Magnetic and VLF-EM Surveys

JACKSON LAKE and McVEIGH CREEK Properties

Goudreau Area
Sault Ste. Marie Mining Division, Ontario

RECEIVED
OCT 16 1986
MINING LANDS SECTION

James E. Tilsley & Associates Ltd.
Consulting Geologists and Engineers
Aurora, Ontario, Canada
L4G 3G8

October 16, 1986

[Stamp: Registered Professional Engineer, Province of Ontario]
## INTRODUCTION

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INTRODUCTION

During the summer of 1986 both the McVeigh and Jackson Lake properties were covered by detailed geophysical surveys designed to define the location of magnetic and electromagnetic features as closely as possible to permit efficient trenching and sampling of mineralized structures indicated by earlier work by other operators.

Control grids with a total length of 21.0km were cut over the Jackson Lake property. The base lines are oriented east-west and profile lines run north and south. Profile spacing was selected at 100m intervals. 1672 stations were established on the grid where determinations of total magnetic field, and electromagnetic parameters using one VLF-EM transmitter station (NAA, Cutler, Maine - 24kHz) were done.

The McVeigh Creek claims were covered by 10.24km of lines spaced at 50m intervals. The base line runs east-west and the profiles extend north and south from the base line. Magnetic and electromagnetic determinations were made at a total of 1088 stations on the grid.

The geophysical parameters were determined using a Scintrex model IGS-2 system including a recording magnetometer base station set to read and archive the total magnetic field of the earth at three second intervals. The field instrument and base station are both equipped with real time clocks that are syncronized at the beginning of each survey day. Corrections
for diurnal variations in the total magnetic field of the earth were made by comparison of field data and the base station records. These calculations are made automatically at the end of the survey day by activating an internal computer program that compares the field instrument data with magnetic intensity recorded by the base station at the time nearest to that of each individual field reading.

The IGS-2 system records components of the very low frequency electromagnetic fields broadcast by military navigation stations. These components are equivalent to the quadrature and real determinations made with older model VLF-EM receivers. In addition, the horizontal field strength is also measured and recorded. This latter component is often useful in locating the major axis of a compound conductive zone.

All determinations of geophysical parameters are stored in the field instrument as collected and retrieved by printing out a 'hard copy' on a compatible printer which is part of the system hardware. Also, data may be stored on magnetic tape or on magnetic 'floppy discs' directly from the console or through a compatible portable computer. Stored data can be processed to create mechanically drawn plans or profiles, and further treated by computer programs designed to filter, refine, and interpret the information gathered in the field.

The data collected during the geophysical studies completed in 1986 was produced as hard copy through a dot matrix printer and plotted manually on plans of the properties.
LOCATION AND ACCESS

The properties lie in Abotosaway and Aguoine townships in the Goudreau section of the Michipicoten area of the Sault Ste. Marie Mining Division, Ontario.

Approximate co-ordinates:

<table>
<thead>
<tr>
<th>Property</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jackson Lake</td>
<td>48° 15' 00&quot; N</td>
<td>84° 33' 00&quot; W</td>
</tr>
<tr>
<td>McVeigh Creek</td>
<td>48° 16' 20&quot; N</td>
<td>84° 31' 00&quot; W</td>
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</table>

Best access to both properties is from the Goudreau road which can be reached by driving north from Wawa on the Trans Canada Highway (Ontario Hwy. No. 17) for forty kilometers toward White River, then following the gravel road 30km east to the logging community of Dubreuilville. A good logging highway connects Dubreuilville with Goudreau approximately 35 road kilometers to the south. Usual driving time from Wawa to Goudreau, except during severe winter weather, is approximately 90 minutes.

The McVeigh Creek property is located 1.6km northeast of Goudreau village in an area where recent logging operations have provided roads that make it possible to drive highway vehicles directly onto the property from the Goudreau-Lochalsh road. The Algoma Central Railway main line from Sault Ste. Marie through Hawk Junction to Franz, Oba, and Hearst, passes within one kilometer to the west of the western limit of the claim group.

The Jackson Lake property lies immediately to the west of the Goudreau Station on the Algoma Central Railway, and is
accessible via a road suitable for four-wheel-drive vehicles in summer and snow machines in winter. This road provides convenient access to the claims as far as the western boundary of the property, 2.2km west from Goudreau, and extends farther west to the Murphy Lake Gold Mine and the Ego Mines gold-copper prospects. The Algoma Central Railway main line runs north-south within 300m east of the eastern boundary of the claims.

