



42A03SW2001

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ENGLISH

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REPORT OF WORK

on the

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SPANRIDE PROPERTY

English and Beemer Townships, ON.
Porcupine Mining Division

for

STARFIRE MINERALS INC.

April 17, 1998

Geoserve Canada Inc.

Rodne

A. B. GEOSCIENCE ASSESSMENT
OFFICE

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1.0 SUMMARY

A time domain induced polarization survey was completed on the Spanride Property in September, 1997. Several areas of coincident chargeability and resistivity anomalies were located by the survey, three of which warrant further work. The survey also helped to define certain structural and lithological features of the property. Diamond drilling of the IP anomalies is recommended.

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Section	L1200S	1:5000 IP Traverse	"
Section	L1000S	1:5000 IP Traverse	"
Section	L200S	1:5000 IP Traverse	"
Section	L200N	1:5000 IP Traverse	"
Section	L400N	1:5000 IP Traverse	"
Section	L600N	1:5000 IP Traverse	"
Section	L800N	1:5000 IP Traverse	"
Section	L1000N	1:5000 IP Traverse	"
Section	L1200N	1:5000 IP Traverse	"

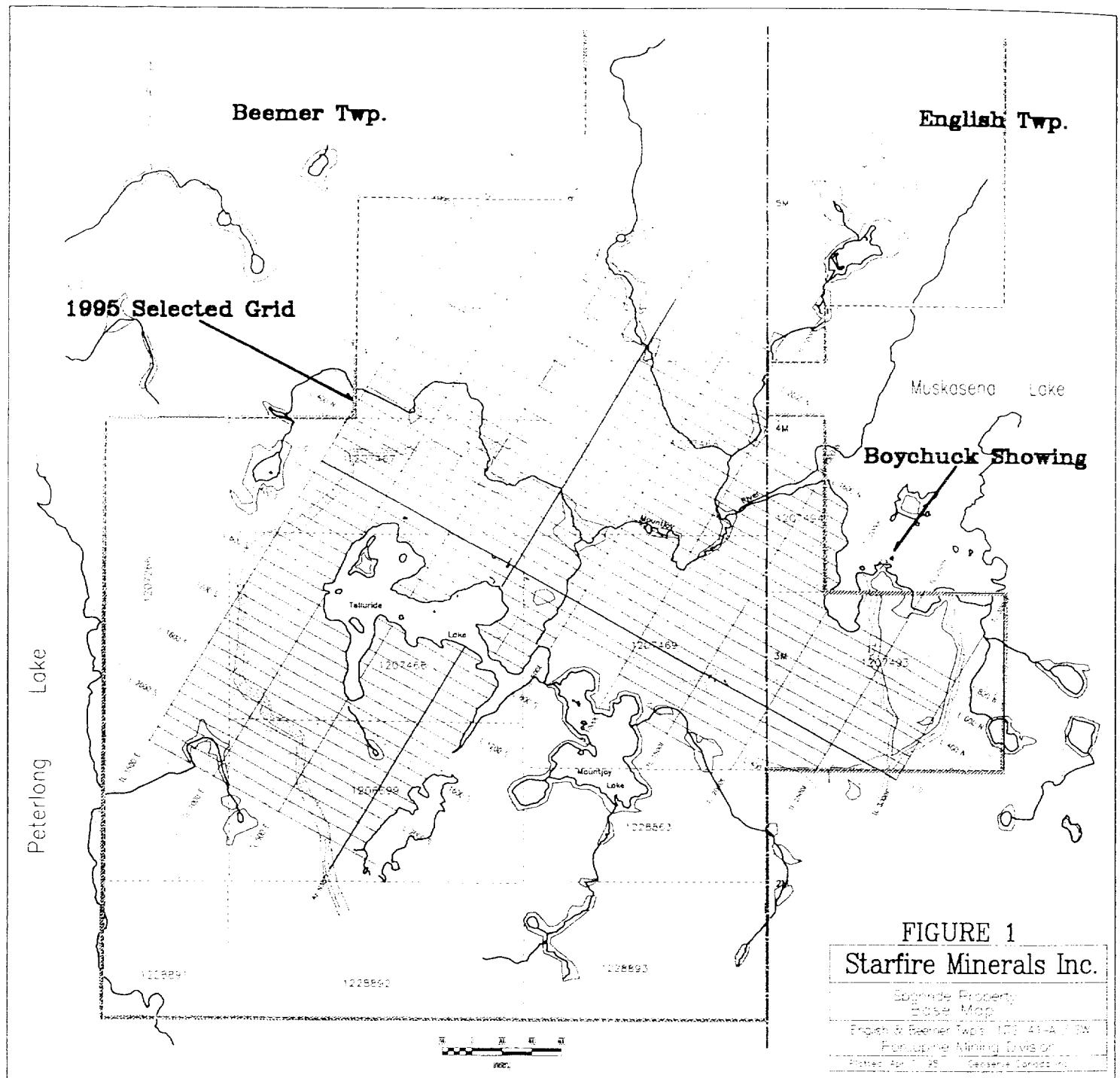
2.0 INTRODUCTION

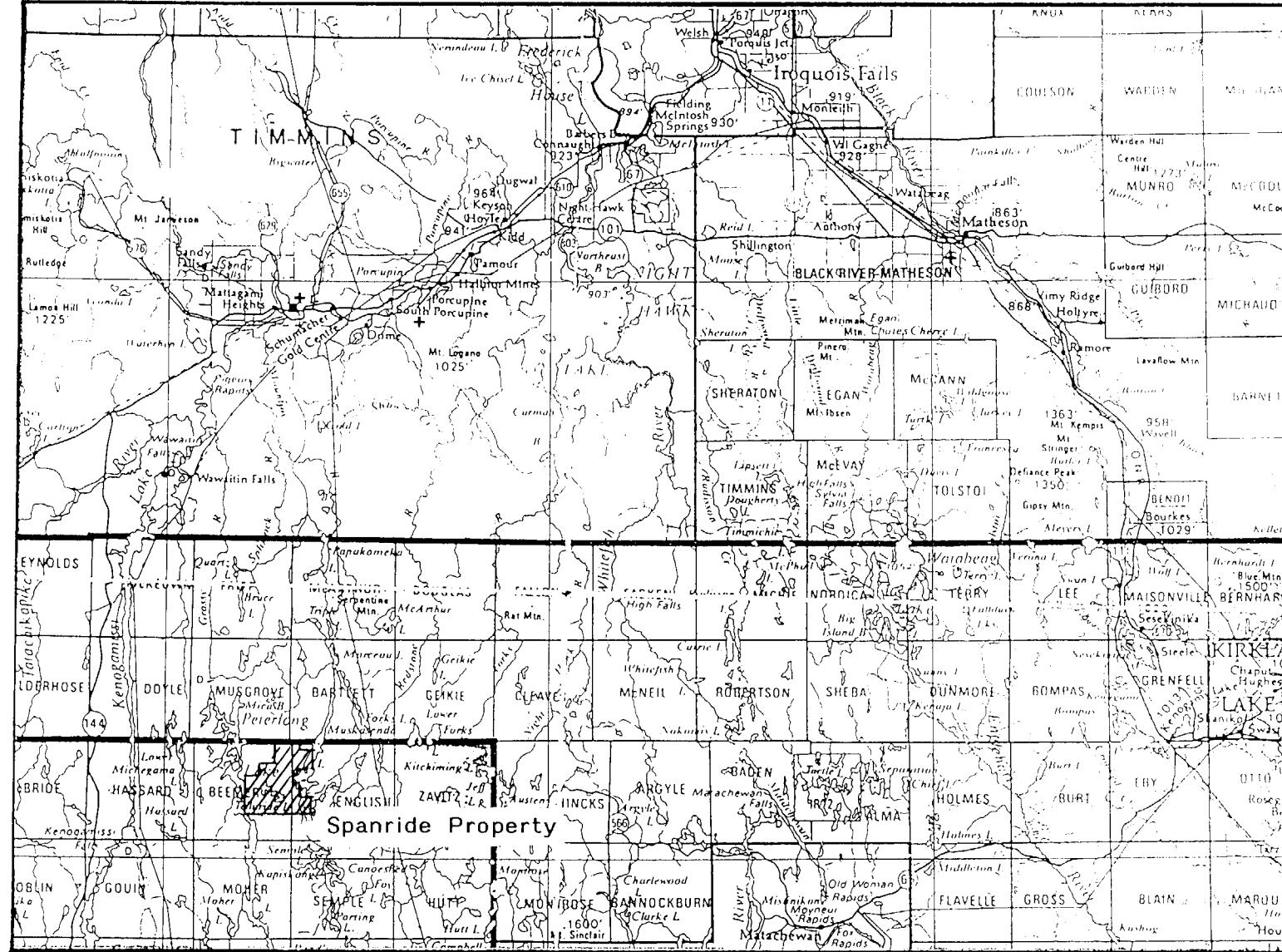
Starfire Minerals Inc explored their Spanride Property in 1997 with a time domain induced polarization survey. The property is comprised of seventeen (17) contiguous claims (96 units) in Beemer and English Townships, Porcupine Mining Division, northeastern Ontario. The property is roughly fifty kilometers south of Timmins, ON, in the Peterlong Lake area. The property, situated within the Abitibi Greenstone Belt in the Peterlong Assemblage is a good prospect for base metals and precious metals. The Peterlong Assemblage is said to be dominantly magnesium-rich tholeiitic metavolcanic rocks (Pyke 1978, Geology of Ontario, OGS Vol 4, part 1, 1991). There are several gold showings on the property and one copper showing (Peterlong Lake, Geological Map 2345, Pyke 1972, OGS) which encourages exploration.

3.0 PREVIOUS WORK

Exploration on the property dates back to the 1930's, when gold was discovered at the Boychuck Showing. The showing apparently consists of quartz stringers and lenses within an east-northeast striking shear zone in intermediate to felsic metavolcanics.

In 1995, Driver Resources completed 137 km of line cutting, a total field magnetics survey and a limited induced polarization survey. The results of this work were encouraging enough to lead to expanded IP coverage in the current survey.





Scale: 1:600 000

Miles 10 0 10 20 30 40 Miles
Kilometres 10 0 10 20 30 40 Kilometres

Spanride Property
Location Map

Figure 2

4.0 1997 IP SURVEY

4.1 Procedure

Work in 1997 consisted of expanding the previous IP coverage on the 1995 grid. Crews from Geoserve Canada Inc., used the Androtex TDR-6 Receiver and Scintrex TSQ-3 Transmitter to conduct the time domain Induced Polarization survey. The pole-dipole array used a 50 m dipole separation and read n=1 to n=6 at 50 m intervals. A total of 35.45 km in 14 lines were run on two separate areas of the property.

4.2 Results

Results of the survey are shown on the IP sections and plans which accompany this report. Note that the plans also incorporate the data from the previous IP survey. Several coincident chargeability and resistivity anomalies are seen.

The most significant of these is a wide area of high chargeability located south of Telluride Lake. This may represent an extensive area of sulphidization associated with the intrusion of the Peterlong Lake Batholith. Within this area, chargeability ranges from 20 to 30 mV/V. Resistivity is highly variable. The area near the southern end of Telluride Lake is a resistivity low and appears to extend to at least L1600S, 350W. This may represent a north south fault. Areas of moderate to high resistivity, up to 57993 ohm/m may represent areas of silicification and/or carbonatization. Of particular interest is a "pant leg" chargeability anomaly centred near 0+50W on Lines 1000S and 1200S. This anomaly is not fully defined due to the limit of the survey.

A known gold occurrence northeast of Telluride Lake is located on the flank of a broad, east-west trending resistivity high/chargeability high. This also trends toward another gold showing on the shore of Telluride Lake, but swings to the south in the east end.

An isolated chargeability/resistivity high near Line 200N, 2150E is roughly coincident with a north-south fault mapped by Pyke (1978).

A north-south trending chargeability/resistivity high from L400N, 800W to L0, 500W coincides with a magnetic high outlined in 1995. This probably represents a diabase dyke.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The induced polarization survey was successful in outlining at least three areas of anomalous resistivity/chargeability on the property, which may represent areas of alteration and disseminated sulphide mineralization. The survey also more fully defined certain structural and lithological trends.

A geological compilation, incorporating all past work in the area, especially diamond drilling would be helpful in interpreting some of the anomalies. Following that the anomalies south and northeast of Telluride Lake, and the one at L200N, 2150E should be tested by diamond drilling.

Respectfully Submitted For Approval,

R Barber
Rodney A Barber

Apr 20, 1998
Date

6.0 CERTIFICATE OF QUALIFICATIONS

I, **Rodney Alan Barber**, residing at 119 Lois Crescent, Timmins, ON., certify that:

1. I hold a B.Sc. (Honours) in Geology, obtained from Laurentian University, Sudbury, ON in 1988.
2. I have worked within the mineral exploration and mining industries since 1988, with an emphasis on northeastern Ontario for the last 7 years.
3. This report is the product of the examination of the survey results which accompany this report, published geological data and a general knowledge of the Timmins area.
4. I have no direct interest in Starfire Minerals Inc or the Spanride Property.

Apr 20, 1998

Date

R Barber

Rodney A Barber

Induced Polarization

Androtex TDR-6; The TDR-6 induced polarization receiver is a highly cost-effective instrument for the detailed measurements of IP effects and apparent resistivity phenomenon. Up to six dipoles can be measured simultaneously, thus increasing production. A wide input voltage range, up to 30V, simplifies surveys over the narrow shallow conductors of large resistivity contrast. Input signal indicators are provided for each dipole. All data are displayed on a 2x16 character display LCD module and any selected parameters can be monitored on a separate analogue meter for noise evaluation during the stacking/averaging. Although the TDR-6 receiver is automatic it allows full control and communications with the operator at all times during measurements. Since the input signal synchronizes the receiver at each cycle, the transmitter timing stability is not critical and any standard time domain transmitter can be used. Data are stored in the internal memory with a capacity of up to 2700 readings (450 stations). The data format is directly compatible with Geosoft without the necessity of an instrument conversion program.

