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2.19181

GEIKIE

010

OPAP SUMMARY REPORT
ON THE
LINECUTTING AND GEOPHYSICAL PROGRAM
FOR
JOHN GRANT/YVON COLLIN
ON THE
GEIKIE PROJECT
GEIKIE TOWNSHIP
PORCUPINE MINING DIVISION
TIMMINS, ONTARIO
OP-98-122, P-98-123

2.19181

Prepared by: J.C. Grant, CET, FGAC
Timmins, Ontario
November, 1998

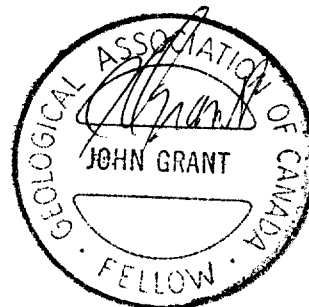




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 BASE MAP, FRASER FILTER OF VLF SURVEY
 BASE MAP, GEOLOGICAL SURVEY

INSERT MAP.....COLOUR MAGNETIC MAP, 8 1/2 X 11.

This report was prepared for the purpose of:

- 1). Satisfying all OPAP regulations and requirements.
- 2). Highlighting the geological and geophysical settings of the claim block.
- 3). Determining if the geophysical results outlined favourable geological horizons suitable for base metal deposition.
- 4). Determining if the property should be retained for further follow-up work.

The sources of information contained within this report were gleaned from the assessment files of the MNDM as well as the geological and geophysical data on and surrounding this claim block. Additional information was also gathered from the 1998 field program.

PROPERTYLOCATION AND DESCRIPTION:

The property, called the Geikie Project, is comprised of 2 claim blocks totalling 19 claim units all of which are located in the northwest corner of Geikie Township and to the immediate west of the Redstone River. The Township of Geikie is situated in the Porcupine Mining Division, District of Cochrane, Timmins, Ontario. Figures 1 and 2.

The claim numbers that make up the Geikie Project are as follows:

<u>CLAIM NUMBER</u>	<u>NUMBER OF UNITS</u>	<u>APPROXIMATE ACREAGE</u>
P-1227771	12	480
P-1227842	7	290

Refer to figure 3, copied from MNDM Plan Map of Geikie Township, Plan # M-320

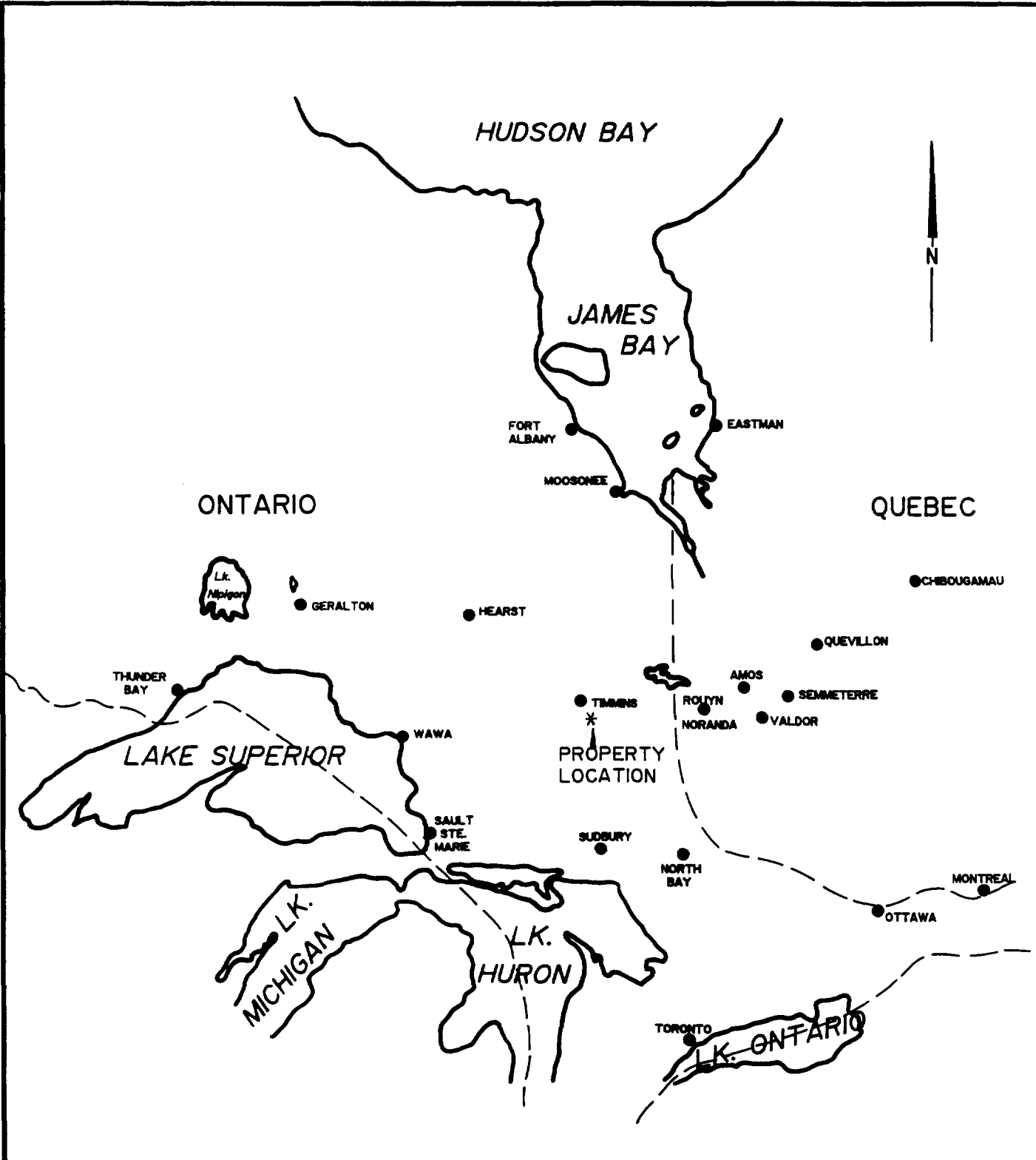
ACCESS, CLIMATE, LOCAL RESOURCES:


The access to the grid is somewhat involved. A good gravel road locally called the Pine Street south road travels south from the City of Timmins and provides two wheel drive access to the Village of Matachewan to the southeast. This good gravel road passes to the west and southwest of the Geikie Project as well as a secondary ingress road that was once the Texmont access road to the mine site. The Texmont mine site is about 600 meters southwest of the southwest corner of the Geikie project block of claims. This ingress road is overgrown with heavy tag alders and is wash out in one place due to beaver dams. The washout is not passable with 4x4 vehicles and an ATV was used to access the claim block once the washout was repaired and the road was brushed out. A second ATV overgrown road run southeast off of the Texmont gravel road and this provides further ATV access to the OPAP claim block and it stops at the Redstone River.

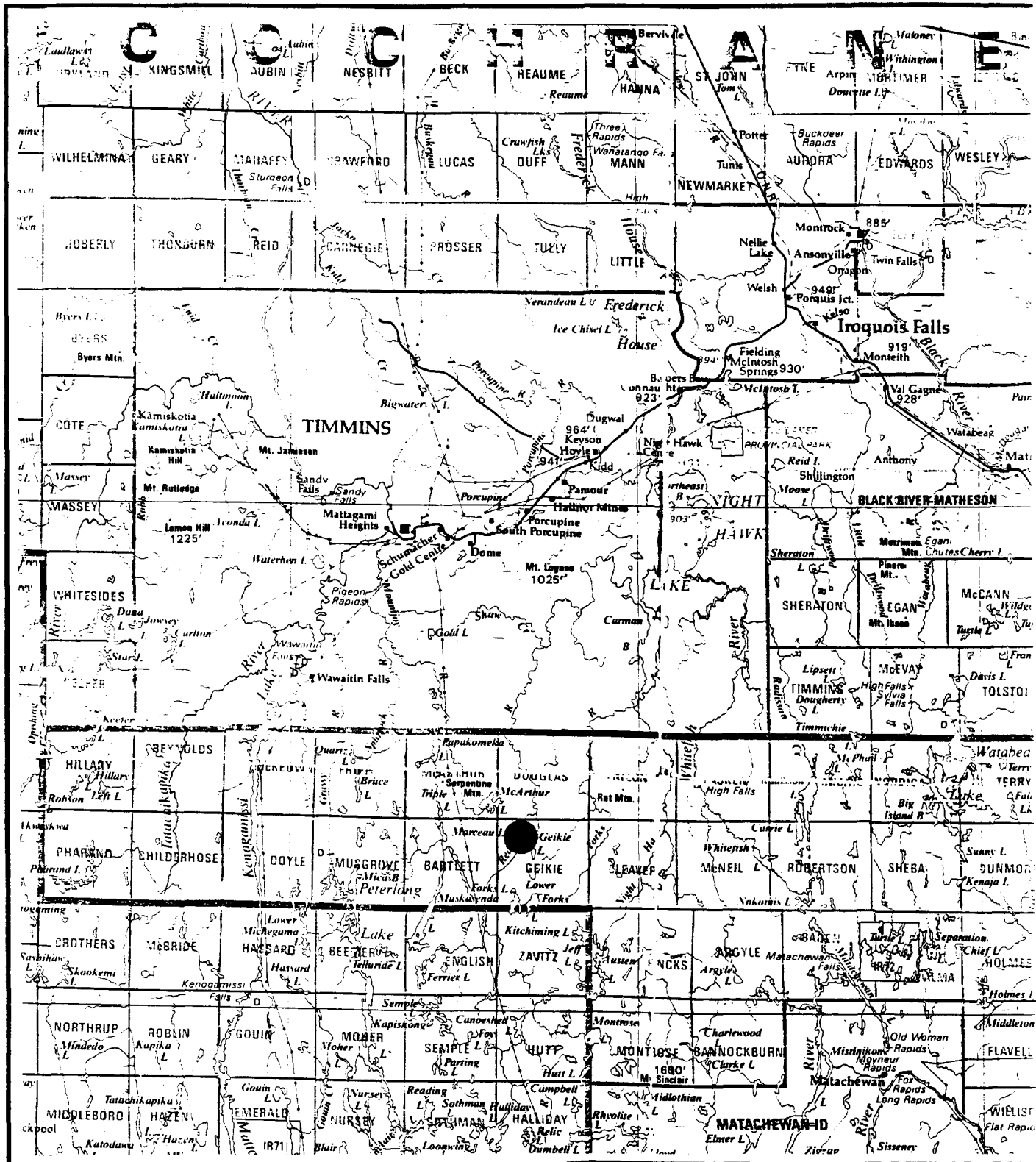
Travelling time from Timmins to the claim block is about 70 minutes or approximately 48 kilometres, one way.

