

42A14NW2001 2.19349 NESBITT

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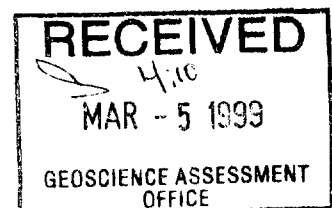
REPORT ON
INDUCED POLARIZATION SURVEY

NESBITT MAHAFFY PROJECT
NESBITT & MAHAFFY TOWNSHIPS

2.19349

JANUARY 1999

D. LONDRY



SUMMARY AND RECOMMENDATIONS

In 1992, the present claim holders established a grid on the property and carried out magnetic and horizontal loop EM surveys. The magnetic survey mapped an east west trending ultramafic body in the northeast half of the property in Nesbitt Township. The EM survey detected conductivity along the north contact (anomaly 'A') of the ultramafic and a second zone (anomaly 'B') with a short strike length to the south of the ultramafic.

The present IP survey was designed to test for the continuation of zone 'B' to the west. The survey did not detect a west extension of zone 'B', however it did detect mineralization (anomaly 'D') along the south contact of the ultramafic.

It is recommended that the IP survey is completed over the rest of the property and in particular to the east of the present survey to determine the relationship between zones 'B' and 'D'.



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INTRODUCTION

An induced polarization (IP) survey was carried out on the Nesbitt Mahaffy property during January 1999. The present claim holders ran magnetic, very low frequency (VLF) and horizontal loop electromagnetic (HLEM) surveys during December of 1992 and January 1993. In 1996, the claims lapsed and the property was re-staked in the same year. The purpose of the IP survey was to test whether conductor 'B', detected on Lines 500 and 600 East in the 1992 work, continues to the west.

The property is located approximately 45 kilometres north of the city of Timmins (Figure 1(a)) in the Porcupine Mining Division. It is accessed from bush roads off the old Abitibi Camp 40 Road; a detailed description of the access is given in Appendix A.

The property consists of two contiguous claims each comprised of four 40 acre claim units, 4 units in Nesbitt Township and 4 units in Mahaffy Township (Figure 1(b)). A description of the claims is given in Table 1.

The author of this report carried out the survey with assistance from B. LeRoy, M. Gauthier and B. Raine.

CLAIM #	# OF UNITS	RECORDING DATE	RECORDED HOLDER	DESCRIPTION	TOWNSHIP
P1207057	4	April 24, 1997	D.R. Pyke	S1/2, Lot 12, Con I	Nesbitt
P1207058	4	April 25, 1997	D.R. Pyke		Mahaffy

Table 1: Property Description

GENERAL GEOLOGY

Other than regional geological compilation maps of the general Timmins area, the only geological maps available for the area are preliminary maps for Mahaffy Township (Bright and Hunt, 1972; Hunt and Maharaj, 1980).

