


2-49252

DUPLICATE

GEOPHYSICAL REPORT  
FOR  
**MR. DOUGLAS LALONDE, MR. DENIS LAFOREST**  
ON THE  
**McCOOL EAST PROPERTY**  
McCOOL TOWNSHIP  
LARDER LAKE MINING DIVISION  
NORTHEASTERN, ONTARIO

RECEIVED  
AUG 18 2011  
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Prepared by: J. C. Grant,  
August 2011

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**INTRODUCTION:**

The services of Exsics Exploration Limited were retained by Mr. D. Lalonde AND Mr. D. LaForest to complete a detailed total field magnetic survey that was complete over a compass, paced and flagged grid that was done over a portion of their claim holdings in McCool Township located in the Larder Lake Mining Division in northeastern Ontario.

The grid was completed to keep the ground in good standing and to test the area for a geological horizon that would be considered as a favorable structure for gold and or base metal deposition.

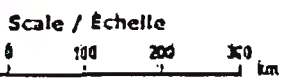
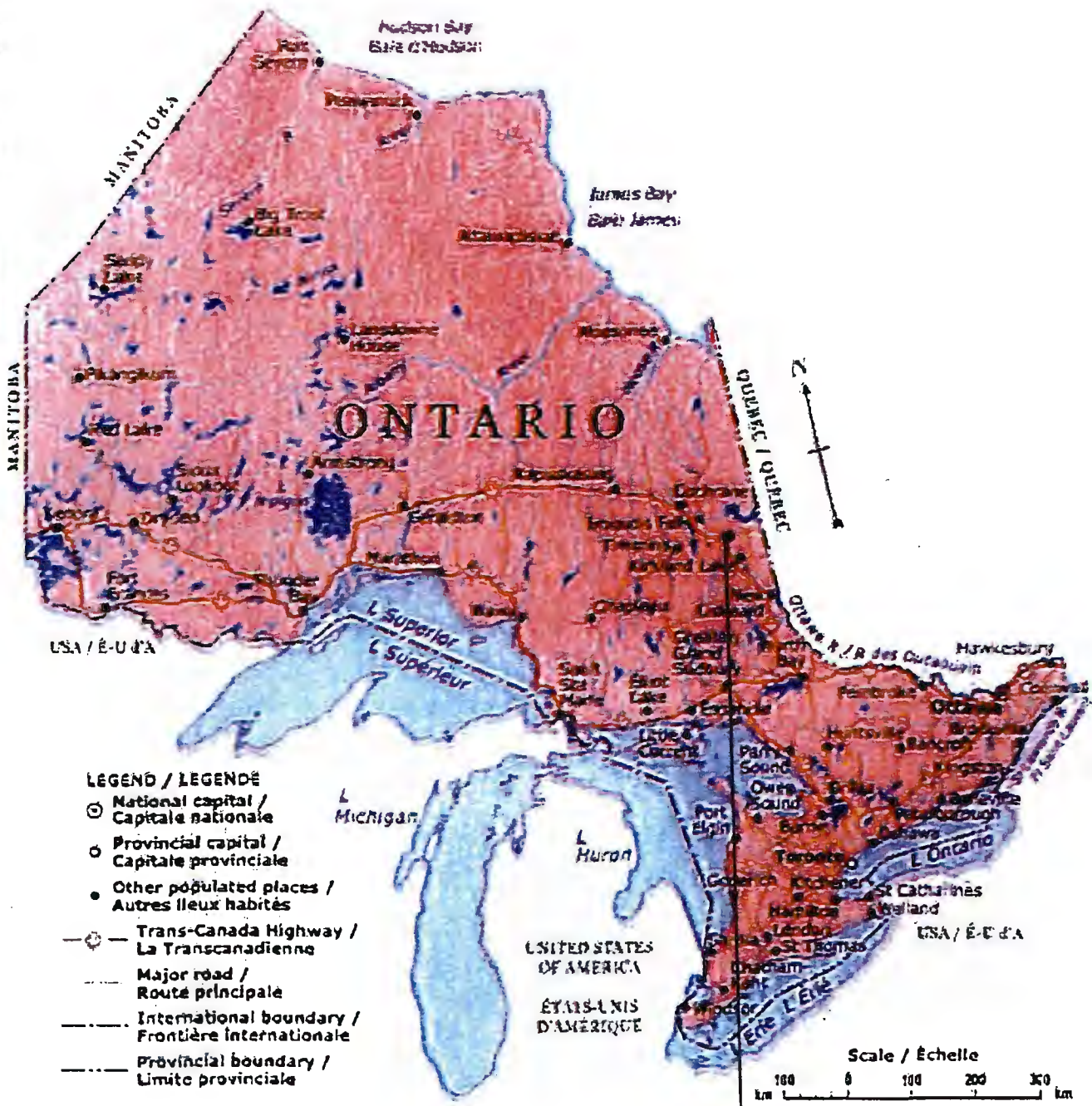
This claim block lies to the immediate east of a large ground position held by ZGold resources that is currently being covered by a total field magnetic survey that was done in conjunction with a VLF-EM survey and an IP survey. The ground has also been covered by a soil sampling program. A Drill program is also being conducted on the property.