Climate conditions are generally typical for this part of Northeastern, Ontario. The temperature can range from -40 degrees to +35 degrees celsius over a 12 month period.

Water resources are situated about 200 meters east of the eastern claim boundary and is represented by the Redstone River which offers an abundant and constant supply. refer to figure 3.

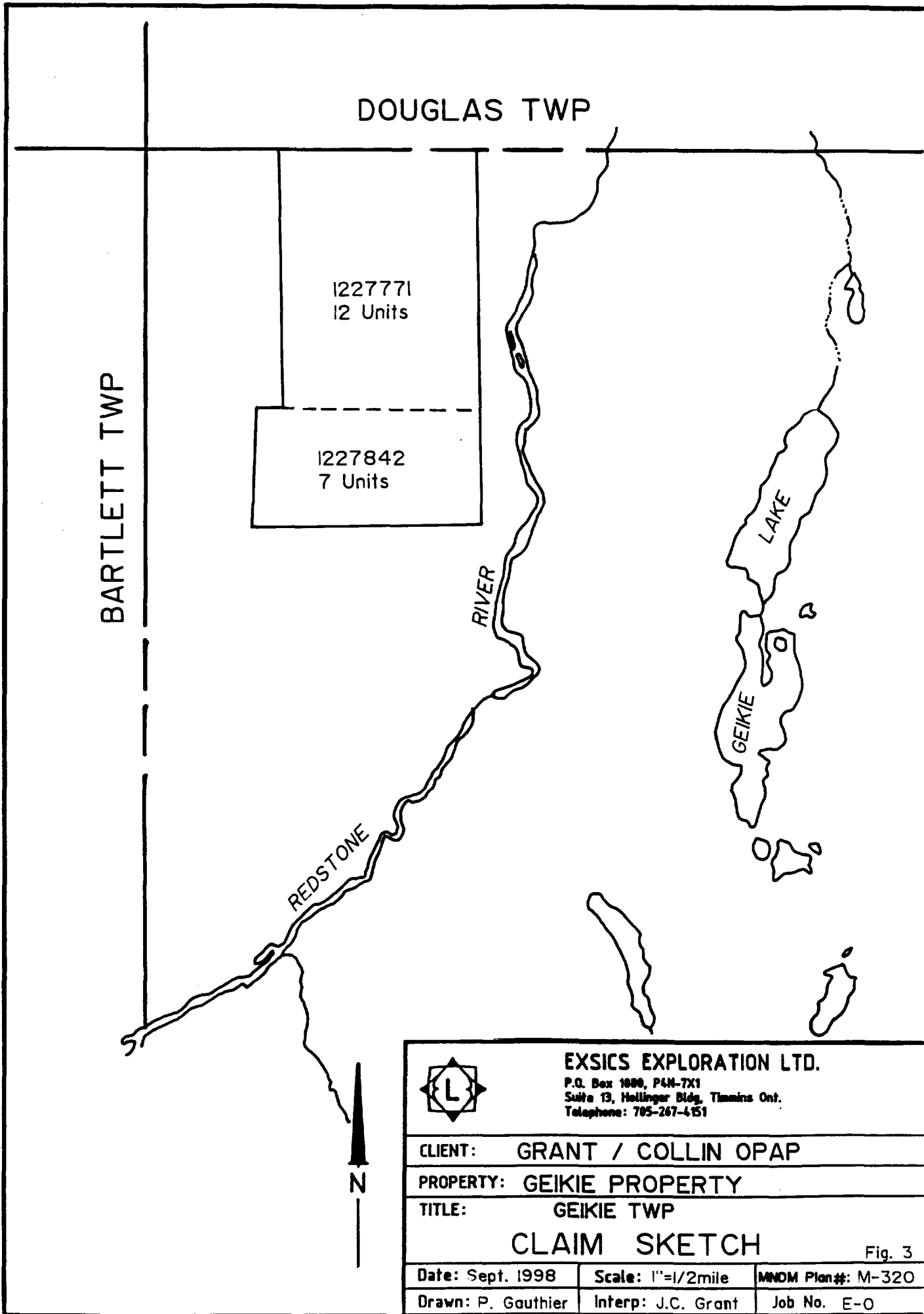


		
EXSICS EXPLORATION LTD. P.O. Box 1808, P4N-7X1 Suite 13, Hollinger Bldg, Timmins Ont. Telephone: 705-267-4151		
CLIENT: GRANT / COLLIN OPAP		
PROPERTY: GEIKIE PROPERTY		
TITLE: GEIKIE TWP LOCATION MAP		
Fig. 1		
Date: Sept. 1998	Scale: 1"=125miles	MNDM Plan#:
Drawn: P. Gauthier	Interp: J.C. Grant	Job No. E-0



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CLIENT: GRANT / COLLIN OPAP		
PROPERTY: GEIKIE PROPERTY		
TITLE: GEIKIE TWP		
PROPERTY LOCATION Fig. 2		
Date: Sept. 1998	Scale: 1:600,000	MNDM Plan#:
Drawn:	Interd: J.C. Grant	Job No. E-0



DOUGLAS TWP

BARTLETT TWP

1227771
12 Units

1227842
7 Units

RIVER

REDSTONE

LAKE

GEIKIE



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CLIENT: GRANT / COLLIN OPAP

PROPERTY: GEIKIE PROPERTY

TITLE: GEIKIE TWP

CLAIM SKETCH

Fig. 3

Date: Sept. 1998

Scale: 1"=1/2mile

MNDM Plan#: M-320

Drawn: P. Gauthier

Interp: J.C. Grant

Job No. E-0

REGIONAL GEOLOGY

The geology of the Timmins area consists predominantly of Precambrian metavolcanics and metasediments. The precambrian rocks were later covered partially by unconsolidated Cenozoic deposits. Figure 4. The precambrian rocks represent a 40,000 foot thick sequence of lower to middle greenschist facies volcanics and sediments that are divided into three groups.

From the oldest to the youngest the three groups are known as the Deloro, Tisdale and Porcupine groups.

The Deloro group is a 16,000 foot thick sequence composed of basal ultramafics, andesites and basalt flows followed by dacite flows, calc-alkaline rhyolites and dacite pyroclastic rocks and oxide to sulphide facies iron formations.

