

42A15SW0064 2 16646 NEWMARKET

010

GEOPHYSICAL REPORT  
FOR  
FALCONBRIDGE LIMITED  
ON THE  
MANN BELT  
GRID #MAN96-07  
MANN TOWNSHIP, PORCUPINE MINING DIVISION  
NORTHEASTERN ONTARIO

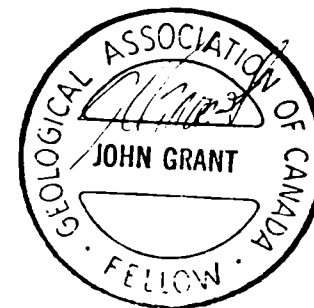
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MINING LANDS BRANCH

2.16646

*Qual. # 2.3943*  
PREPARED BY: J.C. Grant, CET, FGAC  
March, 1996





010C

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## INTRODUCTION

The services of Exsics Exploration Limited were retained by Falconbridge Limited to complete a line cutting and geophysical program on a group of claims located in Mann Township, Grid #Man96-07, of the Porcupine Mining Division in Northeastern Ontario. Figure 1 and 2.

The purpose of this program was to locate and outline airborne targets in an area which was considered favourable for base metal deposition.

The linecutting of the grid began on January 24th, 1996 and was completed on February 16, 1996. The geophysics was started on the 14th of February and was completed on the 22nd of February, 1996. In all, a total of 39.5 kilometers of grid lines were established on the claim group.

## PROPERTY LOCATION AND ACCESS

Grid, Man96-07, is located in the central-east section of Mann Township and the central west section of Newmarket Township. The grid generally covers portions of Lots 1 and 2, in Concession II and III of Mann Township and portions of Lot 12, Concession II and III of Newmarket Township.. The entire grid is located approximately 25 kilometers northwest of the Town of Iroquois Falls. Figure 2.

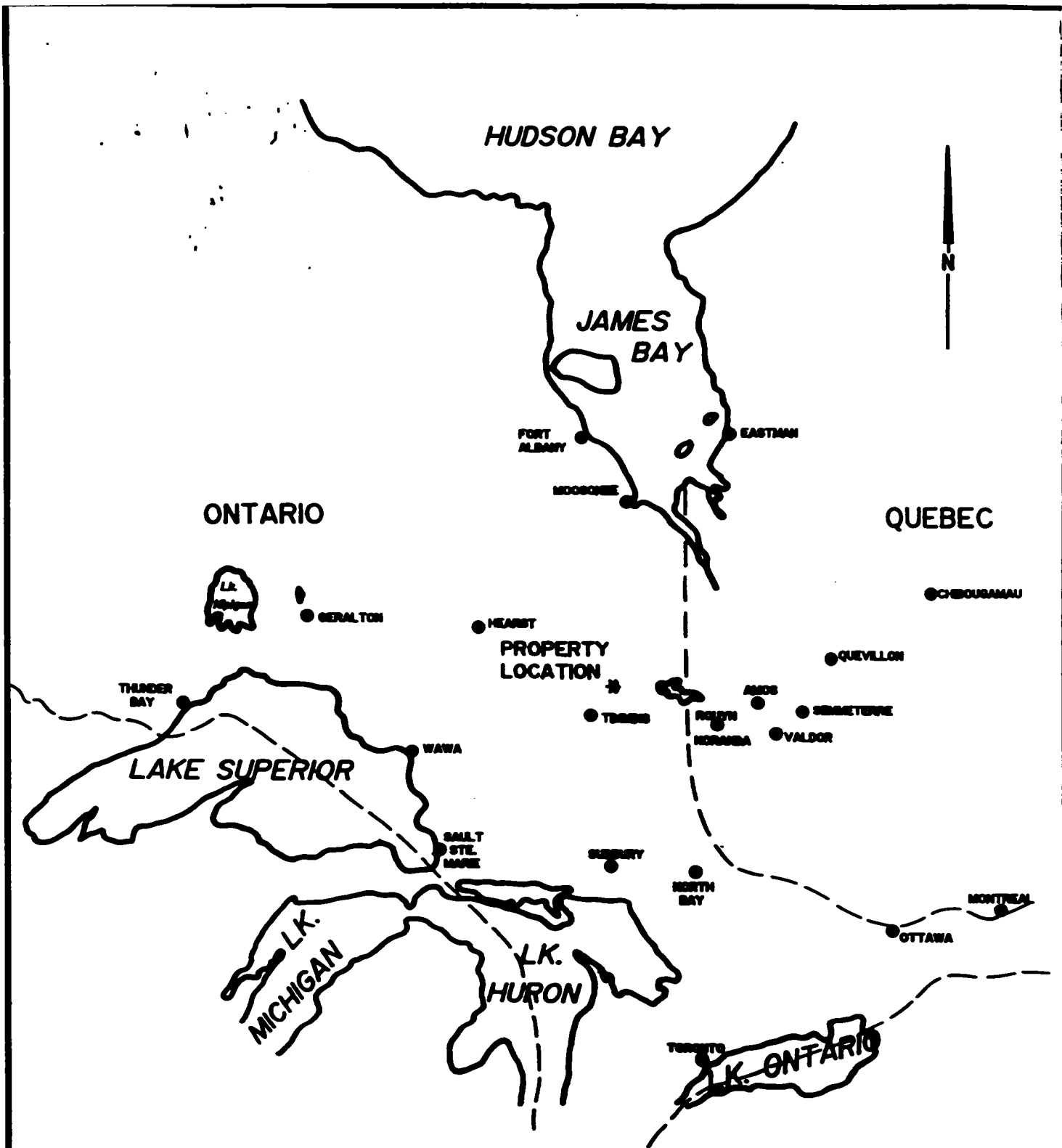
Access to the grid during the survey period was ideal. Falconbridge Limited has plowed open a drivable road which commences on Highway 11 North at the junction of Concession V and VI. This plowed road runs west along the concession line to an old bridge across the Fredrick House River. A second plowed road was then pushed to the southeast to access the southeast section of the grid. Travelling time from Timmins to the grid is approximately 2.2 hours.

## CLAIM GROUP

The claim numbers which were partially covered by the grid are as follows.

P-1200922	16 units, Mann Twp.
P-1200923	16 units, Mann Twp.
P-1200917	8 units, Newmarket Twp.
P-1200945	6 units, Newmarket Twp.

Refer to figure 3, copied from the MNDM Plan map #G-3537, of Mann Township and MNDM Plan map of Newmarket Township, scale 1:20,000.



**EXSICS EXPLORATION LTD.**

P.O. Box 100, P4B-7X1  
 Suite 21, Ballinger Rd., Timmins Ont.  
 Telephone: 705-265-4551