Features

- Wide input signal range •Automatic self-potential cancellation
- Stacking/averaging of Vp and M for high measurement accuracy in noisy environments
- High rejection of power line interference •Continuity resistance test •Switch selectable delay and integration time •Multiwindow chargeability measurements
- Digital output for data logger •Six channel input provided •Compatible with standard time domain transmitters •Alpha-numeric LCD display •Audio indicator for automatic SP compensation •Portable

Specifications

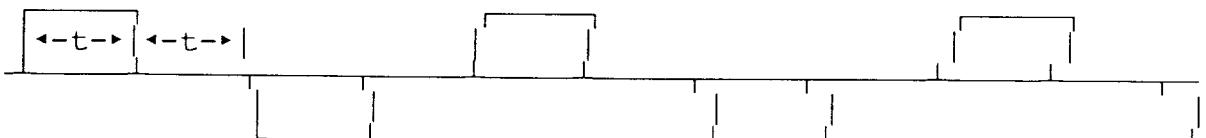
•Dipole	n1 to n6 simultaneously
•Input Impedance	10 megohm
•Input Voltage (Vp)	range:100µV to 30 Volts (automatic), accuracy:.25%, resolution:10µV.
•Self Potential (SP)	range: \pm 2V, accuracy:1%, Automatic compensation \pm 1
•Chargeability (M)	range:300mV/V, accuracy:.25%, resolution:.1mV/V
•Automatic Stacking	2 to 32 cycles
•Delay Time	programmable
•Integration Time	programmable for each gate (10 gates)
•Total Chargeability Time	During integration time of all gates
•Synchronization Signal	programmable from channel 1 to 6
•Filtering	power lines:dual notch 60/180Hz or 50/150Hz, 100dB, other:Anti-alias, RF and spike rejection.
•Internal Test	Vp=1V, M=30mV/V
•Ground resistance test	0 to 200 Kohm
•Transmitting Time	1,2,4 and 8 sec pulse duration, ON/OFF.
•Digital Display	Two line 16 alphanumeric LCD.
•Analogue Meters	Six-monitoring input signal and course resistance testing.
•Controls	Push button reset, toggle start-stop, rotary Rs-in-test, rotary (data scroll) display, rotary (data scroll) Dipole, keypad 16 key 4x4.
•Memory Capacity	2700 readings, 450 stations (n1 to n6).
•Data Output	serial I/O RS-232 (programmable baud rate), Geosoft compatible output format.
•Temperature Range	Operating:-30° to +50°C, storage -40° to +60°C.
•Power Supply	Four 1.5V D cells.
•Dimensions	31x16x29 cm
•Weight	6.5 kg (14.3lbs)

Scintrex TSQ-3; The Motor-Generator set consists of a reliable Briggs and Stratton four stroke engine, coupled to a brushless permanent magnet alternator. The transmitter design employs solid-state components both for power switching and control circuits. Output waveforms and frequencies are selectable; square wave continuous for frequency domain and square wave interrupted for time domain. The programmer is crystal controlled for high stability. While care still must be taken when working with high voltages, the TSQ-3 features overload, underload and thermal protection for maximum safety. Stabilization circuitry ensures that the output current (I_g) is automatically controlled to within $\pm 1\%$ for up to 20% external load or $\pm 10\%$ input voltage variations. Voltage, current and circuit resistance are presented on a LED digital display. The system functions as follows; The motor turns the generator (alternator) which produces 800Hz, three phase, 230VAC. This energy is transformed upwards according to a front panel voltage setting in a large transformer housed in the TSQ-3. The resulting AC is then rectified in a rectifier bridge. Commutator switches then control the DC voltage output according to the waveform and frequency selected.

Specifications

•Output Power	3000 VA maximum
•Output Voltages	300, 400, 500, 600, 750, 900, 1050, 1200, 1350 & 1500V
•Output Current	10 amperes maximum
•Output Current Stability	Automatic controlled to within $\pm 1\%$ for up to 20% external load variation or up to $\pm 10\%$ input voltage variation.
•Stabilization Protection	(Over-range) High Voltage shuts off automatically if the control range exceeds 20%.
•Digital Display	Light emitting diodes permit display up to 1999 with variable decimal point; switch selectable to read input voltage, output current, external circuit resistance, dual current range, switch selectable.
•Current Reading Resolution	10mA on coarse range (1-10A) and 1mA on fine range (0-2A).
•Time Domain Cycle	t:t:t:t; ON:OFF:ON:OFF:automatic
•Polarity Change	Each 2t, automatic.
•Pulse Duration	Standard t=1, 2, , 4, 8, 16 and 32 seconds, optional
•Stability	Crystal controlled to better than .1% with external clock option better than 20ppm over operating temperature range.
•Efficiency	.78
•Operating Temperature	Range; -30°C to +50°C
•Overload Protection	Automatic shut-off at 3000VA.
•Underload Protection	Automatic shut-off at current below 85mA.
•Thermal Protection	Automatic shut-off at internal temp. of 85°C.
•Dimensions	350cm x 530cm x 320cm (transmitter).
•Motor	Briggs and Stratton, four stroke 8HP.
•Alternator	Permanent magnet type, 800Hz, three phase 230VAC at full load.
•Output Power	3000 VA maximum.
•Dimensions	520cm x 715cm x 560cm (generator assembly).
•Weight	Transmitter: 25.0kg, Generator Assembly 72.5kg.

Output DC interrupted squarewave used for survey.



$t = 2$ seconds, ON & OFF time. Total duty Cycle Used; 8 seconds.
(8)

IP Method

The phenomena of Induced Polarization (IP) was reported as early as 1920 by Schlumberger. The IP survey technique allows a variety of arrays (which all have advantages and disadvantages) and reads two separate elements; (1) The chargeability or IP effect (M) and Apparent Resistivity. The IP technique is useful for detecting sulphide bodies and is also useful as a structural mapping tool. The IP effect is the measurement of the residual voltage in rocks that remains after the interception of a primary voltage. It includes many types of dipolar charge distributions set up by the passage of current through consolidated or unconsolidated rocks. Among the causes are concentration polarization and electrokinetic effects in rocks containing electronic conductors such as metallic sulphides and graphite. The term overvoltage applies to secondary voltages set up by a current in the earth which decays when it is interrupted. These secondary effects are measured by a receiver via potential electrodes. The current flow is actually maintained by charged ions in the solutions. The IP effect is created when this ionic current flow is converted to electronic current flow at the surface of metallic minerals (or some clays, and platy silicates). The IP method is generally used for prospecting low grade (or disseminated) sulphide ores where metallic particles, sulfides in particular, give an anomalous response. Barren rock (with certain exceptions) gives a low response. In practice, IP is measured in one or two ways; (1) In a pure form, a steady current of some seconds (nominally 2 seconds) is passed and abruptly interrupted. The slowly decaying transient voltage existing in the ground are measured after interruption. This is known as the time domain method. The factor V_s / V_p is the integrated product for a specified time, and several readings are averaged (suppressing noise and coupling effects). The resultant chargeability, M is essentially an unitless value but it is usually represented in mV/V. The second method entails a comparison of the apparent resistivity using sinusoidal alternating currents of 2 frequencies within the normal range of 0.1 to 10.0 cps.. The factor used to represent the IP effect by this frequency domain method is the percent frequency effect (PFE) and is defined by $(R_1 - R_2) / R_1 \times 100\%$ where R_1 and R_2 are the apparent resistivities at the low and high frequencies.

Use and Limitations

The effective depth of penetration of any IP survey is a function of the resistivity of the surface layer('s) with respect to the resistivity of the lower layer. All arrays have different effects from this resistivity contrast, some are less affected than others. When the surface layer is 0.01 of the lower layer, the effective penetration is very poor hence the term masking. Masking occurs most often in areas of thick clay cover. The size of the target therefore becomes important when detection is desirous under a conductive surface layer. The frequency domain methods are the most adversely affected by masking as inductive coupling can be much greater than the response.

Standard Definitions of Chargeability

The IP parameter, chargeability (M) varies with time. For practical reasons the entire decay curve is not sampled. Instead the secondary voltage is sampled one or more times at various intervals. Because the secondary voltage is received at extremely low levels in many prospecting situations, measurements of its amplitude at any given time is extremely susceptible to noise. Therefore, the secondary voltage is usually integrated for a period of time called a gate. Thus, if the noise has a zero mean, the integration will tend to cancel the noise. The Newmount M Factor is a standard time domain IP parameter. The gate delay, of 80 mSeconds (used by the TDR-6) was chosen to allow time for normal electromagnetic effects and capacitive coupling effects between the transmitter and receiver to attenuate so that the secondary voltage consists only of the IP decay voltage.

The TDR-6 total integration time of 1580 milliSeconds (gate) is divided into ten individual gates. The time-constant of the IP dispersion curve, Cole-Cole dispersion (W H Pelton, 1977), obtained from the ten individual gates (windows) is directly related to the physical size of the metallic particles. This data is available at the clients request since all of the obtained field data is archived (downloaded) to computer.



**Declaration of Assessment Work
Performed on Mining Land**

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

Transaction Number (office use)

149860.00505

Assessment Files Research Imaging



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Priority of subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the Act, I declare to review the assessment work and correspond with the mining land holder.

Minerals Recorder, Ministry of Northern Development and Mines, 6th Floor,

2 • 1 8442

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240.

- Please type or print in ink.

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

Name STARFIRE MINERALS INC.	Client Number # 300371
Address 850 WEST HASTING STREET (SUITE 301)	Telephone Number 604-623-3101
Name VANCOUVER, B.C. V6C 1E1	Fax Number 604-623-3109
Address	Client Number
	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 LINECUTTING / I.P SURVEY	Office Use
	Commodity
	Total \$ Value of Work Claimed # 58,491
Dates Work Performed From 07 07 97 To 08 05 98	NTS Reference
Global Positioning System Data (if available)	Township/Area BELMONT/ENGLISH
	M or G-Plan Number M-0656/G-3938
	Mining Division Porcupine
	Resident Geologist District Timmins

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 GEOERVE CANADA INC	Telephone Number 705-235-8661
Address 99 BRUCE B SOUTH- PORCUPINE PON 1H0	Fax Number 705-235-8038
Name	Telephone Number
Address	Fax Number
Name 2 • 1 8442	RECEIVED 9:30 AM MAY 12 1998
Address	Telephone Number
	Fax Number
	RECEIVED MAY 11 1998
	3:30 PM
	PORCUPINE MINING DIVISION

4. Certification by Recorded Holder or Agent

I, MIKE CARON, 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>MIKE CARON</u>	Date MAY 8, 1998
Agent's Address P.O BOX 362 Porcupine ONT	Telephone Number 705-235-8660
	Fax Number 705-235-8661

Photocopy *Touch copy for rounding*

Mining Claim Number. Only work 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 by future date
sq	TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2,825
sq	1234567	12	0	\$24,000	2	184 42
sq	1234568	2	3,882	\$4,000	34,882	
1	1206699	15	\$7,837.00	\$6,000.00	1,837.00	Q
2	1207466	15	\$10,477.00	\$6,000.00	\$4,477.00	Q
3	1207467	12	\$8,580.00	\$4,800.00	\$3,780.00	Q
4	1207468	9	\$7,177.00	\$3,600.00	\$3,577.00	Q
5	1207469	16	\$10,643.00	\$6,400.00	\$3,900.00	+\$3,130.00
6	1203991	16	Q	\$6,400.00	Q	Q
7	1203992	16	Q	\$6,400.00	Q	Q
8	1203993	12	Q	\$4,800.00	Q	Q
9	1207493	12	\$8,828.50	\$4,800.00	\$4,028.50	Q
10	1207494	3	\$2,228.50	\$1,200.00	Q	+\$1,028.50
11	1207266	16	\$2,726.50	Q	\$1928.50	+\$742.00 750
12	1203994	15	Q	\$6,000.00	Q)	Q
13					1971	
14						
15						
Column Totals			58,487.00	\$56,400.00	\$23,598.50	\$2,089.00

I, MICHAEL CARON, 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 Appendix

Date

MAY 8th 1998

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

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

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

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MAY 11 1998

GEOSCIENCE ASSESSMENT
OFFICE

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
0241 (03/97)	Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)		

RECEIVED
MAY 11 1998
3:30PM N
PORCUPINE MINING DIVISION

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
0241 (03/97)	Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)		

RECEIVED
MAY 11 1998
3:30PM N
PORCUPINE MINING DIVISION

RECEIVED
9:30AM J
MAY 17 1998
GEOSCIENCE ASSESSMENT
OFFICE



Ministry of
Northern Development
and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use)

W9860.00505

Personal information collected on this form is obtained under the authority of subsection 8 (1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, this 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 a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of work	Cost Per Unit of work	Total Cost
REFURISHING LINE	35.45 Km	150.00 per	\$5,317.50
I.P SURVEY	35.45 Km	1500.00 per	\$53,175.00
2 . 1 8 4 4 2			
Associated Costs (e.g. supplies, mobilization and demobilization).			
Transportation Costs			
Food and Lodging Costs			

Total Value of Assessment Work

58,492.50

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:

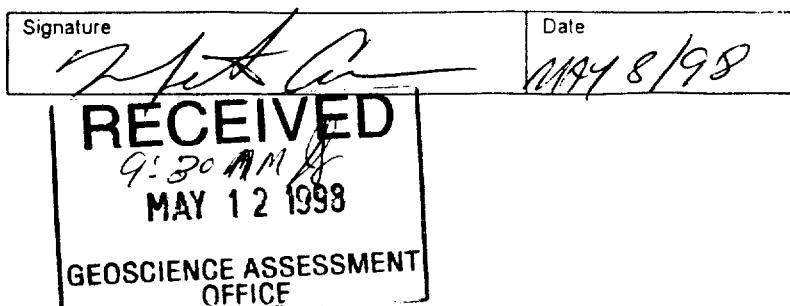
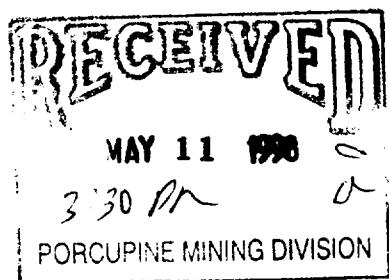
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may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

Certification verifying costs:

I, MIKE CACON, 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 (Agent) I am authorized to make this certification.
(recorded holder, agent, or state company position with signing authority)

0212 (03/97)



Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

July 27, 1998

STARFIRE MINERALS INC.
BOX 10
Suite 301, 850 WEST HASTINGS STREET
VANCOUVER, B.C.
V6C-1E1



Ontario

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

Telephone: (888) 415-9846
Fax: (705) 670-5881

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

Dear Sir or Madam:

Submission Number: 2.18442

Status

Subject: Transaction Number(s): W9860.00505 Deemed Approval

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

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

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

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

Yours sincerely,

A handwritten signature in black ink, appearing to read "Blair Kite".

ORIGINAL SIGNED BY

Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Work Report Assessment Results

Submission Number: 2.18442

Date Correspondence Sent: July 27, 1998

Assessor: Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9860.00505	1206699	BEEMER, ENGLISH	Deemed Approval	July 23, 1998

Section:
14 Geophysical IP

Correspondence to:

Resident Geologist
South Porcupine, ON

Assessment Files Library
Sudbury, ON

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

Mike Caron
PORCUPINE, ONTARIO

STARFIRE MINERALS INC.
VANCOUVER, B.C.