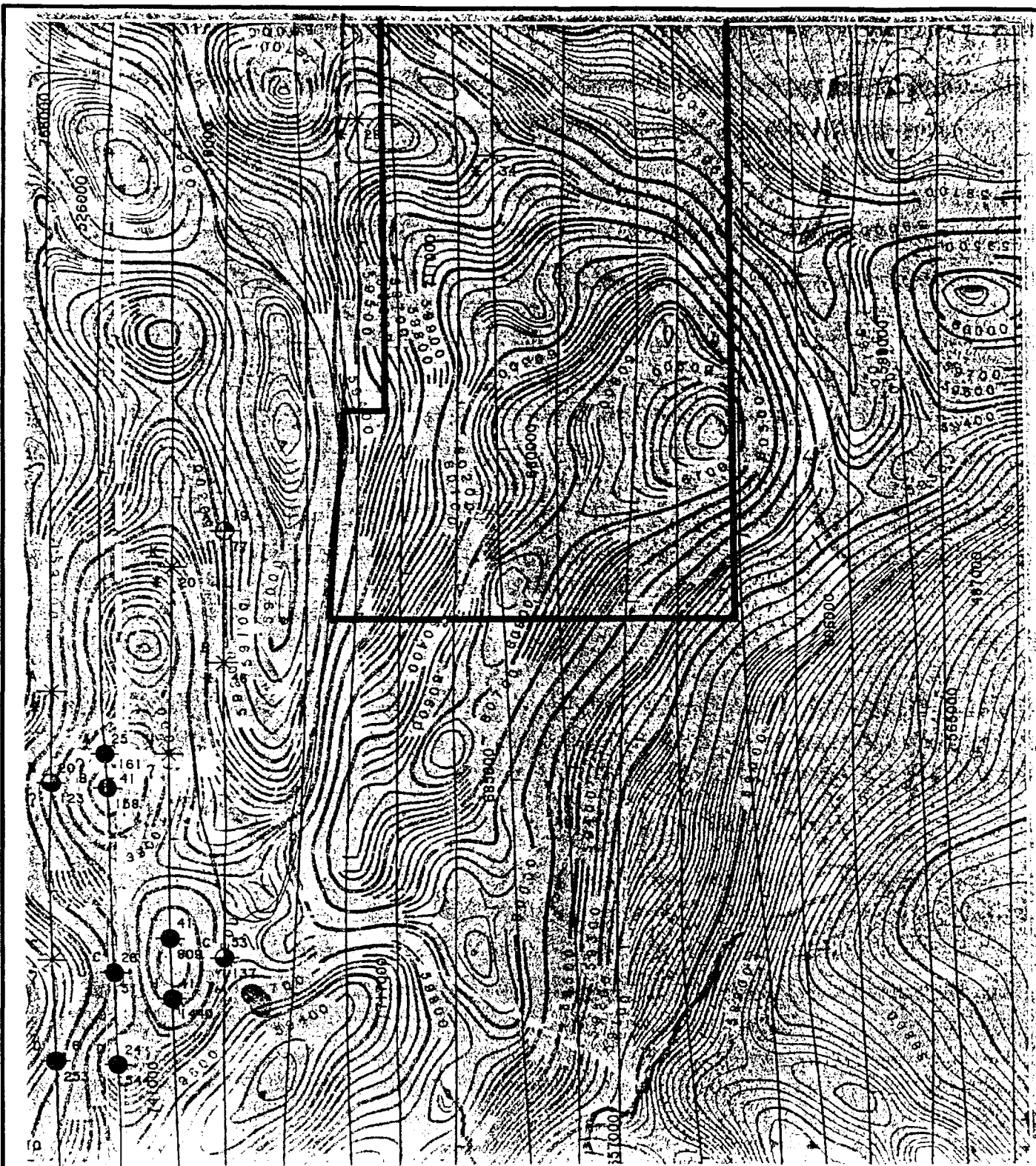
The Tisdale group is a 14,000 foot thick sequence composed of basal ultramafic volcanics and komatiites followed by tholeiitic basalts and calc-alkaline pyroclastic rocks.

The Porcupine group is a 10,000 foot thick sequence composed of interlayered wacke, siltstone and conglomerates.

The rocks of the Timmins area were then intruded by sill-like bodies and dikes composed of felsic to mafic components.

Stratigraphic displacement of rock types range from tens of feet to thousands of feet. The most prominent and prolific fault in the area is known as the Destor-Porcupine Fault. This major structural break trends generally northeast, dips steeply north and has a width in excess of 400 feet. Other younger fault systems traversing the area are known as the Montreal River Fault and the Burrows Benedict Fault.

Structurally, the area lies within the Superior Province of the Canadian Shield. North of the Destor-Porcupine fault, 2 major series of deformational-metamorphic events altered the rocks in the region; initial northtrending series of folds were subsequently refolded about an east-northeast trending series of folds. South of the Destor-Porcupine, an east-west trending series of folds produced a major structural domain known as the Shaw Dome.



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CLIENT: GRANT / COLLIN OPAP

PROPERTY: GEIKIE PROPERTY

TITLE: GEIKIE TWP Fig. 4

AIRBORNE ELECTROMAGNETIC MAP

Date: Sept. 1998

Scale: 1:20,000

MNDM Plan#:

Drawn:

Interp: J.C. Grant

Job No. E-0

LOCAL GEOLOGY:

The property lies to the southeast of the major structural domain known as the Shaw Dome. The general area of the project is underlain by Keewatin type volcanics and vary in composition from acidic to basic. Interbedded with these volcanics are gneisses and tuffaceous rocks with the majority of the host rock intruded by ultrabasic rocks, gabbroic and dioritic in composition. It was also thought that generally the northern section of the block was underlain by a felsic unit which was in contact with the ultramafic intrusive which in turn was in contact with the intermediate to metavolcanic unit over the central and southern portion of the claim block.

The geology tends to strike north-south to northeast-southwest with the contacts striking northwest to generally south.

HISTORY OF THE CLAIM GROUP.

The area has seen exploration activity since pentlandite was first discovered by Dominion Gulf Company in 1951. This company had originally staked the ground as an asbestos project. After an extensive exploration program and the drilling of 6,231 feet from 23 drill holes, the property was purchased by Fatima Mining Company in 1957. Fatima completed an additional 27,000 feet of drilling and sunk a 3 compartment shaft by 1959. This shaft was sunk to the 790 foot level with stations established at the 150, 300, 450, 600 and 742 levels.

In 1964 Fatima was renamed Texmont Mines Limited and this company went into partnership with Canadian Nickel Company, part of INCO who then completed an additional 74 holes.

In 1970, Texmont leased the property to Sheridan Geophysics Limited who retains ownership of the property to this present date.

In 1965, the OPAP applicants property was covered by a magnetic survey and an vertical loop survey by Texmont. There did not appear to be an adequate follow-up phase to this ground program except for one hole to test one of the vertical loop anomalies but the hole did not appear to go deep enough to reach or explain the anomaly. The vertical loop survey outlined four conductive zones of which at least three were recommended for follow-up drilling, none was ever done or recorded.

The ground did not appear to have had any further geophysical work done on it since the 1965 program. In 1989, the area was covered by a more recent and up to date government airborne survey which resulted in two weak questionable conductors being outlined on the northern section of the claim block. The magnetic contours suggest and underlying north-northeast strike to the geology.

In the summer of 1998, the OPAP applicants staked the ground with the intent of completing a detailed ground magnetic and VLF-EM program across the claims with the hopes of outlining a favourable horizon for base metal deposition.

OPAP PROGRAM

PURPOSE:

The purpose of the 1998 program was to first cover the entire claim block completely from boundary to boundary with the magnetic and VLF-EM surveys. This was intended to highlight conductive zones which, upon interpretation, interest Juniors and Majors in optioning the claim group and bring the ground to the drilling stage. Both of these survey methods are excellent tools for mapping the stratigraphy of the buried geology as well as they are effective surveys for outlining conductive zones.

The main objective of the surveys was to outline the ultrabasic unit which was considered the horizon that could host the base metal potential.

The ground to the southwest had just been surveyed by a Major company and their initial results were encouraging.

GROUND PROGRAM

The first phase of the ground program was to cover the entire claim block with a detailed compass and flagged grid. This was done by brushing out the western claim boundary and chaining it with 25 meter pickets and flags. The entire claim boundary was then flagged to act as a guide for controlling the cross lines. These cross lines were then turned off of this control line at 100 meter intervals and they were flagged with 25 meter intervals to the eastern boundary of the claim block. All of these flags were marked with their appropriate station and line number.

A total of 35.2 kilometres of flagged lines were established across the property including the flagging of the claim's north and south boundaries and a total of 32.8 kilometres of grid were covered by the magnetic and VLF surveys.

Upon completion of the grid layout, the applicants then completed a detailed mapping program across all of the lines that had been flagged which totalled 32.8 kilometres.

GEOLOGICAL SURVEY RESULTS:

The geological survey suggests that the underlying geology is composed of felsics to intermediate-mafic metavolcanics from north to south which were then intruded by ultramafic volcanics which cover most of the central and southeast section of the grid. The southwestern section of the grid consists of felsics to intermediate-mafics volcanics that appear or have been interpreted to push into the ultramafics or that the ultramafics flowed around the to rock types.

The geology survey was also successful in outlining a series of north-northwest striking faults and or shears that appear to have been offset by the interpreted geological contacts. One such fault can be traced from line 0+00 to 500MS where it seems to have been offset to the west and south. The structure then appears to continue in a southeast direction from line 800MS to 2100MS with a slight bulging on lines 1600MS or 1700MS which may have been cause by the suspected geological contact.

A second fault and or shear zone is evident striking west and parallel to the main zone. This fault extends from line 1000MS to 1500MS. This structure may extend as far as line 1700MS and actually represent a splay off of the main zone.

There was an abundance of outcrops scattered across the grid which helped in when interpreting the approximate contacts between the geological units. The magnetic survey was also used in the location of the geological contacts.

GEOPHYSICAL SURVEY RESULTS:

The VLF-EM survey was also successful in locating and outlining a number of conductive zones across the grid. The VLF zones all generally strike north to slightly northwest and at this writing, they probably represent a combination of shear, faults, geological contacts as well as a number of topographical features.

In some cases, the VLF zones have been offset and or terminated by what has been interpreted as a geological contact. This may suggest that some of the contact zones may also represent faults and or shear zones.

There are at least 4 main conductive zones as well as a number of smaller zones and each will be discussed separately and in detail further along in this text.

The first VLF zone strikes north to south across lines 1700MS and 2000MS at 175MW. The northern portion of the zone does not have any definite magnetic association. However, the southern portion strikes into a magnetic low. At this writing, the zone is open to the north and crosses outcrop.

There is a second VLF trend striking across lines 2200MS to 2300MS at about 50MW which continues off of the grid to the south. This zone, in fact, may be the southern extension of the above mentioned zone which has been faulted to the south and east. The zone lies within a spruce swamp area.

The third VLF zone is a major structural trend that strikes north-northwest across the grid from line 2300MS to 200MS where it appears to have been cut off by a geological contact. The strike of the zone has been altered a number of times due to possible fault and or shear controlled contacts. The zone has good strong magnetic association with it's southern extension and central south extension but spotty highs and lows with it's central and northern extensions. The zones appears to correlate to a swamp to outcrop contact along it's entire strike length.

Another VLF trend strikes across lines 1900MS to 1600MS just to the east and parallel to the above mentioned major zone. This feature has a good magnetic high association with it's entire strike length and also has associated outcroppings along most of it's strike length.

There is another major structural trend striking from line 2200MS to 350MS where it terminates up next to one of the interpreted geological contacts. This zone closely parallels the major trend to the west. The zone has good magnetic association on it's southern extension but generally grades into a magnetic low on it's central and northern extension. The zone crosses outcropping along it's entire strike length.

Another VLF zone strikes from line 1600MS to 1000MS at about 550ME. The zone generally follows along the west flank of a good magnetic high unit. It also appears to be cut off or terminate next to an assumed geological contact on it's southern tip. The split in the northern tip may have been caused by the interpreted fault zone cutting across the grid lines in the same area.

Another VLF zone can be followed from line 2000MS to 1200MS where it appears to have split into two short parallel zones. This zone also has a good magnetic association, albeit quite spotty at times. The northern section seems to have been interrupted by a cross fault which has split the zone into two parallel zones, the western one paralleling the suspected fault. There is some outcrop exposure on the northern section of the zone.

Another VLF target was observed striking into the grid from the south and it crosses lines 2300MS to 1800MS at about 900ME.

This zone has good magnetic association and lies to the immediate west of a suspected fault and or shear like structure. The northern section of the zone seems to follow the strike of the cross structure. The zone has outcrop exposure on it's northern section.

A short VLF zone is observed striking across lines 2300MS to 2100MS paralleling to the east of the above mentioned feature. This zone is somewhat spotty and does not appear to have any magnetic correlation. The zone is on strike with a suspected cross fault and or shear zone.

Another major VLF structure is evident striking north-northwest across lines 1700MS to 1000MS where it appears to split into two parallel zones. The western section of this zone seems to parallel the suspected fault zone were as the eastern section continues to the north and seems to parallel another fault zone that was interpreted to strike north across lines 600MS to 0+00 and on off of the grid. The zone has a spotty magnetic correlation with it's entire strike length.

The last VLF zone strikes north across lines 1500MS to 500MS at about 100ME. It appears to have been offset slightly by one of the interpreted contacts. Again the zone has a spotty magnetic high association with most of it's strike length. There is some outcrop exposure with the center of the zone.

A last further note is that the cause of the low magnetic readings in the center of line 2000MS were not readily apparent in the field.

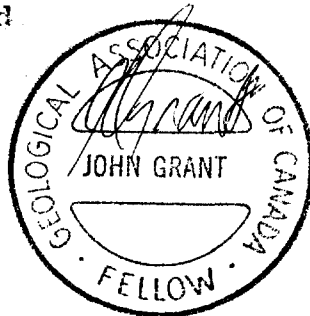
CONCLUSIONS AND RECOMMENDATIONS:

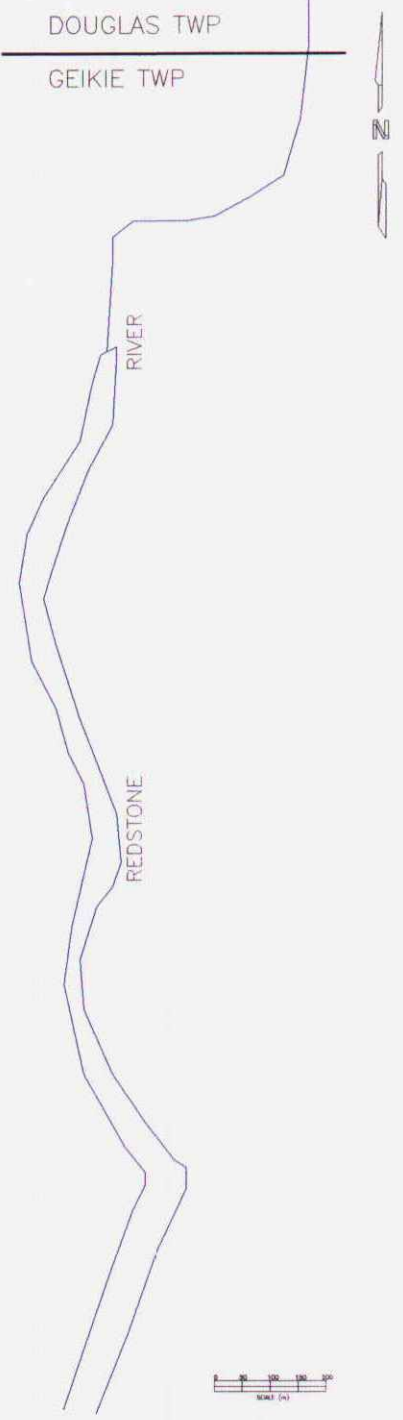
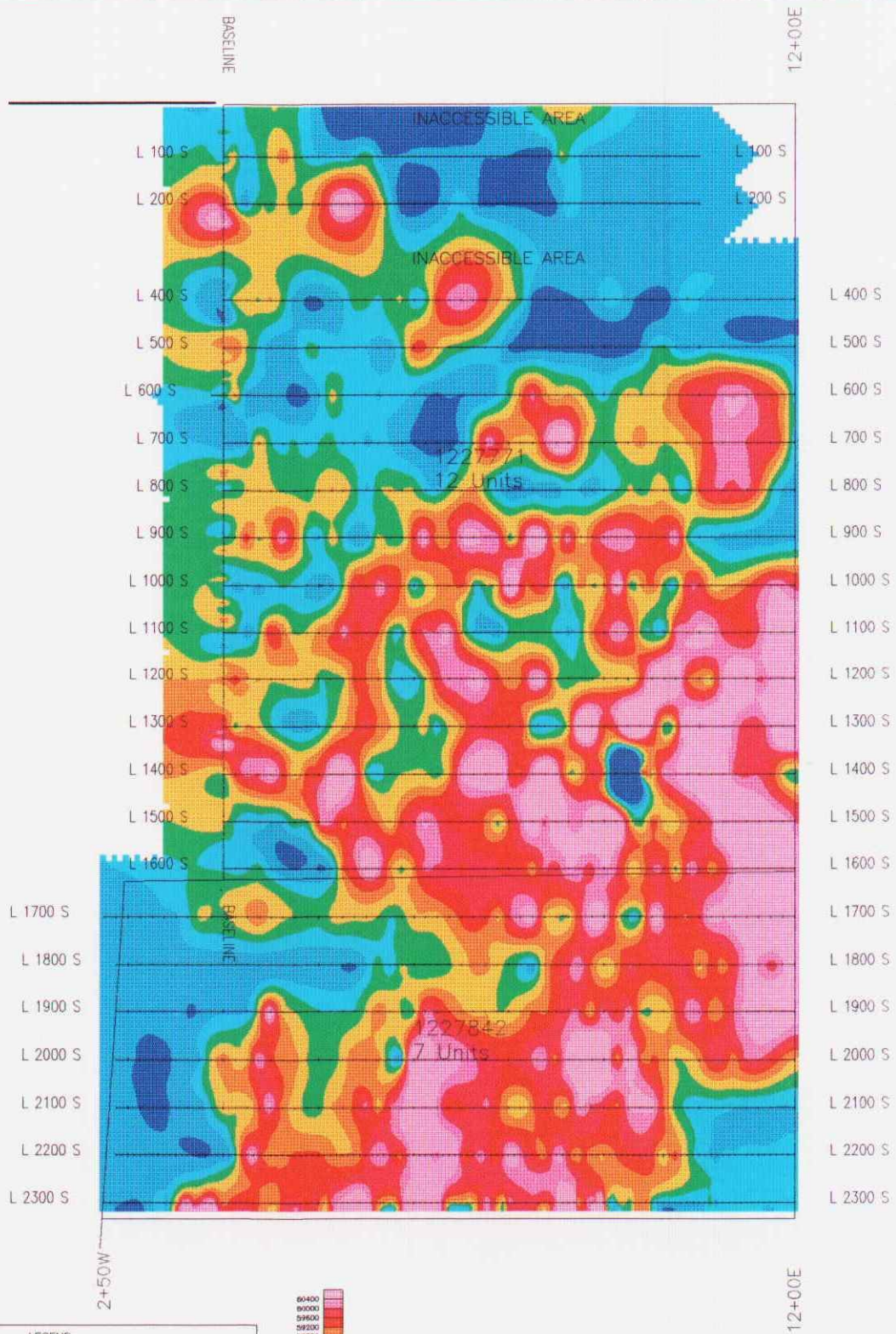
The VLF and Magnetic surveys were successful in locating and outlining the geological and geophysical characteristics of the property. The property is host to three main rock types of which the ultramafic is to be considered the most promising for sulphides. The surveys also suggest the presence of major cross structures that either relate to faults and or shear zones. The surveys also suggest that some of the geological contact zones may also be fault related.

