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MAHAFFY

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2.26079
GEOPHYSICAL REPORT
FOR
FALCONBRIDGE LIMITED
ON THE
MAHAFFY 13 PROPERTY
MAHAFFY TOWNSHIP/PORCUPINE MINING DIVISION
NORTHEASTERN ONTARIO

Prepared by: J. C. Grant, CETT, FGAC
January, 2003

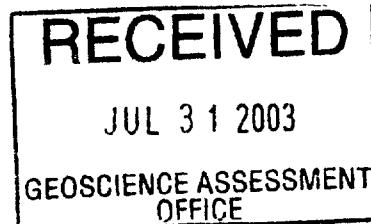


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INTRODUCTION:

The services of Exsics Exploration Limited were retained by the Company, Falconbridge Limited, to complete a detailed total field magnetic survey and an HLEM survey across a portion of their claim holdings in the Township of Mahaffy which is situated in the Porcupine Mining Division of Northeastern Ontario.

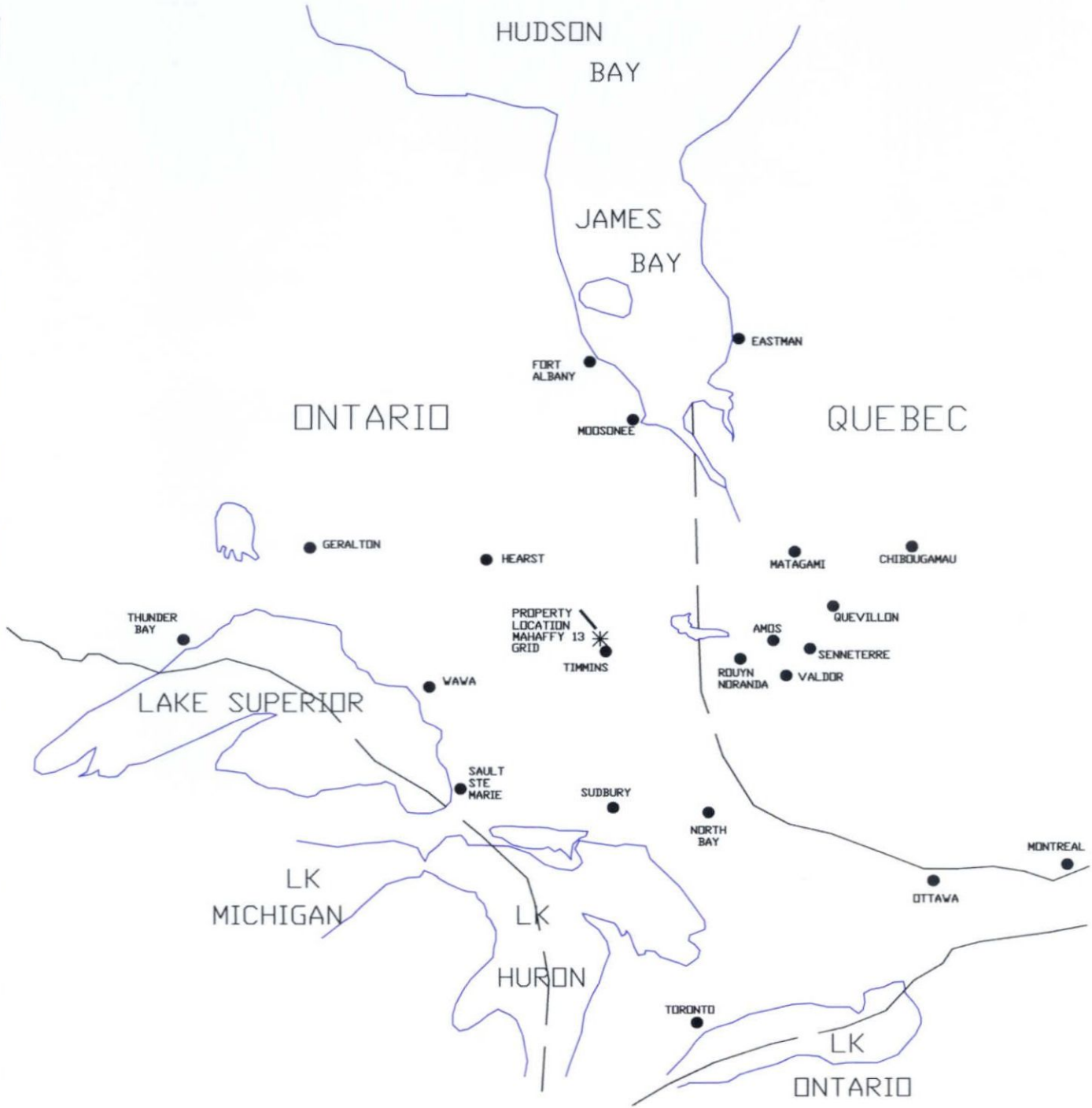
The purpose of this program was to locate an outline a weak airborne target that was noted on the grid. The geophysical portion of the program commenced on the 23rd of December and was completed on the 28th of December, 2002. In all, a total of 11.2 kilometers of grid lines were covered by the two ground survey methods.

The line cutting portion of the program was completed by another independent contract firm and consisted of a series of east-west tie-ins spaced approximately 400 meters apart with tieline 12200MN representing the southern boundary of the grid and tieline 13400MN representing the northern boundary of the grid. Cross lines were then turned off of the 12200MN tieline and cut north to the top tieline. The cross lines were spaced at 100 meter intervals from line 3700MW to and including 4400MW. All of the cut lines were then chained with 20 meter station intervals.

PROPERTY LOCATION AND ACCESS:

The Mahaffy 13 property is situated in the south-central section of Mahaffy Township which is part of the Porcupine Mining Division of Northeastern Ontario. More specifically the property is situated to the east of Thorburn Creek and to the west of the Mattagami River. The entire grid is located approximately 20 kilometers north of Kamiskotia Lake which in turn is approximately 38 kilometers northwest of the City of Timmins.

Access to the grid is somewhat involved. There is good derivable access to within approximately 8 kilometers of the grid by way of Highway 101 west to the Kamiskotia Highway. Traveling north-northwest along this highway for approximately 38 kilometers will lead to the junction of a good gravel road locally called the Abitibi Access road which runs north off of the top end of the Kamiskotia Highway and crosses about 8 kilometers to the west of the grid area. From this point, a skidoo was used to access the grid along an old trail. During the course of the skidoo ride, a make shift bridge had to be constructed across Thorburn creek to access the grid. Traveling time from Timmins to the property was approximately 90 minutes.



EXSICS EXPLORATION LTD.
 P.O. Box 1880, P4N-7X1
 Suite 13, Hollinger Bldg, Timmins Ont.
 Telephone: 705-267-4151, 267-2424