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
(R) SEC.36/80	W.18 / 77	28/02/77	S.R.O.	83582
(R) SEC.36/80	W.19/78	10/04/78	S.R.O.	188543
(R) SEC.36/80	W.30/78	02/06/78	S.R.O.	192219

MINING AND SURFACE RIGHTS WITHDRAWN FROM
PROSPECTING, STAKING OUT, SALE OR LEASE
UNDER SECTION 25 OF THE MINING ACT P.S.O. 1990
ORDER NO. W-P 43/94 NER DATED 94-MAY-02

M.N.R. SURF

DATE OF ISSUE

JUL 06 1998

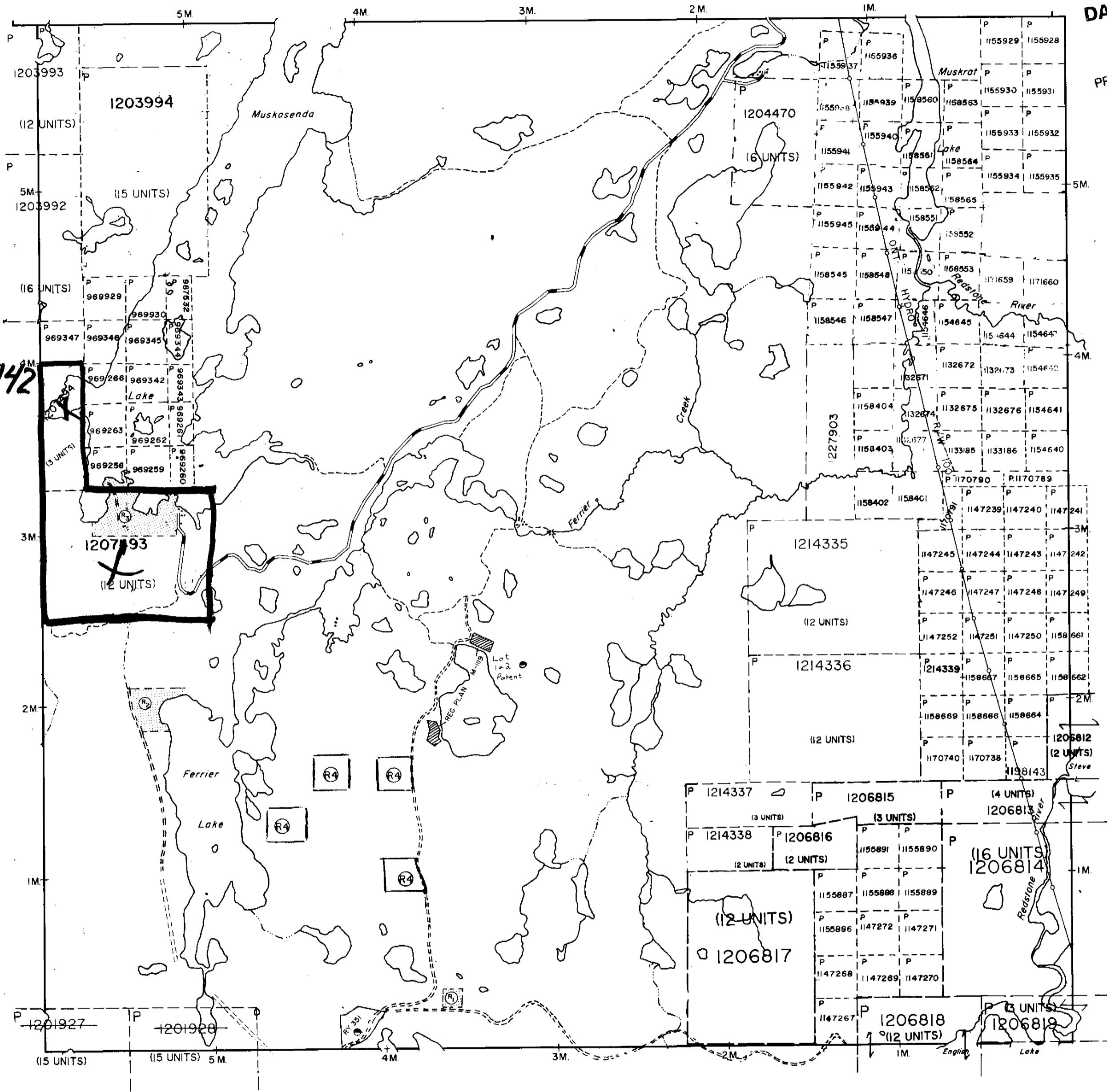
PROVINCIAL RECORDING
OFFICE - SUDBURY



THE INFORMATION THAT
APPEARS ON THIS MAP
HAS BEEN COMPILED
FROM VARIOUS SOURCES
AND ACCURACY IS NOT
GUARANTEED. THOSE
WISHING TO STAKE MIN-
ING CLAIMS SHOULD CON-
SULT WITH THE MINING
RECORDER, MINISTRY OF
NORTHERN DEVELOP-
MENT AND MINES, FOR AD-
DITIONAL INFORMATION
ON THE STATUS OF THE
LANDS SHOWN HEREON

2.18442
IP
BEEMER TOWNSHIP

BARTLETT TOWNSHIP



SEMPLE TOWNSHIP

DATE OF ISSUE

JUL 06 1998

PROVINCIAL RECORDING
OFFICE - SUDBURY

LEGEND

HIGHWAY AND ROUTE No.



OTHER ROADS



TRAILS



SURVEYED LINES:



TOWNSHIPS, BASE LINES, ETC.



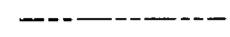
LOTS, MINING CLAIMS, PARCELS, ETC.



UNSURVEYED LINES:



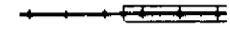
LOT LINES



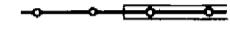
PARCEL BOUNDARY



RECORDING MINING CLAIMS ETC.



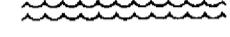
RAILWAY AND RIGHT OF WAY



UTILITY LINES



NON-PERENNIAL STREAM



FLOODING OR FLOODING RIGHTS



SUBDIVISION OR COMPOSITE PLAN



RESERVATIONS



ORIGINAL SHORELINE



MARSH OR MUSKEG



MINES



TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT

SYMBOL

PATENT, SURFACE & MINING RIGHTS



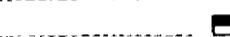
" SURFACE RIGHTS ONLY



" MINING RIGHTS ONLY



LEASE, SURFACE, MINING RIGHTS



" SURFACE RIGHTS ONLY



" MINING RIGHTS ONLY



LICENCE OF OCCUPATION



ORDER-IN-COUNCIL



RESERVATION

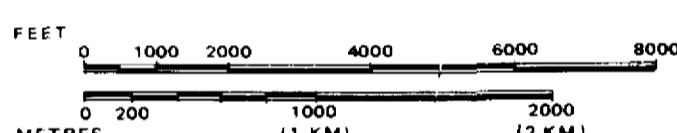


CANCELLED



SAND & GRAVEL

SCALE: 1 INCH = 40 CHAINS



TOWNSHIP

ENGLISH

M.N.R. ADMINISTRATIVE DISTRICT

TIMMINS

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

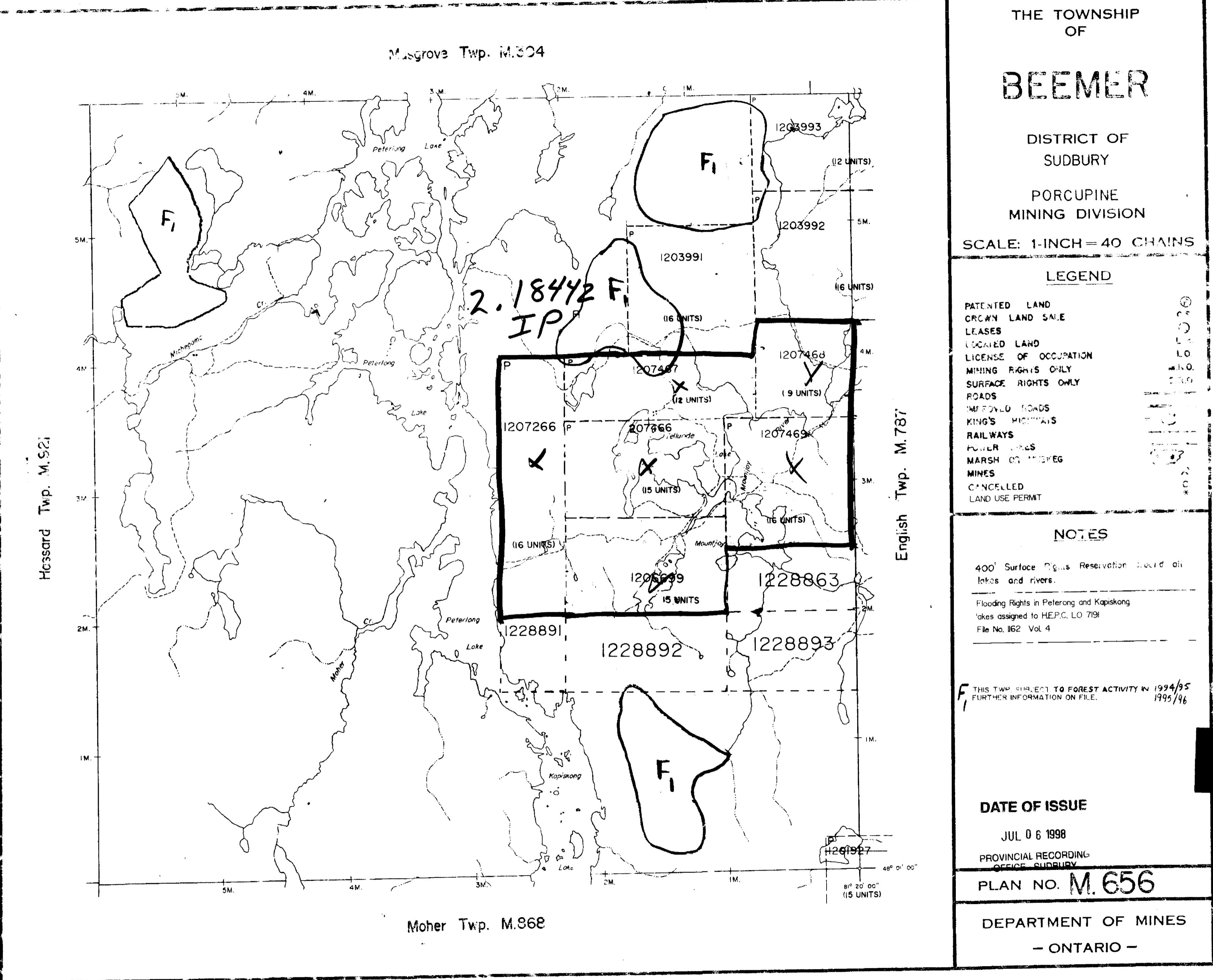
SUDBURY



Ministry of
Natural
Resources
Ontario

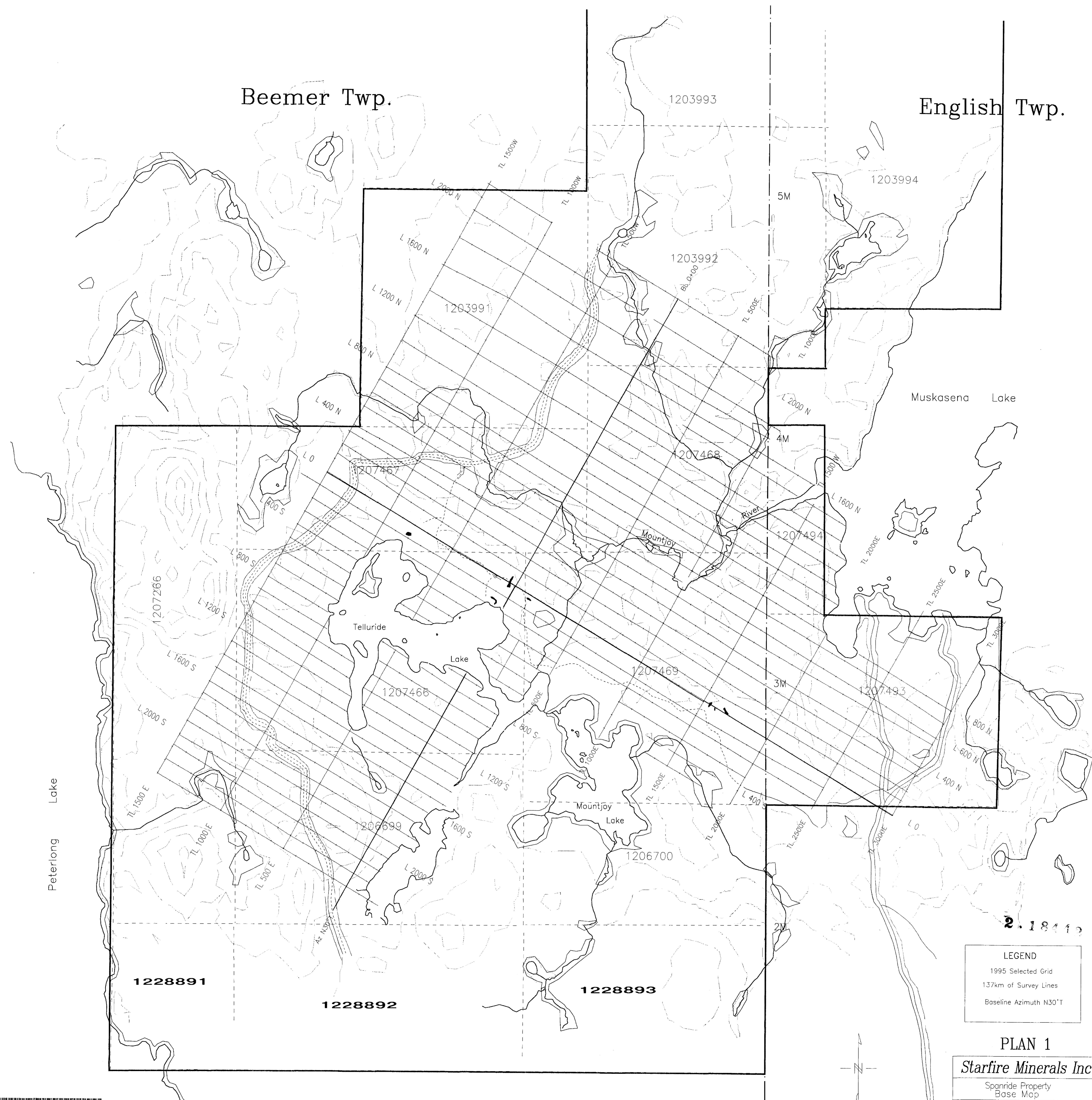
Date SEPTEMBER 1990
ACTIVATED : SEPT. 25/90
SR.