The major Mining company that was working to the southeast of this property used HLEM as a follow-up tool. They were going after good airborne targets. I would recommend a follow-up program of trenching over the exposed portion of VLF conductors that correlate to known and mapped outcrops as well as a specific grouping of lines that should be covered with an IP survey. These lines would be from 1000MS to 1500MS as they cross most of the VLF zones and they appear to be underlain by the ultramafics.

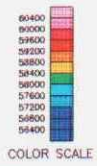
Respectfully submitted

J.C. Grant, CET, FGAC
November, 1998.





LEGEND
 Instrument: SCINTREX ENVI MAG, BRGM OMNI-IV
 Parameters Measured: Earth's total magnetic field
 Accuracy: +/- 0.1 nano-Tesla
 Diurnal: Corrected by base station recorder
 Contour Interval: 0, 400, 800, 1200, 1600,



NOTE: Readings removed on line 2000S due to instrument malfunction

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CLIENT:	GRANT/COLLIN OPAP		
PROPERTY:	GEIKIE PROPERTY		
TITLE:	GEIKIE TWP MAGNETOMETER SURVEY		
Date: Sept. 1998	Scale: 1:5000	NTS:	
Drawn: P.Gauthier	Interp: J.C.Grant	Job No.: E-0	

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.

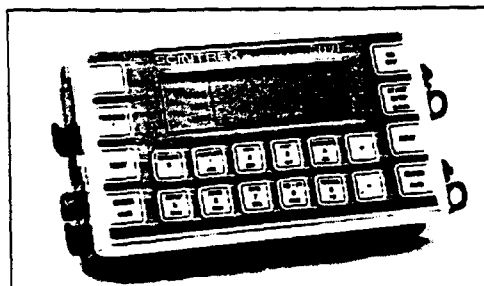


ENVI-MAG Proton Magnetometer in operation

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.

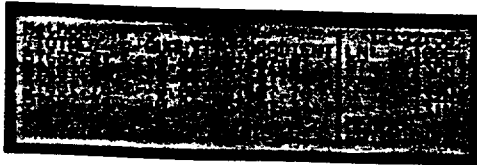
"Datacheck" Quality Control of Data

"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

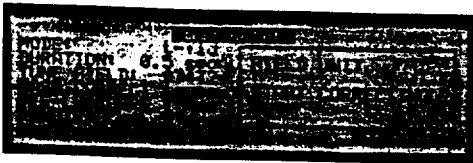
"Super-Twist" 64 x 240 dot (8 lines x 40 characters), LCD graphic screen provides good visibility in all light conditions. A display heater is optionally available for low-temperature operations below 0°C.



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

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

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

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)

SCINTREX

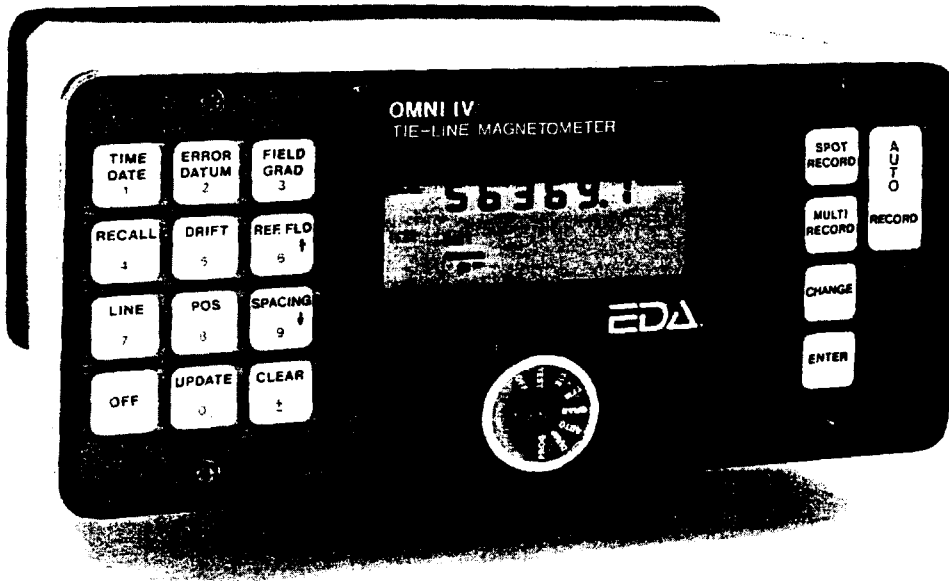
Head Office

222 Snidercroft Road
Concord, Ontario, Canada L4K 1B5
Telephone: (905) 669-2280
Fax: (905) 669-6403 or 669-5132
Telex: 08-964570

In the USA:

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

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

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

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use)
 W9960.00067
 Assessment Files Research Imaging



42A03NE2003 2.19181 GEIKIE 900

if subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the review the assessment work and correspond with the mining land holder. Recorder, Ministry of Northern Development and Mines, 6th Floor,

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240.
 - Please type or print in ink.

2.19181

1. Recorded holder(s) (Attach a list if necessary)

Name <i>John C. Grant / Yves L. Gellier SD?</i>	Client Number <i>CLN # 138853</i>
Address <i>Box 1880</i>	Telephone Number <i>267-4151</i>
<i>Timmins, Ont. P4N-7K1</i>	Fax Number <i>264-5790</i>
Name <i>Yves L. Gellier SD?</i>	Client Number <i>CLN # 119766</i>
Address <i>Box 1880</i>	Telephone Number <i>267-4151</i>
<i>Timmins, Ont. P4N-7K1</i>	Fax Number <i>264-5790</i>

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

Geotechnical: prospecting, surveys, assays and work under section 18 (regs) Physical: drilling, stripping, trenching and associated assays Rehabilitation

Work Type <i>GRID, LAYOUT, MAGNETIC & VLF SURVEYS, GEOLOGY, PLOTS, INTERPRETATION REPORTS.</i>	Office Use
Dates Work Performed From <i>2 07 98</i> To <i>19 11 98</i>	Commodity
Global Positioning System Data (if available)	Total \$ Value of Work Claimed <i>20,000.</i>
Township/Area <i>GEIKIE TWP.</i>	NTS Reference
M or G-Plan Number	Mining Division <i>Porcupine</i>
	Resident Geologist District <i>Timmins</i>

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
 - provide proper notice to surface rights holders before starting work;
 - complete and attach a Statement of Costs, form 0212;
 - provide a map showing contiguous mining lands that are linked for assigning work;
 - include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name <i>John C. Grant</i>	Telephone Number <i>267-4151</i>
Address <i>Box 1880, Timmins, Ont.</i>	Fax Number <i>264-5790</i>
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

RECEIVED
 FEB 05 1999
 GEOSCIENCE ASSESSMENT OFFICE

4. Certification by Recorded Holder or Agent

I, *John C. Grant* (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent <i>[Signature]</i>	Date <i>Jan 26/99</i>
Agent's Address <i>John C. Grant</i>	Telephone Number <i>267-4151</i>
	Fax Number <i>264-5790</i>

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W99160.00067

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
eg TB 7827	16 ha	\$26,825	2.19 N/A	181 \$24,000	\$2,825
eg 1234567	12	0	\$24,000	0	0
eg 1234568	2	\$ 8,892	\$ 4,000	0	\$4,892
1 P-1227771	12	\$12,432.00	9600.00	0	\$3,032.00
2 P-1227842	7	\$7,368.00	5600.00	0	\$1,768.00
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Column Totals		\$20,000.00	\$12,200.00	0	\$4,800.00

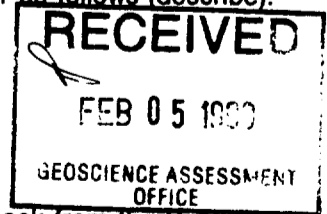
I, John C. Cooper, do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing: [Signature] Date: June 26/99.

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):



Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)		

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

2.19181

Work Type	Units of Work <small>Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.</small>	Cost Per Unit of work	Total Cost
Compass, Plane & Geo Lines	35.2 km / 24 days	200/day (incl)	\$4800.00
Magnetic Survey			
VLF Survey	34.0 km / 15 days 2 men	200/day	\$3000.00
Geology Survey	34.0 km / 20 days 2 men	200/day	\$4000.00
Office Program	1 Man 3 days	100/day	\$300.00
Interpret & Reports	1 Man 4 days	100/day	\$400.00
Associated Costs (e.g. supplies, mobilization and demobilization).			
Rental of 2 Mag-Em units, and a base Recorder.		\$65.00/day	\$975.00
Contract Drilling 27 HRS.		\$25/HRS	\$675.00
Transportation Costs			
Truck Rental 1 Month with Trailer		\$2415.00 incl tax	\$2415.00
Mile & Fuel Costs 94 km x 57 days x .30¢/km			\$1669.20
Food and Lodging Costs			
59 days x 2 men x \$15.00/day/Man		\$15/day/Man	\$1770.00

Total Value of Assessment Work \$20,004.00

Claiming \$20,000.00
OPAL.

Calculations of Filing Discounts:

Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK × 0.50 = Total \$ value of worked claimed.

Note:

Work older than 5 years is not eligible for credit.