**CLIMATE, TOPOGRAPHY, LOCAL RESOURCES**

The area has a continental climate with warm summers and relatively cold winters. The local weather is somewhat modified by the waters of Lake Superior which lie approximately 50km to the southwest of the property. The prevailing winds are from the west with the result that local showers and snow squalls tend to be more frequent than experienced at more inland locations of the region.

Minimum winter temperatures are often in the -40 degree Celsius range and summer maximum temperatures occasionally approach +40 degrees C. Usual summertime highs are in the 18 to 25 degree C range and wintertime daily highs average -15 to -25 degrees C.

Average monthly rainfall during the summer season is 70 to 90mm. Snowfall accumulates between early November and mid-April and cover may total 1 to 1.5m in late winter.

The elevation of the property is approximately 350m AMSL with local relief in the order of 30 to 50m. The ground within
the McVeigh Creek claims is gently rolling with short steep slopes along McVeigh Creek. The Jackson Lake property includes both low-lying flat swampy ground and choppy outcrop areas where small cliffs and sharp slopes commonly show northeasterly orientation of ridges and gullies. The drainage from the McVeigh Creek claims and the eastern third of the Jackson Lake property is to the south via McVeigh Creek to Hawk Lake and the Michipicoten River to Lake Superior. The western part of the Jackson Lake group drains to the west via the Magpie River to Lake Superior at Michipicoten Harbour.

The claims are forested with hardwood and softwood species most of which have been removed from the McVeigh Creek claims. There is more timber remaining on the Jackson Lake property, but lumber and timber as would be required for a mining operation can be obtained locally from a number of suppliers and forestry operators at a lower cost and greater convenience than from the stands remaining on the claims.

Great Lakes Power Company Limited supplies electrical power to the area. An industrial transmission line is located within one mile south of the McVeigh Creek claims and power could be brought to the property easily from the existing right of way.

The Jackson Lake claims could be serviced from Goudreau Station, should there be a requirement for power anywhere within the property.

The village of Goudreau has only several full time residents. There are no shops, service stations, restaurants,
or hotel accommodations.

Dubreuilville lies six miles (10 km) due north of Goudreau via the A.C.R. and about 22 miles (35 km) by the Goudreau-Lochalsh road. There is a motel and restaurant, grocery and hardware store, and a depot of the Ontario Provincial Police.

The nearest commercial centre is the town of Wawa which has a population of about 4000, with excellent medical facilities, schools, the usual government offices, shopping, accommodation, daily airline connections to Sault Ste. Marie, rail and highway links to other parts of Ontario, et cetera.

Light and heavy industrial services are available in Sault Ste. Marie, 240 km to the south.

PROPERTY

The McVeigh Creek property consists of three contiguous unpatented mining claims located in the western half of Aguoine township. The Jackson Lake property lies in eastern Abotossaway township due west of Goudreau station and includes 15 unpatented mining claims, as tabulated below.

McVeigh Creek:

SSM 827444  SSM 827445  SSM 827446

Jackson Lake:

SSM 841043  SSM 841044  SSM 841045
SSM 841046  SSM 841047  SSM 841048
SSM 841049  SSM 841050  SSM 841051
SSM 841052  SSM 841053  SSM 841054
SSM 841055  SSM 841056  SSM 841057
GENERAL GEOLOGY

The McVeigh Creek and Jackson Lake claims lie in the Archean Wawa Greenstone Belt, Michipocoten Area, District of Algoma, Ontario.

Rocks within this belt are the result of cyclical deposition of volcanic and sedimentary sequences which have been subjected to upper greenschist facies metamorphism. The progression of volcanic activity has been described by Goodwin (1966) as, quote:

1. widespread and prolonged effusion of predominantly basalt lava flows, through -

2. extrusion of rhyolite-dacite-andesite pyroclastics followed by -

3. extensive hot-spring and fumerolic activities with attendant wallrock alteration leading to subaqueous deposition of banded iron formation, and concluding with -

4. renewed mafic effusion.

The Wawa Belt is thought to be made up of a minimum of three cycles of volcanism, from a number of different volcanic centers (Sage, 1981).