Number
G-3938



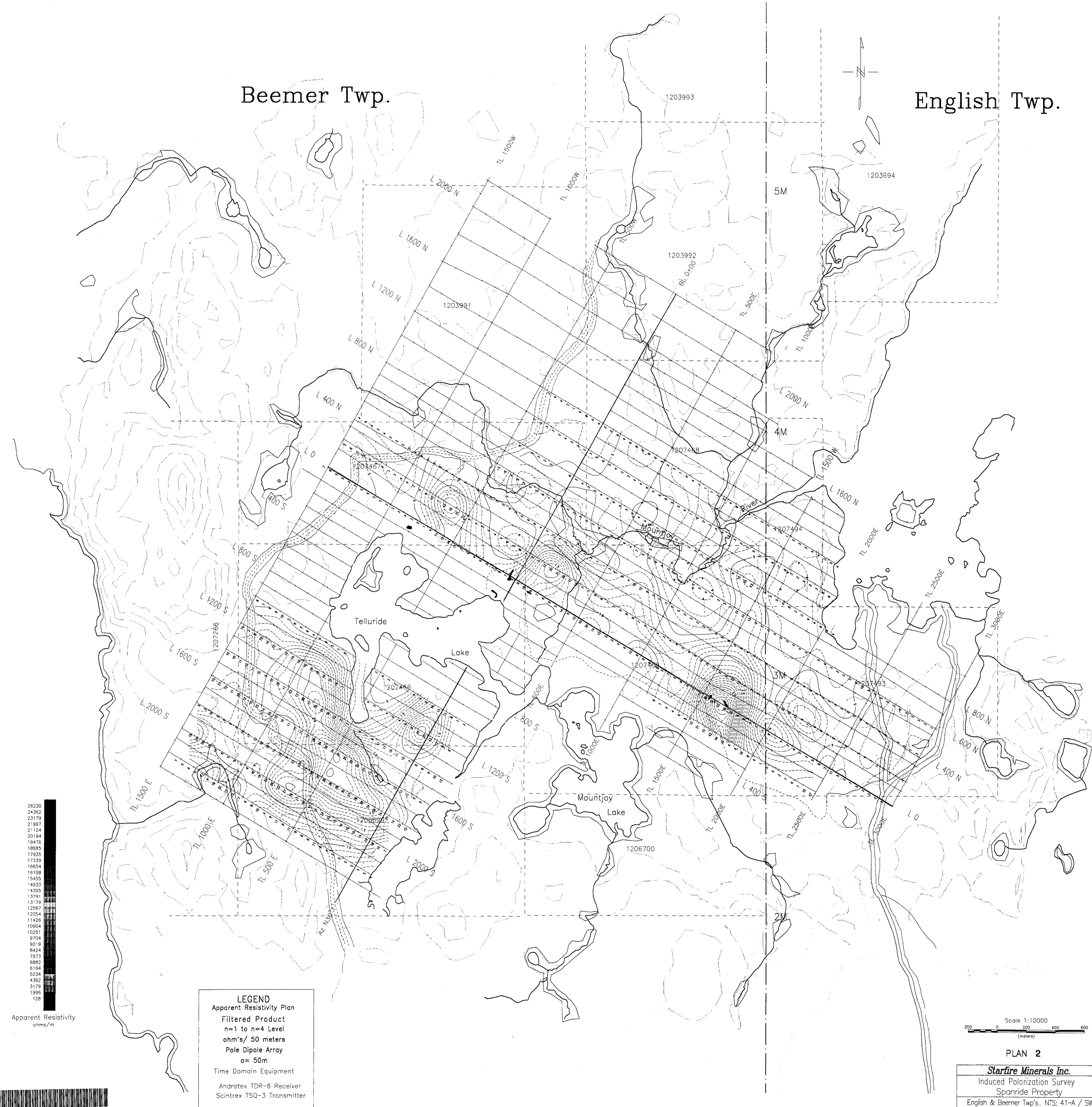
Beemer Twp.

English Twp.



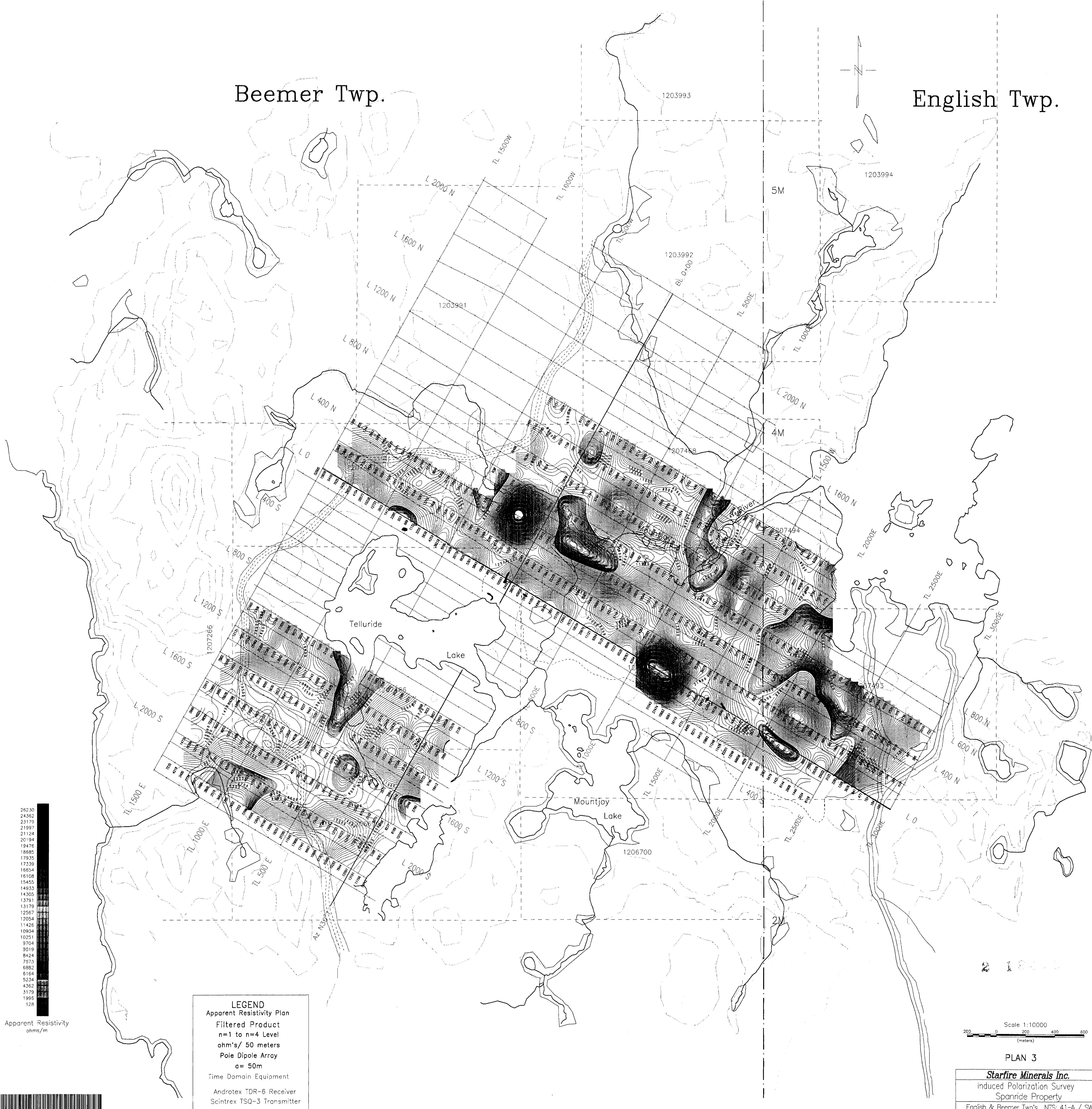
Beemer Twp.

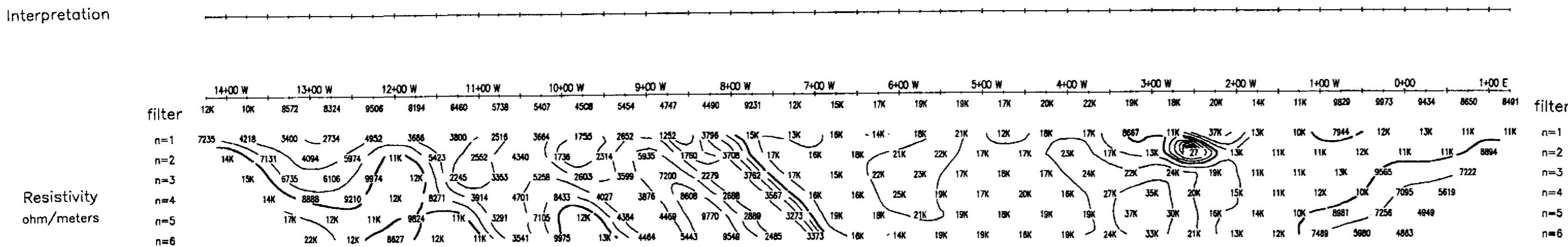
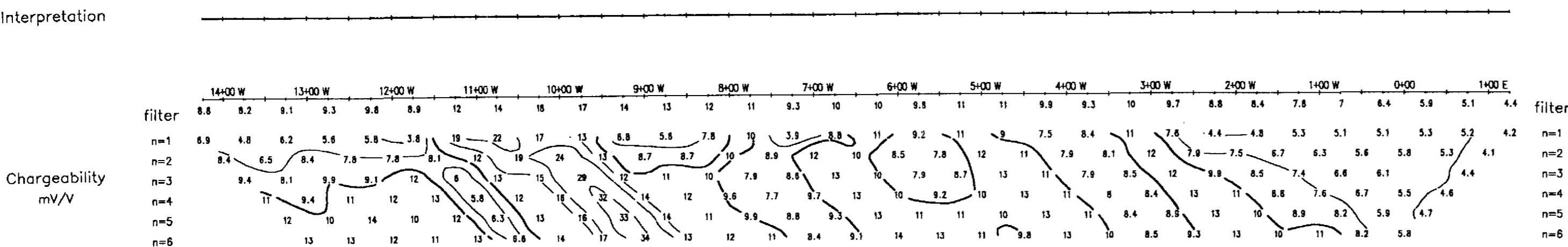
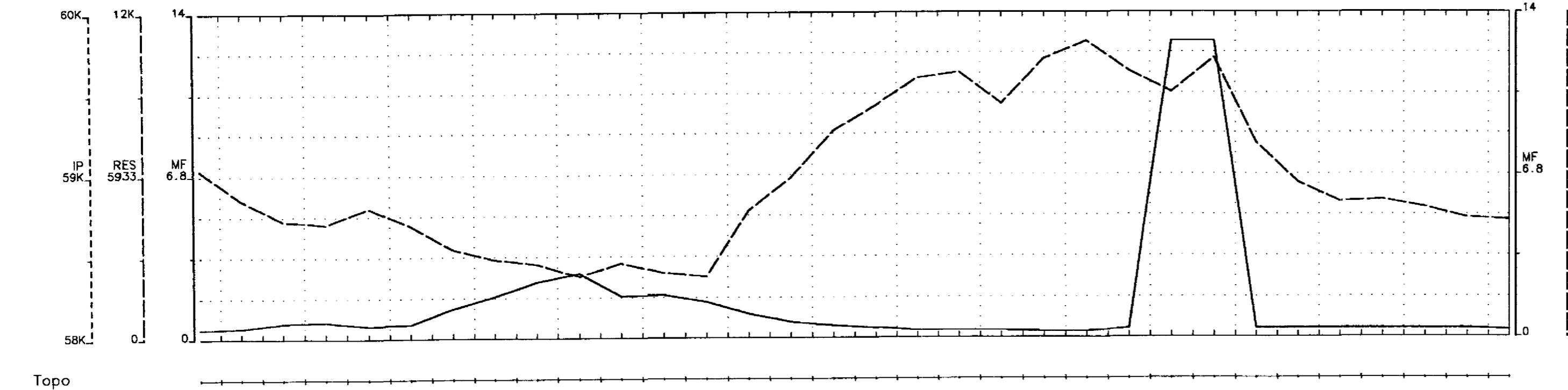
English Twp.



Beemer Twp.

English Twp.





Interpretation

Chargeability

Interpretation

Resistivity
ohm/meters

L- 2200S

2 1 8 4 4 2

Pole-Dipole Array

$a = 50\text{m}$

plot point

Filter	
*	n1
**	n2
***	n3
****	n4

	Cont. Intervals	Profiles
Resistivity ; Logarithmic	— — — —	
Chargeability ; Logarithmic	— - - - -	
Metal Factor :	—————	

INSTRUMENTS
Androtex TDR6, Time Domain Receiver
1760mSec Total Intergration Time, 80mS Delay.
 $MT = (80+80+80+80+160+160+160+320+320+320) \text{ mSec}$
Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

low Effect
poorly Chargeable mV/V, IP effect
low Apparent Resistivity, rho

Moderately Low Effect

Moderately High Effect
High Effect
Good Chargeability, mV/V, IP effect
High Apparent Resistivity, rho

Scale 1:5000
0 50 100 150 200 250 300
(meters)

Barfire Mineral Inc

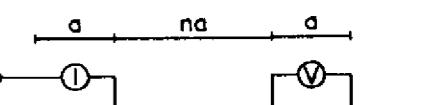
nduced Polarization Survey
Spanride-1-95 Grid
h & Beamer NTS: 42- A / SW

Porcupine Mining Division
Geoserve Canada Inc Sept. 97

260
ENGLISH
2.18442
42A03SR2001

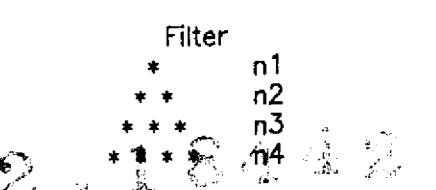
L- 2000S

Pole-Dipole Array



$a=50M$

plot point



Cont. Intervals Profiles

Resistivity ; Logarithmic
Chargeability ; Logarithmic
Metal Factor ;

INSTRUMENTS

Androtex TDR6, Time Domain Receiver

1760mSec Total Intergration Time, 80mS Delay.