A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

RECEIVED

FEB 05 1999

GEOSCIENCE ASSESSMENT OFFICE

Certification verifying costs:

John C. Grant (please print full name), do hereby certify, that the amounts shown are as accurate as may

reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on

the accompanying Declaration of Work form as Recorded Holder I am authorized (recorded holder, agent, or state company position with signing authority)

make this certification.

Signature

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

Telephone: (888) 415-9846
Fax: (877) 670-1555

March 15, 1999

JOHN CHARLES GRANT
108 KAY CRESCENT
Timmins, Ontario
P4N-8A9

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Dear Sir or Madam:

Submission Number: 2.19181

Status

Subject: Transaction Number(s): W9960.00067 Deemed Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Lucille Jerome by e-mail at lucille.jerome@ndm.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,



ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Work Report Assessment Results

Submission Number: 2.19181

Date Correspondence Sent: March 15, 1999

Assessor: Lucille Jerome

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9960.00067	1227771	GEIKIE	Deemed Approval	March 12, 1999

Section:

12 Geological GEOL
14 Geophysical MAG
14 Geophysical VLF

Correspondence to:

Resident Geologist
South Porcupine, ON

Recorded Holder(s) and/or Agent(s):

JOHN CHARLES GRANT
Timmins, Ontario

Assessment Files Library
Sudbury, ON

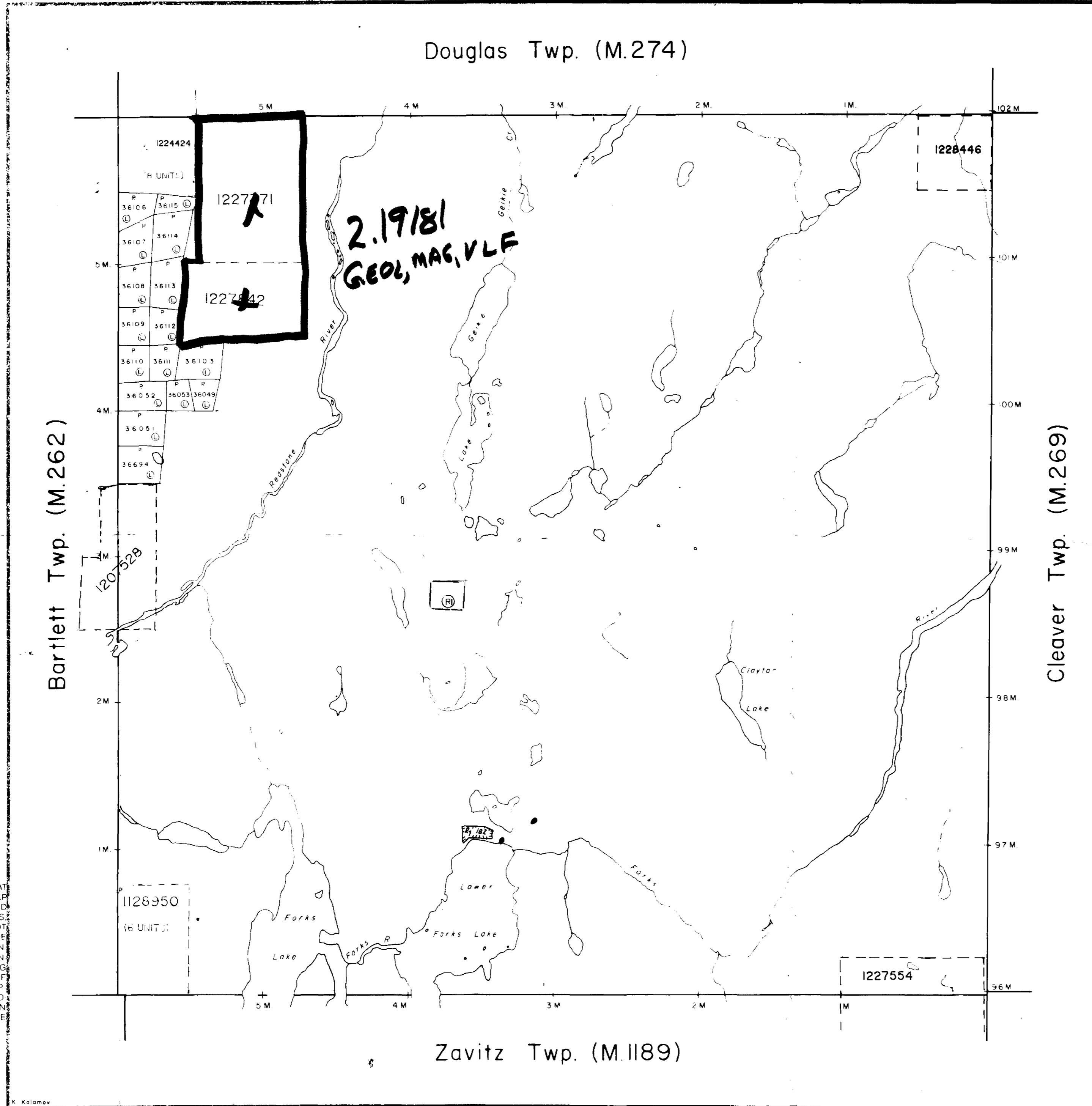
YVON LAURIER COLLIN
Timmins, Ontario

OS 350

GEIKIE TMB

50

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



THE TOWNSHIP OF
GEIKIE
DISTRICT OF TIMISKAMING
PORCUPINE MINING DIVISION
SCALE: 1-INCH = 40 CHAINS

LEGEND

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

A.U.P.

NOTES

400' Surface Rights Reservation along the shores of all lakes and rivers.

SURFACE AND MINING RIGHTS WITHDRAWN UNDER SECTION 35 OF THE MINING ACT, R.S.O. 1990 (ORDER NO. W.P. 46/94 DATED 94/MAY/02)

DATE OF ISSUE
APR 20 1999
PROVINCIAL RECORDING OFFICE - SUDBURY

PLAN NO. **M-320**

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

OS 350

GEIKIE TMB

OS 350



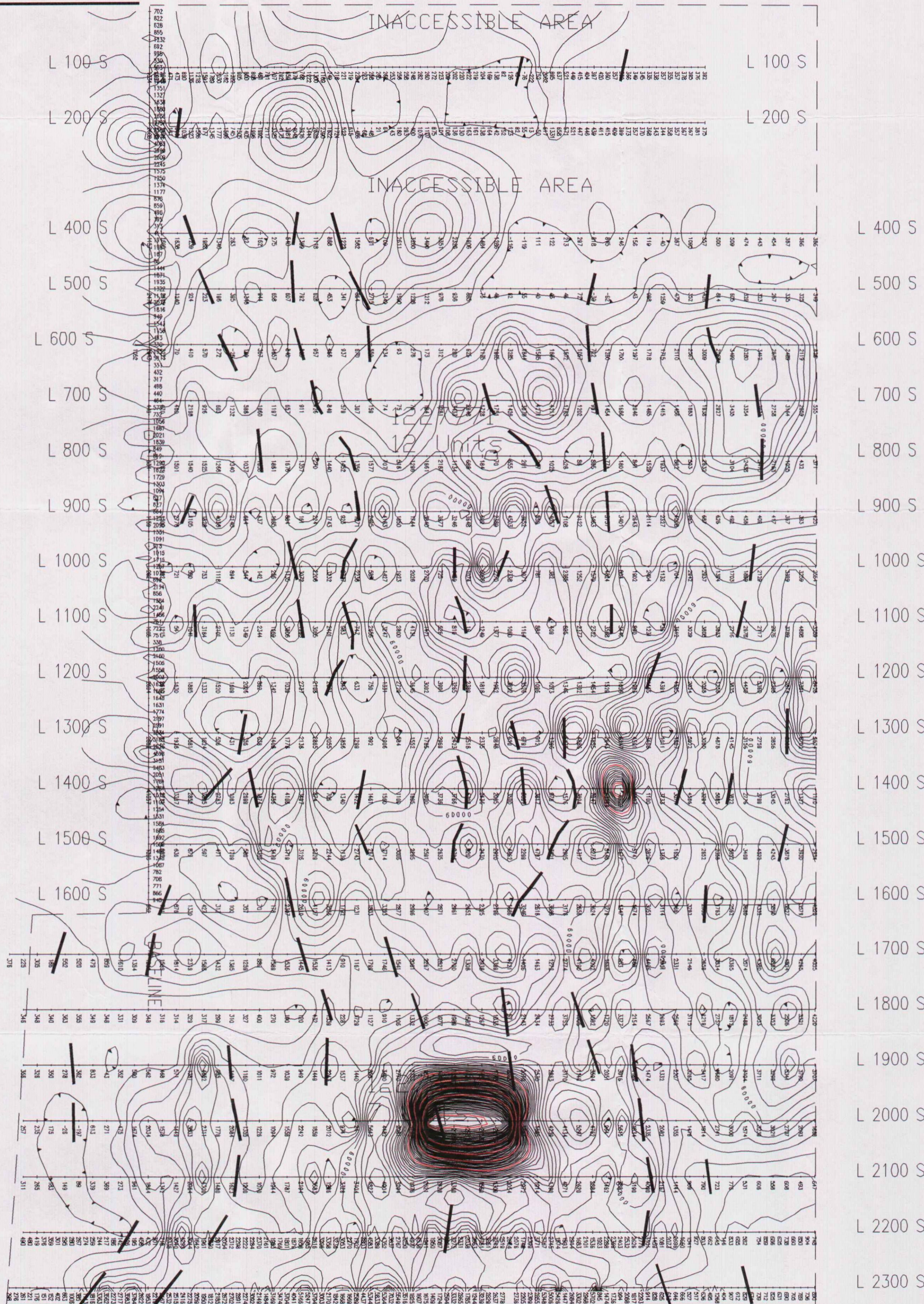
BASELINE

12+00E

DOUGLAS TWP

GEIKIE TWP

N



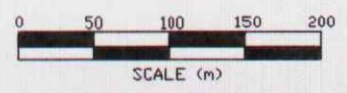
L 1700 S
L 1800 S
L 1900 S
L 2000 S
L 2100 S
L 2200 S
L 2300 S

