



32004NW0057 2.14315 GAUTHIER

010

INDUCED POLARIZATION SURVEY

THE ALBERTA GOLD CORP.

NORTHLAND GRID

Gauthier Twp.

P.Ontario.

November, 1987

2 . 1 4 3 1 5



32D04NW0057 2.14315 GAUTHIER

010C

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I- INTRODUCTION

During the fall of 1987, an induced polarization survey was undertaken on the Northland grid of Alberta Gold Corp., in an attempt to outline stratigraphic horizons of disseminated sulfides.

The survey was carried out within the framework of an extensive exploration program implemented to evaluate the gold-bearing potential of this particular area.

II- PROPERTY

The Alberta Gold Corp. property (Northland grid) consists of 11 claims straddling the central-western of Gauthier township, Ontario. The claims covered by the induced polarization survey are numbered as follows:

Northland Claims

561530	954489 <i>A.H.P.</i>
561531	917218
561532	917219
561533	919830
561534	919831
561535	

III- LOCATION & ACCESSIBILITY

The Northland grid is found in the central-western part of Gauthier township, approximately one mile southeast of Victoria Lake.

The property is located approximately (8) miles east of the town of Kirkland Lake, Ontario. On highway #66, then one mile north on the Esker Lakes Provincial Park access road.

IV- INDUCED POLARIZATION SURVEY

The dipole-dipole induced polarization survey was carried out over a 400'feets grid line system. The survey consists of 8 lines north-south (L-0 to L- 28W) and 4 lines east-west (TL-33N, BL., TL.14S, TL.23S) for a total of 12 lines (44,000') of survey.

The electrode interval was 200' feets and the voltage readings were taken from n=1 to n=4 at every 200'feets.

The .25 & 4.0 hertz frequencies were used during the survey. A Phoenix I.P.T-1 transmitter and I.P.V-1 receiver was used to Carry out the survey with a generator of 2.0 kw.

V- DATA PRESENTATION

The maps and pseudo-sections of the calculated apparent resistivities (ohm-Feet) and percentages of frequency effect are included in the book attached to this report.

Two sets of maps are included in the report:

- 1) Surface projection of the interpreted I.P. anomaly zones with resistivity  $N=4$ .
- 2) Contour lines of the frequency effect  $N=4$  projected on surface.

Finally, apparent resistivity, frequency effect and metal factor pseudo-sections are presented in this book.

VI- DISCUSSION & INTERPRETATION

The induced polarization method is mainly used to detect disseminated metallic sulfides. The frequency effect is derived from normalized different of apparent resistivities calculated at two different frequencies. The frequency effect anomaly intensity is related mainly to the total of disseminated sulfide

grains, the percentage of disseminated sulfides in the rock and sulfide grain size.

Numerous complex anomalous patterns have been observed from the obtained data. Examination of the sections reveals 4 anomalous zones.

Anomalous zone #1

Anomalous zone #1 runs from line 0 to line 16W. This conductor is along a fault zone east-west. Line 0 the conductor is narrow with a lower resistivity and a medium F.E. of about 2.0% the low resistivity is probably caused by the fault (24N to 26N). Line 4W is about the same as line 0, on 4W the conductor is situated at about 25N to 28N. Line 8W shows a wider zone of F.E. up to 4.0% with a lower resistivity between 24N to 28N good line for a drill test.

Line 12W and 16W very low resistivity down to 30 to 40 ohm-feet and F.E. up to 4.0 - 5.0 %. On both lines good conductivity and very wide zone of F.E.. Lines 12W and 16W are the best lines to drill this conductor #1. On 12W between 26N to 30N and on 16W between 26N to 28N center of the zone at 29N. First priority target.

Anomalous zone #2

Anomalous zone #2 shows only on 1 line (line 8W between 17N to 20N) lower resistivity at depth and an increase of F.E. of up to 3.4% n=3 and 4. Second priority target.

Anomalous zone #3

Anomalous zone #3 shows on only 1 line (line 16W between 6N to 8N) in a high resistivity zone with F.E. of about 3.8 to 4.0%. This zone is a third priority target.

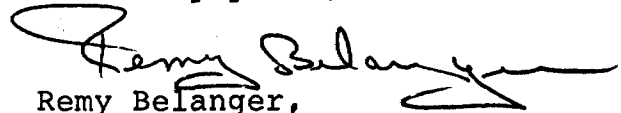
Anomalous zone #4

Anomalous zone # 4 from line 0 (8S to 12S) to TL.23S at 4W to 6W. Close to this zone there is a hydro line running north-south. This conductor seems to run north-south. I don't know if this conductor is caused by the hydro line, pipe underground or sulfides. This conductor show a good responses in F.E. up to 4.0% with a lower resistivity. A close look in the field around that area should help explain this conductor.

VII- CONCLUSIONS & RECOMMANDATIONS

Results of the induced polarization survey carried out over the Northland grid indicated 4 important anomalous horizons. The #1 zone appear to be related to specific geological formation such as mineralized fault or shear zones. Zone #4 need to be looked at surface for grounded hydro line or underground track.

Sincerely yours,

  
Remy Belanger,

Geophysical contractor. *Qualifications*  
2.10676

APPENDIX

INDUCED POLARIZATION SURVEY  
PREVIOUS EXPLORATION AND DEVELOPMENT WORK

The claim group is part of the Old Northland Gold Mines Ltd. which carried out underground work during 1922 to 1929.

Past work included drilling in 1944 by Kent Lake Gold Mines, some airborne work in 1968 by Satellite Metal Mines Ltd., further ground magnetics in 1983 by Jackson.

The most recent work has been an extensive program of geology - geophysics, geochem and diamond drilling by Perrons completed from 1982 to 1987. See Regional Geologists files in Kirkland Lake #KL-2234.

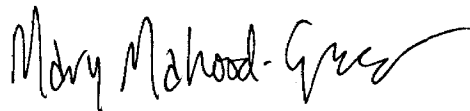
STATEMENT OF QUALIFICATIONS, DATE OF COMPLETION

This survey was performed under the direct supervision of Remy Belanger who has been working in his field for years as a professional consultant. These reports have been accepted by the Assessment Office in the past and while no certificate of record is available for this report, I trust it will be as acceptable as others have been in the past. The report was completed on November 10, 1987.

I trust this is the required information required to correspond with the report of work filed concerning the above noted township.

Yours truly,

PERRONS



Mary Mahood-Greer *Qual.*  
MMG/p 2 4529

C E R T I F I C A T E

I, Mary Mahood-Greer, of Kirkland Lake, Ontario, do hereby certify:

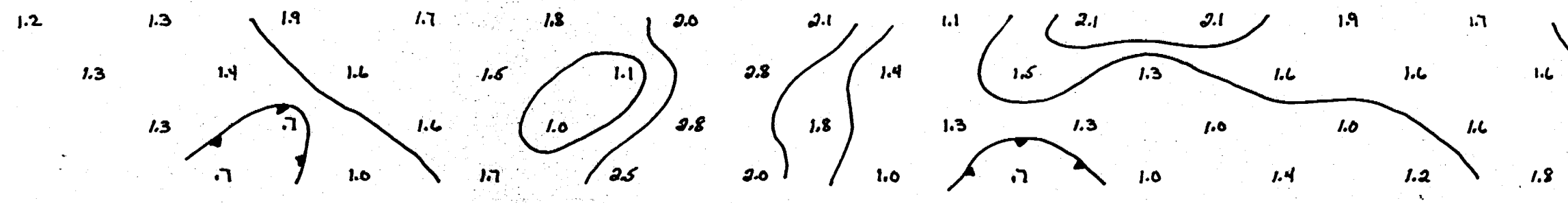
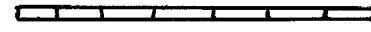
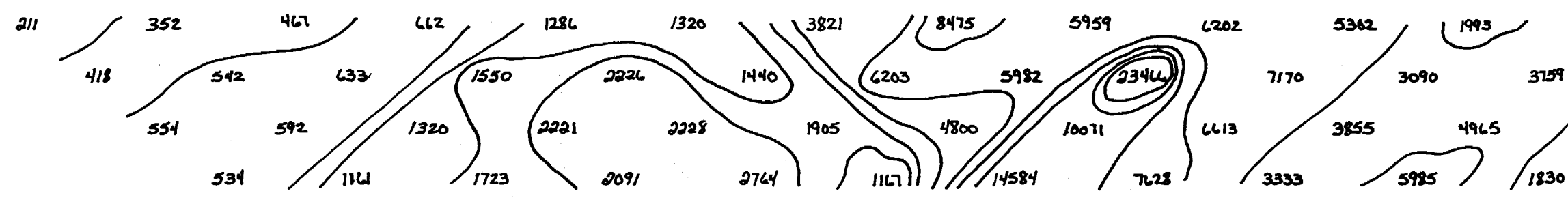
- 1) That I am a Geophysical Technician and reside at:  
50 Dixon Avenue, Kirkland Lake, Ontario P2N 3L1
- 2) That I graduated from Sir Sandford Fleming College at  
Lindsay, Ontario, in 1978, with a diploma as a Geological  
Technician.
- 3) That I have been continuously engaged in my profession for  
the past ten (10) years and I am qualified to write this  
report.
- 4) That I did not participate in this survey.

July 18, 1991  
Date

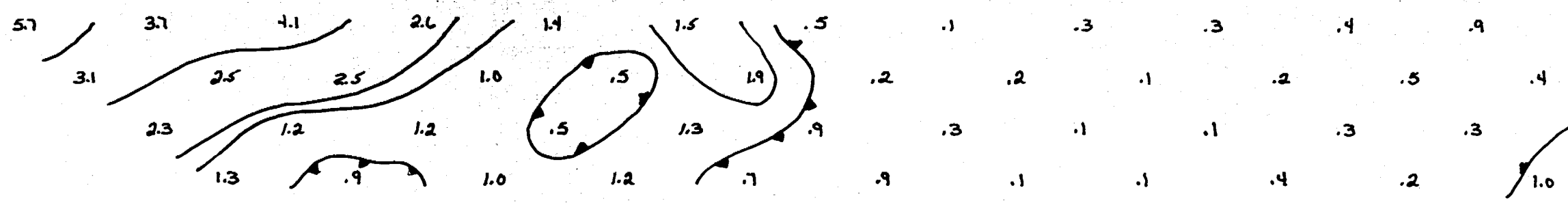
Mary Mahood-Greer  
Mary Mahood-Greer  
Geophysical Technician



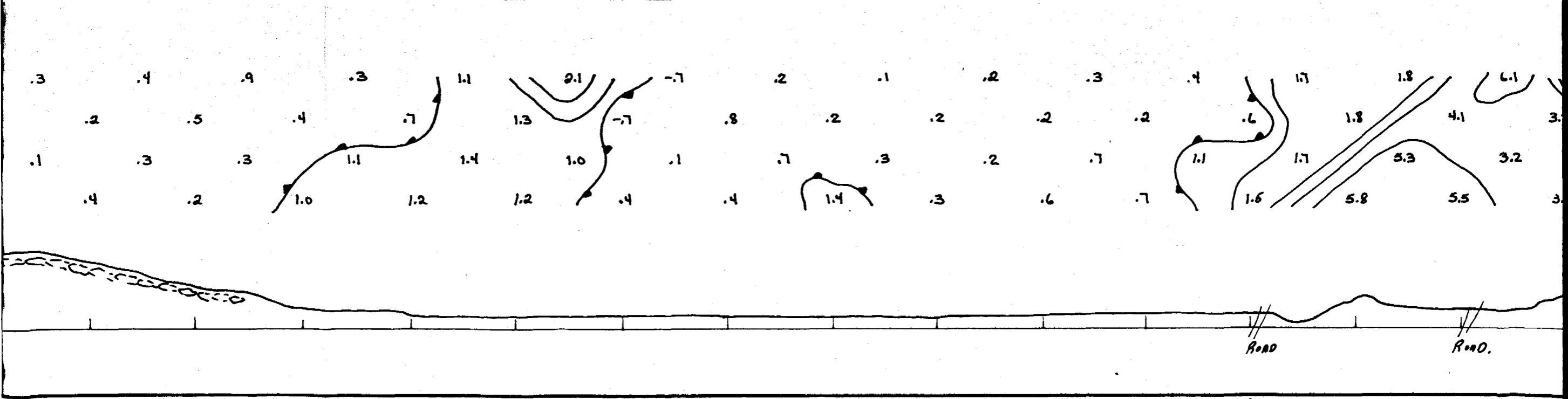
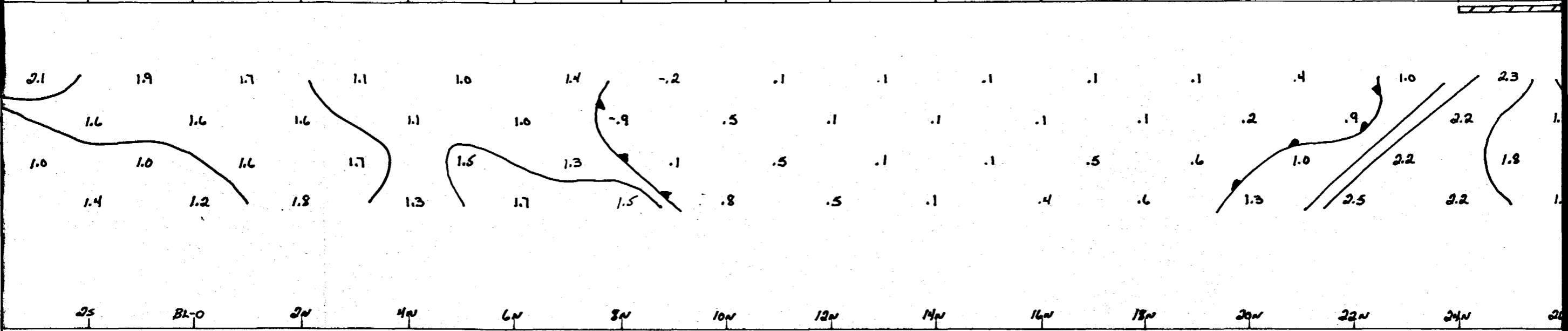
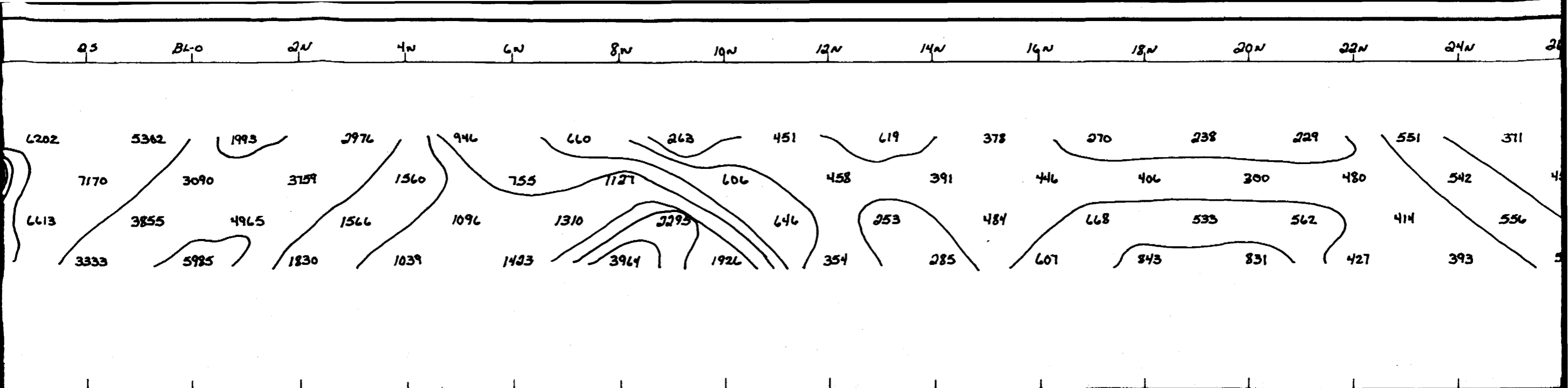
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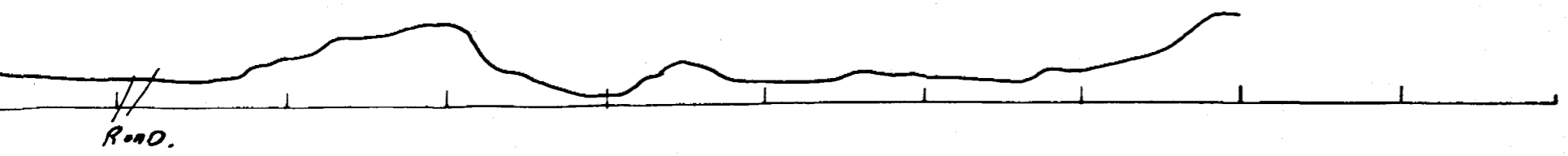
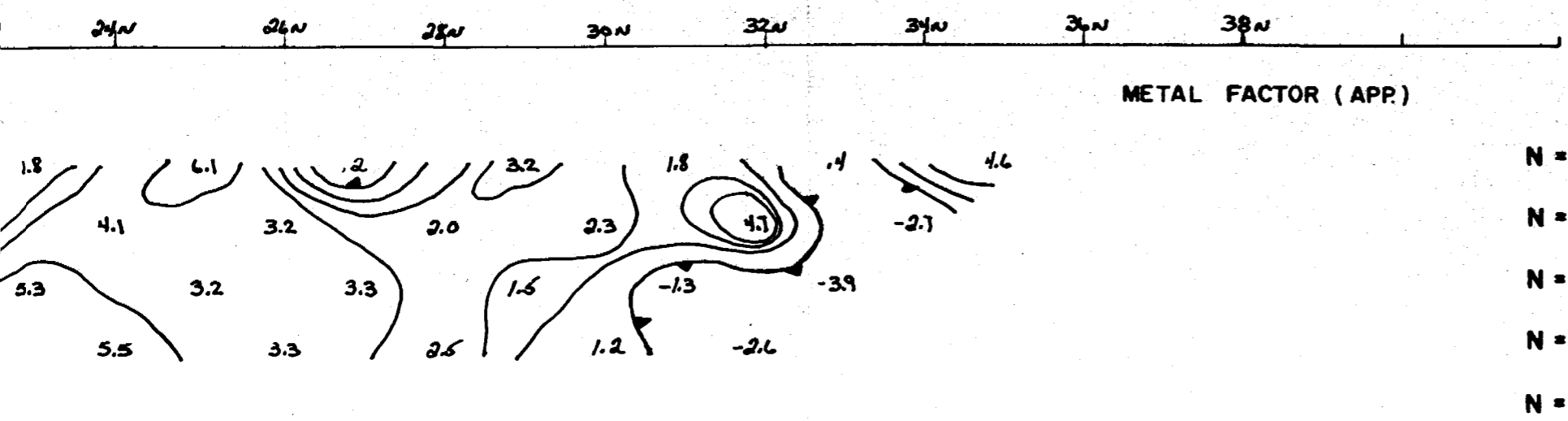
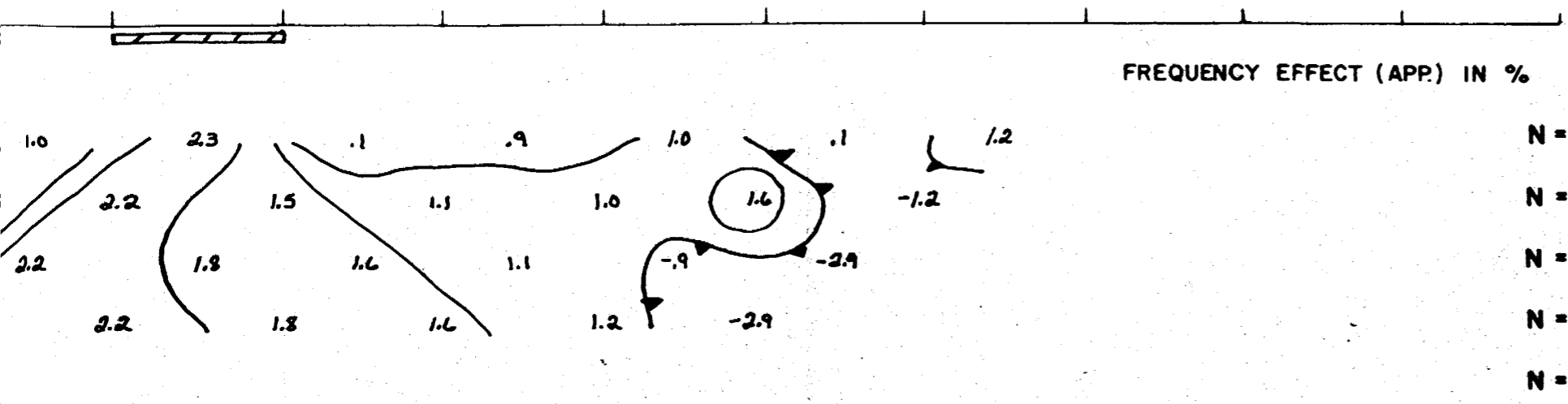
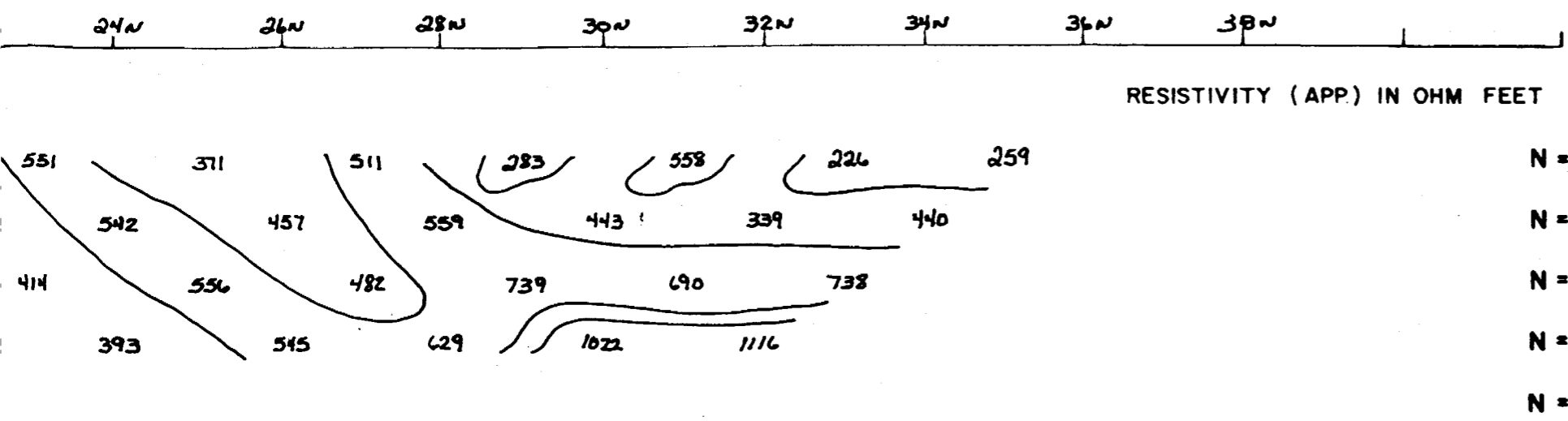


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ROAD



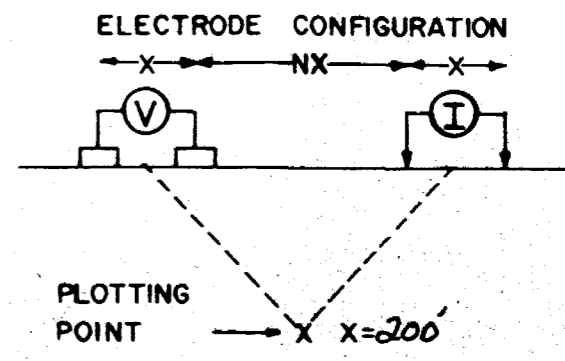


COMPANY: THE ALBERTA GOLD CORP

PROPERTY: NORTHLAND

MATHESON - ONTARIO

LINE NO. - 0



SURFACE PROJECTION OF ANOMALOUS ZONES

FREQUENCIES: 25 & 4.0 HZ

DEFINITE

PROBABLE

POSSIBLE

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT : PHOENIX IPV-1  
IPT-1

CONTRACTOR : REMY BELANGER ENRG.

