



42B01NE0100 2.9723 PENHORWOOD

010

ARTAX EXPLORATION SERVICES

REPORT
ON
GEOPHYSICAL WORK

JEHANN LAKE PROPERTY
PENHORWOOD TOWNSHIP

RECEIVED

JAN 27 1987

MINING LANDS SECTION

JANUARY, 1987

D. LONDREY
TIMMINS GEOPHYSICS

SUMMARY AND RECOMMENDATIONS

Magnetic and very low frequency electromagnetic (VLF-EM) surveys were conducted on the Jehann Lake property, Penhorwood Township during November of 1986.

The VLF survey defined contacts between different rock units. Other weak, discontinuous anomalies may reflect structural features or disseminated mineralization.

The magnetic survey outlined an ultramafic unit in the southeast corner of the property. The source of isolated magnetic highs on the rest of the property include diabase, local concentrations of magnetite in volcanics and possibly, altered porphyry.

Trenching and an IP survey over VLF anomalies on the property would help determine if they represent potential drill targets.

TABLE OF CONTENTS

	page
SUMMARY AND RECOMMENDATIONS	i
INTRODUCTION	1
PREVIOUS WORK	1
SURVEY DESCRIPTIONS	3
RESULTS	5
REFERENCES	7

APPENDIX A - TECHNICAL DATA SHEET

LIST OF MAPS

1. MAGNETIC RESULTS (BACK POCKET)
2. VLF RESULTS (BACK POCKET)
3. FRASER FILTERED VLF RESULTS (BACK POCKET)

LIST OF FIGURES

	page
1. LOCATION MAP	2
2. GRID SKETCH	4

INTRODUCTION

The following report covers geophysical work carried out on the Jehann Lake property during November, 1986. The property consists of 26 contiguous claims in Penhorwood Township, Porcupine Mining District. The claims are numbered as follows:

P 639978 - 639983 inclusive

P 924165 - 924184 inclusive

The property is located approximately 40 miles southwest of the city of Timmins (Figure 1). It was accessed by driving south on the Kukatush Road from Highway 101 for 4.5 miles and then east along a bush road for 2 miles.

The field crew included W. Gasteiger, D. Londry and S. Ryan.

PREVIOUS WORK

Two other companies have filed assessment work on the property.

In 1946/47 McIntyre and Castle Trethewey carried out an exploration program in the area which included all of the claims on the present property. The program included mapping the geology on the property, which involved some trenching