**CLIENT: FALCONBRIDGE LIMITED**

**PROPERTY: MANN BELT PN 8269**

**TITLE: MANN TWP  
 LOCATION MAP**

Fig 1

**Date: Feb. 1996**

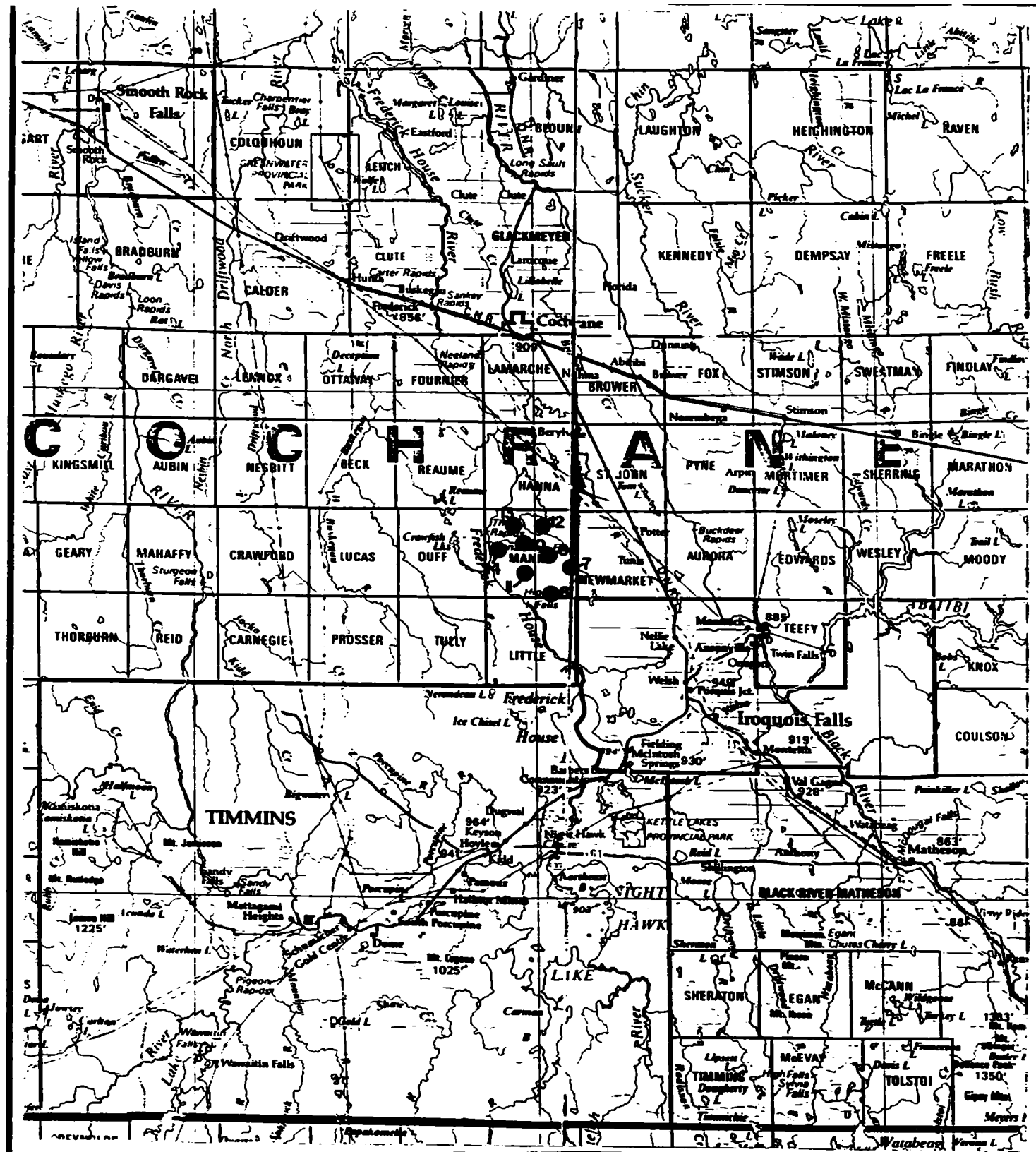
**Scale: 1"=25miles**

**MNDM Plan#:**

**Drawn: P. Gauthier**

**Interp: J.C. Grant**

**Job No. E-145**



**EXSICS EXPLORATION LTD.**

P.O. Box 1888, P4B-2T1  
 Suite 2, Mullinger Bldg, Timmins Ont.  
 Telephone: 705-263-4151

**CLIENT: FALCONBRIDGE LIMITED**

**PROPERTY: MANN BELT PN 8269**

**TITLE: MANN TWP.**

**PROPERTY LOCATION** Fig. 2

**Date: Feb. 1996**

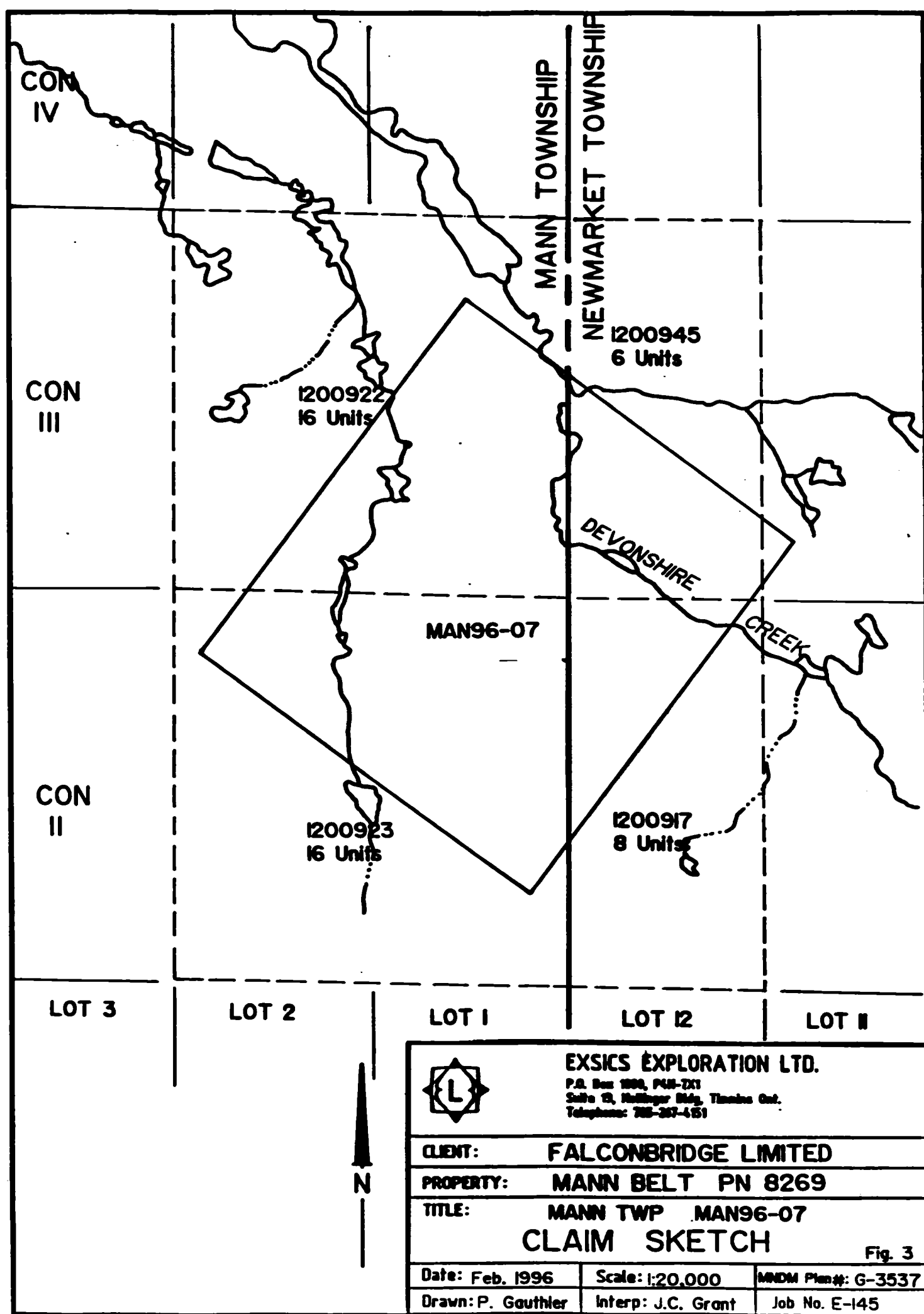
**Scale: 1:600,000**

**MNDM Plan#: 22-6**

**Drawn:**

**Interp: J.C. Grant**

**Job No. E-145**



**EXSICS EXPLORATION LTD.**

P.O. Box 1000, P4B-2X1  
 Suite 10, Hollinger Bldg, Timmins Ont.  
 Telephone: 705-267-4551

**CLIENT: FALCONBRIDGE LIMITED**

**PROPERTY: MANN BELT PN 8269**

**TITLE: MANN TWP MAN96-07**

**CLAIM SKETCH**

Fig. 3

Date: Feb. 1996

Scale: 1:20,000

MNDM Plan#: G-3537

Drawn: P. Gauthier

Interp: J.C. Grant

Job No. E-145

PERSONNEL

The field crew directly responsible for the collection of all data were as follows:

Richard Mathieu..... Timmins, Ontario  
Robin Mathieu..... Timmins, Ontario  
Todd Mathieu..... Timmins, Ontario

The geophysical program was completed under the direct supervision of J.C.Grant and all plotting and computer compilation was completed by P. Gauthier of Exsics.

LINECUTTING PROGRAM

The grid consisted of 100 meter line spacing and 25 meter station spacing. The baseline was turned off from a starting point which has been located by Falconbridge personnel. This point was called line 0+00, baseline. The baseline was then cut at 130 degrees from line 900MW to 800ME with these cross lines being chained from the baseline to TL 1800MN. two additional tielines were cut at 600MN and 1200MN to control the cross lines.

GEOPHYSICAL PROGRAM

This program consisted of a total field magnetic survey done in conjunction with a Horizontal Loop, electromagnetic, HLEM, survey. The magnetic survey was completed on the entire cut grid however the HLEM survey was completed on the cross lines only.

The magnetic survey was completed using the BRGM, OMNI IV system. Specifications for this system can be found as Appendix A of this report. The HLEM survey was completed using the Apex Parameterics, MaxMin II system. Specifications for this system can be found as Appendix B of this report.

MAGNETIC SURVEY:

The following parameters were kept constant throughout the survey.

Linespacing..... 100 meters  
Station spacing..... 25 meters  
Reading interval..... 12.5 meters  
Diurnal monitor..... Base station recorder  
record interval..... 30 seconds  
Reference field..... 57960 gammas  
Datum subtract..... 57500 gammas  
Unit accuracy..... +/- 0.1 gamma  
Parameters measured..... Earth's total magnetic field

The collected, corrected and levelled data was then plotted directly onto a base map at a scale of 1:5000 and then contoured at 20 gamma intervals where possible. A copy of this base map is included in the back pocket of this report.