DATE SURVEYED: OCT-15-18-1987

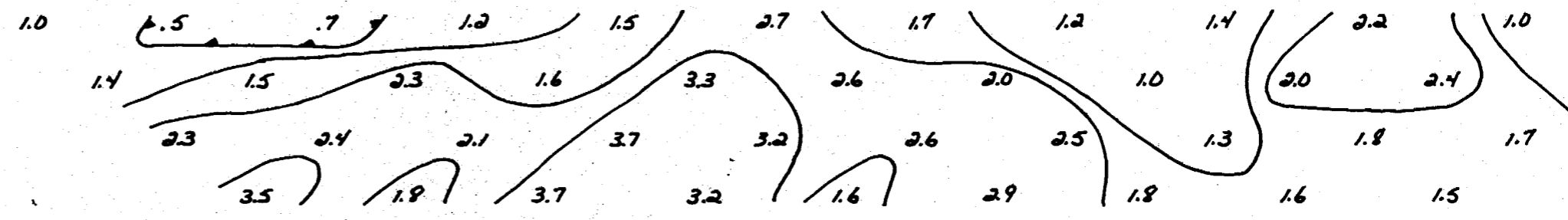
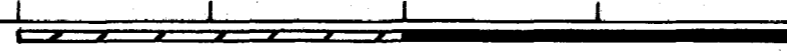
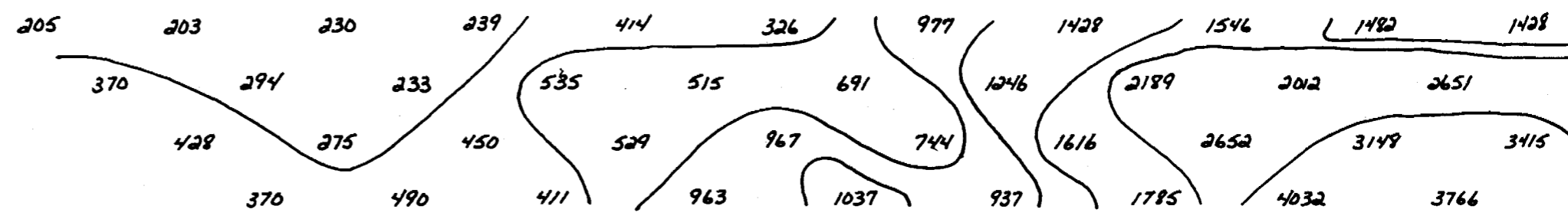
APPROVED: Remy Belanger

OPERATOR: PIERRE FAUBERT  
JEAN-GUY DUBÉ

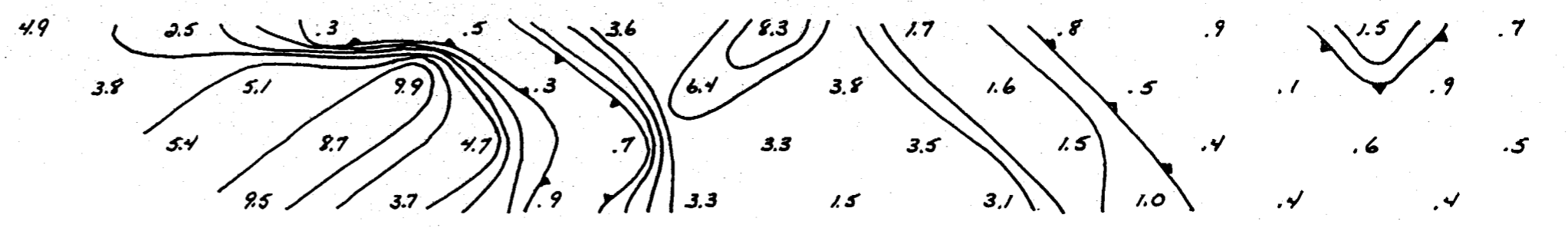
DATE: oct. 27-87

# INDUCED POLARIZATION AND RESISTIVITY SURVEY

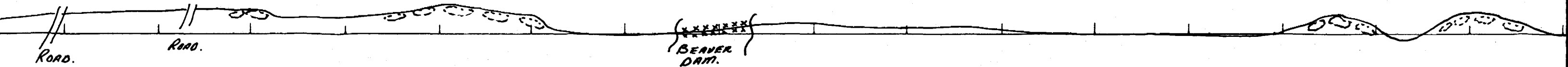
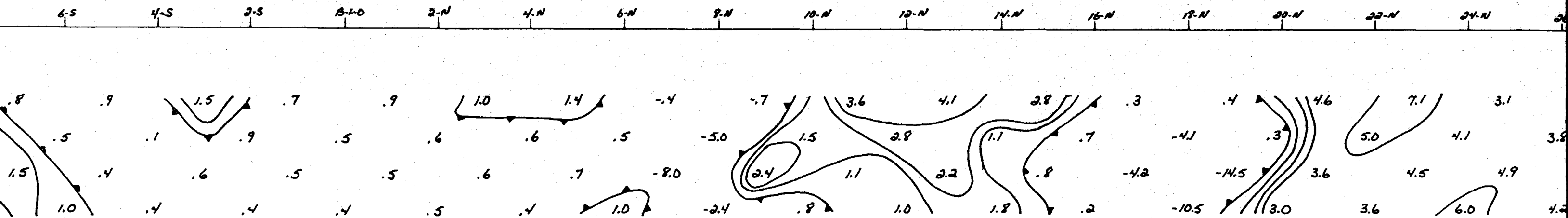
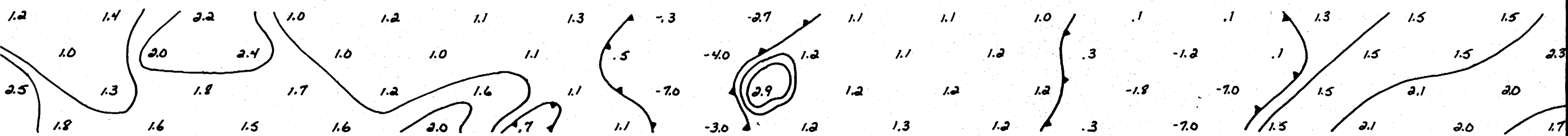
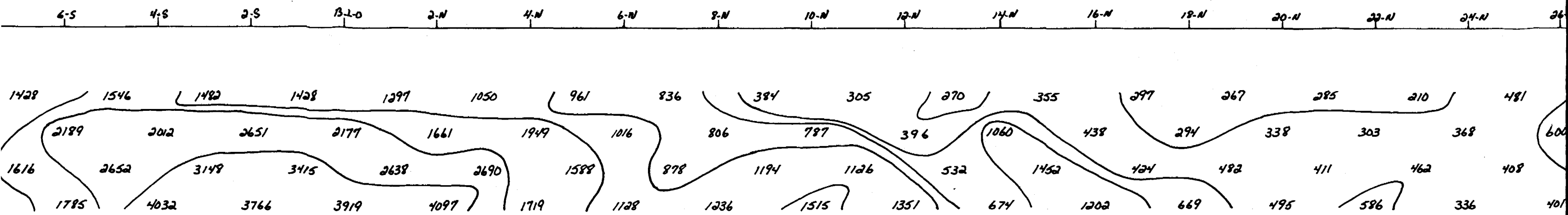
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24.5 22.5 20.5 18.5 16.5 14.5 12.5 10.5 8.5 6.5 4.5 2.5

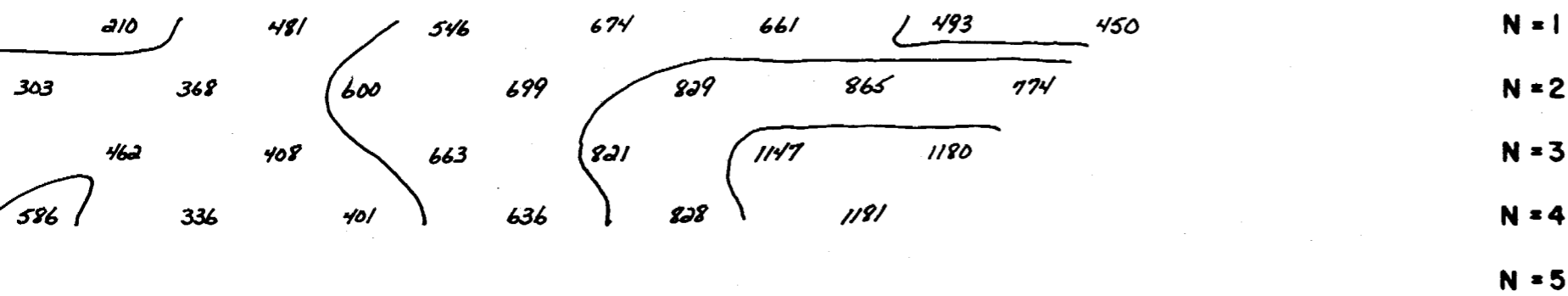


Road. Road.

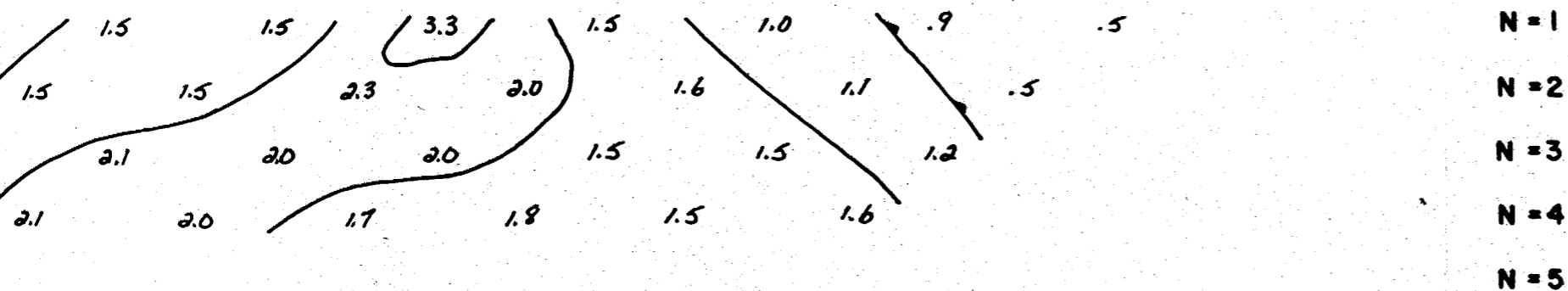


22-N 24-N 26-N 28-N 30-N 32-N 34-N 36-N 38-N

RESISTIVITY (APP.) IN OHM FEET

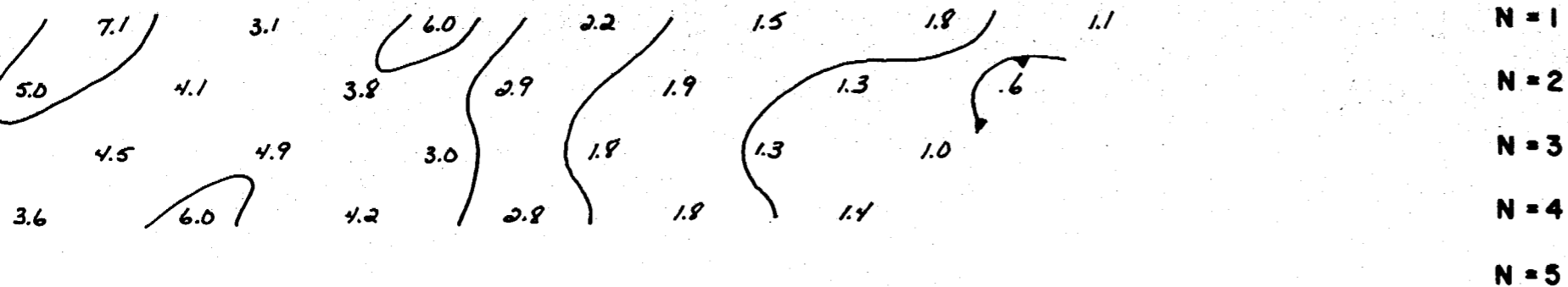


FREQUENCY EFFECT (APP.) IN %



22-N 24-N 26-N 28-N 30-N 32-N 34-N 36-N 38-N

METAL FACTOR (APP.)

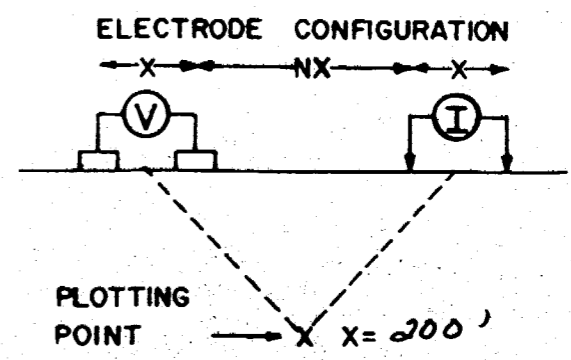


COMPANY: THE ALBERTA GOLD CORP.

PROPERTY: NORTHLAND

MATHESON - ONT.

LINE NO. - 4-W



SURFACE PROJECTION OF ANOMALOUS ZONES

FREQUENCIES: 25 & 40 HZ

DEFINITE

PROBABLE

POSSIBLE

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT : PHOENIX IPV-1  
IPT-1

CONTRACTOR : REMY BELANGER ENRG.

DATE SURVEYED:  
Oct - 15 - 18 - 1987

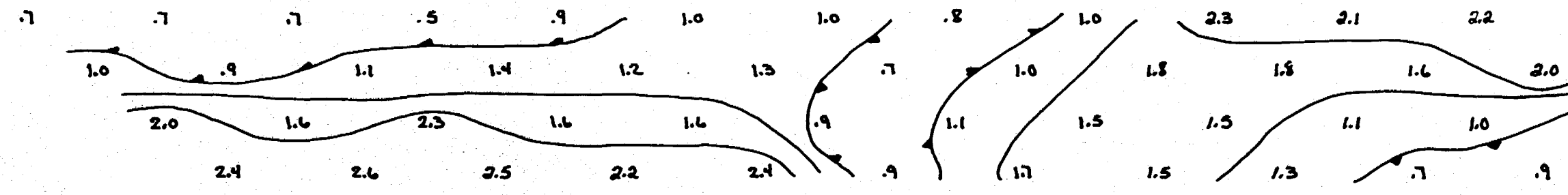
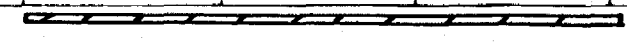
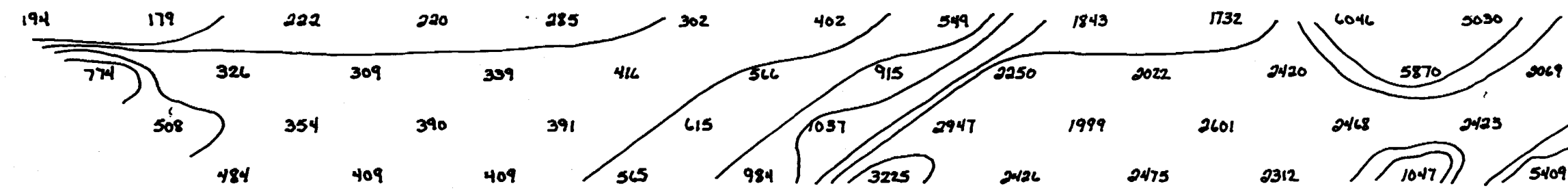
APPROVED:  
Remy Belanger

OPERATOR: JEAN-GUY DUBÉ  
PIERRE FAUBERT.