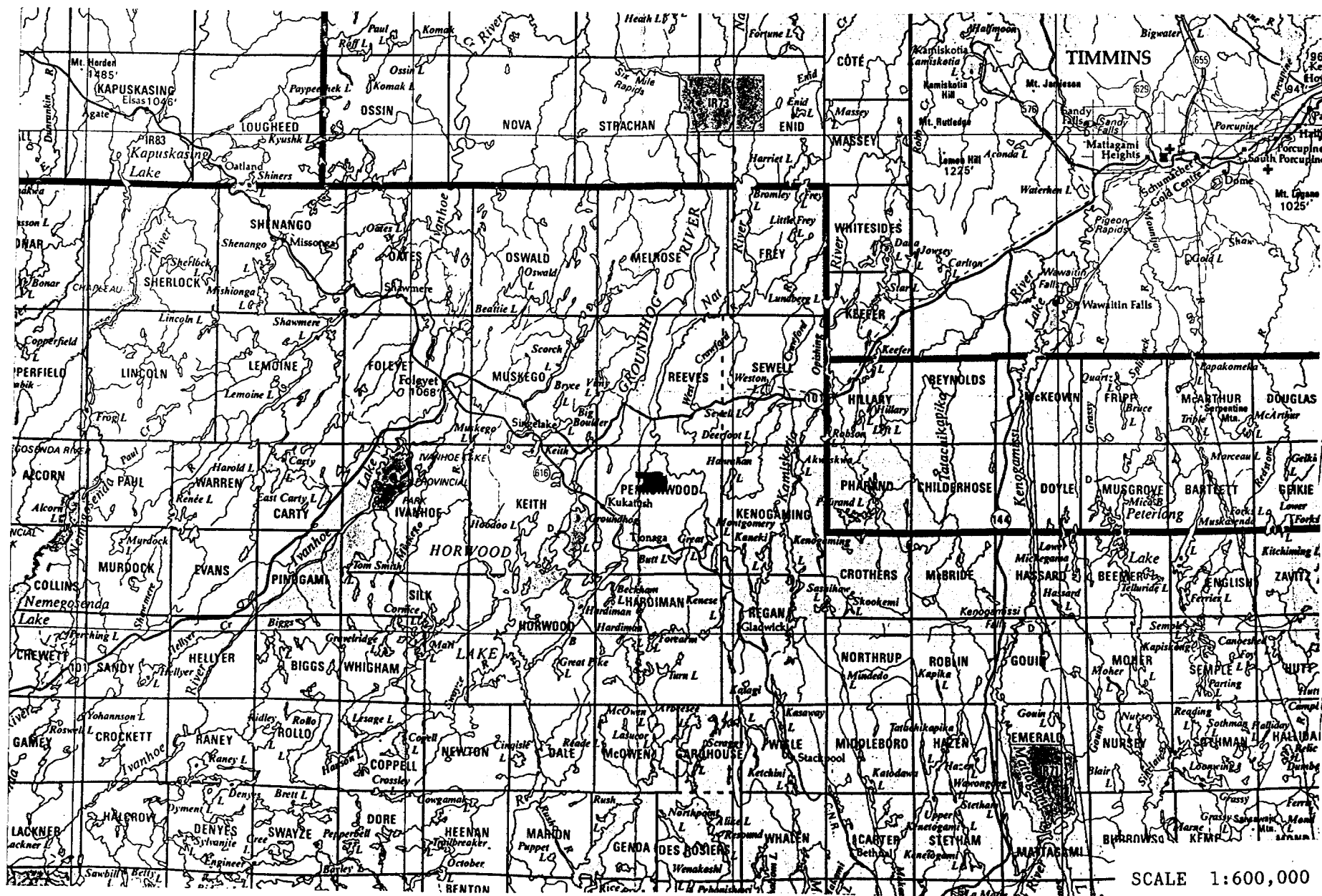


FIGURE 1: Location Map

and stripping. A magnetic survey was carried out and 65 samples from the area were tested for magnetic susceptibility. A self potential survey was also run over a portion of the property.

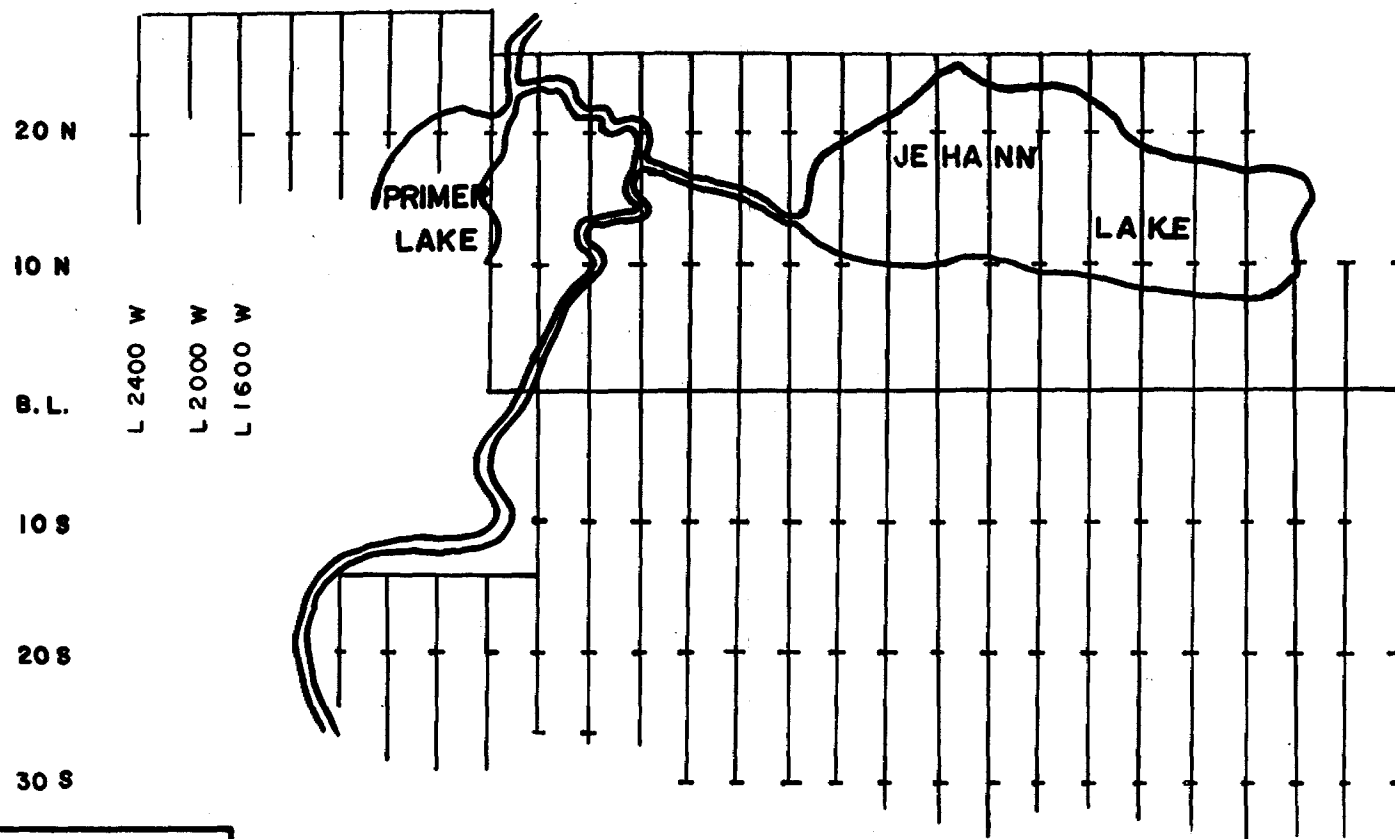
In 1959/60 Kakatush Mining Corporation carried out a magnetic survey over the claims. This company was interested in the occurrence of iron formations as a possible source of iron ore.

SURVEY DESCRIPTIONS

An east-west baseline was established across the middle of the property. Cross lines were cut every 400 feet and picketed every 100 feet (Figure 2).

The magnetic readings were taken with a Scintrex IGS-2/MP-4. This instrument is a proton precession magnetometer which measures the earth's total field to an accuracy of .1 gammas. The diurnal drift was monitored every 30 seconds with a Scintrex MP-3 base station magnetometer. A total of 1191 readings were taken along 21.9 kilometres of line.

The VLF survey was carried out with the Scintrex IGS-2/VLF-4. Parameters measured include the horizontal field strength and the in-phase and quadrature components of the vertical field, normalized to the field strength. The transmitter used was Cutler, Maine which transmits at a frequency of 24.0 kHz.