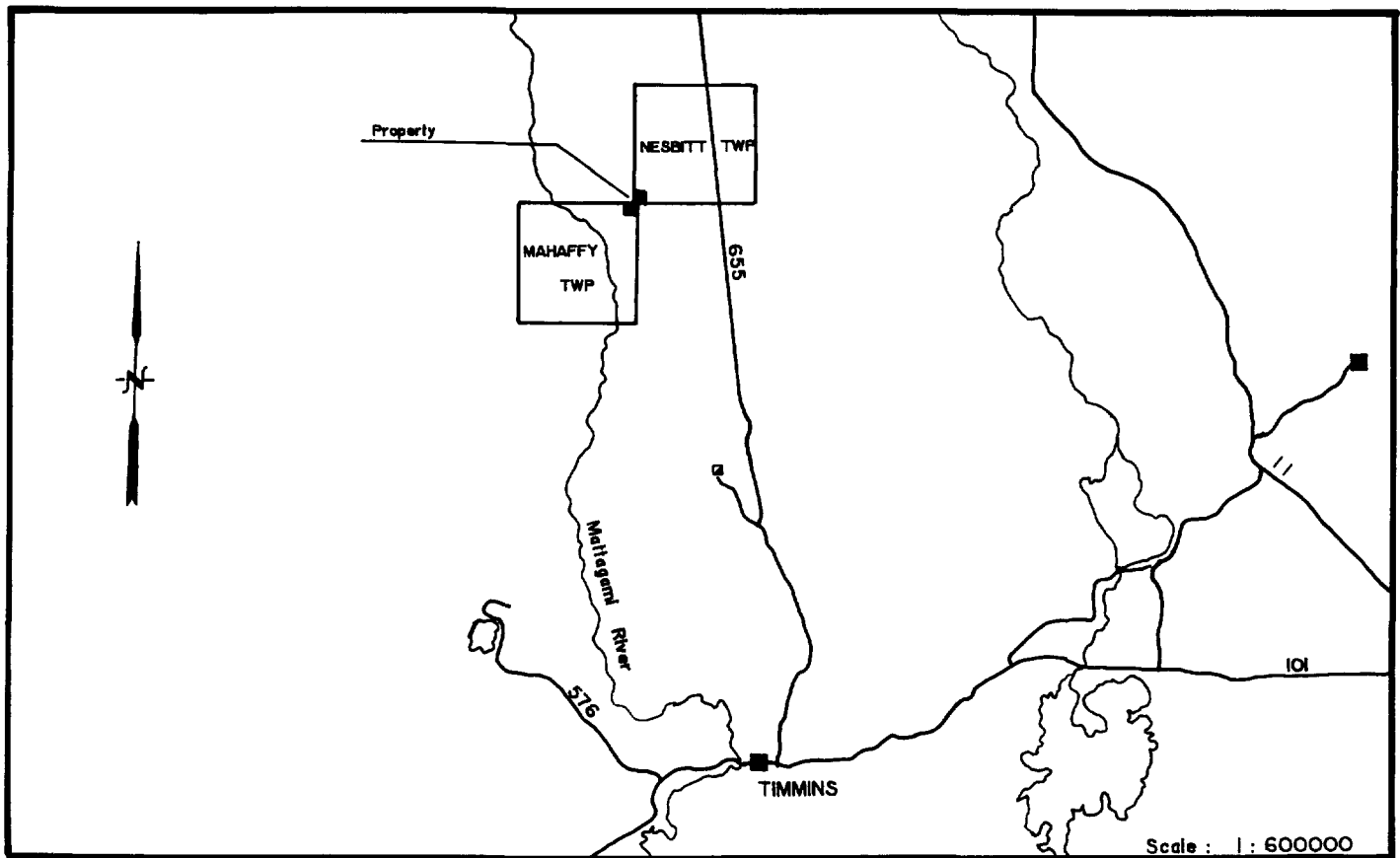


Figure 2 (a) : Location Map

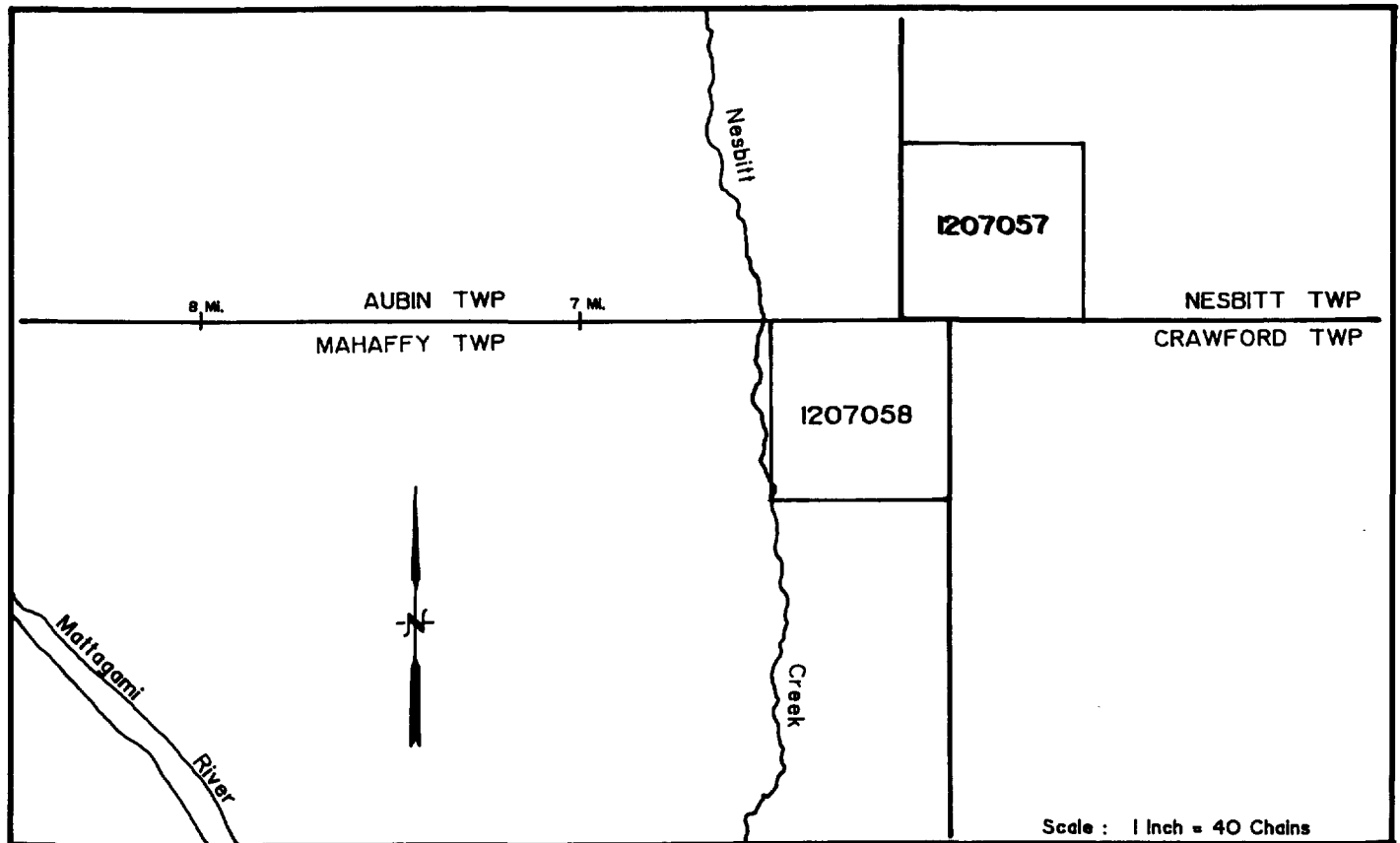


Figure 2 (b) : Claim Map

Little is known of the stratigraphic setting of the property due to a general lack of exploration work on the claims and surrounding area. Two holes, drilled by Temco Mines Limited in 1974, indicate that the claim in Nesbitt Township is mainly underlain by basaltic volcanics and gabbro. Regional interpretation suggests that the rhyolites extending into the south part of the property in Mahaffy Township (Bright and Hunt, 1972) are possibly correlative with the Kidd Creek rhyolites.

PREVIOUS WORK

Previous exploration work on the property (Table 1) has been confined to the 4 claim units in Nesbitt Township and consists of the following:

In 1964, Ghislau Mining Corporation Ltd. carried out magnetic and vertical loop electromagnetic (VLEM) surveys along north-south lines spaced every 300 feet. The magnetic survey was run with an Askania vertical field magnetometer and the VLEM survey was run with a Sharpe SE-200 unit. The EM survey detected a number of conductors on the flanks of an east west trending magnetic high anomaly. A horizontal loop EM survey was recommended, however none no further work was undertaken.

In 1965, Canadian Aero Mineral Surveys Limited flew a combined EM and magnetic survey for Cincinnati-Porcupine Mines Ltd. in the northern part of Mahaffy and southern part of Aubin Townships. Part of the survey extended into the southern part of the claims in Mahaffy Township.

YEAR	COMPANY	GEOPHYSICS	DRILL HOLES	ASSESSMENT FILE
1975	TEMCO MINES LIMITED	VLF	75-1,75-2	1681
1965	CINCINNATI PORC. MINES LTD.	AMAG, AEM		
1964	GHISLAU MINING CORPORATION LTD	MAG,VLF		829

Table 2: Summary of previous assessment work.

In 1975, Temco Mines Limited conducted a VLF survey and drilled two 500 foot diamond drill holes in the southeast part of claim P1189179, intersecting mainly basalt and gabbro with minor porphyry. One 5 foot section of gabbro, containing disseminated pyrrhotite with minor chalcopyrite, assayed 0.4 percent Cu. Bleaching (silicification?) is reported throughout a 60 foot section of basalt. No conductors were intersected in either of the holes to explain the EM anomalies on the property.

In 1988, the Ontario Geological Survey (OGS, 1988) conducted a combined airborne magnetic and electromagnetic survey for the Timmins area, which included the Nesbitt-Mahaffy claim group. The survey was flown along north-south lines spaced approximately every 200 metres.

In December 1992 and January 1993 the present claim holders carried out magnetic, VLF and HLEM surveys on the property. The HLEM survey outlined three bedrock conductors and in 1993 an HLEM survey was conducted along intermediate lines to detail one of the EM anomalies (anomaly 'B'). The two holes , drilled in 1975 by Temco to test VLF anomalies, did not intersect any of the conductors and all three conductors remain good drill targets.

Conductor 'A' is located along the north flank of an east-west trending magnetic high anomaly which reflects ultramafics (Figures 2 and 3). Conductor 'B' is located immediately to the south of the ultramafics and only has a strike length of approximately 150 metres.. Conductor 'C' strikes west northwest within an area of low magnetic susceptibility, which may reflect rhyolites in the south half of the property.

SURVEY DESCRIPTIONS

In 1992, an east-west base line, designated 0 North, was established along the north edge of Mahaffy Township and the south edge of Nesbitt Township. North-south grid lines were cut every 100 metres and picketed every 20 metres. The base line at 0 North and tie lines at 800 North and 800 South were picketed every 25 metres. In 1999, the base line was re-established from 200 West to 400 East and Lines 200, 300 and 400 East were re-cut before the IP survey was started.