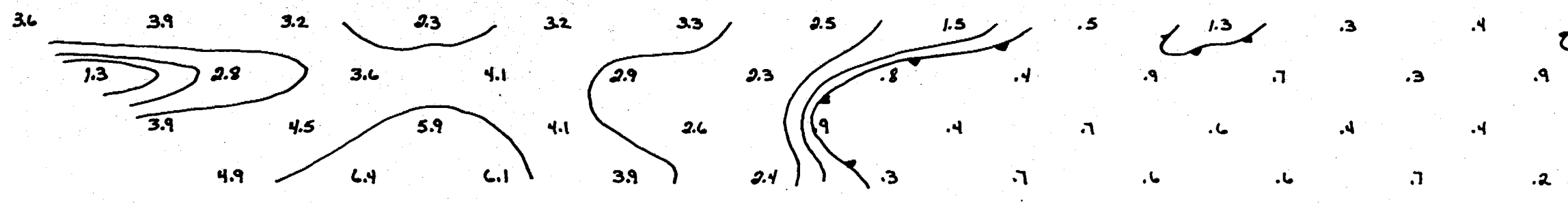
DATE: Oct. 27-87

# INDUCED POLARIZATION AND RESISTIVITY SURVEY

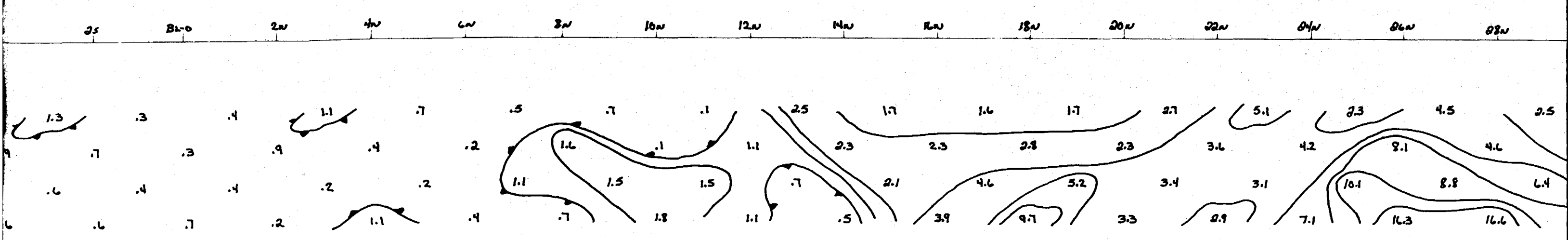
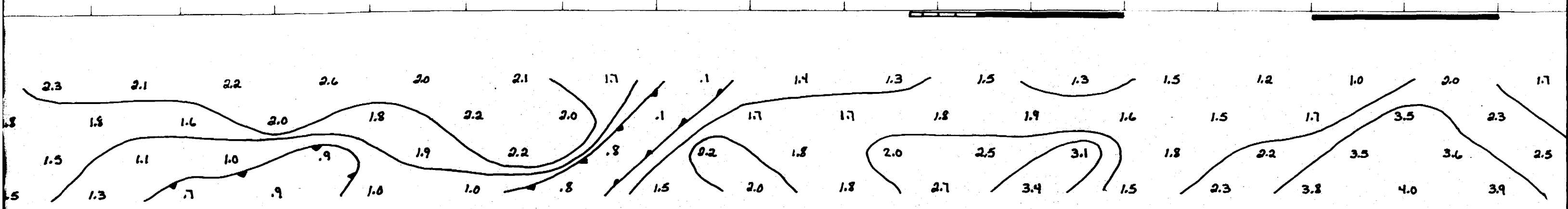
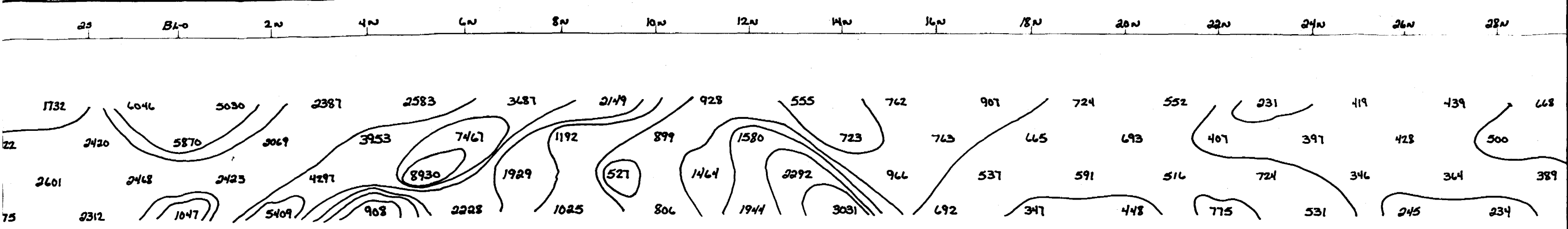
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245 225 205 185 165 145 125 105 85 65 45 25 B1-0 20



ROAD



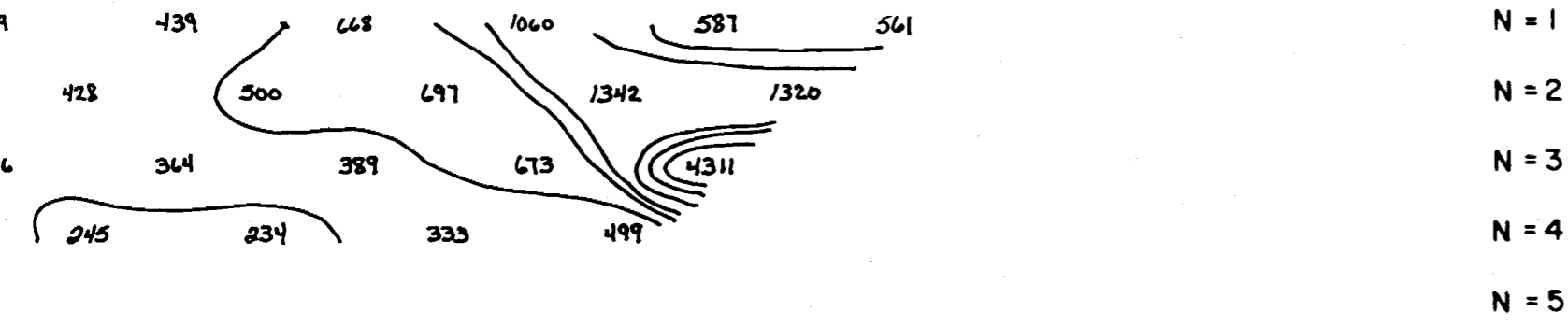
ROAD

BEAVER POND

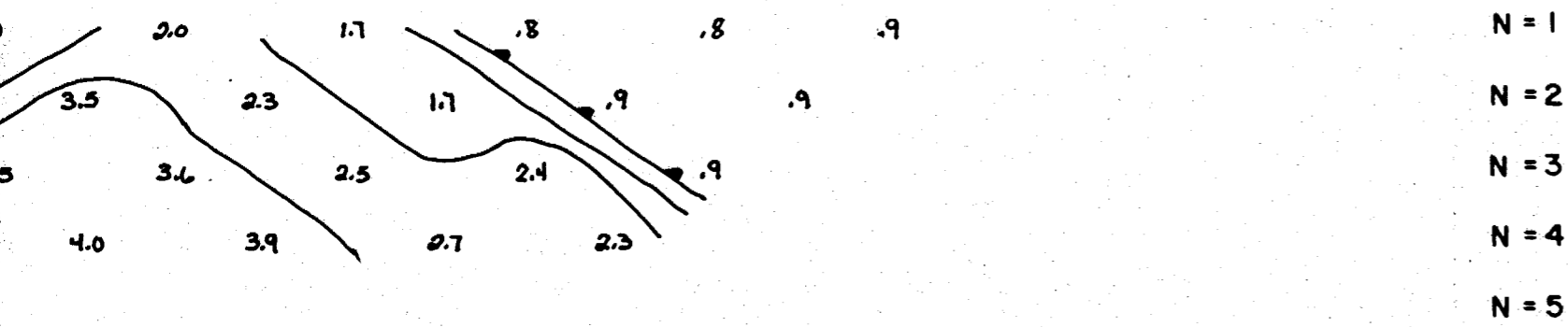


26N 28N 30N 32N 34N 36N 38N

RESISTIVITY (APP) IN OHM FEET

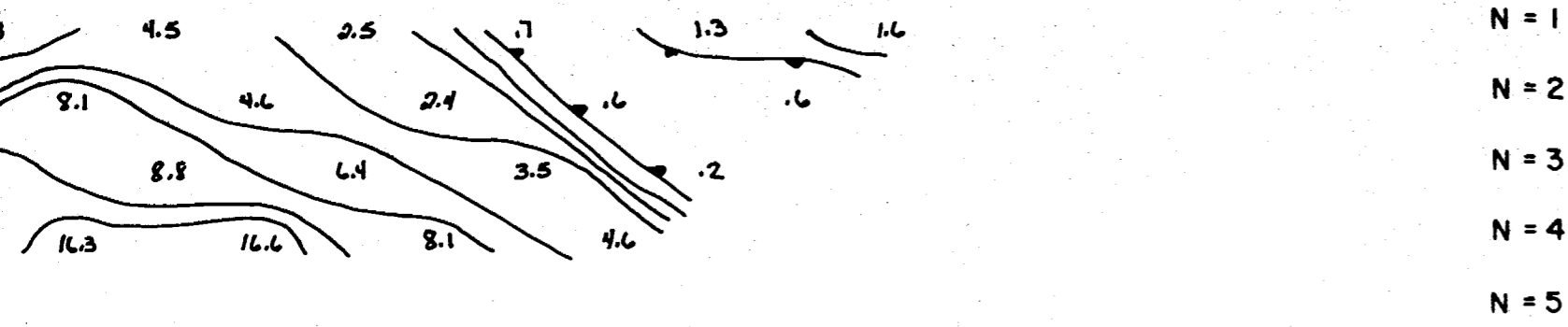


FREQUENCY EFFECT (APP) IN %



26N 28N 30N 32N 34N 36N 38N

METAL FACTOR (APP)



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N = 2  
N = 3  
N = 4  
N = 5

N = 1  
N = 2  
N = 3  
N = 4  
N = 5

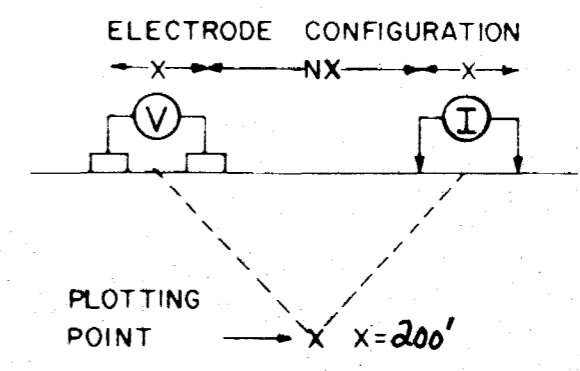
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N = 2  
N = 3  
N = 4  
N = 5

COMPANY: THE ALBERTA GOLD CORP.

PROPERTY: NORTHLAND

MATHESON ONT.

LINE NO - 8-W-



SURFACE PROJECTION OF ANOMALOUS ZONES

FREQUENCIES: 25 # 4.0 HZ

DEFINITE **————**  
 PROBABLE **|||||**  
 POSSIBLE **////**

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT PHOENIX IPV-1 IPT-1

CONTRACTOR REMY BELANGER ENRG.

DATE SURVEYED OCT-15-18-1987

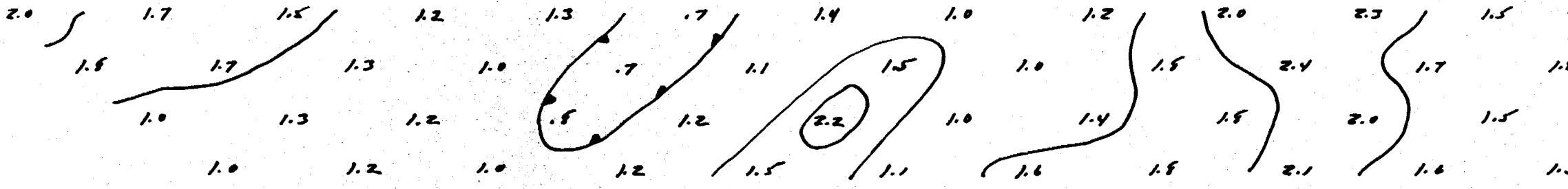
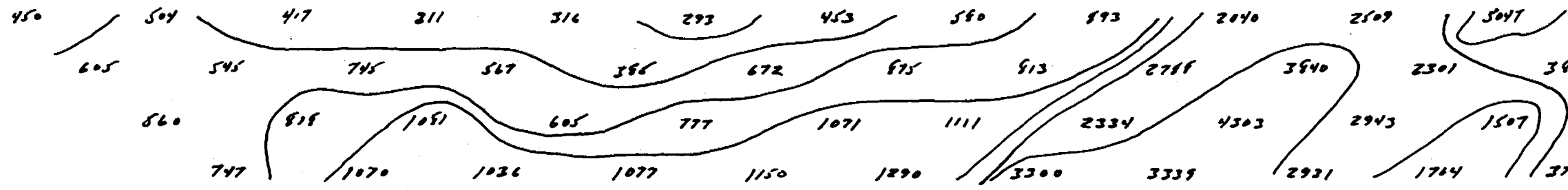
APPROVED Remy Belanger

OPERATOR PIERRE FAUBERT  
JEAN-GUY DUBÉ

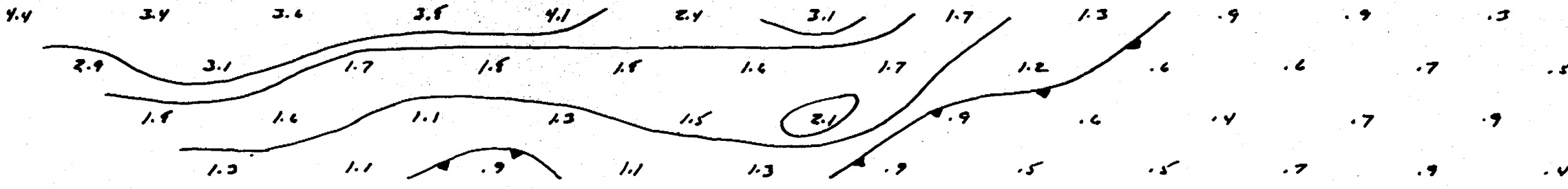
DATE oct. 26-87

# INDUCED POLARIZATION AND RESISTIVITY SURVEY

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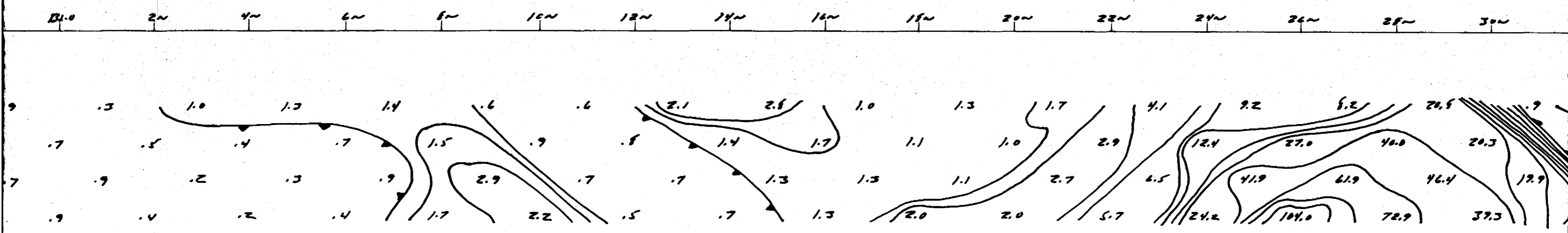
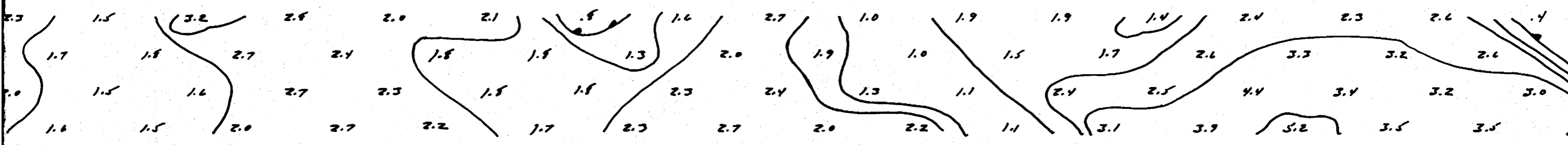
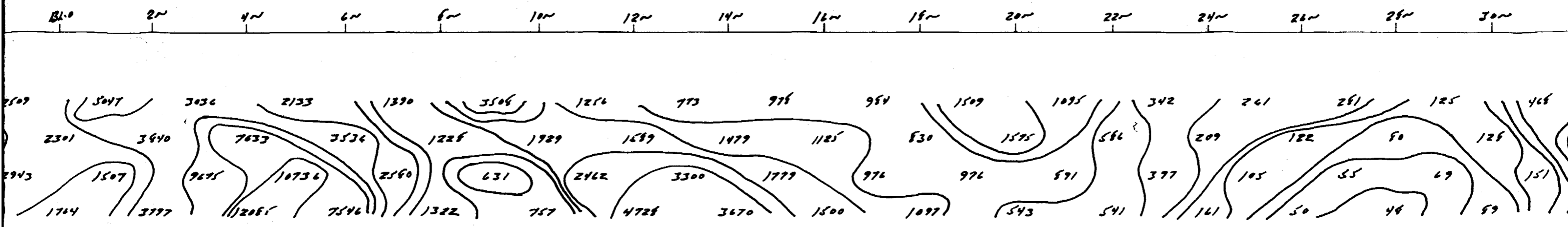


245 225 205 185 165 145 125 105 85 65 45 25 21.0 2



FLAT

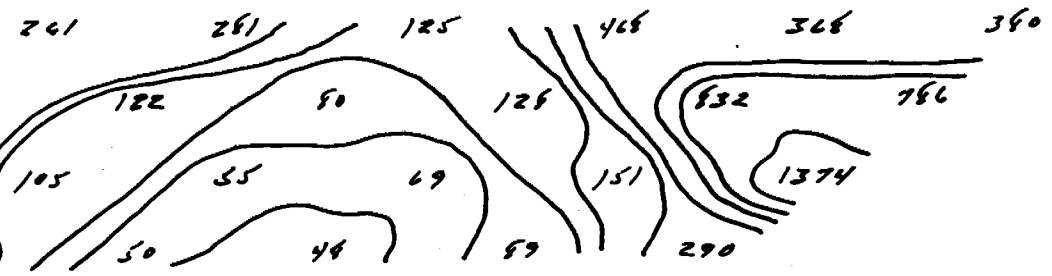
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S.M.D.

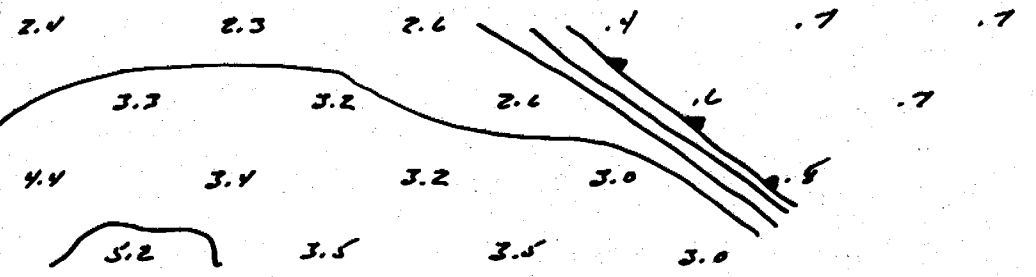
26W 28W 30W 32W 34W 36W 38W

RESISTIVITY (APP) IN OHM FEET



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N=3  
N=4  
N=5

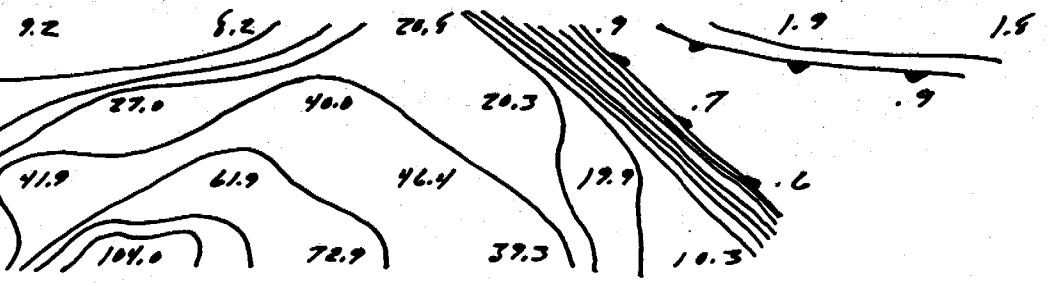
FREQUENCY EFFECT (APP) IN %



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N=4  
N=5

26W 28W 30W 32W 34W 36W 38W

METAL FACTOR (APP)



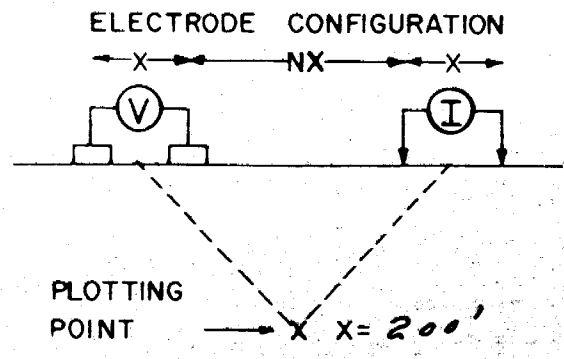
N=1  
N=2  
N=3  
N=4  
N=5

COMPANY: THE ALBERTA GOLD CORP.

PROPERTY: NORTHLAND

MATHESON ONT.

LINE NO. - 12-W



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE   
PROBABLE   
POSSIBLE

FREQUENCIES: 25 & 40 Hz

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT : PHOENIX IPV-1 IPT-1

CONTRACTOR : REMY BELANGER ENRG.

DATE SURVEYED: OCT-14-18-1987

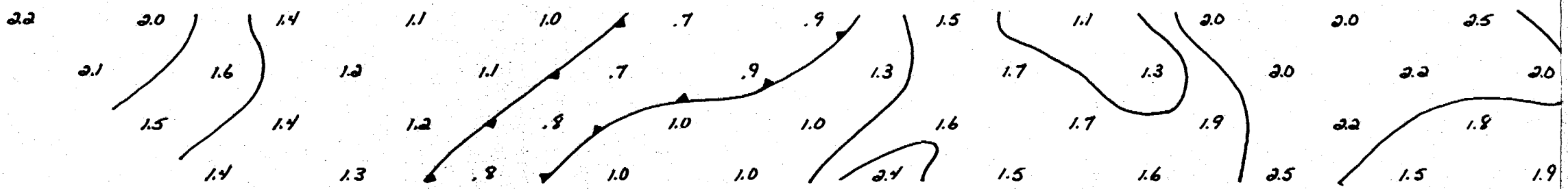
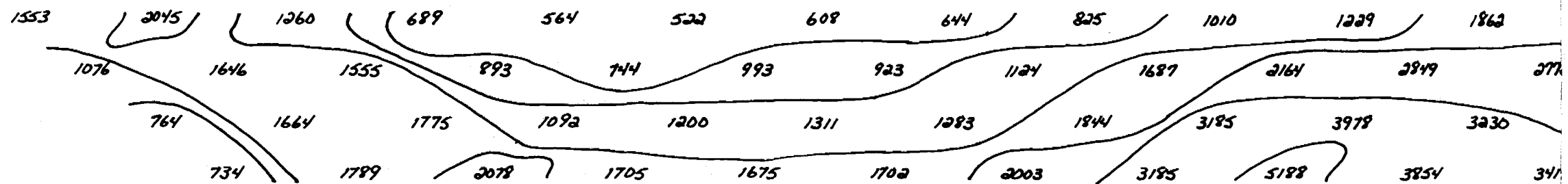
APPROVED: Remy Belanger

OPERATOR: PIERRE FAUBERT  
JEAN GUY PUBE'

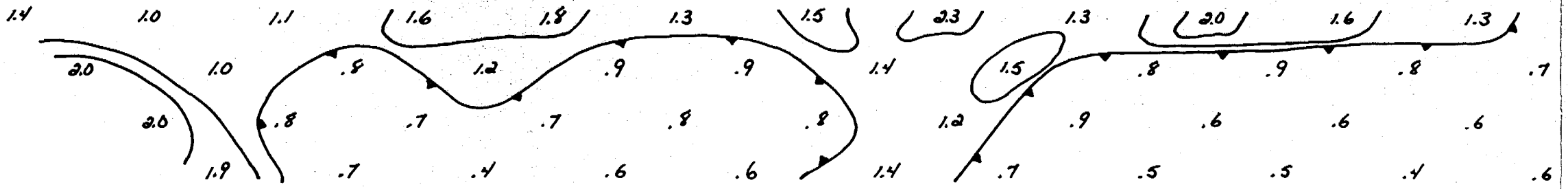
DATE: Oct. 26. 87

# INDUCED POLARIZATION AND RESISTIVITY SURVEY

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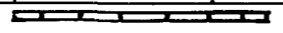


24.5 22.5 20.5 18.5 16.5 14.5 12.5 10.5 9.5 6.5 4.5 2.5 13-10 2.4



ROAD.