CLIENT: FALCONBRIDGE LIMITED

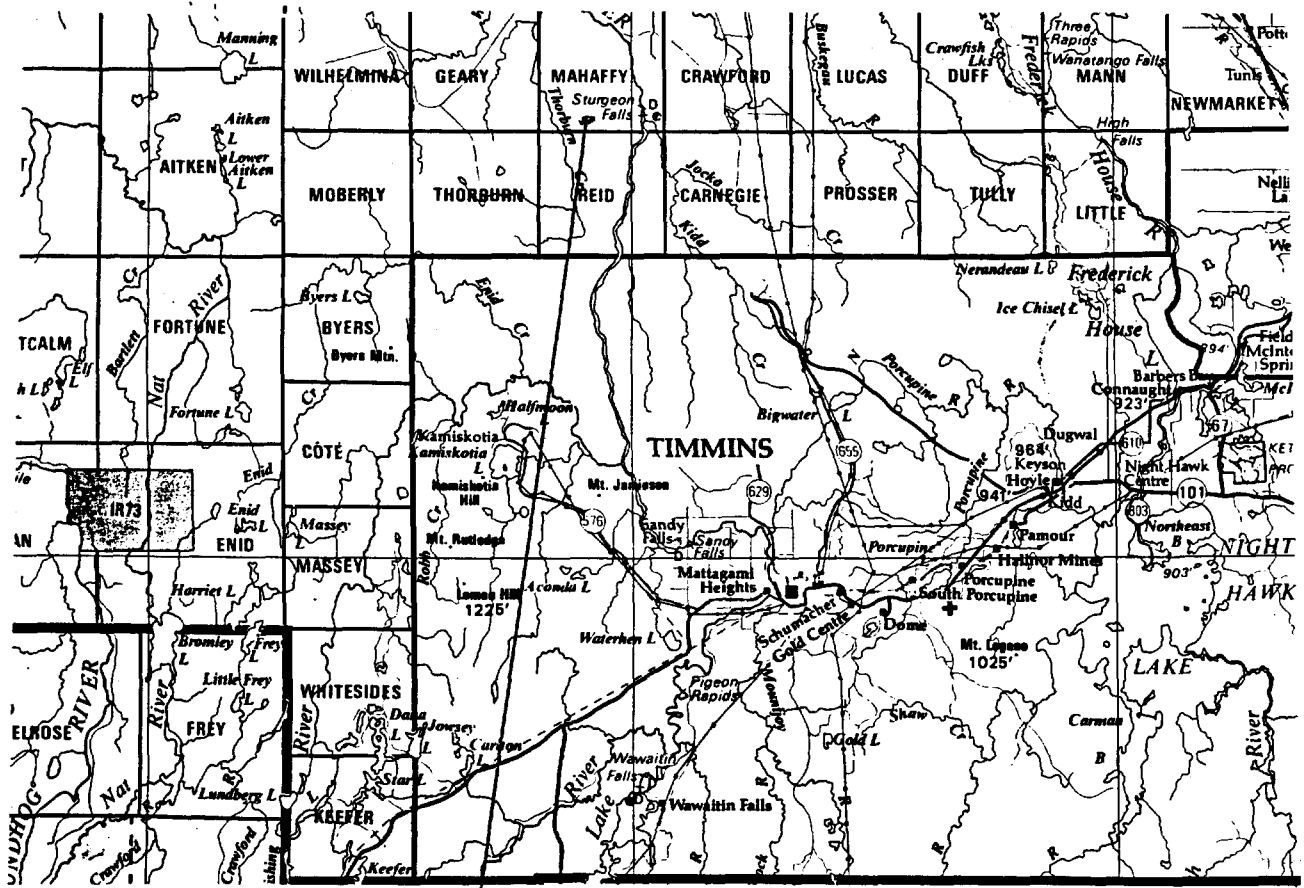
PROPERTY: MAHAFFY 13 GRID


TITLE: MAHAFFY TOWNSHIP

LOCATION MAP

Fig. 1

Date: Dec./02	Scale: 1" = 125 miles	NTS:
Drawn: J.C. Grant	Interp: J.C. Grant	Job No.: E-426



 EXSICS EXPLORATION LTD. P.O. Box 1880, P4N-7X1 Suite 13, Hollinger Bldg, Timmins Ont. Telephone: 705-267-4151, 267-2424		
CLIENT: FALCONBRIDGE LIMITED		
PROPERTY: MAHAFFY 13 GRID		
TITLE: MAHAFFY TOWNSHIP		
PROPERTY LOCATION Fig. 2		
Date: Dec./02	Scale: 1: 600,000	NTS:
Drawn: J.C. Grant	Interp: J.C. Grant	Job No.: E-426

CLAIM GROUP:

The claim numbers that were covered by this present survey can be found as Figure 3 of this report and are as follows;

P-987338, P-987335, P-987334, P-987337
P-987336, P-987333, P-758754, P-758755
P-758756, P-1243851, P-1243852.

Refer to figure 3 copied from the MNDM Plan Map of Mahaffy Township for the location of the claims within the block.

PERSONNEL:

The field crew directly responsible for the collection of the raw data were as follows.

J. Hussey..... Timmins, Ontario
J. Grant..... Timmins, Ontario
E. Jaakkola..... Timmins, Ontario

The program was completed under the direct supervision of J. C. Grant and all of the plotting , compilation and interpretation was completed by J. C. Grant.

GROUND PROGRAM:

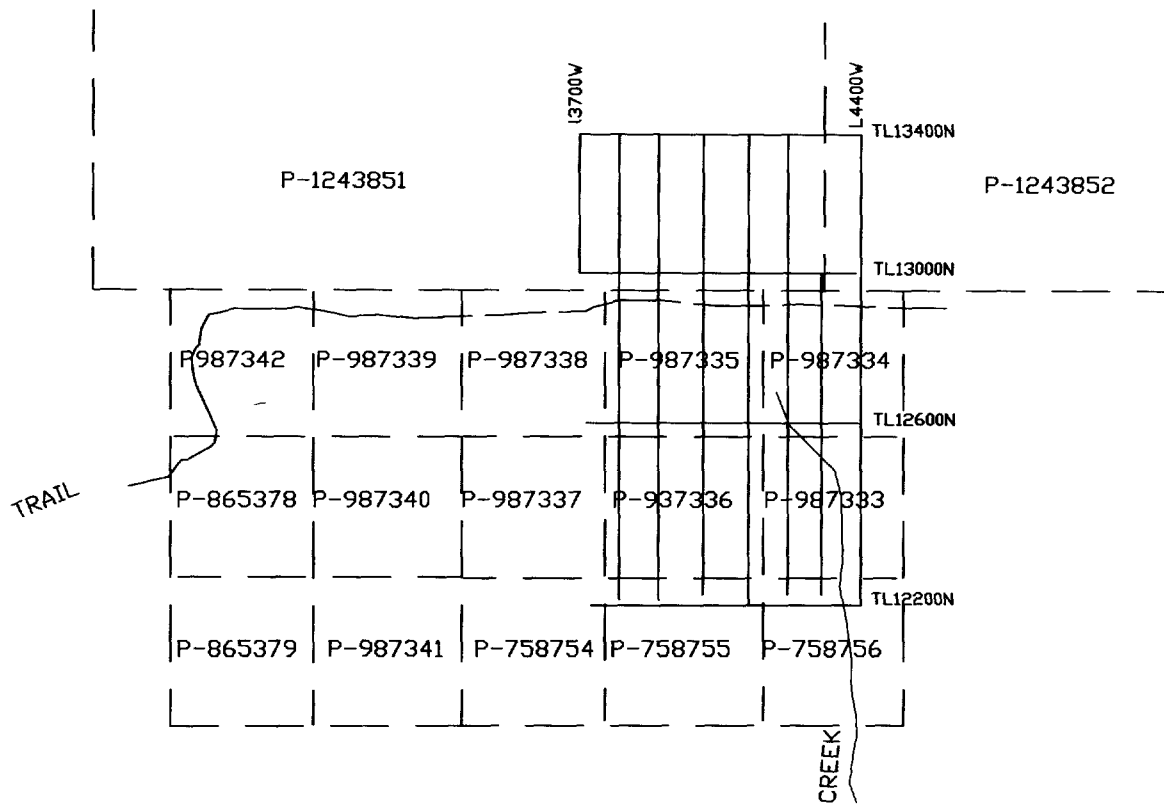
The ground program was completed in two phases. The first phase was the line cutting program which was done independently of the geophysical program. The Author is not aware of the cutting crew or their time frame for the cutting.


The second phase of the program was to complete a detailed total field magnetic survey which was done in conjunction with an HLEM survey. The following parameters were kept constant throughout the surveys.

Magnetic Survey:

The magnetic survey was completed using the Scintrex Envi Mag system and the EDA OMNI Plus base station units. Specifications for the units can be found as Appendix A of this report. The following parameters were kept constant throughout the survey.

Line spacing..... 100 meters
Station spacing..... 20 meters
Reading interval..... 10 meters
Diurnal monitor..... Base station recorder, set for 30 second recording
Reference field..... 57500 nT
Datum subtracted..... 57000 nT



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	CLIENT: FALCONBRIDGE LIMITED	
PROPERTY: MAHAFFY 13 GRID		
TITLE: MAHAFFY TOWNSHIP		
CLAIM SKETCH		
Fig. 3		
Date: Dec./02	Scale: 1:20,000	NTS:
Drawn: J.C. Grant	Interp: J.C. Grant	Job No.: E-426

Upon the completion of the magnetic survey the raw data was corrected leveled and then plotted onto a base map at a scale of 1:5000 and then contoured at 20 gamma intervals where ever possible. A copy of this contoured map is included in the back pocket of this report.

HLEM Survey:

The HLEM survey was completed using the Apex Parametrics MaxMin II system. Specification for the unit can be found as Appendix B of this report. The following parameters were kept constant throughout the survey.

- Line spacing..... 100 meters
- Station spacing..... 20 meters
- Reading interval..... 20 meters
- Frequencies recorded. 1777 hz, 444 hz, 222 hz
- Coil separation..... 200 meters
- Survey search depth.. 100-125 meters, vertical
- Parameters measured. Inphase and quadrature components of the secondary field.

The collected data was then plotted onto a base map, 1 base map for each frequency recorded, and then profiled appropriately. Any and all conductors were then put on the maps and labeled. A copy of each profiled frequency is included in the back pocket of this report.

SURVEY RESULTS:

The HLEM survey was successful in locating and outlining two weak conductive zones across the grid. These zones have been labeled Zones A and B and will be discussed separately and in detail.