The IP survey was conducted with the Scintrex IPR-11, time domain spectral receiver and the Scintrex

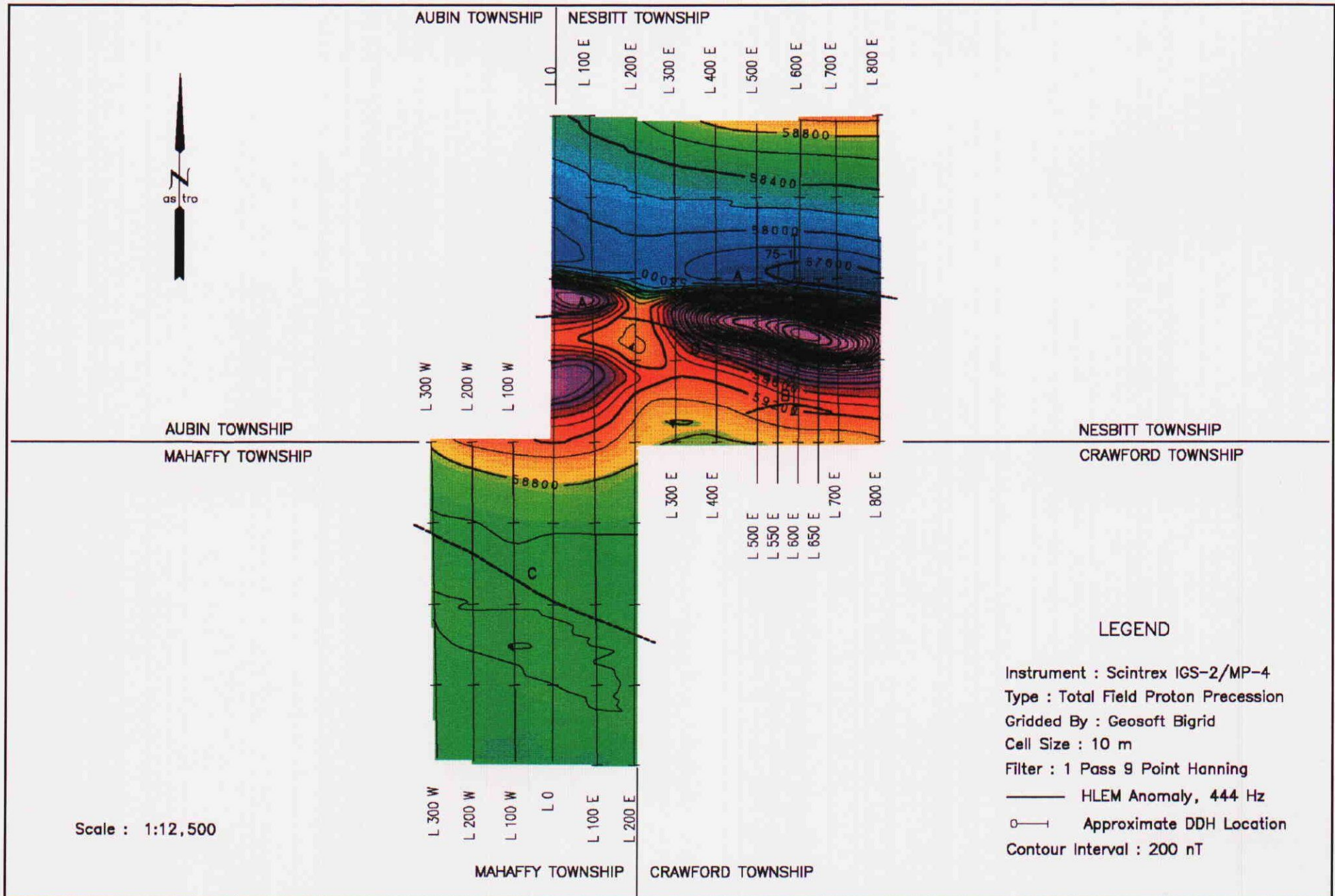


Figure 2 : 1992 Magnetic Survey

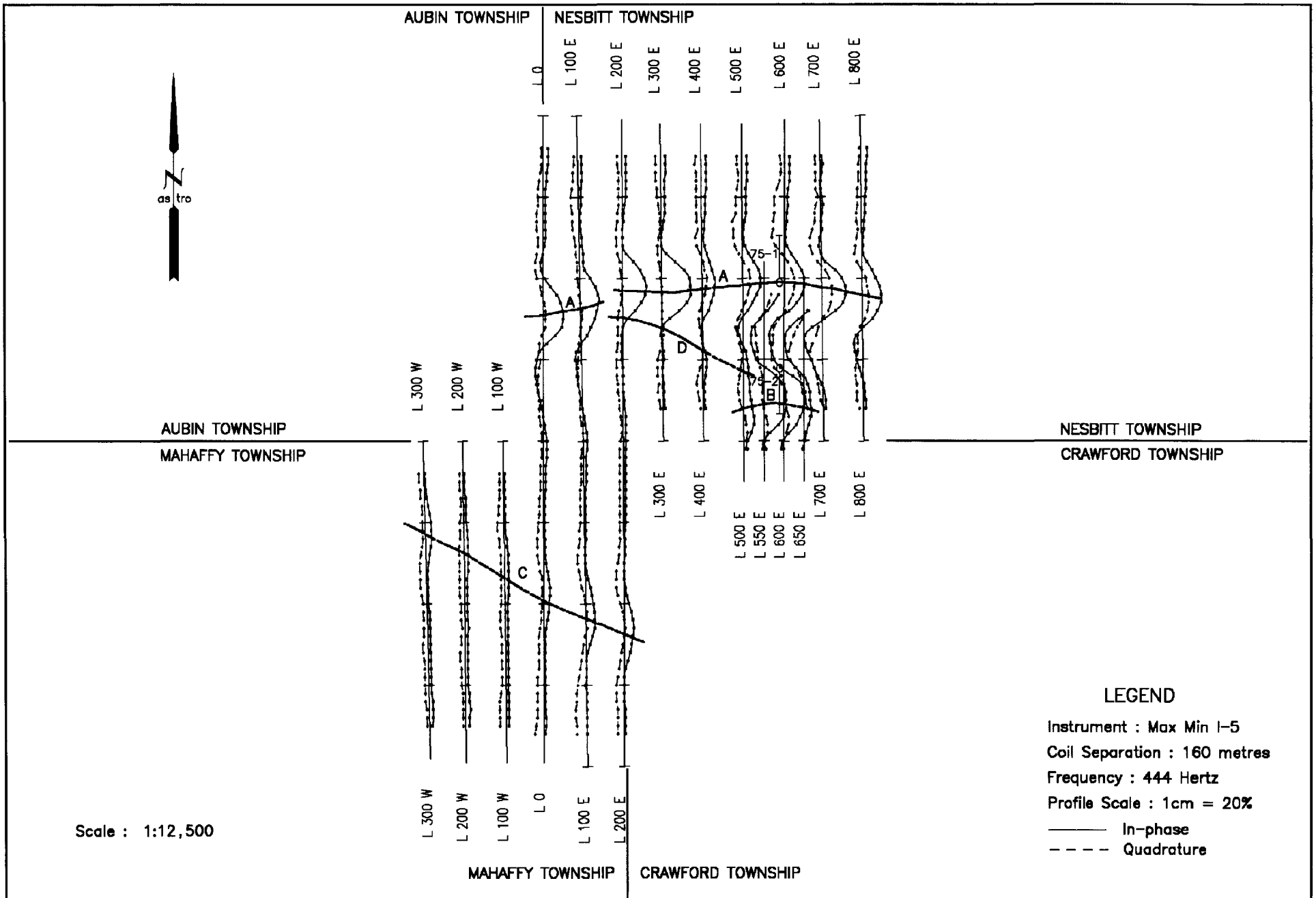


Figure 3 : 1992 HLEM Survey

TSQ-3, 3000 Watt transmitter. The current on-off time is two seconds and integration takes place during ten time intervals or 'slices' after shut-off; Table 1 lists the delay and integration times for each slice.

