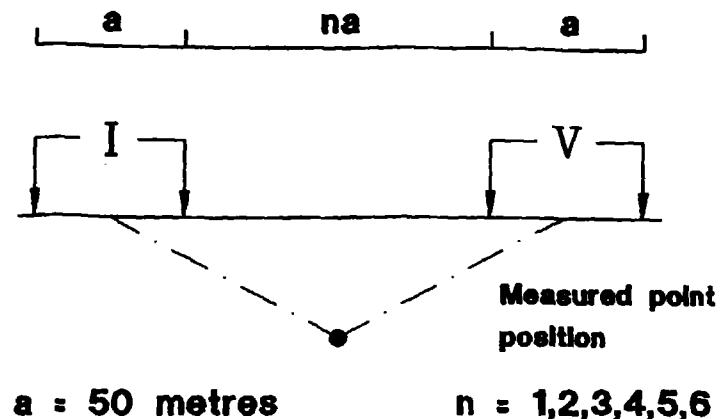
NORMALIZED APPARENT CHARGEABILITY (ip/res \* 1000)



APPARENT RESISTIVITY (ohm-m)



APPARENT CHARGEABILITY (mV/V)



**2.17657 Profiles:**

- Filtered chargeability      Filter
- .... Filtered resistivity      Filter
- - - Filtered Metal Factor      Filter

**EQUIPMENT**

Generator :Phoenix MG-1	Receiver :EDA IP-6
Transmitter :Phoenix IPT-1	Electrodes :Stainless steel

**SCALE**  
1:5,000

**SURVEY DATE**  
FEB-MARCH 1997

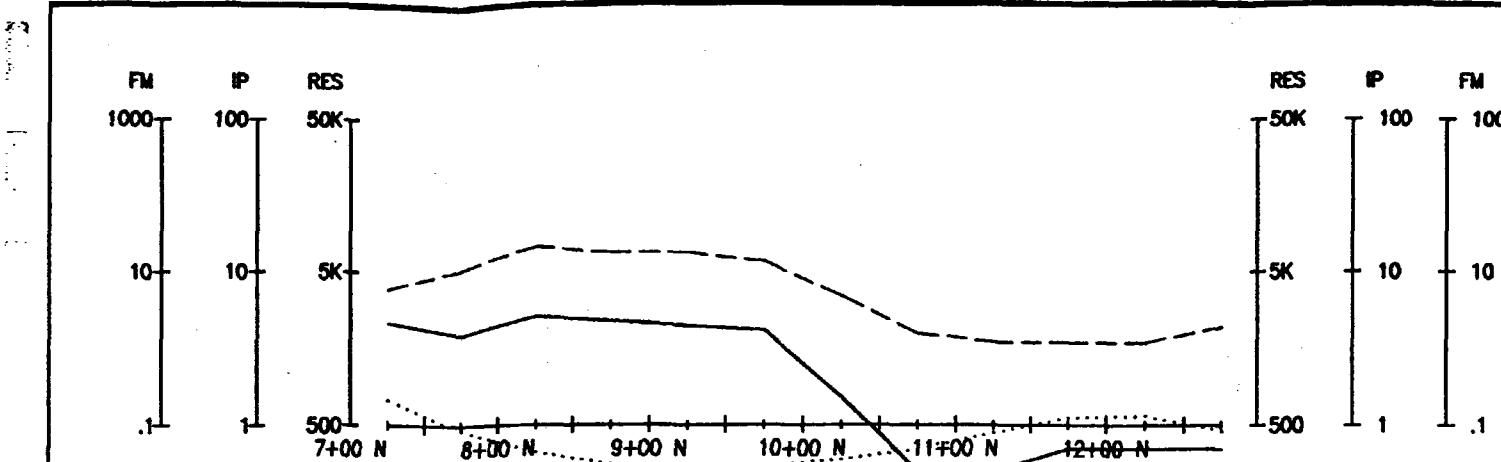
**SIGMA**

**SIGMA**  
**GEOPHYSICS INC.**

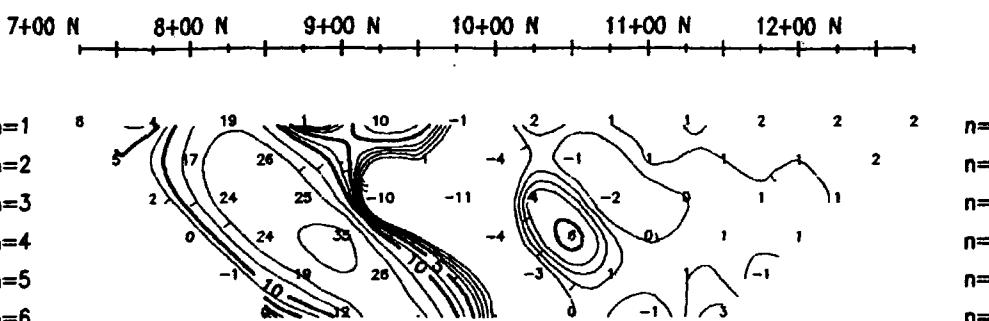
2101-F, rue Nobel  
Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994   Fax: (514) 922-0786

**Induced Polarization Survey****Wabana Exploration Inc.****Net Lake Project****LINE 20+50 E**

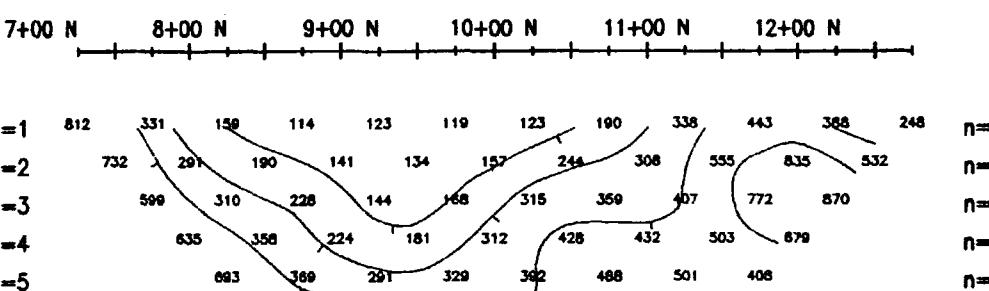
DATE 900315 CONTRACT Nb C 96113



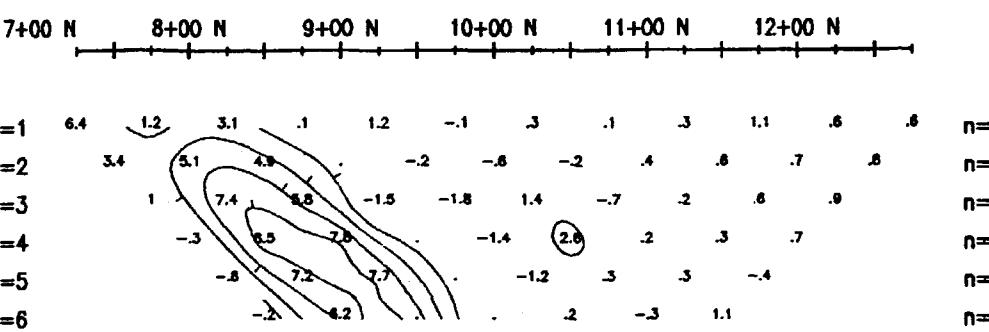
FILTERED VALUES



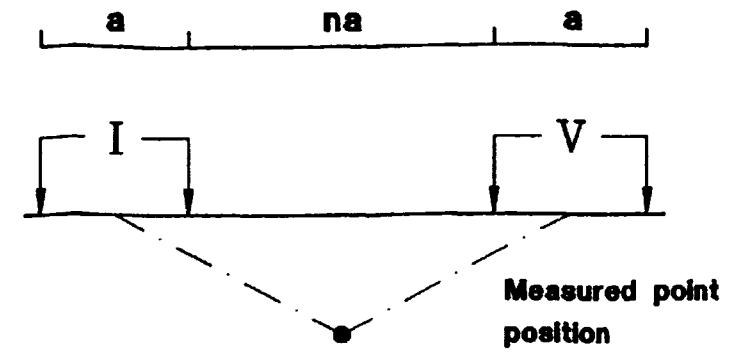
NORMALIZED APPARENT CHARGEABILITY (ip/res \* 1000)



APPARENT RESISTIVITY (ohm-m)

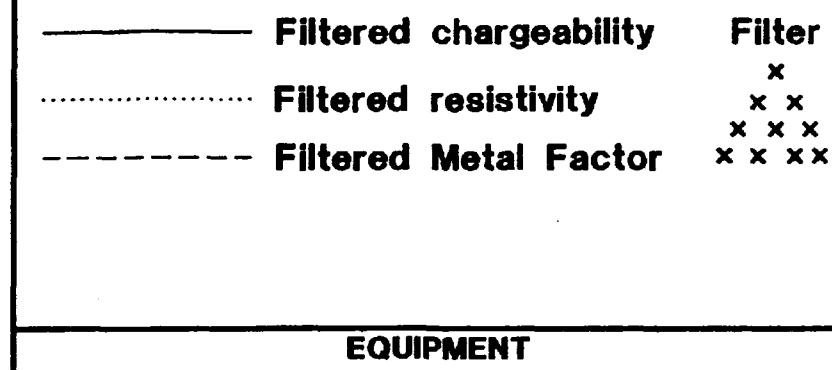


APPARENT CHARGEABILITY (mV/V)



2.1765<sup>n</sup>  
n = 1,2,3,4,5,6

## Profiles:



## EQUIPMENT

Generator	:Phoenix MG-1	Receiver	:EDA IP-6
Transmitter	:Phoenix IPT-1	Electrodes	:Stainless steel

SCALE	SURVEY DATE
1:5,000	FEB-MARCH 1997

**SIGMA**

**SIGMA**  
GEOPHYSICS INC.

2101-F, rue Nobel  
Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994   Fax: (514) 922-0786

## Induced Polarization Survey

**Wabana Exploration Inc.**

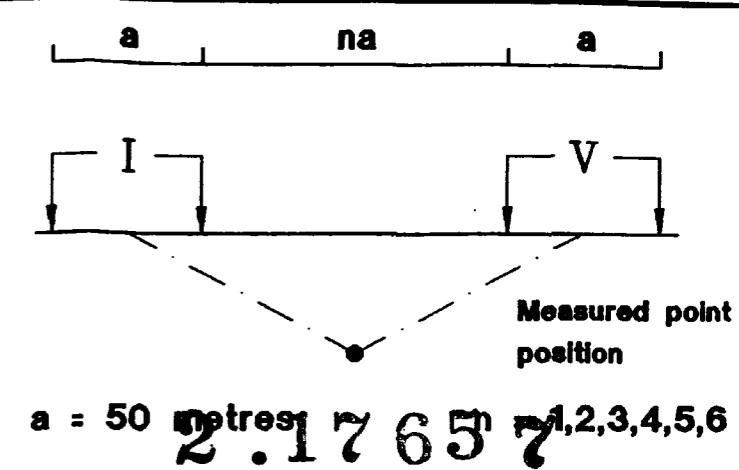
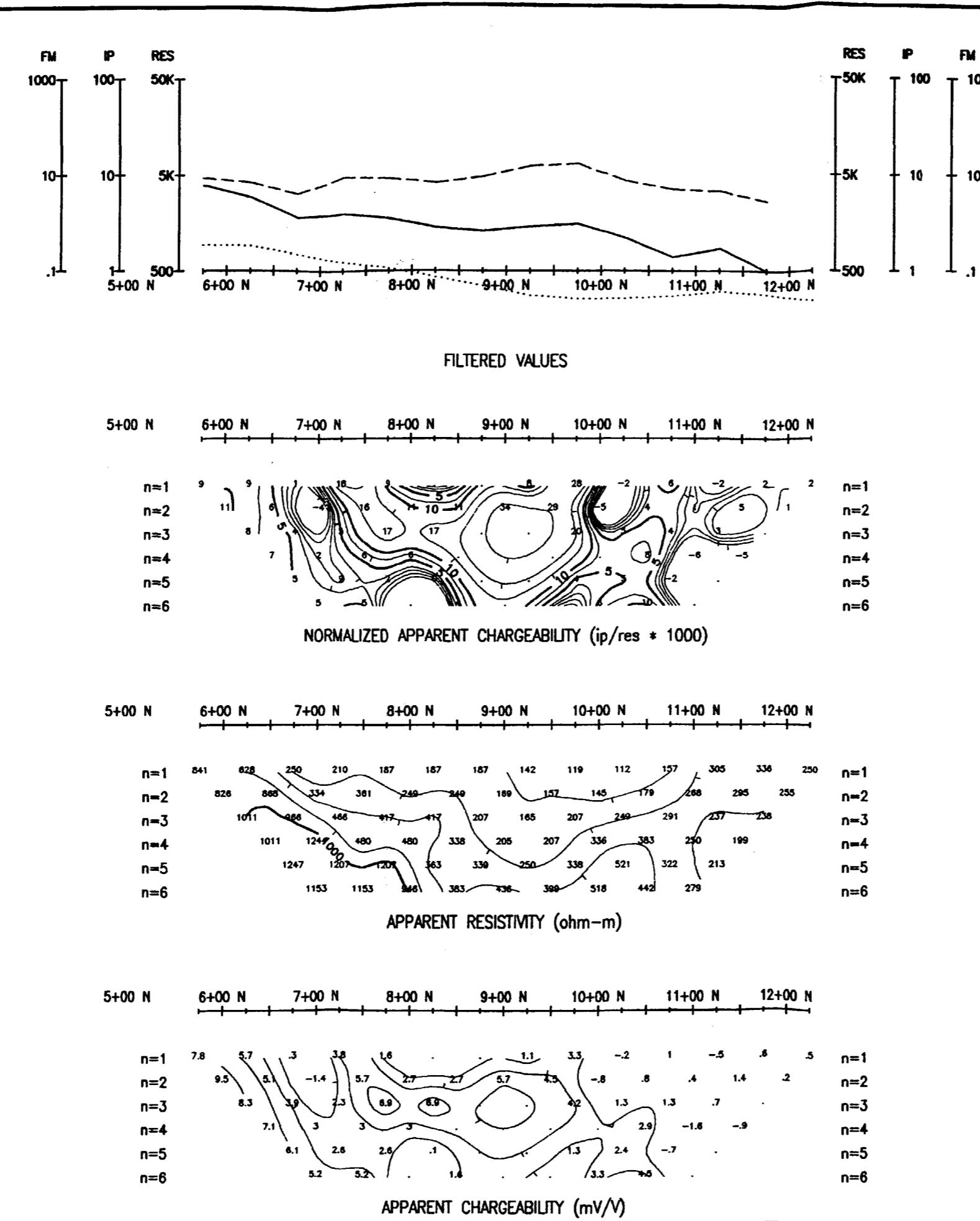
**Net Lake Project**