MT = (80+80+80+160+160+160+320+320+320) mSec

Scintrex TSQ-3 Transmitter

8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho

Moderately Low Effect

Moderately High Effect

High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho

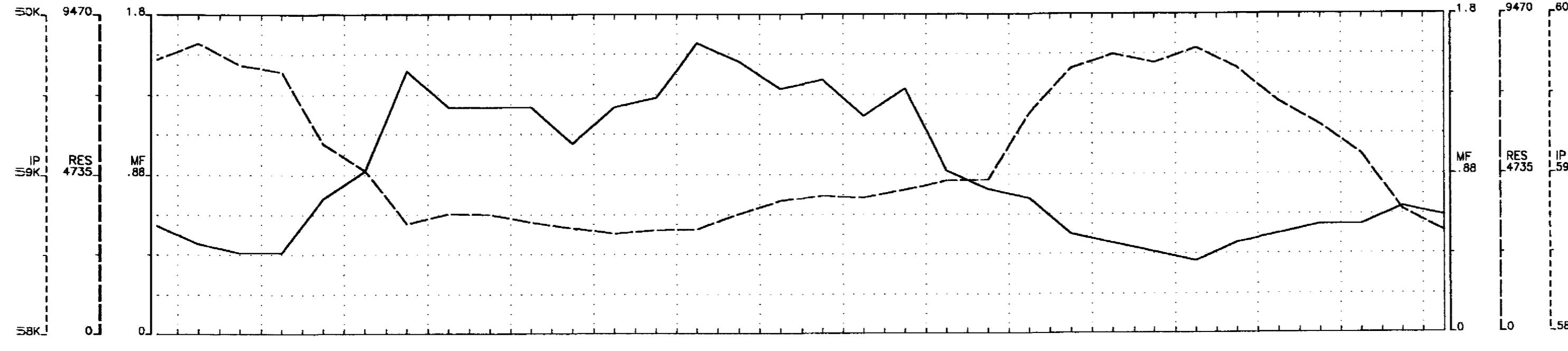
Scale 1:5000
50 0 50 100 150 200 250 300
(meters)

Starfire Mineral Inc

Induced Polarization Survey
Spanride-1-95 Grid

English & Beemer, NTS: 42- A/ SW

Porcupine Mining Division
Geoserve Canada Inc
Sept. 97.



FEED

Interpretation

Chargeability
 mV/V

Interpretation

Resistivity
 ohm/meters

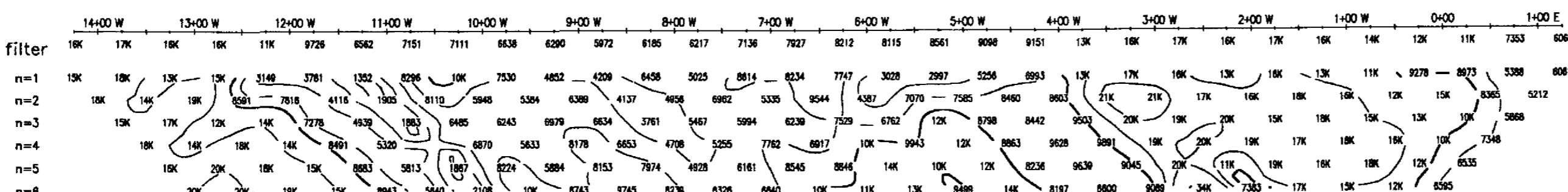
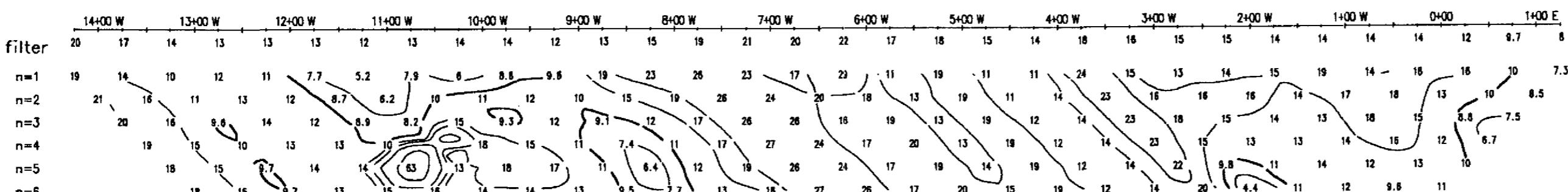
Topo

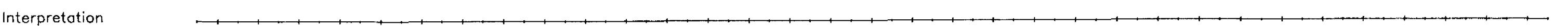
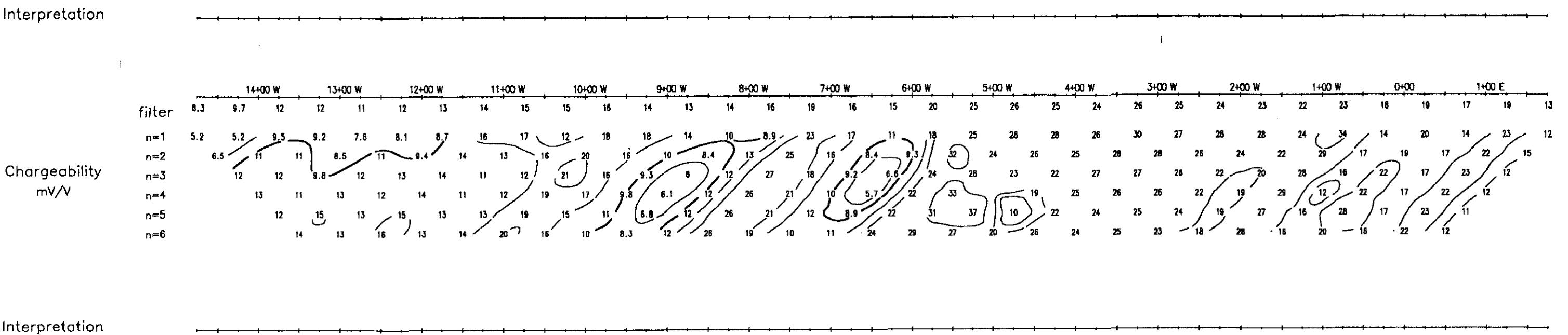
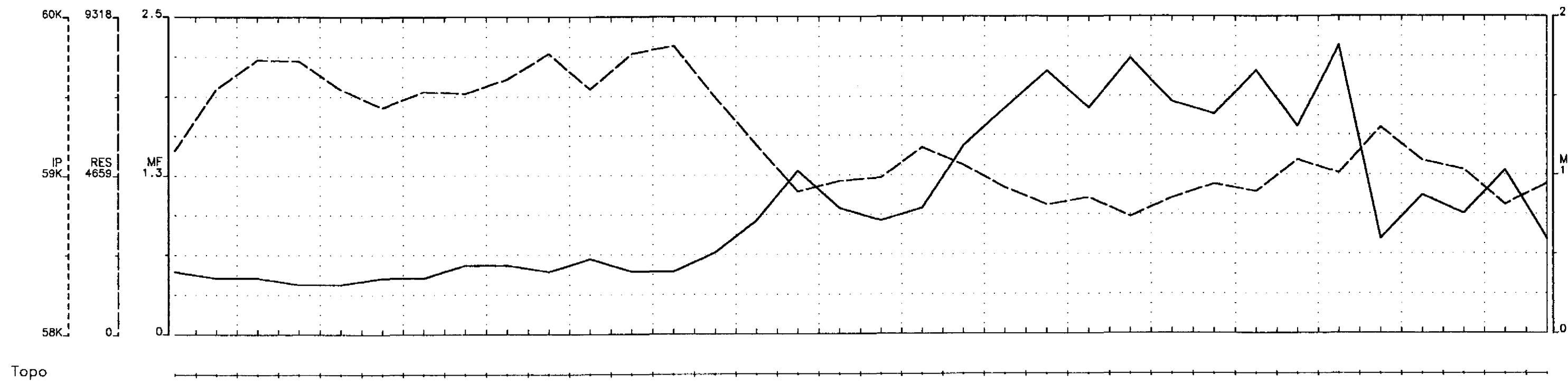
Interpretation

Chargeability
 mV/V

Interpretation

Resistivity
 ohm/meters





L- 1800S
2 • 18462

Pole-Dipole Array

$a = 50M$

plot point

Filter

- * n1
- ** n2
- *** n3
- **** n4

Cont. Intervals Profiles

Resistivity ; Logarithmic

Chargeability ; Logarithmic

Metal Factor ;

INSTRUMENTS

Androtex TDR6, Time Domain Receiver

1760mSec Total Intergration Time, 80mS Delay.

$MT = (80+80+80+160+160+160+320+320+320)$ mSec

Scintrex TSQ-3 Transmitter

8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

- [Light Gray Box] Low Effect
- [Medium Gray Box] Poorly Chargeable mV/V, IP effect
- [Dark Gray Box] Low Apparent Resistivity, rho
- [White Box] Moderately Low Effect
- [Light Gray Box] Moderately High Effect
- [White Box] High Effect
- [Medium Gray Box] Good Chargeability mV/V, IP effect
- [Dark Gray Box] High Apparent Resistivity, rho

Scale 1:5000

50 0 50 100 150 200 250 300 (meters)

Starfire Mineral Inc

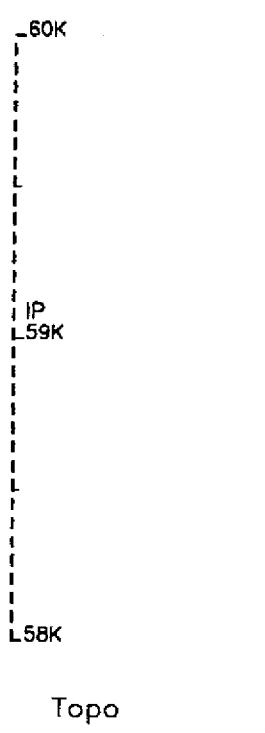
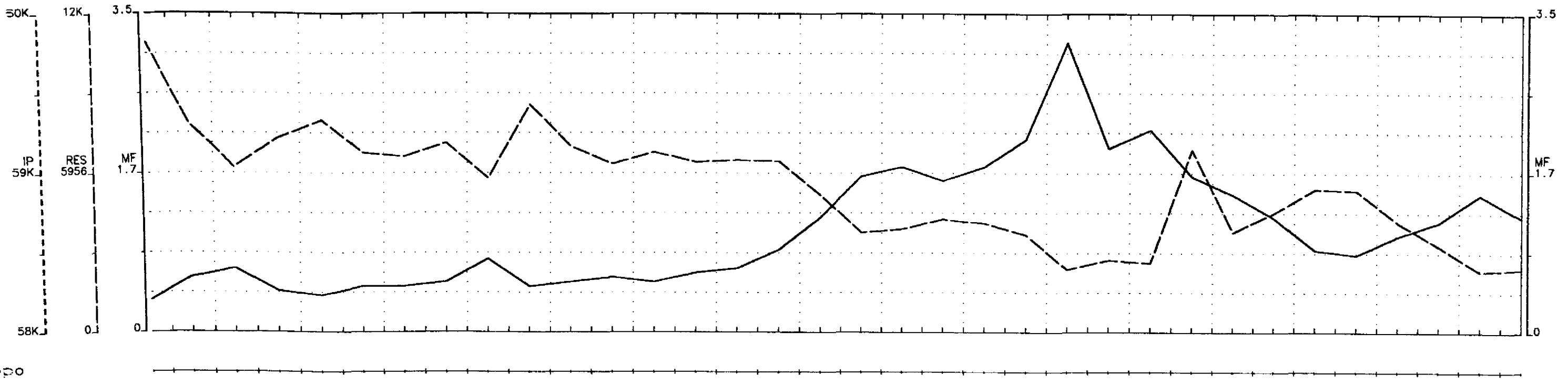
Induced Polarization Survey

Spanride-1-95 Grid

English & Beemer, NTS: 42-A/ SW

Porcupine Mining Division

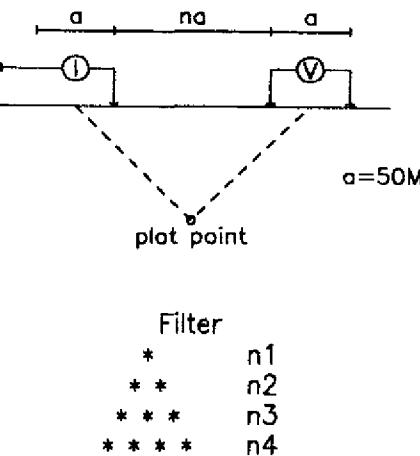
Geoserve Canada Inc Sept. 97.



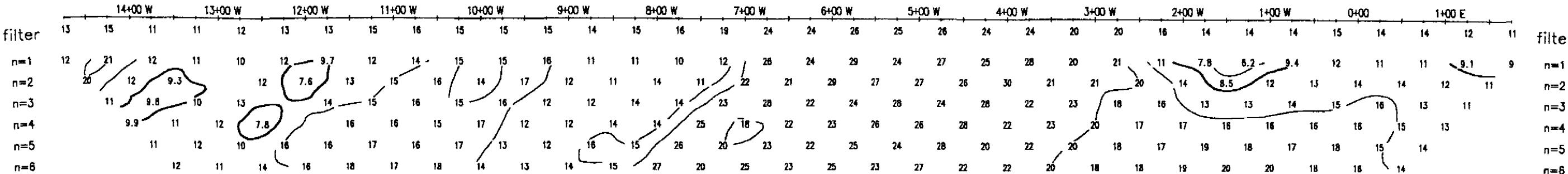
L- 1600S

2.18

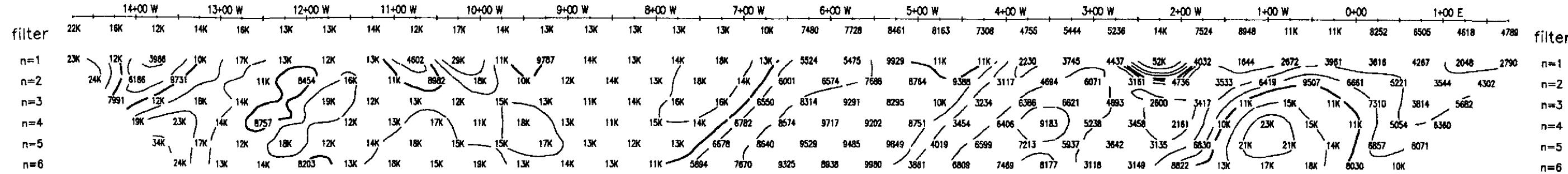
Pole-Dipole Array



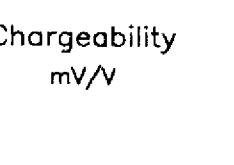
Interpretation



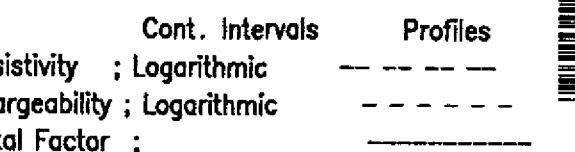
Interpretation



interpretation



interpretation



INSTRUMENTS

Androtex TDR6, Time Domain Receiver

1760mSec Total Intergration Time, 80mS Delay.