A pole-dipole array was used with an 'a' spacing of 40 feet and readings were taken for 'n' values of 1 to 4. The remote electrode was located at approximately 2400 metres south of the property. The survey was run along three of the grid lines, Lines 200, 300 and 400 East from 0 to 800 North, for a total of 2.4 kilometres.

SLICE	DELAY TIME (ms)	INTEGRATION TIME (ms)
0	30	30
1	60	30
2	90	30
3	120	30
4	150	180
5	330	180
6	510	180
7	690	360
8	1050	360
9	1410	360

Table 3: Delay and integration times of the Scintrex IPR-11 IP receiver.

IP RESULTS

The M4 chargeability, IP resistivity and metal factor are presented in pseudo-section form for each line at a scale of 1:2500. The chargeability and resistivity are also plotted with the 1992 HLEM and magnetic results along each line in figures 4, 5 and 6, at a scale of 1:5000. Two chargeability anomalies were outlined

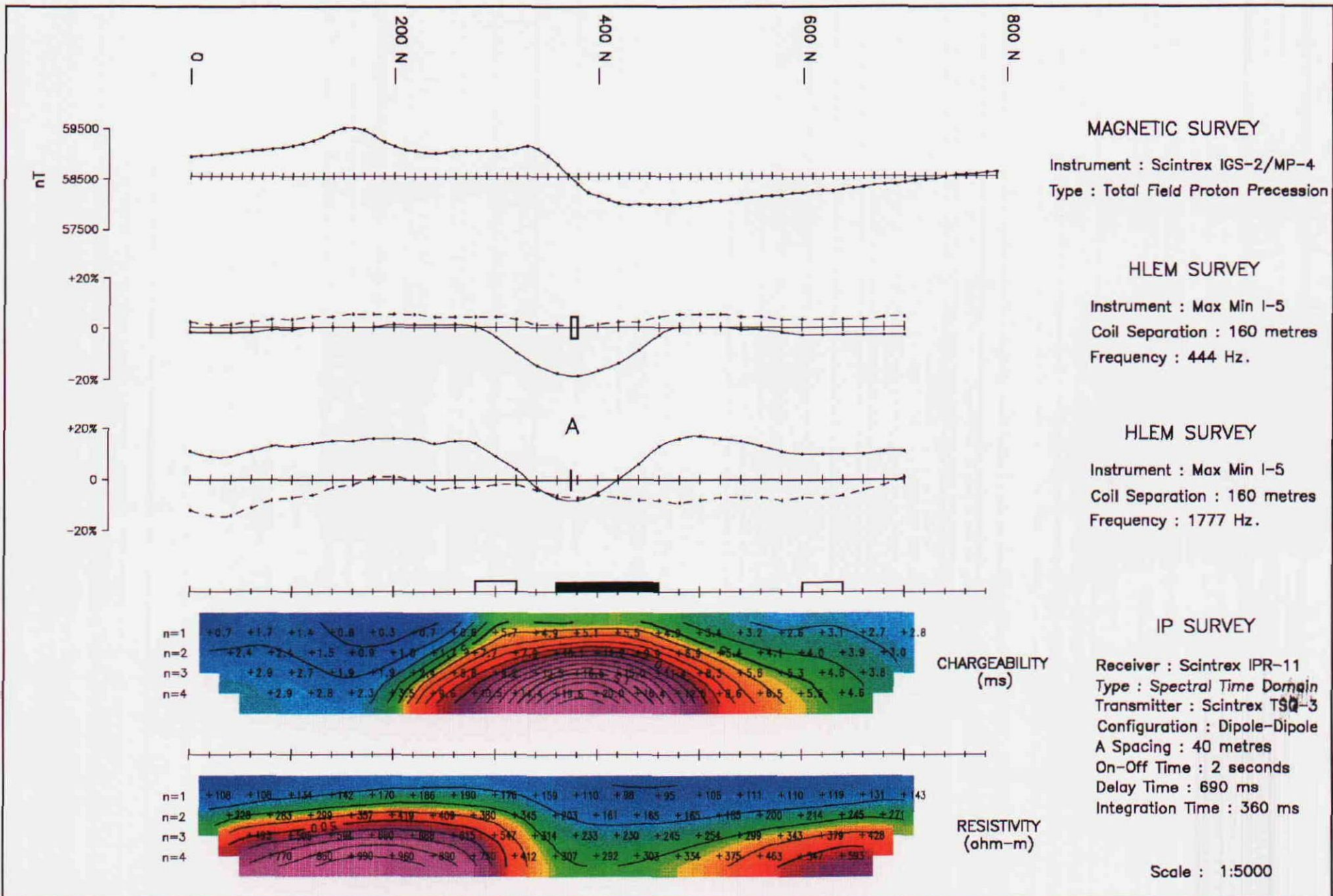


Figure 4 : Geophysics Compilation, Line 200 East

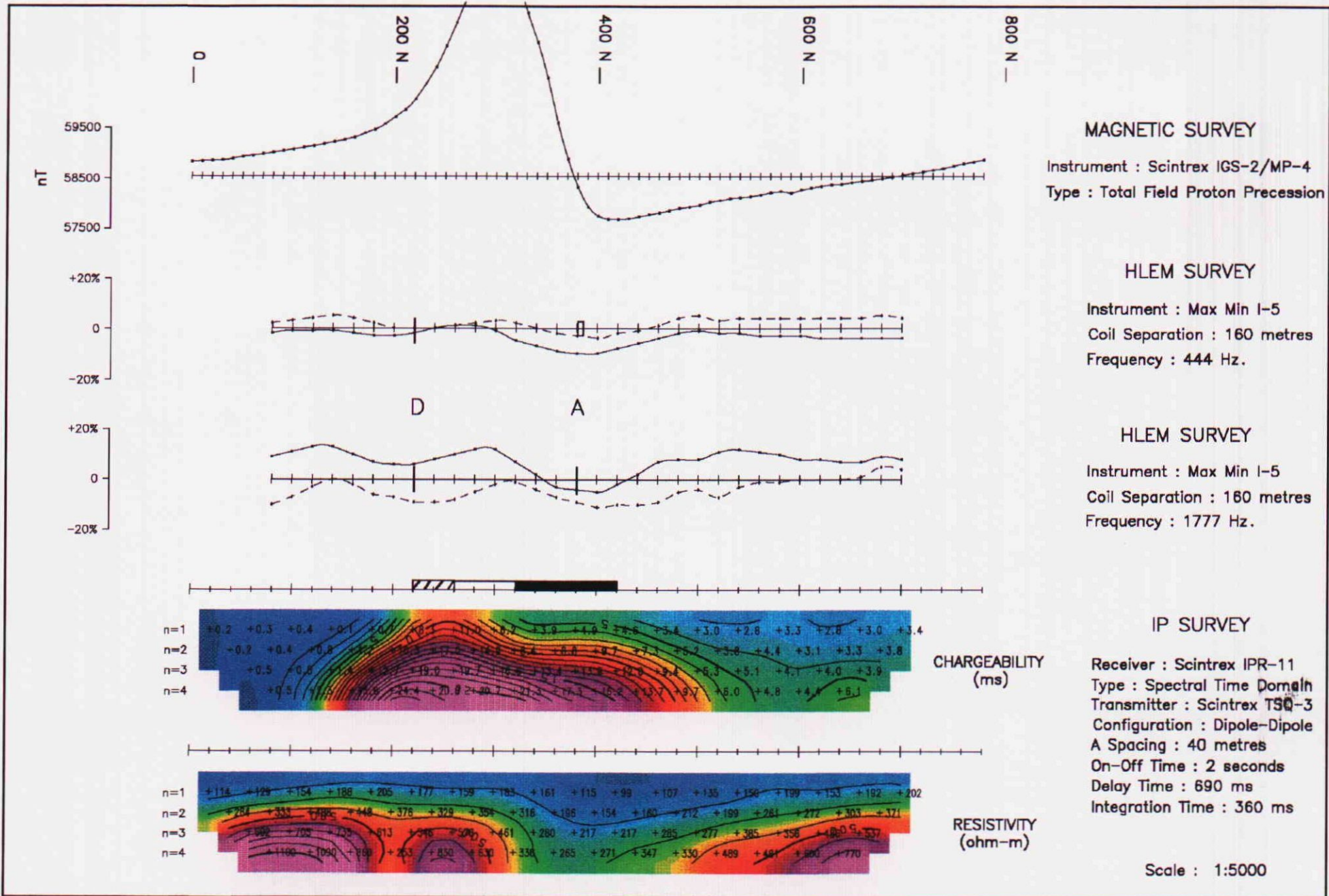


Figure 6 : Geophysics Compilation, Line 400 East

in the survey and are labelled 'A' and 'D' on the pseudo-sections.

Anomaly 'A' coincides with EM anomaly 'A' which was mapped in the 1992 HLEM survey. This is a high chargeability and, as expected, low resistivity anomaly located along the north flank of the high magnetic anomaly (figures 4 to 6) which represents ultramafics.

Anomaly 'D' is a high chargeability, high resistivity response which strikes east southeast between 300 North on Line 200 East to 240 North on Line 400 East. It is located on the south flank of the magnetic high (figures 4 to 6) and coincides with a weak EM anomaly which was not interpreted in the 1992 results; the corresponding EM anomaly is poorly defined because of interference from the stronger response of anomalies 'A' and 'B'. The amplitude of the IP chargeability over zone 'D' is as high, if not higher, than response over zone 'A'. The pseudosections suggest that the source of anomaly 'D' is shallower than the source of anomaly 'A', which is supported by overburden depths from the Temco drill holes to the north and south.

A third chargeability anomaly, which is identified but not labelled on the pseudosections, strikes east-west at 620 north. It is a very subtle response which maps very weak mineralization, possibly along another geological contact.

DATE

Jan. 30/99

D. Londry
D. LONDRY

REFERENCES

BRIGHT, E.G. and HUNT, D.S.