ARTAX EXPLORATION SERVICES

**JE HANN LAKE PROPERTY
PENHORWOOD TOWNSHIP**

GRID SKETCH

FIGURE 2

SCALE: 1" = 1500'

DATE: JAN. 1987

DRAWN BY: D.L.

W W W E E E E E E E E E E E E E E E E E E
 L 1200 L 800 L 400 L 0 L 400 L 800 L 1200 L 1600 L 2000 L 2400 L 2800 L 3200 L 3600 L 4000 L 4400 L 4800 L 5200 L 5600 L 6000 L 6400 L 6800 L 7200

RESULTS

The magnetic results are contoured on map 1. The VLF results are plotted on two maps: the dip angle and quadrature component of the vertical field are profiled on map 2; the dip angle is Fraser filtered on map 3.

The property can be divided into four areas with different magnetic responses. The edge of these areas are marked by conductors reflected in the VLF results.

VLF anomaly A strikes east-west across the property at approximately 1000 North. The source of this anomaly is likely the contact between known sediments to the north and volcanics to the south. The magnetic field over the sediments is uniform. Local variations in the field such as the low over Jehann Lake are probably due to a greater depth to bedrock.

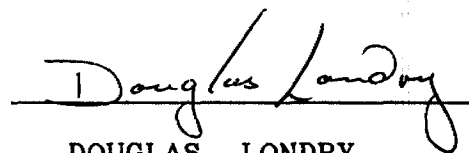
Between conductors A and B, the volcanics are characterized by isolated magnetic highs. The strongest of these anomalies, up to 1600 gammas above background, is located just to the south of Jehann Lake on Lines 2800 and 3200 East. The source of the anomaly is described by Brant, et al. to be scattered magnetite in basalt. A rock sample taken by McIntyre and Castle Trethewey, close to the magnetic high at 400 North on Line 5200 East, had a high magnetic susceptibility and was described to be diabase.

Between conductors B and C the magnetic field increases to the north. This area is underlain by volcanics with a

lower magnetic susceptibility than the volcanics to the north.

Anomaly C is located along the north edge of a northeast striking magnetic high which most likely reflects an ultramafic unit.

Numerous other weak VLF anomalies on the property may reflect shears or disseminated sulphides.


DOUGLAS LONDREY

REFERENCES

Brant, A. A., Johnson, A. E. and Bonnell, J. W. B., Report on Exploration Work, McIntyre and Castle Trethewey Claims, Penhorwood and Reeves Townships, Sudbury Mining District, Ontario. Timmins Assessment File T-84.

Drumbrille, J. C., 1961, Kakatush Mining Corporation. Timmins Assessment File T-669.

APPENDIX A



Ontario

Ministry of
Northern Development
and Mines

Geophysical-Geological-Geochemical Technical Data Statement

File _____

**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
Township or Area Penhorwood Township
Claim Holder(s) Kenneth Crosbie
41 Lakeview Road, Elliot Lake, Ont.
Survey Company Timmins Geophysics
Author of Report Douglas Londry
Address of Author P.O. Box 1783, South Porcupine, Ont.
Covering Dates of Survey 10/10/86 to 19/01/87
(linecutting to office)
Total Miles of Line Cut 25 miles

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes
line cutting) for first
survey.

ENTER 20 days for each
additional survey using
same grid.

Geophysical

—Electromagnetic 40

—Magnetometer 20

—Radiometric _____

—Other _____

Geological _____

Geochemical _____

DAYS
per claim

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

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: 22/01/87 SIGNATURE: Douglas Londry
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No. Type Date Claim Holder

MINING CLAIMS TRAVERSED List numerically

P	639978
(prefix)	(number)
P	639979
P	639980
P	639981
P	639982
P	639983
P	924165
P	924166
P	924167
P	924168
P	924169
P	924170
P	924171
P	924172
P	924173
P	924174
P	924175
P	924176
P	924177
P	924178
P	924179

If space insufficient, attach list

TOTAL CLAIMS 26

OFFICE USE ONLY

MINING CLAIMS TRAVERSED (cont'd)

P 924180

P 924181

P 924182

P 924183

P 924184

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 1194 Number of Readings VLF: 1191, MAG: 1191
 Station interval 100 ft. Line spacing 400 ft.
 Profile scale VLF: 1 cm. = 40%
 Contour interval MAG: 100 gammas FRASER FILTER: 10⁰

MAGNETIC

Instrument SCINTREX IGS-2/MP-4
 Accuracy - Scale constant 0.1 gammas
 Diurnal correction method SCINTREX MP-3 base station magnetometer
 Base Station check-in interval (hours) 30 seconds
 Base Station location and value LINE 2800 WEST 1300 NORTH
59123 gammas

ELECTROMAGNETIC

Instrument SCINTREX IGS-2/ VLF-4
 Coil configuration VERTICAL LOOP
 Coil separation _____
 Accuracy 1%
 Method: ☒ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line
 Frequency Cutler, Maine 24.0 KHz (specify V.L.F. station)
 Parameters measured in-phase and quadrature components of the vertical magnetic field
normalized to the horizontal field strength

GRAVITY

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

INDUCED POLARIZATION RESISTIVITY

Instrument _____
 Method ☐ Time Domain ☐ Frequency Domain
 Parameters - On time _____ Frequency _____
 - Off time _____ Range _____
 - Delay time _____
 - Integration time _____
 Power _____
 Electrode array _____
 Electrode spacing _____
 Type of electrode _____



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Author of Report Douglas Londry

Address of Author P.O. Box 1783, South Porcupine, Ont.