**LINE 19+50 E**

DATE	900315	CONTRACT Nb	C 96113
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31M04SE0032 2.17657 CASSIERS

**Profiles:**

- |                             |        |
|-----------------------------|--------|
| — Filtered chargeability    | Filter |
| ..... Filtered resistivity  | x      |
| - - - Filtered Metal Factor | x x x  |

**EQUIPMENT**

Generator :Phoenix MG-1	Receiver :EDA IP-6
Transmitter :Phoenix IPT-1	Electrodes :Stainless steel

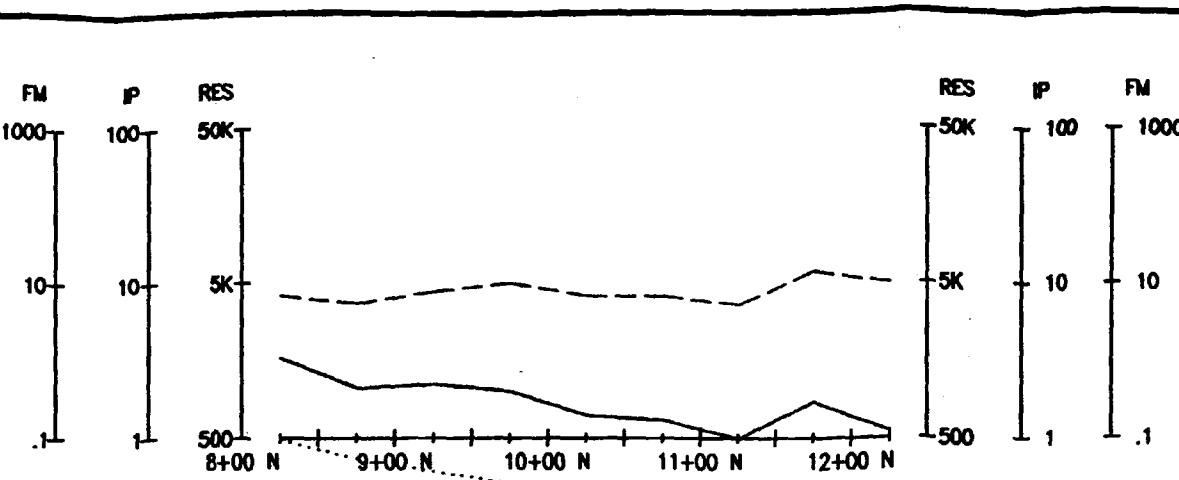
**SCALE**  
1:5,000**SURVEY DATE**  
FEB-MARCH 1997**SIGMA****SIGMA  
GEOPHYSICS INC.**2101-F, rue Nobel  
Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994 Fax: (514) 922-0786**Induced Polarization Survey****Wabana Exploration Inc.****Net Lake Project****LINE 18+50 E**

DATE 900315 CONTRACT Nb C 96113

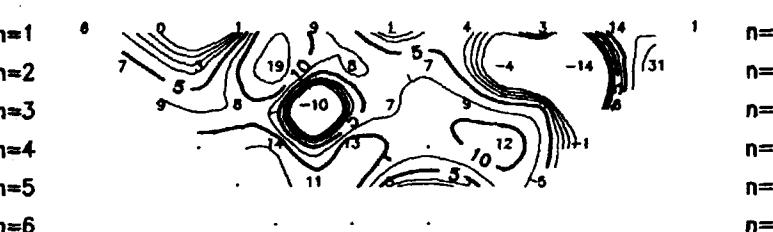
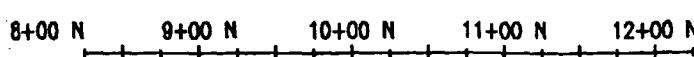
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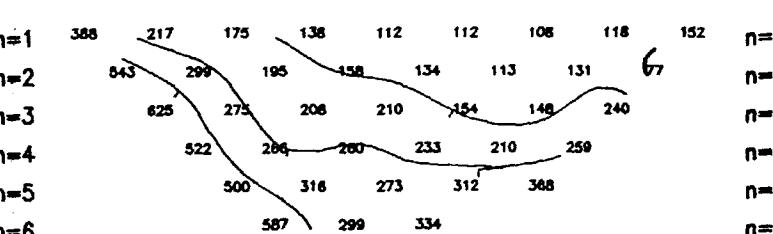
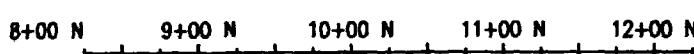
10200000 0 17657 CASSELS



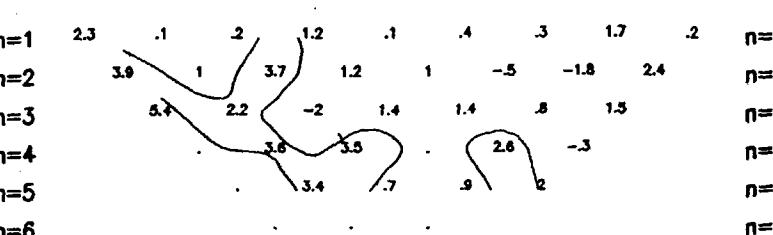
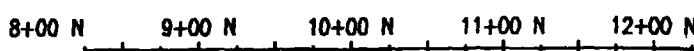
## FILTERED VALUES



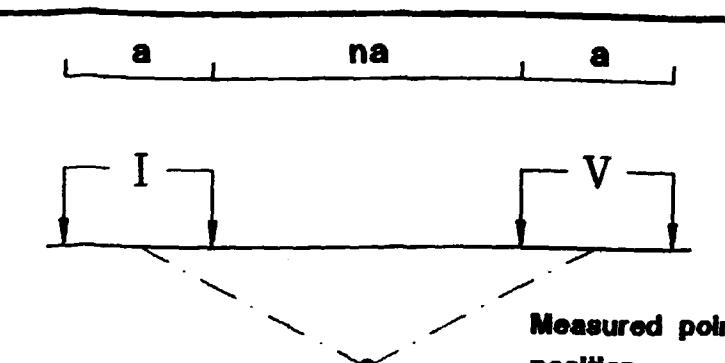
### NORMALIZED APPARENT CHARGEABILITY (ip/res \* 1000)



### APPARENT RESISTIVITY (ohm-m)



### APPARENT CHARGEABILITY (mV/V)



$a = 50 \text{ m}^2 \text{res} \cdot 1765^n$   $n = 1,2,3,4,5,6$

## **Profiles:**

————— Filtered chargeability  
 ..... Filtered resistivity  
 - - - - - Filtered Metal Factor

## EQUIPMENT

**Generator :Phoenix MG-1      Receiver :EDA IP-6**  
**Transmitter :Phoenix IPT-1      Electrodes :Stainless steel**

<b>SCALE</b> 1:5,000	<b>SURVEY DATE</b> FEB-MARCH 1997
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**SIGMA** SIGMA

© 1994 GEOPHYSICS INC.

**2101-F, rue Nobel  
Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994 Fax: (514) 922-0786**

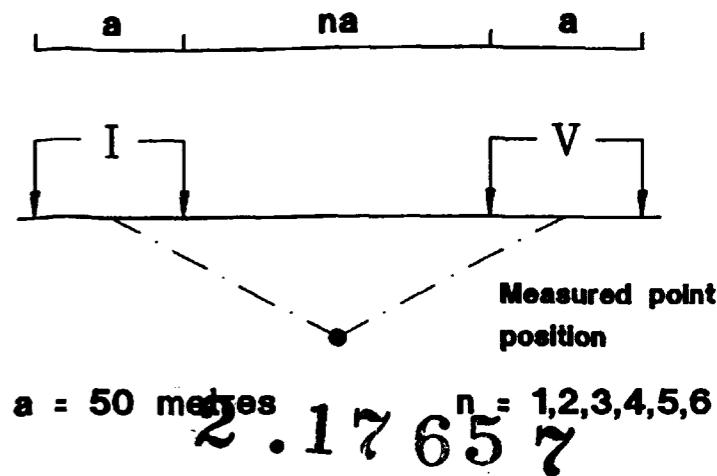
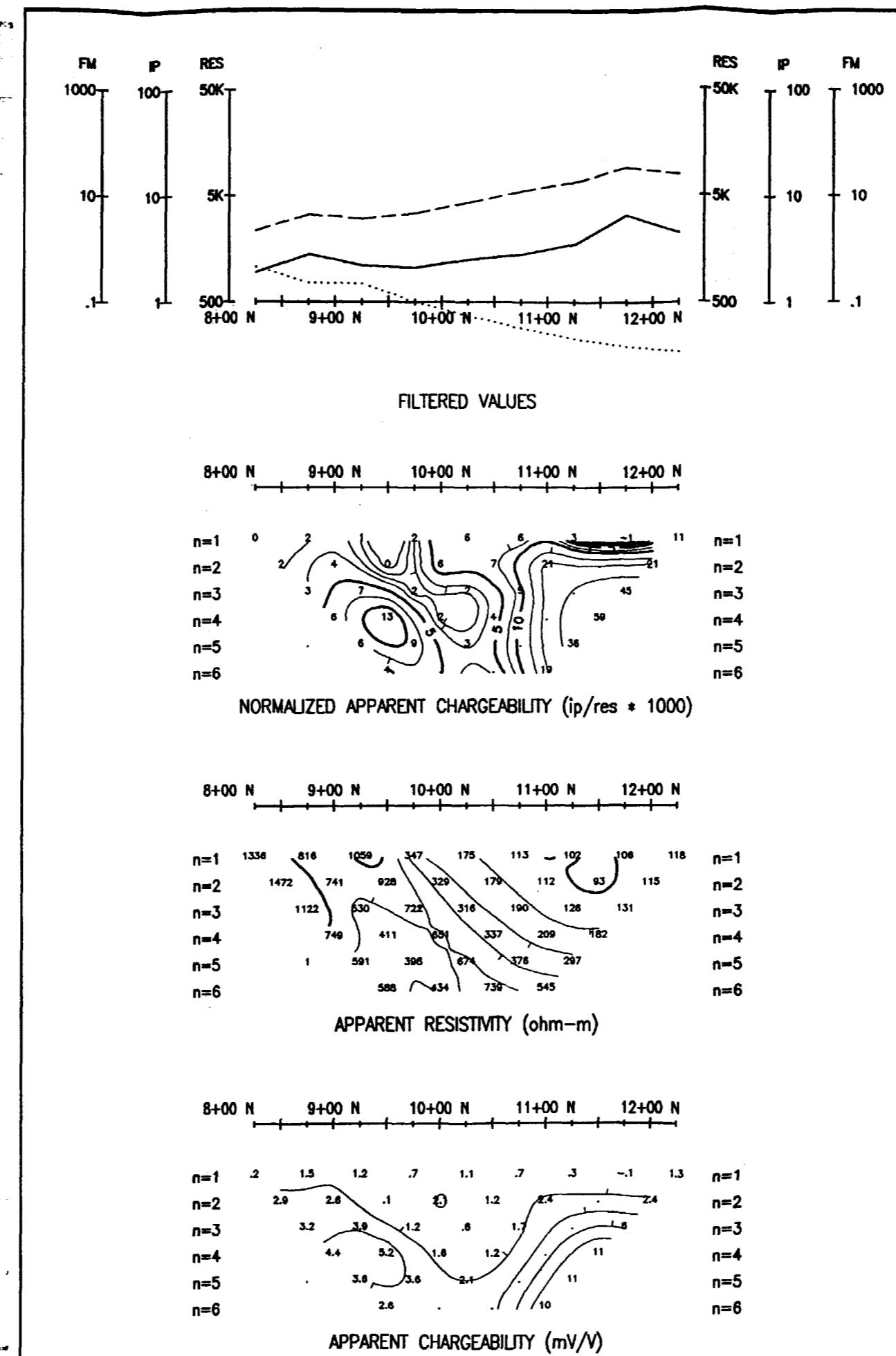
## Induced Polarization Survey

**Wabana Exploration Inc.**

# Net Lake Project

**LINE 17+50 E**

DATE 900315 CONTRACT N<sup>o</sup> C 96113



EQUIPMENT	Generator :Phoenix MG-1	Receiver :EDA IP-6
	Transmitter :Phoenix IPT-1	Electrodes:Stainless steel

SCALE 1:5,000	SURVEY DATE FEB-MARCH 1997
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**SIGMA** **SIGMA**  
**GEOPHYSICS INC.**  
2101-F, rue Nobel  
Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994 Fax: (514) 922-0786