2.5 3.0 4.0 5.0 6.0 8.0 10.0 12.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0



2.5 3.0 4.0 5.0 6.0 8.0 10.0 12.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0



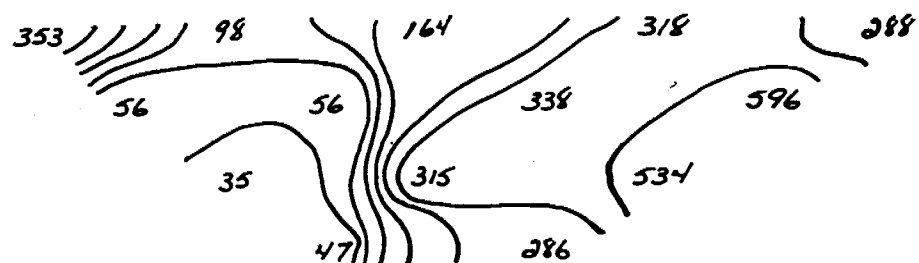
ROAD.

ROAD.

ETC

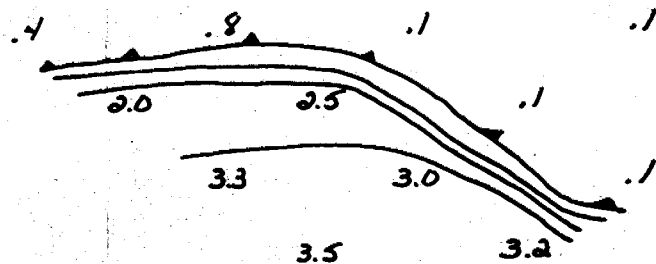
1-N 26-N 5-S 28-N 3-S 30-N 1-S 32-N 1-N 34-N 3-N 36-N 5-N 38-N

RESISTIVITY (APP) IN OHM FEET



N = 1  
N = 2  
N = 3  
N = 4  
N = 5

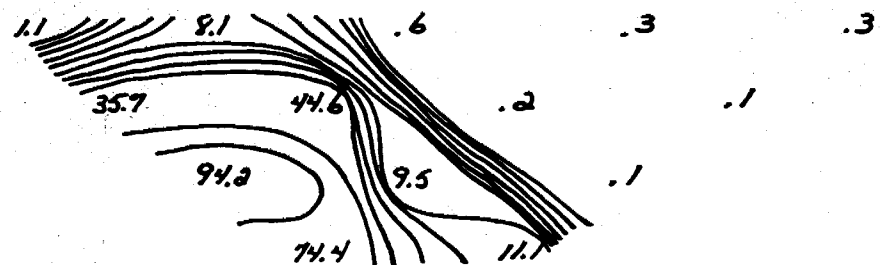
FREQUENCY EFFECT (APP) IN %



N = 1  
N = 2  
N = 3  
N = 4  
N = 5

1-N 26-N 5-S 28-N 3-S 30-N 1-S 32-N 1-N 34-N 3-N 36-N 5-N 38-N

METAL FACTOR (APP)



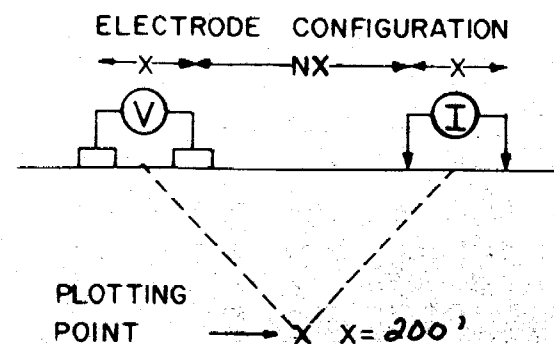
N = 1  
N = 2  
N = 3  
N = 4  
N = 5

COMPANY: THE ALBERTA GOLD CORP.

PROPERTY: NORTHLAND

MATHESON - Ont.

LINE NO. - 16-W



SURFACE PROJECTION OF ANOMALOUS ZONES

FREQUENCIES: 25 & 40 HZ

DEFINITE   
PROBABLE   
POSSIBLE

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT : PHOENIX IPV-1  
IPT-1

CONTRACTOR : REMY BELANGER ENRG.

DATE SURVEYED:

APPROVED:

Oct. 14-18-19- 1987

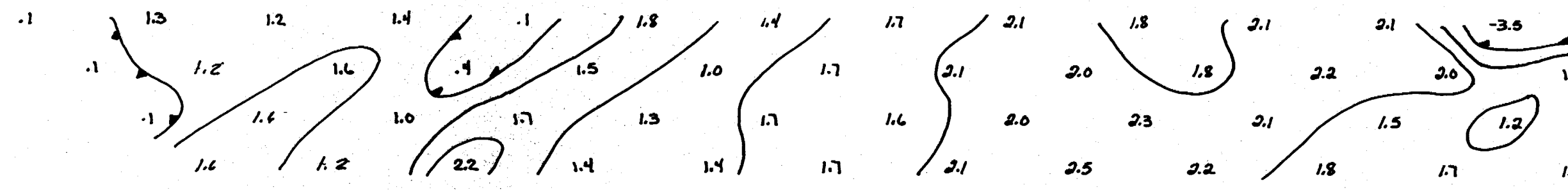
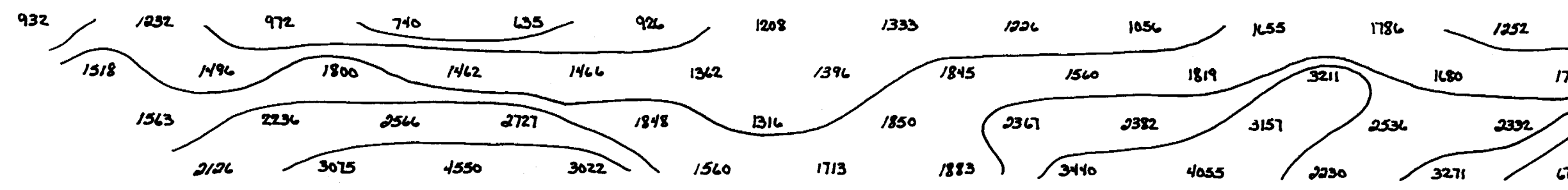
Remy Belanger

OPERATOR: LEAN-GUY DUBÉ

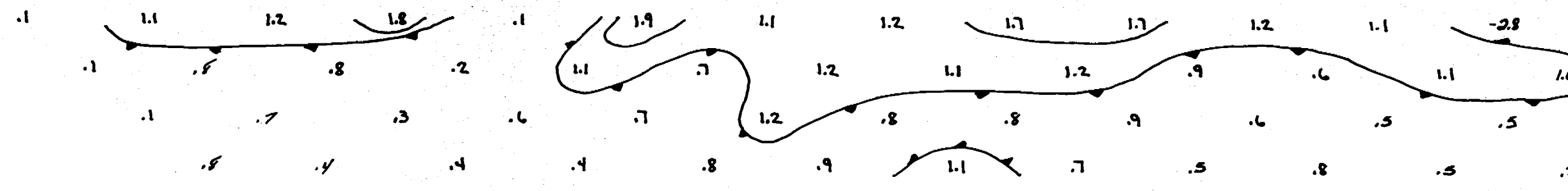
DATE: Oct. 26-87

# INDUCED POLARIZATION AND RESISTIVITY SURVEY

245 225 205 185 165 145 125 105 85 65 45 25 21-0 20 4

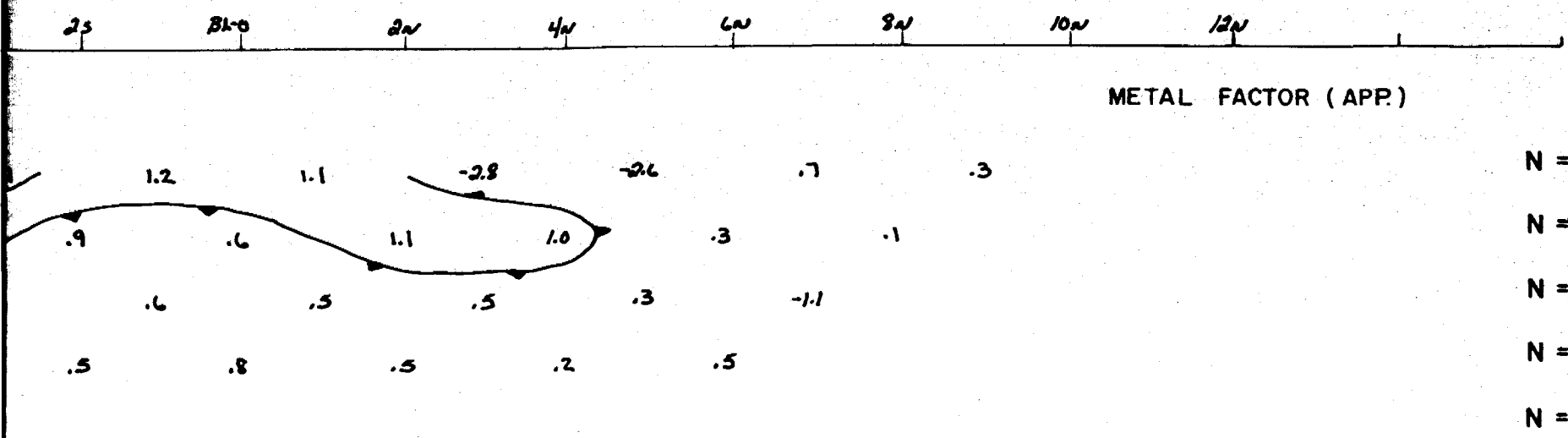
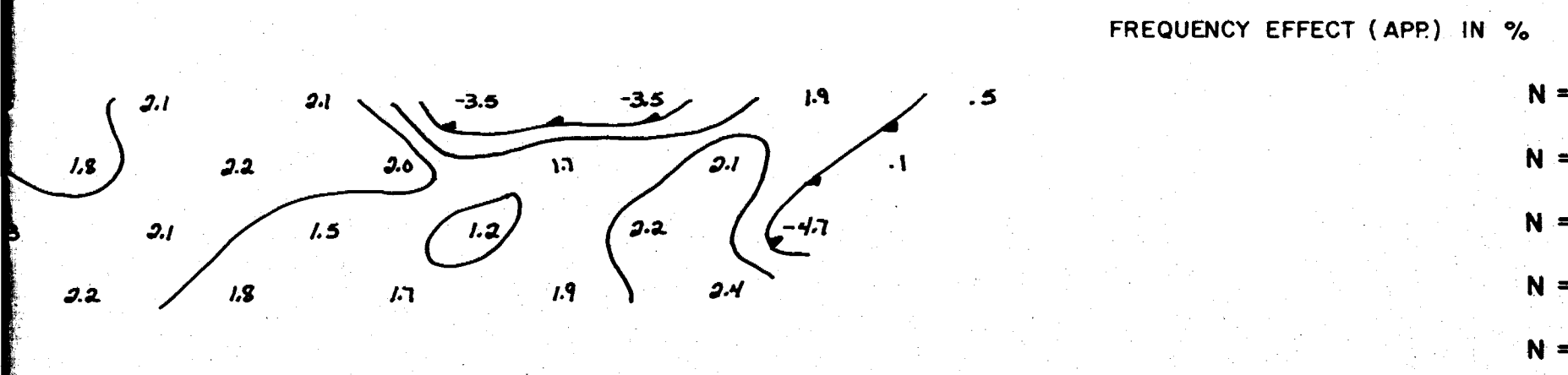
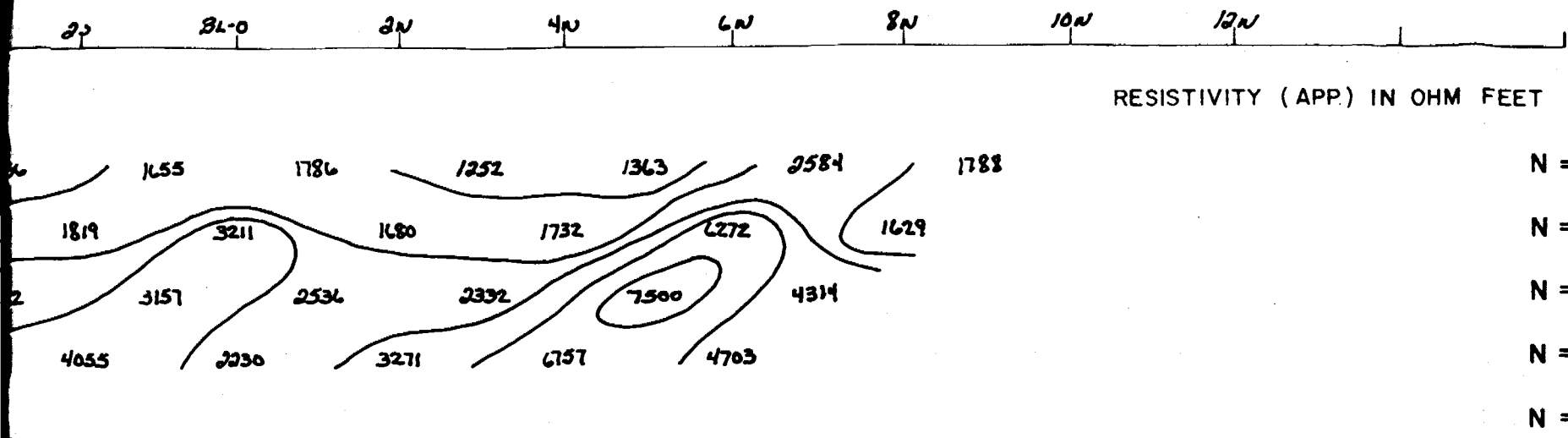


245 225 205 185 165 145 125 105 85 65 45 25 21-0 20 4



← F.A.T. →  
// ROAD



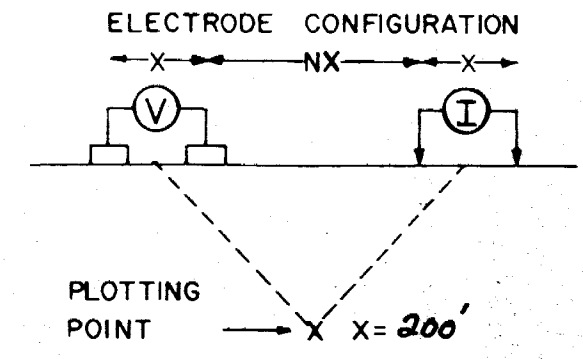


COMPANY: THE ALBERTA GOLD CORP.

PROPERTY: NORHLAND

MATHESON ONT.

LINE NO. - 20-W-



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE **————**  
 PROBABLE **|||||**  
 POSSIBLE **////**

FREQUENCIES: 25 & 4.0 HZ

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT : PHOENIX IPV-1  
IPT-1

CONTRACTOR : REMY BELANGER ENRG.

DATE SURVEYED:  
OCT-15-19-1987

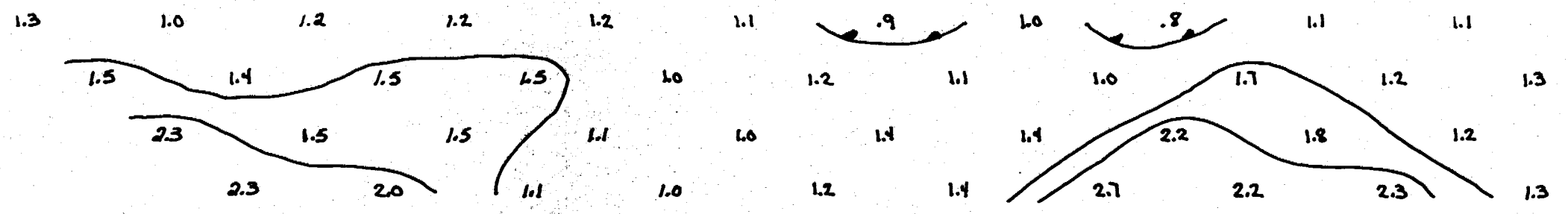
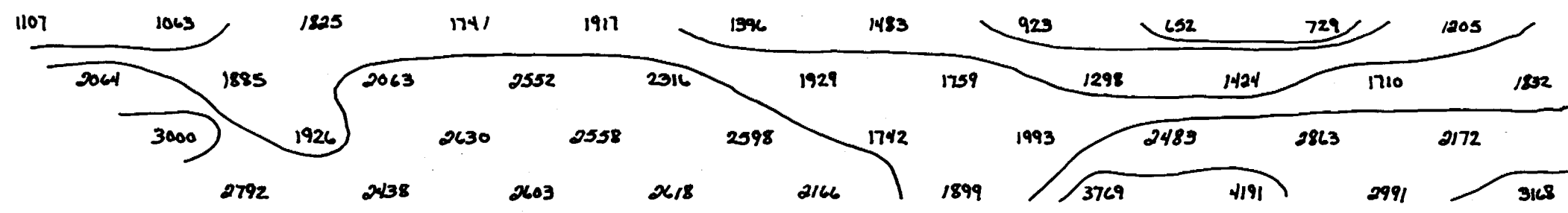
APPROVED:  
Remy Belanger