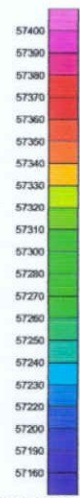
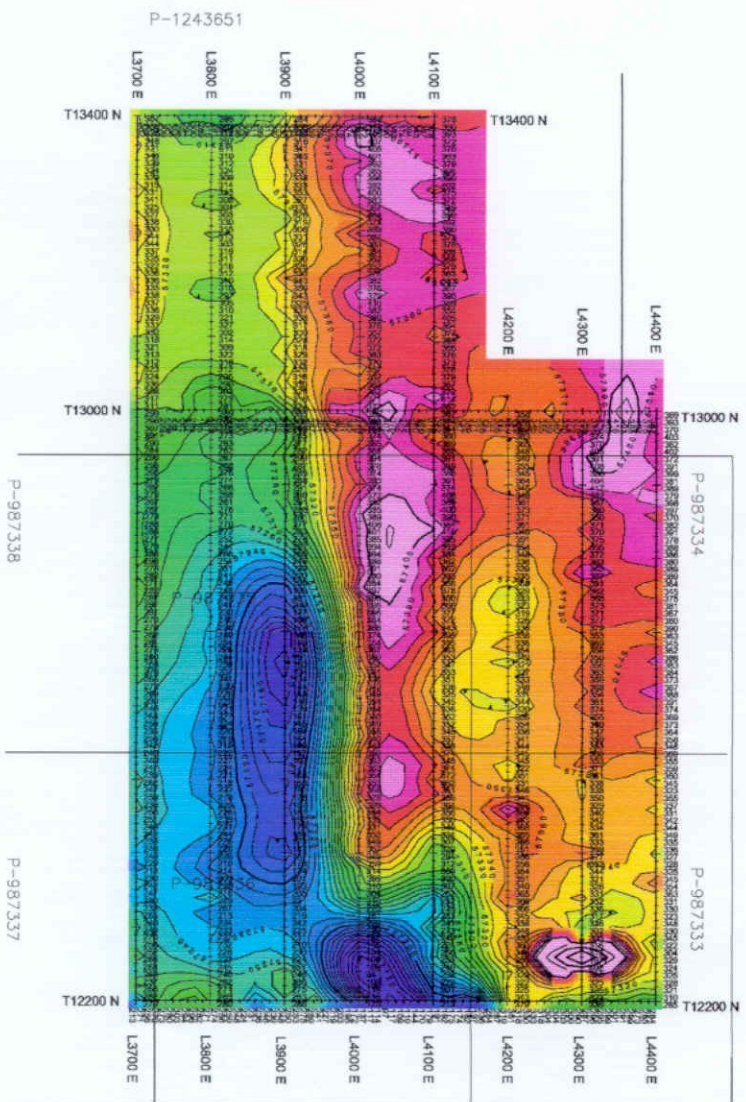
ZONE A:

This zone appears to relate to a weak narrow zone striking from line 3800MW to 4100MW and may continue off of the grid to the northeast. There is a modest magnetic high associated with the eastern end of the zone as in continues off of the grid to the east.

ZONE B:

This zone also appears to relate to a weak conductor, somewhat wider than Zone A but striking parallel to A. It can be traced form line 3900MW to 4100MW. This zone appears to correlate to the top portion of a magnetic high unit that is generally following lines 4000 and 4100MW.

The magnetic survey was successful in outlining a predominant north-south striking feature which probably relates to a dike like feature paralleling lines 4000MW and 4100MW. The magnetic high on the southern end of line 4300MW relates to a diamond drill hole and casing.



TOTAL FIELD MAGNETIC
BASE 57000 nT

LEGEND
Reference: SC20000 Data M.C. 8804 Data M.C.
Parameters Measured: Earth's Total Magnetic Field
Accuracy: ± 2.5 Gauss (0.25 nT)
Diagrams: Corrected to base station recorder
Contour Interval: 0, 10, 20, 30, 40, 50
Reference Field: 57000 nT
Datum: Substrate: 57000 nT



FALCONBRIDGE LIMITED
MAHAFFY 13 PROPERTY
MAHAFFY TOWNSHIP
TOTAL FIELD MAGNETIC PLAN MAP
BASE REMOVED 57000 nT
December, 02
EXSICS EXPLORATION LIMITED

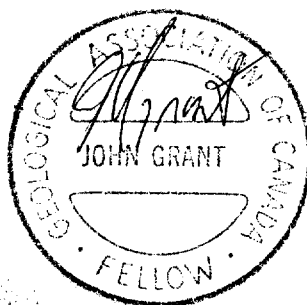
CONCLUSIONS AND RECOMMENDATIONS:

At this time the two zones represent weak questionable targets overlain by a highly conductive overburden layering. Both of the targets appear to cross cut the magnetic high feature that is quite predominant on the grid.

This area and the surrounding claims have been subject to a fair bit of ground survey over the years. This present grid is a fill-in grid for work completed on grids surrounding it. I would recommend a compilation of all of the data to better define the two zones. Should follow up surveys be considered, then a deep penetrating, high powered survey method should be considered to better cover the ground at depth.

Respectfully submitted

J. C. Grant, CETT, FGAC
January, 2003.

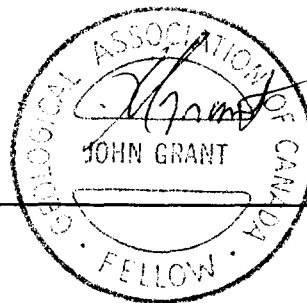


CERTIFICATION

I, John Charles Grant, of 108 Kay Crescent, in the City of Timmins, Province of Ontario, hereby certify that:

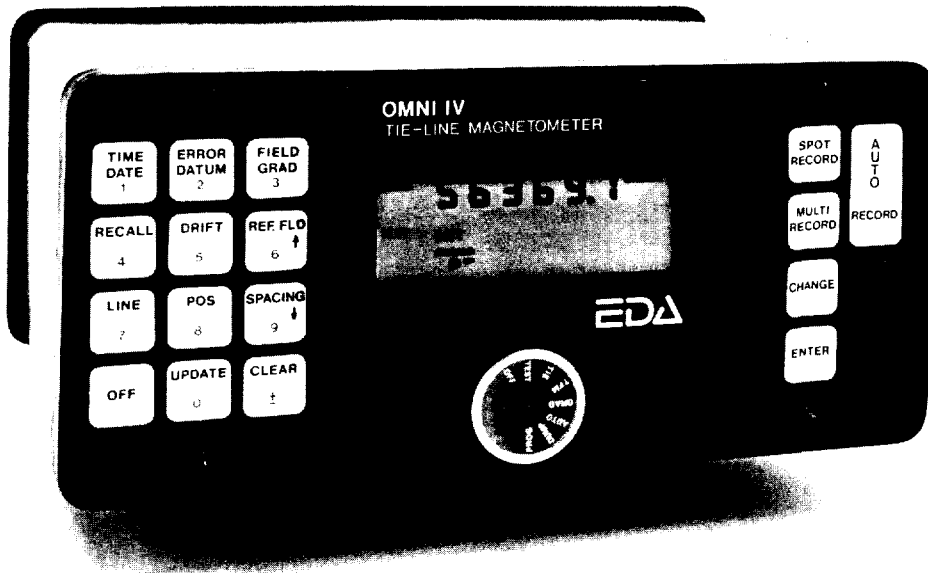
- 1). I am a graduate of Cambrian College of Applied Arts and Technology, 1975, Sudbury Ontario Campus, with an Honors Diploma in Geological and Geophysical Technology.
- 2). I have worked subsequently as an Exploration Geophysicist for Teck Exploration Limited, (5 years), and currently as Exploration Manager and Geophysicist for Exsics Exploration Limited, since 1980.
- 3). I am a member in good standing of the Certified Engineering Technologist Association, (CET), since 1984
- 4). I am a Fellow of the Geological Association of Canada, (FGAC), since 1986.
- 5). I have been actively engaged in my profession since the 15th of May of 1975, in all aspects of ground exploration programs, including the planning and execution of field programs, project supervision, data compilation, interpretations and reports.
- 6). I have no specific or special interest in the herein described property. I have been retained by the property holders and or their Agent as a Geophysical Consultant and Contract Manager.

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	± 0.02 gamma
Statistical Error Resolution	0.01 gamma
Absolute Accuracy	± 1 gamma at 50,000 gammas at 23°C ± 2 gamma over total temperature range
Standard Memory Capacity	
Total Field or Gradient	1,200 data blocks or sets of readings
Tie-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°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
Cycling Time (Base Station Mode)	Programmable from 5 seconds up to 60 minutes in 1 second increments
Operating Environmental Range	-40°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
Weights and Dimensions	
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

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

Printed in Canada

SCINTREX

ENVI-MAG Environmental Magnetometer/Gradiometer

Locating Buried Drums and Tanks?

