



52M01SE9960 2.10825 FAIRLIE

010

REPORT ON VLF-EM AND MAGNETIC SURVEYS  
HAMMELL LAKE PROPERTY  
FAIRLIE and TODD TOWNSHIPS  
RED LAKE MINING DIVISION

FOR

NORAMCO EXPLORATIONS LIMITED

**RECEIVED** NORTH BAY, ONTARIO

FFR 12 1988

BY

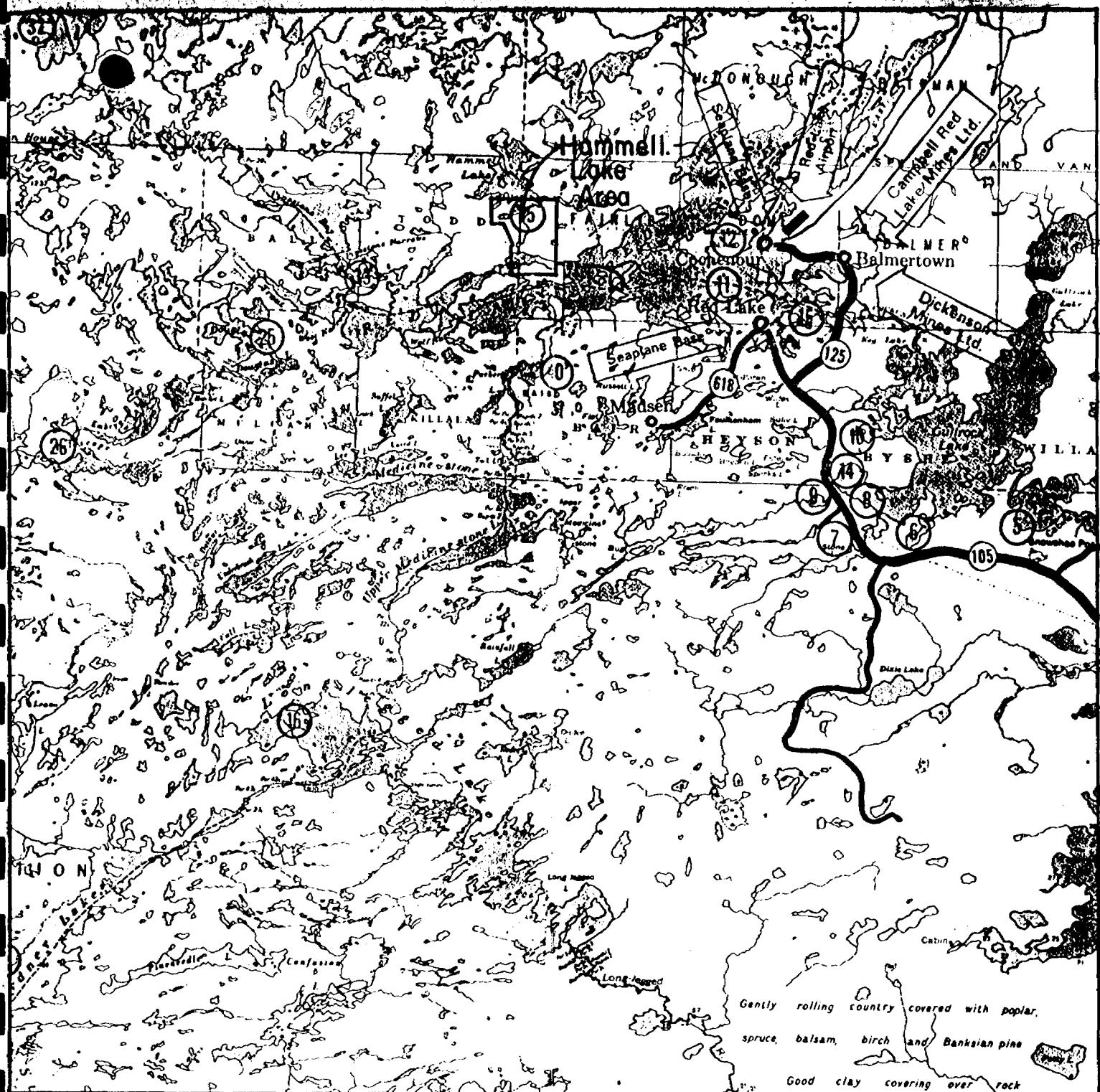
MINING LANDS SECTION  
PATTERSON MINING GEOPHYSICS LTD.

La Ronge, Saskatchewan

2.10825

Duane M. Studer, C.E.T.  
Mineral Resource Technologist

William A. Patterson  
Geophysicist



## Hammell Lake Area

## Location Map

PROJECT		
NTS	DISPOSITION	
WORK BY	SCALE	
DRAWN	DATE	Fig. 1



52M01SE9960 2.10825 FAIRLIE

010C

## TABLE OF CONTENTS

1.0	INTRODUCTION	
1.1	Objective.....	1.
1.2	Property and Ownership.....	1.
2.0	SURVEY SPECIFICATIONS	
2.1	Grid Parameters.....	1.
2.2	VLF-EM Survey.....	1.
2.3	Magnetic Survey.....	2.
3.0	INTERPRETATION	
3.1	Discussion.....	3.
4.0	RECOMMENDATIONS.....	3.

## LIST OF FIGURES

### DRAWING NO.

1	VLF-EM Data, NLK Seattle	Map Pocket
2	VLF-EM Profiles, NLK Seattle	Map Pocket
3	VLF-EM Seattle, Fraser Filter Contours	Map Pocket
4	VLF-EM Data, NAA Cutler	Map Pocket
5	VLF-EM Profiles, NAA Cutler	Map Pocket
6	VLF-EM Cutler, Fraser Filter Contours	Map Pocket
7	Total Field Magnetic Data	Map Pocket
8	Total Field Magnetic Contours	Map Pocket
9	Total Field Magnetic Profiles	Map Pocket
10	Vertical Gradient Magnetic Data	Map Pocket
11	Vertical Gradien Magnetic Contours	Map Pocket
12	Geophysical Compilation	Map Pocket

## APPENDICES

Appendix I      Instrument Specifications

Page 4.

## 1.0 INTRODUCTION

### 1.1 Objective

The objective of the ground geophysical surveys were to provide coverage over the Hammell Lake property to aid in mapping the subsurface geology and bedrock structures.