OPERATOR: JEAN-GUY DUBÉ

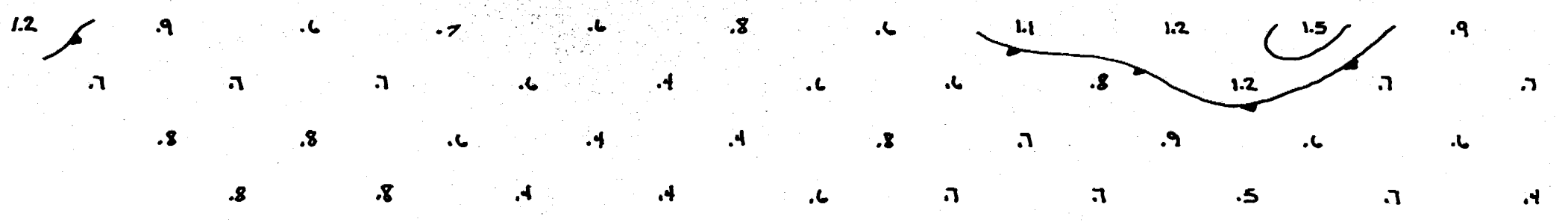
DATE: Oct. 27

# INDUCED POLARIZATION AND RESISTIVITY SURVEY

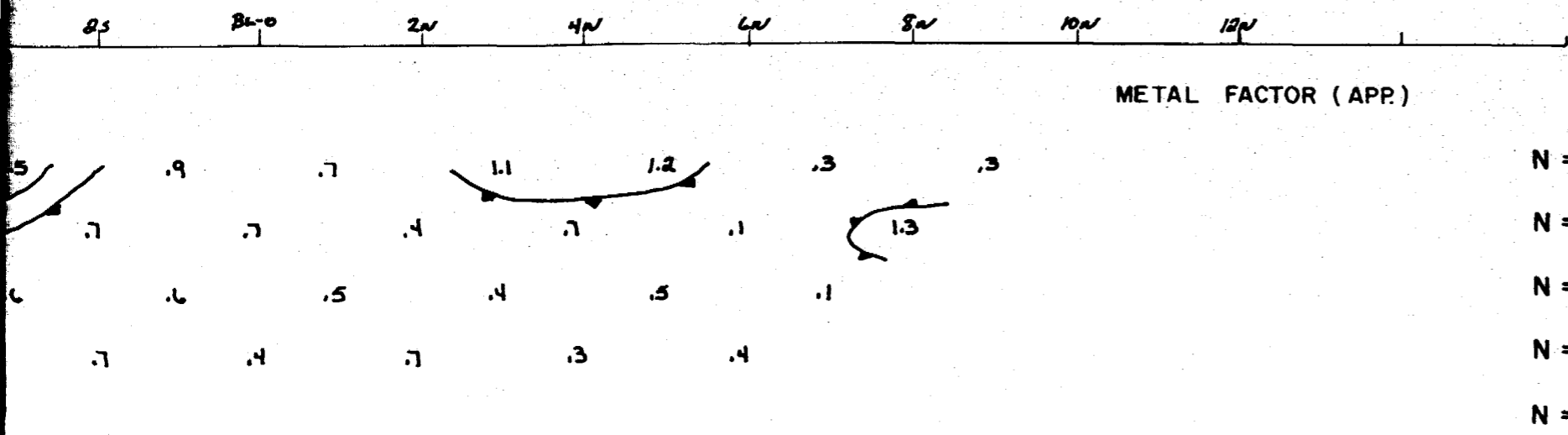
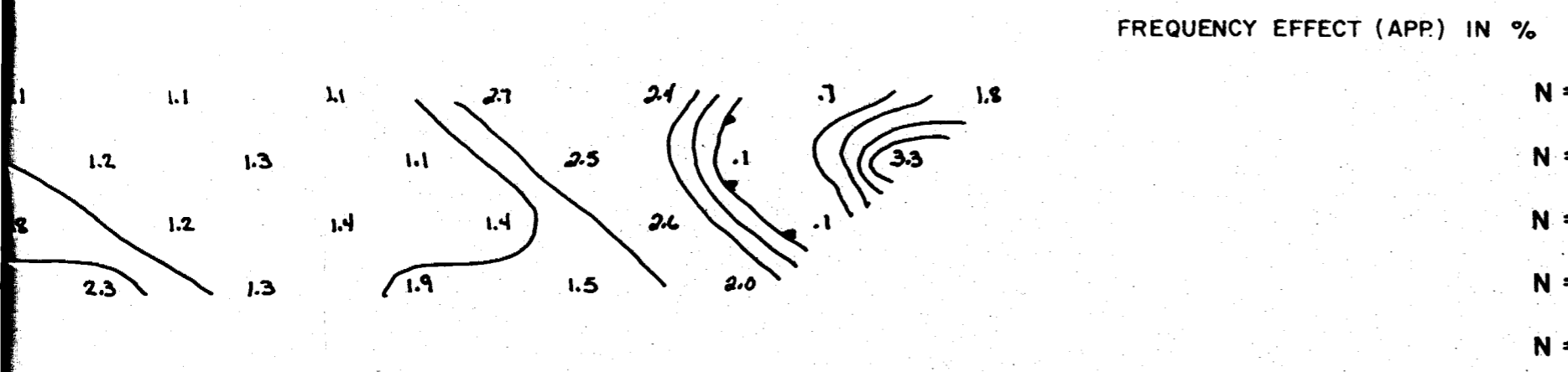
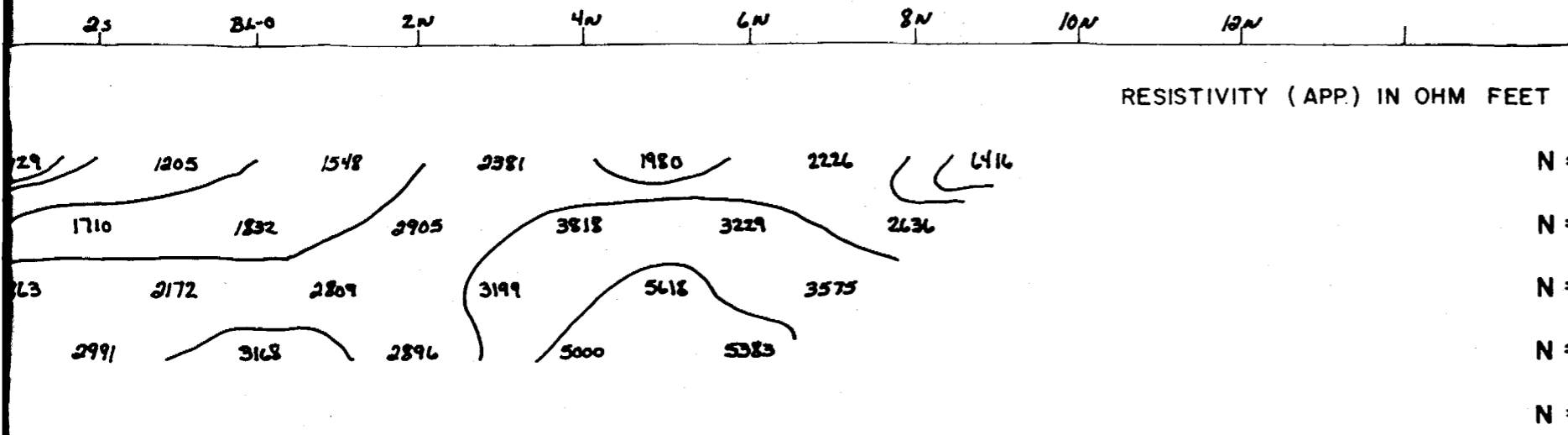
245 225 205 185 165 145 125 105 85 65 45 25 24-0



245 225 205 185 165 145 125 105 85 65 45 25 24-0

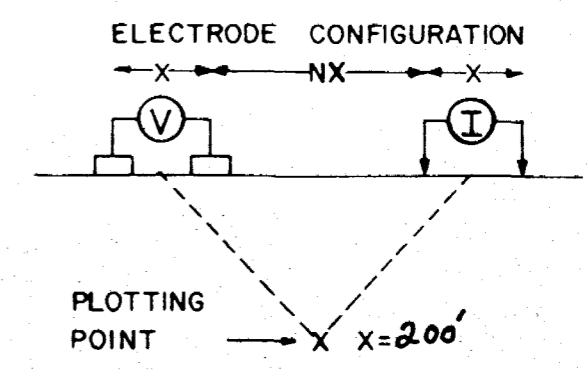


← FLAT →



COMPANY: THE ALBERTA GOLD CORP.  
 PROPERTY: NORTHBAND  
MATHESON ONT.

LINE NO. - 24-W-



SURFACE PROJECTION OF ANOMALOUS ZONES

FREQUENCIES: 25 & 4.0 Hz

DEFINITE   
 PROBABLE   
 POSSIBLE

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT : PHOENIX IPV-1  
 IPT-1  
 CONTRACTOR : REMY BELANGER ENRG.

DATE SURVEYED: OCT-15-19-1987

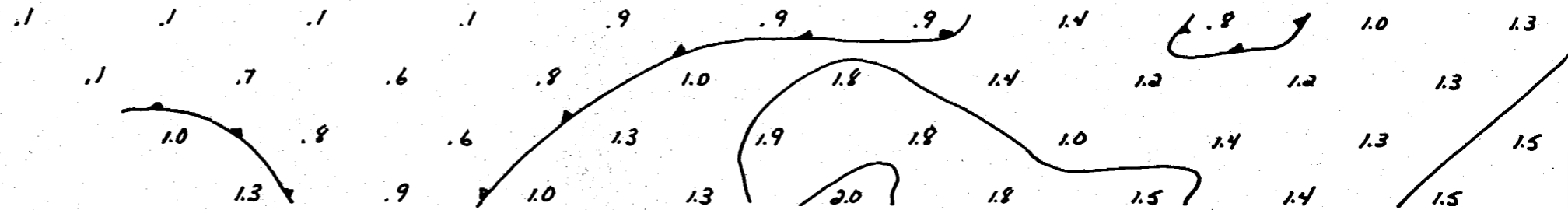
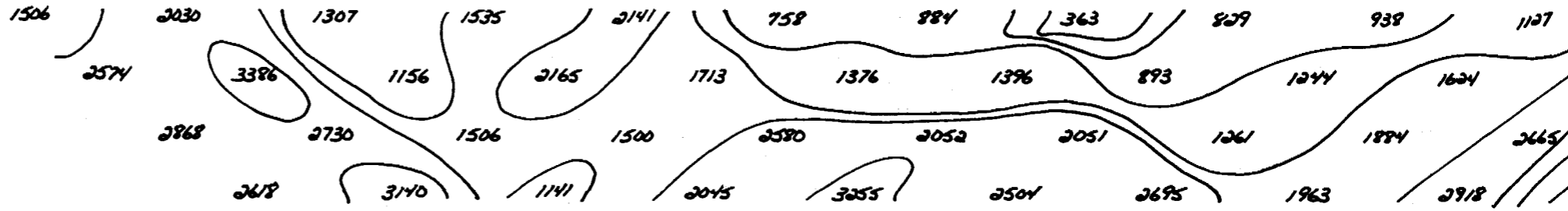
APPROVED: Remy Belanger

OPERATOR: PIERRE FAUBERT  
JEAN-GUY DUBÉ

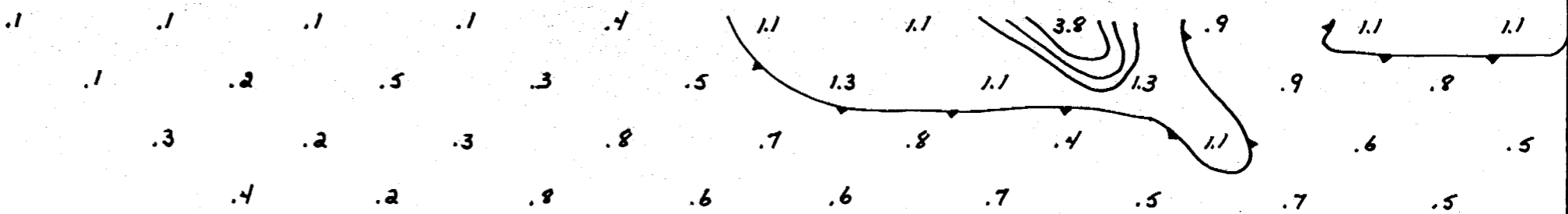
DATE: Oct. 27-87

# INDUCED POLARIZATION AND RESISTIVITY SURVEY

24.5 22.5 20.5 18.5 16.5 14.5 12.5 10.5 8.5 6.5 4.5 2.5



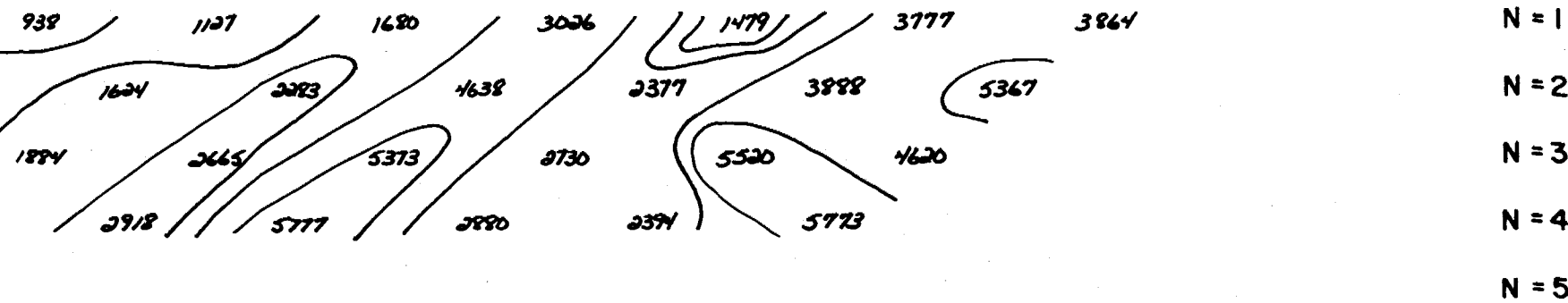
24.5 22.5 20.5 18.5 16.5 14.5 12.5 10.5 8.5 6.5 4.5 2.5



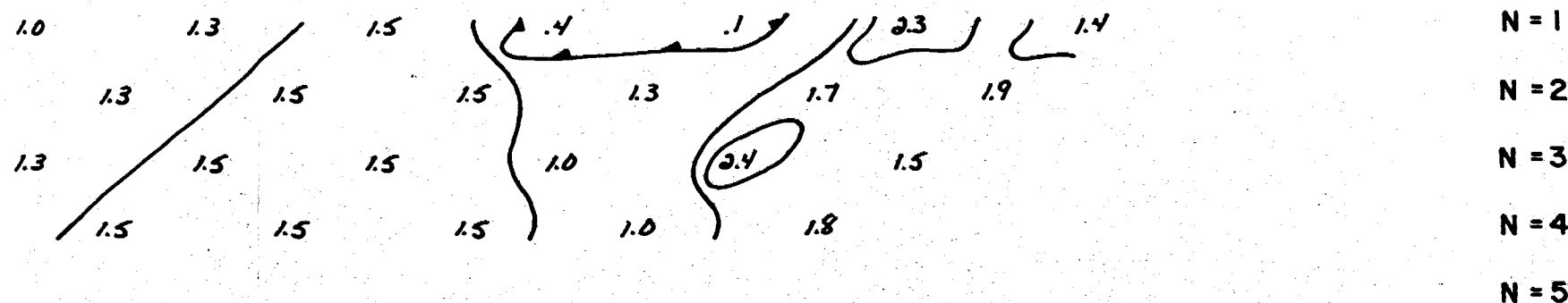
ROAD.

2.5 5.0 2-N 4-N 6-N 8-N 10-N 12-N

RESISTIVITY (APP) IN OHM FEET

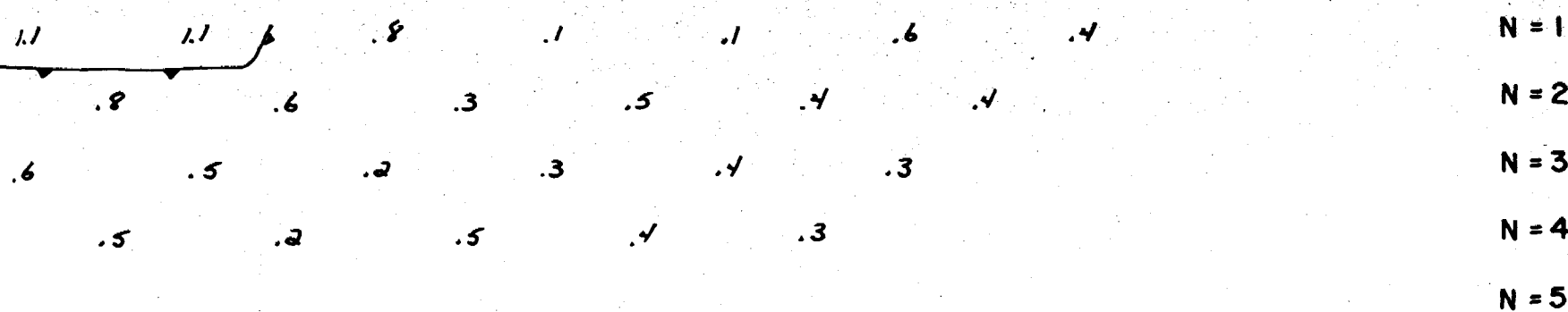


FREQUENCY EFFECT (APP) IN %



2.5 5.0 2-N 4-N 6-N 8-N 10-N 12-N

METAL FACTOR (APP)



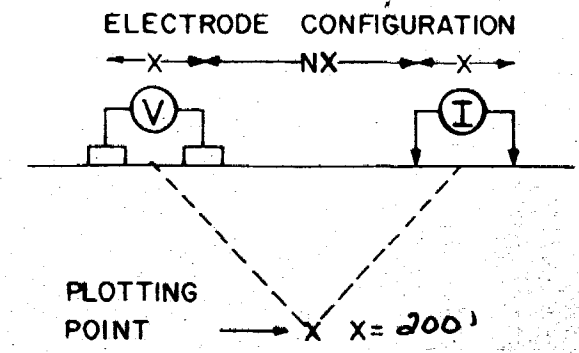
ROAD.

COMPANY: THE ALBERTA GOLD CORP.

PROPERTY: NORTHLAND.

MATHESON - ONT.

LINE NO. - 28-W



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE **————**  
 PROBABLE **|||||**  
 POSSIBLE **////**

FREQUENCIES: 25 & 40 Hz

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT : PHOENIX IPV-1 IPT-1

CONTRACTOR : REMY BELANGER ENRG.

DATE SURVEYED: Oct-15-19-1987

APPROVED: Remy Belanger

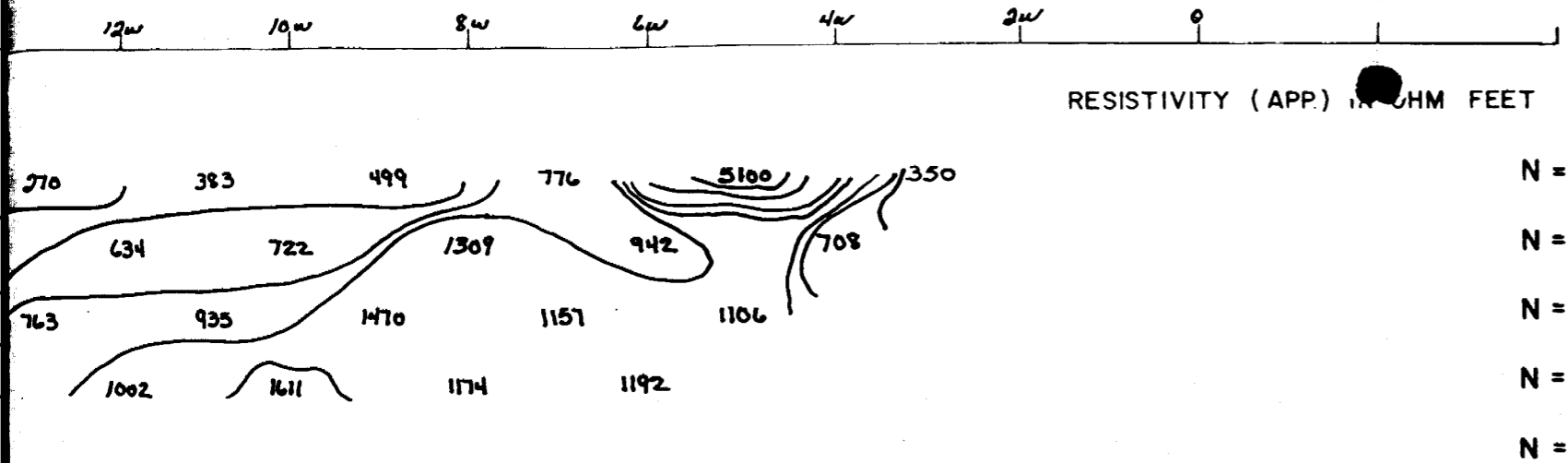
OPERATOR: JEAN-GUY DUBÉ PIERRE FAUBERT

DATE: Oct-27-87

# INDUCED POLARIZATION AND RESISTIVITY SURVEY

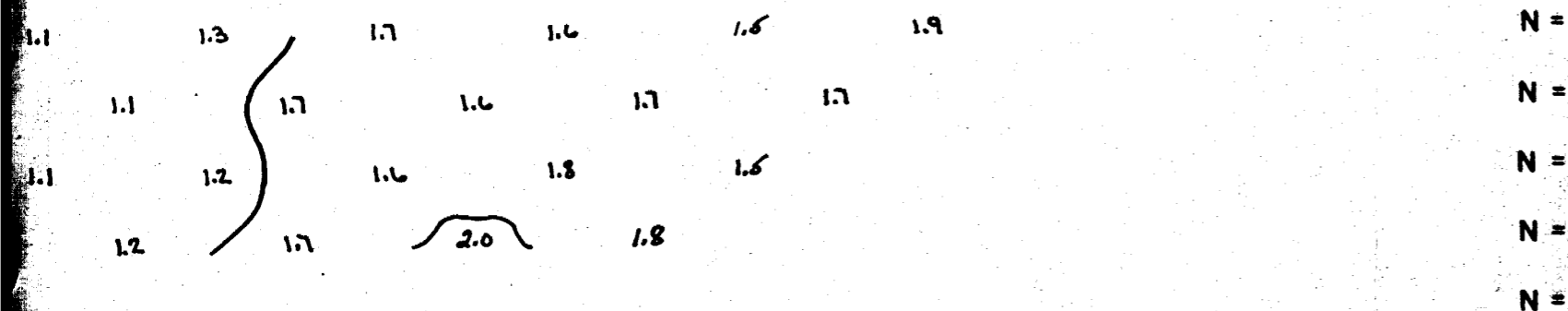


RESISTIVITY (APP) IN OHM FEET



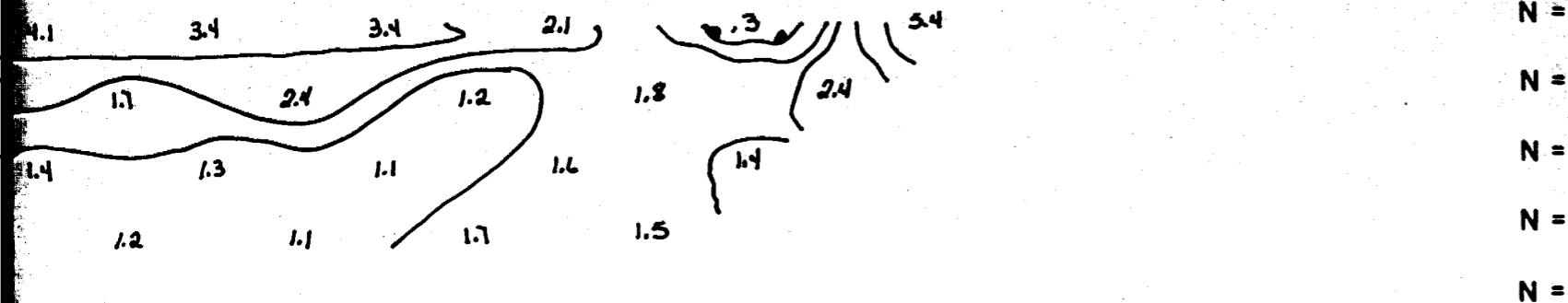
N = 1  
N = 2  
N = 3  
N = 4  
N = 5

FREQUENCY EFFECT (APP) IN %



N = 1  
N = 2  
N = 3  
N = 4  
N = 5

METAL FACTOR (APP)



N = 1  
N = 2  
N = 3  
N = 4  
N = 5

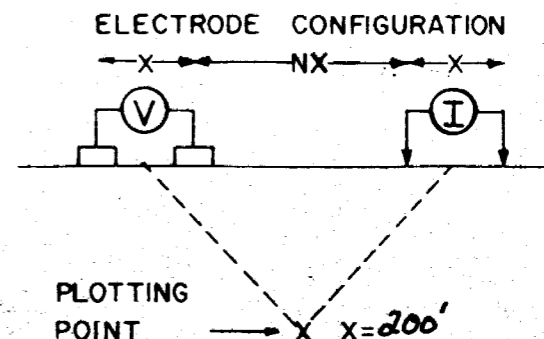
← FLAT →

COMPANY: THE ALBERTA GOLD CORP.