The ENVI-MAG is the solution to this environmental problem. ENVI-MAG is an inexpensive, lightweight, portable "WALKMAG" which enables you to survey large areas quickly and accurately.

ENVI-MAG is a portable, proton precession magnetometer and/or gradiometer, for geotechnical, archaeological and environmental applications where high production, fast count rate and high sensitivity are required. It may also be used for other applications, such as mineral exploration, and may be configured as a total-field magnetometer, a vertical gradiometer or as a base station.

The ENVI-MAG

- easily detects buried drums to depths of 10 feet or more
- more sensitive to the steel of a buried drum than EM or radar
- much less expensive than EM or radar
- survey productivity much higher than with EM or radar

Features and Benefits

"WALKMAG"

Magnetometer/Gradiometer

The "WALKMAG" mode of operation (sometimes known as "Walking Mag") is user-selectable from the keyboard. In this mode, data is acquired and recorded at the rate of 2 readings per second as the operator walks at a steady pace along a line. At desired intervals, the operator "triggers" an event marker by a single key stroke, assigning coordinates to the recorded data.

The Simultaneous Gradiometer

An optional upgrade kit is available to configure ENVI-MAG as a gradiometer to make true, simultaneous gradiometer measurements. Gradiometry is useful for geotechnical and archaeological surveys where small near surface magnetic targets are the object of the survey.

Selectable Sampling Rates

0.5 second, 1 second and 2 second recording rates user selectable from the keyboard.

Main features include:

- select sampling rates as fast as 2 times per second
- "WALKMAG" mode for rapid acquisition of data
- large internal, expandable memory
- easy to read, large LCD screen displays data both numerically and graphically
- ENVIMAP software for processing and mapping data

ENVI-MAG comprises several basic modules; a lightweight console with a large screen alphanumeric display and high capacity memory, a staff mounted sensor and sensor cable, rechargeable battery and battery charger, RS-232 cable and ENVIMAP processing and mapping software.

For gradiometry applications an upgrade kit is available, comprising an additional processor module for installation in the console, and a second sensor with a staff extender.

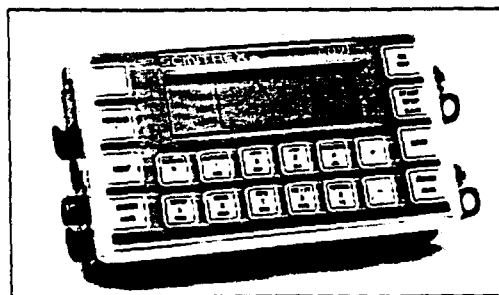


ENVI-MAG Proton Magnetometer in operation

For base station applications a Base Station Accessory Kit is available so that the sensor and staff may be converted into a base station sensor.

Large-Key Keypad

The large-key keypad allows easy access for gloved-hands in cold-weather operations. Each key has a multi-purpose function.



Front panel of ENVI-MAG showing a graphic profile of data and large-key keypad

Large Capacity Memory

ENVI-MAG with standard memory stores up to 28,000 readings of total field measurements, 21,000 readings of gradiometry data or 151,000 readings as a base station. An expanded memory option is available which increases this standard capacity by a factor of 5.

Easy Review of Data

For quality of data and for a rapid analysis of the magnetic characteristics of the survey line, several modes of review are possible. These include the measurements at the last four stations, the ability to scroll through any or all previous readings in memory, and a graphic display of the previous data as profiles, line by line. This feature is very useful for environmental and archaeological surveys.

Highly Productive

The "WALKMAG" mode of operation acquires data rapidly at close station intervals, ensuring high-definition results. This increases survey productivity by a factor of 5 when compared to a conventional magnetometer survey.

"Datacheck" Quality Control of Data

"Datacheck" provides a feature wherein at the end of each survey line, data may be reviewed as a profile on ENVI-MAG's screen. Datacheck confirms that the instrument is functioning correctly and

allows the user to note the magnetic relief (anomaly) on the line.

Large Screen Display

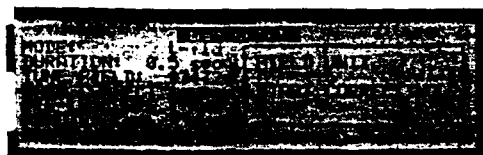
"Super-Twist" 64 x 240 dot (8 lines x 40 characters), LCD graphic screen provides good visibility in all light conditions. A display heater is optionally available for low-temperature operations below 0°C.



Close-up of the ENVI-MAG screen showing data presented after each reading

Interactive Menu

The set-up of ENVI-MAG is menu-driven, and minimizes the operator's learning time, and on-going tasks.



Close-up of display of ENVI-MAG showing interactive set-up menu

Rechargeable Battery and Battery Charger

An "off-the-shelf" lead-acid battery and charger are provided as standard. The low-cost "Camcorder" type battery is available from electronic parts distributors everywhere.

HELP-Line Available

Purchasers of ENVI-MAG are provided with a HELP-Line telephone number to call in the event assistance is needed with an application or instrumentation problem.

ENVIMAP Processing and Mapping Software

Supplied with ENVI-MAG, and custom designed for this purpose, is easy-to-use, very user-friendly, menu driven data processing and mapping software called ENVIMAP. This unique software appears to the user to be a single program, but is in fact a sequence of separate programs, each performing a specific task. Under the menu system, there are separate programs to do the following:

- read the ENVI-MAG data and reformat it into a standard compatible with the ENVIMAP software
- grid the data into a standard grid format
- create a vector file of posted values

with line and baseline identification that allows the user to add some title information and build a suitable surround

- contour the gridded data
- autoscale the combined results of the posting/surround step and the contouring step to fit on a standard 8.5 ins. wide dot-matrix printer
- rasterize and output the results of step e) to the printer

ENVIMAP is designed to be as simple as possible. The user is required to answer a few basic questions asked by ENVIMAP, and then simply toggles "GO" to let ENVIMAP provide default parameters for the making of the contour map. The user can modify certain characteristics of the output plot. ENVIMAP'S menu system is both keyboard and mouse operable. HELP screens are integrated with the menu system so that HELP is displayed whenever the user requests it.

Options Available

- True simultaneous gradiometer upgrade
- Base station upgrade
- Display heater for low temperature operations
- External battery pouch

Specifications

Total Field Operating Range

20,000 to 100,000 nT (gammas)

Total Field Absolute Accuracy

± 1nT

Sensitivity

0.1 nT at 2 second sampling rate

Timing

Fully solid state. Manual or automatic, keyboard selectable

Cycling (Reading) Rates

0.5, 1 or 2 seconds, up to 9999 seconds for base station applications, keyboard selectable

Gradiometer Option

Includes a second sensor, 20 inch (½m) staff extender and processor module

"WALKMAG" Mode

0.5 second for walking surveys, variable rates for hilly terrain

Graphic Display

80 "Super Twist", 240 x 64 dots graphics, 8 line x 40 characters alphanumeric

Display Heater

Thermostatically controlled, for cold weather operations

Keyboard Input

20 keys, dual function, membrane type

Notebook Function

32 characters, 5 user-defined MACRO's for quick entry

Standard Memory

Total Field Measurements: 28,000 readings
Gradiometer Measurements: 21,000 readings
Base Station Measurements: 151,000 readings

Expanded Memory

Total Field Measurements: 140,000 readings
Gradiometer Measurements: 109,000 readings
Base Station Measurements: 750,000 readings

Real-Time Clock

Records full date, hours, minutes and seconds with 1 second resolution, ± 1 second stability over 12 hours

Digital Data Output

RS-232C interface, 600 to 57,600 Baud, 7 or 8 data bits, 1 start, 1 stop bit, no parity format. Selectable carriage return delay (0-999 ms) to accommodate slow peripherals. Handshaking is done by X-on/X-off

Analog Output

0 - 999 mV full scale output voltage with keyboard selectable range of 1, 10, 100, 1,000 or 10,000 nT full scale

Power Supply

Rechargeable "Camcorder" type, 2.3 Ah, Lead-acid battery.

12 Volts at 0.65 Amp for magnetometer, 1.2 Amp for gradiometer,

External 12 Volt input for base station operations

Optional external battery pouch for cold weather operations

Battery Charger

110 Volt - 230 Volt, 50/60 Hz

Operating Temperature Range

Standard 0° to 60°C
Optional -40°C to 60°C

Dimensions

Console - 10 x 6 x 2.25 inches
(250 mm x 152 mm x 55 mm)

T.F. sensor - 2.75 inches dia. x 7 inches
(70 mm x 175 mm)

Grad. sensor and staff extender - 2.75 inches dia. x 26.5 inches (70 mm x 675 mm)

T.F. staff - 1 inch dia. x 76 inches (25 mm x 2 m)

Weight

Console - 5.4 lbs (2.45 kg)
with rechargeable battery

T. F. sensor - 2.2 lbs (1.15 kg)

Grad. sensor - 2.5 lbs (1.15 kg)

Staff - 1.75 lbs (0.8 kg)



Head Office

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Concord, Ontario, Canada L4K 1B5
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Telex: 06-964570

In the USA:

Scintrex Inc.
85 River Rock Drive
Unit 202
Buffalo, NY 14207
Telephone: (716) 298-1219
Fax: (716) 298-1317

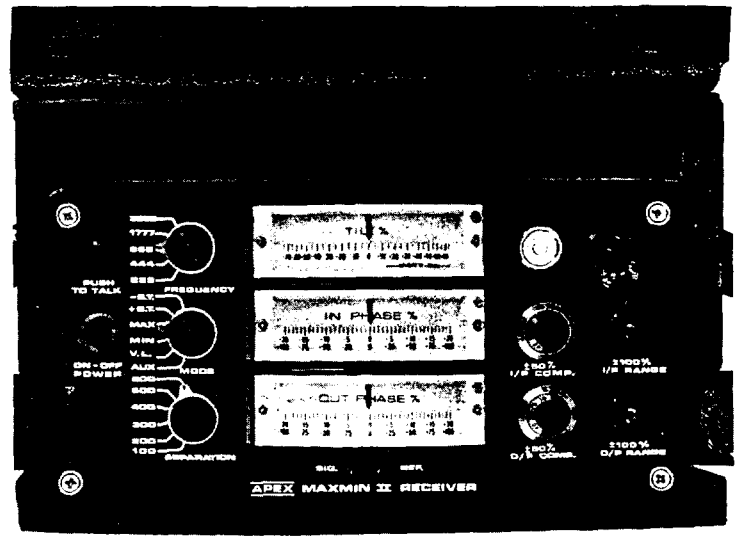
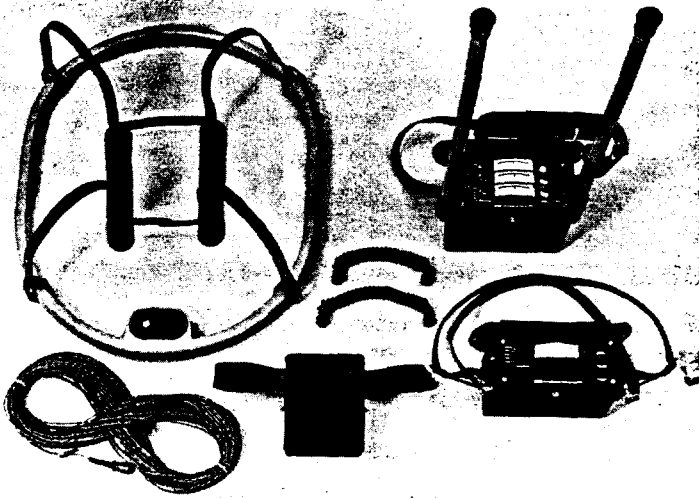
APPENDIX B

APEX

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.





SPECIFICATIONS :

- 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.
- Coil Separations:** 25, 50, 100, 150, 200 & 250m (MMII) or 100, 200, 300, 400, 600 and 800 ft. (MMIIF).
 Coil separations in V.L. mode not restricted to fixed values.
- Parameters Read:** - 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.
- Repeatability:** In-Phase and Quadrature: 0.25 % to 0.5 % ; Tilt: 1 % .
- Repeatability:** $\pm 0.25\%$ to $\pm 1\%$ normally, depending on conditions, frequencies and coil separation used.
- Transmitter Output:** - 222Hz : 220 Atm²
 - 444Hz : 200 Atm²
 - 888Hz : 120 Atm²
 - 1777Hz : 60 Atm²
 - 3555Hz : 30 Atm²
- Receiver Batteries:** 9V trans. radio type batteries (4).
 Life: approx. 35hrs. continuous duty (alkaline, 0.5 Ah), less in cold weather.
- Transmitter Batteries:** 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.
- Voice Link:** Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.
- Indicator Lights:** Built-in signal and reference warning lights to indicate erroneous readings.
- Temperature Range:** -40°C to +60°C (-40°F to +140°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.

APEX **PARAMETRICS LIMITED**
 200 STEELCASE RD. E., MARKHAM, ONT., CANADA, L3R 1G2

Phone: (416) 495-1612

Cables: APEXPARA TORONTO

Telex: 06-966773 NORDVIK TOR

Work Report Summary

Transaction No: W0360.01259 Status: APPROVED
 Recording Date: 2003-JUL-30 Work Done from: 2002-DEC-23
 Approval Date: 2003-AUG-07 to: 2002-DEC-28

Client(s):
 130679 FALCONBRIDGE LIMITED

Survey Type(s):
 EM LC MAG

Work Report Details:

Claim#	Perform	Perform Approve	Applied	Applied Approve	Assign	Assign Approve	Reserve	Reserve Approve	Due Date
P 987333	\$1,512	\$1,512	\$0	\$0	\$1,512	1,512	\$0	\$0	2004-APR-27
P 987334	\$1,512	\$1,512	\$0	\$0	\$1,512	1,512	\$0	\$0	2004-APR-27
P 987335	\$1,944	\$1,944	\$0	\$0	\$1,944	1,944	\$0	\$0	2004-APR-27
P 987336	\$1,944	\$1,944	\$0	\$0	\$1,944	1,944	\$0	\$0	2004-APR-27
P 987337	\$432	\$432	\$0	\$0	\$432	432	\$0	\$0	2004-APR-27
P 987338	\$540	\$540	\$0	\$0	\$540	540	\$0	\$0	2004-APR-27
P 1166986	\$0	\$0	\$800	\$800	\$0	0	\$0	\$0	2004-DEC-20
P 1226430	\$0	\$0	\$4,800	\$4,800	\$0	0	\$0	\$0	2004-DEC-05
P 1227613	\$0	\$0	\$1,900	\$1,900	\$0	0	\$0	\$0	2004-NOV-25
P 1243651	\$2,916	\$2,916	\$0	\$0	\$2,816	2,816	\$100	\$100	2004-JAN-26
P 1244056	\$0	\$0	\$1,600	\$1,600	\$0	0	\$0	\$0	2004-DEC-20
P 1244060	\$0	\$0	\$1,600	\$1,600	\$0	0	\$0	\$0	2004-DEC-20
	\$10,800	\$10,800	\$10,700	\$10,700	\$10,700	\$10,700	\$100	\$100	

External Credits: \$0

Reserve:
 \$100 Reserve of Work Report#: W0360.01259

 \$100 Total Remaining

Status of claim is based on information currently on record.



Date: 2003-AUG-11

GEOSCIENCE ASSESSMENT OFFICE
933 RAMSEY LAKE ROAD, 6th FLOOR
SUDBURY, ONTARIO
P3E 6B5

FALCONBRIDGE LIMITED
800-207 QUEEN'S QUAY WEST
TORONTO, ONTARIO
M5J 1A7 CANADA

Tel: (888) 415-9845
Fax: (877) 670-1555

Submission Number: 2.26079
Transaction Number(s): W0360.01259

Dear Sir or Madam

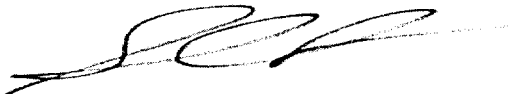
Subject: Approval of Assessment Work

We have approved your Assessment Work Submission with the above noted Transaction Number(s). The attached Work Report Summary indicates the results of the approval.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

If you have any question regarding this correspondence, please contact PIERRE DESCOTEAUX by email at pierre.descoteaux@ndm.gov.on.ca or by phone at (705) 670-5858.