#### HLEM SURVEY:

The following parameters were kept constant throughout the survey.

Linespacing.....	100 meters
Station spacing.....	25 meters
Reading interval.....	25 meters
Coil seperation.....	150 meters
Theoretical search depth.....	75-85 meters
Frequencies recorded.....	1777hz, 444hz
Parameters measured.....	inphase and quadrature components of the secondary field.
Unit accuracy.....	+/- 0.5 percent

The collected data was then plotted directly onto a base map at a scale of 1:5000, one base map for each frequency, and then profiled at 1cm to +/-20%. An interpretation for each line of the conductor was done as far as depth to source and apparent conductivity in Mhos and was put directly onto the base map. A copy of these base maps are included in the back pocket of this report.

#### SURVEY RESULTS

The geophysical program was successful in locating and outlining a number of conductive zones on the grid. The zones have been labelled from A to F for interpretation purposes and each of the zones will be discussed in detail.

#### ZONE A:

This zone represents a moderate bedrock conductor situated at a depth of 15 to 35 meters and with a conductivity range of 5 to 8 mhos. The zone appears to continue off of the grid to the west.

There is good magnetic association with the strike of the zone. The high magnetic readings are due to the entire zone being contained within a massive ultramafic unit which generally underlays the entire cut grid. Infact, the influence of the ultramafics may be affecting the MaxMin penetration and readings.



ZONE B:

This conductor generally parallels the strike of Zone A and appears to continue off of the grid to the east. The strike of the zone has been interrupted across lines 300MW and 200ME by minor cross structures which shifted the zone slightly to the north and to the south. The zone appears to represent a moderate to weak zone situated at a depth of 37 to 40 meters and with a conductivity value of 4 mhos. Again, the underlying ultramafic unit may be masking the true value of this zone.

The western extension of the zone has a moderate magnetic high association showing in the magnetic contouring as slight pinching in the general pattern of the unit. The central section of the zone lies along the southern edge of a good magnetic high unit which is well defined by the magnetic survey. The eastern extension of the zone lies along the north edge of a magnetic low unit.

There does appear to be a cross structure cutting the zone in a north-south direction which seems to have shifted the eastern extension of the zone to the southwest.

ZONE C:

This zone commences on the east side of the north-south cross structure which affected the strike of Zone B. The zone is situated at a depth of 30 meters and has a moderate conductivity value of 7 mhos. The zone may continue off of the grid to the east.

The magnetic survey suggest the zone may have a magnetic high association on it's western tip but this may be due to it's closeness to the cross structure. Generally the zone has a magnetic low association with the majority of it's strike length. The eastern extension of the zone cuts across the southern flank of a broad magnetic high unit.

ZONE D:

This feature closely parallels the strike of zone C. At this writing, the zone appears to be a weak structural target or infact may relate to topography. The western extension of the zone has direct magnetic association however, the eastern section of the grid lies along the souther contact of a mag high unit and then cross a magnetic high unit as it continues off of the grid to the east.

ZONE D'

This feature appears to represent a splay off of the main zone D. It relates to a bedrock conductor situated at a depth of 55 meter with a conductivity value of 10 mhos. The zone also has good direct magnetic association.

ZONE E:

This zone was just noted on the grid north ends of lines 700MW to 300MW. At this writing the zone would require further coverage to the north to better define it's source.

ZONE F:

This zone represent a weak questionable zone or possibly a target situated at a depth to great for the present survey. The zone relates to a narrow magnetic high unit which seems to parallel the strike of the ultramafic intrusive. Infact, the zone may relate to a contact within the intrusive unit. Again, the influence of the underlaying intrusive may be affecting the penetration capabilities of the HLEM survey.

CONCLUSIONS AND RECOMMENDATIONS

The overall magnetic survey results suggest the entire property is underlain by a massive ultramafic intrusive which may be affecting the penetration of the HLEM survey and thus not allowing for a proper definition of the suspected conductive zones.

Several of the conductive zones appear to relate to legitimate bedrock conductors however, they are probably being masked by the intrusive layering. The magnetics for the same zones would suggest that the property has been subjected to minor folding and faulting within the intrusive unit.

Should a follow-up program be considered for the property then it should consist of a deep penetrating survey which would not be affected by the intrusive layering.

Respectfully submitted

J.C. Grant, CET, FGAC.  
March, 1996.



CERTIFICATE

I, John C. Grant, hereby certify that:

1) I am a graduate geophysicist (1975) of the three year program in Geological Technology at Cambrian College of Applied Arts and Technology, Sudbury, Campus. I have worked subsequently as an Exploration Geophysicist for Teck Exploration Limited (5 years), North Bay office, and as Exploration Manager and Geophysicist for Exsics Exploration Limited from 1980 to present.

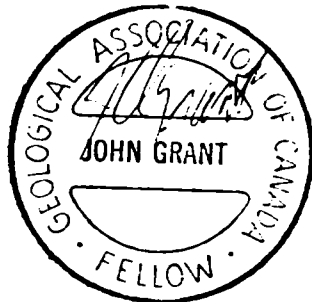
2) I am a Member of the Certified Engineering Technologist Association since 1984.

3) I am a member of the Geological Association of Canada.

4) I have been actively engaged in my profession for the last twenty (20) years, including all aspects of exploration studies, surveys and interpretations.

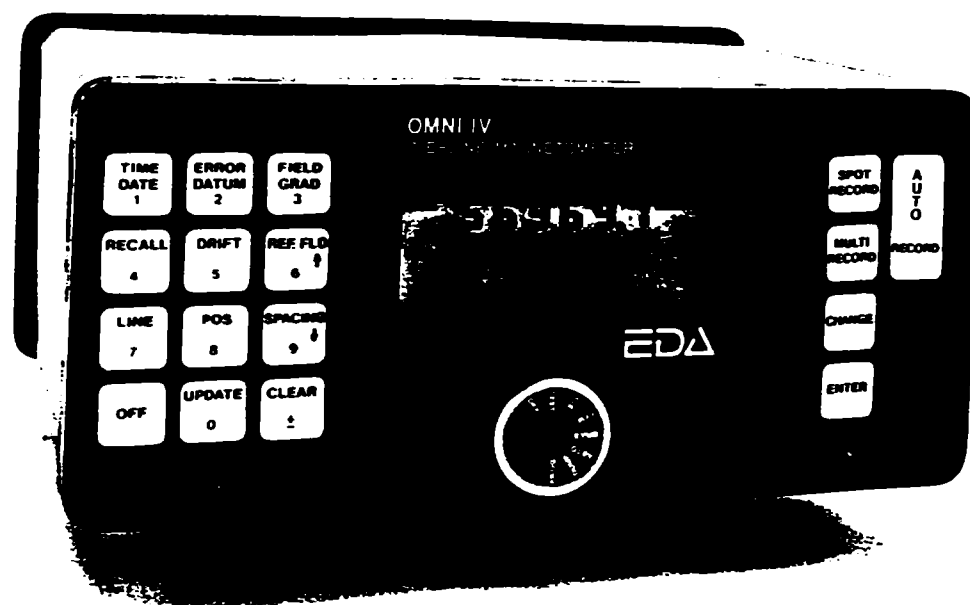
5) I have no specific or special interest in the described property. I have been retained as a Consulting Geophysicist by the claim holders.

John Charles Grant, CET, FGAC



*APPENDIX A*

# OMNI IV "Tie-Line" Magnetometer



- Four Magnetometers in One
- Self Correcting for Diurnal Variations
- Reduced Instrumentation Requirements
- 25% Weight Reduction
- User Friendly Keypad Operation
- Universal Computer Interface
- Comprehensive Software Packages

## 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 Resolution .....	0.01 gamma
Absolute Accuracy .....	$\pm 1$ gamma at 50,000 gammas at 23°C $\pm 2$ gamma over total temperature range
Standard Memory Capacity	
Total Field or Gradient .....	1,200 data blocks or sets of readings
File-Line Points .....	100 data blocks or sets of readings
Base Station .....	5,000 data blocks or sets of readings
Display .....	Custom-designed, ruggedized liquid crystal display with an operating temperature range from $-40^{\circ}\text{C}$ to $+55^{\circ}\text{C}$ . The display contains six numeric digits, decimal point, battery status monitor, signal decay rate and signal amplitude monitor and function descriptors.
RS-232 Serial I/O Interface .....	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 .....	Remains flexible in temperature range specified, includes strain-relief connector
Counting Time (Base Station Mode) .....	Programmable from 5 seconds up to 60 minutes in 1 second increments
Operating Environmental Range .....	$-40^{\circ}\text{C}$ to $+55^{\circ}\text{C}$ ; 0-100% relative humidity; weatherproof
Power Supply .....	Non-magnetic rechargeable sealed lead-acid 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
<b>Weights and Dimensions</b>	
Instrument Console Only .....	2.8 kg, 238 x 150 x 250mm
NiCad or Alkaline Battery Cartridge .....	1.2 kg, 235 x 105 x 90mm
NiCad or Alkaline Battery Belt .....	1.2 kg, 540 x 100 x 40mm
Lead-Acid Battery Cartridge .....	1.8 kg, 235 x 105 x 90mm
Lead-Acid Battery Belt .....	1.8 kg, 540 x 100 x 40mm
Sensor .....	1.2 kg, 56mm diameter x 200mm
Gradient Sensor	
(0.5 m separation - standard) .....	2.1 kg, 56mm diameter x 790mm
Gradient Sensor	
(1.0 m separation - optional) .....	2.2 kg, 56mm diameter x 1300mm
Standard System Complement .....	Instrument console; sensor; 3-meter cable, aluminum sectional sensor staff, power supply, harness assembly, operations manual.
Base Station Option .....	Standard system plus 30 meter cable
Gradiometer Option .....	Standard system plus 0.5 meter sensor