Covering Dates of Survey 10/10/86 to 19/01/87
(linecutting to office)

Total Miles of Line Cut 25 miles

SPECIAL PROVISIONS
CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
—Electromagnetic	40
—Magnetometer	20
—Radiometric	
—Other	
Geological	
Geochemical	

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

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: 22/01/87

SIGNATURE: Douglas J. ...
Author of Report or Agent

Res. Geol. _____ Qualifications _____ RECEIVED

Previous Surveys

File No.	Type	Date	Claim Holder
----------	------	------	--------------

[illegible]

MINING CLAIMS TRAVERSED

P (prefix)	639978 (number)
P	639979
P	639980
P	639981
P	639982
P	639983
P	924165
P	924166
P	924167
P	924168
P	924169
P	924170
P	924171
P	924172
P	924173
P	924174
P	924175
P	924176
P	924177
P	924178
P	924179

TOTAL CLAIMS_____26

If space insufficient, attach list

GEOPHYSICAL TECHNICAL DATA

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 Coil configuration VERTICAL LOOP
 Coil separation _____
 Accuracy 1%
 Method: ☒ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line
 Frequency Cutler, Maine 24.0 KHz (specify V.L.F. station)
 Parameters measured in-phase and quadrature components of the vertical magnetic field
normalized to the horizontal field strength

GRAVITY

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

INDUCED POLARIZATION RESISTIVITY

Instrument 03V17D3A
 Method ☐ Time Domain ☐ Frequency Domain
 Parameters – On time _____ Frequency _____
 – Off time _____ Range _____
 – Delay time _____
 – Integration time _____
 Power _____
 Electrode array _____
 Electrode spacing _____
 Type of electrode _____

MINING CLAIMS TRAVERSED (cont'd)

P 924180

P 924181

P 924182

P 924183

P 924184

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 _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent ☐
 p. p. m. ☐
 p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, (circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

D.J. Londry
P.O. Box 1783
1105 Government Rd.
South Porcupine, Ontario, P0N 1H0
(705) 235 4592
January 23, 1987

Mr. Ray Pichette
Director, Land Management Branch
Whitney Block, Room 6450
Queen's Park
TORONTO, Ontario
M7A 1W3

Dear Sir:

Re: Mining Claims in Penhorwood Township
Porcupine Mining District
Report of Work 346 & 355

Enclosed please find duplicate copies of a report and maps covering claims in Penhorwood Township, Porcupine Mining District. The claims aforementioned are:

P 639978 - 639983 inclusive
P 924165 - 924184 inclusive

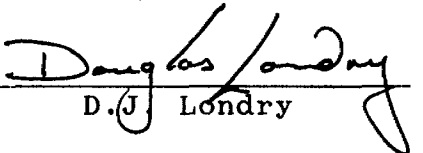
Your prompt attention to this matter would be greatly appreciated.

RECEIVED

JAN 27 1987

MINING LANDS SECTION

Yours truly,


D.J. Londry

DL/dl
cc: K. Crosby



Ministry of
Northern Development
and Mines

Report of Work

(Geophysical, Geological,
Geochemical and Expenditures)

Mining Act

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Jan. 13

355/86
29723

Type of Survey(s) GEOPHYSICS	Township or Area PENHORWOOD TWP.
Claim Holder(s) JEAN P. PATRIE	Prospector's Licence No. C - 29877
Address GENERAL DELIVERY, ALGOMA MILLS, ONTARIO	
Survey Company TIMMINS GEOPHYSICS	Date of Survey (from & to) 14 11 86 18 11 86 Day Mo. Yr. Day Mo. Yr.
Name and Address of Author (of Geo-Technical report) D. J. LONDRY, P.O. Box 1783, South Porcupine, Ont., P0N 1H0	
Total Miles of line Cut 25 miles	

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	40
	- Magnetometer	20
	- Radiometric	
	- Other	
	Geological	
For each additional survey: using the same grid: Enter 20 days (for each)	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total per	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	Geological	
	Geochemical	
Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
P				924179	
				924180	
				924181	
				924182	
				924183	
				924184	
		639980			
		639981			
		639982			
		639983			
		639985			
		639986			
		639987			
		924165			
		924166			
		924167			
		924168			
	924169				
	924170				
	924171				
	924172				
	924173				
	924174				
	924175				
	924176				
	924177				
	924178				

RECORDED

NOV 24 1986

RECEIVED
NOV 24 1986

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ + 15 =

Total Days Credits

Instructions

Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date **Nov. 24/86**

Recorded Holder or Agent (Signature) **Douglas Londry**

For Office Use Only

Total Days Cr. Recorded **1440**

Date Recorded **Nov. 24/86**

Date Approved as Recorded **87.2.4**

Mining Record **[Signature]**

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying

Date Certified **Nov. 24/86**

Certified by (Signature) **Douglas Londry**



DOUGLAS LONDREY, P.O. BOX 1783, SOUTH PORCUPINE,	
ONTARIO, P0N 1H0	Date Certified Nov. 7, 1986 Certified by (Signature) <i>Douglas Londrey</i>



In the matter of mining claims:

P 639978-79 in the
Township of Penhorwood as
listed on Report of Work
No. 346.

On consideration of an application from the recorded holder, Jean P. Patrie
under Section 77 Subsection 22 of the Mining Act, I hereby order that the time for filing reports and plans in support of
Geophysical (Electromagnetic & Magnetometer) assessment work recorded on November 7, 19 86
be extended until and including January 30, 19 87.