The margins of the Wawa Belt are defined by underlying younger massive to gneissic granitic rocks. Numerous granitic and gabbroic dykes, sills, and stocks intrude the rocks of volcanic origin, and may be the subsurface equivalents of the extrusive volcanic rocks (Goodwin, 1966).

Rocks of the Wawa Belt have been complexly folded about
axes that trend both east-west and northwest-southeast. Major faulting of the belt has occurred along north-northwest trending fault planes that show left-lateral offsets of up to five kilometers (Goodwin, 1966).

The townships of Abotossaway and Aguoine are located near the northern margin of the Wawa greenstone belt. Both are underlain by a thick sequence of mafic metavolcanic rocks, flanked on the south and northwest by significantly thick piles of nearly-vertical dipping felsic metavolcanic and metasedimentary rocks. The occurrence of iron formation in narrow east-west trending bands in the western half of the area at the mafic-felsic metavolcanic contact indicates the volcanogenic sequence is younger toward the north. Iron formation also occurs within the mafic metavolcanic rocks, and may be accompanied by minor felsic metavolcanic units.

Numerous felsic intrusive stocks, sills, and dykes occur within the townships, the largest of which is the Gutcher Lake Stock. This intrusive body is a light grey, porphyritic to coarse-grained granodiorite measuring approximately two kilometers in diameter. Margins of the stock are gradationally felsic, with serrated contacts and little evidence of contact metamorphism in the adjacent wallrock (Goodwin, 1966). The central phases of the stock grade into feldspar or quartz porphyritic rocks (Collins and Quirke, 1926).

The lack of contact metamorphic effects and the proximal
location of felsic intrusive rocks to nearby felsic pyroclastic metavolcanics indicate the felsic intrusive may represent ancient volcanic necks and feeder dykes for extrusive volcanic activity (Goodwin, 1966).

The metavolcanic-metasedimentary rocks of Abotossaway and Aguoine townships are tightly folded about the 'North Range Syncline' (Goodwin, 1966) in the north, and the Alden Lake Anticline to the south (Sage, 1983). Both fold axes appear to trend north-northwest across the townships. The area is also cut by two major north-northwest trending fault zones with very apparent left-lateral movement.

GEOLOGY OF THE PROPERTIES

McVEIGH CREEK

Mapping of the area during the summer of 1981 (Noranda Exploration Company, Assessment Files, Ministry of Northern Development and Mines) defined units of andesites, pillowed andesites, medium grained volcanics, chlorite schists, feldspar porphyry, and diabase.

The McVeigh Creek claim block is underlain by predominantly mafic volcanics of the lower volcanic group. The southern portion of the property is near the thick sequence of banded iron formation which marks the boundary between the lower mafic volcanics and the middle felsic volcanics.
JACKSON LAKE

The Jackson Lake claims are underlain by Archean mafic volcanics with minor felsic flows, cherts, and graphitic sedimentary horizons intruded by dioritic plugs. The lavas and associated sedimentary horizons strike 070 to 100 with the most common orientation slightly north of east. Dips are steep to the north (-70°). All these early rocks have been cut by diabase dykes that strike north-northwest.

The rocks of the property exhibit zones of shearing which appears to post date rocks older than the diabase and may be related to late stage tectonic activity in the volcanic belt contemporaneous with intrusion of the dioritic plugs. Shearing is observed to be accompanied locally by carbonate alteration and quartz veining. Low gold values have been indicated in one such shear located in claim 841045. Much of the property is covered by overburden and water. Shear zones tend to weather low and are generally obscured. Geophysical surveys suggest several shears are present in the central part of the claim group, and some of these appear to cut bodies of diorite as well as the mafic volcanics.

GEOPHYSICAL SURVEYS

The land areas of the Jackson Lake and McVeigh Creek properties were covered by magnetic and VLF-EM surveys. The equipment used for the surveys was supplied by Scintrex Limited.
and consisted of an IGS-2 system fitted with sensors to measure the total magnetic field, vertical magnetic gradient, and components of the electromagnetic fields related to transmissions from very low frequency military navigation stations.

The system included a recording magnetic base station set to monitor the earth's magnetic field each three seconds during the survey day. Diurnal corrections of determinations recorded in the memory of the field instrument were done automatically by a dedicated program within the system at the end of the survey day and corrected data printed out via a compatible dot matrix printer.