EDA Instruments Inc.  
4 Thorncliffe Park Drive  
Toronto, Ontario  
Canada M4H 1H1  
Telex: 06 23222 EDA TOR  
Cable: Instruments Toronto  
(416) 425 7800

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

Printed in Canada

*APPENDIX B*

**ADEX**

**MAXMIN II  
PORTABLE EM**

**Five frequencies: 222, 444, 888, 1777 and 3555 Hz.**

**Maximum coupled (horizontal-loop) operation with reference cable.**

**Minimum coupled operation with reference cable.**

**Vertical-loop operation without reference cable.**

**Coil separations: 25, 50, 100, 150, 200 and 250 m  
(with cable) or 100, 200, 300, 400, 600 and 800 ft.**

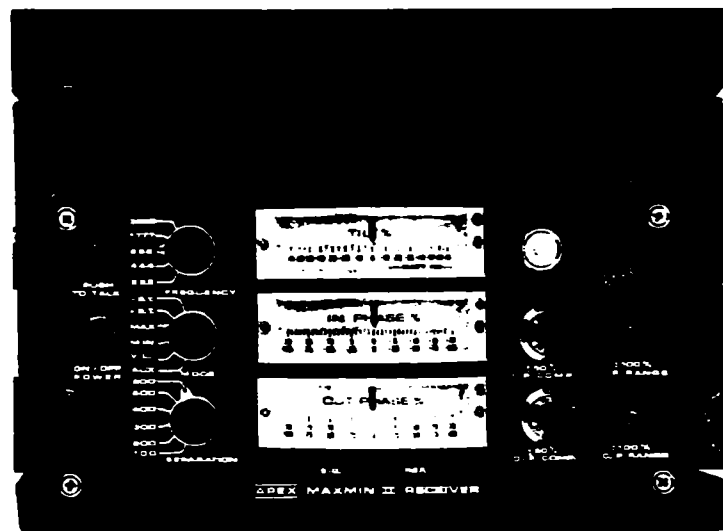
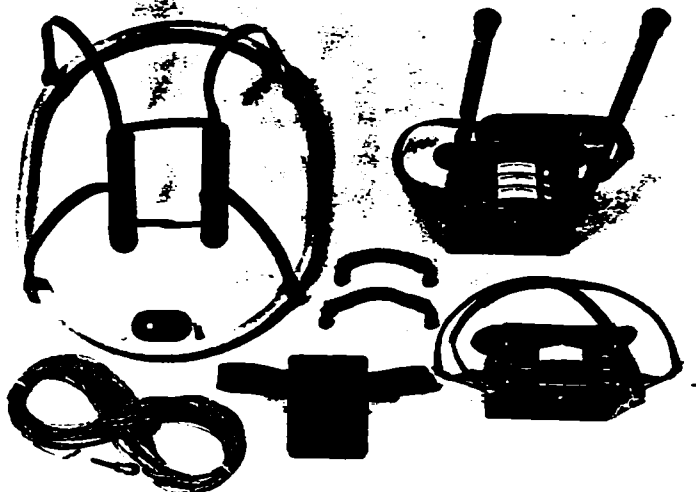
**Reliable data from depths of up to 180m (600 ft).**

**Built-in voice communication circuitry with cable.**

**Tilt meters to control coil orientation.**







## APPEX 721013

**Frequencies:** 222, 444, 888, 1777 and 3555 Hz.

**Modes of Operation:**

- MAX:** Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with refer. cable.
- MIN:** Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.
- V.L.:** Transmitter coil plane vertical and receiver coil plane horizontal (Vertical-loop mode). Used without reference cable, in parallel lines.

**Cable Separations:** 25, 50, 100, 150, 200 & 250m (MMI) or 100, 200, 300, 400, 600 and 800 ft. (MMIF).  
Coil separations in V.L. mode not restricted to fixed values.

**Measurements:**

- In-Phase and Quadrature components of the secondary field in MAX and MIN modes.
- Tilt-angle of the total field in V.L. mode.

**Readouts:**

- Automatic, direct readout on 90mm (3.5") edgewise meters in MAX and MIN modes. No nulling or compensation necessary.
- Tilt angle and null in 90mm edgewise meters in V.L. mode.

**Scale Ranges:**

- In-Phase:  $\pm 20\%$ ,  $\pm 100\%$  by push-button switch.
- Quadrature:  $\pm 20\%$ ,  $\pm 100\%$  by push-button switch.
- Tilt:  $\pm 75\%$  slope.
- Null (V.L.): Sensitivity adjustable by separation switch.

**Resolution:** In-Phase and Quadrature: 0.25% to 0.5%; Tilt: 1%.

**Accuracy:**  $\pm 0.25\%$  to  $\pm 1\%$  normally, depending on conditions, frequencies and coil separation used.

**Field Strengths:**

- 222Hz : 220 Atm<sup>2</sup>
- 444Hz : 200 Atm<sup>2</sup>
- 888Hz : 120 Atm<sup>2</sup>
- 1777Hz : 60 Atm<sup>2</sup>
- 3555Hz : 30 Atm<sup>2</sup>

**Batteries:** 9V trans. radio type batteries (4).  
Life: approx. 35hrs. continuous duty (alkaline, 0.5 Ah), less in cold weather.

**Power Source:** 12V 6Ah Gel-type rechargeable battery. (Charger supplied).

**Reference Cable:** Light weight 2-conductor teflon cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify.

**Intercom:** Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.

**Warning Lights:** Built-in signal and reference warning lights to indicate erroneous readings.

**Temperature Range:**  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$ ).

**Receiver Weight:** 6kg (13 lbs.)

**Transmitter Weight:** 13kg (29 lbs.)

**Shipping Weight:** Typically 60kg (135 lbs.), depending on quantities of reference cable and batteries included. Shipped in two field/shipping cases.

Specifications subject to change without notification.

200 STEELCASE RD. E., MARKHAM, ONT., CANADA, L3R 1G2

Phone: (416) 495-1612

Cables: APEXPARA TORONTO

Telex: 06-966773 NORDVIK TOR



Ministry of  
Northern Development  
and Mines  
Ontario

### Report of Work Conducted After Recording Claim

Mining P--

GR10 MAJ96-07

Transaction Number  
W 9660. 00303

Personal information collected on this form is obtained under the authority of this collection should be directed to the Provincial Manager, Mining Land Survey, Ontario, P3E 6A5, telephone (705) 870-7284.



42A15SW0064 2 16646 NEWMARKET

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

900

2.16646

Recorded Holder(s) <b>FALCONBRIDGE LIMITED</b>		Client No. 130679
Address 571 Moneta Ave. P.O. Box 1140 Timmins, Ont. P4N 7H9		Telephone No. (705) 267-1188
Mining Division Porcupine	Communities MAJN, NEWMARKET	M & O Plan No.
Date Work Performed From: January 24, 1996	To: February 22, 1996	

## Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	Linecutting 39.3 km, Maj 39.3 km, HLEM 32.4 km
Physical Work, Including Drilling	
Rehabilitation	
Other Authorized Work	
Assays	
Assignment from Reserve	

Total Assessment Work Claimed on the Attached Statement of Costs \$ 22,122

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 80 days of a request for verification.

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

Name	Address
Exsco Exploration Ltd.	20. Box 1880 Suite 13 Hollinger Bldg. Timmins, Ont. (705) 267-4151

(attach a schedule if necessary)

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

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date Apr 12/96	Recorded Holder or Agent (Signature) C. Petek
--	-------------------	--

## Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying 571 Moneta Ave. P.O. Box 1140 Timmins Ont. P4N 7H9		
Telephone No. (705) 267-1188	Date April 12/96	Certified by (Signature) C. Petek

## For Office Use Only

Total Value Cr. Recorded 22,122	Date Recorded	Mining Recorder Not Done Date Approved July 21/96	Recorder C. Petek Date Approved APR 25 1996
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Statement of Costs  
for Assessment Credit

État des coûts aux fins  
du crédit d'évaluation

Mining Act/Loi sur les mines

GRAND FIRM 10 01

Transaction No./N° de transaction  
W9660.00303

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

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

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	300	
	Field Supervision Supervision sur le terrain	600	900
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert- conseil	Type Linecutting	11,144	Invoice# 416
	HLEM	5547	
	Mag	4205	20896
Supplies Used Fournitures utilisées	Type Flagging	10	
	Picket tags	166	
			176
Equipment Rental Location de matériel	Type Truck	100	
	Snow mobile	50	
Total Direct Costs Total des coûts directs			150 22122

2. Indirect Costs/Coûts indirects

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

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement			
Mobilization and Demobilization Mobilisation et démobilisation			
Sub Total of Indirect Costs Total partiel des coûts indirects			
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs)			22122

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

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

Filing Discounts

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

Total Value of Assessment Credit	Total Assessment Claimed
	x 0.50 =

Remises pour dépôt

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

Valeur totale du crédit d'évaluation	Évaluation totale demandée
	x 0,50 =

Certification Verifying Statement of Costs

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

that as C. PETCH I am authorized  
(Recorded Holder, Agent, Position in Company)

to make this certification

Attestation de l'état des coûts

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

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

à faire cette attestation.

Signature C. Petch Date April 12 1996





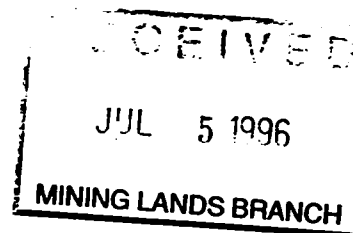
**EXSICS EXPLORATION LIMITED**  
CONTRACTING & CONSULTING GEOPHYSICS

Tel. (705) 267-4151  
Fax (705) 264-5790

P.O. Box 1880  
Timmins, Ontario P4N7X1

INVOICE #: 416  
PROJECT #: e-145

ON ACCOUNT WITH: Falconbridge Limited  
P.O. Box 1140  
Timmins, Ontario



G.S.T. REGISTRATION # 113433791

RE: Linecutting and geophysical surveys Mann 96-07

AT A RATE OF:

39.3 kilometers of lines @ \$265.00/km .....	\$10,415.00
39.3 kilometers of magnetics @ \$100/00/km..	\$ 3,930.00
32.4 kilometers of HLEM @ \$160.00/km.....	\$ 5,184.00
sub-total.....	\$19,529.00
7% GST.....	\$ 1,367.00
total.....	\$20,896.00
4 boxes of metal tags, GST,PST, incl.....	\$ 166.00

TOTAL OF THIS INVOICE: \$21,062.00

DATE: February 21, 1996

SIGNED: Karen Lalor

*Paul Noyes*  
Feb 23 '96  
8249

PAYMENT DUE UPON RECEIPT OF INVOICE.  
TERMS: NET 30, 2% INTEREST PER MONTH ON OVERDUE ACCOUNTS.



Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

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

Telephone: (705) 670-5853  
Fax: (705) 670-5863

July 19, 1996

Our File: 2.16646  
Transaction #: W9660.00303

Mining Recorder  
Ministry of Northern Development & Mines  
60 Wilson Ave.  
1st Floor  
Timmins, Ontario  
P4N 2S7

Dear Mr. White:

**SUBJECT: APPROVAL OF ASSESSMENT WORK CREDIT ON MINING LAND, CLAIM(S)  
1200922 (ET AL.) IN MANN TOWNSHIP (AREA)**

Assessment work credit has been approved as outlined on the Declaration of Assessment Work Form accompanying this submission. The credit has been approved under Section 14, Geophysics (MAG, EM) of the Assessment Work Regulation.

The approval date is July 16, 1996. Please indicate this approval on the claim record.

If you have any questions regarding this correspondence, please contact Bruce Gates at (705) 670-5856.

Yours sincerely,  
ORIGINAL SIGNED BY:

A handwritten signature in black ink, appearing to read "Ron C. Gashinski".

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

*BIG* BIG/jf

cc: Resident Geologist  
Timmins, Ontario

✓ Assessment Files Library  
Sudbury, Ontario



**AREAS WITHDRAWN FROM DISPOSITION**  
 M.R.O. - MINING RIGHTS ONLY  
 S.R.O. - SURFACE RIGHTS ONLY  
 M+S - MINING AND SURFACE RIGHTS

**WATER POWER RESERVE**

W.D. 87 / 87

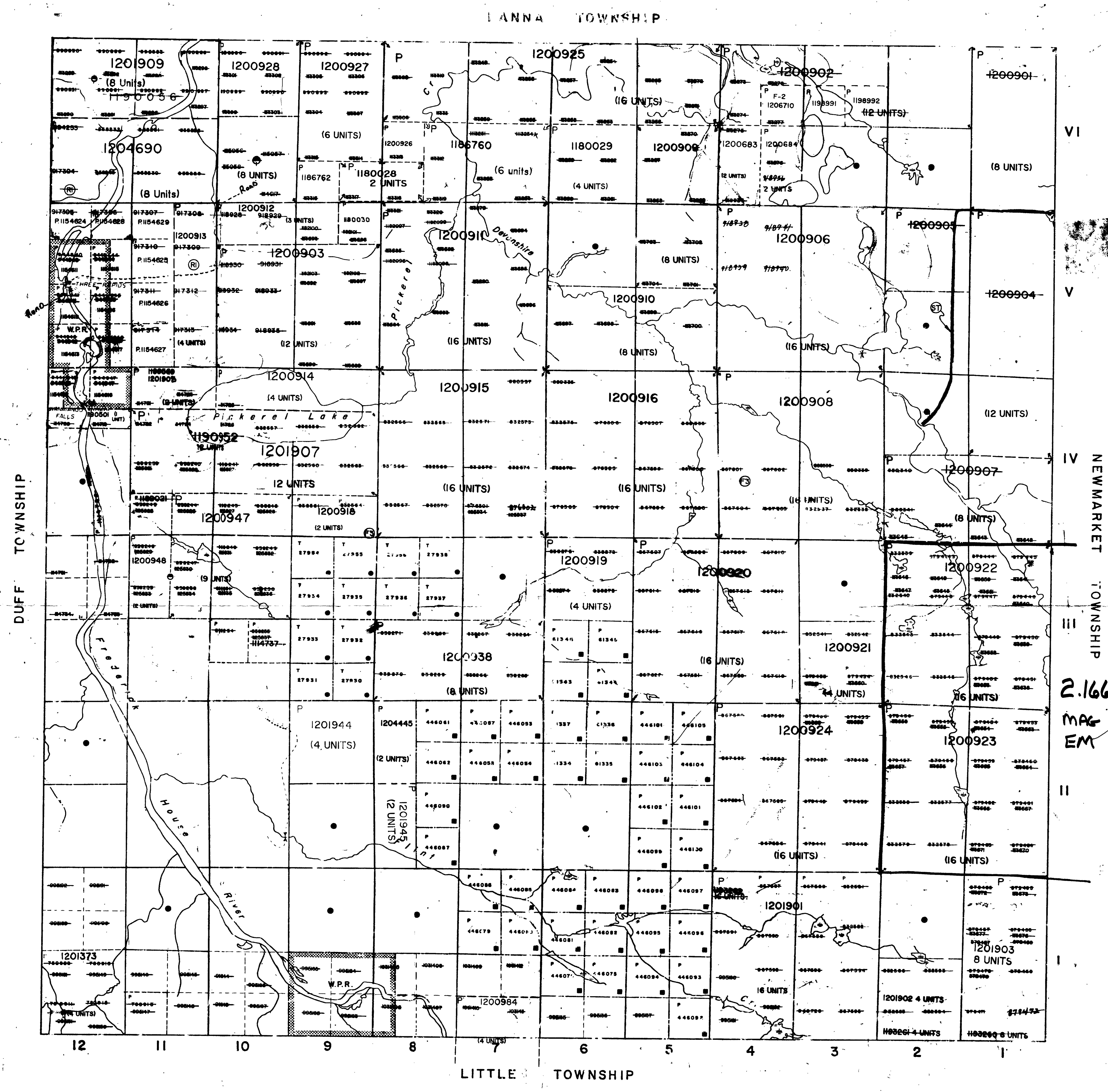
Ⓜ SURFACE AND MINING RIGHTS WITHDRAWN FROM SECTION 36 OF THE MINES ACT R.S.O. 1990, CHAPTER M.13, SECTION 36(1) EFFECTIVE 03-01-98 BY T.M. 147 (2008) NO. 1, P. 170 IS DATED 30-AUG-02.

NOTE: P125837 PLOTTED IN ERROR. S/B-P1114767.

SW 1/4 MAN

T225 C

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE INTERESTED IN MINING RIGHTS SHOULD CONSULT WITH THE MINING RECORDS DIVISION OF THE MINISTRY OF NORTHERN DEVELOPMENT AND MINES FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

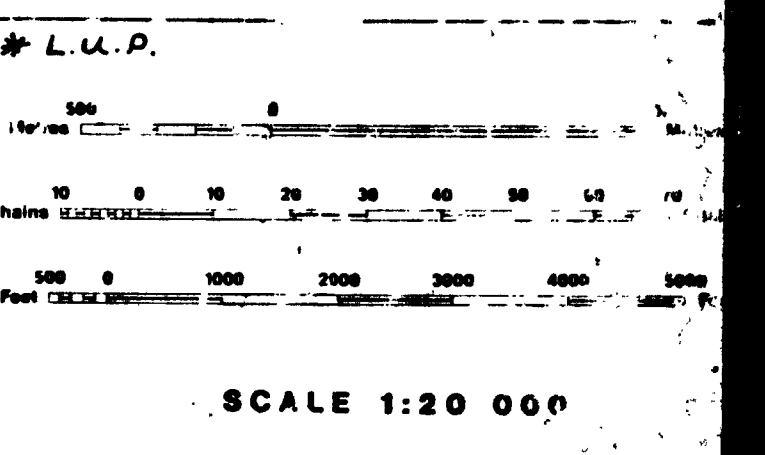


**LEGEND**

HIGHWAY AND ROUTE No.	---
OTM'S	---
TRAILS	---
SURVEYED LINES	---
TOWNSHIP, BASE LINE, ETC.	---
LOTS, MINING CLAIMS, ETC.	---
UNIMPROVED LOTS	---
LOT LINES	---
PARCEL BOUNDARY	---
MINING CLAIMSET	---
RAILWAY AND RIGHT OF WAY	---
UTILITY LINES	---
NON-PERMANENT STREAM	---
FLOODING OR FLOODING RIGHTS	---
SUBDIVISION OR COMPOSITE PLAN	---
RESERVATIONS	---
ORIGINAL SHORELINE	---
MARSH OR MUSKIE	---
MINES	---
REVERSE MONUMENT	---

**DISPOSITION OF CROWN LANDS**

TYPE OF DOCUMENT	SYMBOL
DEED, 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 LAND USE PERMIT	---
NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO 1913, VETTED IN ORIGINAL PATENT BY LANDS ACT, R.S.O. 1970, CHAP. 320, SEC. 63, SUB-	---



Ⓜ SHOWABLE TITLE (LAND USE PERMIT) NOTICE RECEIVED 28-DEC-09

2.16646  
MAG  
EM

Received Sept 22/86  
 TOWNSHIP  
**MANN**  
 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

SEPTEMBER 1986  
 G-3537



200

2.16646

RECEIVED  
 JUL 5 1996  
 MINING LANDS BRANCH



G-3248

MEMWASKET IMB

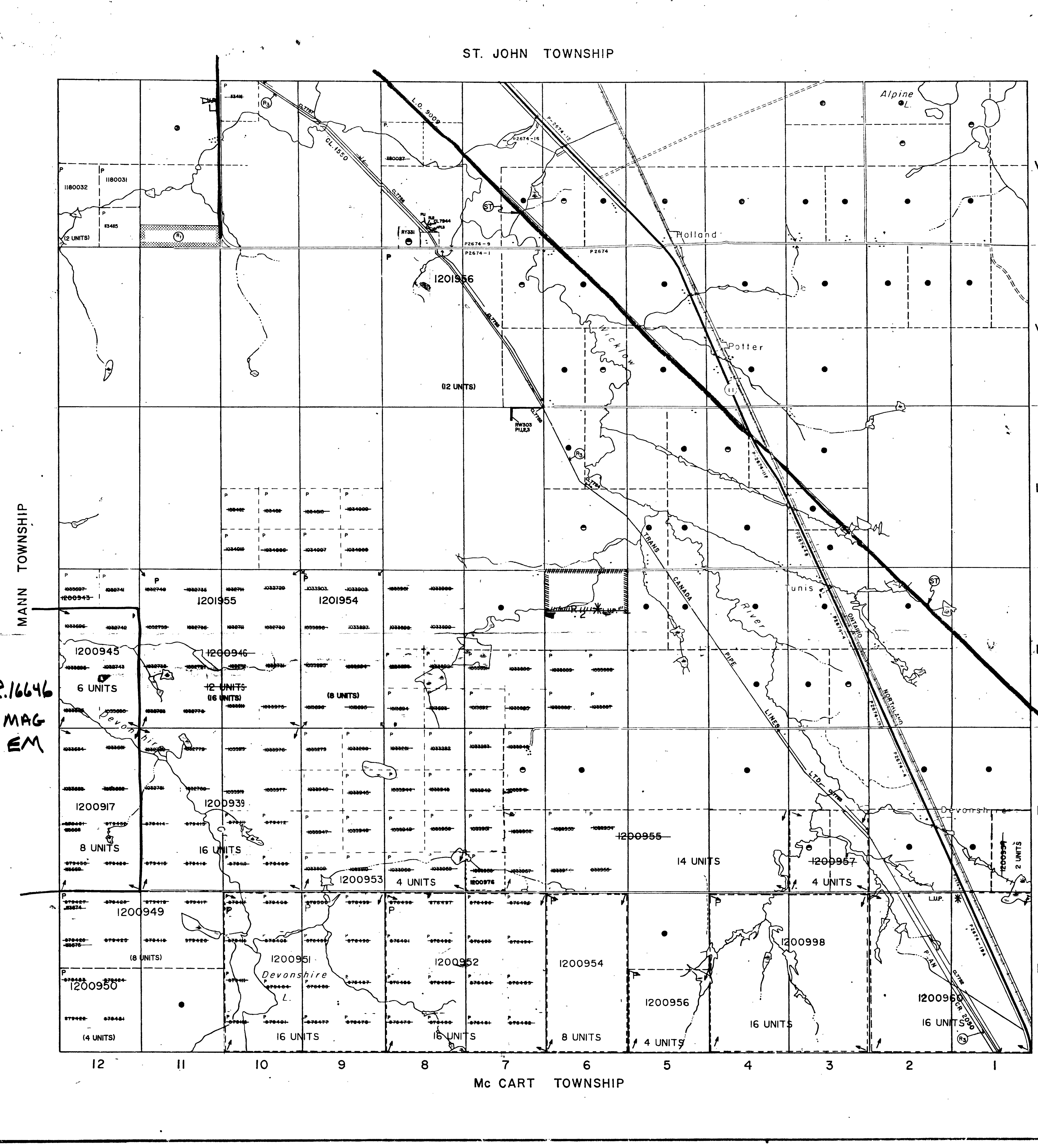
G-3248

**AREAS WITHDRAWN FROM DISPOSITION**

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

Description	Order No.	Date	Disposition	File
W. 43/79 NR. 16/6/79	S.R.O.	83749		

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



**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	
LUP (LAND USE PERMIT)	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 2, 1912, VESTED IN ORIGINAL PATENTEES BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

500 0 1000 2000 3000 4000 5000  
 Metres

10 0 10 20 30 40 50 60 70  
 Chains

500 0 1000 2000 3000 4000 5000  
 Feet

SCALE 1:20 000

R<sub>2</sub> - AGRICULTURAL PERMIT

ST SNOWMOBILE TRAIL  
 NOTICE RECEIVED 92-DEC-09

TOWNSHIP  
**NEWMARKET**  
 M.N.R. ADMINISTRATIVE DISTRICT  
 COCHRANE  
 MINING DIVISION  
 PORCUPINE  
 LAND TITLES / REGISTRY DIVISION  
 COCHRANE