87-01-06.
Date

[Signature]
Signature of Director, Land Management Branch

Copies:

Jean P. Patrie
P.O. Box 105
Spragge, Ontario
POR 1K0

Douglas Londry
P.O. Box 1783
South Porcupine, Ontario
PON 1H0

Mining Recorder
Timmins, Ontario

REFERENCE

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
① 400' RESERVE			S.R.O.	135537
② SEC. 43/70	W.91/72	27/12/72	S.R.O.	163006 V.2
③ SEC. 36/80		11/7/81	S.R.O.	135537

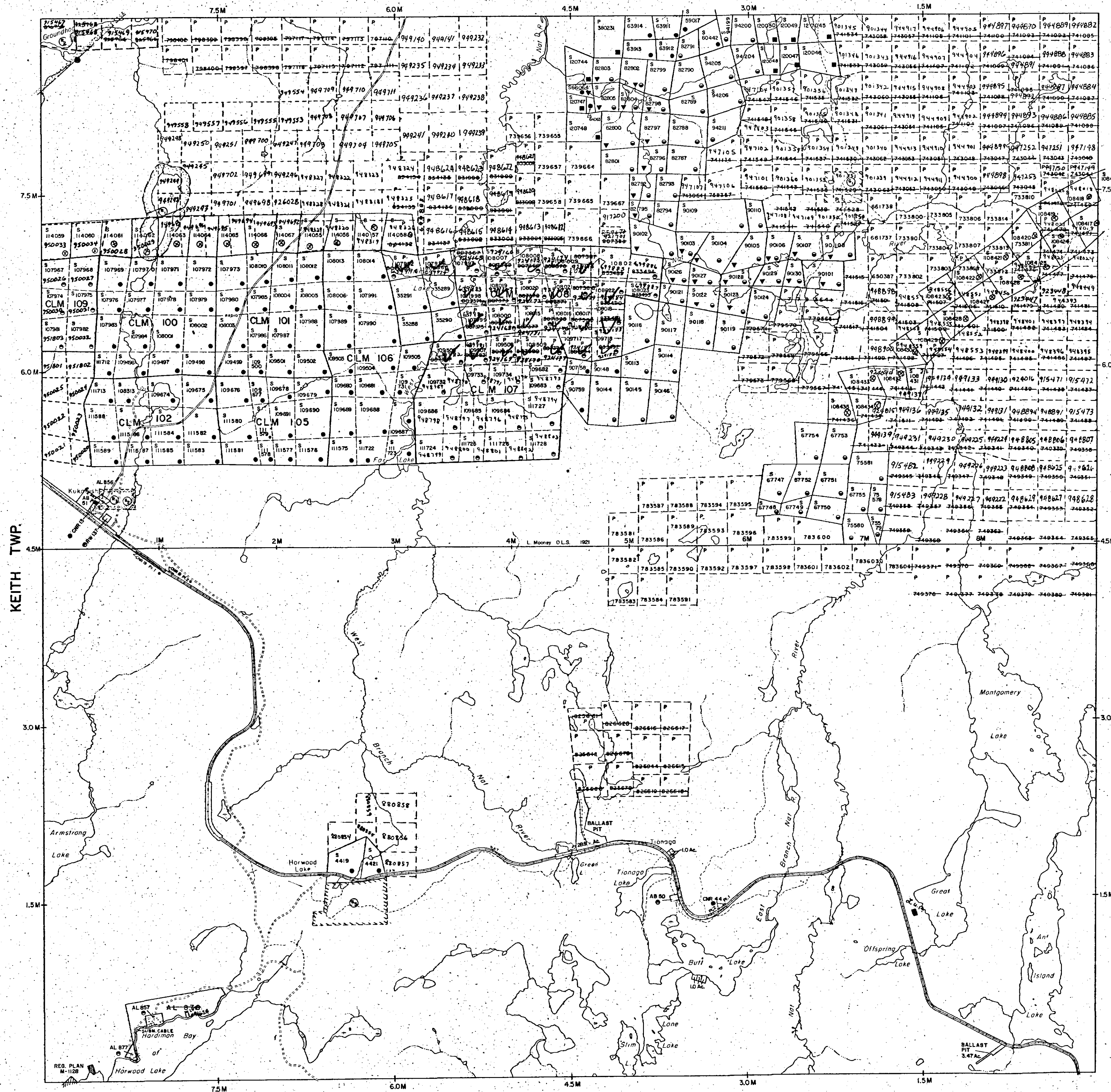
SAND AND GRAVEL

① GRAVEL	FILE	38728
② GRAVEL PIT	FILE	13553 V.6
③ GRAVEL	FILE	106274

NOTES

FLOODING RIGHTS ON HORWOOD LAKE RESERVED TO ONTARIO
HYDRO TO CONTOUR ELEVATION 117' L.O. 7746

REEVES TWP.