**Induced Polarization Survey**

**Wabana Exploration Inc.**

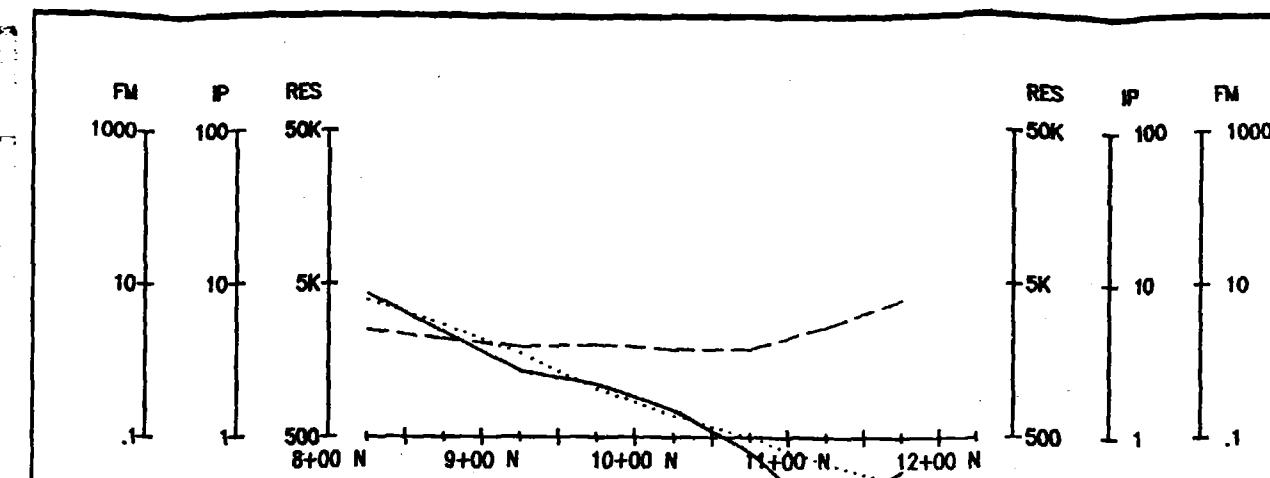
**Net Lake Project**

**LINE 16+50 E**

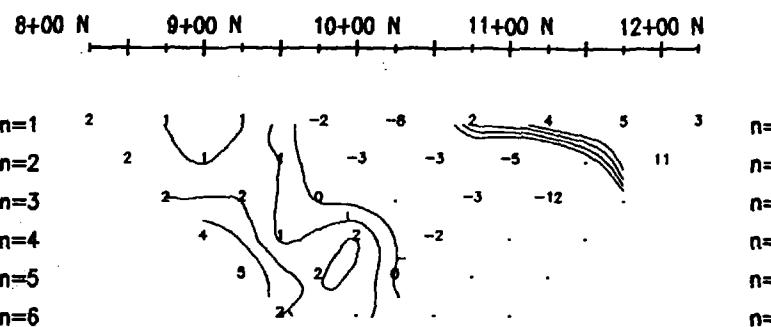
DATE	900315	CONTRACT Nb	C 96113
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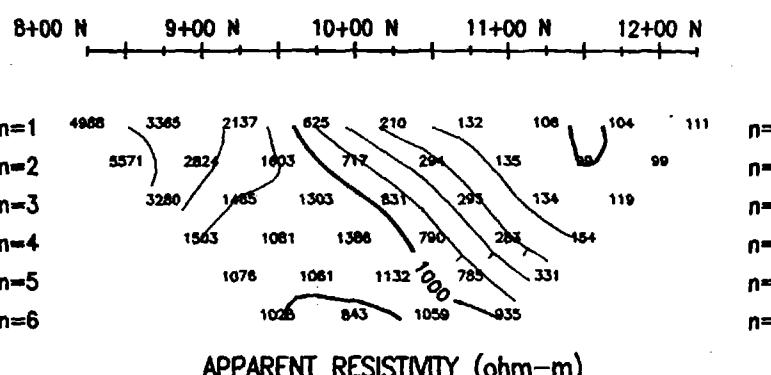
31M04SE0032 2.17657 CASSELS



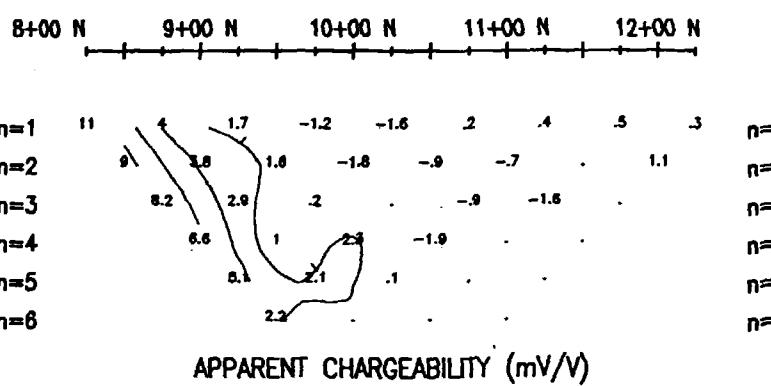
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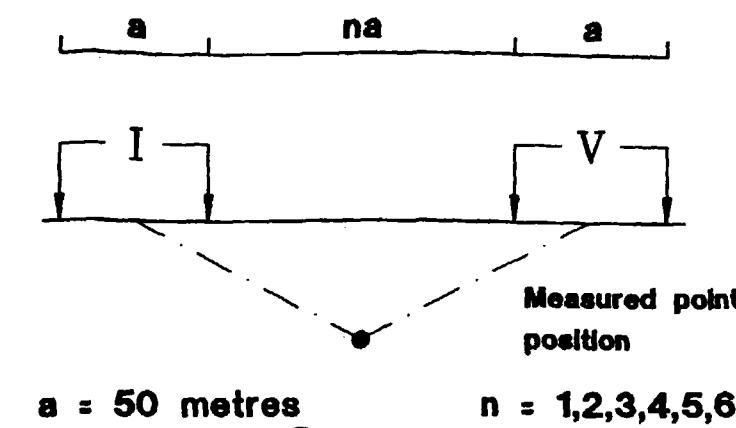
NORMALIZED APPARENT CHARGEABILITY (ip/res \* 1000)



APPARENT RESISTIVITY (ohm-m)



APPARENT CHARGEABILITY (mV/V)



## 2.1765 Profiles:

—	Filtered chargeability	Filter
.....	Filtered resistivity	x
- - -	Filtered Metal Factor	x x x x

**EQUIPMENT**

Generator	:Phoenix MG-1	Receiver	:EDA IP-6
Transmitter	:Phoenix IPT-1	Electrodes	:Stainless steel

**SCALE**  
1:5,000

**SURVEY DATE**  
FEB-MARCH 1997

**SIGMA** SIGMA  
GEOPHYSICS INC.

2101-F, rue Nobel  
Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994 Fax: (514) 922-0786

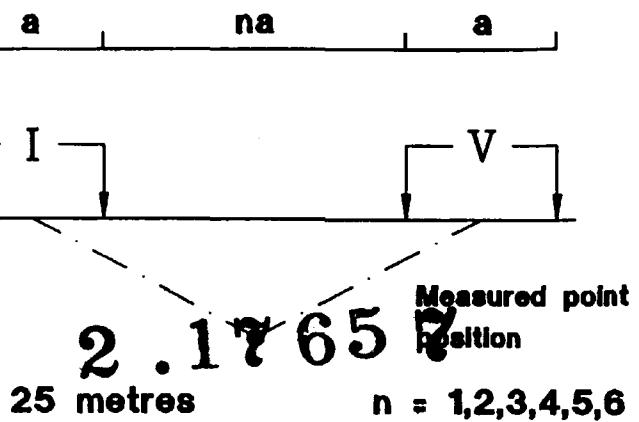
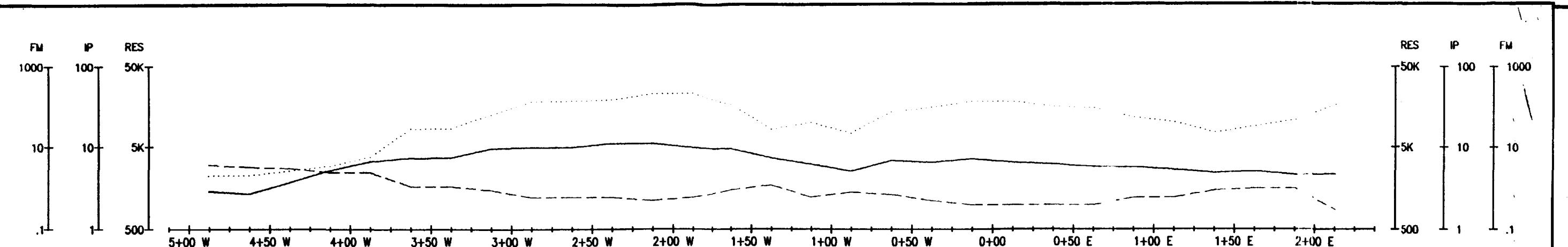
**Induced Polarization Survey**

**Wabana Exploration Inc.**

**Net Lake Project**

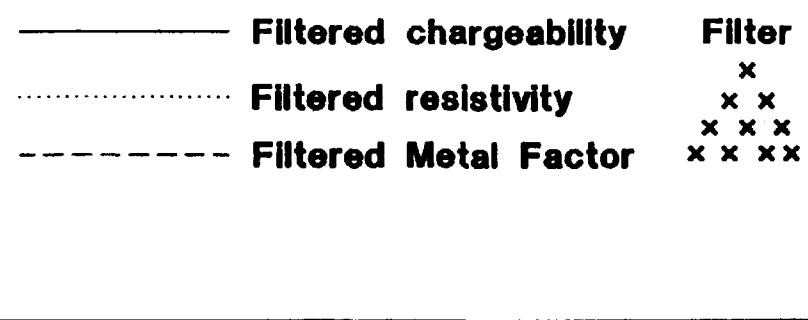
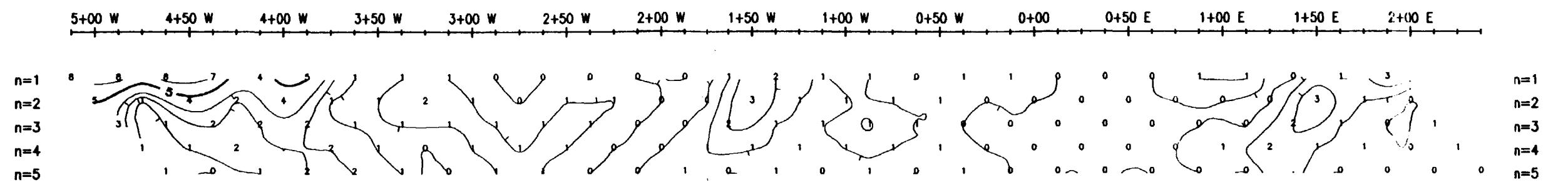
**LINE 15+50 E**

DATE 900315 CONTRACT Nb C 96113



### Profiles:

FILTERED VALUES

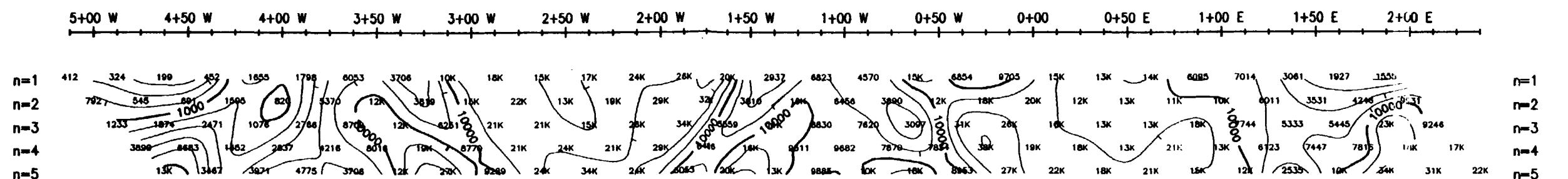


### EQUIPMENT

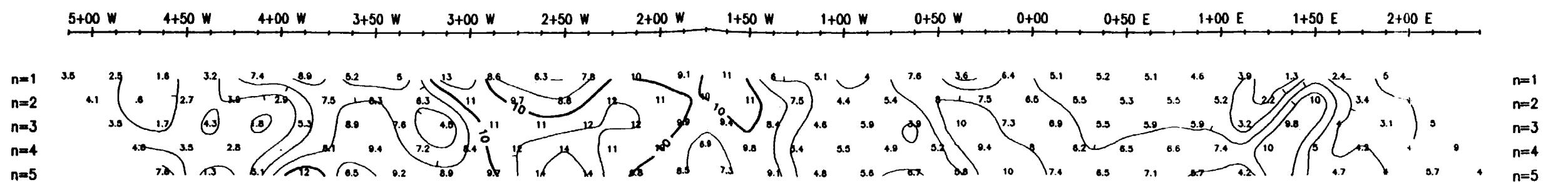
Generator :Phoenix MG-1      Receiver :EDA IP-6  
Transmitter :Phoenix IPT-1      Electrodes:Stainless steel

SCALE 1:2,500      SURVEY DATE FEB-MARCH 1997

**SIGMA** SIGMA  
GEOPHYSICS INC.  
2101-F, rue Nobel  
Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994 Fax: (514) 922-0786



APPARENT RESISTIVITY (ohm-m)