PROPERTY: NORTHLAND

MATHESON - ONT.

LINE NO. - TL-33N



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE   
PROBABLE   
POSSIBLE

FREQUENCIES: 25 & 40 HZ

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT : PHOENIX IPV-1  
IPT-1

CONTRACTOR : REMY BELANGER ENRG.

DATE SURVEYED:

APPROVED:

OCT-18-1987

Remy Belanger

OPERATOR: JEAN-GUY DUBÉ

DATE: oct. 27-87

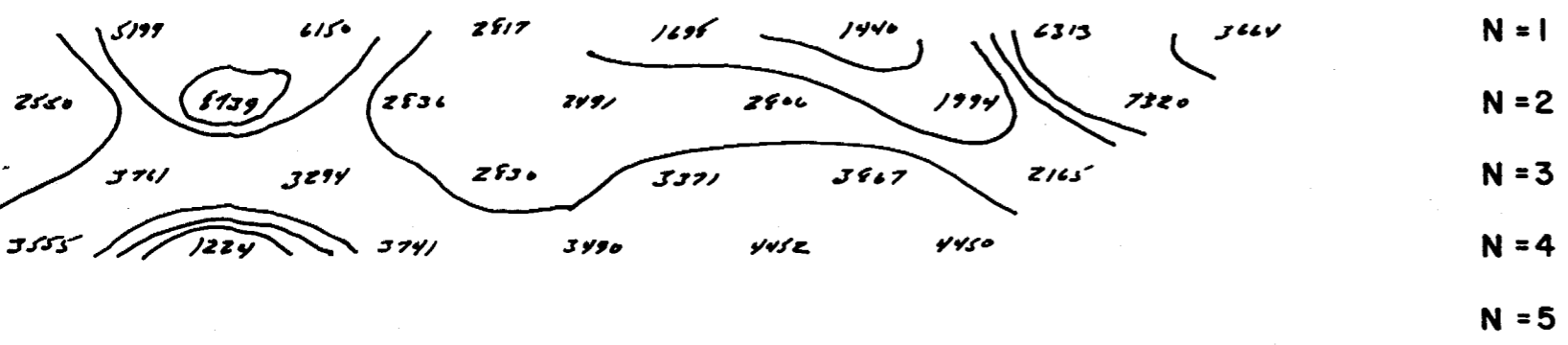
# INDUCED POLARIZATION AND RESISTIVITY SURVEY





12w 10w 8w 6w 4w 2w 0 2E 4E

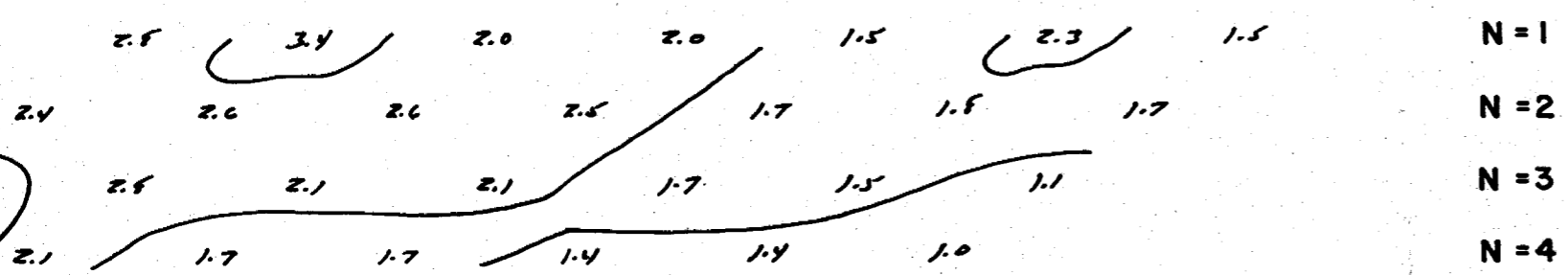
RESISTIVITY (APP.) IN OHM FEET



N = 1  
N = 2  
N = 3  
N = 4  
N = 5

12w 10w 8w 6w 4w 2w 0 2E 4E

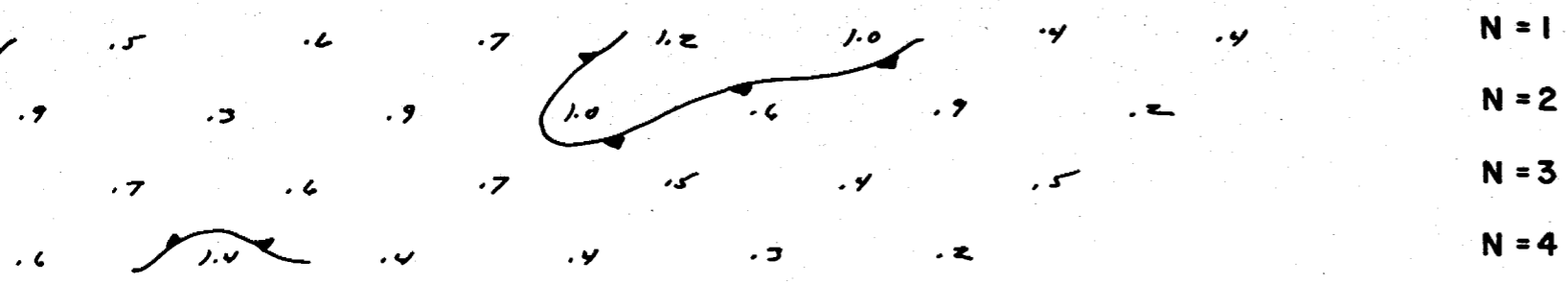
FREQUENCY EFFECT (APP.) IN %



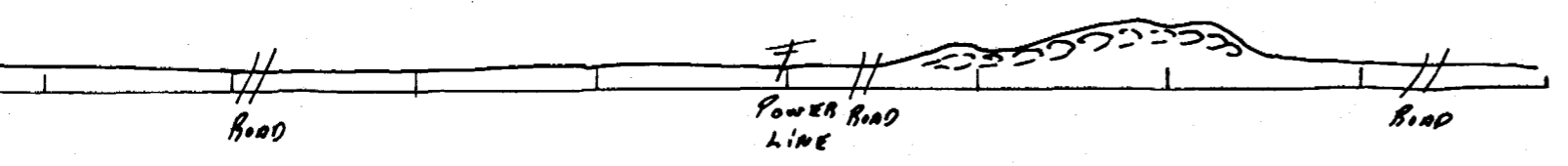
N = 1  
N = 2  
N = 3  
N = 4  
N = 5

12w 10w 8w 6w 4w 2w 0 2E 4E

METAL FACTOR (APP.)



N = 1  
N = 2  
N = 3  
N = 4  
N = 5

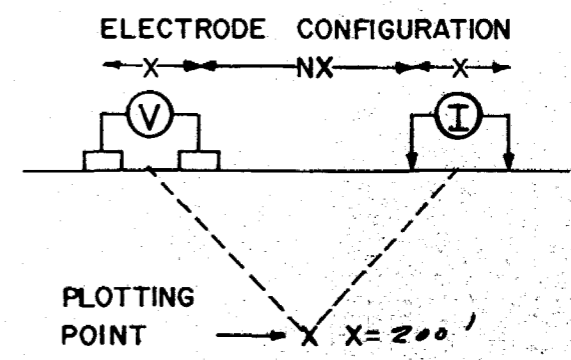


COMPANY: THE ALBERTA GOLD CORP

PROPERTY: NORTHLAND

MATHESON - ONT

LINE NO. - BL-0



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE **————**  
PROBABLE **|||||**  
POSSIBLE **////**

FREQUENCIES: 26 f 40 Hz

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT : PHOENIX IPV-1 IPT-1

CONTRACTOR : REMY BELANGER ENRG.

DATE SURVEYED: OCT-19-1987

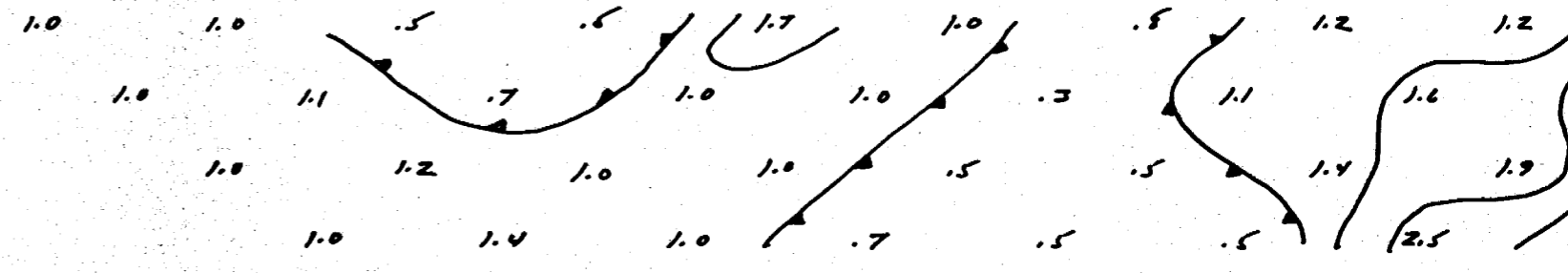
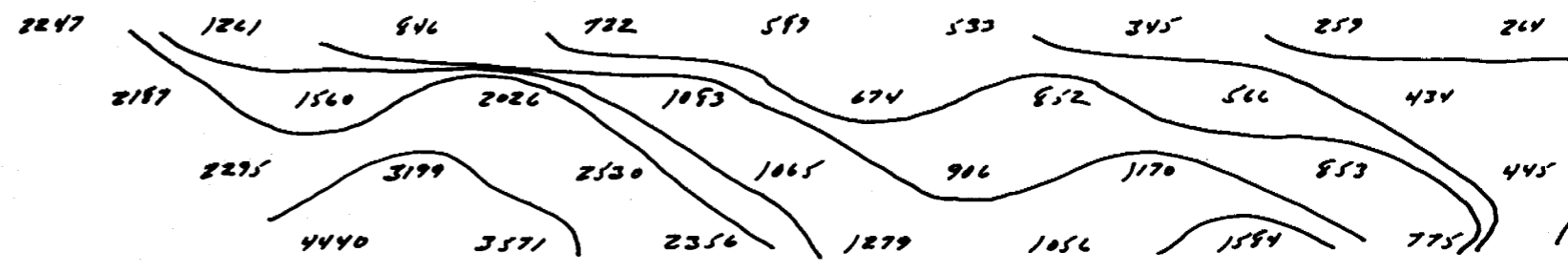
APPROVED: Remy Belanger

OPERATOR: JEAN GUY DURÉ

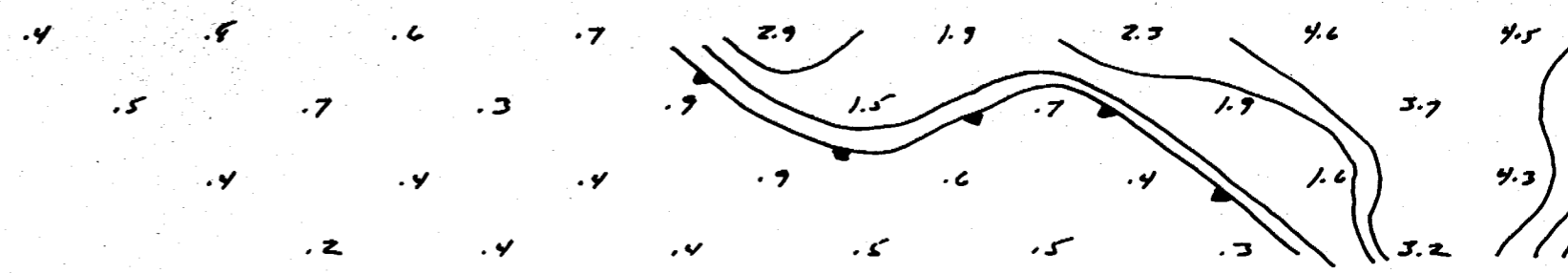
DATE: OCT-27-87

# INDUCED POLARIZATION AND RESISTIVITY SURVEY

28w 26w 24w 22w 20w 18w 16w 14w 12w 10w

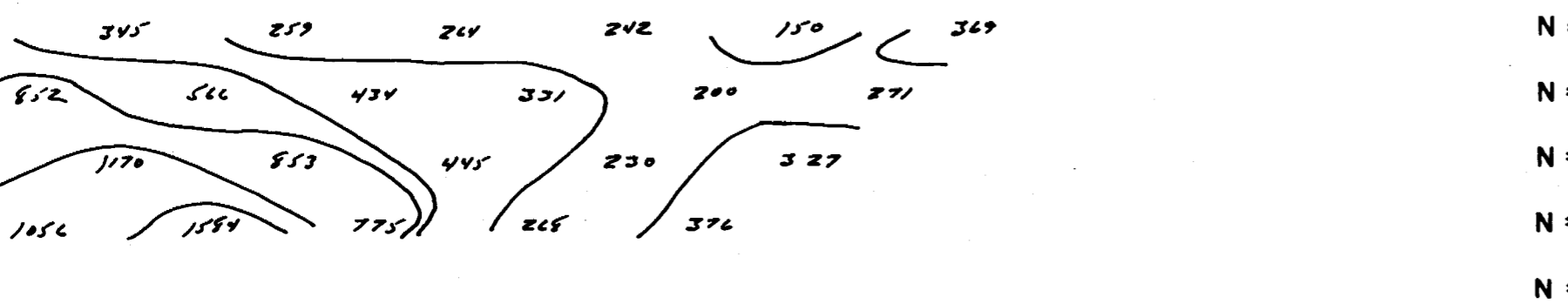


28w 26w 24w 22w 20w 18w 16w 14w 12w 10w



14w 12w 10w 8w 6w 4w 2w 0

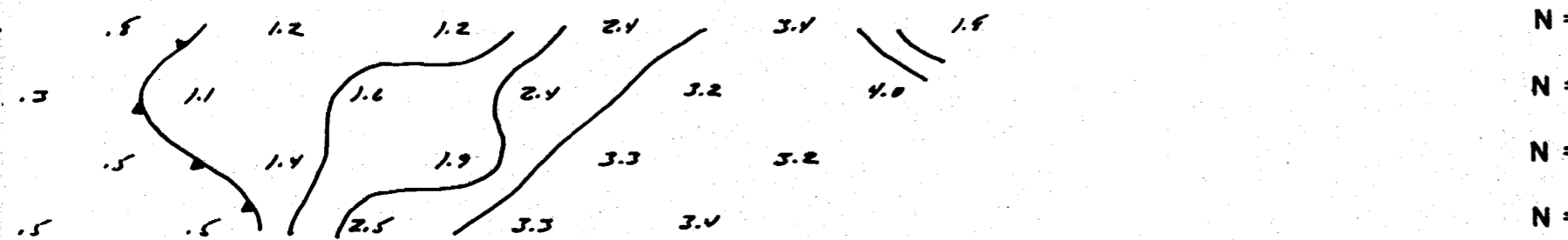
RESISTIVITY (APP.) IN OHM FEET



N = 1  
N = 2  
N = 3  
N = 4  
N = 5

14w 12w 10w 8w 6w 4w 2w 0

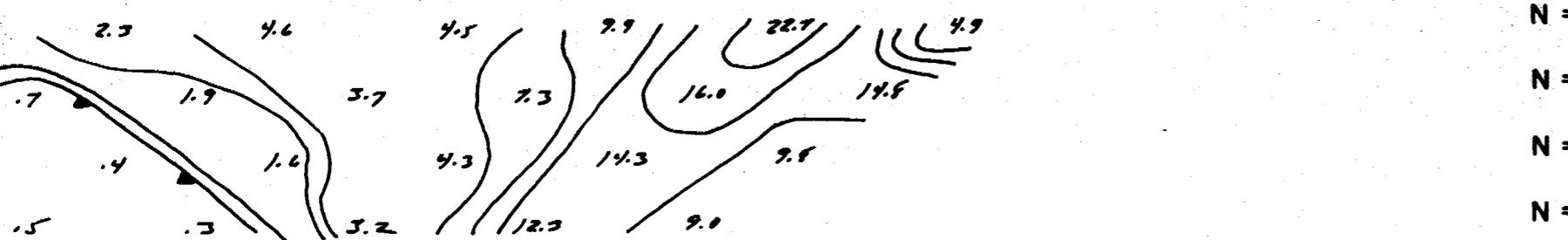
FREQUENCY EFFECT (APP.) IN %



N = 1  
N = 2  
N = 3  
N = 4  
N = 5

14w 12w 10w 8w 6w 4w 2w 0

METAL FACTOR (APP.)



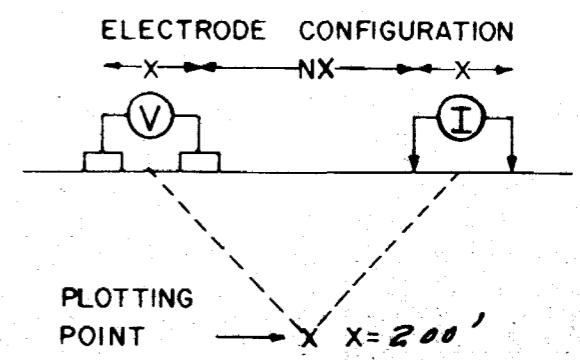
N = 1  
N = 2  
N = 3  
N = 4  
N = 5

COMPANY: THE ALBERTA GOLD CORP

PROPERTY: NORTH HAND

MATHESON - ONT.

LINE NO. - T-1-145



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE   
PROBABLE   
POSSIBLE

FREQUENCIES: 25 Hz. 10 Hz.

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT : PHOENIX IPV-1 IPT-1

CONTRACTOR : REMY BELANGER ENRG.