**PROPERTY LOCATION AND ACCESS:**

The McCool Property is situated approximately 85 kilometers east of the City of Timmins and about 25 kilometers east of the Town of Matheson. The claim block is situated in the southeast and east central section of McCool Township such that the eastern boundary of the claim block represents the township line between McCool and the Lightning River Area and Garrison Township. One claim of the block lies in the northeast corner of Michaud Township. The entire block lies about 2.5 kilometers north of Highway 101 east and a gravel road running just to the west of the central west section of the claim block.

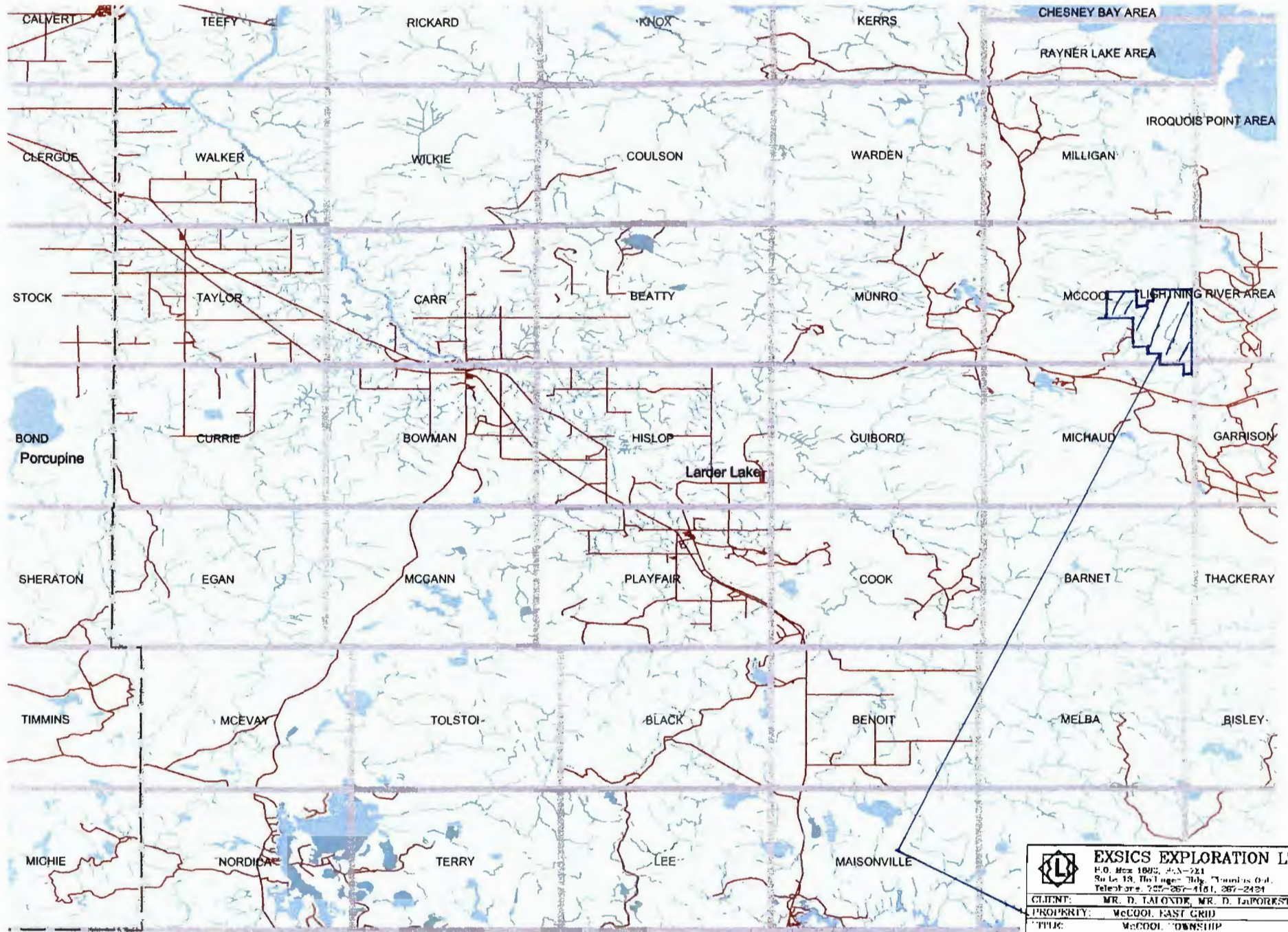
More specifically the claim block represents all of Lots 1 and 2 of Concessions 1, 2 and 3, the south quarter of Lot 11, Concession 3, the north half of Lot 3 Concession 1, all of Lots 3 of Concessions 2 and 3, the north halves of Lot 4 and 5 Concession 2, the south halves of Lots 4 and 5 Concession 3, all of Lot 6 Concession 3 and the east half of the north half of Lot 6 Concession 2 of McCool Township. One claim also represents the northwest quarter of the south half of Lot 6 Concession 2 of the Township. McCool and Michaud Townships are part of the Larder lake Mining Division in Northeastern, Ontario. Refer to figures 1 and 2 of this report.