+80+80+80+160+160+160+320+320+320) mSe

Scintrex TSQ-3 Transmitter

INTERPRETATION

Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho

Moderately Low Effect

Moderately High Effect

Moderately High Effect
 High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity rho

Scale 1:5000

Scale 1:5000

(meters)

Starfire Mineral Inc.

Reduced Polarization System

Induced Polarization Survey Section 1: Site

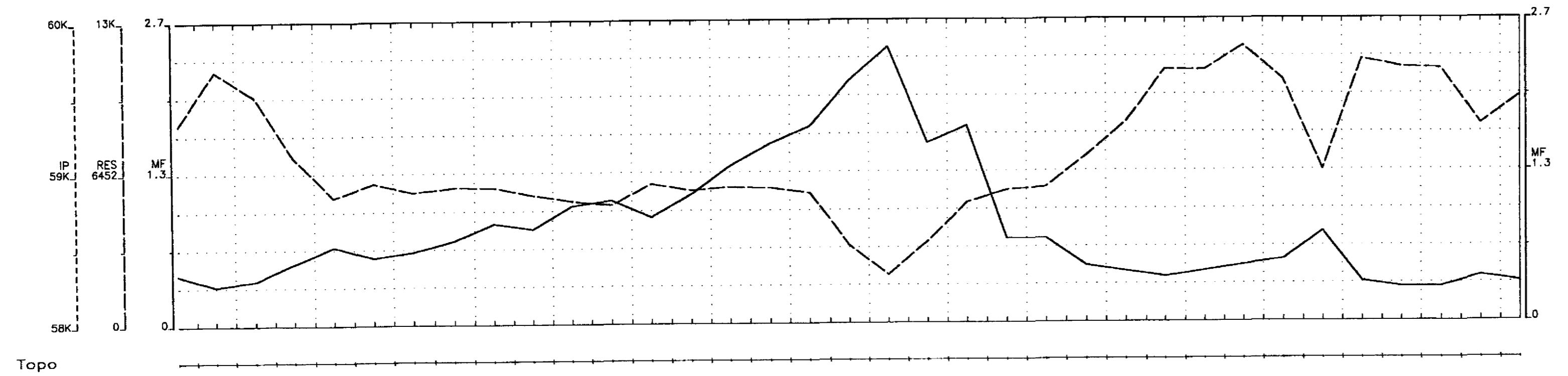
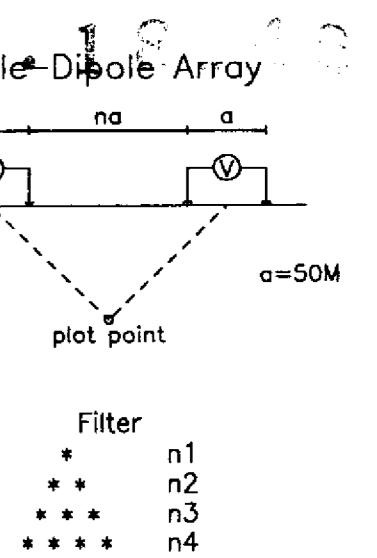
Spanride- I-95 Grid

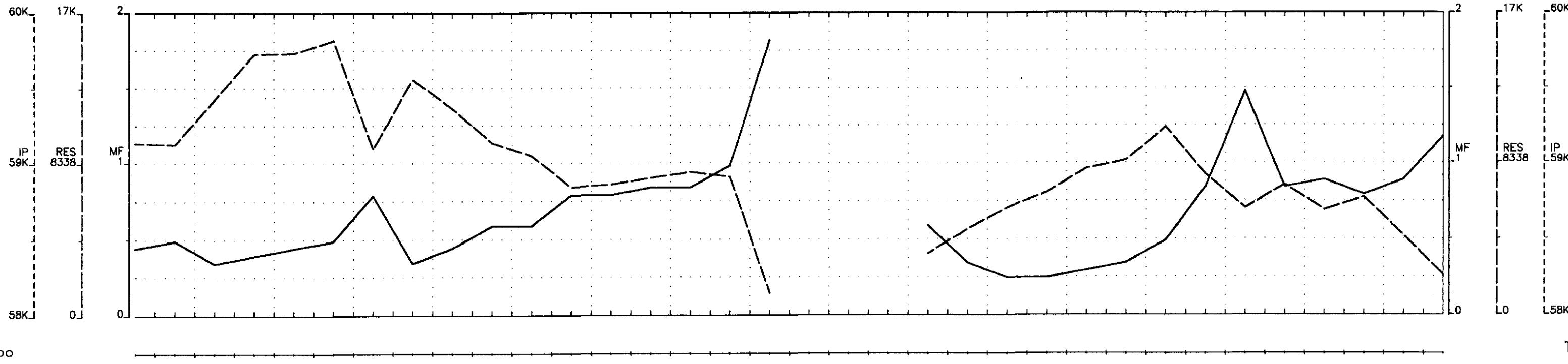
h & Beemer, NIS: 42- A/ SW

Porcupine Mining Division

re Canada Inc Sept. 97

L- 1400S





L-1200S

2

Pole-Dipole Array

a na a

① V

$a = 50M$

plot point

Filter

n1

n2

n3

n4

Interpretation

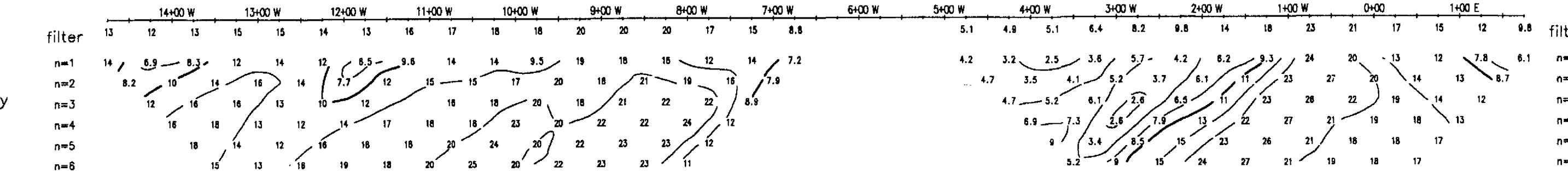
Chargeability

mV/V

Interpretation

Resistivity

ohm/meters



Interpretation

Chargeability

mV/V

Interpretation

Resistivity

ohm/meters

Cont. Intervals Profiles

Resistivity : Logarithmic

Chargeability : Logarithmic

Metal Factor : Linear

INSTRUMENTS

Androtex TDR6, Time Domain Receiver

1760mSec Total Integration Time, 80mS Delay.

MT= (80+80+80+80+160+160+320+320+320) mSec

Scintrex TSQ-3 Transmitter

8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho

Moderately Low Effect

Moderately High Effect

High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho

Scale 1:5000

50 0 50 100 150 200 250 300 (meters)

Starfire Mineral Inc

Induced Polarization Survey

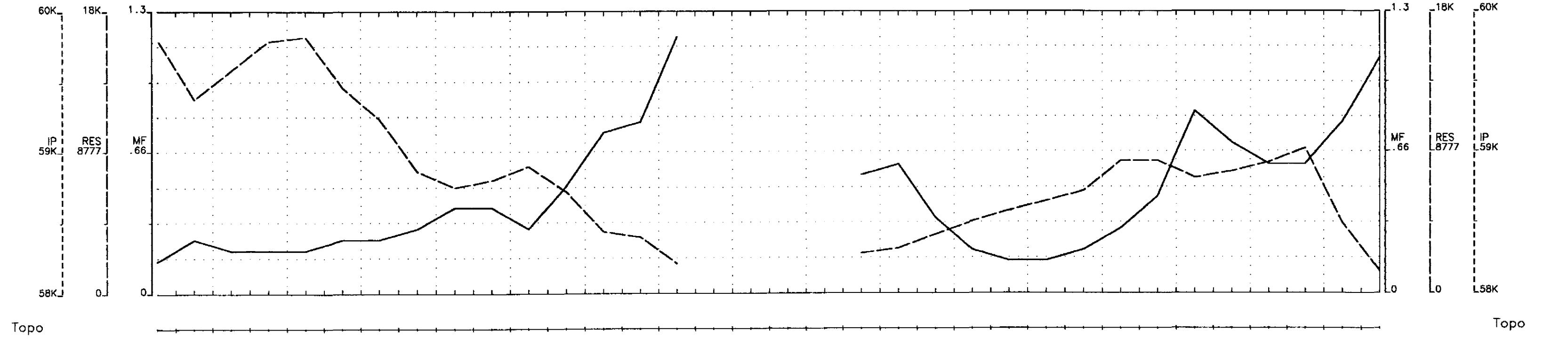
Spanride-1-95 Grid

English & Beemer, NTS: 42-A/ SW

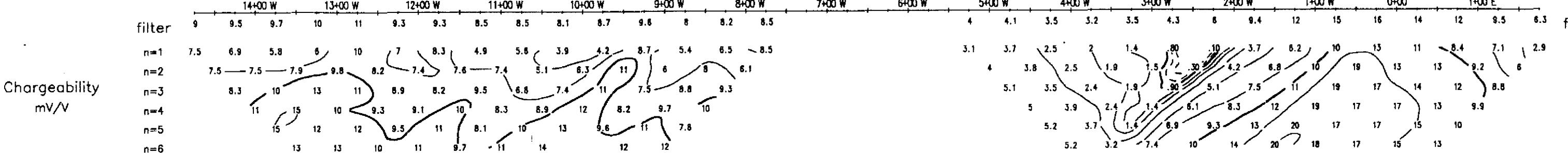
Porcupine Mining Division

Geoserve Canada Inc Sept. 97.

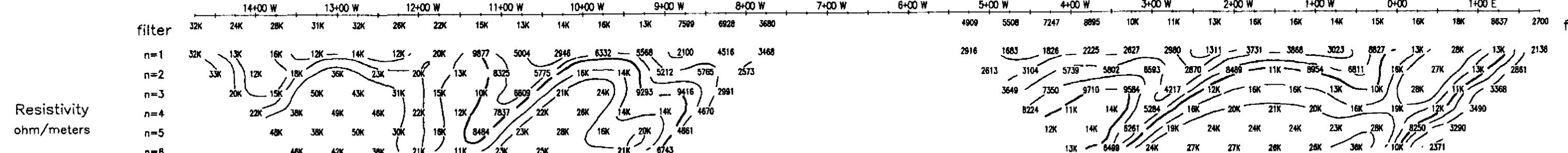
300
ENGLISH
42A03SW2001
2.18442



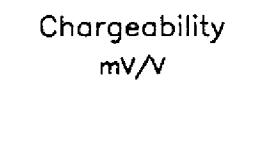
Interpretation



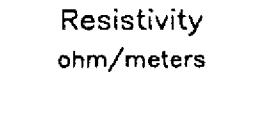
Interpretation



Interpretation



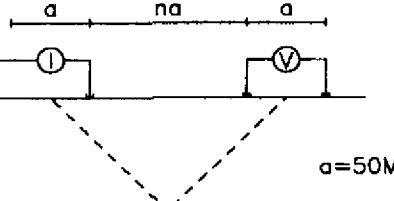
Interpretation



L- 1000S

2 . 1

Pole-Dipole Array



Filter
 * n1
 ** n2
 *** n3
 **** n4

Cont. Intervals Profiles
 Resistivity ; Logarithmic
 Chargeability ; Logarithmic
 Metal Factor ;

INSTRUMENTS
 Androtex TDR6, Time Domain Receiver
 1760mSec Total Integration Time, 80mS Delay.

$MT = (80+80+80+80+160+160+320+320+320)$ mSec
 Scintrex TSQ-3 Transmitter
 8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

Low Effect
 Poorly Chargeable mV/V, IP effect
 Low Apparent Resistivity, rho

Moderately Low Effect

Moderately High Effect

High Effect
 Good Chargeability mV/V, IP effect
 High Apparent Resistivity, rho

Scale 1:5000
 50 0 50 100 150 200 250 300
 (meters)

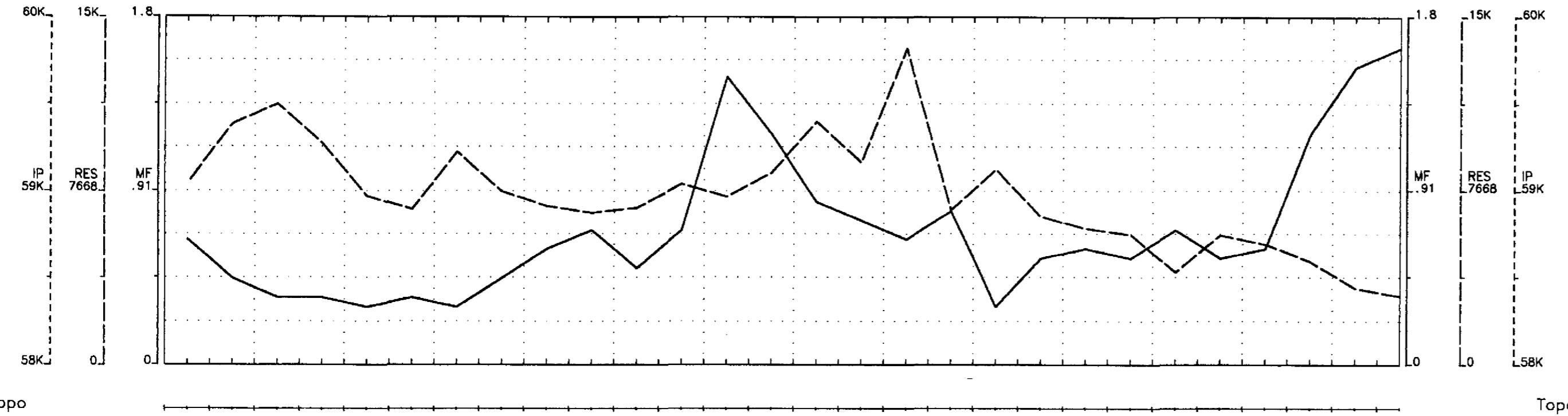
Starfire Mineral Inc

Induced Polarization Survey
 Spanride-1-95 Grid
 English & Beemer, NTS: 42-A / SW

Porcupine Mining Division
 Geoserve Canada Inc
 Sept. 97.