1972: Mahaffy Township; Ontario Department of Mines and Northern Affairs, Prelim Map P.740, scale 1 inch to 1/4 mile.

HUNT, D.S. and MAHARAJ, D.

1090: Mahaffy Township; Ontario Geological Survey, Prelim Map P.740 (rev), scale 1 inch to 1/4 mile.

ONTARIO GEOLOGICAL SURVEY

1988: Airborne Electromagnetic and Total Intensity Survey, Timmins Area, **Mahaffy Township**, Districts of Cochrane and Timiskaming Ontario; by Geoterrex Limited, for Ontario Geological Survey, Geophysical/Geochemical Series **Map 81045**. Scale 1:20,000. Survey and compilation from March 1987 to October 1987.

1988: Airborne Electromagnetic and Total Intensity Survey, Timmins Area, **Nesbitt Township**, Districts of Cochrane and Timiskaming Ontario; by Geoterrex Limited, for Ontario Geological Survey. Geophysical/Geochemical Series **Map 81038**. Scale 1:20,000. Survey and compilation from March 1987 to October 1987.

APPENDIX A**Access to Mahaffy/Nesbitt Property**mileage

- 0.0 Country Style Donut Shop at junction of Highways 655 & 101 - head north along Highway 655.
- 22.0 Km Junction of Kidd Creek Minesite road and Highway 655- turn right and continue north along 655.
- 40.4 Km Hydro Dam road - turn left heading west.
- 43.3 Km Old Abitibi Camp 40 Road - stay to right heading north.
- 44.3 Km Site of the old Camp 40.
- 45.4 Km Turnoff to Hydro Dam - keep going north on Camp 40 Road. In the winter a snowmobile must be used beyond this point.
- 45.7 Km 'Y' in the Camp 40 road - keep to the left heading west. In summer a 4-wheel drive vehicle is recommended beyond this point.
- 51.0 Km Junction with smaller logging road - turn right onto this road heading north.
- 53.0 Km As far as you can drive in the summer, at 200 South, 200 West on established grid. East west bush roads at approximately 200 and 400 North allow access to the east side of the property in the winter by snowmobile.

APPENDIX B



Ministry of
Northern Development
and Mines

Declaration of Assessment Work Performed on Mining Land

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

Transaction Number (office use) W9960.00097
Assessment Files Research Imaging



42A14NW2001 2.19349 NESBITT 900

Subsection 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, assessment work and correspond with the mining land holder. Questions about this form should be directed to the Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario N2G 1N1.