The VLF-EM sensors recorded vertical in-phase, vertical quadrature, and horizontal parameters of the magnetic field. During the surveys on both the properties the transmitting station used was NAA located in Cutler, Maine, USA.

The data from the magnetic and VLF-EM surveys have been plotted at a scale of 1:1000 for the McVeigh Creek property and at 1:2000 for the Jackson Lake claims. The VLF-EM vertical in-phase readings have been profiled and the magnetic data are contoured.

RESULTS OF MAGNETIC SURVEYS

McVEIGH CREEK PROPERTY

The magnetic data show a generally northeast trend in the eastern part of the property and an almost easterly orientation
in the western part of the claim group.

The trends appear to reflect orientation of intermediate to basic lavas on a general scale and narrow, seemingly interbedded sulphide horizons at finer detail. The station interval for the magnetic surveys of the McVeigh Creek claims was 10m along the profile lines, with five meter spacing across sections where sulphide mineralization was observed or suspected. The sulphide-bearing zones noted during the surveys reported herein are usually less than three meters wide, and show variable magnetic response. Consequently, definition was not always precise, and abrupt changes in the strength of the total magnetic field between adjacent stations were not uncommon.

At least three areas showed some correlation between magnetic response and the position of conductive bodies as indicated by VLF-EM results.

JACKSON LAKE PROPERTY

Magnetic determinations within the Jackson Lake claims show rather abrupt changes in magnetic response from station to station and less than consistent correlation from line to line. Small plugs of intermediate to basic intrusive rocks are known. These appear to be responsible for certain of the apparently isolated magnetic highs. The diabase dikes run almost parallel to the survey lines, with the result that magnetic contours which are drawn on the basis of next adjacent intensity do not necessarily follow the boundaries of the causative bodies.
The east-northeasterly trend of the intermediate to basic volcanics that underlie much of the property is not clearly reflected by the magnetic information gathered. Accurate interpretation of the results, in many cases, will require intermediate survey lines with close station spacing.

The boundaries of intrusive plugs are often discernable from the magnetic information, and assist in locating the contacts under overburden, swamps, and lakes.

RESULTS OF VLF-EM SURVEYS

MCVEIGH CREEK PROPERTY

Two strongly conductive horizons are indicated by the VLF-EM results from these claims. The most important of these is found in the northeastern part of the property, where it has been correlated with a sulphide-bearing shear zone that is indicated by sampling to carry low gold values.

The second strongly conductive zone lies in the southern part of the group, near to the south boundary of claim SSM 827446. There is correlation with magnetic response on lines 50W, 100W, and 150W. The conductive zone appears to extend to the east and west of the magnetic zone with little reduction in response.

Several other conductive zones are indicated within the claims as shown on the VLF-EM plan of the McVeigh Creek property. None is as strong as either of the two major
structures. Four appear to be conformable with stratigraphy, two seem to cross-cut the strike of the volcanics. All seem to have a bedrock source rather than to reflect overburden/rock interfaces.

JACKSON LAKE PROPERTY

There are no strongly conductive structures indicated by the VLF-EM surveys within the Jackson Lake claims. Most of the conductive zones do not appear to reflect sulphide mineralization and may be caused by shearing within the volcanic and intrusive rocks. Several of the narrow, low amplitude anomalies are probably caused by bedrock/overburden interfaces.
Ministry of Natural Resources

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

The Ministry of Natural Resources

On June 4, 1950

A report of work

Type of Survey(s)

Geophysical

Magnetometer
Electromagnetometer VLF

Abitibi

Township or Area

Prospector's Licence No.

D J. Gigwa

Prospector's Licence No.

D 18473

Address

171 Niven st. Haikeybury, Ontario

PO5-LKG

Survey Company

J E. Tilsley & Associates Ltd.

Date of Survey (from to)

23/16 07/1950

Total Miles of line Cut

21 km.

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

J E. Tilsley & Associates Ltd.

5 Steepchase Ave. G.P. Box 11, London, ON, LYG-368

Credits Requested per Each Claim in Columns at right

Special Provisions

For first survey:

Enter 40 days. (This includes line cutting)

For each additional survey:

using the same grid:

Enter 20 days (for each)

Geophysical

- Electromagnetic
- Magnetometer
- Radiometric
- Other

Geological

Geochimical

Man Days

Complete reverse side and enter total(s) here

Airborne Credits

Note: Special provisions credits do not apply to Airborne Surveys.