L- 200S

320
2.18442
42A03SP2001

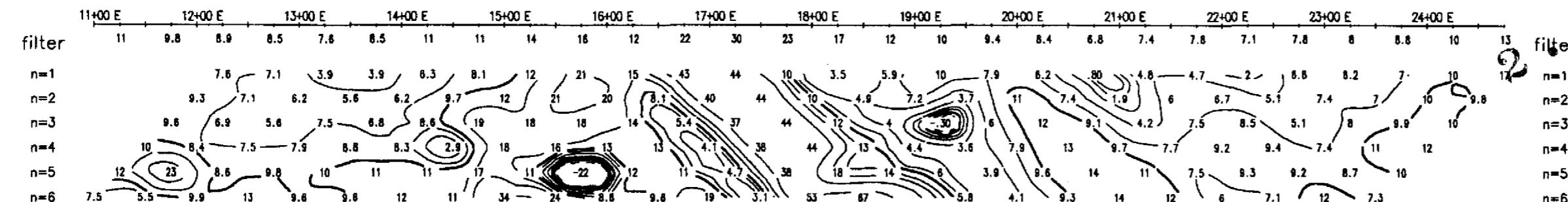


Interpretation

Chargeability
mV/V

Interpretation

Resistivity
ohm/meters



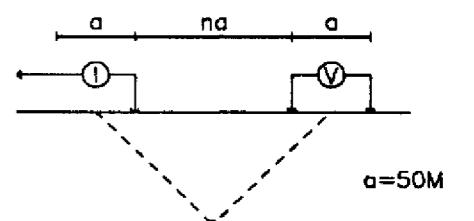
Interpretation

Chargeability
mV/V

Interpretation

Resistivity
ohm/meters

Pole-Dipole Array



Filter

- * n1
- ** n2
- *** n3
- **** n4

Cont. Intervals Profiles

Resistivity ; Logarithmic

Chargeability ; Logarithmic

Metal Factor ;

INSTRUMENTS

Androtex TDR6, Time Domain Receiver

1760mSec Total Integration Time, 80mS Delay.

MT= (80+80+80+160+160+320+320+320) mSec

Scintrex TSQ-3 Transmitter

8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

- Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho

Scale 1:5000

50 0 50 100 150 200 250 300
(meters)

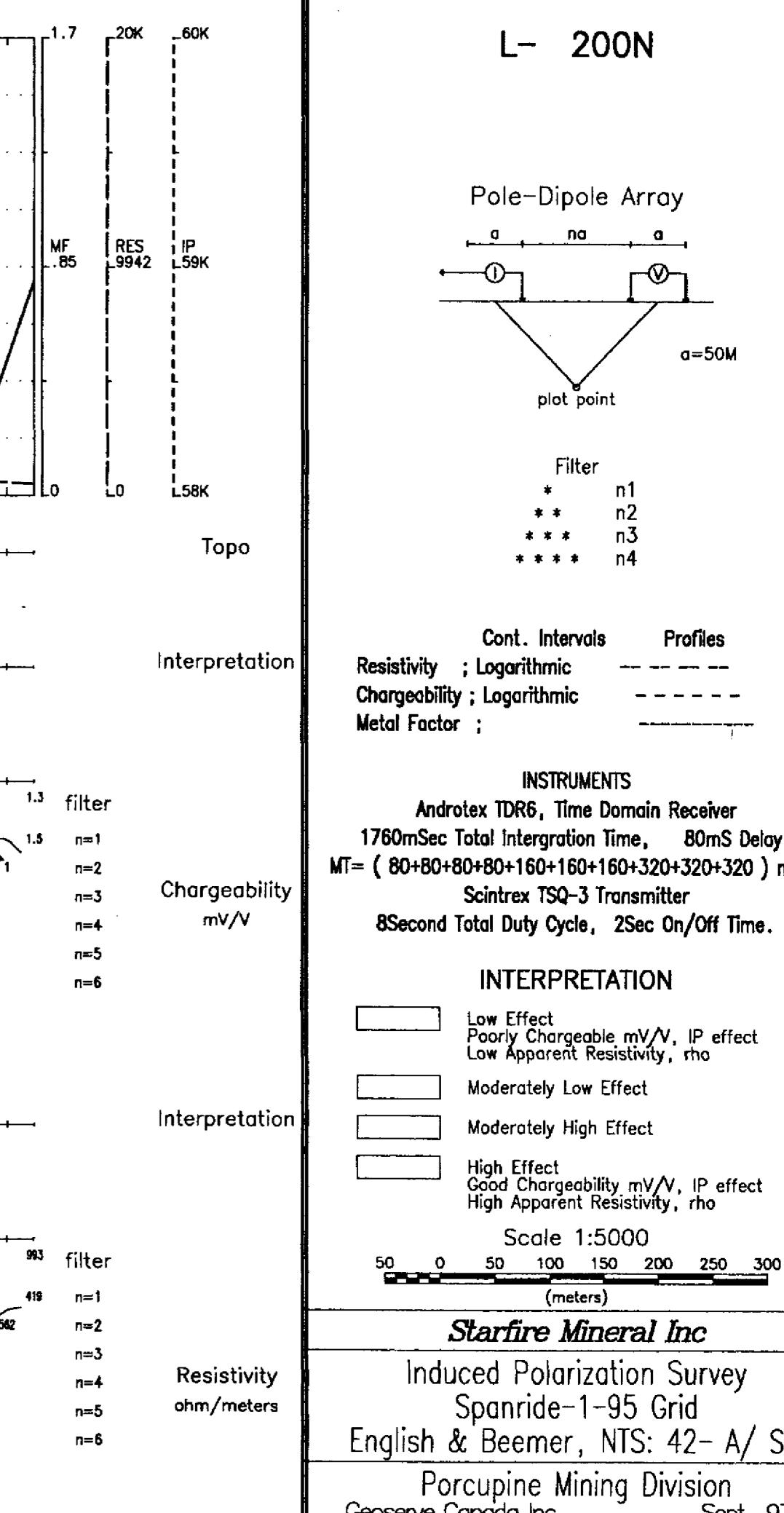
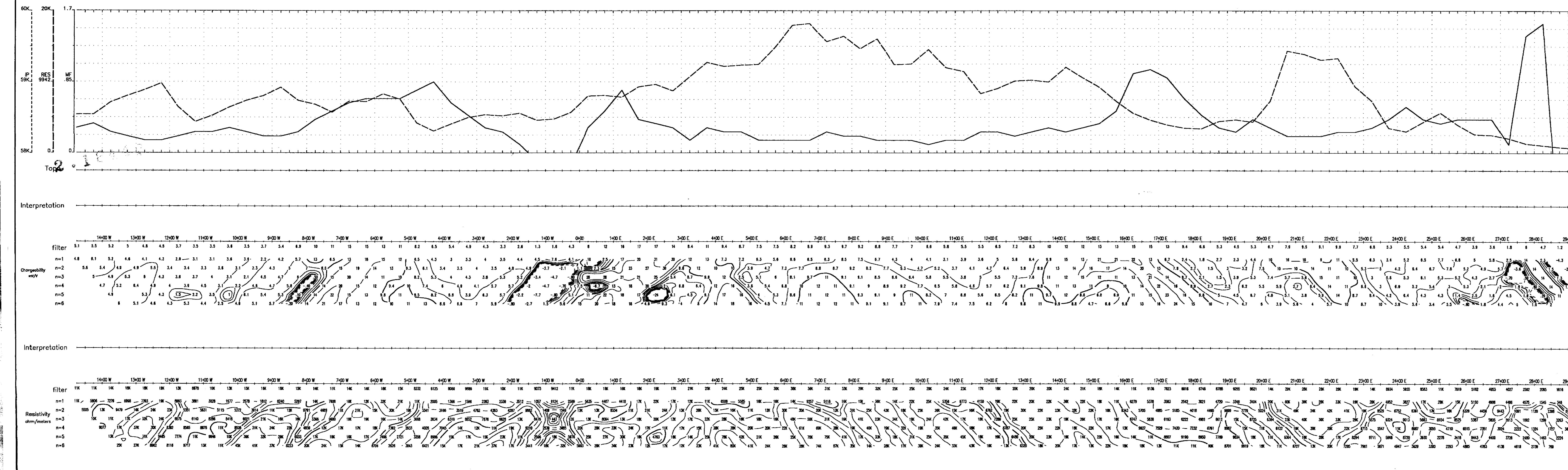
Starfire Mineral Inc

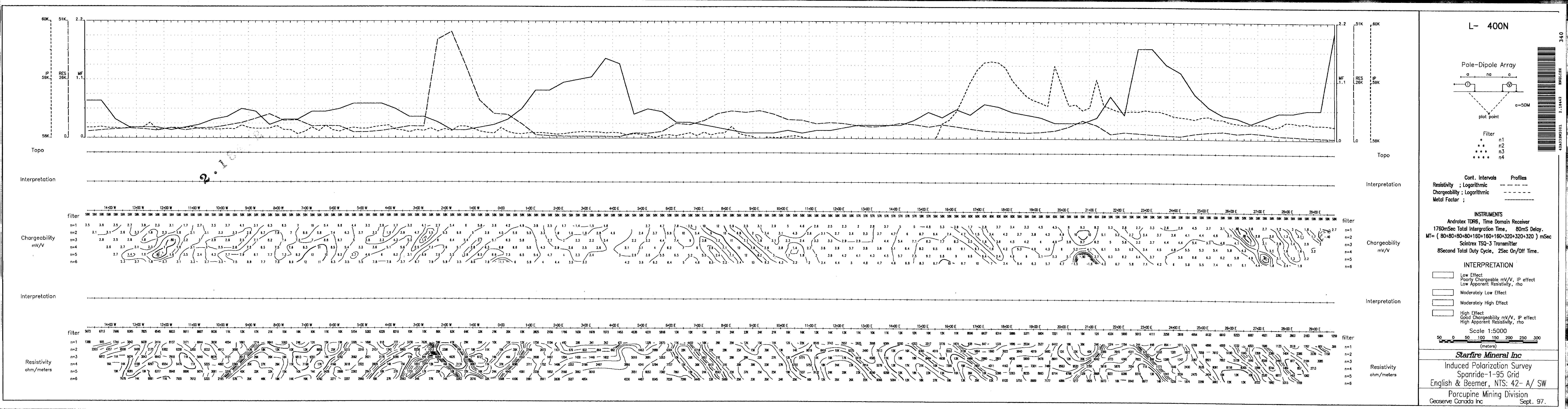
Induced Polarization Survey
Spanride-1-95 Grid

English & Beemer, NTS: 42-A / SW

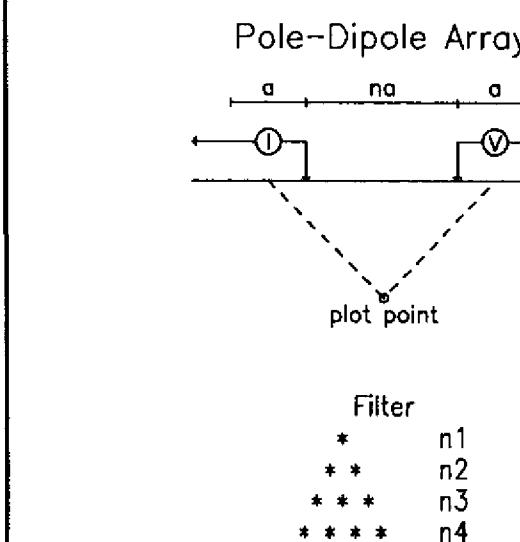
Porcupine Mining Division
Geoserve Canada Inc

Sept. 97.





L - 600N



Cont. Intervals Profiles
 Resistivity ; Logarithmic
 Chargeability ; Logarithmic
 Metal Factor ;

INSTRUMENTS

Androtex TDR6, Time Domain Receiver
 1760mSec Total Intergration Time, 80mS Delay.
 $MT = (80+80+80+80+160+160+320+320)$ mSec
 Scintrex TSQ-3 Transmitter
 8Second Total Duty Cycle, 2Sec On/Off Time.

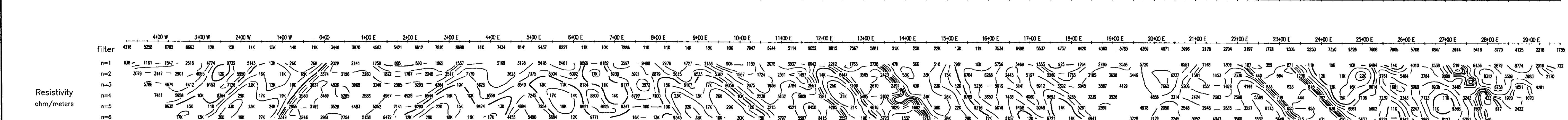
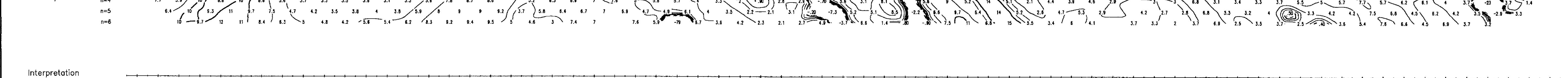
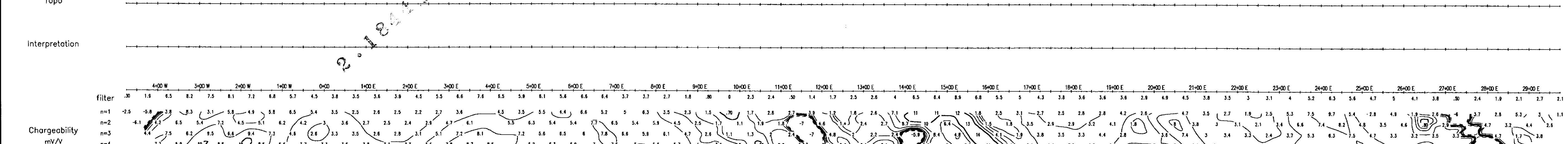
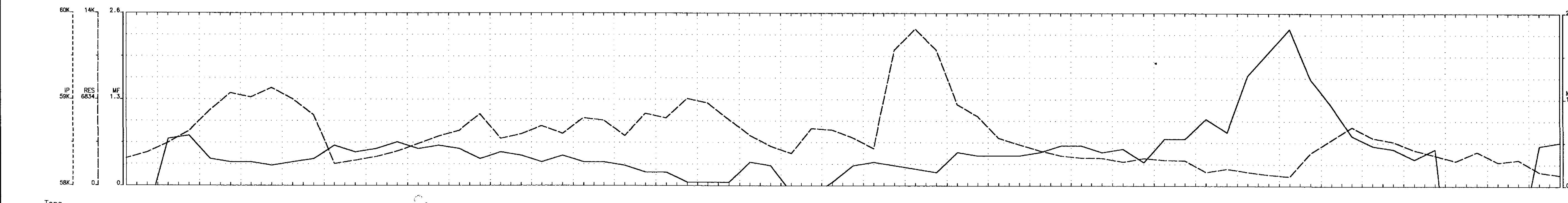
INTERPRETATION