L 100 S
L 200 S
L 400 S
L 500 S
L 600 S
L 700 S
L 800 S
L 900 S
L 1000 S
L 1100 S
L 1200 S
L 1300 S
L 1400 S
L 1500 S
L 1600 S
L 1700 S
L 1800 S
L 1900 S
L 2000 S
L 2100 S
L 2200 S
L 2300 S

2+50W


12+00E

2.19181



LEGEND
 Instrument: SCINTREX ENV1 MAG, BRGM OMNI-IV
 Parameters Measured: Earth's total magnetic field
 Accuracy: +/- 0.1 nano-teslas
 Diurnals: Corrected by base station recorder
 Contour Interval: 0,400,800,1200,1600,.....
 Reference Field: 57,500 gammas
 Datum Subtracted: 57,000 gammas



 EXSICS EXPLORATION LTD. P.O. Box 1880, P4N-7X1 Suite 13, Hollinger Bldg, Timmins Ont. Telephone: 705-267-4151, 267-2424		
CLIENT: GRANT/COLLIN OPAP PROPERTY: GEIKIE PROPERTY		
TITLE: GEIKIE TWP MAGNETOMETER SURVEY		
Date: Sept. 1998	Scale: 1:5000	NTS:
Drawn: P.Gauthier	Interp: J.C.Grant	Job No.: E-0

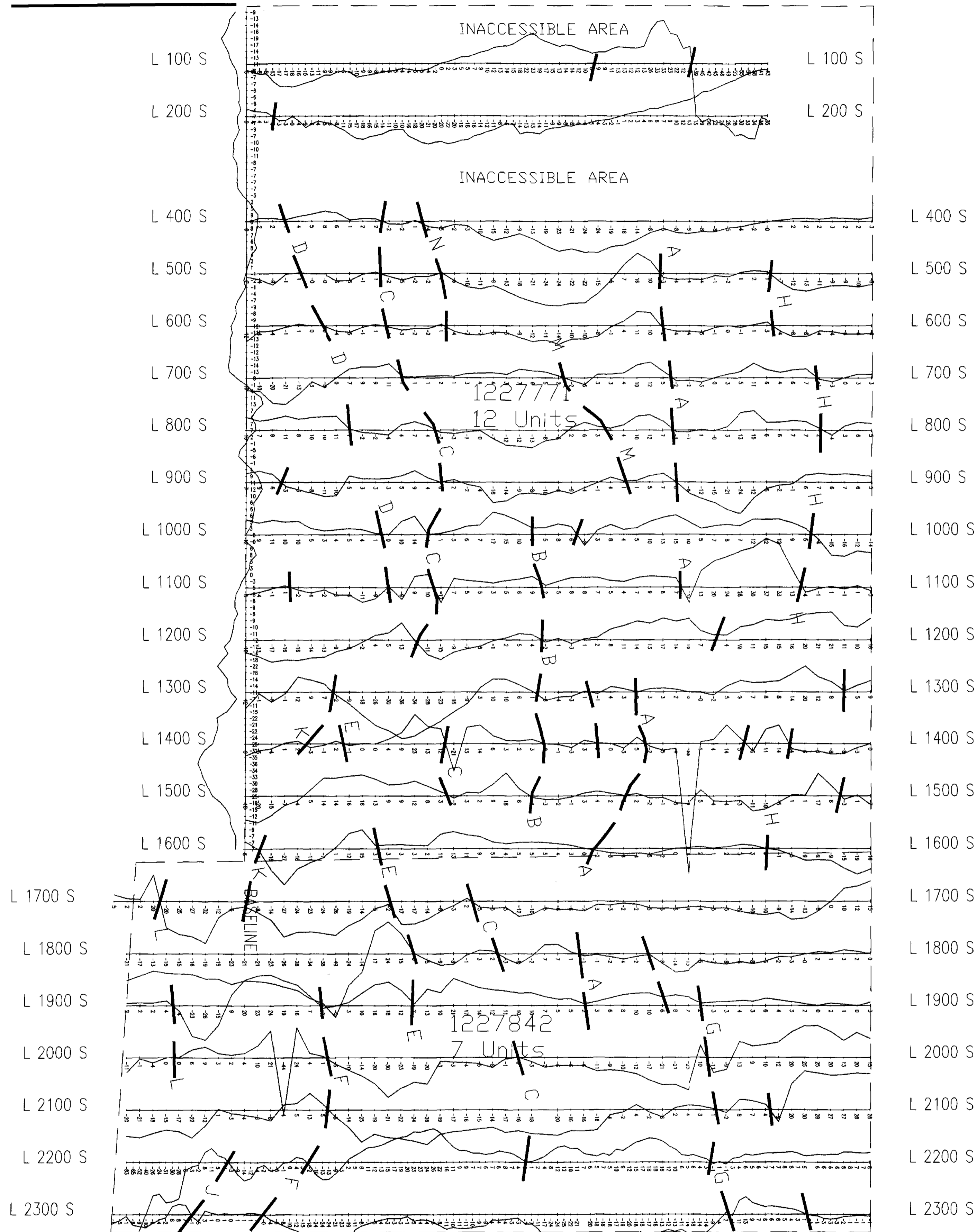
BASELINE

12+00E

DOUGLAS TWP

GEIKIE TWP

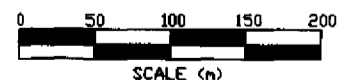
N



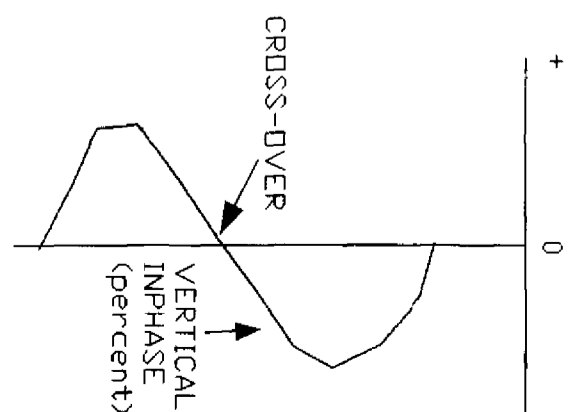
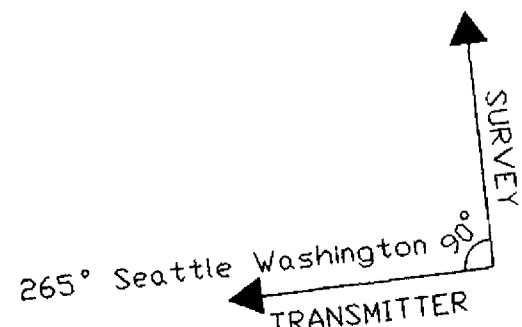
RIVER

REDSTONE


2.19181



LEGEND
 Instrument: SCINTREX ENVI MAG
 Transmitter Station: SEATTLE WASHINGTON
 Frequency: 24.8 KHz
 Parameters Measured: INPHASE DIP ANGLE
 Vertical Scale: 1cm=20%
 Operator: E. Jaakkola