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

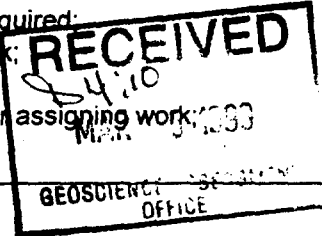
1. Recorded holder(s) (Attach a list if necessary)

Name DR. D.R. PYKE	Client Number
Address 31 DELAIR CRESCENT THORNHILL, ONTARIO, L3T 2M3	Telephone Number (905) 731-1913
	Fax Number
Name	Client Number
Address	Telephone Number
	Fax Number

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

Geotechnical: prospecting, surveys, assays and work under section 18 (regs)	Physical: drilling stripping, trenching and associated assays	Rehabilitation
Work Type LINECUTTING IP SURVEY		Office Use
		Commodity
		Total \$ Value of Work Claimed \$ 5680
Dates Work Performed From 01 JAN 99 To 15 JAN 99		NTS Reference
Global Positioning System Data (if available)	Township/Area NESBITT, MAHAFFY TOWNSHIP	Mining Division Porcupine
	M or G-Plan Number G-3546, M540	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 DOUGLAS LONDREY	Telephone Number (705) 523-5479
Address 547 LOACH'S ROAD, SUDBURY, ONTARIO, P3E 2R3	Fax Number
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

4. Certification by Recorded Holder or Agent

I, **DALE R. PYKE** (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent D.R. Pyke	Date March 2/99
Agent's Address 31 DELAIR Cres Thornhill, ONT L3T 2M3	Telephone Number 905-731-1913
	Fax Number 905-731-1913

0241 (03/97)

Deemed on June 3/99

2.19349

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

W9960.00097

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date
eg TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2,825
eg 1234567	12	0	\$24,000	0	0
eg 1234568	2	\$ 8,892	\$ 4,000	0	\$4,892
1 P 1207057	4	5680.	\$1600	\$1600	2480
2 P 1207058	4		1600		
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Column Totals	8	\$5680	\$3200	\$1600	\$2480

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

Signature of Recorded Holder or Agent Authorized in Writing: DR Pyke Date: March 2/99

6. **Instruction for cutting back credits that are not approved.**

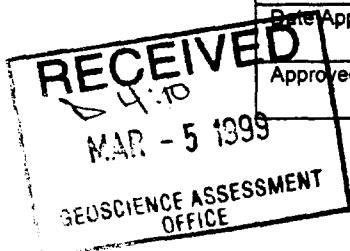
Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

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

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

For Office Use Only

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



0241 (03/97)

2.19349

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

April 23, 1999

DALE RANDOLPH PYKE
31 DELAIR CRESCENT
THORNHILL, ON
L3T-2M3

Telephone: (888) 415-9846
Fax: (877) 670-1555

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

Dear Sir or Madam:

Submission Number: 2.19349

Status

Subject: Transaction Number(s): W9960.00097 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 steve.beneteau@ndm.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,



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

Work Report Assessment Results

Submission Number: 2.19349

Date Correspondence Sent: April 23, 1999

Assessor: Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9960.00097	1207057	NESBITT	Deemed Approval	April 14, 1999

Section:

14 Geophysical IP

Correspondence to:

Resident Geologist
South Porcupine, ON

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

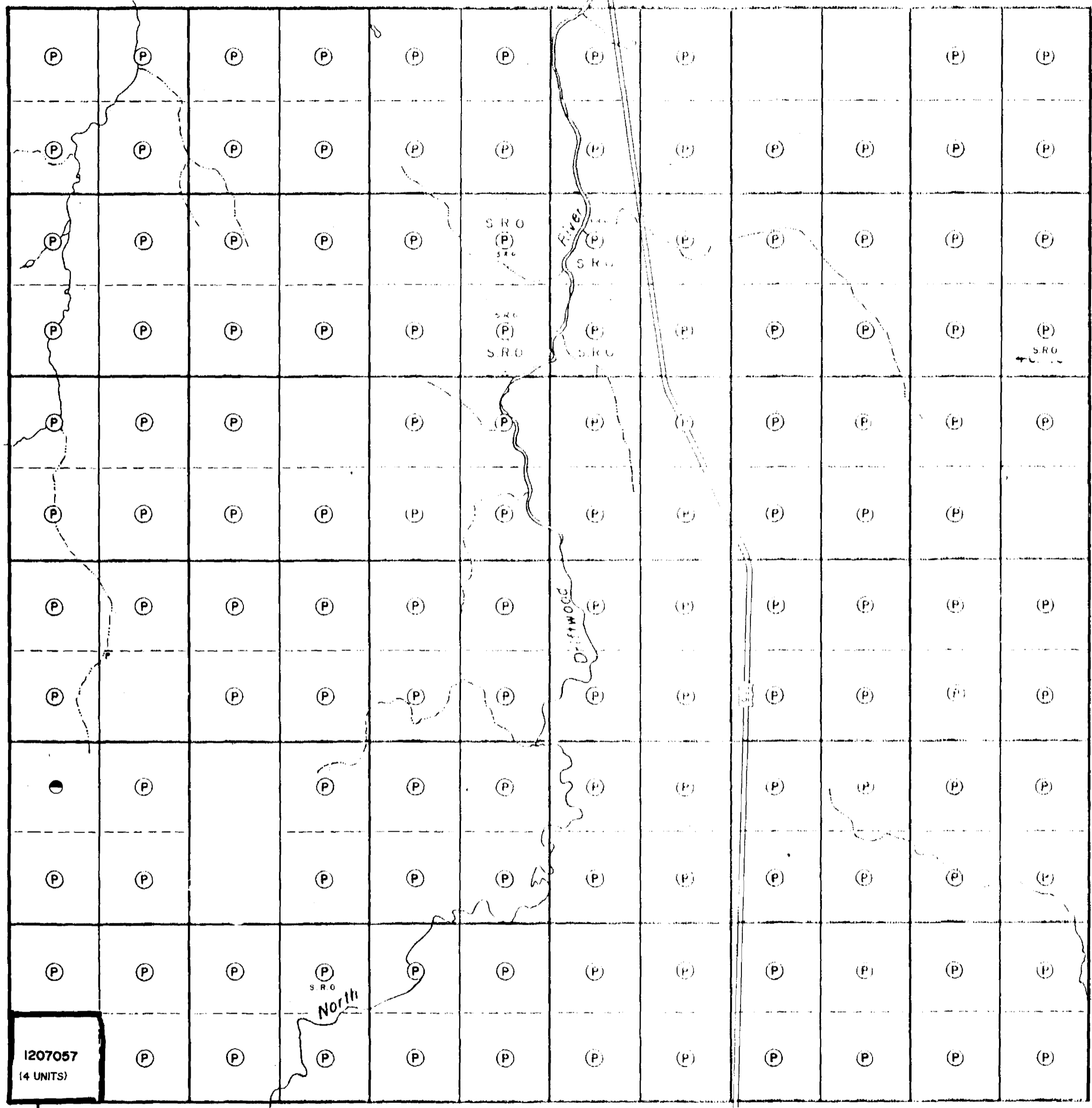
DALE RANDOLPH PYKE
THORNHILL, ON

Assessment Files Library
Sudbury, ON

Lennox Fwp.

Aubin Twp.

Beck Twp.