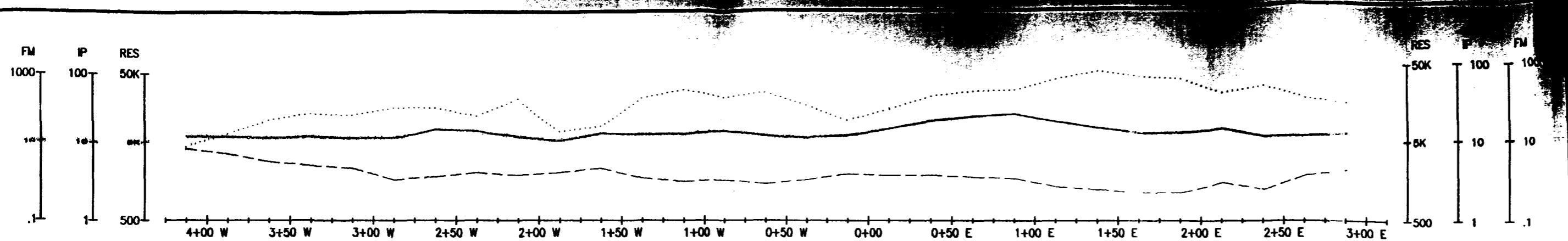
APPARENT CHARGEABILITY (mV/V)

### Induced Polarization Survey

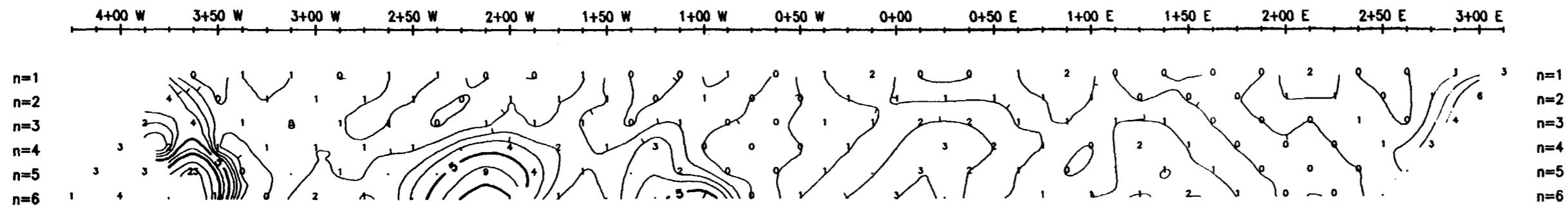
**Wabana Exploration Inc.**

**Net Lake Project**

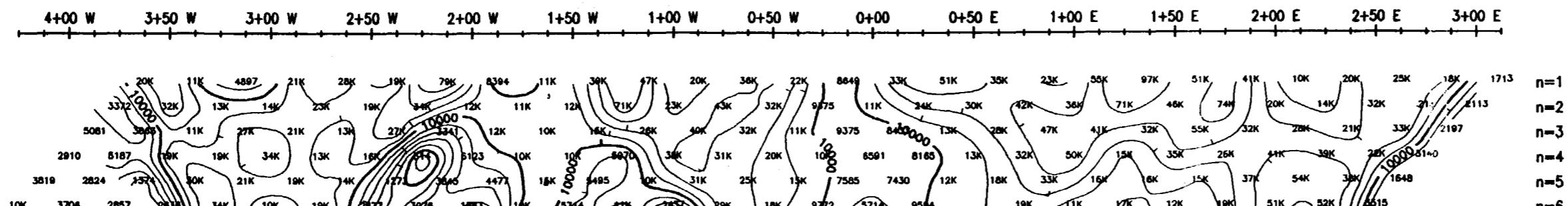
**LINE 8+00 N**



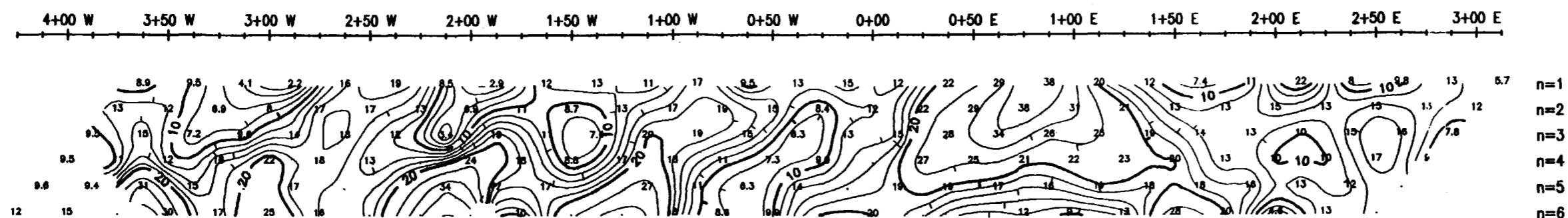
FILTERED VALUES



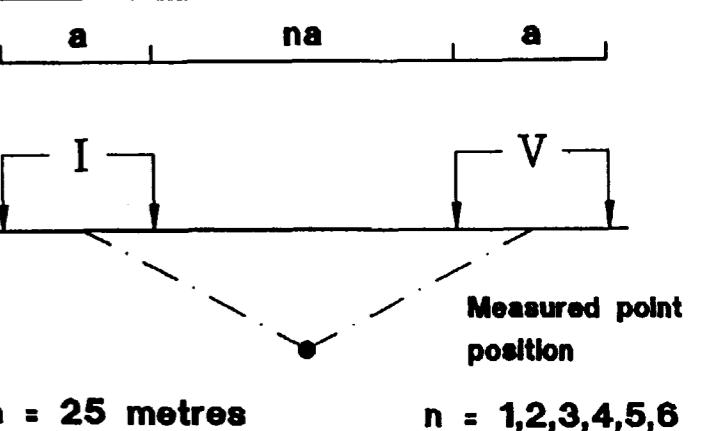
**NORMALIZED APPARENT CHARGEABILITY (ip/res \* 1000)**



**APPARENT RESISTIVITY (ohm-m)**



### APPARENT CHARGEABILITY (mV/V)



2 · 17657  
Profiles:

<b>Filtered chargeability</b>	<b>Filter</b>
<b>Filtered resistivity</b>	x
<b>Filtered Metal Factor</b>	x x x x

## EQUIPMENT

**Generator :Phoenix MG-1      Receiver :EDA IP-6**  
**Transmitter :Phoenix IPT-1      Electrodes:Stainless steel**

**SURVEY DATE**  
**FEB-MARCH 1997**

2101-F, rue Nobel  
Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994 Fax: (514) 922-078

## Induced Polarization Survey

# **Cubana Exploration Inc.**

# Net Lake Project

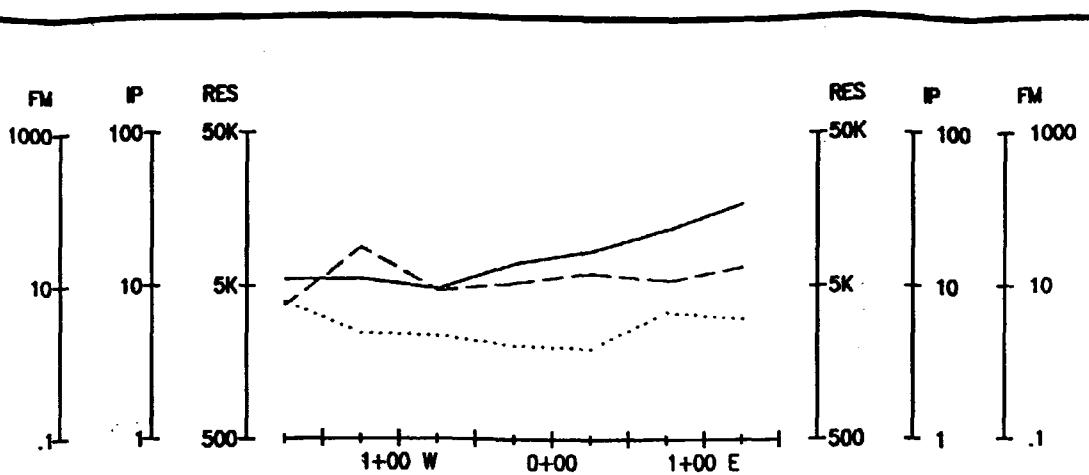
# **LINE 7+00 N**

DATE 900315 CONTRACT № C 96113

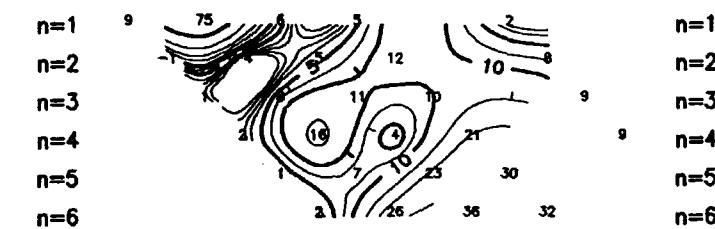
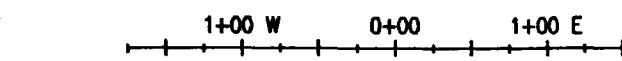
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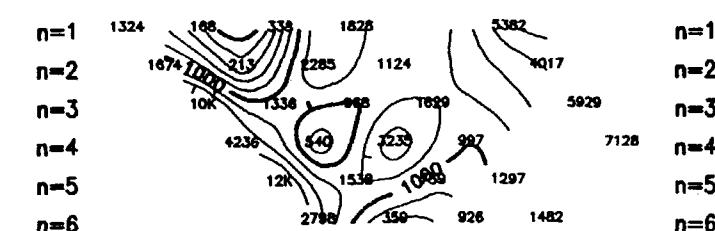
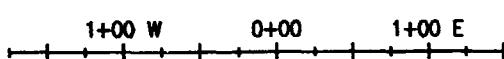
31M04SE0032 2.17657 CASSELS



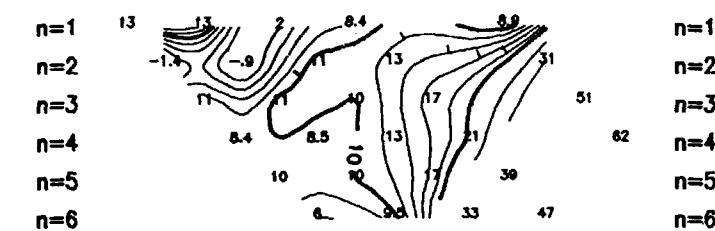
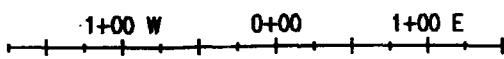
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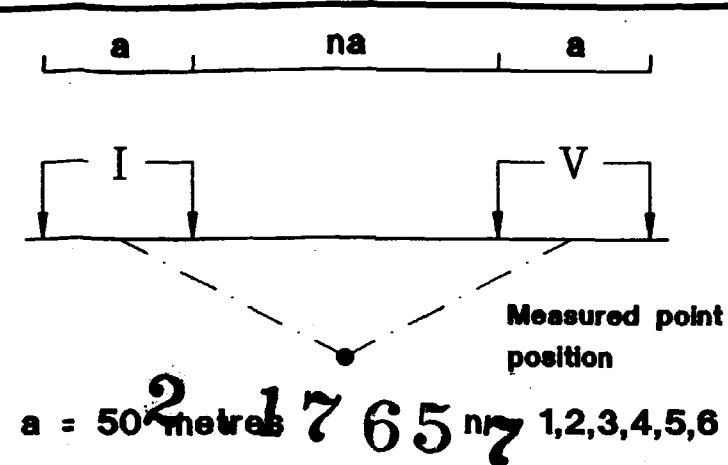
**NORMALIZED APPARENT CHARGEABILITY (ip/res \* 1000)**



### APPARENT RESISTIVITY (ohm-m)



**APPARENT CHARGEABILITY (mV/V)**



## **Profiles:**

————— **Filtered chargeability**      **Filter**  
 ..... **Filtered resistivity**                x x  
 - - - - **Filtered Metal Factor**        x x x x

## EQUIPMENT

**Generator :Phoenix MG-1      Receiver :EDA IP-6**  
**Transmitter :Phoenix IPT-1      Electrodes :Stainless steel**

<b>SCALE</b> <b>1:5,000</b>	<b>SURVEY DATE</b> <b>FEB-MARCH 1997</b>
--------------------------------	---