Ministry of Natural Resources  
 Ministry of Northern Development and Mines

SEPTEMBER 1986  
 G-3548



210

2.16643

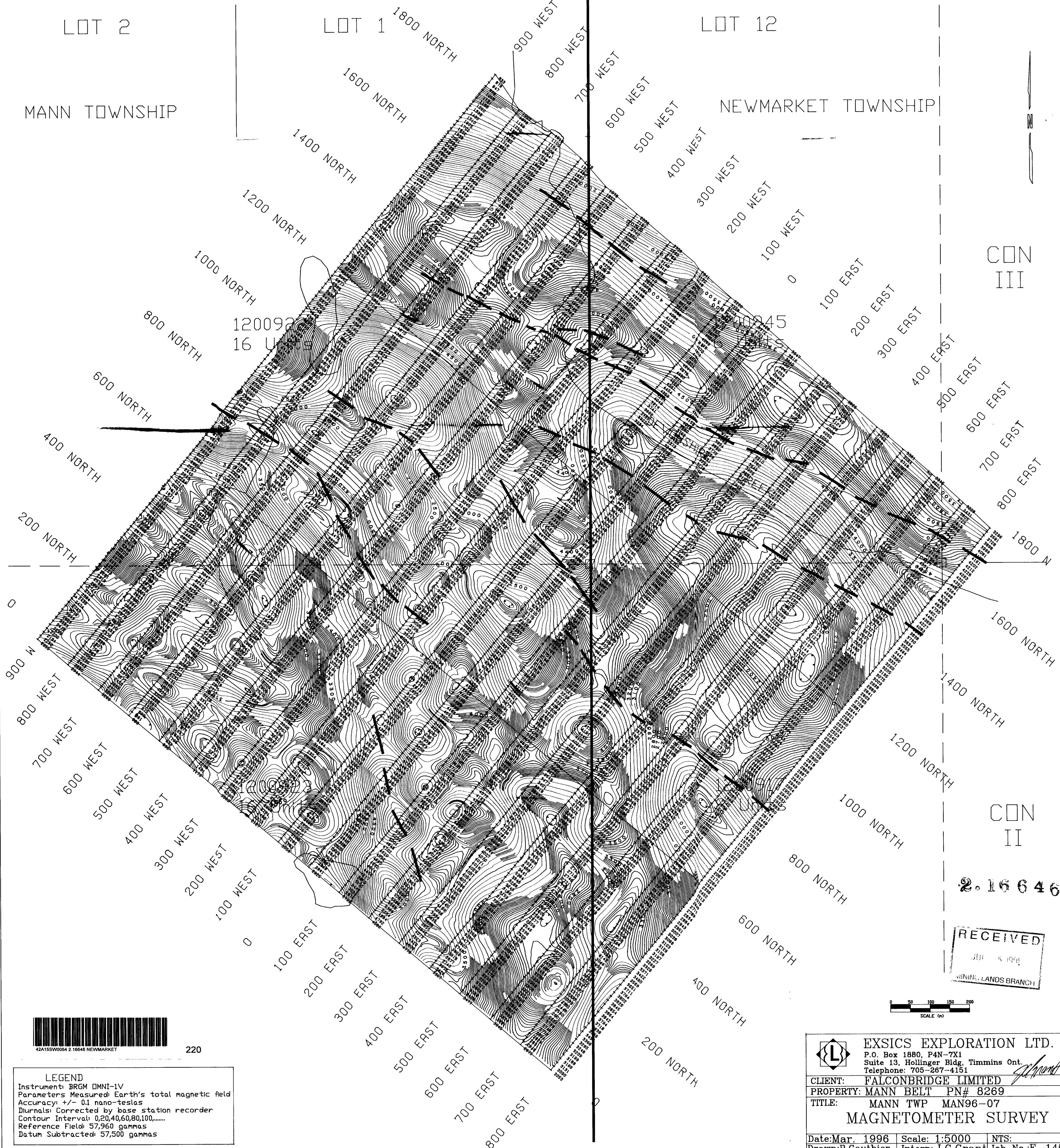
MINING DIVISION



LOT 2  
MANN TOWNSHIP

LOT 1  
1800 NORTH  
1600 NORTH  
1400 NORTH  
1200 NORTH  
1000 NORTH  
800 NORTH  
600 NORTH  
400 NORTH  
200 NORTH  
0

LOT 12  
NEWMARKET TOWNSHIP

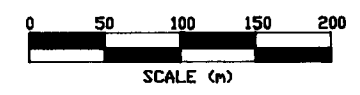


CON III

CON II


2.16646

RECEIVED  
JUN 8 1996  
MINES, LANDS BRANCH



220

**LEGEND**  
Instrument: BRGM OMNI-IV  
Parameters Measured: Earth's total magnetic field  
Accuracy: +/- 0.1 nano-teslas  
Diurnals: Corrected by base station recorder  
Contour Interval: 0,20,40,60,80,100,.....  
Reference Field: 57,960 gammas  
Datum Subtracted: 57,500 gammas

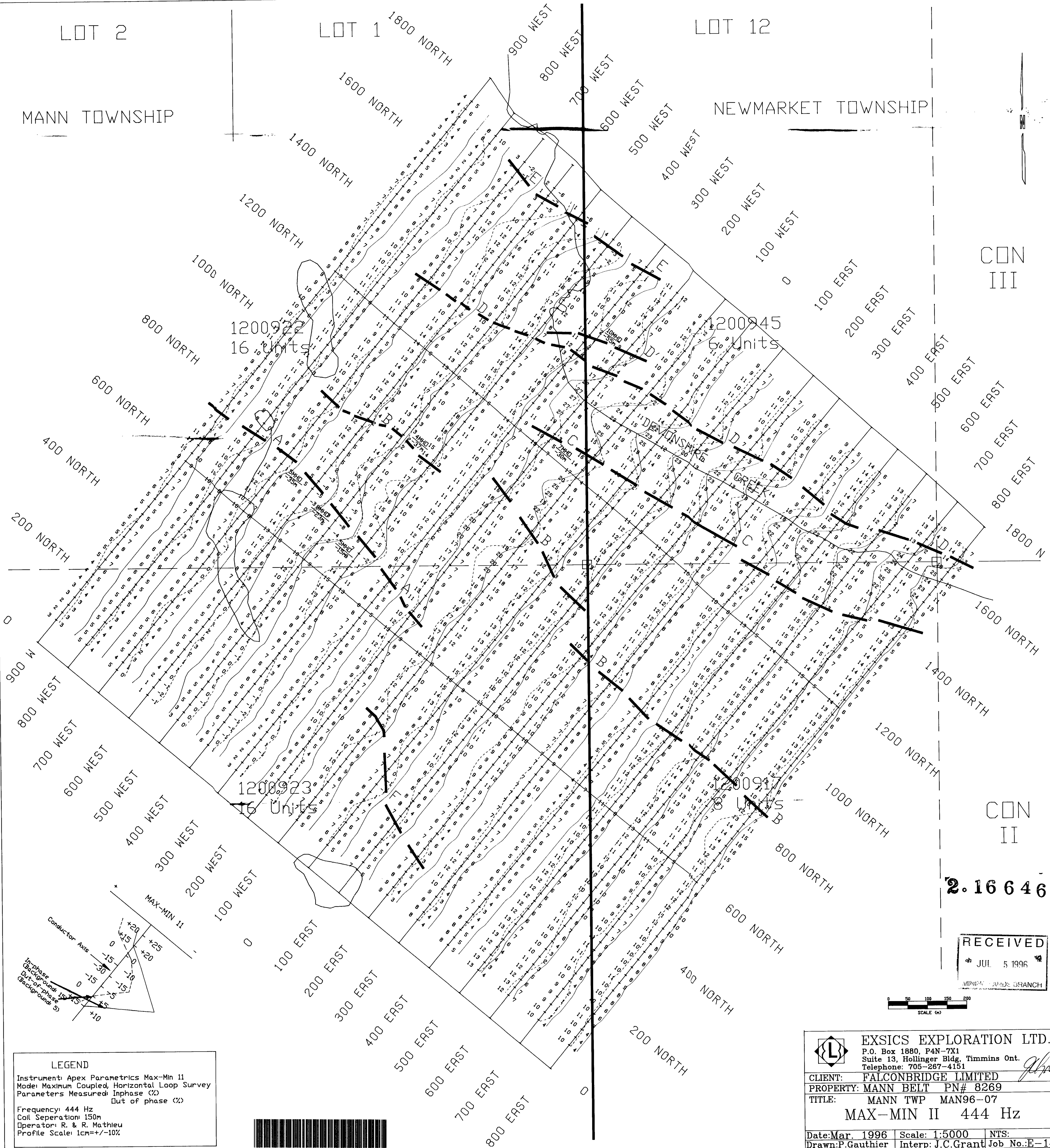
 **EXSICS EXPLORATION LTD.**  
P.O. Box 1880, P4N-7X1  
Suite 13, Hollinger Bldg, Timmins Ont.  
Telephone: 705-267-4151  
*Grant*  
CLIENT: **FALCONBRIDGE LIMITED**  
PROPERTY: **MANN BELT PN# 8269**  
TITLE: **MANN TWP MAN96-07**  
**MAGNETOMETER SURVEY**  
Date: Mar. 1996 | Scale: 1:5000 | NTS:  
Drawn: P.Gauthier | Interp: J.C.Grant | Job No.: E-145



LOT 2  
MANN TOWNSHIP

LOT 1  
1800 NORTH  
1600 NORTH  
1400 NORTH  
1200 NORTH  
1000 NORTH  
800 NORTH  
600 NORTH  
400 NORTH  
200 NORTH  
0