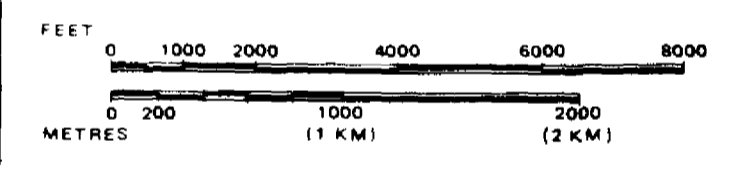
LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
 - TOWNSHIPS, BASE LINES, ETC.
 - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
 - LOT LINES
 - PARCEL BOUNDARY
 - 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



DATE OF ISSUE

MAR 08 1999

PROVINCIAL RECORDING OFFICE - SUDBURY

TOWNSHIP NESBITT

M.N.R. ADMINISTRATIVE DISTRICT COCHRANE
MINING DIVISION PORCUPINE

LAND TITLES / REGISTRY DIVISION COCHRANE

Ministry of Natural Resources Ontario
Ministry of Northern Development and Mines

Date _____ Number G-3546

ACTIVATED AUGUST 18, 1992 BY D.C.

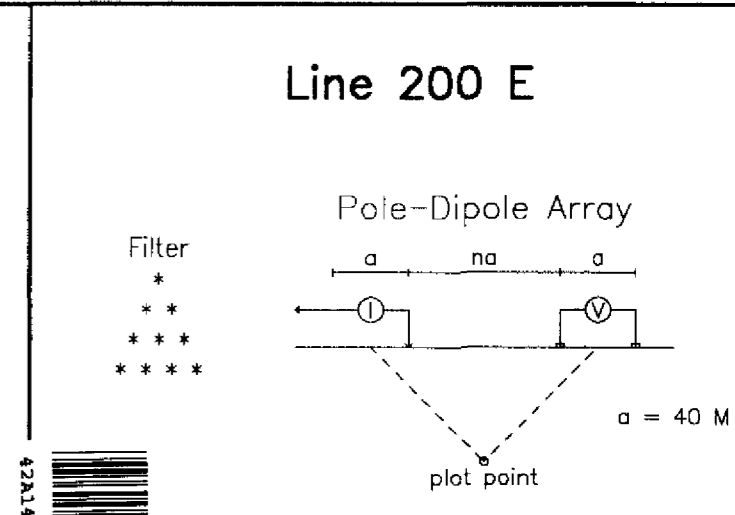
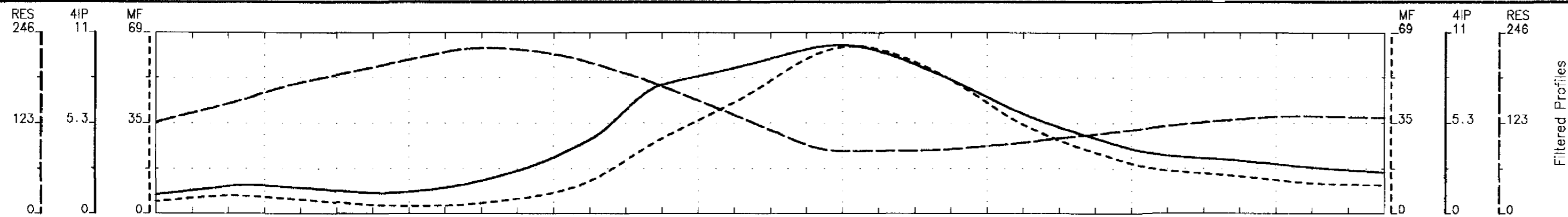
Mahaffy Twp.

Crawford Twp.

2.19349
IP

G.E.M.



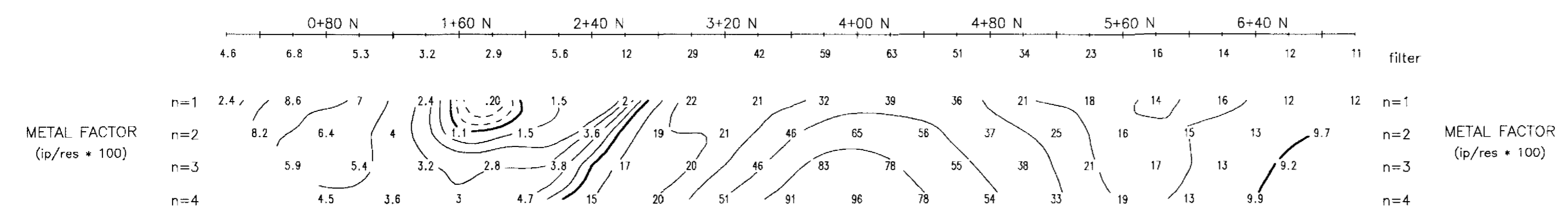
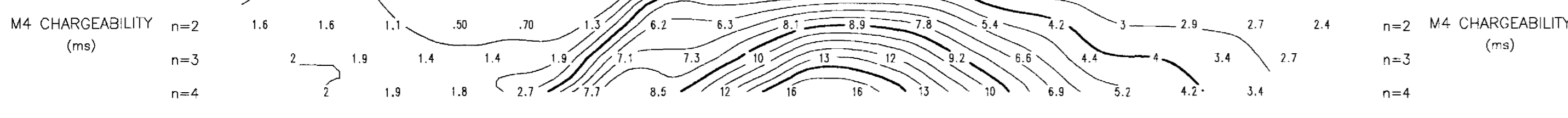
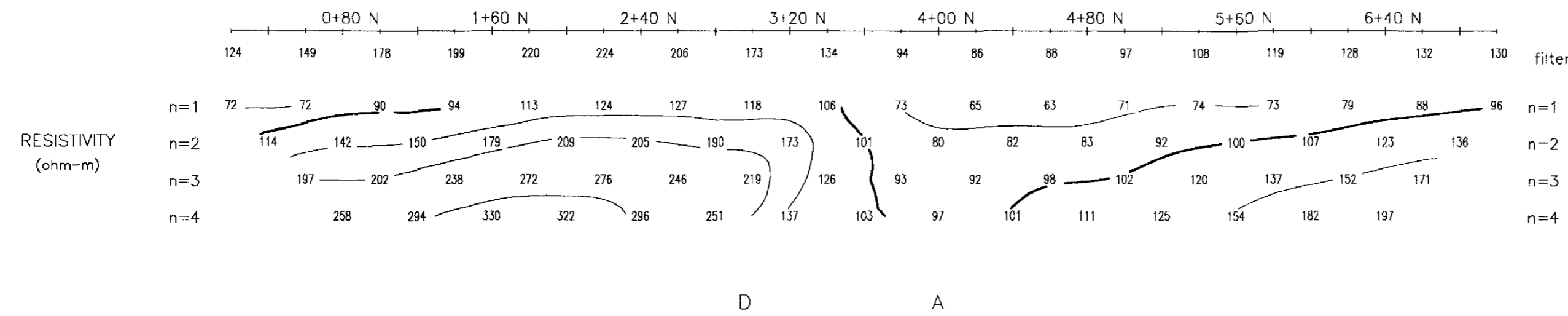


42A14M2001 2.19349 NESBITT 210

Receiver: Scintrex IPR-11
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 Integration Time: 180 ms

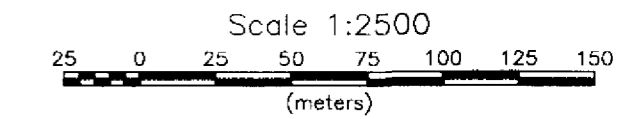
CONTOUR INTERVALS
 Resistivity: log
 Chargeability: 1 ms
 Metal Factor: log

logarithmic contours 1, 1.5, 2, 3, 5, 7.5, 10, ...