**SIGMA**

**SIGMA  
GEOPHYSICS INC.**

**2101-F, rue Nobel  
Sainte-Julie, QC J3E 1Z8**  
**Telephone: (514) 922-0994 Fax: (514) 922-0786**

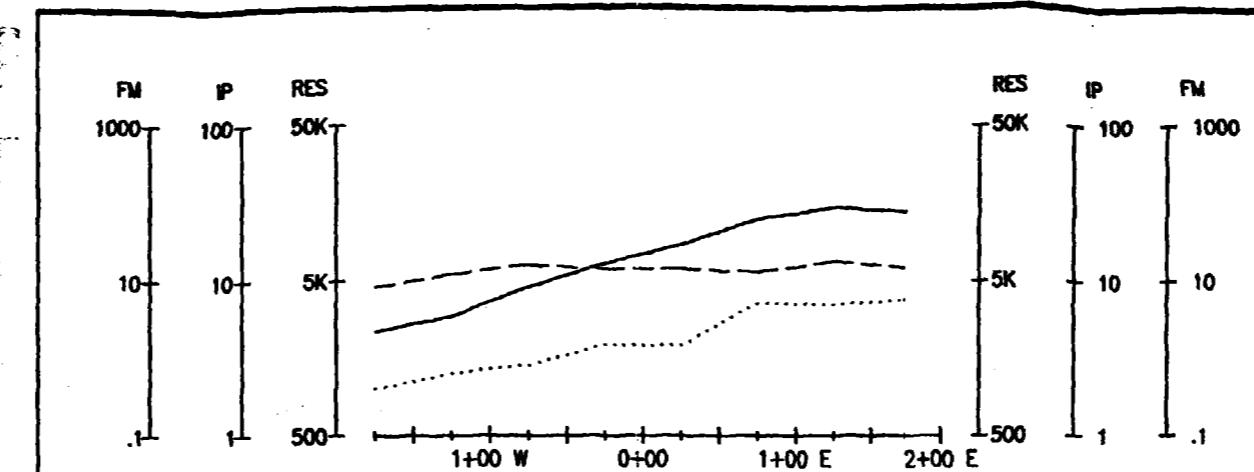
## Induced Polarization Survey

# **Wabana Exploration Inc.**

# Gosselin Lake Project

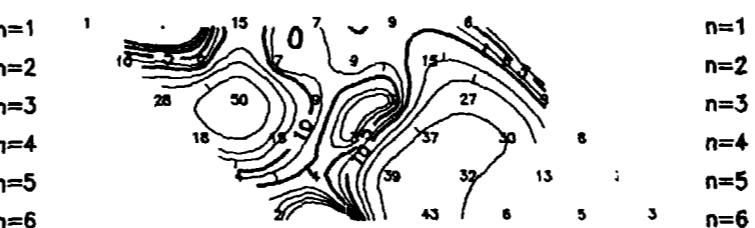
# **LINE 15+50 N**

DATE 900315 CONTRACT Nb C 96113



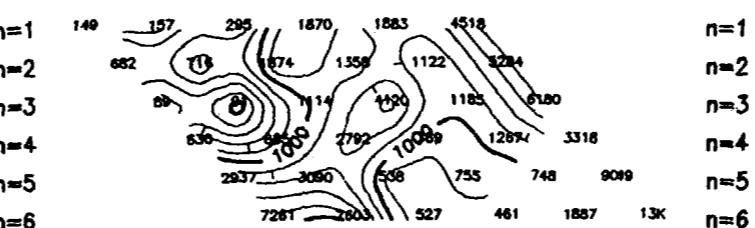
FILTERED VALUES

1+00 W      0+00      1+00 E      2+00 E



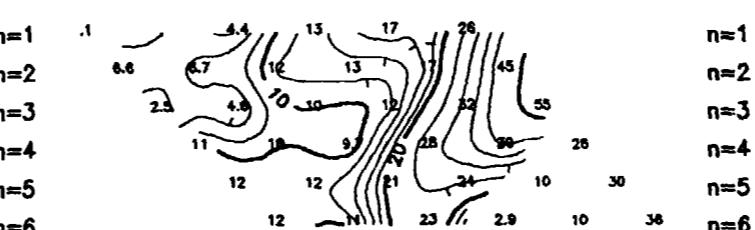
NORMALIZED APPARENT CHARGEABILITY (ip/res \* 1000)

1+00 W      0+00      1+00 E      2+00 E

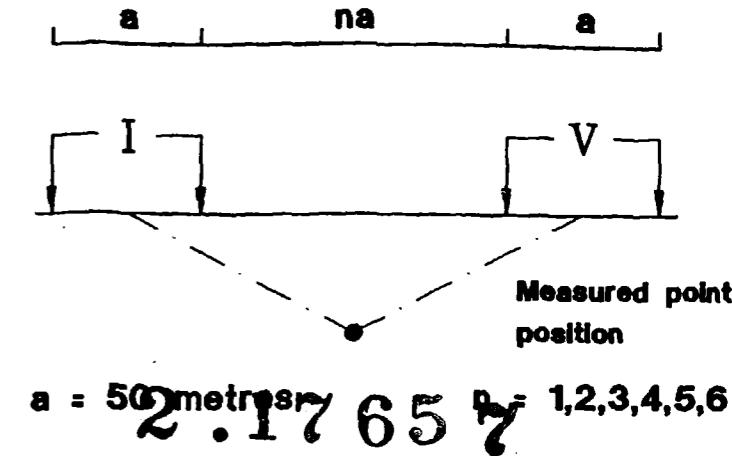


APPARENT RESISTIVITY (ohm-m)

1+00 W      0+00      1+00 E      2+00 E



APPARENT CHARGEABILITY (mV/V)

**Profiles:**

- Filtered chargeability      Filter  $\times$
- ..... Filtered resistivity       $\times \times$
- - - - Filtered Metal Factor       $\times \times \times \times$

**EQUIPMENT**

Generator :Phoenix MG-1      Receiver :EDA IP-6  
Transmitter :Phoenix IPT-1      Electrodes:Stainless steel

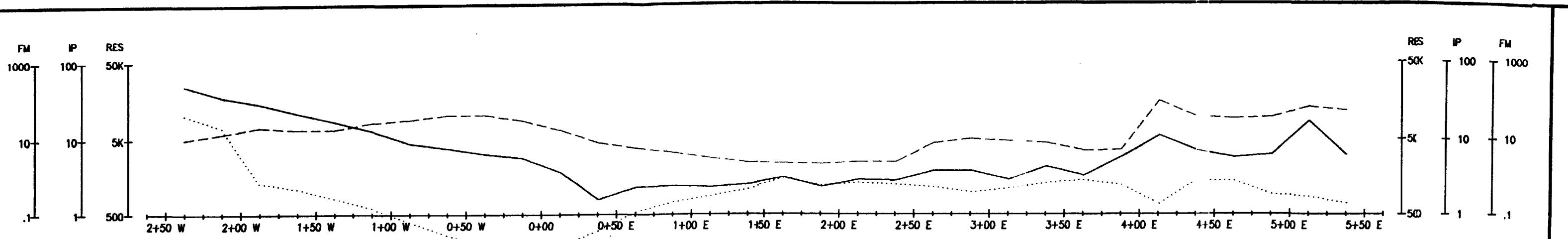
**SCALE**  
1:5,000      **SURVEY DATE**  
FEB-MARCH 1997

**SIGMA** SIGMA  
GEOPHYSICS INC.

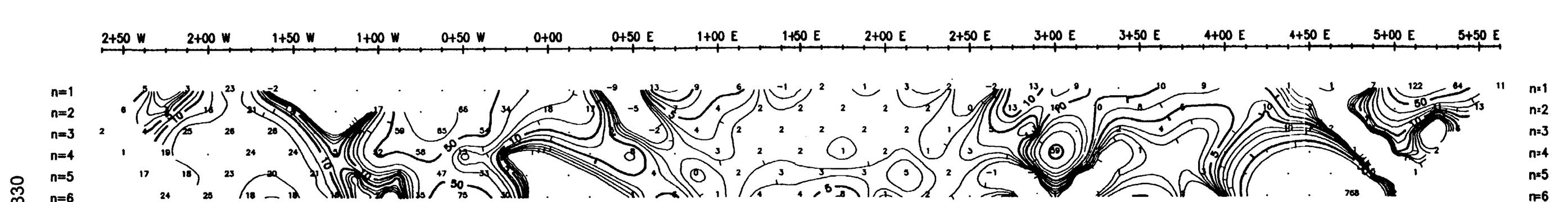
2101-F, rue Nobel  
Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994      Fax: (514) 922-0786

**Induced Polarization Survey****Wabana Exploration Inc.****Gosselin Lake Project****LINE 15+00 N**

DATE 900315 CONTRACT Nb C 96113



FILTERED VALUES



a   na   a

I   V

Measured point position

a = 25 metres   n = 1,2,3,4,5,6

**2.17657 Profiles:**

— Filtered chargeability   Filter  
..... Filtered resistivity  
--- Filtered Metal Factor   Filter

x   x   x   x   x   x

EQUIPMENT

Generator :Phoenix MG-1   Receiver :EDA IP-6  
Transmitter :Phoenix IPT-1   Electrodes:Stainless steel

SCALE  
1:2,500

SURVEY DATE  
FEB-MARCH 1997

**SIGMA**

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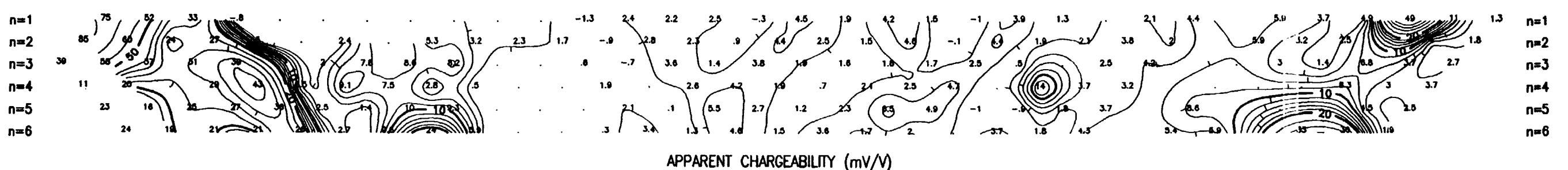
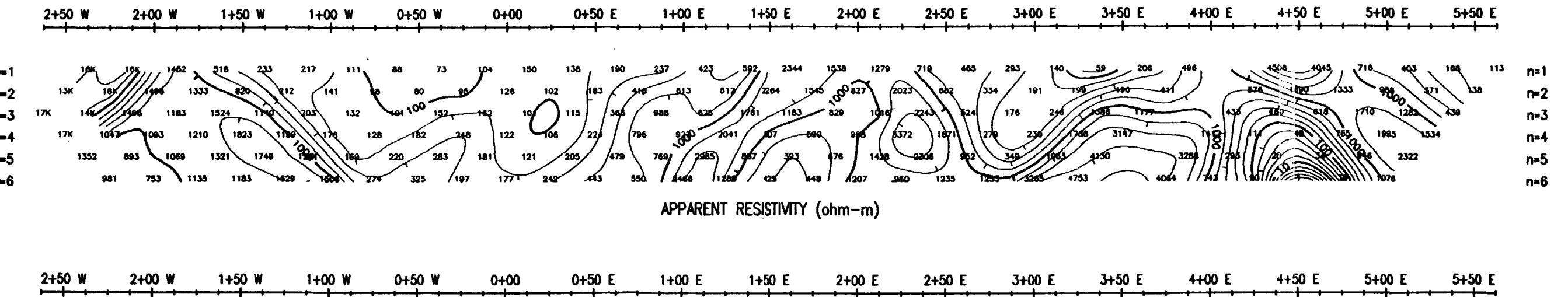
Induced Polarization Survey

Wabana Exploration Inc.