LOT 12  
NEWMARKET TOWNSHIP

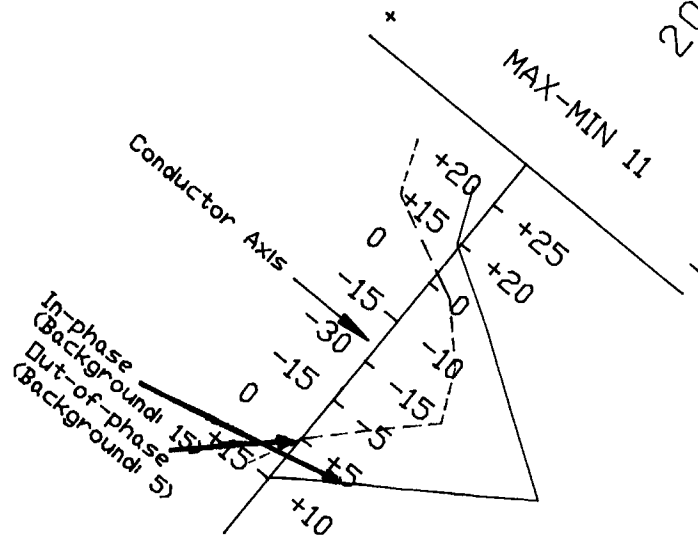
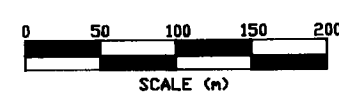


CON III

CON II

2.16646

RECEIVED  
 JUL 5 1996  
 MINERAL RIGHTS BRANCH



**LEGEND**  
 Instrument: Apex Parametrics Max-Min 11  
 Mode: Maximum Coupled, Horizontal Loop Survey  
 Parameters Measured: Inphase (∞) Out of phase (∞)  
 Frequency: 444 Hz  
 Coil Separation: 150m  
 Operator: R. & R. Mathieu  
 Profile Scale: 1cm=+/-10%



**EXSICS EXPLORATION LTD.**  
 P.O. Box 1880, P4N-7X1  
 Suite 13, Hollinger Bldg, Timmins Ont.  
 Telephone: 705-267-4151

CLIENT: FALCONBRIDGE LIMITED  
 PROPERTY: MANN BELT PN# 8269  
 TITLE: MANN TWP MAN96-07  
 MAX-MIN II 444 Hz

Date: Mar. 1996 Scale: 1:5000 NTS:  
 Drawn: P. Gauthier Interp: J.C. Grant Job No.: E-145

LOT 2

LOT 1

LOT 12

MANN TOWNSHIP

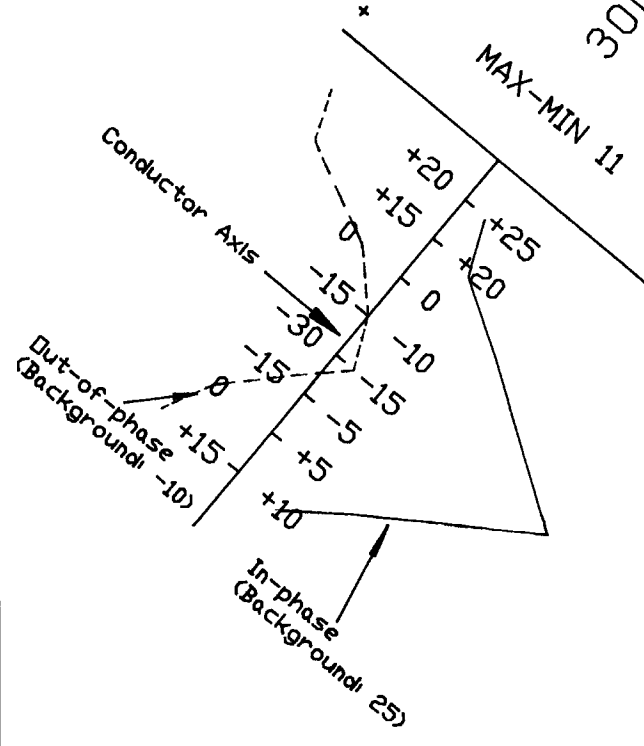
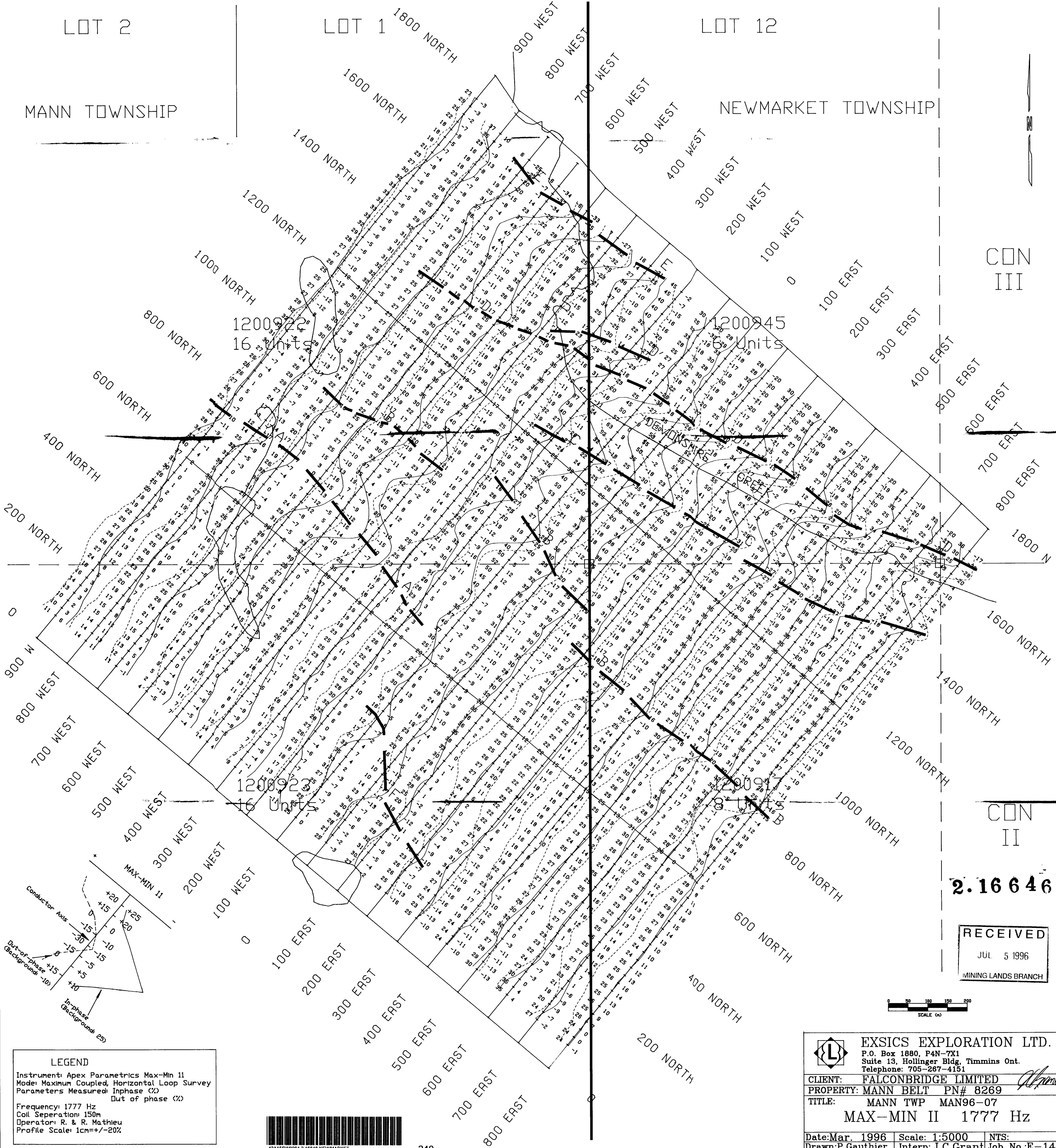
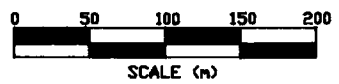
NEWMARKET TOWNSHIP

CON III

CON II

2.16646

RECEIVED  
JUL 5 1996  
MINING LANDS BRANCH



**LEGEND**  
 Instrument: Apex Parametrics Max-Min 11  
 Mode: Maximum Coupled, Horizontal Loop Survey  
 Parameters Measured: Inphase (%)  
 Out of phase (%)  
 Frequency: 1777 Hz  
 Coil Separation: 150m  
 Operator: R. & R. Mathieu  
 Profile Scale: 1cm=+/-20%



**EXSICS EXPLORATION LTD.**  
 P.O. Box 1880, P4N-7X1  
 Suite 13, Hollinger Bldg, Timmins Ont.  
 Telephone: 705-267-4151

CLIENT: **FALCONBRIDGE LIMITED**  
 PROPERTY: MANN BELT PN# 8269  
 TITLE: MANN TWP MAN96-07  
**MAX-MIN II 1777 Hz**

Date: Mar. 1996 Scale: 1:5000 NTS:  
 Drawn: P. Gauthier Interp: J.C. Grant Job No.: E-145