INTERPRETATION

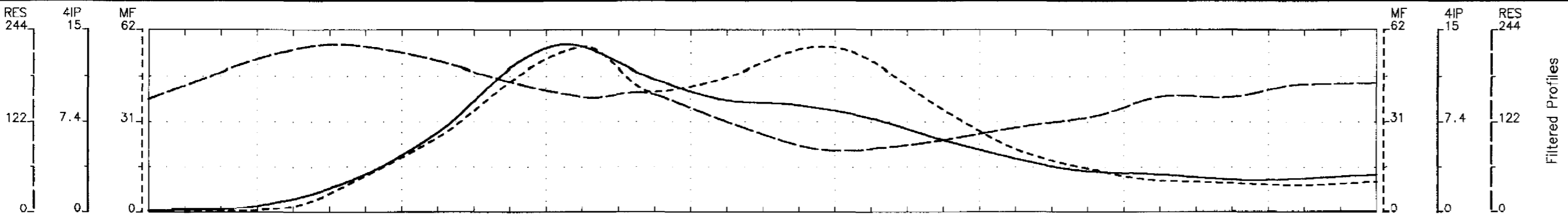
- Strong increase in polarization accompanied by marked decrease in resistivity.
- Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.



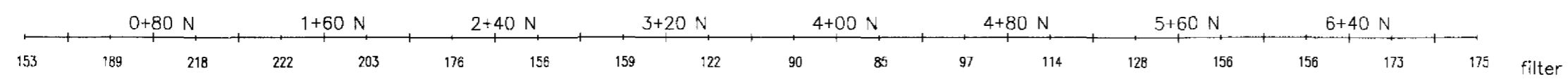
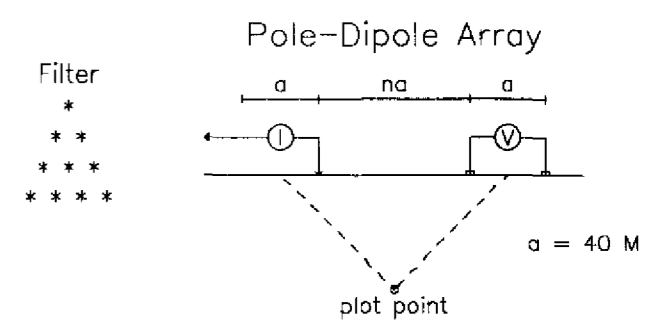
NESBITT/MAHAFFY PROJECT
INDUCED POLARIZATION SURVEY
NESBITT TOWNSHIP

Date: 1/99
 Interpretation: D. Londry

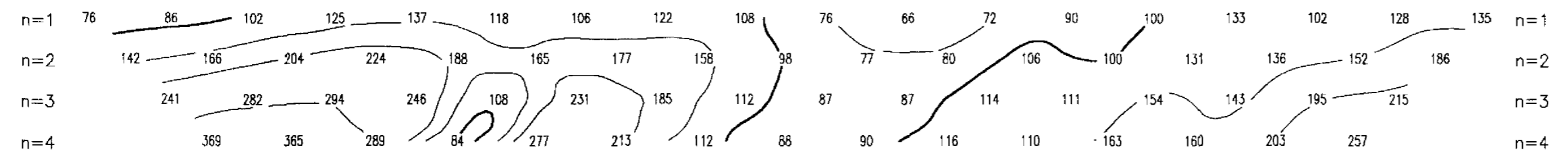
D. Londry



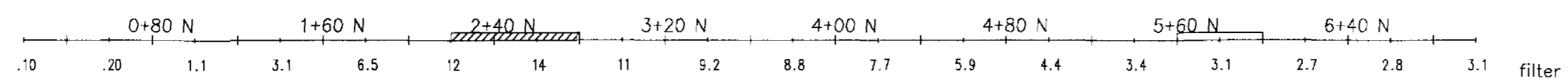
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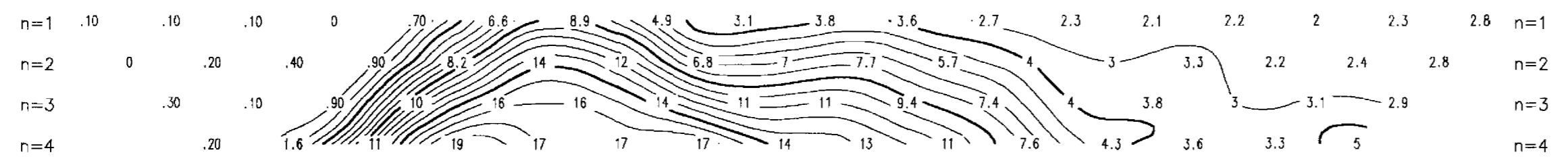
RESISTIVITY
(ohm-m)



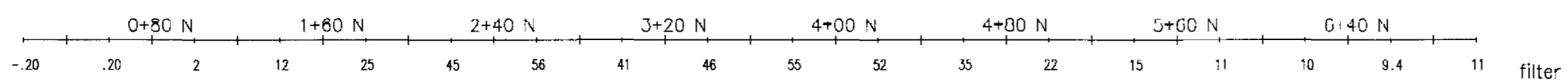
RESISTIVITY
(ohm-m)



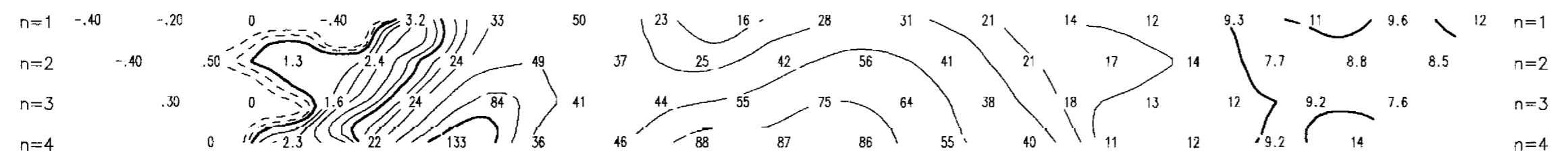
M4 CHARGEABILITY
(ms)



M4 CHARGEABILITY
(ms)



METAL FACTOR
(ip/res * 100)



METAL FACTOR
(ip/res * 100)

230



Receiver: Scintrex IPR-11
Type: Spectral Time Domain
Transmitter: Scintrex TSQ-3, 3kW
Delay Time: 150 ms
Integration Time: 180 ms

CONTOUR INTERVALS

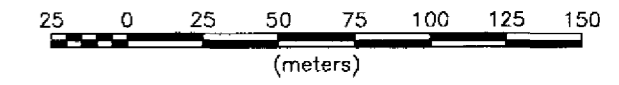
Resistivity: log
Chargeability: 1 ms
Metal Factor: log

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

Scale 1:2500



NESBITT/MAHAFFY PROJECT
INDUCED POLARIZATION SURVEY
NESBITT TOWNSHIP

Date: 1/99
Interpretation: D. Londry

D. Londry