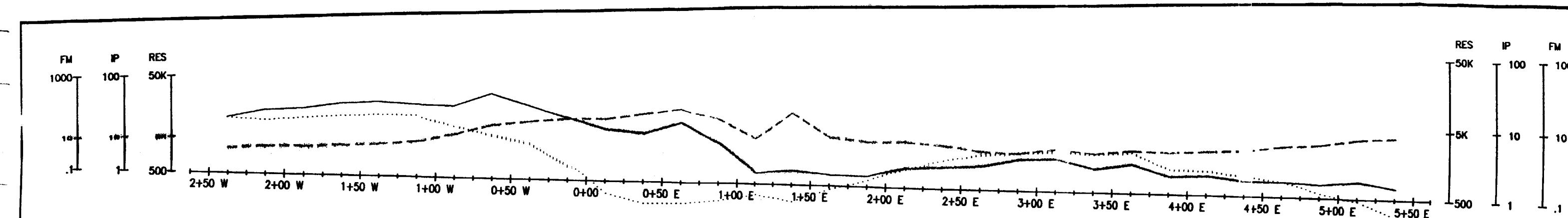
Gosselin Lake Project

**LINE 12+00 N**

31M04 SED032 2.7857 Cassettes

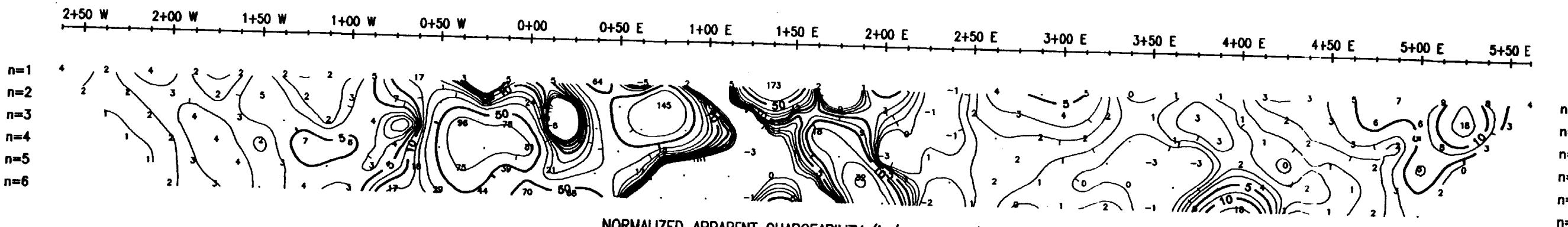


DATE 900315 CONTRACT Nb C 96113



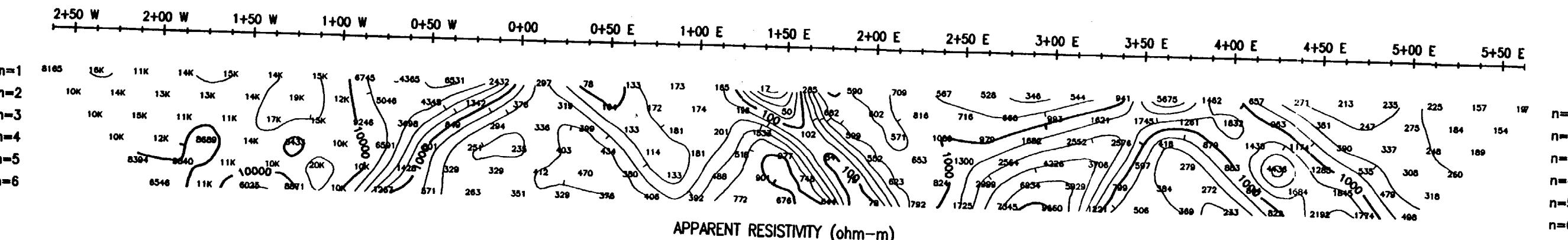
FILTERED VALUES

340

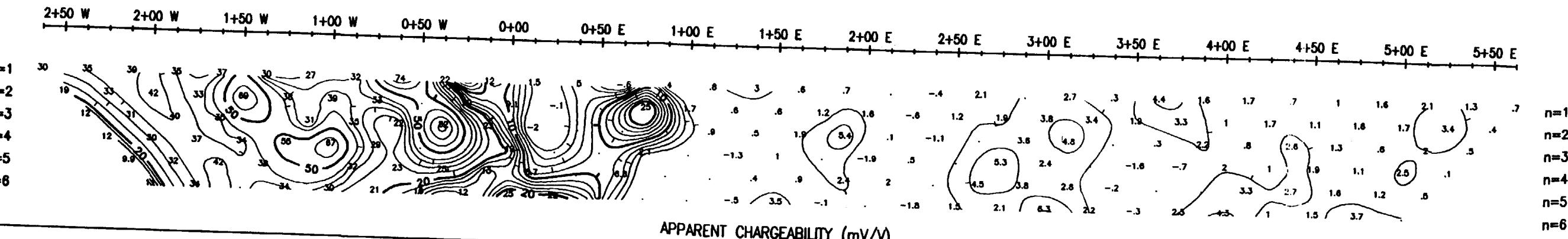


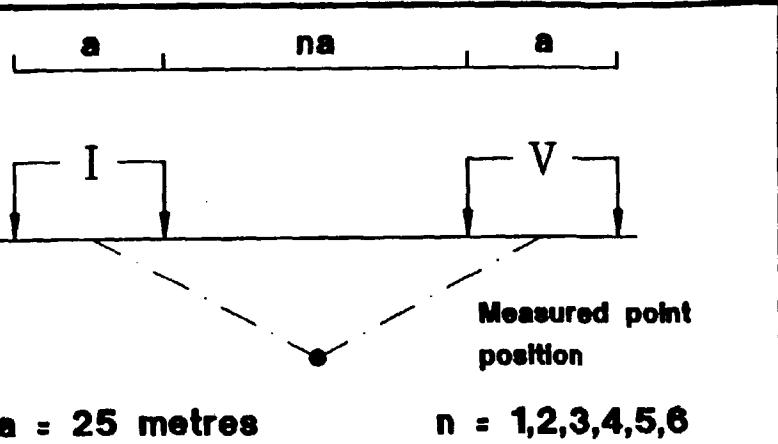
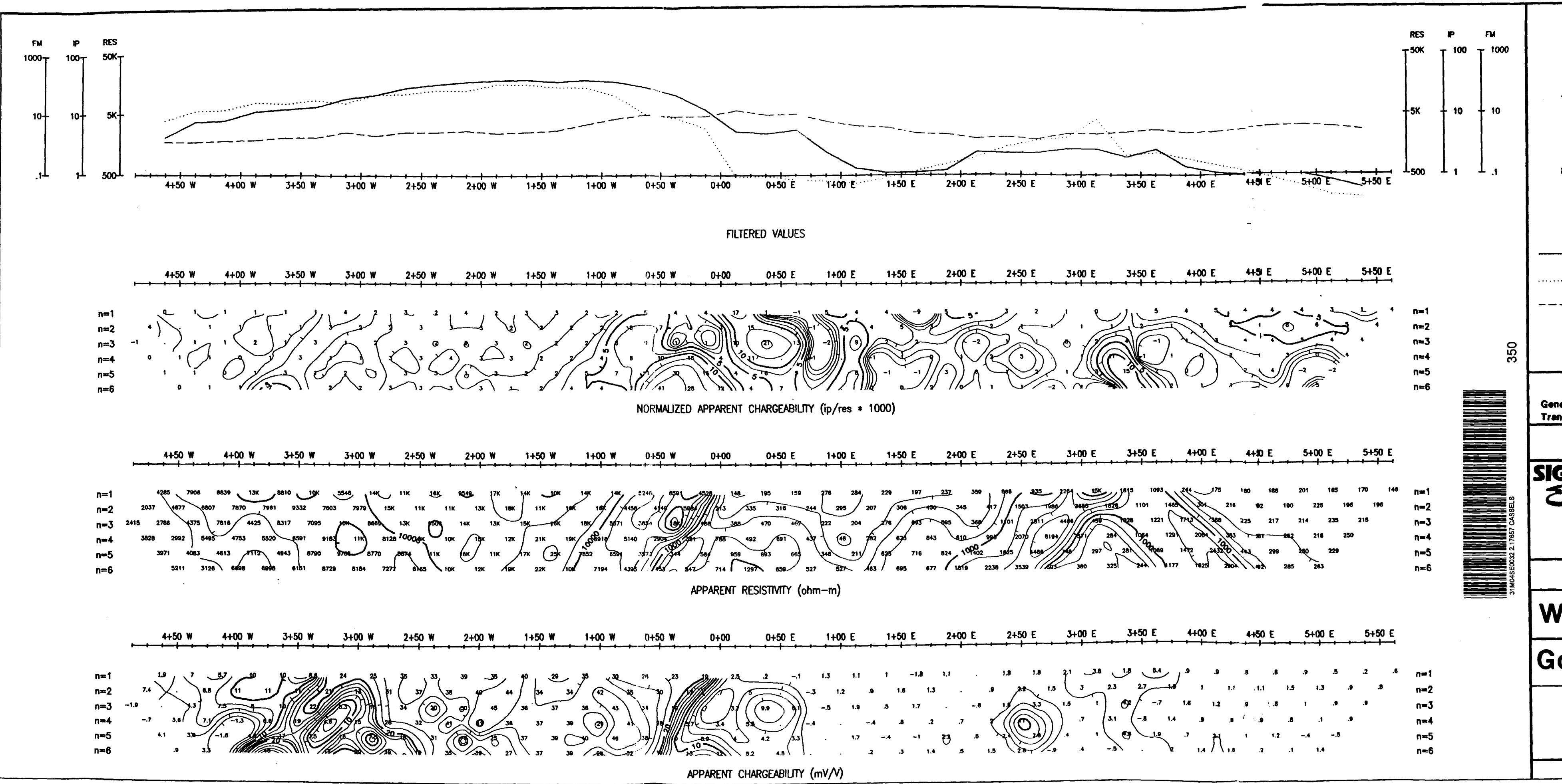
NORMALIZED APPARENT CHARGEABILITY (ip/res \* 1000)

31M04E0032 2.17567 Cassettes



APPARENT RESISTIVITY (ohm-m)





Profiles 65 γ

Filtered chargeability Filter

Filtered resistivity x x

Filtered Metal Factor x x x

#### EQUIPMENT

Generator: Phoenix MG-1  
Transmitter: Phoenix IPT-1

Receiver: EDA IP-6  
Electrodes: Stainless steel

SCALE: 1:2,500

SURVEY DATE: FEB-MARCH 1997

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GEOPHYSICS INC.

2101-F, rue Nobel  
Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994 Fax: (514) 922-0786

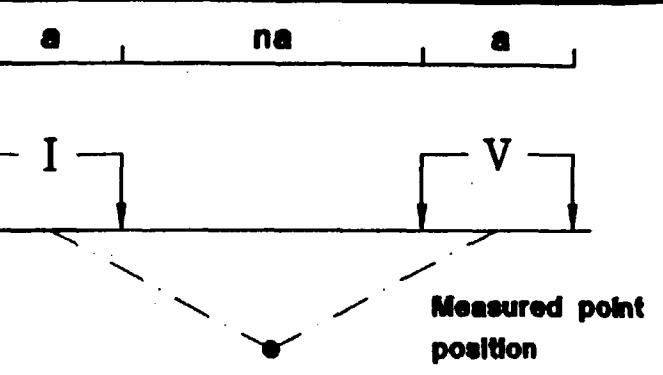
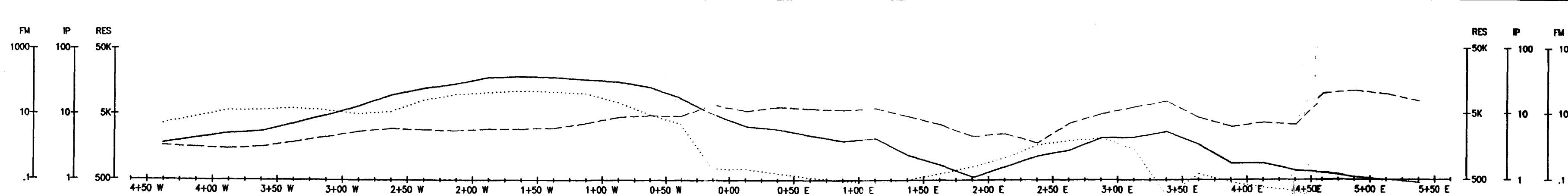
Induced Polarization Survey

Wabana Exploration Inc.

Gosselin Lake Project

LINE 10+50 N

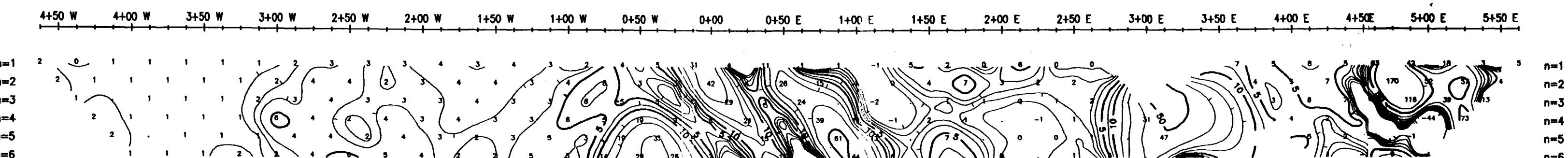
DATE 900315 CONTRACT Nb C 9611



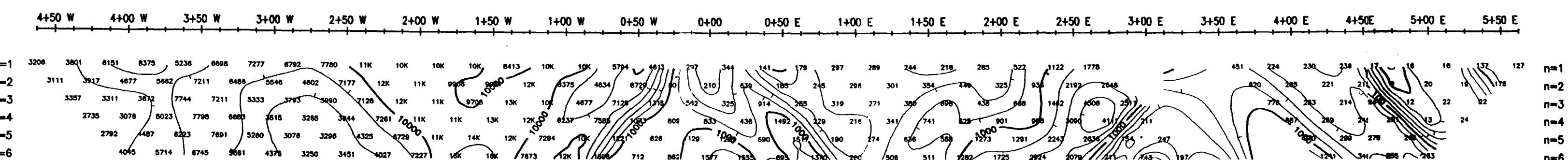
$a = 25 \text{ m}$   $n = 1, 2, 3, 4, 5, 6$

### Profiles:

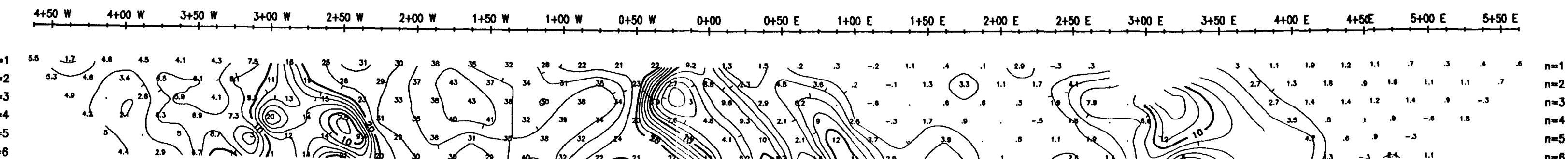
FILTERED VALUES



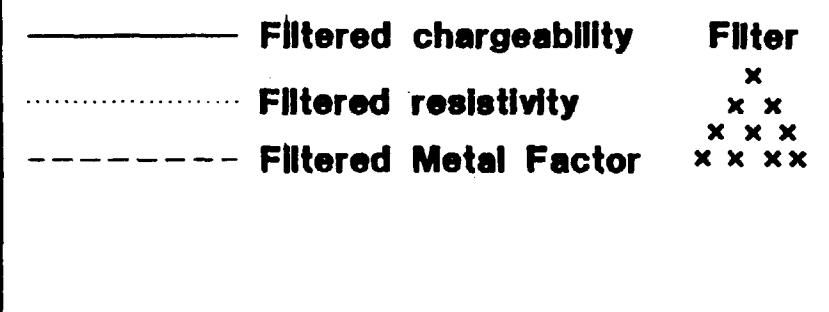
NORMALIZED APPARENT CHARGEABILITY ( $\text{ip}/\text{res} * 1000$ )



APPARENT RESISTIVITY ( $\text{ohm-m}$ )



APPARENT CHARGEABILITY ( $\text{mV/V}$ )



### EQUIPMENT

Generator :Phoenix MG-1  
Transmitter :Phoenix IPT-1  
Receiver :EDA IP-6  
Electrodes :Stainless steel

SCALE :1:2,500 SURVEY DATE :FEB-MARCH 1997

**SIGMA** **SIGMA**  
**GEOPHYSICS INC.**

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Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994 Fax: (514) 922-0786