Yours Sincerely,

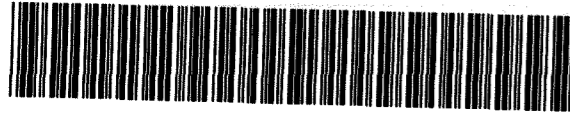


Sheila Lessard
Acting Senior Manager, Mining Lands Section

Cc: Resident Geologist
Falconbridge Limited
(Claim Holder)

Assessment File Library
Falconbridge Limited
(Assessment Office)

Dean Rogers
(Agent)



42A13SE2012 2.26079 MAHAFFY

200

ONTARIO CANADA

MINISTRY OF NORTHERN DEVELOPMENT AND MINES PROVINCIAL MINING RECORDERS' OFFICE

Mining Land Tenure Map

Date / Time of Issue: Mon Aug 11 14:57:59 EDT 2003

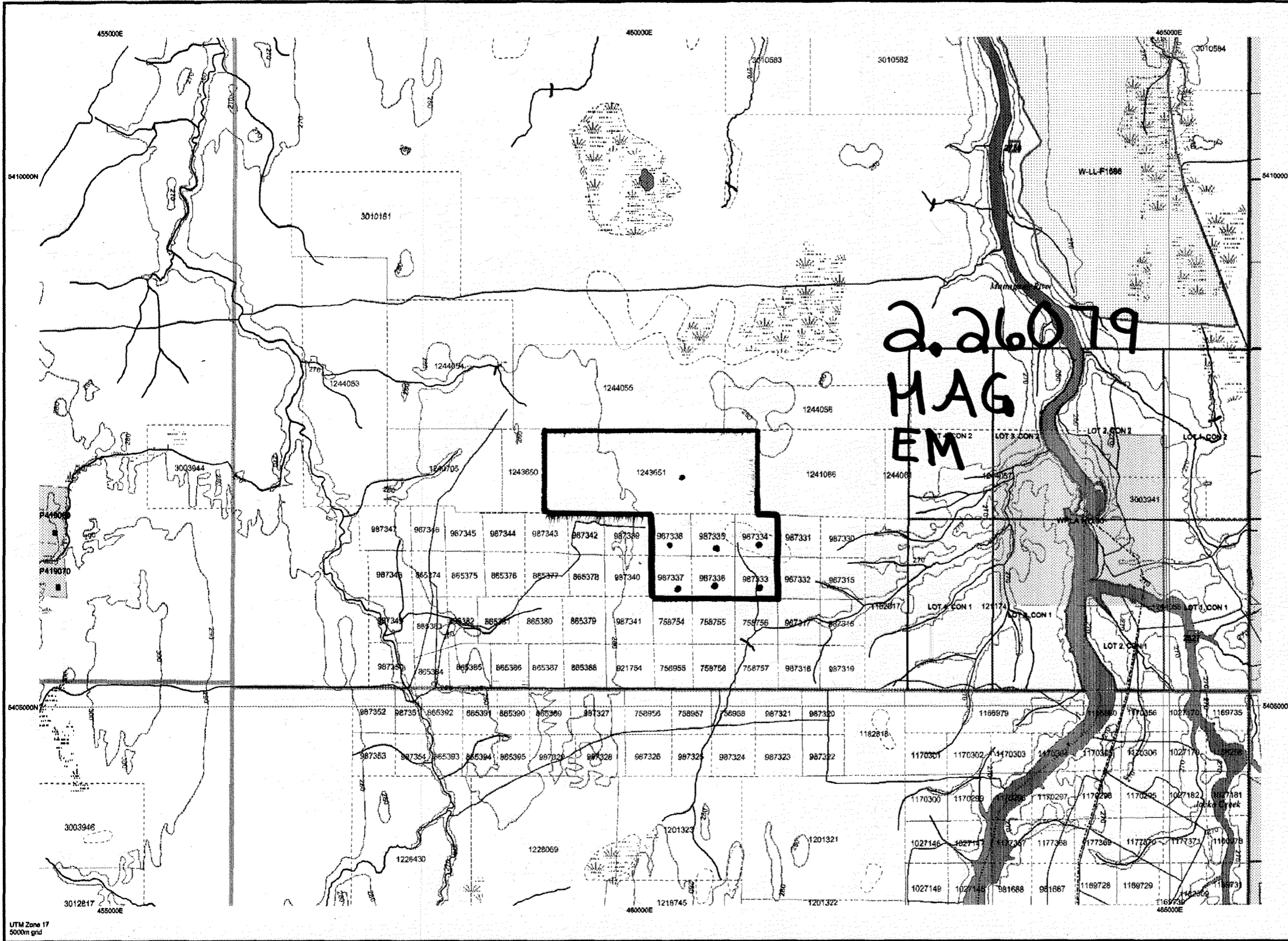
TOWNSHIP / AREA MAHAFFY

PLAN G-3024

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division Land Titles/Registry Division Ministry of Natural Resources District

Porcupine COCHRANE TIMMINS

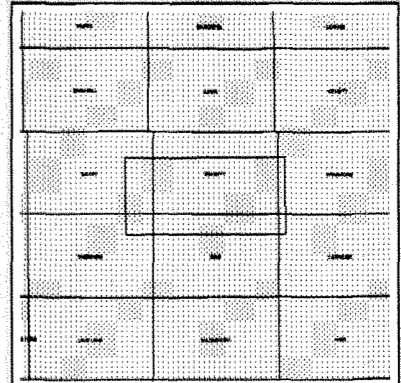


TOPOGRAPHIC

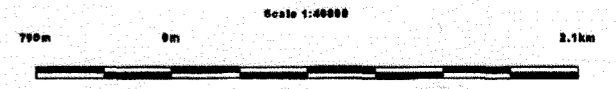
- Administrative Boundaries, Township, Concession, Lot, Provincial Park, Indian Reserve, Cliff, Pit & Pile, Contour, Mine Shafts, Mine Headframe, Railway, Road, Trail, Natural Gas Pipeline, Utilities, Tower

Land Tenure

- Freehold Patent: Surface And Mining Rights, Surface Rights Only, Mining Rights Only; Leasehold Patent: Surface And Mining Rights, Surface Rights Only, Mining Rights Only; Licence of Occupation: Uses Not Specified, Surface And Mining Rights, Surface Rights Only, Mining Rights Only, Land Use Permit, Order in Council (Not open for staking), Water Power Lease Agreement



- LAND TENURE WITHDRAWALS: Areas Withdrawn from Disposition, Mining Act Withdrawal Types, Surface And Mining Rights Withdrawn, Surface Rights Only Withdrawn, Mining Rights Only Withdrawn, Order in Council Withdrawal Types, Surface And Mining Rights Withdrawn, Surface Rights Only Withdrawn, Mining Rights Only Withdrawn; IMPORTANT NOTICE



LAND TENURE WITHDRAWAL DESCRIPTIONS

Table with columns: Identifier, Type, Date, Description. Includes entries for 2731, 2758, 2827, 2937, WLL-C1586, and WLL-F1586.

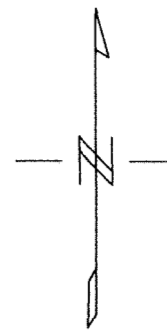
Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown hereon. This map is not intended for navigational, survey, or land title determination purposes as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources.

General Information and Limitations Contact Information: Provincial Mining Recorders' Office, Wilket Green Miller Centre 933 Ramsey Lake Road, Sudbury ON P3E 6B5. Home Page: www.mndm.gov.on.ca/MNDM/MINES/LANDS/misnppg.htm

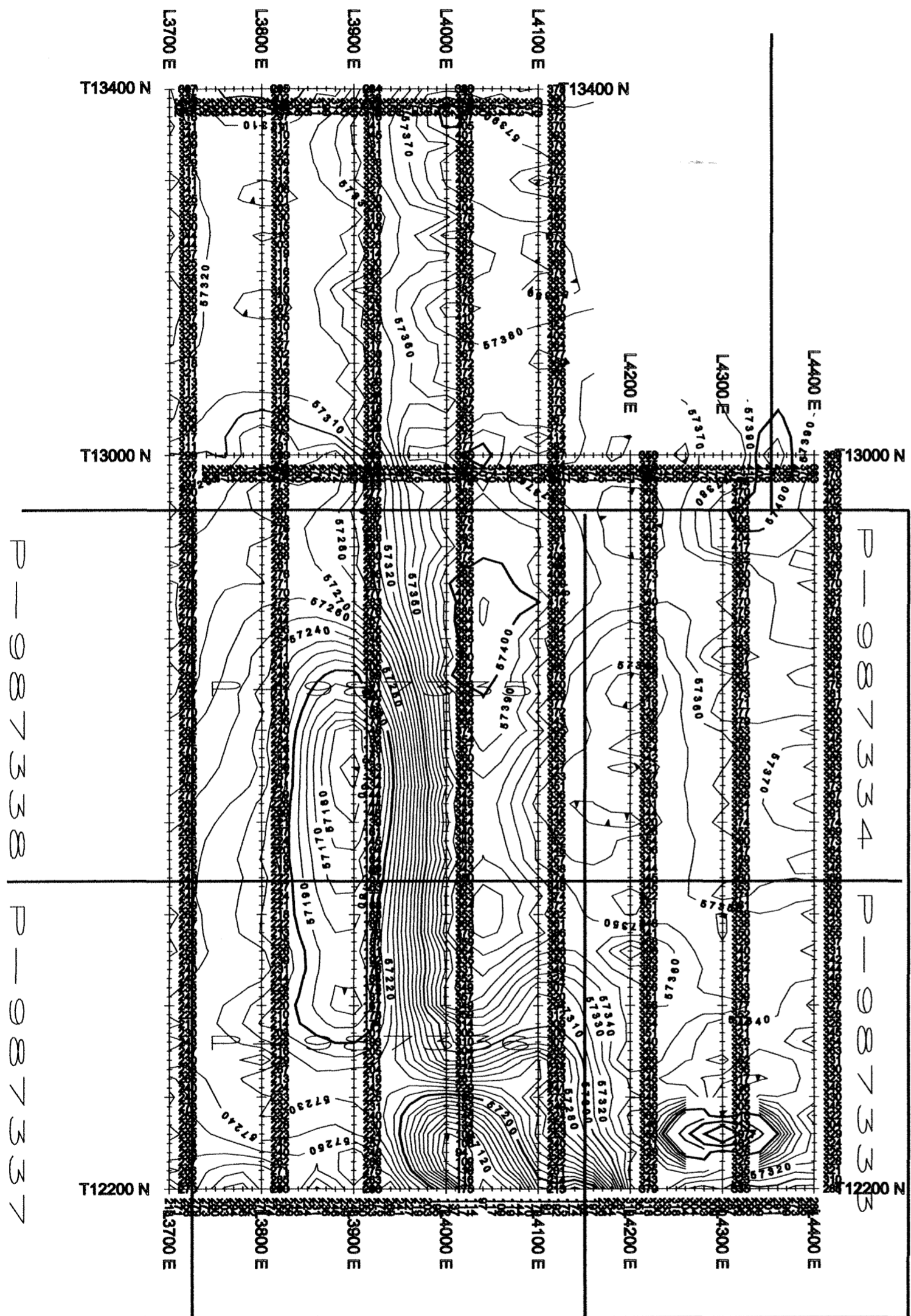
Toll Free Tel: 1 (888) 415-9845 ext 5793 Fax: 1 (877) 670-1444