Access to the grid during the survey period was ideal. Highway 101 east travels east from Matheson and crosses the junction of the highway and the gravel access road. This access road runs northeast off of the Highway and cuts into the western section of the claim block and grid area. Traveling time from Timmins to the grid is about 80 minutes.



 <b>EXSICS EXPLORATION LTD.</b> P.O. Box 1000, P4N-7X1 Suite 15, Hollinger Bldg, Timmins Ont. Telephone: 705-267-4161, 267-2424	
CLIENT:	MR. D. LALONDE, MR. D. LaFOREST
PROPERTY:	McCool, KASP & CO
TITLE:	McCOOL TOWNSHIP
<b>LOCATION MAP</b>	
Fig. 1	
Date: JULY 2011	Scale: 1:600,000 INTS.
Drawn: J.C. Grant	Interp: J.C. Grant / Job No.: DL-02





	<b>EXSICS EXPLORATION LTD.</b>	
	<small>P.O. Box 1025, P.A. 221          Route 18, The Village, Timmins Ont.          Telephone: 705-267-4181, 267-2424</small>	
CLIENT: MR. D. LAPOINTE, MR. D. LAPOINTE		
PROPERTY: MCCOOL EAST GRID		
TITLE: MCCOOL TOWNSHIP		
<b>PROPERTY LOCATION MAP</b>		
Fig. 2		
Date: JULY 2011	Scale: 1:100,000	N.T.S.
Drawn: J.C. Grant	In. charge: J.C. Grant, Job No. DL-02	

NAD 83  
5 degree grid

**CLAIM BLOCK:**

The claim numbers that make up the McCool East property are as follows;

4247012	1 unit	4247016	12 units
4247013	15 units	4247017	13 units
4247014	16 units	4247018	10 units
4247015	16 units	4247019	12 units
4247049	1 unit		

Refer to Figure 3 copied from MNDM Plan Map G-3674 of McCool Township and G-3682 of Michaud Township for the positioning of the grid and the claim numbers within the Township.

**PERSONNEL:**

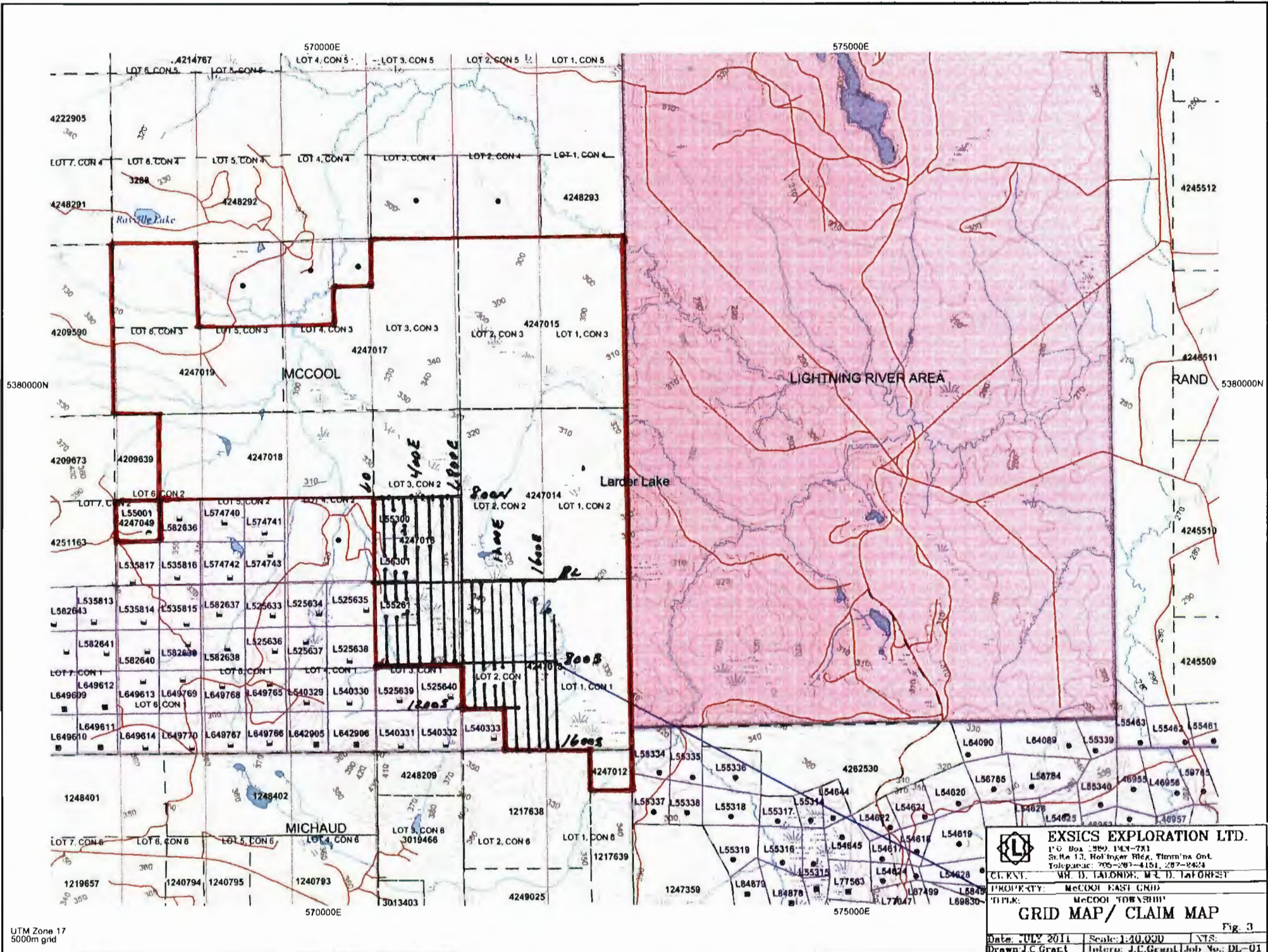
The field crew directly responsible for the collection of all of the raw data were R. Bradshaw and J. Francoeur of Timmins Ontario. The program was completed under the direct supervision of J.C. Grant and the plotting and interpretation with reports were completed by J. C. Grant of Exsics.

**GROUND PROGRAM:**

The ground program consisted of a detailed metric grid being compassed, paced and flagged across a portion of the claim block using the Envi Pro built in GPS unit for control of the grid. The grid was set up to cover a potential fault zone that was thought to cross cut the southern and central section of the grid area in a northwest to southeast direction. Line 0+00/ base line was established at a point that would coincide with the number one post of claim 525635 and it was compassed paced and flagged to line 1700ME. Cross lines were then turned off of this flagged line at 100 meter intervals from line 0+00 to 1700ME. Line 0 to line 700ME were compassed and flagged to 800MN and 800MS, line 800ME was flagged from 1200MS to 800MN, lines 900ME to 1100ME were flagged from the base line to 1200MS with the remaining lines being flagged from the base line to 1600MS. All of the flagged lines had station intervals of 25 meters. In all a total, of 34.0 kilometers of grid lines were flagged and then covered by the magnetic survey between July 20<sup>th</sup> and July 25<sup>th</sup> and August 1<sup>st</sup> to August 17<sup>th</sup> 2011.

The survey portion of the program was completed using the Scintrex ENVI Pro mag system. Specifications for this unit can be found as Appendix A of this report. The following parameters were kept constant throughout the survey.





UTM Zone 17  
5000m grid


	<b>EXSICS EXPLORATION LTD.</b> 110 Bona Vista Blvd, Timmins Ont. Telephone: 705-267-4151, 267-2453	
	CL. ENT. W.H. D. TAYLOR, M.E. D. LAFOREST PROPERTY: MCCOOL EAST GRID TITLE: MCCOOL "DOWNS"	
<b>GRID MAP / CLAIM MAP</b>		
Date: JULY 2011	Scale: 1:40,000	NTS
Drawn: J.C. Grant	Interp: J.C. Grant	Job No: DL-01

Fig. 3

**MAGNETIC SURVEY:**

Line spacing	100 meters
Station spacing	25 meters
Reading intervals	12.5 meters
Diurnal monitoring	base station recorder
Record interval	30 seconds
Reference field	57000 nT
Datum subtracted	56400 nT

Once the surveys were completed the collected magnetic data was merged with the base station data, corrected and then plotted onto a base map at a scale of 1:5000. A datum of 56400nT has been removed from the readings for ease in plotting only. The plotted results were then contoured at 20 gamma intervals wherever possible. A copy of this colored contoured map is included in the back pocket of this report.

**MAGNETIC SURVEY RESULTS:**

The claim block is generally underlain by mafic flows that in turn have been cross cut by two northwest-southeast bands of ultramafic intrusives that come into the southeast corner of McCool Township. The southern ultramafic band is fault controlled and lies along the northern edge of the fault. Both of the intrusives have been cross cut by several shear zones that strike northeast.

The magnetic survey outlined one strong narrow northwest striking magnetic high that cuts across the grid from the south end of line 1700ME to 200MS on 400ME where it then seems to have been faulted and or sheared to the southwest and continues across the remaining lines and off of the grid to the southwest. This high in turn has been cross cut by two shear zones that strike northeast across the structure. These shears have off set and or faulted the main northwest structure and are represented by moderate magnetic lows.

A second high is pushing into the grid from the east and can be seen on lines 1700ME and 1600ME at 400MS. The northwest extension of this feature may be showing at the northern ends of lines 500ME to 800ME.

Several moderate highs were also seen striking across lines 1300ME to 1100ME at 300MS and again across lines 900ME to 700ME at 100MS to the base line. This may represent a narrow band of intrusives emanating from the southern zone.

There also appears to be a major cross structure striking into the grid from the southwest that can be followed from line 0 at the base line to line 700ME at the northern tip. The unit is represented by a good magnetic low that has off set and faulted the main magnetic high unit representing the ultramafic intrusive.

A second cross fault and or shear zone may be striking southeast off of the main fault and it can be followed from line 400ME at 600MN to at least the base line on line 700ME. It may continue across the grid in a southeast direction to line 1600ME at 600MS and continue off of the grid to the southeast.



The magnetic high striking off of the grid on line 0+00 between 200Mn and 400MN may represent the northwest extension of the ultramafic unit coming into the grid from the southeast.

**CONCLUSIONS AND RECOMMENDATIONS:**

The ground survey returned the expected geological characteristics of the grid area. The contact between the mafics and intrusive is well defined in the magnetic survey as are at least two northeast striking shears that cross cut the main intrusive. The two directional fault structures that have off set the intrusive would be an ideal area for further ground follow up as it may represent an ideal trap zone for gold deposition.

A follow up survey of soil sampling and or IP surveys should be considered to follow up the two narrow highs. A Drill program would then be based on the results of the follow up program.

Respectfully submitted



J. C. Grant  
August 2011.

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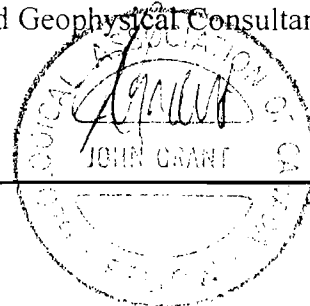
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CERTIFICATION

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 a 3 year Honors Diploma in Geological and Geophysical Technology.
- 2). I have worked subsequently as an Exploration Geophysicist for Teck Exploration Limited, (5 years, 1975 to 1980), and currently as Exploration Manager and Chief Geophysicist for Exsics Exploration Limited, since May, 1980.
- 3). I am a member in good standing of the Certified Engineering Technologist Association, (CET), since 1984.
- 4). I am in good standing as a Fellow of the Geological Association of Canada, (FGAC), since 1986.
- 5). I have been actively engaged in my profession since the 15<sup>th</sup> day of May, 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 nor do I expect to receive any such interest in the herein described property. I have been retained by the property holders and or their Agents as a Geological and Geophysical Consultant and Contract Manager.

John Charles Grant, CET., FGAC.



APPENDIX A



# 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.

#### True 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 reading 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.

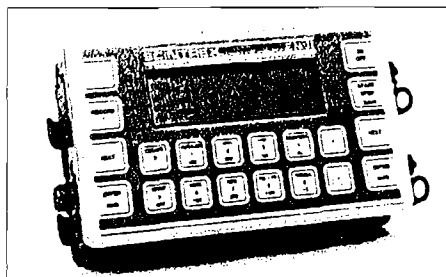


*ENVI-MAG Proton Magnetometer in operation*

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 Menus

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

#### Tuning

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 (1/2m) staff extender and processor module

#### "WALKMAG" Mode

0.5 second for walking surveys variable rates for hilly terrain

#### Digital Display

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

#### Display Heater

Thermostatically controlled for cold weather operations

#### Keyboard Input

17 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)