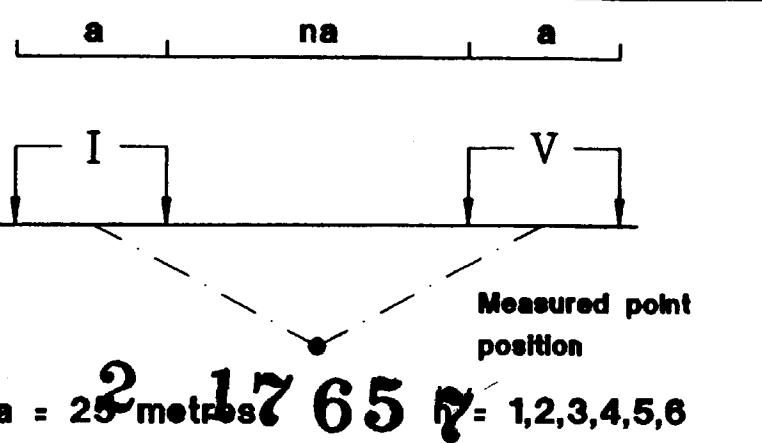
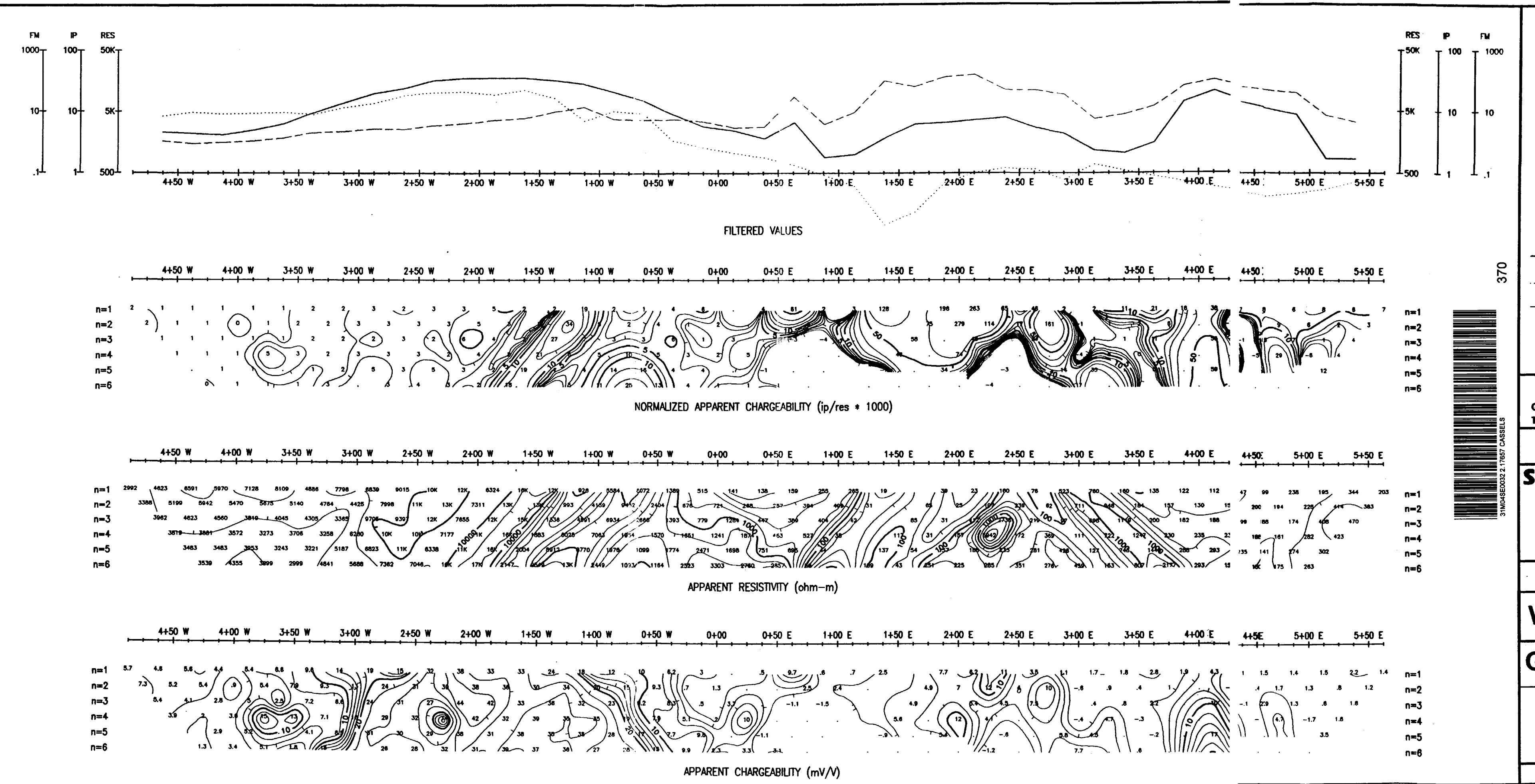
### Induced Polarization Survey

**Wabana Exploration Inc.**

**Gosselin Lake Project**

**LINE 10+00 N**

DATE 900315 CONTRACT Nb C 96113



### Profiles:

Filter

Filtered chargeability	x
Filtered resistivity	x x
Filtered Metal Factor	x x x

### EQUIPMENT

Generator: Phoenix MG-1    Receiver: EDA IP-6  
Transmitter: Phoenix IPT-1    Electrodes: Stainless steel

SCALE: 1:2,500    SURVEY DATE: FEB-MARCH 1997

**SIGMA** SIGMA  
GEOPHYSICS INC.  
2101-F, rue Nobel  
Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994    Fax: (514) 922-0786

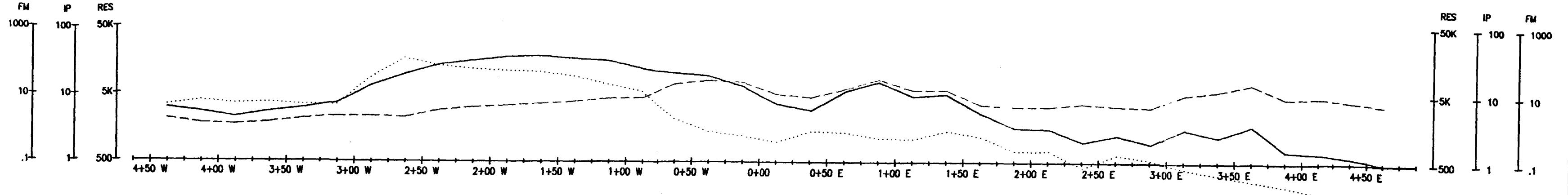
### Induced Polarization Survey

**Wabana Exploration Inc.**

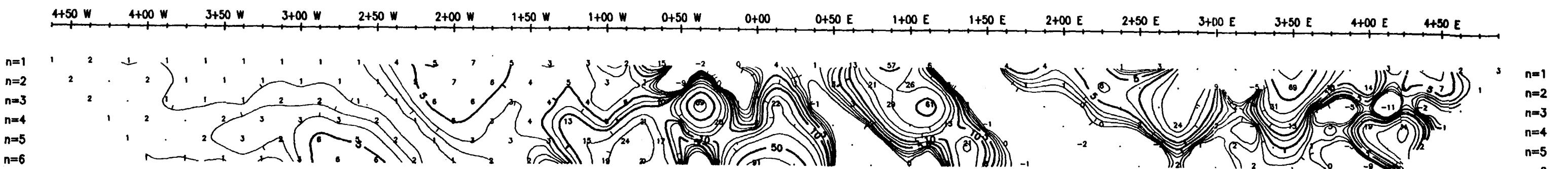
**Gosselin Lake Project**

**LINE 9+50 N**

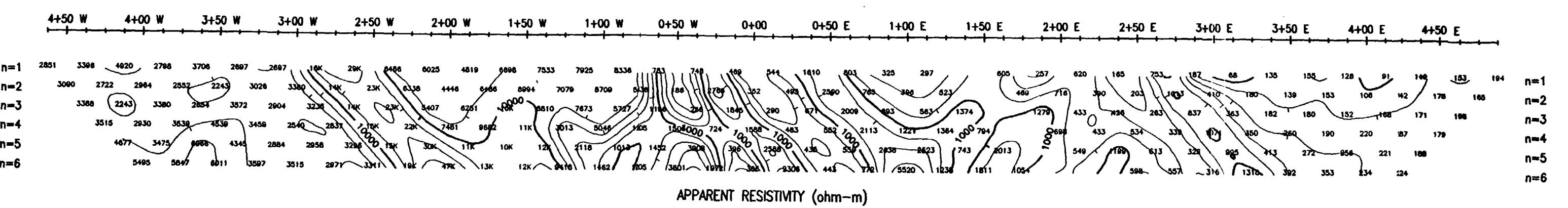
DATE 900315 CONTRACT Nb C 9611



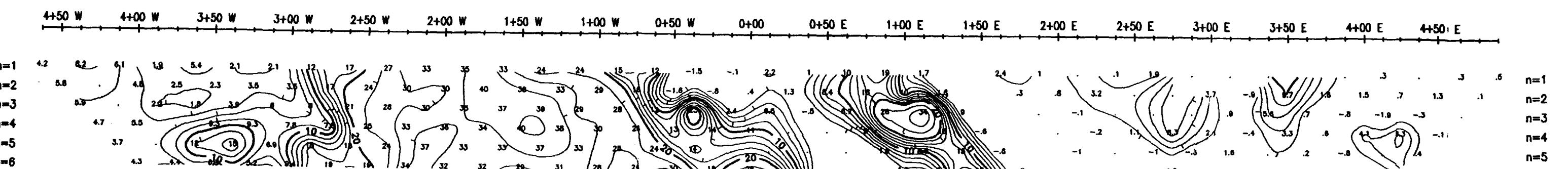
## ALTERED VALUES



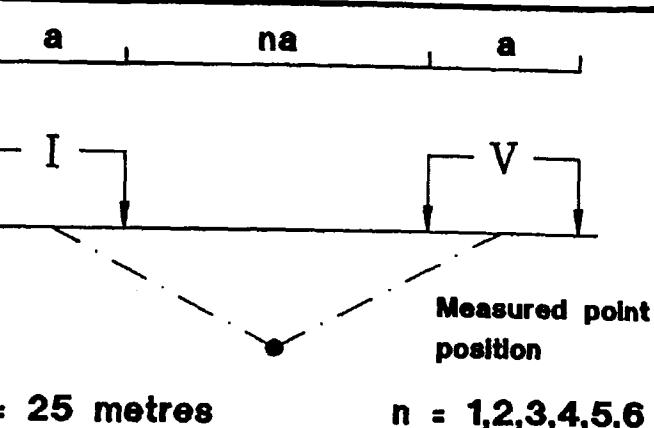
### LIZED APPARENT CHARGEABILITY (ip/res \* 1000)