42A03NE2003 2.19181 GEIKIE 220

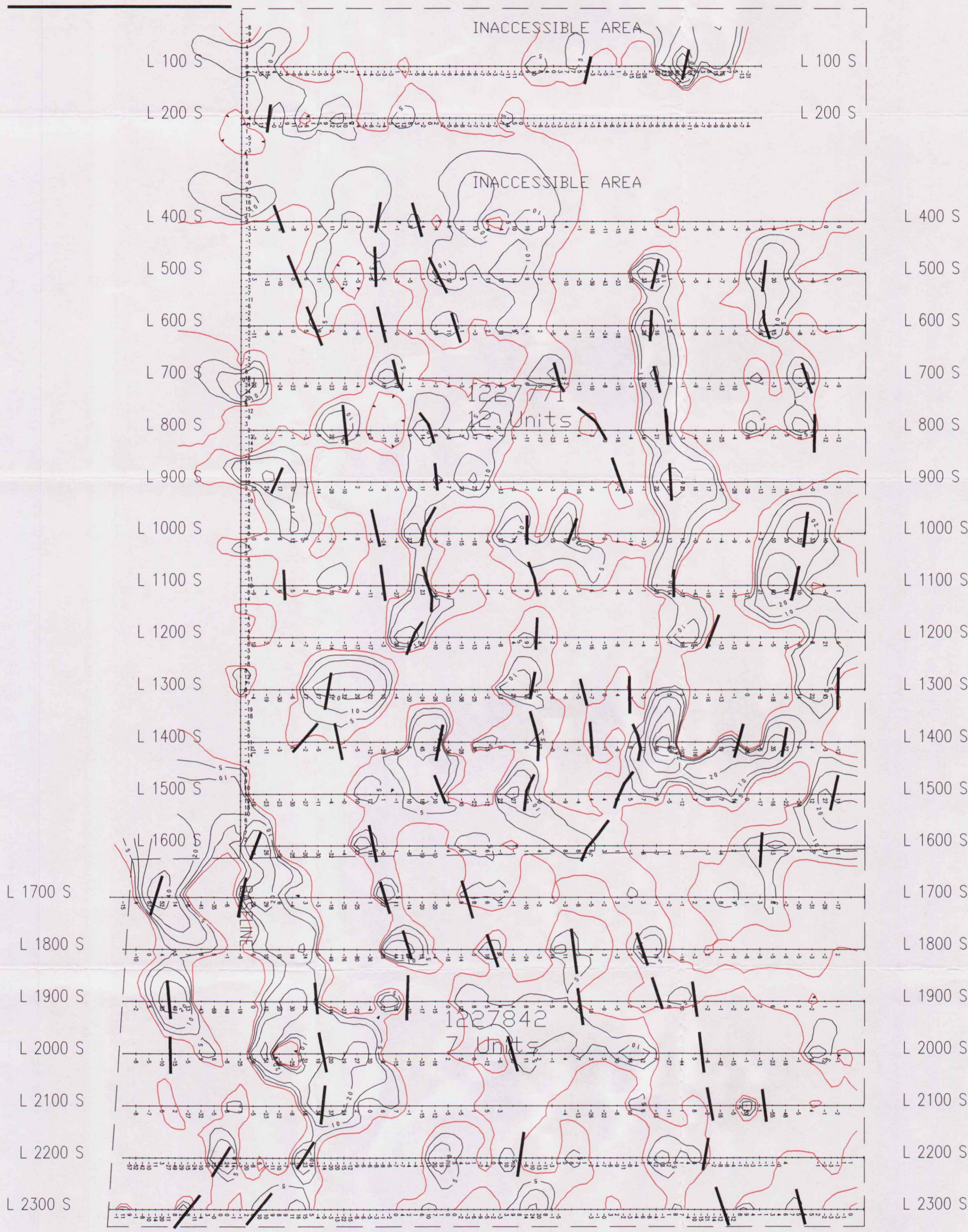
 EXSICS EXPLORATION LTD. P.O. Box 1880, P4N-7X1 Suite 13, Hollinger Bldg. Timmins Ont. Telephone: 705-267-4151, 267-2424		
CLIENT: GRANT/COLLIN OPAP		
PROPERTY: GEIKIE PROPERTY		
TITLE: GEIKIE TWP		
VLF DIP ANGLE		
Date: Sept. 1998	Scale: 1:5000	NTS:
Drawn: P.Gauthier	Interp: J.C.Grant	Job No.: E-0

BASELINE

12+00E

DOUGLAS TWP

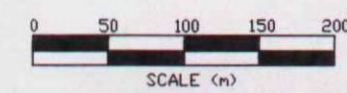
GEIKIE TWP



RIVER

REDSTONE

2.19181



2+50W

12+00E

LEGEND

Instrument: SCINTREX ENVI MAG
 Transmitter Station: SEATTLE WASHINGTON
 Frequency: 24.0, 24.8 KHZ
 Values filtered: INPHASE DIP ANGLE
 Contour Interval: 0.5,10,15,20,25,.....
 Operator: E. Jaakkola



42A03NE2003 2.19181 GEIKIE 230



EXSICS EXPLORATION LTD.

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

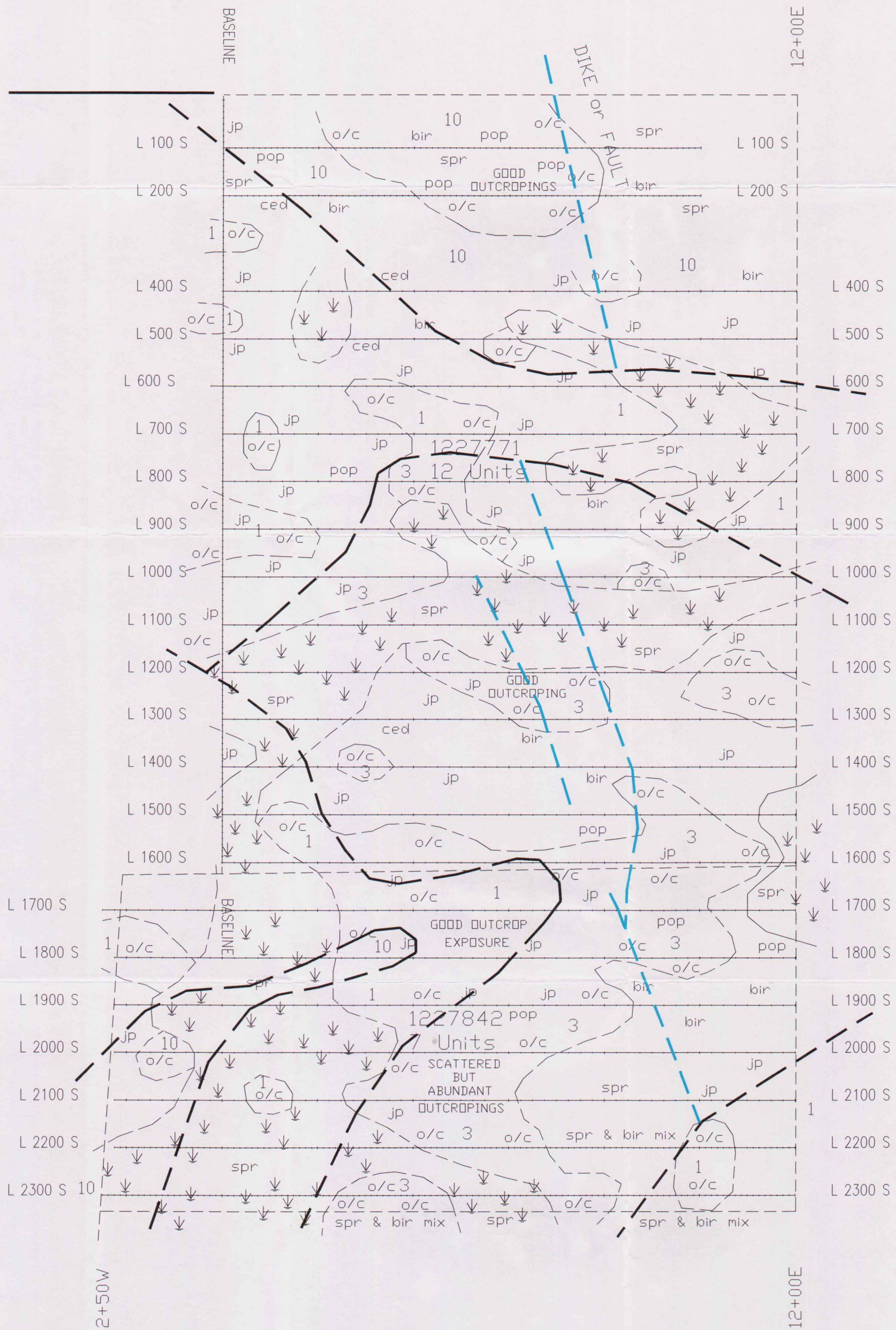
CLIENT: GRANT/COLLIN OPAP

PROPERTY: GEIKIE PROPERTY

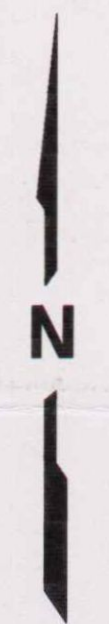
TITLE: GEIKIE TWP

FRASER FILTERED VLF

Date: Oct. 1998 Scale: 1:5000 NTS: *th*
 Drawn: P.Gauthier Interp: J.C.Grant Job No.: E-0



DOUGLAS TWP
GEIKIE TWP

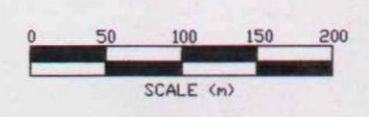


LEGEND

- 10 - Felsic Intrusive
Qtz blebs & stringers
light coloured host
rock
- 3 - ultramafic Metavolcanics
flow material
- 1 - Intermediate to Mafic
Metavolcanics
flows
- Faults ?
- o/c Outcrop boundary
- Geological contact
(estimated)

2.19181

- bir -birch
- ced -cedar
- jp -jackpine
- pop -poplar
- spr -spruce
- o/c -outcrop
- ↓ -swamp



	EXSICS EXPLORATION LTD.		
	P.O. Box 1880, P4N-7X1 Suite 13, Hollinger Bldg, Timmins Ont. Telephone: 705-267-4151, 267-2424		
CLIENT:	GRANT/COLLIN OPAP		
PROPERTY:	GEIKIE PROPERTY		
TITLE:	GEIKIE TWP GEOLOGY MAP		
Date: Sept. 1998	Scale: 1:5000	NTS:	
Drawn: P.Gauthier	Interp: J.C. Grant	Job No.: E-0	