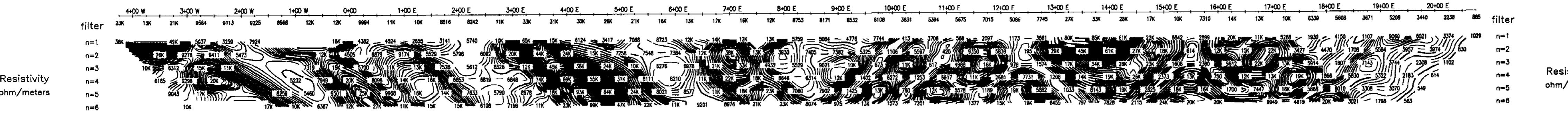
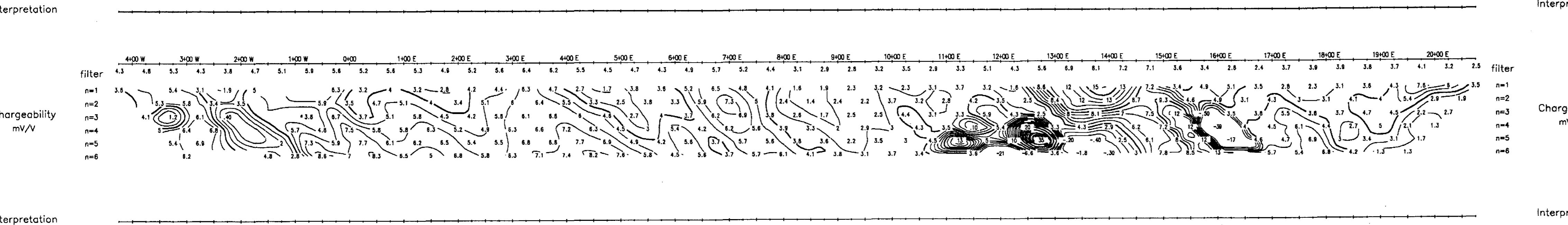
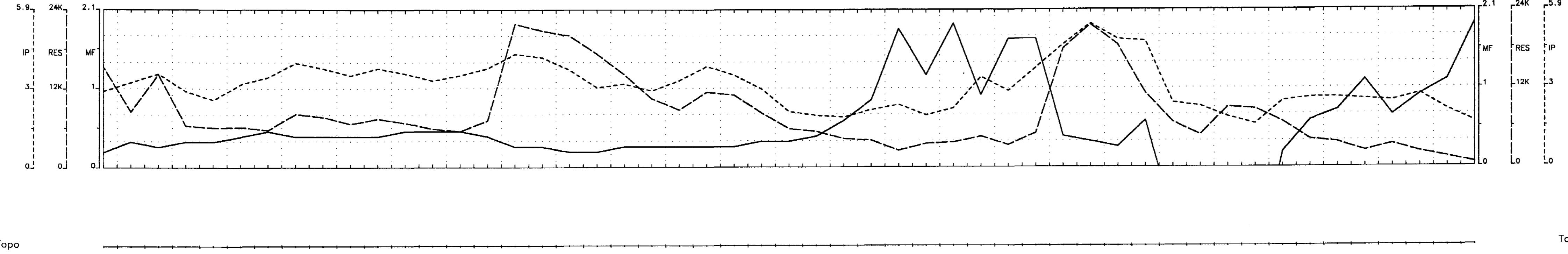
- [] Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho
- [] Moderately Low Effect
- [] Moderately High Effect
- [] High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho

Scale 1:5000
 50 0 50 100 150 200 250 300
 (meters)

Starfire Mineral Inc
 Induced Polarization Survey
 Spanride-1-95 Grid
 English & Beemer, NTS: 42-A / SW

Porcupine Mining Division
 Geoserve Canada Inc Sept. 97.





L- 800N

2 • 1

Pole-Dipole Array

$a = 50M$

$a = 50M$

plot point

Filter

- * n1
- ** n2
- *** n3
- **** n4

Cont. Intervals Profiles

Resistivity : 500 ohm/meter

Chargeability : 1.0 mV/V

Metal Factor : 1 %

INSTRUMENTS

Androtex TDR6, Time Domain Receiver
1760mSec Total Integration Time, 80mS Delay.
 $MT = (80+80+80+160+160+320+320+320)$ mSec

Scintrex TSQ-3 Transmitter
8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

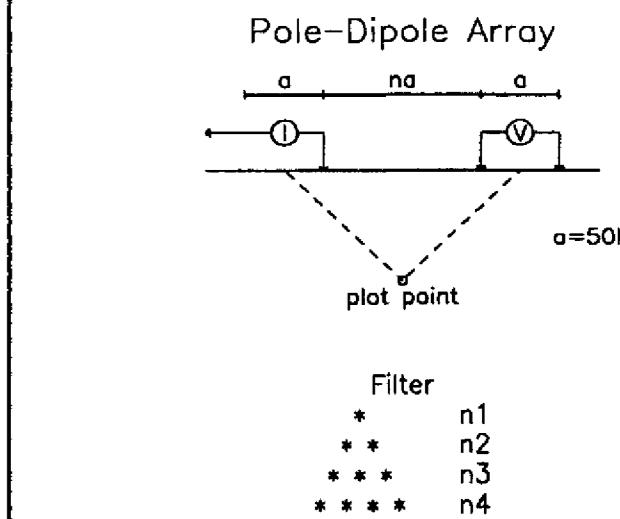
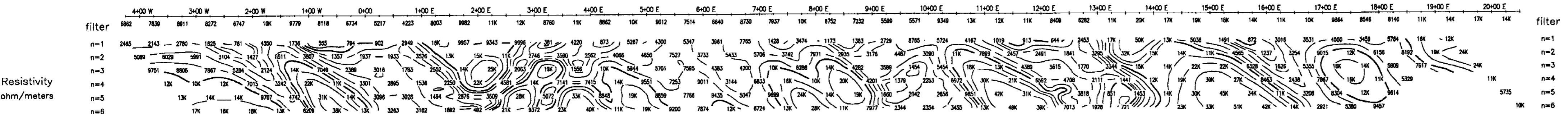
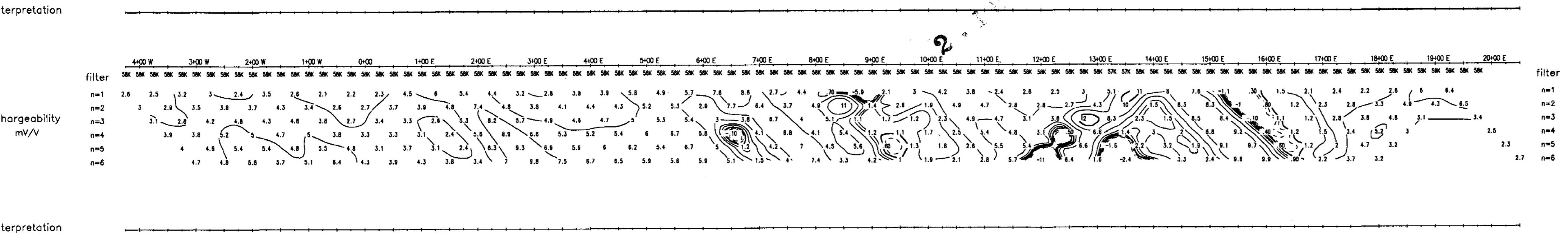
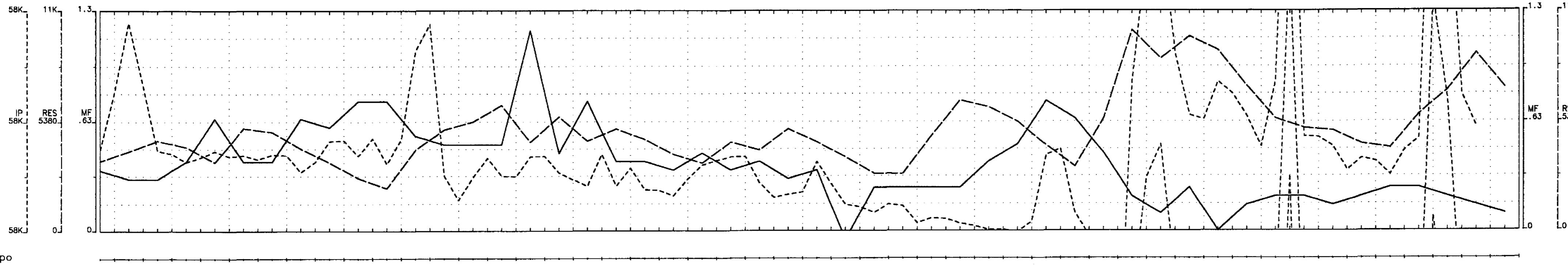
- Low Effect Poorly Chargeable mV/V, IP effect Low Apparent Resistivity, rho
- Moderately Low Effect
- Moderately High Effect
- High Effect Good Chargeability mV/V, IP effect High Apparent Resistivity, rho

Scale 1:5000
50 0 50 100 150 200 250 300 (meters)

Starfire Mineral Inc
Induced Polarization Survey
Spanride-1-95 Grid
English & Beemer, NTS: 42-A/SW

Porcupine Mining Division
Geoserve Canada Inc Sept. 97.

360
2.18442
42A035W2001



	Cont. Intervals	Profiles
Resistivity ; Logarithmic	— — — —	
Chargeability ; Logarithmic	— — — —	
Metal Factor ;	—————	

INSTRUMENTS
Androtex TDR6, Time Domain Receiver
1760mSec Total Integration Time, 80mS Delay.
 $MT = (80+80+80+80+160+160+160+320+320+320) \text{ mS}$
Scintrex TSQ-3 Transmitter

INTERPRETATION

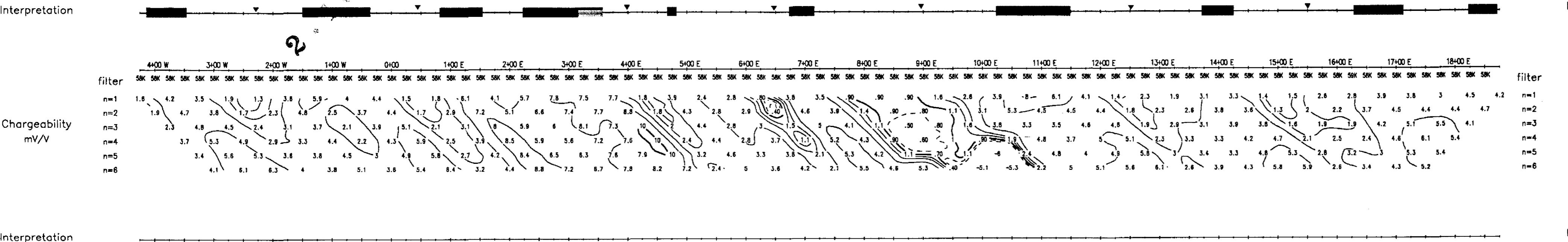
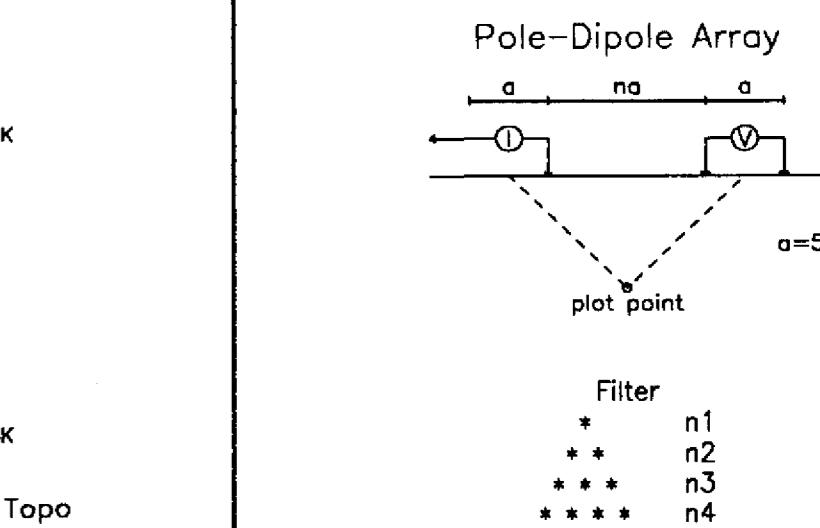
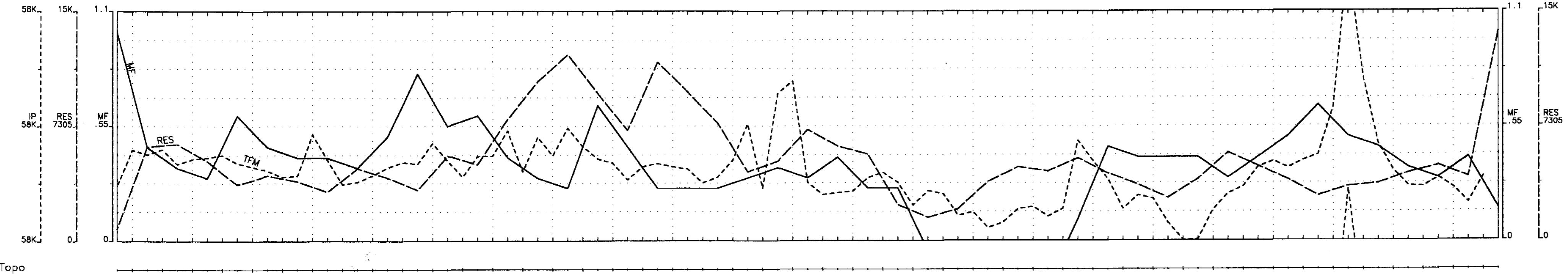
- | | |
|--------------------------|---|
| <input type="checkbox"/> | Low Effect
Poorly Chargeable mV/V, IP effect
Low Apparent Resistivity, rho |
| <input type="checkbox"/> | Moderately Low Effect |
| <input type="checkbox"/> | Moderately High Effect |
| <input type="checkbox"/> | High Effect
Good Chargeability mV/V, IP effect
High Apparent Resistivity, rho |

Scale 1:5000

Starfire Mineral Inc

Porcupine Mining Division
Geoserve Canada Inc Sept. 97.

L- 1200N

380
42A03SP2001 2.18442 ENGLISH

INSTRUMENTS

Androtex TDR6, Time Domain Receiver

1760mSec Total Intergration Time, 80mS Delay.

MT = (80+80+80+80+160+160+320+320+320) mSec

Scintrex TSQ-3 Transmitter

8Second Total Duty Cycle, 2Sec On/Off Time.

INTERPRETATION

▼ Low Apparent Resistivity, rho

■ Moderately Low IP Effect (mV/V)

■ Moderately High Effect

■ High Effect Good Chargeability mV/V, IP effect

Scale 1:5000

(meters)

Starfire Mineral Inc

Induced Polarization Survey

Spanride-1-95 Grid

English & Beemer, NTS: 42- A/ SW

Porcupine Mining Division

Geoserve Canada Inc Sept. 97.