### CURRENT RESISTIVITY (ohm-m)



### PARENT CHARGEABILITY (mV/V)



profiles 2.17657

**Filter**  
x

**ered Resistivity      x x**  
**ered Metal Factor    x x x x**

## **EQUIPMENT**

**Transmitter :Phoenix IPT-1      Receiver :EDA IP-6**  
**Antenna :Phoenix MG-1      Electrodes :Stainless steel**

**SURVEY DATE**  
**FEB-MARCH 1997**

**SIGMA**  
**GEOPHYSICS INC.**

1-F, rue Nobel  
Ste-Julie, QC J3E 1Z8  
Phone: (514) 922-0994 Fax: (514) 922-0

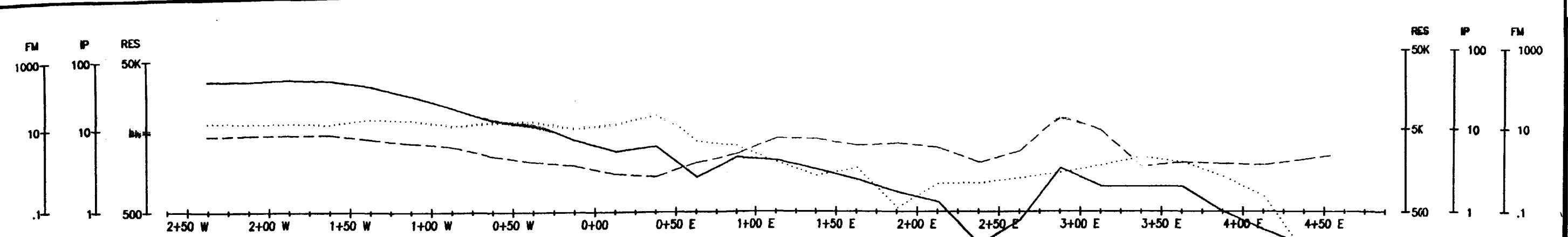
## **duced Polarization Survey**

# **abana Exploration Inc.**

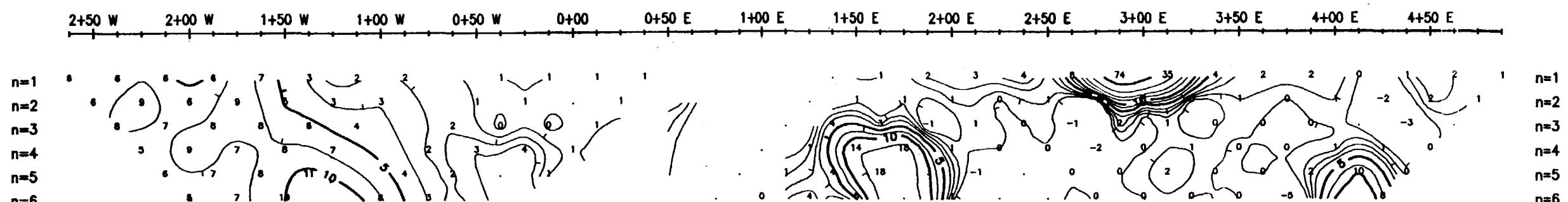
# **osselin Lake Project**

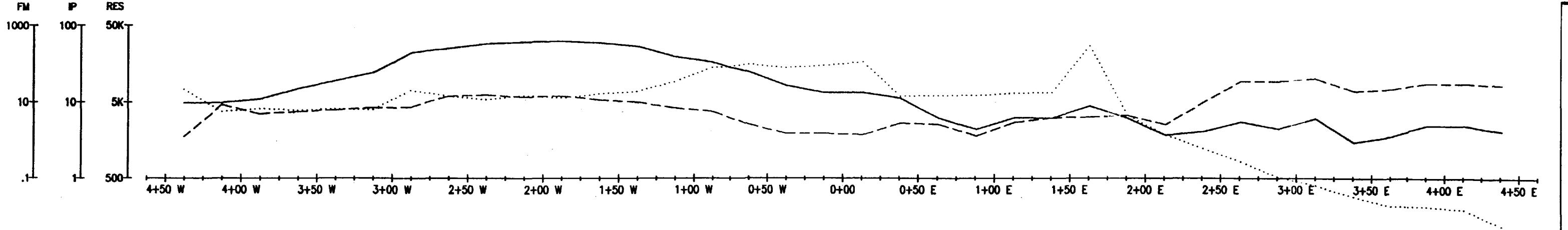
**LINE 9+00 N**

DATE 900315 CONTRACT N<sup>b</sup> C 96 1.13

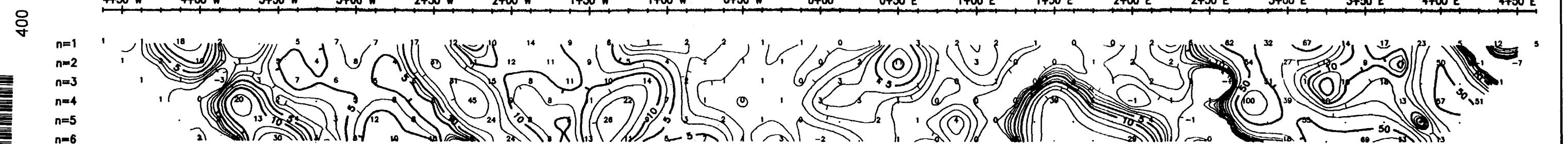


FILTERED VALUES

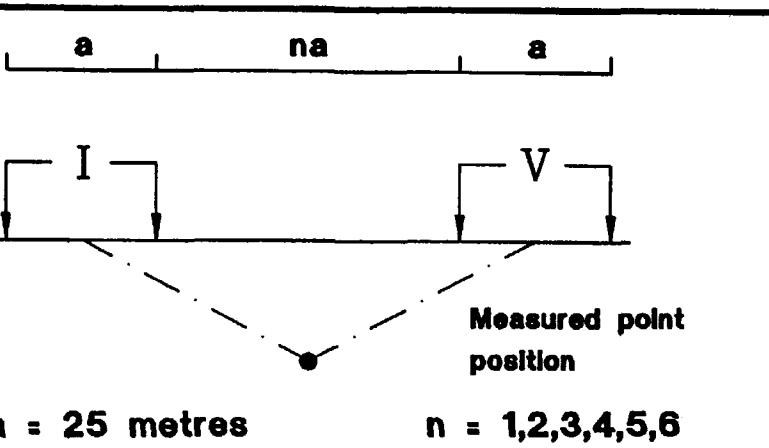
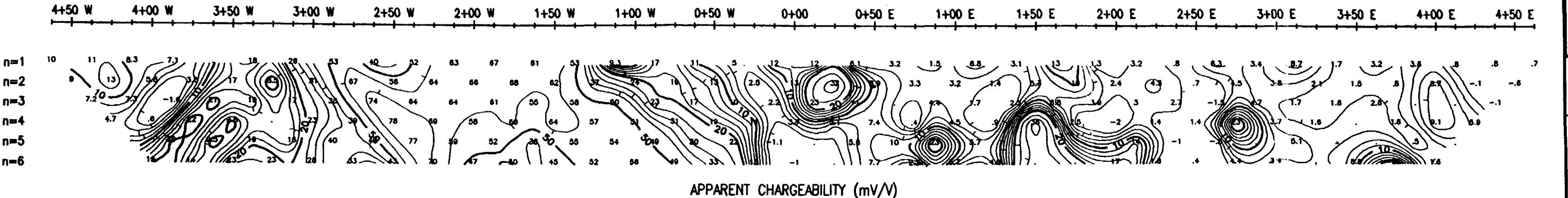
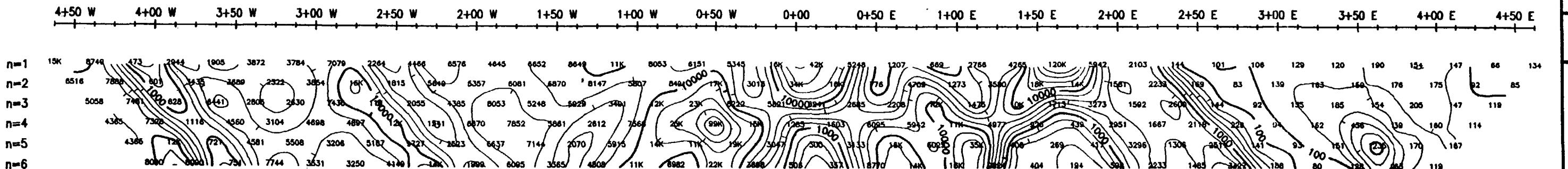




FILTERED VALUES



31M04SE0322.1755 CASSELS



Profiles: 17657

Filtered chargeability

Filter

Filtered resistivity

x x

Filtered Metal Factor

x x x x

#### EQUIPMENT

Generator :Phoenix MG-1	Receiver :EDA IP-6
Transmitter :Phoenix IPT-1	Electrodes:Stainless steel

SCALE

1:2,500

SURVEY DATE

FEB-MARCH 1997

**SIGMA**

**SIGMA  
GEOPHYSICS INC.**

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Sainte-Julie, QC J3E 1Z8  
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Induced Polarization Survey

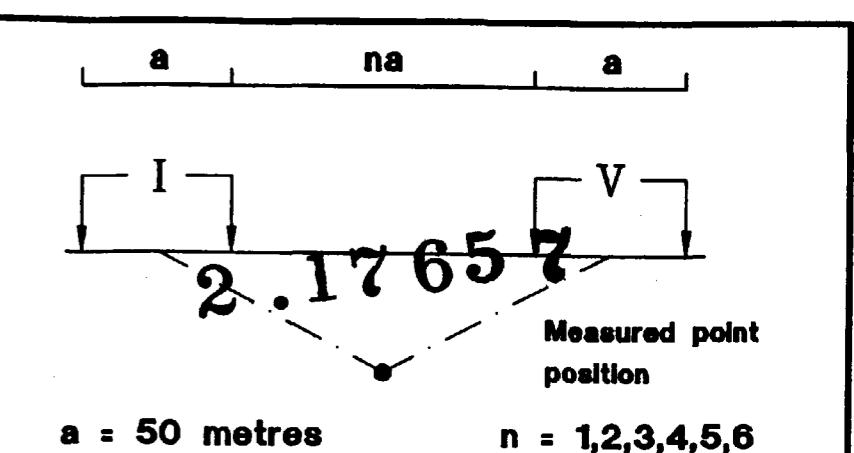
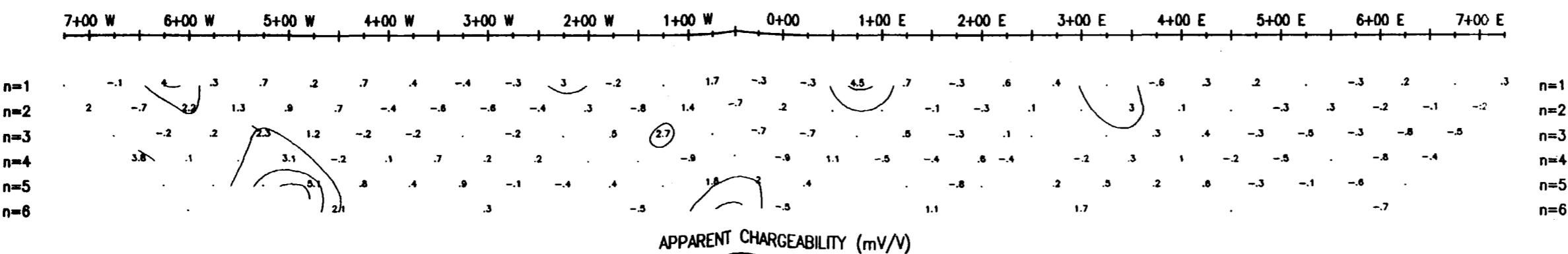
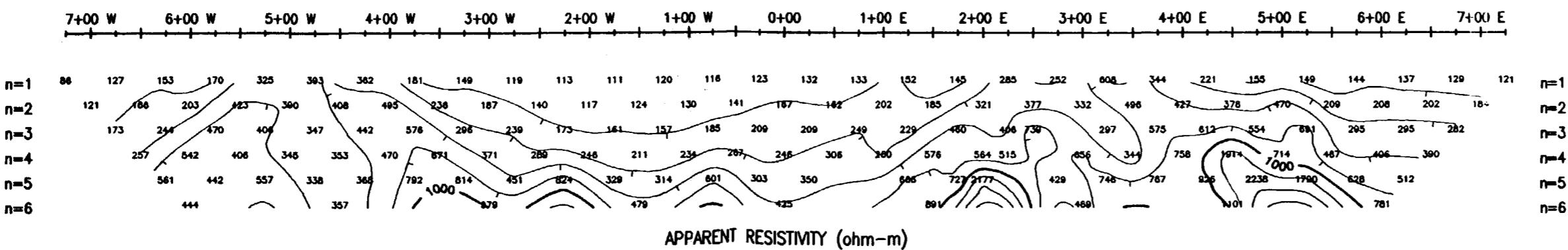
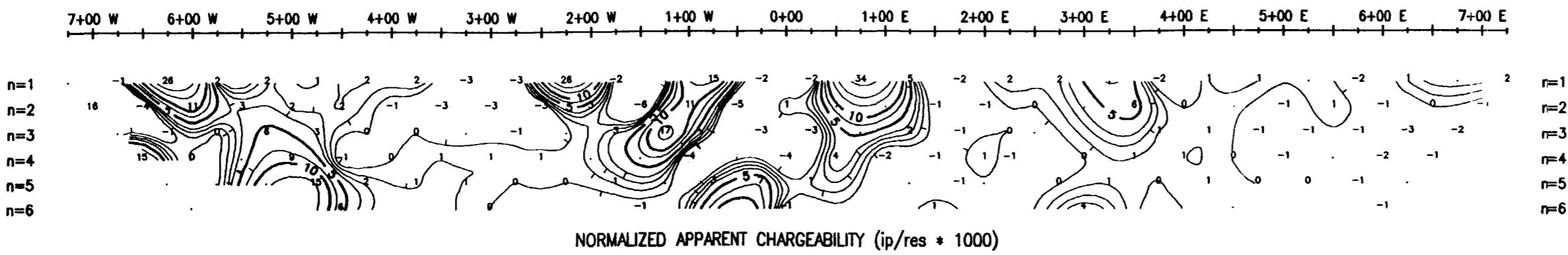
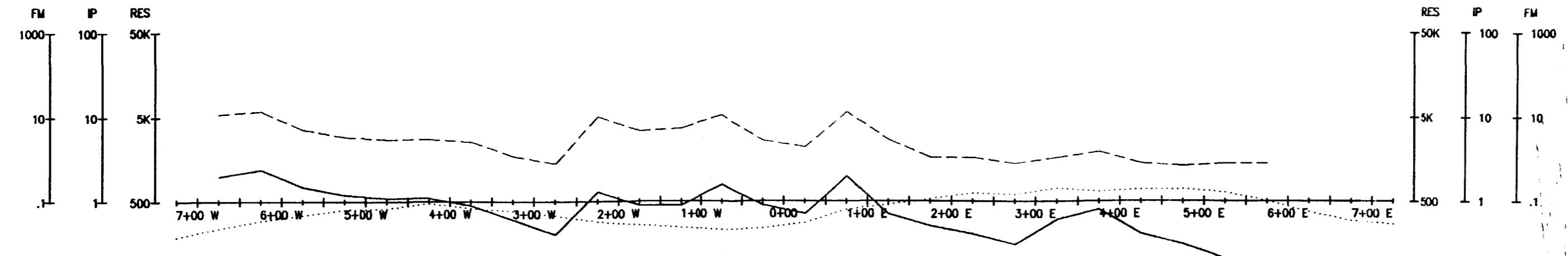
Wabana Exploration Inc.

Gosselin Lake Project

LINE 8+00 N

DATE 900315 CONTRACT Nb C 96113

410



## Profiles:

—	Filtered chargeability	Filter
···	Filtered resistivity	x x
- - -	Filtered Metal Factor	x x x x

## EQUIPMENT

Generator :Phoenix MG-1      Receiver :EDA IP-6  
Transmitter :Phoenix IPT-1      Electrodes :Stainless steel

SCALE	SURVEY DATE
1:5,000	FEB-MARCH 1997

**SIGMA** SIGMA  
GEOPHYSICS INC.  
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Sainte-Julie, QC J3E 1Z8  
Telephone: (514) 922-0994 Fax: (514) 922-0786

## Induced Polarization Survey

**Wabana Exploration Inc.**

**Gosselin Lake Project**

**LINE 2+00 N**