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures

Total Days Credits

Instructions

Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date Recorded

A.M.

P.M.

Received

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

For Office Use Only

Total Days Credits

Date Recorded

5/1950

Date Approved as Recorded

8/7/1950

Branch Director

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Address of Person Certifying

D J. Gigwa

171 Niven st. Haikeybury, Ontario

PO5-LKG

Date Certified

July 26/1950
**Ministry of Natural Resources**

**Report of Work**

(Geophysical, Geological, Geochemical and Expenditures)

---

**Instructions:**
- Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
- Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

---

**The Mining Act**

---

**Type of Survey:**

- Magnetometer
- Electromagnetometer
- U.F. Geophysical

**Township or Area:**

- Aquoina

---

**Claim Holder(s):**

- J. T. Giguere

**Prospector's Licence No.:**

- D-18473

**Address:**

- 171 Wiven St., Haileybury, Ontario, POJ-1KO

---

**Survey Company:**

- J.E. Tilsley & Associates Ltd.

**Dates of Survey (from & to):**

- 15 Oct 97 to 18 Oct 97

**Total Miles of line Cut:**

- 10.24 km

---

**Credit Requested per Each Claim in Columns at right:**

**Special Provisions**

- For first survey:
  - Enter 40 days. (This includes line cutting)
- For each additional survey:
  - Using the same grid:
  - Enter 20 days (for each)

**Man Days**

- Complete reverse side and enter total(s) here

---

**Expenditure (excludes power stripping) Type of Work Performed**

**Performed on Claim(s):**

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**Calculation of Expenditure Days Credits**

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<th>Total Days Credits</th>
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<td>+ 15</td>
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**Instructions**

Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

---

**Date Recorded:**

- Nov 5, 1997

**A.M./P.M.:**

- 7 A.M. 10:11:12

- 12:34:56

---

**For Office Use Only**

**Date Approved as Recorded:**

- Aug 5, 1997

**Mining Recorder:**

- J. E. Tilsley

---

**Certification Verifying Report of Work**

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

**Name and Postal Address of Person Certifying:**

- Daniel J. Giguere, 171 Wiven St., Haileybury, Ont., POJ-1KO

**Date Certified:**

- July 26, 1997
December 3, 1986

Your File: 85-86
Our File: 2.9471

Mining Recorder
Ministry of Northern Development and Mines
875 Queen Street East
Box 669
Sault Ste. Marie, Ontario
P6A 2B3

Dear Madam:

RE: Notice of Intent dated October 31, 1986
Geophysical (Electromagnetic & Magnetometer)
Surveys on Mining Claims SSM 841043, et al,
in Abotossaway Township

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

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

Yours sincerely,

J.C. Smith, Supervisor
Mining Lands Section
Whitney Block, 6th Floor
Queen's Park
Toronto, Ontario
M7A 1W3

Telephone: (416) 965-4888

SH/mc
cc: D.J. Gignac
171 Niven Street
Haileybury, Ontario
POJ 1KO

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

Resident Geologist
Sault Ste. Marie, Ontario

Encl.
Recorded Holder: D.J. GIGWAC

Township or Area: ABOTISSAWAY TOWNSHIP

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<tr>
<th>Type of survey and number of Assessment days credit per claim</th>
<th>Mining Claims Assessed</th>
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<tr>
<td>Magnetometer</td>
<td>17 days</td>
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<tr>
<td>Radiometric</td>
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<tr>
<td>Induced polarization</td>
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<tr>
<td>Other</td>
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Section 77 (19) See "Mining Claims Assessed" column

Geological: 0 days

Geochmical: 0 days

- Man days ☐
- Airborne ☐
- Special provision ☑
- Ground ☑

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

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey
☐ insufficient technical data filed

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

**TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT**  
**FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT**  
**TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.**

**Type of Survey(s)**  
MAGNETIC & VLF-EM

**Township or Area**  
AGUOINE

**Claim Holder(s)**  
D. J. GIGNAC

**Survey Company**  
PRECAMBRIAN EXPLORATION

**Author of Report**  
J. E. TILSLEY

**Address of Author**  
5 STEEPLECHASE AVE, AURORA

**Covering Dates of Survey**  
MAY 15 - JULY 1ST

(linecutting to office)