### 1.2 Property and Ownership

The Hammell Property is comprised of 69 mineral claims, in Fairlie and Todd Townships, Ontario. The claims were recorded with the Ontario Ministry of Natural Resources on the dates listed below.

#### Todd Township

6 Claims KRL967560 to 967565 inclusive,	Recorded Feb. 12/87
5 Claim KRL967346 to 967350 inclusive,	Recorded Feb. 12/87
5 Claims KRL967501 to 967505 inclusive,	Recorded Feb. 12/87
12 Claims KRL967524 to 966535 inclusive,	Recorded Feb. 12/87
23 Claim KRL967536 to 967558 inclusive,	Recorded Feb. 12/87

#### Fairlie Township

18 Claims KRL967506 to 967523 inclusive,	Recorded Feb. 12/87
--	---------------------

The Hammell Lake property is operated as a precious metals exploration project by Noramco Explorations Ltd of North Bay, Ontario.

## 2.0 SURVEY SPECIFICATIONS

### 2.1 Grid Parameters

The survey grid was established between July 25 to August 18, 1987, with cross lines turned off at 100 m intervals from transit controlled base and tie lines. All lines were picketed at 25 m intervals.

All lines were surveyed with VLF-EM, Total Field and Vertical Gradient magnetics, between August 10 to 20, 1987. Survey coverage totalled 98.7 km.

### 2.2 VLF-EM

The VLF-EM survey was carried out with the EDA OMNI PLUS receiver. Readings were recorded at 12.5 m intervals, using Seattle, Washington (NLK, 24.8 KHz) and Cutler, Maine (NAA, 24.0 KHz) transmitting stations. The OMNI PLUS VLF-EM receiver calculates in-phase, quadrature, field strength and dip angle from raw tensor measurements from three orthogonal coils. Instrument specifications are included as Appendix 1 of this

report.

All data were stored on magnetic diskette in ASCII format to facilitate computer data processing. The data has been posted and profiled using GEOSOFT software and are presented on true grid maps at a scale of 1:5000 (Drawing No. 1,2,4,5). The in-phase data was filtered using the Fraser technique, and is contoured and presented on true grids map at the scale of 1:5000 (Drawing No. 3,6).

### 2.3 Magnetic Survey

The EDA OMNI PLUS with an OMNI-IV base station magnetometer were used for the magnetic surveys. The total magnetic field was measured at 12.5 m intervals along all lines. Total field measurements were concurrently recorded at 15 second intervals by the base station magnetometer, which was located on the grid. All field measurements were corrected for diurnal variations of the earth's magnetic field by direct subtraction of the base station reading from the field reading taken at the same time. The corrected magnetic data has been posted, profiled, and contoured (Drawing No. 7,8,9) on grid maps at a scale of 1:5000. Vertical magnetic gradient was also measured with a second sensor 0.5 m below the total field sensor, and normalized to 1.0 m separation. These data have been posted and contoured (Drawing No. 10,11) on true grid maps. All data was stored on diskette in ASCII format, to facilitate computer data processing. Instrument specifications are included as Appendix 1 of this report.

## 3.0 INTERPRETATION

### 3.1 Discussion

Conductor axes have been interpreted from the profiled VLF-EM data and plotted on the Geophysical Compilation map, combined with magnetic contours at a scale of 1:5000 (Drawing No. 12). Conductivity-thickness and depth have been calculated where a significant in-phase and quadrature response are evident (Saydam, 1979). The conductors were then classified as low (<2 siemens), medium (2-15 siemens) and high (>15 siemens) conductivity thickness. Responses which could not be calculated are classified as indeterminate. Several conductive trends are evident and have been categorized based on the VLF-EM response and the magnetic pattern.

Several conductors on the Hammell Lake grid have a direct magnetic correlation. The strength of the magnetic responses suggest that magnetite is the main magnetic mineral present. The magnetic contours indicate the bedrock stratigraphy is well layered, and trends roughly WNW. This layering suggests that metasedimentary rocks are present in this area. High magnetic bands may represent iron formation.

Without direct measurement of the magnetic susceptibility of representative rocks from this area, the correlation of the

is similar to that from metasedimentary rocks. The interpreted high magnetic iron formations have good potential for syngenetic type precious metal mineralization.

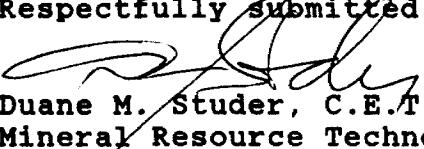
Lineaments in the magnetic contours may represent faults or lithologic contacts. Several lineaments are evident in a WNW direction, which indicates the trend of the stratigraphy. Major lineaments from L9+00W/9+75S to L13+00E/3+50N; from L12+00W/5+25S to L4+00E/5+00S; and from L15+00W/4+75N to L14+00E/4+00N crosscut the stratigraphy.

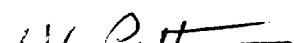
A narrow high magnetic band south of Martin Bay (L10+00W/21+75S to L2+00E/18+75S) indicates a change in strike of the bedrock stratigraphy to ENE. Fault structures interpreted from magnetic lineaments have good potential for structurally-related precious metal mineralization.

#### 4.0 RECOMMENDATIONS

1. Magnetic susceptibility readings shold be made on representative rock types from this area, to corelate the ground magnetics to the local geology.
2. Detailed interpretation of the geophysics should be completed, with corelatio to the geology.
3. Detailed follow-up of the inerpreted magnetic iron formations, particularly where they are disrupted by interpreted fault structures.

Respectfully submitted,

  
Duane M. Studer, C.E.T.  
Mineral Resource Technologist

  
William A. Patterson  
Geophysicist

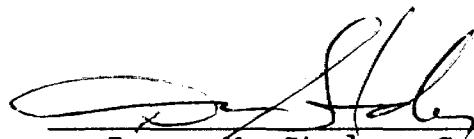
**CERTIFICATE**

I, Duane M. Studer, hereby certify that;

1. I am a Mineral Resource Technologist, employed by Durama Enterprises Limited, of 128 Findlayson Street, in the Town of La Ronge, in the Province of Saskatchewan.
2. I currently reside at #5, 2nd Street, in the Community of Wadin Bay, in the Province of Saskatchewan.
3. I obtained an honours diploma in Mineral Resource Technology, in 1974 from the Northern Alberta Institute of Technology.
4. I worked for the Saskatchewan Department of Mineral Resources as a Laboratory Technologist from 1974 to 1980.
5. I have been practicing my profession in Mineral Exploration, with Durama Enterprises Limited, since 1980.
6. I am certified as an Engineering Technologist with the Saskatchewan Society of Technicians and Technologists.