DATE SURVEYED: Oct-14-1987

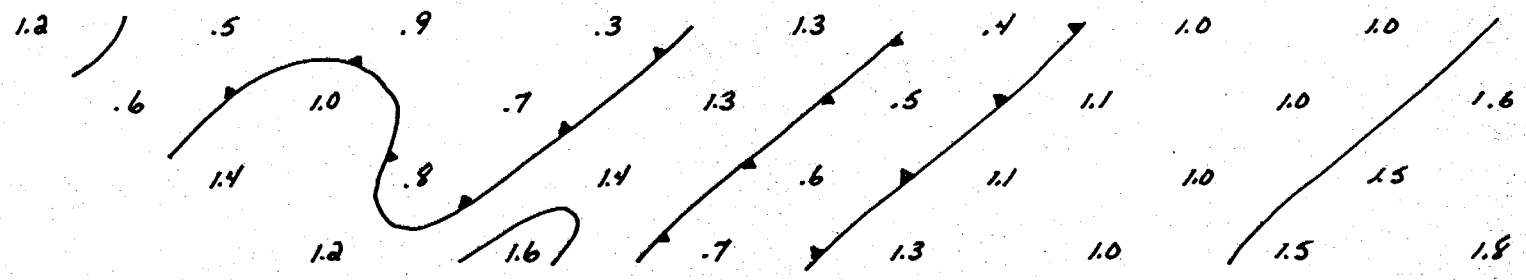
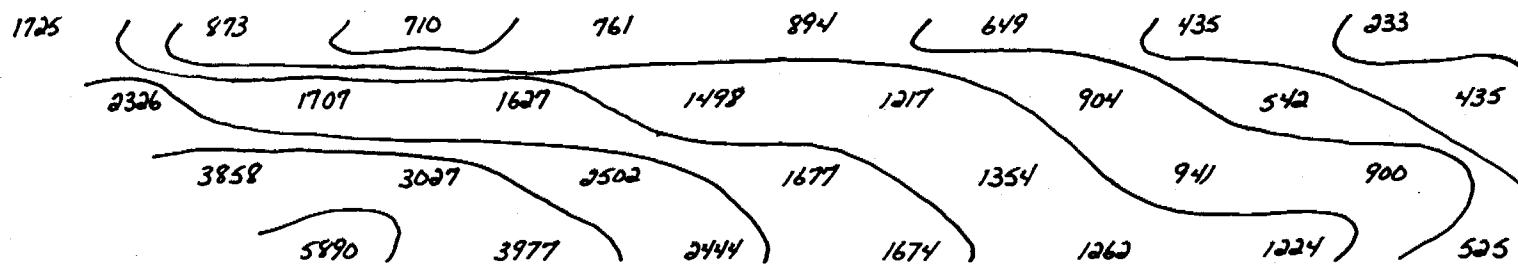
APPROVED: Remy Belanger

OPERATOR: PIERRE FAUBERT

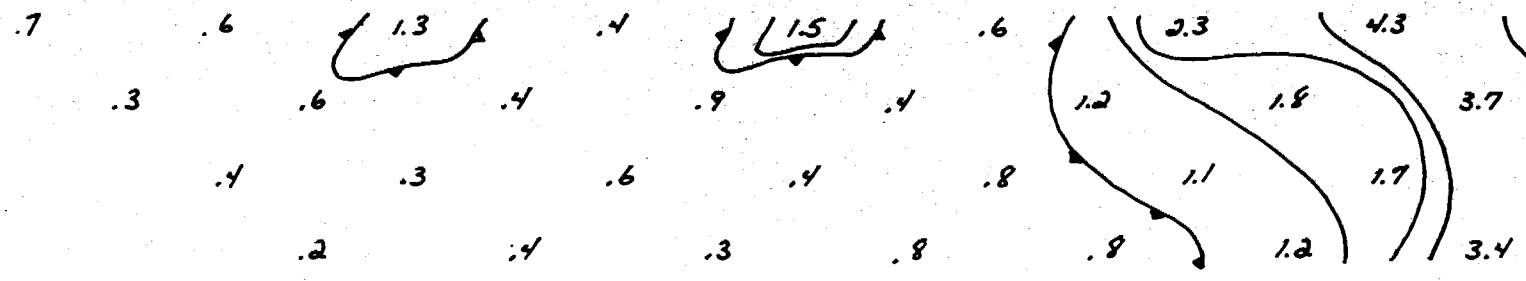
DATE: Oct. 27-87

# INDUCED POLARIZATION AND RESISTIVITY SURVEY

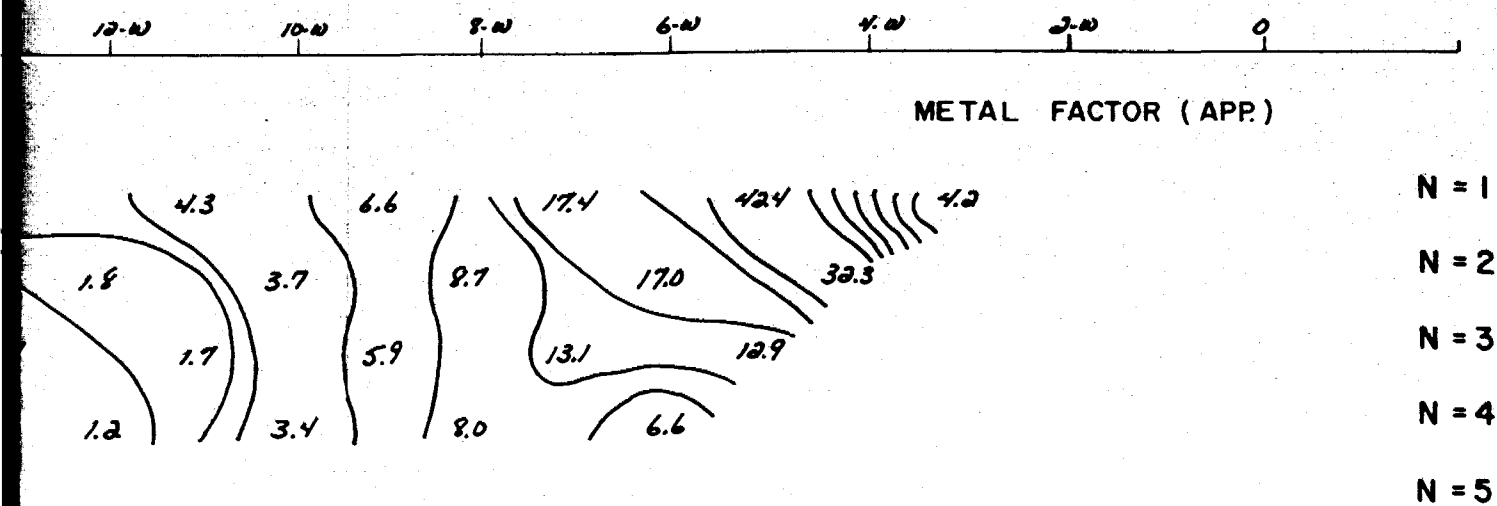
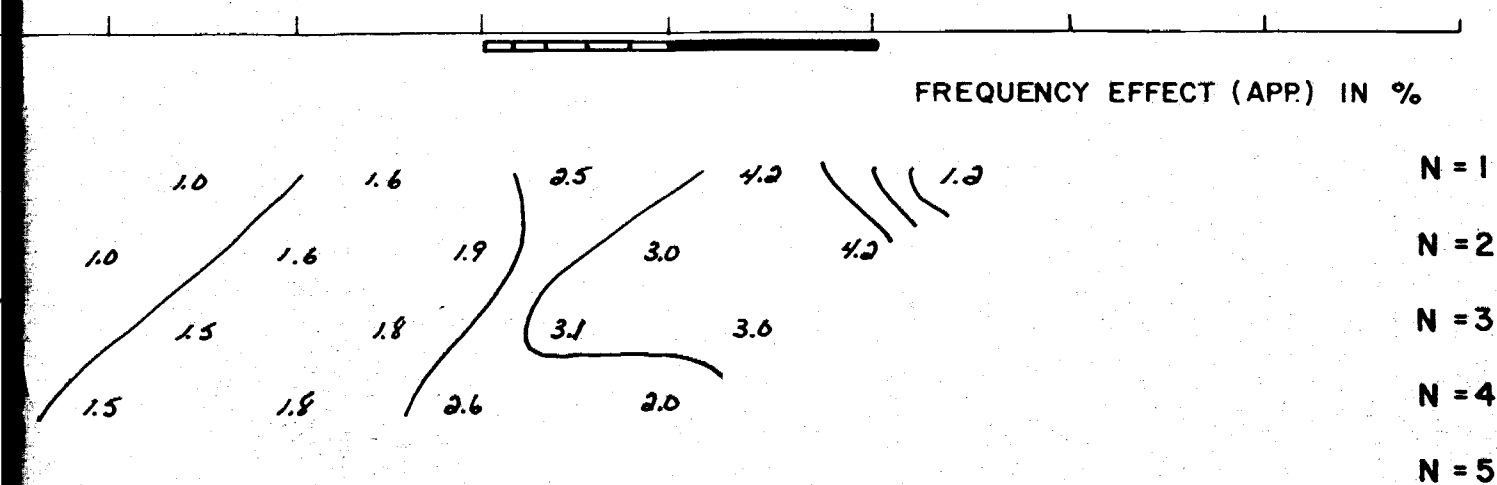
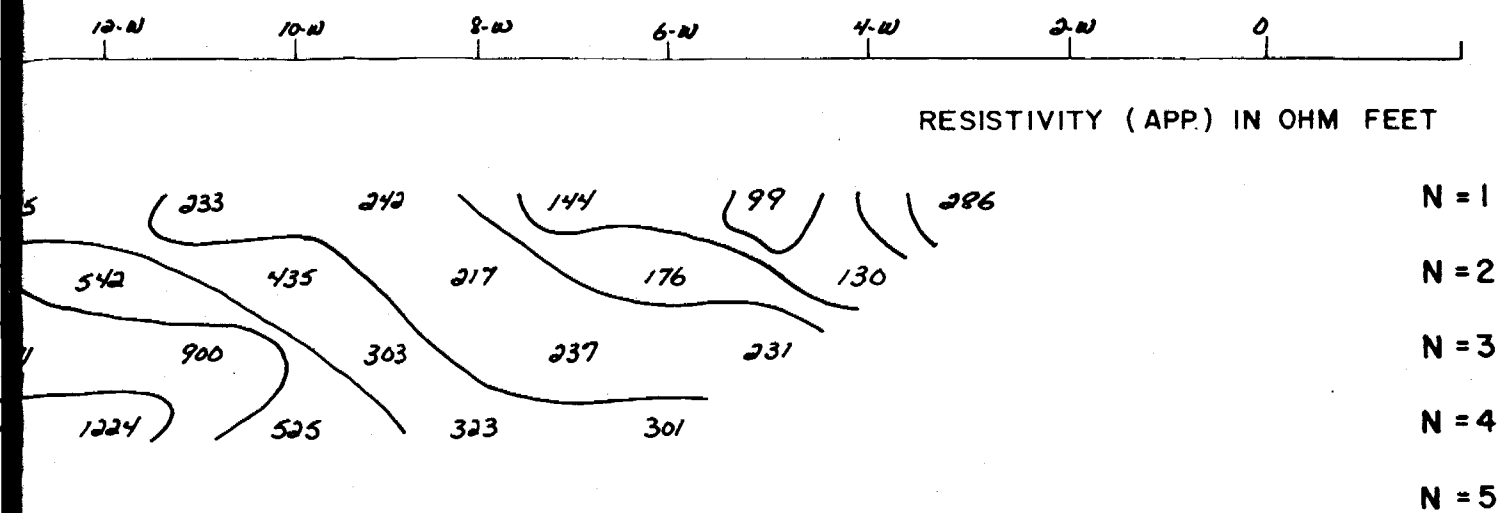
28-W 26-W 24-W 22-W 20-W 18-W 16-W 14-W 12-W 10-W



28-W 26-W 24-W 22-W 20-W 18-W 16-W 14-W 12-W 10-W



← FLAT →

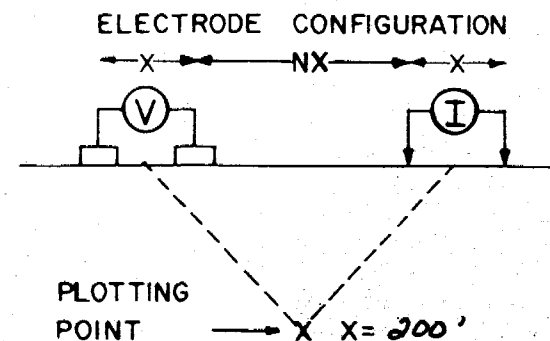


COMPANY: THE ALBERTA GOLD CORP.

PROPERTY: NORTHLAND.

MATHESON-DNT.

LINE NO. - TL-23-S



SURFACE PROJECTION OF ANOMALOUS ZONES

FREQUENCIES: 25 & 40 HZ

DEFINITE   
 PROBABLE   
 POSSIBLE

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1, 1.5, 2, 3, 5, 7.5, 10.0

INSTRUMENT : PHOENIX IPV-1  
 IPT-1

CONTRACTOR : REMY BELANGER ENRG.

DATE SURVEYED:

APPROVED:

Oct. 14. 1987

Remy Belanger.

OPERATOR: PIERRE FAUBERT.

DATE: Oct 27-87

# INDUCED POLARIZATION AND RESISTIVITY SURVEY



Ontario



32D04NW0057 2.14315 GAUTHIER

900

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

September 27, 1991

Mining Recorder  
Ministry of Northern Development  
and Mines  
4 Government Road East  
Kirkland Lake, Ontario  
P2N 1A2

Dear Sir/Madam:

**SUBJECT: Approval Assessment Work submitted on mining claims  
L. 561530 et al. in the Township of Gauthier.**

The assessment work credits for the Induced Polarization Survey submitted under Section 14 of the Mining Act Regulations have been approved as of the above date.

Please indicate on your records.

Yours sincerely,

Ron C. Gashinski  
Senior Manager, Mining Lands  
Mines and Minerals Division

DM/jl  
Enclosures:

cc: Mary Mahood-Greer  
Kirkland Lake, Ontario

✓ Assessment Files Office  
Toronto, Ontario

Geotechnical Approval Section  
159 Cedar, 4th Floor  
Sudbury, Ontario  
P3E 6A5

Toll Free: 1-800-465-3880  
Telephone: (705) 670-7264  
Fax: (705) 670-7262

Our File: 2.14315  
Your File: W.9180.05017

Remi Belanger  
Evain, Quebec

Resident Geologist  
Kirkland Lake, Ontario

Report of Work Conducted After Recording Claim

WORK

Transaction Number  
**DOCUMENT No.**  
W9180-05017

Mining Act

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

2.14315

- Instructions:**
- Please type or print and submit in duplicate.
  - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
  - A separate copy of this form must be completed for each Work Group.
  - Technical reports and maps must accompany this form in duplicate.
  - A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s) <b>559505 ONTARIO LTD.</b>	Client No. <b>100331</b>
Address <b>103 GOVERNMENT ROAD EAST, KIRKLAND LAKE, ONT. P2N 1A9</b>	Telephone No. <b>(705) 567-7057</b>
Mining Division <b>LARDER LAKE, ONTARIO</b>	Township/Area <b>GAUTHIER</b>
	M or G Plan No. <b>G-3211</b>
Dates Work Performed From: <b>OCTOBER 14, 1987</b>	To: <b>OCTOBER 19, 1987</b>

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	INDUCED POLARIZATION SURVEY - FREQUENCY EFFECT METHOD
Physical Work, Including Drilling	
Rehabilitation	
Other Authorized Work	
Assays	
Assignment from Reserve	

RECEIVED

SEP 05 1991

MINING LANDS SECTION

Total Assessment Work Claimed on the Attached Statement of Costs \$ 5,155.00

**Note:** The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
REMI BELANGER	BOX 40, 329 W., BLVD., EVAIN, P. QUEBEC JOZ IYO
PIERRE FAUBERT	BOX 40, 329 W., BLVD., EVAIN, P. QUEBEC JOZ IYO
JEAN-GUY DUBE	BOX 40, 329 W., BLVD., EVAIN, P. QUEBEC JOZ IYO
MARY MAHOOD-GREER	103 GOVERNMENT ROAD EAST, KIRKLAND LAKE, ONT. P2N 1A9

(attach a schedule if necessary)

Certification of Beneficial Interest \* See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date <b>July 18/91</b>	Recorded Holder or Agent (Signature) <i>Mary Mahood-Greer</i>
--	---------------------------	--

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying <b>MARY MAHOOD-GREER 103 Govt. Rd. E. Kirkland Lake, Ontario P2N 1A9</b>		
Telephone No. <b>567-7057</b>	Date <b>July 18/91</b>	Certified By (Signature) <i>Mary Mahood Greer</i>

For Office Use Only

Total Value Cr. Recorded <b>\$ 5155.00</b>	Date Recorded <b>JULY 18, 1991</b>	Mining Recorder <i>Martin Clude</i>	Received Stamp <b>RECEIVED</b>
	Deemed Approval Date <b>OCTOBER 16, 1991</b>	Date Approved <b>Sept 22/91</b>	<b>SEP 18 PM 1 1991</b>
	Date Notice for Amendments Sent		<b>LARDER LAKE</b>

**Statement of Costs for Assessment Credit**

**État des coûts aux fins du crédit d'évaluation**

**Mining Act/Loi sur les mines**

Transaction No./N° de transaction  
**DOCUMENT No.**  
**9180**

**2.14315**

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4<sup>e</sup> étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

**1. Direct Costs/Coûts directs**

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain	250.00	250.00
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type I. P. SURVEY REMI BELANGER	9,960.00	
			9,960.00
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
<b>Total Direct Costs Total des coûts directs</b>			<b>10,210.00</b>

$10,210. \times 20\% = 2042.$

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

**2. Indirect Costs/Coûts indirects**

\*\* Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work. Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type 4x4 TRUCK @ \$50.00/day	50.00	
	HONDA 4WHEELER @ \$50.00/day	50.00	
			100.00
Food and Lodging Nourriture et hébergement			
Mobilization and Demobilization Mobilisation et démoblisation			
<b>Sub Total of Indirect Costs Total partiel des coûts indirects</b>			
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excedant pas 20 % des coûts directs)			100.00
<b>Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs) Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)</b>			<b>10,310.00</b>

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

**Filing Discounts**

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit		Total Assessment Claimed
10,310.00	$\times 0.50 =$	5,155.00

**Remises pour dépôt**

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation		Evaluation totale demandée
	$\times 0,50 =$	

**Certification Verifying Statement of Costs**

I hereby certify: that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as GEOLOGICAL TECHNICIAN I am authorized (Recorded Holder, Agent, Position in Company)

to make this certification

**Attestation de l'état des coûts**

J'atteste par la présente : que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de \_\_\_\_\_ je suis autorisé (titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature Mary McLeod-Greer Date July 17/91



Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units
	L-561530	1
	L-561531	1
	L-561532	1
	L-561533	1
	L-561534	1
	L-561535	1
	L-917215	1
	L-917216	1
	L-917217	1
	L-917218	1
	L-917219	1
	L-919830	1
	L-919831	1
	L-954489 954489 <i>AZHP.</i>	1
14		

Total Number of Claims

Value of Assessment Work Done on this Claim	Value Applied to this Claim
468.64	368.21
468.64	368.21
468.64	368.21
468.64	368.21
468.64	368.21
468.64	368.21
468.64	368.21
∅	368.21
∅	368.21
∅	368.21
468.64	368.21
468.64	368.21
468.64	368.21
468.64	368.21
468.60	368.27
5,155.00	5,155.00

Total Value Work Done

Total Value Work Applied

Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
100.43	
100.43	
100.43	
100.43	
100.43	
100.43	
∅	
∅	
∅	
100.43	
100.43	
100.43	
100.43	
100.33	
1,104.63	

Total Assigned From

Total Reserve

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

1.  Credits are to be cut back starting with the claim listed last, working backwards.
2.  Credits are to be cut back equally over all claims contained in this report of work.
3.  Credits are to be cut back as prioritized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

**Note 1:** Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

**Note 2:** If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.

Signature

Date

800 Royal Trust Tower  
Edmonton, Alberta  
Canada T6J 2Z2  
Telephone (403) 420-0663  
FAX (403) 428-1070



**PERRONS**

103 Government Road East  
Kirkland Lake, Ontario  
Canada P2N 1A9  
Telephone (705) 567-7057  
FAX (705) 568-8844

July 18, 1991

2 . 1 4 3 1 5

Mr. Martin Cuda,  
Mining Recorder,  
Ministry of Northern Development and Mines,  
4 Government Road East,  
Kirkland Lake, Ontario  
P2N 1A2

Dear Sir:

RE: Induced Polarization Survey for  
Gauthier Township  
Larder Lake Mining Division

Enclosed herewith, please find a duplicate copy of the following:

- Report dated November 1987, by Remy Belanger entitled:

Induced Polarization Survey  
The Alberta Gold Corporation  
Northland Grid  
Gauthier Township  
P. Ontario  
November 1987

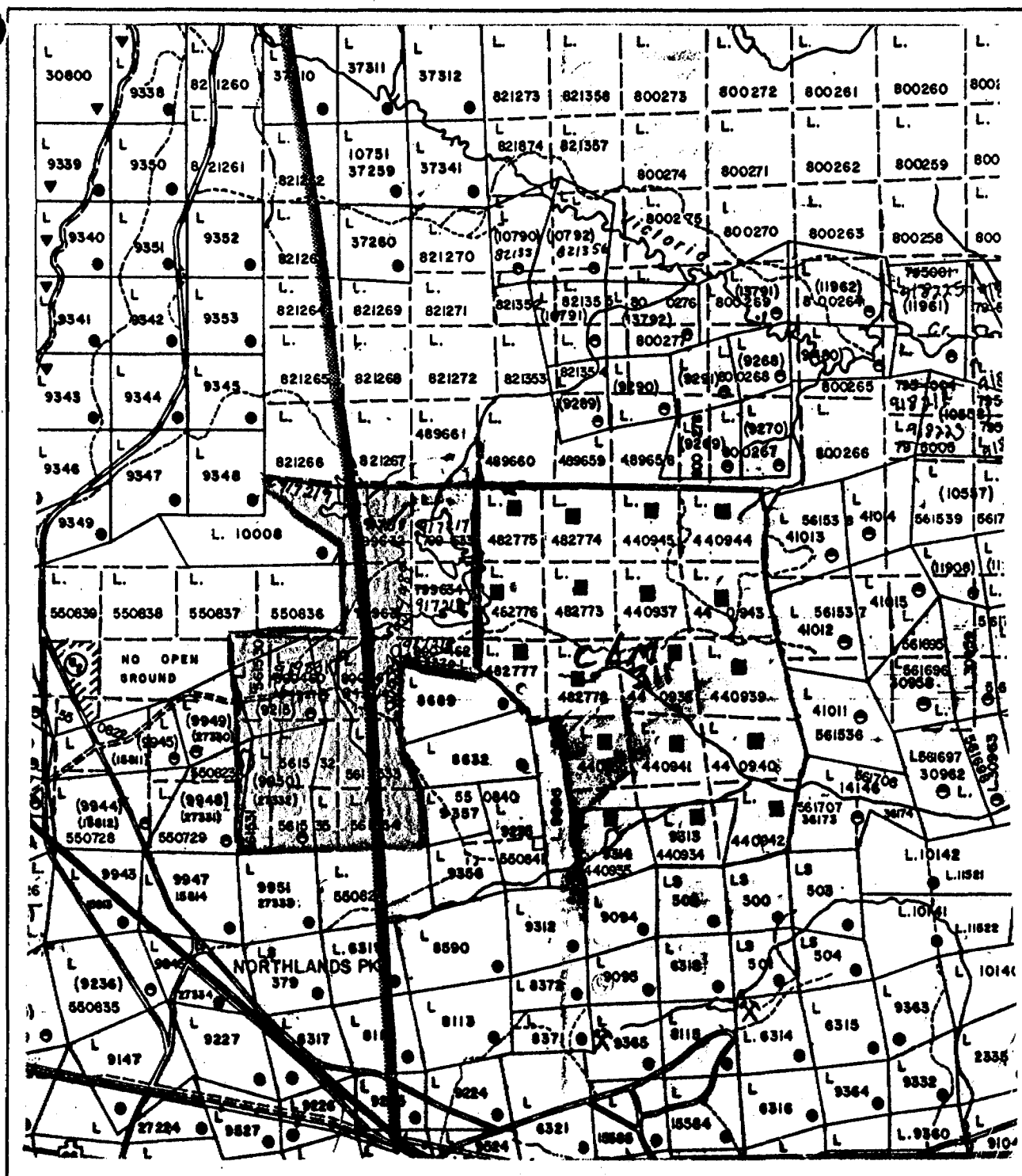
Perrons would like to file this work under the New Mining Act Regulations 1991, Assessment Work Section 4 (3). An appendix in letter form is also included to comply with the requirements of said Act, since this report was not written with the intention of being submitted as an assessment report.