LEGEND

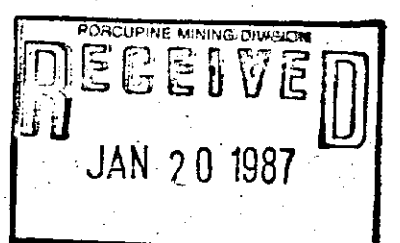
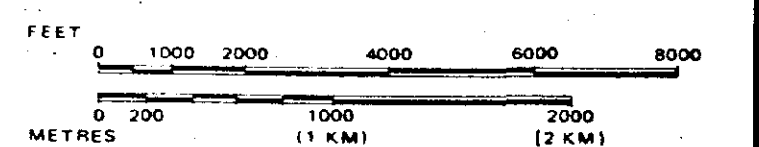
HIGHWAY AND ROUTE No.	
OTHER ROADS	
TRAILS	
SURVEYED LINES:	
TOWNSHIPS, BASE LINES, ETC.	
LOTS, MINING CLAIMS, PARCELS, ETC.	
UNSURVEYED LINES:	
LOT LINES	
PARCEL BOUNDARY	
MINING CLAIMS ETC.	
RAILWAY AND RIGHT OF WAY	
UTILITY LINES	
NON-PERENNIAL STREAM	
FLOODING OR FLOODING RIGHTS	
SUBDIVISION OR COMPOSITE PLAN	
RESERVATIONS	
ORIGINAL SHORELINE	
MARSH OR MUSKEG	
MINES	
TRAVERSE MONUMENT	

DISPOSITION OF CROWN LANDS

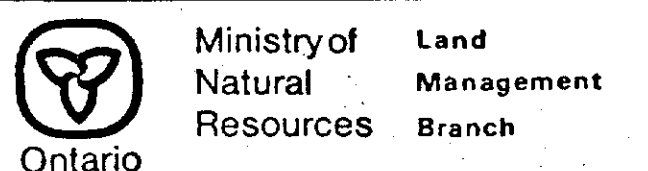
TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LEASE, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER-IN-COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

SCALE: 1 INCH = 40 CHAINS



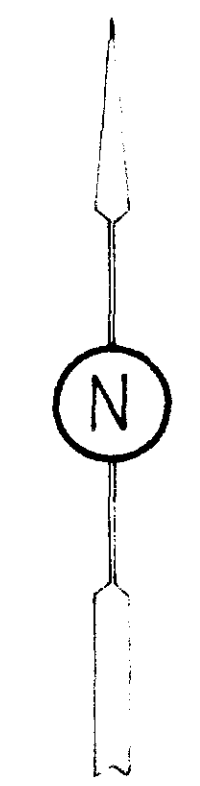
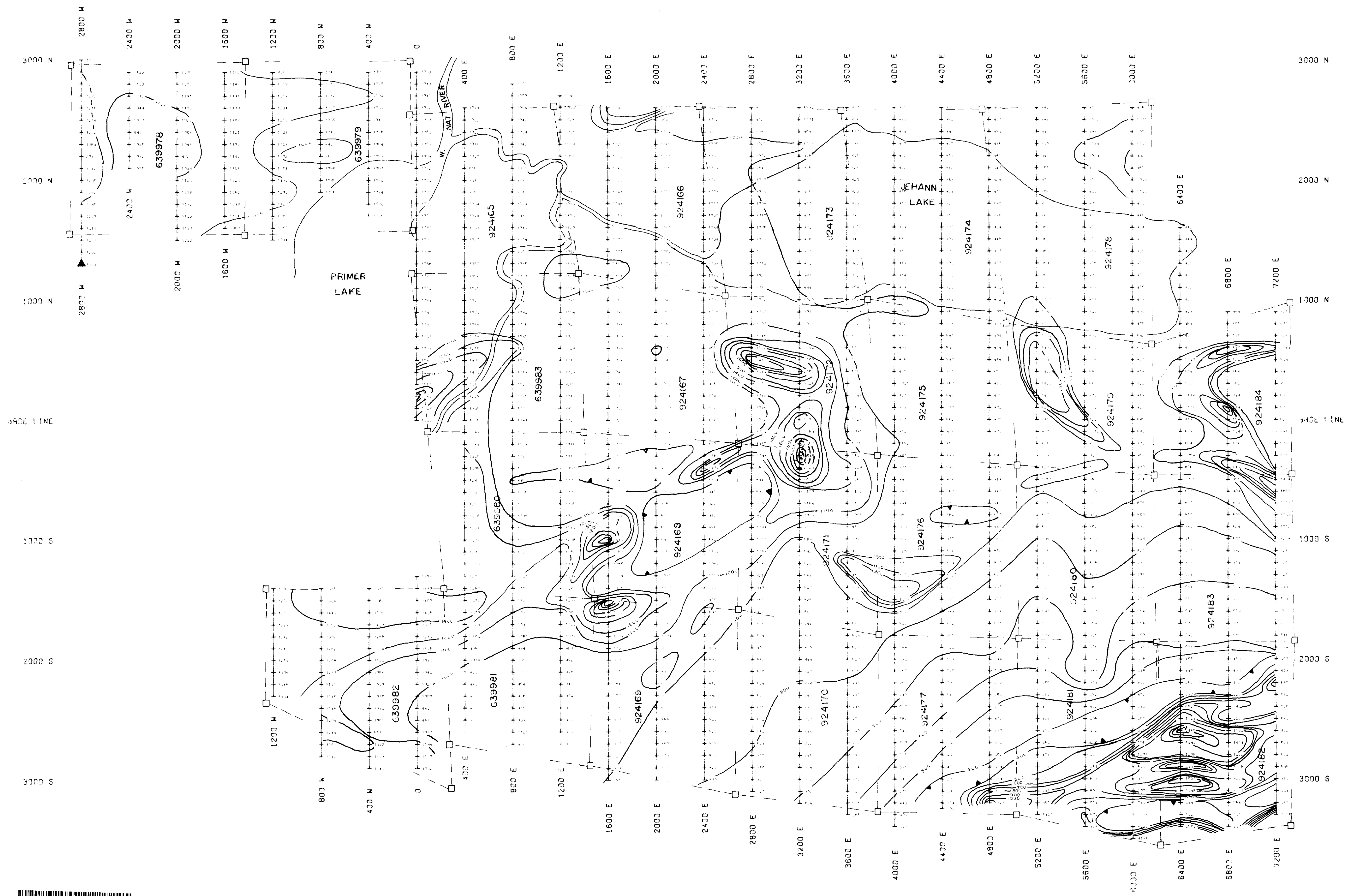
TOWNSHIP
PENHORWOOD
M.N.R. ADMINISTRATIVE DISTRICT
CHAPLEAU
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
SUDBURY