Date Jan 10, 1988

La Ronge, Saskatchewan

  
\_\_\_\_\_  
Duane M. Studer, C.E.T.  
Durama Enterprises Limited  
**RECEIVED**

MAR 03 1988

**MINING LANDS SECTION**

CERTIFICATE

I, William A. Patterson, hereby certify that;

1. I am a Geophysicist employed by Patterson Mining Geophysics Ltd., of 130 Findlayson Street, in the Town of La Ronge, in the Province of Saskatchewan.
2. I currently reside at 115 Gibson Street, in the Town of La Ronge, in the Province of Saskatchewan.
3. I obtained a technology diploma in Geology and Geophysics in 1974 from Cambrian College in Sudbury, Ontario.
4. I attended courses in Engineering Geophysics at Queen's University in 1975 and 1976.
5. I have been practicing my profession in Exploration Geophysics since 1974, and employed as a Geophysicist since 1976.

Date Jan 1988

La Ronge, Saskatchewan

William A. Patterson  
William A. Patterson  
Patterson Mining Geophysics Ltd.

RECEIVED

MAR 03 1988

MINING LANDS SECTION

**APPENDIX 1**  
**Instrument Specifications**

# OMNI PLUS "Tie-Line" VLF / Magnetometer System

EDA



## Major Benefits of the OMNI PLUS

- Combined VLF/Magnetometer/Gradiometer System
- No Orientation Required
- Four VLF Magnetic Parameters Recorded
- Automatic Calculation of Fraser Filter
- Automatic Correction of Primary Field Variations
- Calculation of Ellipticity
- Measurement of VLF Electric Field

# OMNI PLUS "Tie-Line" VLF / Magnetometer System

## Description

The OMNI PLUS geophysical system combines the OMNI IV "Tie-Line" magnetometer and gradiometer together with a VLF measurement capability.

The OMNI PLUS VLF/Magnetometer System has been developed in co-operation with Geophysical Surveys Inc. of Quebec, Canada.

This brochure concentrates on the VLF magnetic and electric field parameters measured and recorded by the OMNI PLUS. More information on the OMNI PLUS magnetometer system and tie-line capability is available in the OMNI IV brochure.

- Measurement of up to three VLF transmitting stations to provide complete coverage of an anomaly regardless of the orientation of the survey grid or of the anomaly itself.
- Display descriptors to monitor the quality of the first two VLF transmitter signals being measured.
- Choice of three data storage modes:
  - spot record, for readings without grid co-ordinates
  - multi record, for multiple readings at one station
  - auto record, for automatic update of station number
- Output of grid co-ordinates with the designated compass bearing, using N, S, E, W descriptors.

three different transmitters, a magnetic total field reading and a simultaneous magnetic gradient reading. In addition, the OMNI PLUS can also measure and record two VLF electric field parameters from three different transmitters.

## No Orientation Required

The OMNI PLUS requires no orientation, by the operator, of the sensor head toward the transmitter station. This simplifies field procedures as well as saving considerable survey time. When three VLF transmitters are measured, the benefits of this time-saving feature are automatically tripled. There is no requirement for the operator to orient himself and the sensor head toward the first selected transmitting station and then re-orient towards the second or third transmitting station.

## Features

Each OMNI PLUS incorporates the following features:

- Measurement and recording in memory of the following VLF data for each field reading:
  - vertical in-phase,
  - vertical quadrature (out-of-phase),
  - total field strength,
  - dip angle,
  - apparent resistivity,
  - phase angle,
  - time,
  - grid co-ordinates,
  - direction of travel along grid lines, and
  - natural and cultural features.
- Complete data protection for a number of years by an internal lithium backup battery.
- "Tie-Line" or "Looping" algorithm, unique only to EDA's OMNI IV and OMNI PLUS Series, for the self-correction of atmospheric variations and variations in the primary field from the VLF transmitter(s).

## Major Benefits

### Combined VLF/Magnetometer / Gradiometer System

The OMNI PLUS incorporates the capabilities of the OMNI IV "Tie-Line" Magnetometer and Gradiometer System with the ability to measure the VLF magnetic and electric fields. Only one OMNI PLUS is needed to record all of the following geophysical parameters:

1. The total magnetic field
2. The simultaneous gradient of the total magnetic field
3. The VLF magnetic field, including:
  - the vertical in-phase
  - the vertical quadrature
  - the total field strength
  - the dip angle
4. The VLF electric field, including:
  - the phase angle
  - apparent resistivity

As an example, at each location the OMNI PLUS can calculate and record **In less than 8 seconds**, four VLF magnetic field parameters from

### Four VLF Magnetic Parameters Recorded

The OMNI PLUS calculates and records in memory the:

- vertical in-phase
- vertical quadrature
- total field strength
- dip angle

The operator has the option to substitute the horizontal amplitude for the total field strength. The OMNI PLUS calculates each of these parameters from the in-phase and quadrature measurements of all three components.

## Automatic Calculation of Fraser Filter

The OMNI PLUS automatically calculates the Fraser Filter, from the dip angle data, regardless of the interval between the stations along the grid lines. The operator no longer has to manually perform this mathematical calculation thereby reducing the possibility of human error. The Fraser Filter algorithm follows established conventions.

The operator can choose to output either the dip angle or the Fraser filtered data, or both.

## Automatic Correction of Primary Field Variations

The OMNI PLUS can be used as a base station to monitor primary field changes from up to three VLF transmitters as well as alternately measuring the variations in the magnitude of the earth's magnetic field. Only one OMNI PLUS is needed to perform both functions.

The OMNI PLUS base station can then automatically correct, by linear interpolation, the field units for these drift variations in the primary VLF and total magnetic fields.