Yours truly,

PERRONS

Mary Mahood-Greer  
Geophysical Technician

MMG/p  
Encs.



### Claim Location Map

Scale: 1 inch to 1/2 mile

- work assigned to these claims
- work performed on these claims and assigned as well

Figure 1b





TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT  
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT  
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) GEOPHYSICAL INDUCED POLARIZATION  
Township or Area GAUTHIER  
Claim Holder(s) ALEX H. PERRON  
103 GOV'T, RD.E., KIRKLAND LAKE, ONT,  
P2N 1A9  
Survey Company BELANGER GEOPHYSICS  
Author of Report MR. REMI BELANGER  
Address of Author BOX 40, 329 W. BLVD., EVAIN, QUEBEC  
Covering Dates of Survey OCT. 14, 1987 - OCT. 19, 1987  
Total Miles of Line Cut 8.33 APPROXIMATELY  
(linecutting to office)

MINING CLAIMS TRAVERSED	
List numerically	
L- (prefix)	561530 (number)
L-	561531
L-	561532
L-	561533
L-	561534
L-	561535
L-	917215
L-	917216
L-	917217
L-	917218
L-	917219
L-	919830
L-	919831
L-	964489 <i>KHP</i>
TOTAL CLAIMS <u>14</u>	

If space insufficient, attach list

<u>SPECIAL PROVISIONS</u> <u>CREDITS REQUESTED</u>	<u>DAYS</u> <u>per claim</u>
Geophysical	
- Electromagnetic _____	
- Magnetometer _____	
- Radiometric _____	
- Other _____	
Geological _____	
Geochemical _____	

ENTER 40 days (includes line cutting) for first survey.  
ENTER 20 days for each additional survey using same grid.

**AIRBORNE CREDITS** (Special provision credits do not apply to airborne surveys)

Magnetometer \_\_\_\_\_ Electromagnetic \_\_\_\_\_ Radiometric \_\_\_\_\_  
(enter days per claim)

DATE: July 13, 1991 SIGNATURE: *Mary McLeod-Gree*  
Author of Report or Agent

Res. Geol. \_\_\_\_\_ Qualifications \_\_\_\_\_

<u>Previous Surveys</u>			
<u>File No.</u>	<u>Type</u>	<u>Date</u>	<u>Claim Holder</u>

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

Number of Stations \_\_\_\_\_ Number of Readings \_\_\_\_\_
Station interval 100 FEET Line spacing 400 FEET
Profile scale \_\_\_\_\_
Contour interval \_\_\_\_\_

MAGNETIC

Instrument \_\_\_\_\_
Accuracy - Scale constant \_\_\_\_\_
Diurnal correction method \_\_\_\_\_
Base Station check-in interval (hours) \_\_\_\_\_
Base Station location and value \_\_\_\_\_

ELECTROMAGNETIC

Instrument \_\_\_\_\_
Coil configuration \_\_\_\_\_
Coil separation \_\_\_\_\_
Accuracy \_\_\_\_\_
Method: [ ] Fixed transmitter [ ] Shoot back [ ] In line [ ] Parallel line
Frequency \_\_\_\_\_ (specify V.L.F. station)
Parameters measured \_\_\_\_\_

GRAVITY

Instrument \_\_\_\_\_
Scale constant \_\_\_\_\_
Corrections made \_\_\_\_\_
Base station value and location \_\_\_\_\_
Elevation accuracy \_\_\_\_\_

INDUCED POLARIZATION RESISTIVITY

Instrument PHOENIX I.P. T-1 TRANSMITTER AND I.P. V-1 RECEIVER
Method [ ] Time Domain [X] Frequency Domain
Parameters - On time \_\_\_\_\_ Frequency .25 & 4.0 HZ
- Off time \_\_\_\_\_ Range N = 1 TO N = 4
- Delay time \_\_\_\_\_
- Integration time \_\_\_\_\_
Power GENERATOR 2.0 KW
Electrode array \_\_\_\_\_
Electrode spacing 200 FEET
Type of electrode STEEL PINS

**SELF POTENTIAL**

Instrument \_\_\_\_\_ Range \_\_\_\_\_  
Survey Method \_\_\_\_\_  
Corrections made \_\_\_\_\_

**RADIOMETRIC**

Instrument \_\_\_\_\_  
Values measured \_\_\_\_\_  
Energy windows (levels) \_\_\_\_\_  
Height of instrument \_\_\_\_\_ Background Count \_\_\_\_\_  
Size of detector \_\_\_\_\_  
Overburden \_\_\_\_\_  
(type, depth - include outcrop map)

**OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)**

Type of survey \_\_\_\_\_  
Instrument \_\_\_\_\_  
Accuracy \_\_\_\_\_  
Parameters measured \_\_\_\_\_  
Additional information (for understanding results) \_\_\_\_\_

**AIRBORNE SURVEYS**

Type of survey(s) \_\_\_\_\_  
Instrument(s) \_\_\_\_\_  
(specify for each type of survey)  
Accuracy \_\_\_\_\_  
(specify for each type of survey)  
Aircraft used \_\_\_\_\_  
Sensor altitude \_\_\_\_\_  
Navigation and flight path recovery method \_\_\_\_\_  
Aircraft altitude \_\_\_\_\_ Line Spacing \_\_\_\_\_  
Miles flown over total area \_\_\_\_\_ Over claims only \_\_\_\_\_





REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

- M.R.O. - MINING RIGHTS ONLY
- S.R.O. - SURFACE RIGHTS ONLY
- M+S. - MINING AND SURFACE RIGHTS

Description Order No. Date Disposition File

TOWNITE staking restricted 50' 20' 10' 5' 2' 1' 1/2'

BARRICK POWER LINE  
Application pending under Public Lands Act

SAND and GRAVEL

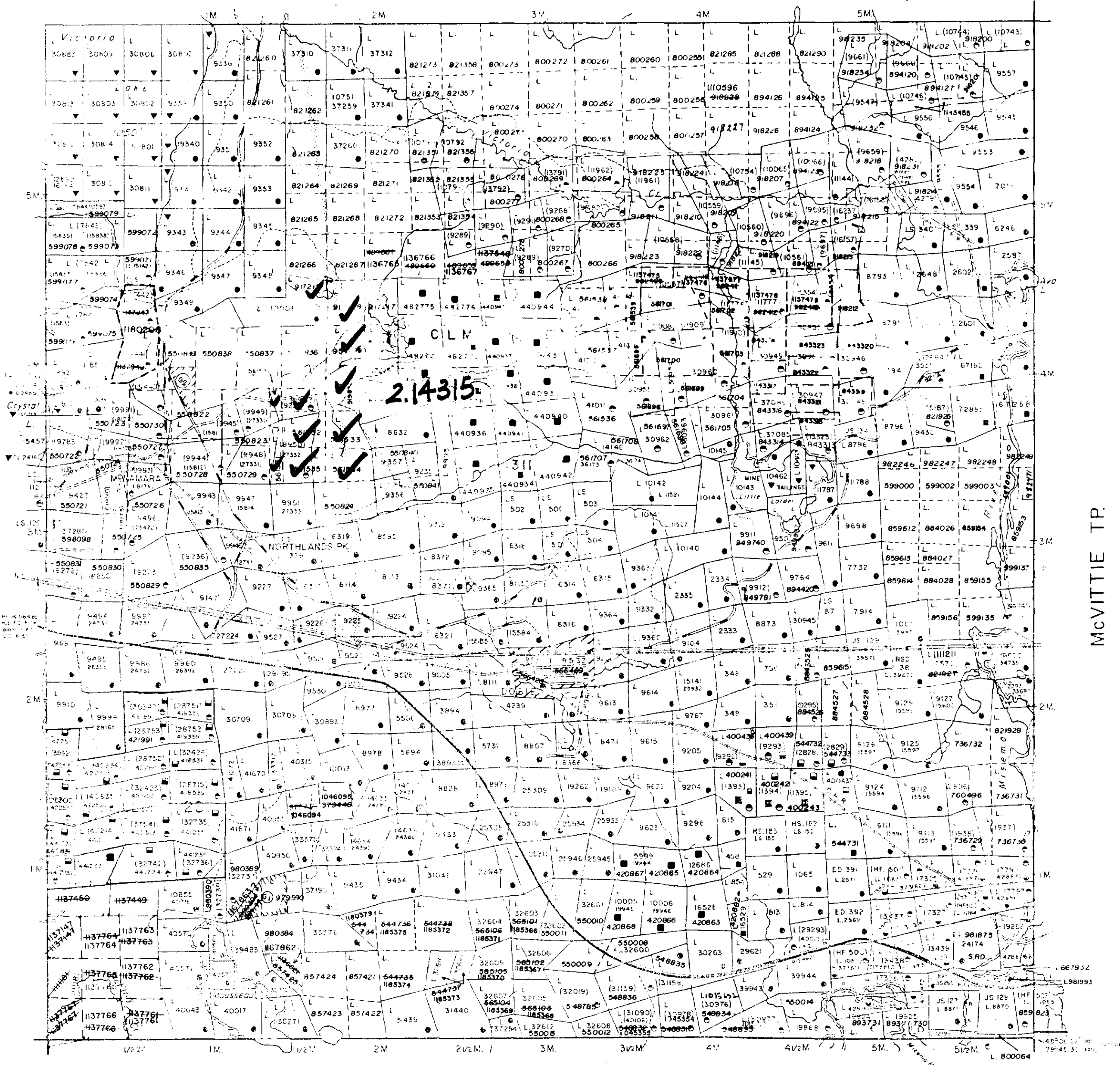
- M.T.C. PIT No. 1666 FILE 101921
- M.T.C. PIT 5F-27

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE TIMISKAMING MANAGEMENT UNIT AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: P.O. BOX 129 SWASTIKA, ONT. POK ITO 705-642-3222

ARNOLD TP.



LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
- TOWNSHIP'S BASE LINES ETC.
- LOTS MINING CLAIMS PARCELS ETC.
- UNSURVEYED LINES
- LOT LINE
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINE
- NON PERMANENT STREAM
- FLOODING BY FLOOD RICH T.
- SUBDIVISION OF COMPLETE PLAN
- RESERVATION
- ORIGINAL SURVEYING
- MAPS OF MUSKOG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT SURFACE & MINING RIGHTS	
PATENT SURFACE RIGHTS ONLY	
PATENT MINING RIGHTS ONLY	
LEASE SURFACE & MINING RIGHTS	
LEASE SURFACE RIGHTS ONLY	
LEASE MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER IN COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

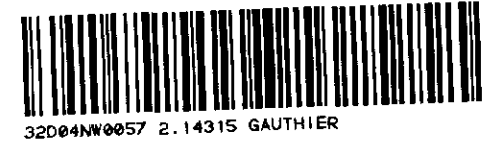
NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 1 1912 ARE NOT IN ORIGINAL PATENTS BY THE PROVINCE. LANDS ARE ALSO TO BE CHAP. 66, SEC. 63 SURVEYED.

SCALE 1 INCH = 40 CHAINS

TOWNSHIP  
**GAUTHIER**  
M.N.R. ADMINISTRATIVE DISTRICT  
KIRKLAND LAKE  
MINING DIVISION  
LARDER LAKE  
LAND TITLES / REGISTRY DIVISION  
**TIMISKAMING 2.14315**

Ministry of Land  
Natural Management  
Resources Branch  
Ontario

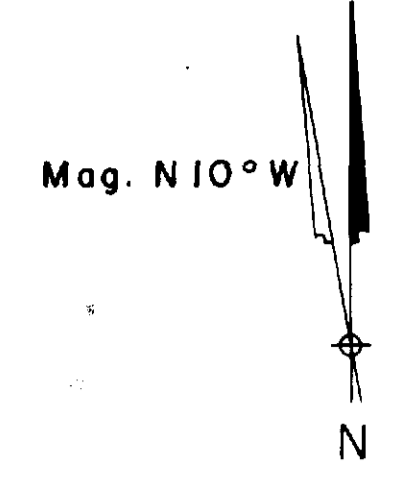
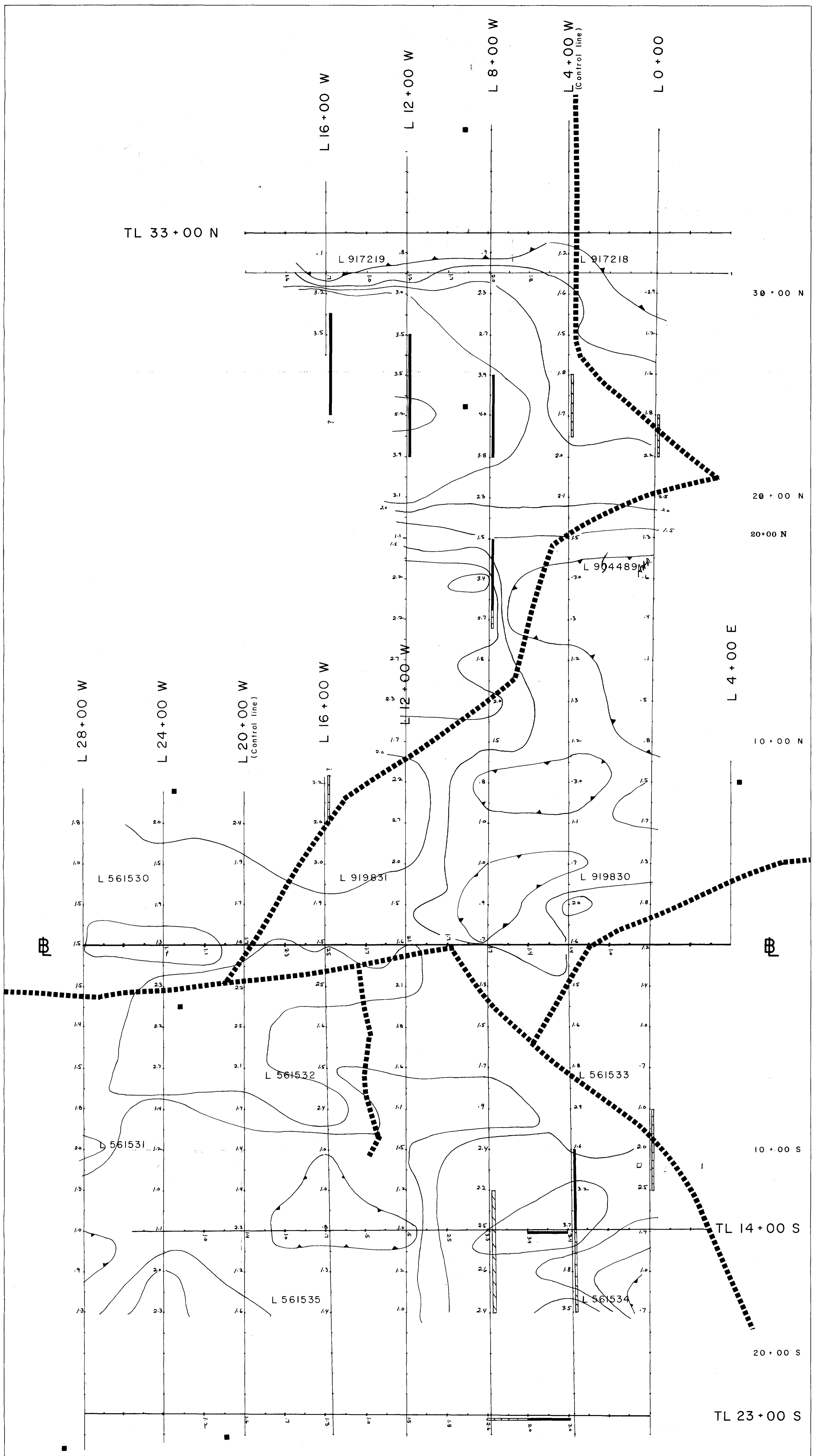
DATE: JANUARY, 1985  
FEBRUARY 8, 1989  
NUMBER: G-3211



CELROY TP.

DATE OF ISSUE

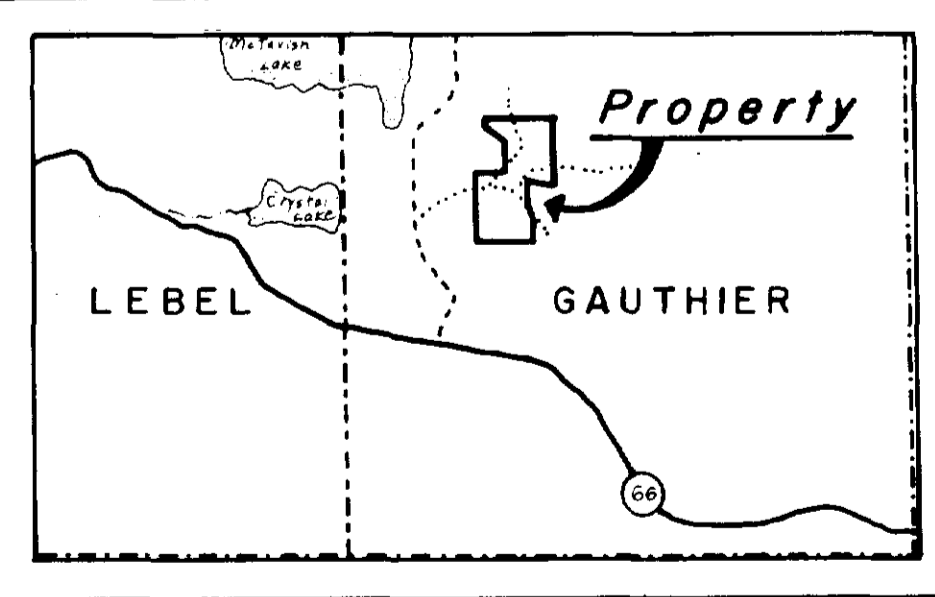
TOWNSHIP SUBJECT TO



**INDUCED POLARIZATION SURVEY**  
 surface projection of anomalous zones  
 definite ———  
 probable .....  
 possible .....

dipole-dipole 200' spreads  
 frequency domain  
 FREQUENCY N=4

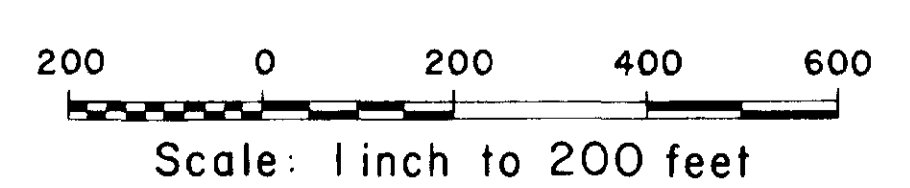
Remy Belanger  
**KEY MAP**  
 Scale: 1 inch to 2 miles



**BRIGEDAN PERREX**  
**EQUITIES INC. & RESOURCES INC.**  
**Northland Joint Venture**

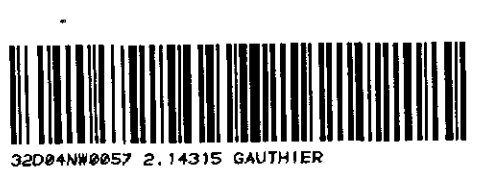
**2.14315**

GAUTHIER TOWNSHIP  
 LARDER LAKE MINING DIVISION  
 DISTRICT OF TIMISKAMING, ONTARIO



**PERRONS'**  
 Kirkland Lake Canada

Drawn by: Mary Greer Date: Oct. 1987 Map No:



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