Date	MARCH 1985	Number	
checked June 14/85			
S.P. 2.2			

G-3244

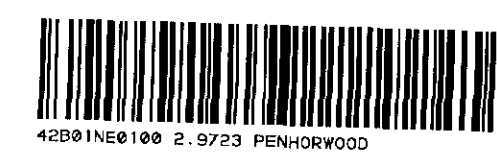


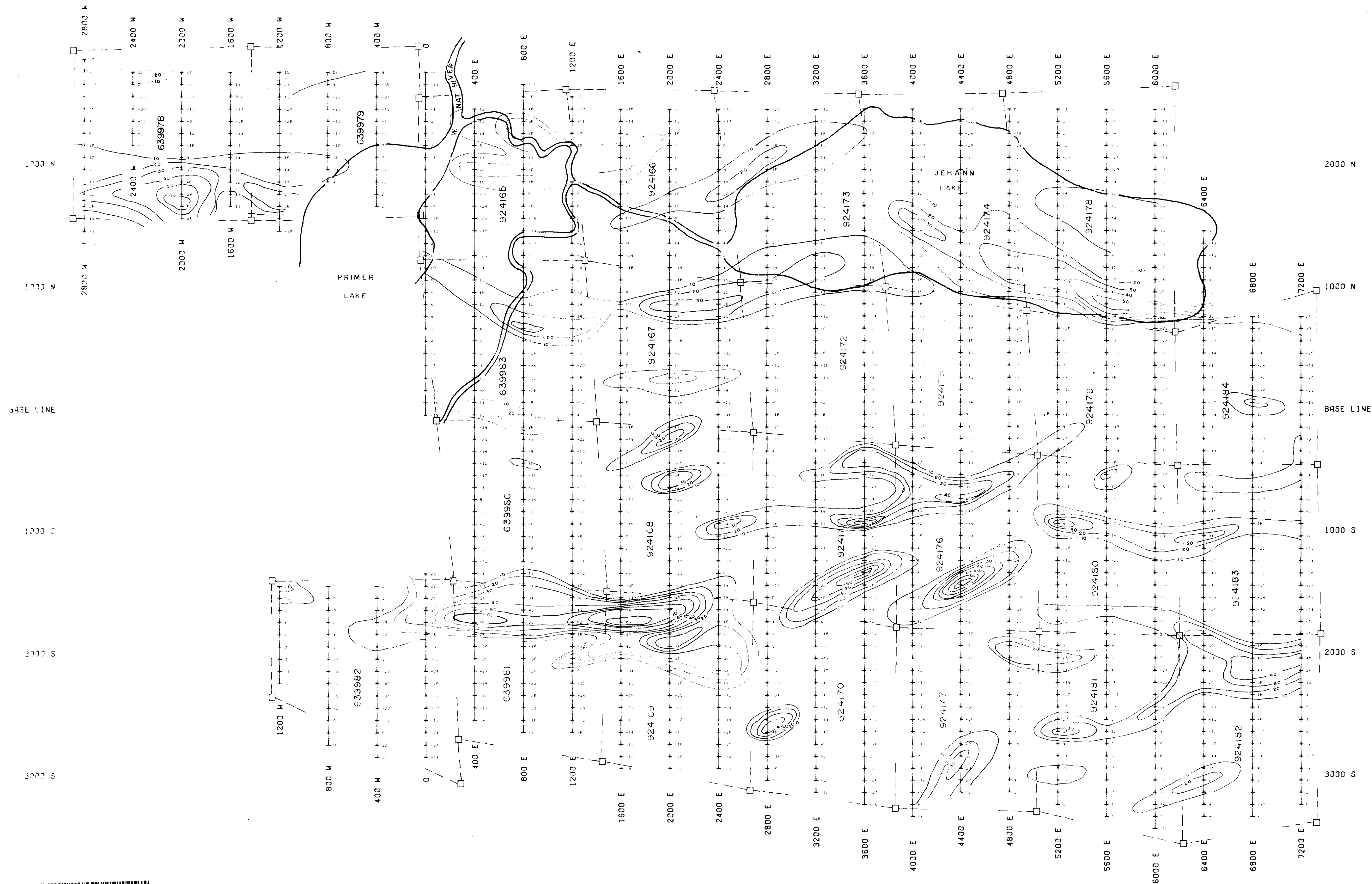


INSTRUMENT: SCINTREX IGS-2/MP-4
 TYPE: TOTAL FIELD PROTON PRECESSION
 DATUM LINE: +58,000 gammas

29723

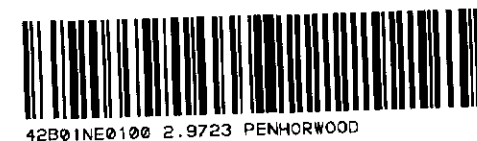
TIMMINS GEOPHYSICS	
MAGNETIC SURVEY	
ARTAX EXPLORATION SERVICES	
PROPERTY	JEHAN PROPERTY
CONVEYANCE	PENHORWOOD TWP
SCALE	1" = 400'
DATE	
BY	
CHECKED	
APPROVED	
TIMMINS GEOPHYSICS	
<i>Douglas Landry</i>	





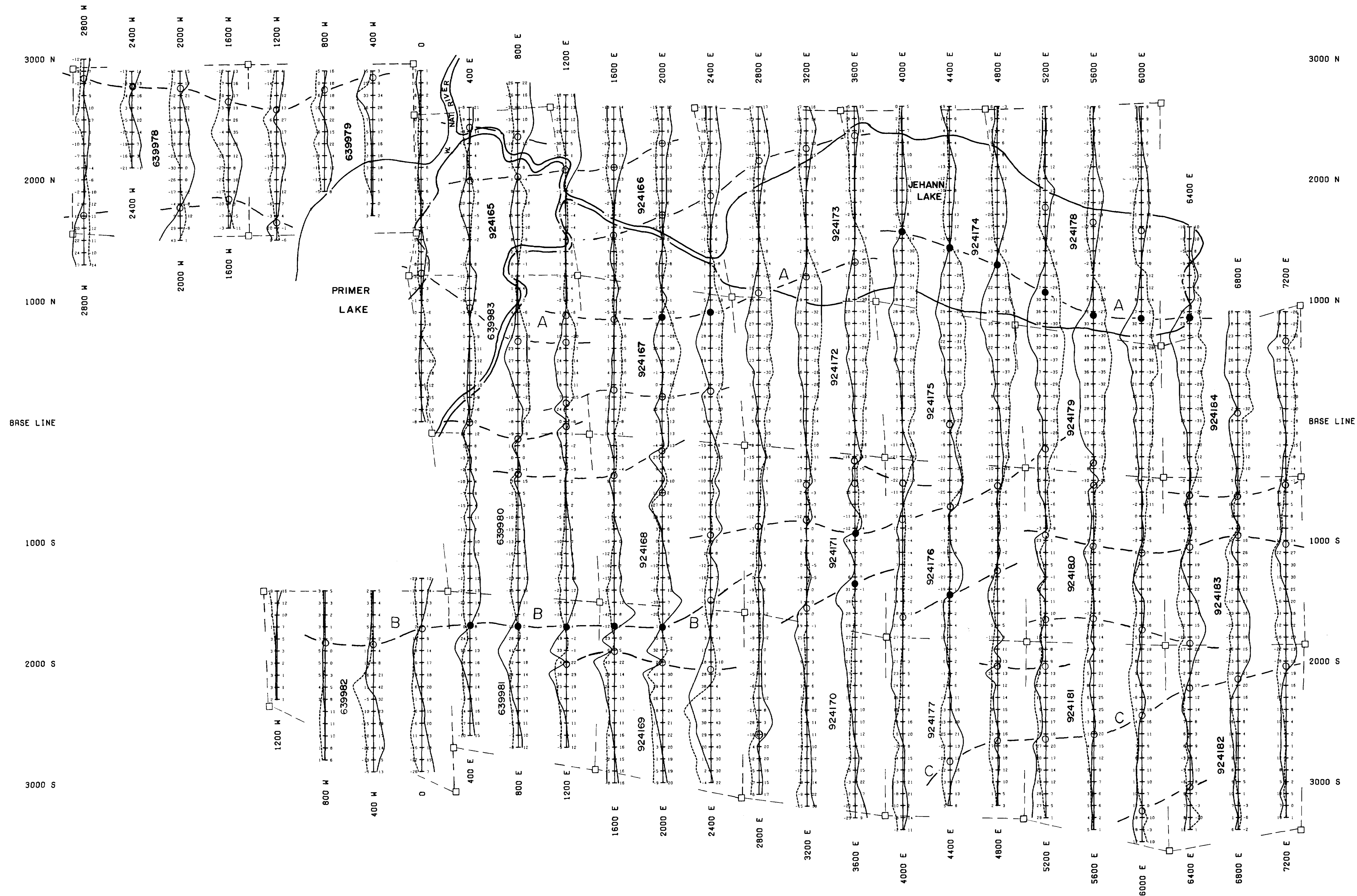
INSTRUMENT: SCINTREX IGS-2/VLF-4
STATION: CUTLER, MAINE
FREQUENCY: 24.0 KHZ

TIMMINS GEOPHYSICS	
VLF (FRASER FILTERED)	
Client	ARTAX EXPLORATION SERVICES
Project	JEHAN PROPERTY PENHORWOOD TWP
Scale	1" = 400'
Date	
Drawn by	
Checked by	
Approved by	
Drawn by	
Checked by	



42061NE100 2.9723 PENHORWOOD

2.9723



SURVEY LEGEND	
Instrument: SCINTREX 1GS-2/VLF-4	
Serial No.:	
Coil separation:	
In Phase	Out of Phase
TIMMINS GEOPHYSICS	
VLF SURVEY	
For:	ARTAX EXPLORATION SERVICES
Project:	JEHAN PROPERTY PENHORWOOD TWP
Survey:	STATION: CUTLER, MAINE FREQUENCY: 24.0 kHz
Scale:	1" = 400'
File:	
Dwg. no.:	
Date:	19-JAN-87
Survey'd by:	
Apprv'd by:	
Chk'd by:	<i>Douglas Landry</i>
Draw'n by:	NORTHERN GEOTECH



42861NER188 2.9723 PENHORWOOD