## Calculation of Ellipticity

The OMNI PLUS calculates the true ellipticity of the VLF magnetic field from the measurement of the in-phase and quadrature of all three components. The ellipticity provides more interpretative information about the anomaly than the dip angle and is less influenced by overburden shielding.

- **Measurement of VLF Electric Field**

The OMNI PLUS calculates and records the apparent resistivity and phase angle from the measurement of the VLF electric field. This VLF electric field measurement can be accomplished by using capacitively or resistively coupled electrodes at spacings of 5, 10 or 20 meters.

## Other Benefits

- **Automatic Tuning**

The OMNI PLUS automatically tunes up to three VLF transmitters within a frequency range of 15 to 30 kHz, once the operator has programmed in the specific frequencies.

- **Base Station Synchronization**

The OMNI PLUS has a unique "count-down" feature which can be activated in the field unit upon synchronization with the base station. The field unit then displays and decrements the remaining time, in seconds, until the base station is scheduled to take a measurement. The operator can obtain a field reading at exactly the same time as the base station. The simultaneous field and base station measurements significantly improve the automatic correction accuracy.

- **Automatic "Tie-Line" Correction**

The OMNI PLUS can automatically correct by **itself** the VLF field data for atmospheric variations and changes in the primary field originating from the VLF transmitter. By tieing-back into one or several tiepoints on the grid, the

OMNI PLUS will automatically calculate and apply the drift measured to the field data previously recorded in memory. More information on this unique "tie-line" method can be obtained from page 3 of the OMNI IV brochure.

- **Notation of Natural and Cultural Features**

The OMNI PLUS can record natural and cultural features unique to each grid location. This capability eliminates the need for a field notebook and provides additional information that can assist in interpreting recorded data.

- **Analogue Output**

Since VLF as well as magnetic data is often easier to interpret as a profile plot, data collected by the OMNI PLUS can be represented in analogue format at a vertical scale best suited for data presentation. The operator can selectively output in analogue and/or digital format, up to 10 of the following parameters:

- vertical in-phase
- vertical quadrature
- VLF total field strength  
(or optional horizontal amplitude)
- dip angle
- Fraser filtered data
- ellipticity
- apparent resistivity
- phase angle
- magnetic total field strength
- magnetic vertical gradient

- **Computer Interface**

The OMNI PLUS can transfer uncorrected, corrected or filtered data to most computers with a RS232C port. In some cases, a DCA-100 Data Communications Adaptor may be required. Computers with collection packages including either "X-ON, X-OFF" or "ENQ/ACK" communications protocol formats are also compatible.



## **Specifications**

Frequency Tuning Range . . . . .	15 to 30 kHz, with bandwidth of 150 Hz; tuning range accommodates new Puerto Rico station at 28.5 kHz.
Transmitting Stations Measured . . . . .	Up to 3 stations can be automatically measured at any given grid location within frequency tuning range.
Recorded VLF Magnetic Parameters . . . . .	Vertical in-phase, vertical quadrature (out-of-phase), total field strength (or optional horizontal amplitude), dip angle.
Standard Memory Capacity . . . . .	1300 combined VLF magnetic and VLF electric measurements as well as gradiometer and magnetometer readings.
Display . . . . .	Custom designed, ruggedized liquid crystal display with built-in heater and an operating temperature range from -40°C to +55°C. The display contains six numeric digits, decimal point, battery status monitor, signal strength status monitor and function descriptors.
RS232C Serial I/O Interface . . . . .	Variable baud rate from 300 to 9600 baud, 8 data bits, 2 stop bits, no parity.
Test Mode . . . . .	A. Diagnostic Testing (data and programmable memory). B. Self Test (hardware).
Sensor Head . . . . .	Contains 3 orthogonally mounted coils with automatic tilt compensation.
Operating Environmental Range . . . . .	-40°C to +55°C; 0 - 100% relative humidity; Weatherproof.
Power Supply . . . . .	Non-magnetic rechargeable sealed lead-acid 18V DC battery cartridge or belt; 18V DC disposable battery belt; 12V DC external power source for base station operation only.
Weights and Dimensions	
Instrument Console . . . . .	3.8 kg, 122 x 246 x 210 mm.
Sensor Head . . . . .	0.9 kg, 140 dia. x 130 mm.
VLF Electronics Module . . . . .	1.7 kg, 280 x 190 x 60 mm.
Lead Acid Battery Cartridge . . . . .	1.8 kg, 138 x 95 x 75 mm.
Lead Acid Battery Belt . . . . .	1.8 kg, 540 x 100 x 40 mm.
Disposable Battery Belt . . . . .	1.2 kg, 540 x 100 x 40 mm.

EDA Instruments Inc.  
4 Thorncilffe Park Drive  
Toronto, Ontario  
Canada M4H 1H1  
Telex: 06 23222 EDA TOR  
Cables: Instruments Toronto  
Telephone: (416) 425-7800  
Fax: (416) 425-8135

In USA,  
EDA Instruments Inc.  
5151 Ward Road  
Wheat Ridge, Colorado  
U.S.A. 80033  
Telephone: (303) 422-9112

EDA Omni IV

Total Field and Gradient Magnetometer

Specifications

Dynamic Range	18,000 to 110,000 gammas. Roll-over display feature suppresses first significant digit upon exceeding 100,000 gammas.
Tuning Method	tuning value is calculated accurately utilizing a specially developed tuning algorithm
Automatic Fine Tuning	$\pm$ 15% relative to ambient field strength of last stored value
Display Resolution	0.1 gamma
Processing Sensitivity	$\pm$ 0.02 gamma
Statistical Error	0.01 gamma
Resolution Abosulte Assurance	$\pm$ 1 gamma at 50,000 gammas at 23°C $\pm$ 2 gamma over total temperature range
Standard Memory Capacity	
Total Field or Gradient Tie-Line Points	1,200 data blocks or sets of readings 100 data blocks or sets of readings
Base Station Display	5,000 data blocks or sets of readings Custom-designed, ruggedized liquid crystal display with an operating temperature range from -40°C to +55°C. The display contains six numeric digits, decimal point, battery status monitor, signal decay rate and signal amplitude monitor and function descriptors.
RS 232 Serial 1/0	2400 baud, 8 data bits, 2 stop bits, no parity
Gradient Tolerance	6,000 gammas per meter (field proven)
Test Mode	A. Diagnostic testing (data and programmable memory.) B. Self Test (hardware)