Map Datum: NAD 83 Projection: UTM (6 degree) Topographic Data Source: Land Information Ontario Mining Land Tenure Source: Provincial Mining Recorders' Office

This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licences, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.



P - 1 2 4 3 0 5 1



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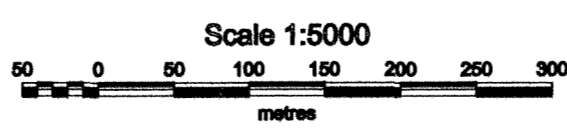
LEGEND
 Instrument: SCHREX ENVI MAG, BRGM OMNI-IV
 Parameters Measured: Earth's total magnetic field
 Accuracy: +/- 0.1 nano-teslas
 Diurnals: Corrected by base station recorder
 Contour Interval: 0,10,20,30,40,50.....
 Reference Field: 57500 nT
 Datum Subtracted: 57000 nT

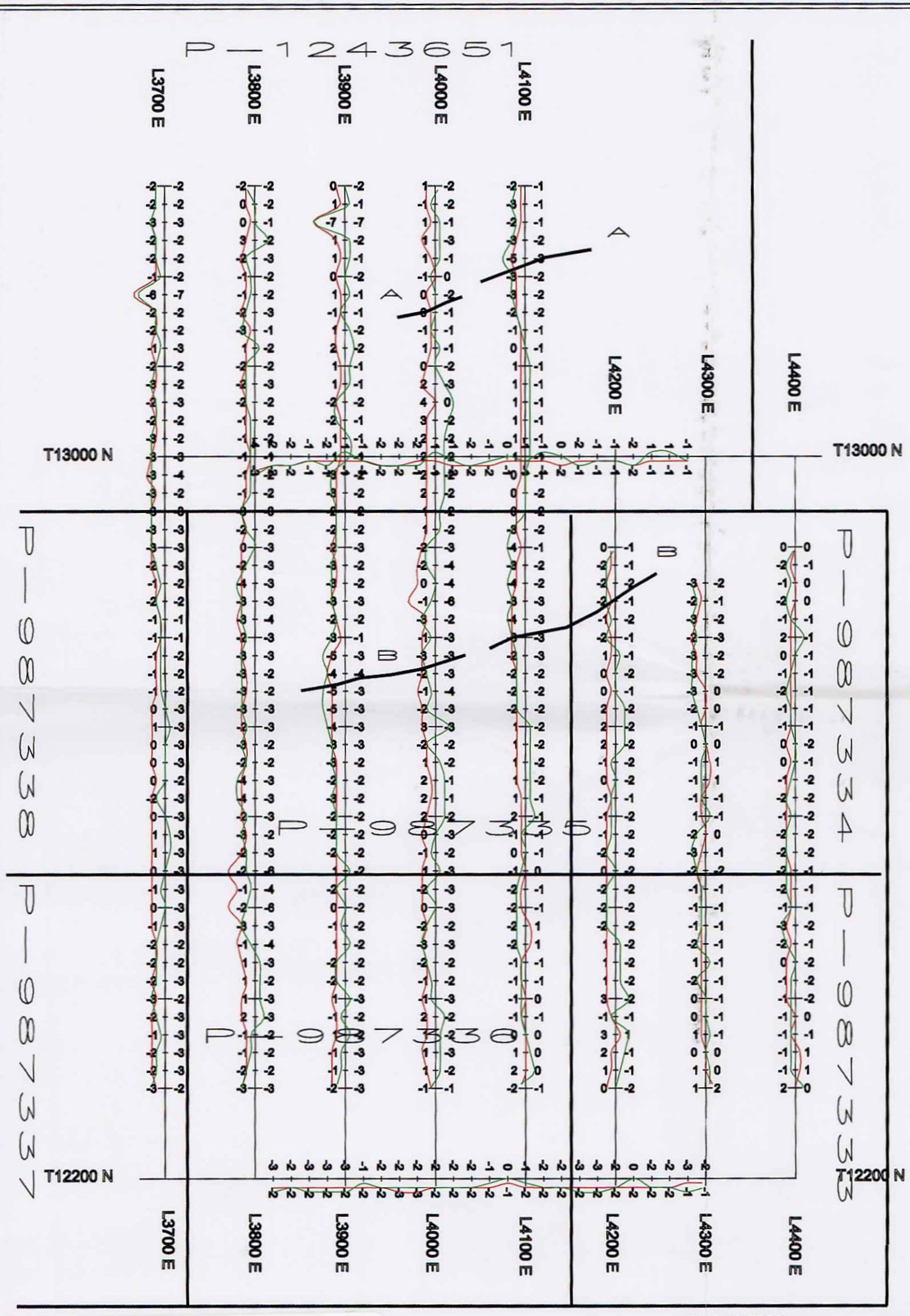
FALCONBRIDGE LIMITED

MAHAFFY 13 PROPERTY
MAHAFFY TOWNSHIP
TOTAL FIELD MAGNETIC PLAN MAP

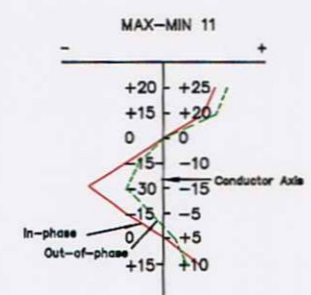
BASE REMOVED 57000 nT
December, 02

EXSICS EXPLORATION LIMITED





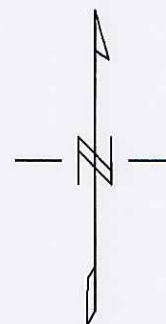
2.26079



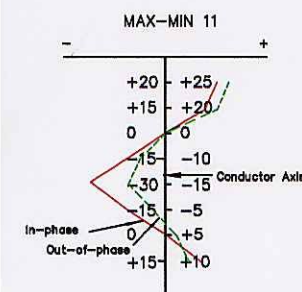
LEGEND
 Instrument: Apex Parametrics Max-Min 11
 Mode: Maximum Coupled, Horizontal Loop Survey
 Parameters Measured: Inphase (%)
 Out of phase (%)
 Frequency: 222 Hz
 Coil Separation: 200 meters
 Operator: Exsics Exploration Ltd.
 Profile Scale: 1cm = +/- 10%

FALCONBRIDGE LIMITED		
MAHAFFY 13 GRID/ MAHAFFY TOWNSHIP HLEM 222 HZ FREQUENCY PROFILE BASE MAP		
Scale: 1:5000	Profile Scale: 1cm = +/- 10%	December/2002
EXSICS EXPLORATION LIMITED		





2.26079

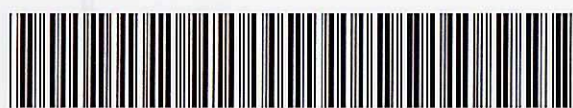
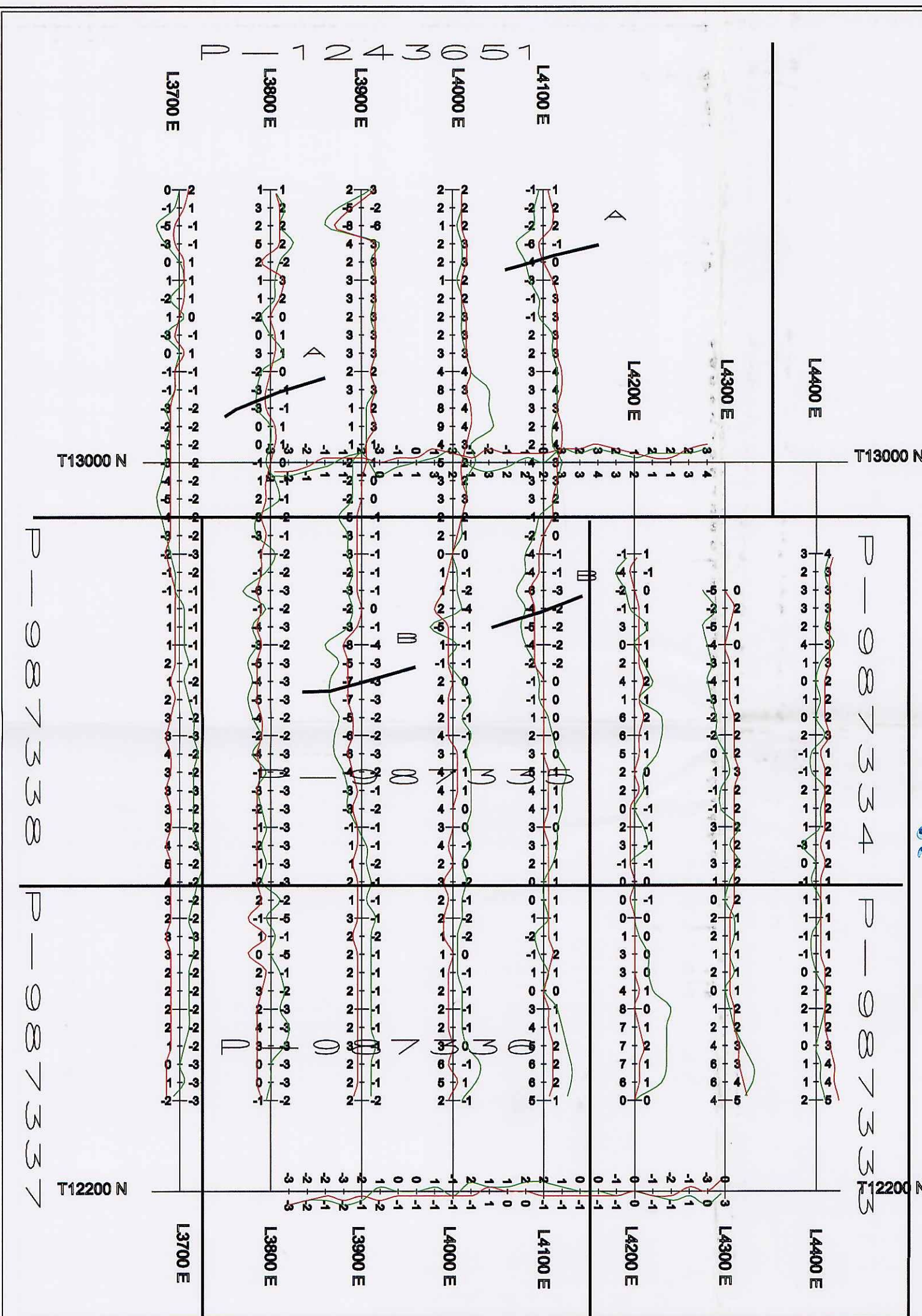


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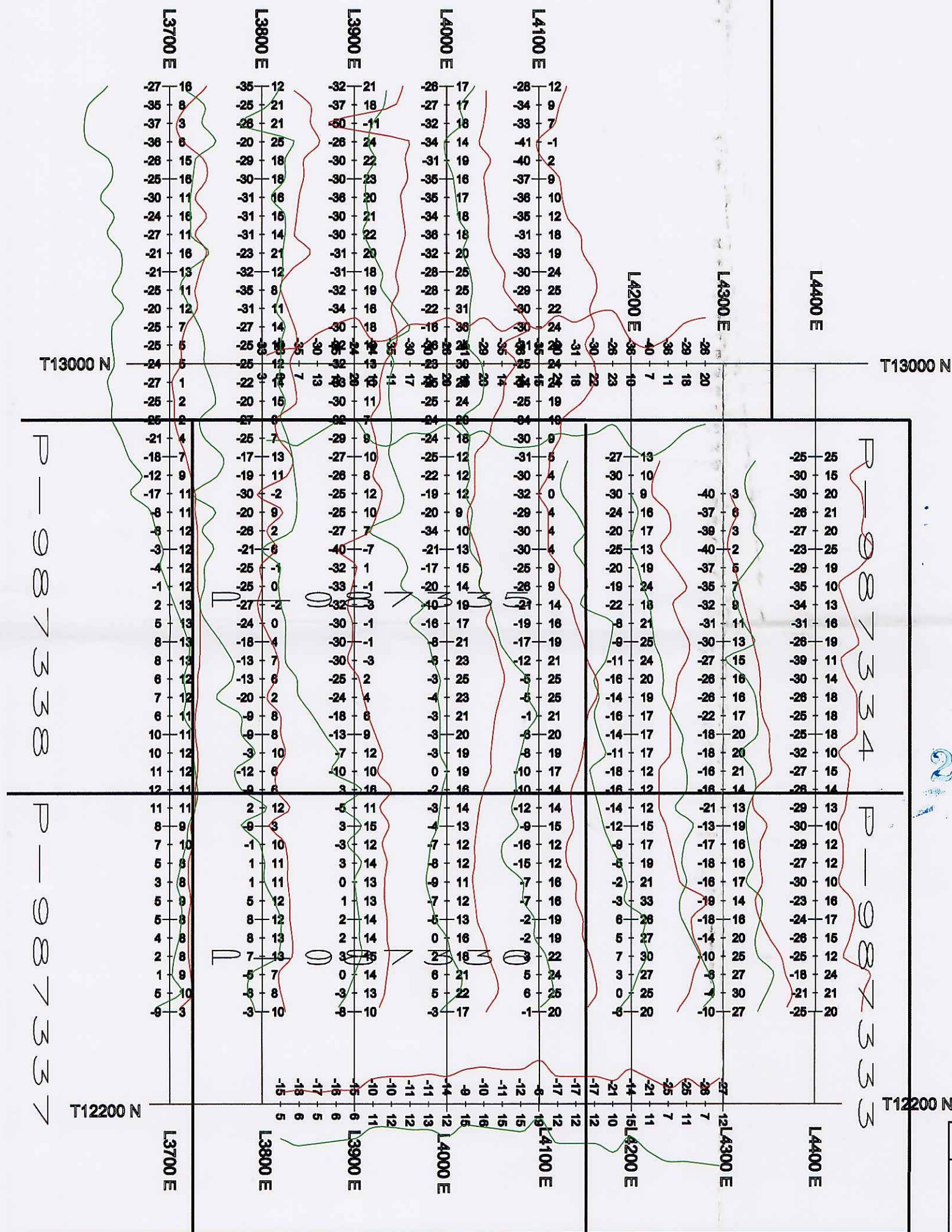
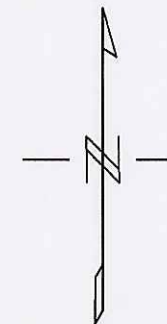
Instrument: Apex Parametrics Max-Min 11
 Mode: Maximum Coupled, Horizontal Loop Survey
 Parameters Measured: Inphase (%)
 Out of phase (%)

Frequency:
 Coil Separation:
 Operator:
 Profile Scale: 1cm=+/-20%

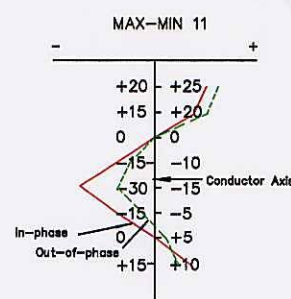
FALCONBRIDGE LIMITED		
MAHAFFY 13 GRID/ MAHAFFY TOWNSHIP HLEM 444 HZ FREQUENCY PROFILE BASE MAP		
Scale: 1:5000	Profile Scale: 1cm = +/- 10%	December/2002
EXSICS EXPLORATION LIMITED		



P - 1 2 4 3 6 5 1



2.26079



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

FALCONBRIDGE LIMITED
 MAHAFFY 13 GRID/ MAHAFFY TOWNSHIP
 HLEM 1777 HZ FREQUENCY
 PROFILE BASE MAP



Scale: 1:5000 Profile Scale: 1cm = +/- 20% December/2002
EXSICS EXPLORATION LIMITED