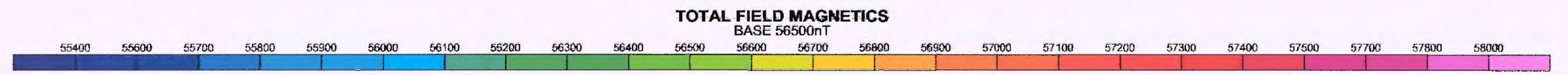
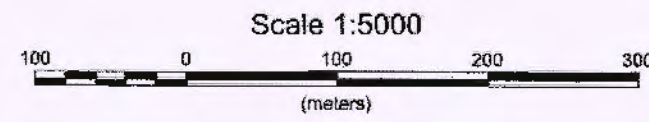
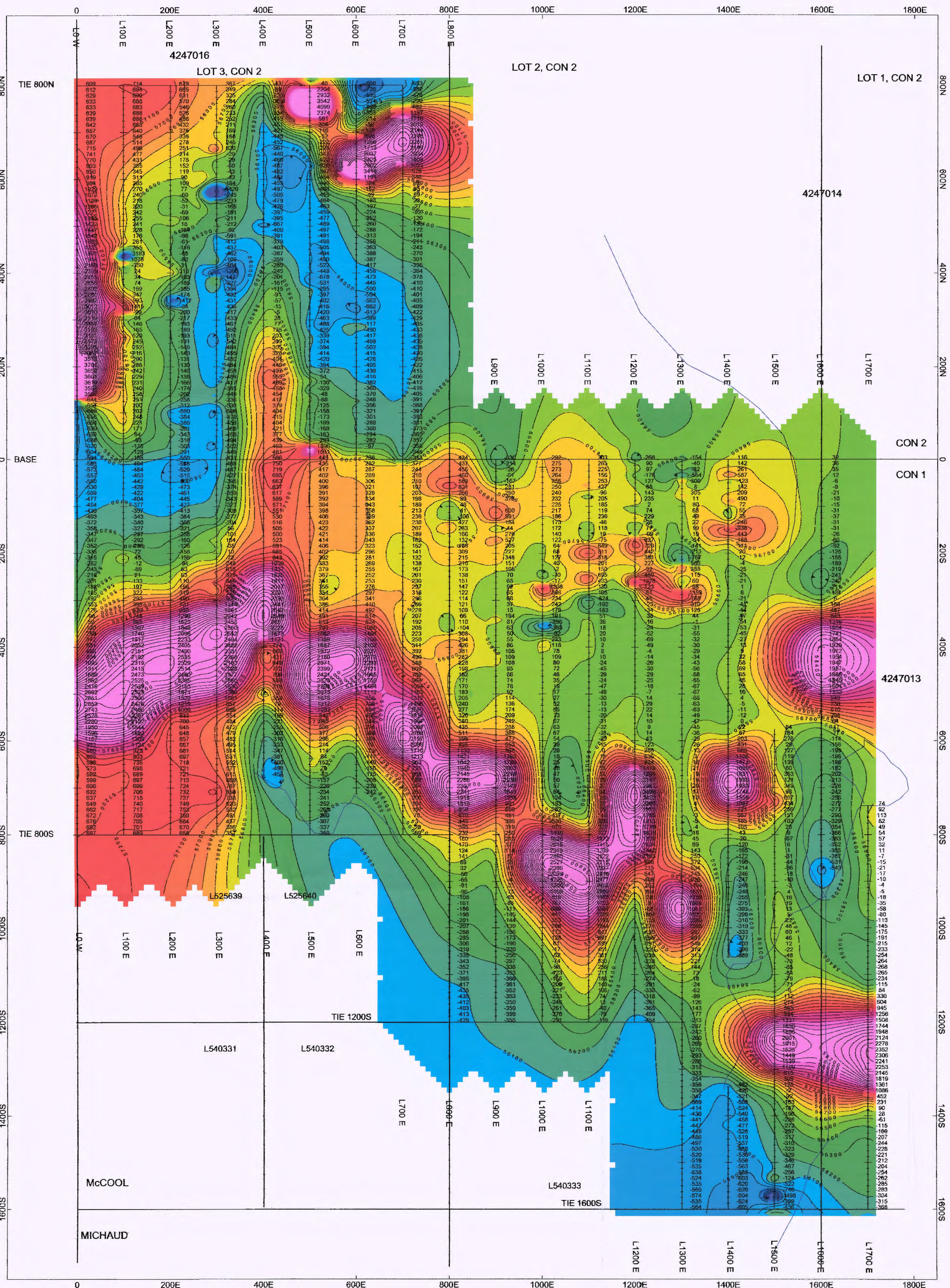
#### Head Office

222 Snidercroft Road  
Concord, Ontario, Canada L4K 1B5  
Telephone (905) 669-2280  
Fax: (905) 669-6403 or 669-5132  
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





MR. D. LALONDE MR. D. LAFOREST  
McCOOL EAST GRID McCOOL TOWNSHIP  
TOTAL FIELD MAGNETIC SURVEY  
SCINTREX ENVI PRO SYSTEM  
CONTOURED: 100nT  
AUGUST 2011 EXSICS EXPLORATION LIMITED

TOTAL FIELD MAGNETICS  
BASE 56500nT