Sensor	Optimized miniature design. Magnetic cleanliness is consistent with the specified absolute accuracy.
Gradient Sensors	0.5 meter sensor separation (standard), normalized to gammas/meter. Optional 1.0 meter sensor separation available. Horizontal sensors optional.
Sensor Cable connector	Remains flexible in temperature range specified, includes strain-relief
Cycling Time (Base Station Mode)	Programmable from 5 seconds up to 60 minutes in 1 second increments
Operating Environment Range humidity;	-40° C to +55° C; 0-100% relative weatherproof
Power Supply lead-acid	Non-magnetic rechargeable sealed battery cartridge or belt; rechargeable NiCad or Disposable battery cartridge or belt; or 12V DC power source option for base station operation
Battery Cartridge/ Belt Life	2,000 to 5,000 readings, for sealed lead acid power supply, depending upon ambient temperature and rate of readings



Ministry of  
Northern Development  
and Mines

Report of Work  
(Geophysical, Geological,  
Geochemical and Expenditures)

#  
D  
MM



52M01SE9960 2.10825 FAIRLIE

900

*Lands*

Hammell Lake PROPERTY W5S01.

Type of Survey(s)

Ground Geophysical Surveys

2.10825

Township or Area

Prairie Twp  
Hammell Lake

G.3731

G.1789

Claim Holder(s)

Inlet Resources Ltd.

Prospector's Licence No.

T-4897

Address

1275 Main St. W. North Bay, Ontario P1B 2W1

Survey Company

Patterson Mining Geophysics Ltd.

Date of Survey (from & to)

85 07 87 88 08 87  
Day Mo. Yr. Day Mo. Yr.

Total Miles of line Cut

98.7 km

Name and Address of Author (of Geo-Technical report)

William Patterson P.O. Box 682, La Ronge Saskatchewan S0T 1L0

Credits Requested per Each Claim in Columns at right

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

Expenditures (excludes power & shipping)

Type of Work Performed	RECEIVED
Performed on Claim(s)	JAN 13 1988 RED LAKE MINING DIV.
Calculation of Expenditure Days Credits	Total Days Credits
Total Expenditures	\$ <input type="text"/> ÷ 15 = <input type="text"/>

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 Recorded Holder or Agent (Signature)

Jan. 11, 1988 Michel Dubreuil

Recorded Holder or Agent (Signature)

Michel Dubreuil

Date Recorded Holder or Agent (Signature)

Michel Dubreuil

Name and Postal Address of Person Certifying

Norman Explorations Inc.

1275 Main St. W. North Bay

Ontario P1B 2W1

Mining Claims Traversed (List in numerical sequence)

Mining Claim	Expend. Days Cr.	Mining Claim	Expend. Days Cr.
Prefix	Number	Prefix	Number
KRL	967346	KRL	967519
	967347		967520
	967348		967521
	967349		967522
	967350		967523
	967501		967524
	967502		967525
	967503		967526
	967504		967527
	967505		967528
	967506		967529
	967507		967530
	967508		967531
	967509		967532
	967510		967533
	967511		967534
	967512		967535
	967513		967536
	967514		967537
	967515		967538
	967516		967539
	967517		967540
KRL	967518	KRL	967541

Total number of mining claims covered by this report of work.

69

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
4140	Jan 13/88	Bullock Thompson
	Date Approved as Recorded	Branch Director
	See Reverse	Statement

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

Norman Explorations Inc.

1275 Main St. W. North Bay

Ontario P1B 2W1

Michel Dubreuil

Date Certified

Jan 11, 1988

Certified by (Signature)

Michel Dubreuil

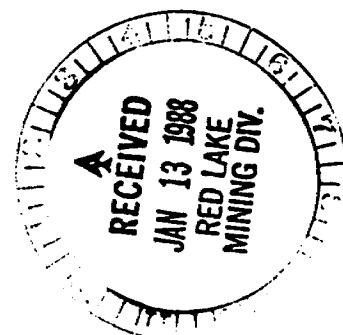
KRL 967346

1362 (85/12)

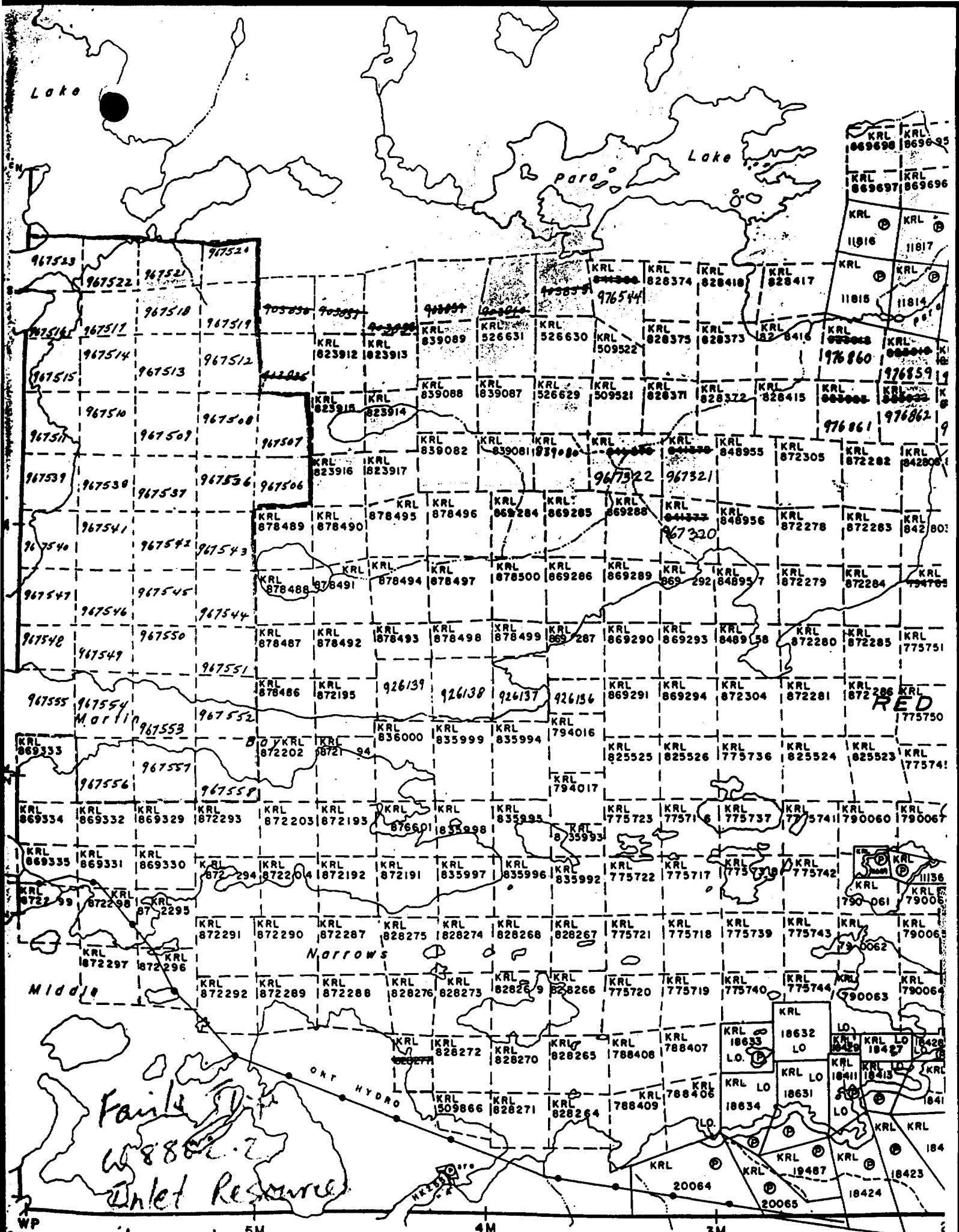
HAMMELL LAKE CLAIMS CONTINUED

CLAIM NUMBER

KRL	967542
KRL	967543
KRL	967544
KRL	967545
KRL	967546
KRL	967547
KRL	967548
KRL	967549
KRL	967550
KRL	967551
KRL	967552
KRL	967553
KRL	967554
KRL	967555
KRL	967556
KRL	967557
KRL	967558
KRL	967560
KRL	967561
KRL	967562
KRL	967563
KRL	967564
KRL	967565



KILLIAN TR MS 2176



Jan 13/88. 5M

**BAIRD TWP.**



Ontario

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

March 23, 1988

Your File: W8802-2  
Our File: 2.10825

Mining Recorder  
Ministry of Northern Development and Mines  
P.O. Box 324  
Red Lake, Ontario  
POV 2M0

Dear Madam:

RE: Notice of Intent dated March 8, 1988  
Geophysical (Electromagnetic and Magnetometer) Survey  
submitted on Mining Claims KRL 967346 et al  
in Fairlie Township and Hammell Lake Area

The assessment work credits, as listed with the above-mentioned  
Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so  
indicate on your records.

Yours sincerely,

A handwritten signature of W.R. Cowan.

W.R. Cowan, Manager  
Mining Lands Section  
Mines and Minerals Division

Whitney Block, Room 6610  
Queen's Park  
Toronto, Ontario  
M7A 1W3

Telephone: (416) 965-4888

ONTARIO GEOLOGICAL SURVEY  
ASSESSMENT FILES  
OFFICE

APR 5 1988

R E C E I V E D

SH:p1  
Enclosure: Technical Assessment Work Credits

cc: Mr. G.H. Ferguson  
Mining & Lands Commissioner  
Toronto, Ontario

Resident Geologist  
Red Lake, Ontario

Inlet Resources Ltd.  
1275 Main Street West  
North Bay, Ontario  
P1B 2W7



Ministry of  
Northern Development  
and Mines

Technical Assessment  
Work Credits

File

2.10825

Date

March 8, 1988

Mining Recorder's Report of  
Work No. W8802-2

Recorded Holder

Inlet Resources Ltd.

Township or Area

Fairlie Township and Hammell Lake

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b>	
Electromagnetic _____ 40 days	KRL 967346-47-48 967501 to 522 inclusive 967524-25-27-28-30-31 967536 to 551 inclusive 967556-57-63-64
Magnetometer _____ 20 days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
<b>Section 77 (19) See "Mining Claims Assessed" column</b>	
<b>Geological</b> _____ days	
<b>Geochemical</b> _____ days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input checked="" type="checkbox"/>	Ground <input checked="" type="checkbox"/>
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

10 days Electromagnetic  
5 days Magnetometer

20 days Electromagnetic  
10 days Magnetometer

KRL 967523-26-29-34-35-52-55-62-65

KRL 967532-33-58-61

No credits have been allowed for the following mining claims

not sufficiently covered by the survey

insufficient technical data filed

KRL 967553-54-60

KRL 967349-50

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.

GRAVES TWP.

THE TOWNSHIP  
OF  
**FAIRLIE**

DISTRICT OF  
KENORA  
(PATRICIA PORTION)

**RED LAKE  
MINING DIVISION**

SCALE:1-INCH=40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.

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
-------------	-----------	------	-------------	------

**RED LAKE MINING DIVISION**

FEB 29 1988

## RED LAKE, ONTARIO



Ministry of Natural Resources      Ministry of Northern Development and Mines

Date: AUGUST, 1986

**Number**

G-3731

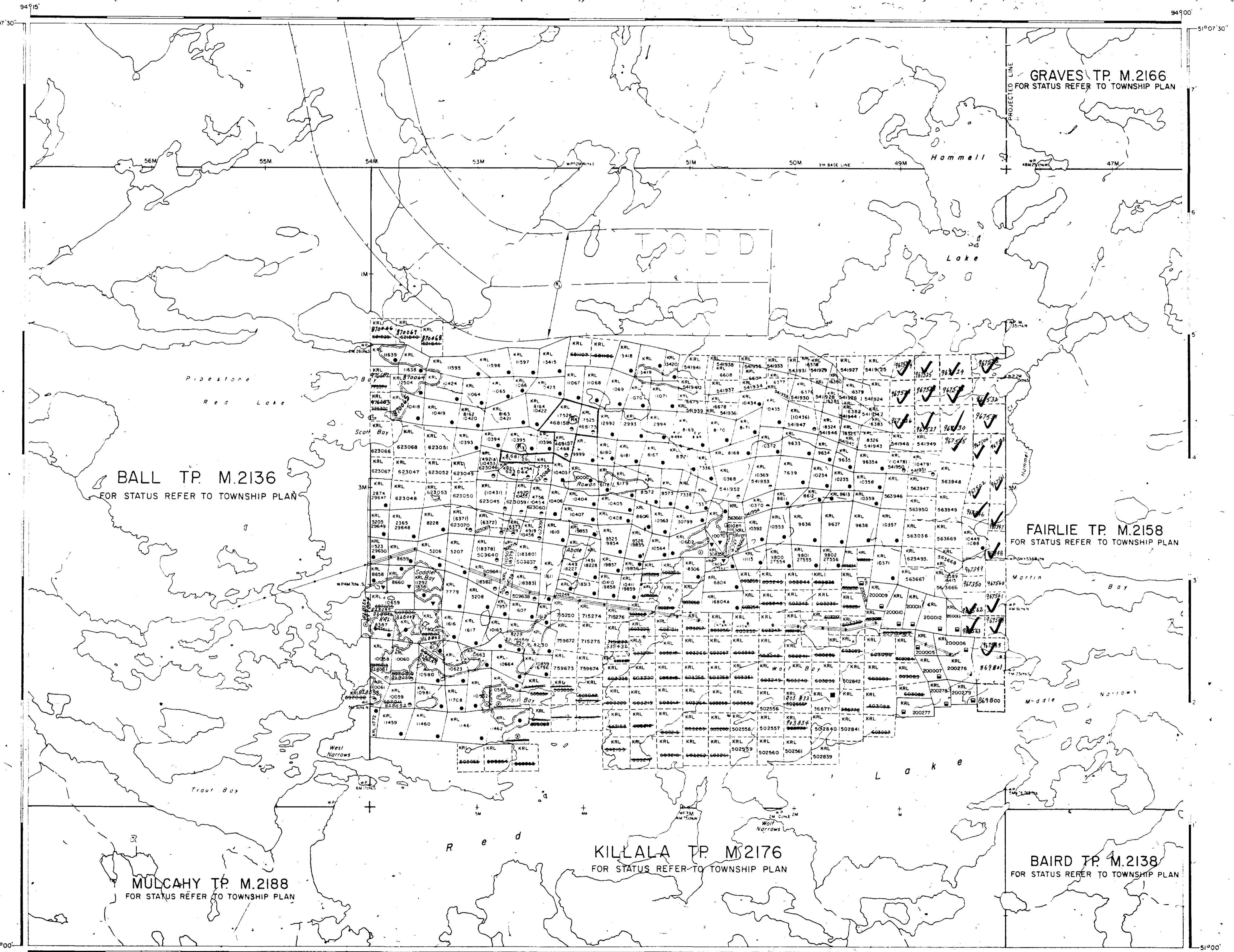
## REFERENCES

## 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
SEC. 36/80	W.19/83	15/7/83	S.R.O.	188521
Sec. 36	W.4/86	17/6/86	M+S	188555 188585
Sec. 36	W.58/87	12/6/87	M+S	

INDIAN HOUSE LAKE G-1796



RED LAKE MINING DIVISION  
NOV 18 1987  
RED LAKE, ONTARIO

## 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

- 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 5, 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

FEET	0	1000	2000	3000	4000	5000	6000	7000	8000
METRES	0	200	400	600	800	1000	1200	1400	1600

## AREA

## HAMMELL LAKE

M.N.R. ADMINISTRATIVE DISTRICT

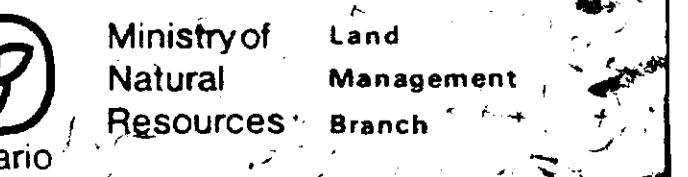
RED LAKE

MINING DIVISION

RED LAKE


LAND TITLES / REGISTRY DIVISION


KENORA / PATRICIA




Date: FEBRUARY 14, 1983 Number: G-1789












NORAMCO EXPLORATIONS INC.		
HAMMELL LAKE AREA		
VLF-EM PROFILES, NLK SEATTLE		
DRAWN BY: H.5000 DATE: 09 / 87 DRAFTED BY: PROJECT NO.: DRAWING NO.: 2 CHECKED BY: PATTERSON MINING GEOPHYSICS LTD.		







**2.10825**

**RAMCO EXPLORATIONS INC.**

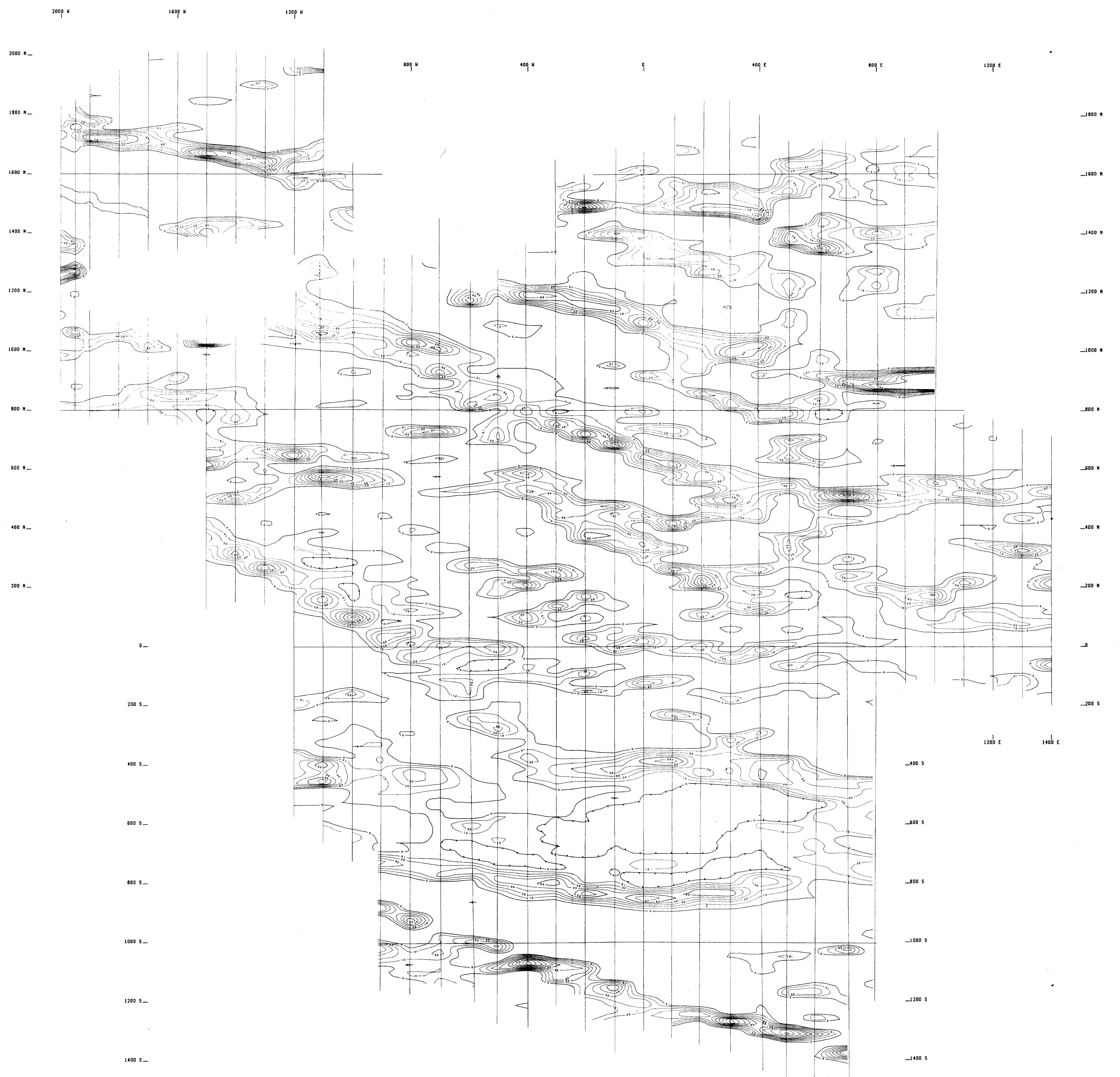
## HAMMELL LAKE AREA

---

## VLF-EM PROFILES, NAA CUTLER

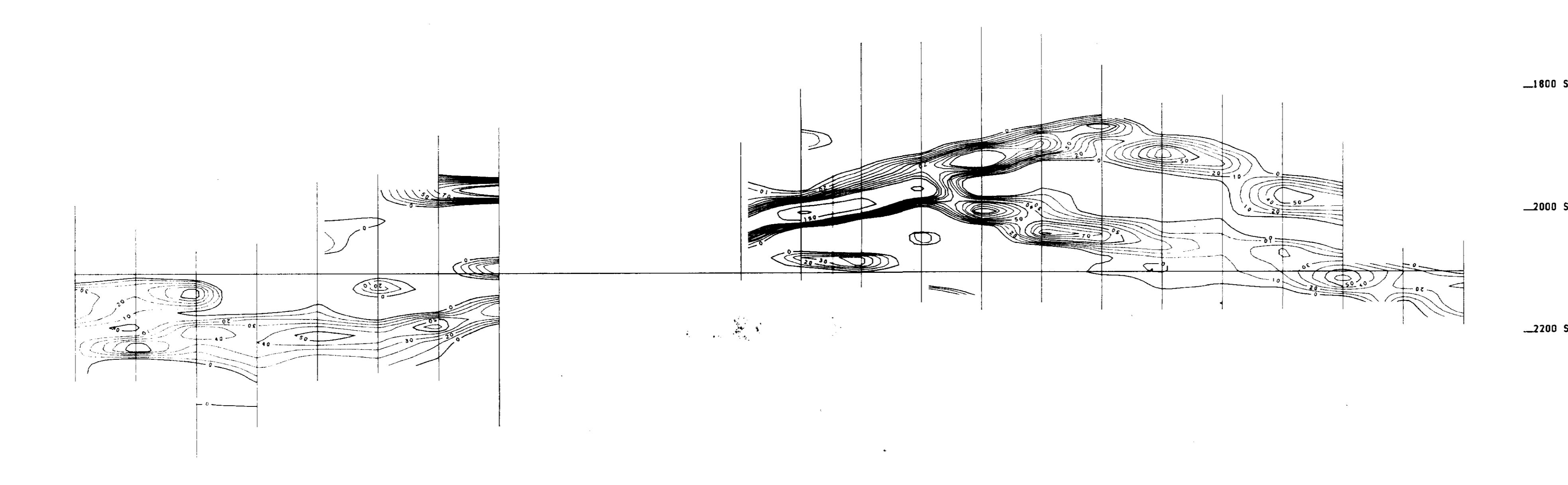
 PATTERTON MINING GEOPHYSICS LTD.

SCALE I: 5000	DATE 09 / 87	DraftTECH Ent. DRAWN BY	
PROJECT No.	DRAWING NO. 5	CHECKED BY	



**NOTES:**

- 1) Station used is Cutler, Maine (24.0 KHz).
- 2) Contour interval:  
Every 10 units to 100; every 50 units thereafter.  
Only positive contours plotted.



**2.16885**

0 50m 100m 200m 300m 400m 500m

1:5000

NORAMCO EXPLORATIONS INC.


Hammell Lake Grid


VLF-EM FRASER FILTER (NAA)

PATTERSON MINING GEOPHYSICS LTD.


1:5000 Date OCT. /87 Name O'BRIEN

Sheet No. 6 Surveyor No.









**NOTES.**

- 1) Vertical gradient measured in nt. per meter.
  - 2) Data posted above and to the right of the station.

2.10825

1:5000


# NORAMCO EXPLORATIONS INC.


# Hammell Lake Grid

VERTICAL GRADIENT MAGNETIC DATA

**PATTERSON MINING GEOPHYSICS LTD.**

SCALE	1-5000	DATE	SEPT 7/07	DRAWN BY	U DRIER
PROJECT No.	DRAWING No.	10		CHECKED BY	





NORAMCO EXPLORATIONS INC.	
HAMMELL LAKE AREA	
Geophysical Compilation	
PATTERSON MINING GEOPHYSICS LTD.	DraTECH Ent.
5298189900 2.10825 PARLIE	12