**Total Miles of Line Cut**  
10.24

**MINING CLAIMS TRAVERSED**

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<tr>
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**SPECIAL PROVISIONS**

**CREDITS REQUESTED**

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<td>Radiometric</td>
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<tr>
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**AIRBORNE CREDITS**

(Magnetic, Electromagnetic, Radiometric)

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<th>enter days per claim</th>
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**DATE:**  
Oct 10/86

**SIGNATURE:**  
Author of Report or Agent

**Res. Geol.**

**Qualifications**

**Previous Surveys**

<table>
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**TOTAL CLAIMS:**  
3
GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS — If more than one survey, specify data for each type of survey

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<td>Station interval</td>
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<tr>
<td>Line spacing</td>
<td>50m</td>
</tr>
<tr>
<td>Profile scale</td>
<td></td>
</tr>
<tr>
<td>Contour interval</td>
<td>1000 nT</td>
</tr>
</tbody>
</table>

Instrument | IGS-2 MP-4 |
Accuracy — Scale constant | 0.1 nT |
Diurnal correction method | RECORDING BASE STATION/MICROPROCESSOR |
Base Station check-in interval (hours) | 3 SECONDS |
Base Station location and value |      |

Instrument | IGS-2 VLF-4 |
Coil configuration |      |
Coil separation | $\infty$ |
Accuracy | 1% |
Method: | $\square$ Fixed transmitter  $\square$ Shoot back  $\square$ In line  $\square$ Parallel line |
Frequency | 24.0 kHz - NAA (specify V.L.F. station) |
Parameters measured | VERTICAL IN-PHASE, VERTICAL QUADRATURE |

Instrument |      |
Scale constant |      |
Corrections made |      |
Base station value and location |      |
Elevation accuracy |      |

Instrument |      |
Method | $\square$ Time Domain  $\square$ Frequency Domain |
Parameters — On time |      |
— Off time |      |
— Delay time |      |
— Integration time |      |
Frequency |      |
Range |      |
Power |      |
Electrode array |      |
Electrode spacing |      |
Type of electrode |      |
Ministry of Northern Development and Mines

Geophysical-Geological-Geochemical Technical Data Statement

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) MAGNETIC & VLF-EM
Township or Area ABOTASSAWAY
Claim Holder(s) D. J. GIGNAC
Survey Company PRECAMBRIAN EXPLORATION
Author of Report J. E. TILSLEY
Address of Author 5 STEEPLECHASE AVE AURORA
Covering Dates of Survey MAY 16 - JULY 1ST
Total Miles of Line Cut 21.0Km

SPECIAL PROVISIONS
CREDITS REQUESTED
ENTER 40 days (includes line cutting) for first survey.
ENTER 20 days for each additional survey using same grid.

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer Electromagnetic Radiometric
(enter days per claim)

DATE: OCT 10/86 SIGNATURE J. E. TILSLEY

Res. Geol. Qualifications

Previous Surveys

MINING CLAIMS TRAVERSED
List numerically

TOTAL CLAIMS 15
GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS — If more than one survey, specify data for each type of survey

<table>
<thead>
<tr>
<th>Number of Stations</th>
<th>1672</th>
<th>Number of Readings</th>
<th>1672</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station interval</td>
<td>10m</td>
<td>Line spacing</td>
<td>100m</td>
</tr>
<tr>
<td>Profile scale</td>
<td></td>
<td>Contour interval</td>
<td>1000X</td>
</tr>
</tbody>
</table>

Instrument: IGS-2, MP-4

Accuracy — Scale constant: 0.1 nT

Diurnal correction method: RECORDING BASE STATION

Base Station check-in interval (hours): 3 SECONDS

Base Station location and value:

---

Instrument: IGS-2, VLF-4

Coil configuration:

Coil separation: → ∞

Accuracy: 170

Method:

- Fixed transmitter
- Shoot back
- In line
- Parallel line

Frequency: NAA 24.0 KHz (specify V.L.F. station)

Parameters measured: VERTICAL IN-PHASE, VERTICAL QUADRATURE, HORIZONTAL FIELD

---

Instrument:

Scale constant:

Corrections made:

Base station value and location:

Elevation accuracy:

---

Instrument:

Method: [ ] Time Domain [ ] Frequency Domain

Parameters — On time

- Off time

- Delay time

- Integration time

Frequency

Range

Power:

Electrode array:

Electrode spacing:

Type of electrode: