GEOPHYSICAL REPORT

ERIC HADLEY CLAIM

EVANS LAKE AREA - M.1774

N.T.S. 52J7

INTRODUCTION

This report summarizes the results of electromagnetic and magnetic surveys conducted over one (1) unpatented mining claim in the Evans Lake Area M.1774. The claim is recorded as follows: PA 349297.

The claim was surveyed by Grant Knowles and Michael Gagnon, geophysical operators stationed at Savant Lake, Ontario.

LOCATION AND ACCESS

The claim is situated in the Patricia Mining Division, near Evans Lake, approximately four (4) miles north of the town of Savant Lake along Highway 599. The Southeast corner of the claim touches on the Southwest arm of Evans Lake and the West border of the claim runs parallel to Highway 599 and is accessible by that highway.

PREVIOUS WORK

The area in the vicinity of the middle of the claim has had mineralized sections of it stripped with a D-7 bulldozer in July, 1976. This work was submitted for assessment by Eric Hadley. In July 1978, Bill Hollingsworth was employed to perform 104 feet of diamond drilling on a mineralized zone 105 feet NW of No. 2 Post. Felsic to intermediate metavolcanics were intersected with a shear zone outlined between 25.6 and 28.2 feet.

LINE CUTTING

The claim line along the West boundary was cleaned out and used as a North-South base line. Cross lines were established

due east from the base line 400 feet apart and marked at 100-foot intervals. The survey crew, along with James Rogers and Scott Kerford of Savant Lake establised the grid on the property.

EM-16 VLF SURVEY

The VLF-EM survey was conducted with a Geonics EM-16 unit. This instrument is a one-man electromagnetic receiver utilizing low frequency radio waves which are transmitted from military installations in various parts of the world. The frequency of the signals varies from about 16000 hertz to about 25000 hertz.

A transmitter station on the extension of the general line of geological strike of the area is chosen in order to give maximum coupling with any conductor in the area. The direction of the magnetic component of the transmitted field is horizontal and is perpendicular to the station direction. The field direction is thus roughly perpendicular to the traverse direction.

The EM-16 measures the in-phase and out-of-phase (quadrature) components of the secondary field generated by eddy currents induced in conducting bodies in the presence of the transmitted field. Readings are taken every fifty feet and are plotted as (1) out-of-phase raw data, i.e. the vertical out-of-phase component or the short axis of the polarization ellipsoid compared to the long axis, expressed as a percentage; (2) readings are plotted also as profiles at 1" = 20%; and (3) the in-phase readings are filtered according to the method developed by Fraser, and contoured. A conductor is indicated by an in-phase profile which crosses over from positive to negative, when read from south to north, or by a positive peak on the profile. A comparison of the quadrature profile with the in-phase gives an indication of the conductivity of the conductor.

EM-16 RESULTS

A small, positive peak was outlined with the VLF survey. This was on L8S at 2+30W and may represent a single, weak conductor striking roughly N-S. The EM response has a weak magnetic response approximately 400 feet to the northwest and crosses over to a negative EM response on L0+00 at 5+25W. These responses appear to be resulting from localized fractures or small shear zones.

MAGNETIC SURVEY

The magnetic survey was conducted with a UniMag portable proton magnetometer G836. This instrument is manufactured by GeoMetrics, 295 Java Drive, Sunnyvale, California. UniMag provides 10 gamma resolution over a range from 20,000 to 100,000 gammas, and measures total field intensity. Each measurement is based on an atomic constant, i.e., Proton Gyromagnetic ratio (2.67513 ± 0.00002) X 10^4 Radions/Gauss second, and is thus independent of temperature, humidity, and battery conditions. Power source is a set of two, 6-volt, 1 amp/hr gelled electrolyte batteries (Gell-Cell). Readings are recorded directly in decagammas, and the 60000γ base is left off, i.e. base station reading of 44dγ is 60440 gammas.

A few weak anomalous magnetic zones were outlined with the proton magnetometer. The grid lines were establised to cross the strike of the geology at approximately right angles so a N-S bias is obvious in the contouring of the magnetic results. A 600γ magnetic anomaly shows near L4S at 4+40W. Another magnetic anomaly of 400γ occurs on L0+00 at1100W and on L8S at 0+00. The stonger magnetic zones may be due to diabase dikes or inclusions of metasediments interbedded with the metavolcanics.

GEOLOGY OF THE PROPERTY

The property is underlain by Archean felsic to intermediate metavolcanics as is indicated by diamond drill core logs. No geology surveys have been performed over the claim grid. Chalcopyrite mineralization has been reported to occur on some areas of the claim.

Eric W Hadley

Report on Geophysical Surveys

Claim Pa-349297

Evans Lake Area, M1774

Patricia Mining Division

October 22, 1979

SUMMARY

Eric Hadley, of Sturgeon Lake, holds one mining claim in the Evans Lake Area. Ground geophysical surveys were carried out over the claim on lines spaced at 400 feet and stations at 50 and 25 feet for Geomics EM-16 and Proton Magnetometer surveys respectively. The transmitter located at Annapolis, Maryland, known as NSS, operates at 21.4 KHz for the EM-16 survey. The inphase data is plotted after a filter technique has been applied to smooth the contours.

The results of both surveys show lineation in a north-south direction. Based on the geophysical results alone no drilling is recommended. Further prospecting could be undertaken in the more promising geological areas.

Report on Geophysical Surveys

Claim Pa-34929?

Evans Lake Area, M1774

Patricia Mining Division

I. INTRODUCTION

Geophysical surveys were carried out in order to evaluate a property.

II. PROPERTY, LOCATION AND ACCESS

The property is located in the Savant Lake area. The one claim, Pa-34929?, is accessible by secondary road.

III. GEOPHYSICAL SURVEY

Survey Methods

The survey instrument for the magnetometer survey is Geometrics proton magnetometer G-836 and readings were corrected to diurnal drift. The VLF-Geonics EM-16 survey employed the NSS transmitter 21.4 KHz at Annapolis, Maryland.

Discussion of Results

The total magnetic field is contoured. A strong

lineation in a north-south direction is outlined with minor relief of 100 gammas. This is quite typical of Keewatin volcanics.

The VLF in phase data has had a Fraser filter applied (ref: Geophysics Vol.34, No. . p.p.9). This "differences of moving sums of adjacent stations" is plotted and contoured. Positive contour closures represent conductive zones. None of these zones warrant work based on the geophysical data.

Respectively submitted,
Gledhill Consultants Inc.

T. Gledhill

October 22, 1979

Tom Gledhill, B.A., P.Eng.

REGISTERED PROFESSIONAL ENGINEER
TCG
TOM GLEDHILL
22/10/79
PROVINCE OF ONTARIO

ural Resources

File _____

900 GICAL – GEOCHEMICAL
TA 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 AND EM-16

Township or Area EVANS LAKE AREA - M.1774

Claim Holder(s) ERIC HADLEY

Survey Company GRANT KNOWLES

Author of Report _____

Address of Author _____

Covering Dates of Survey August 6, 1979
(linecutting to office)

Total Miles of Line Cut 1.21

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	40
–Magnetometer	20
–Radiometric	
–Other	
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: October 24/79 SIGNATURE: Eric W Hadley
~~Author of Report~~ or Agent

L.D. T. Gledhill 63.1085

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P.A.	349297

If space insufficient, attach list

TOTAL CLAIMS _____

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 56 Number of Readings EM-16:108/MAG:212

Station interval 100 feet Line spacing 400 feet

Profile scale

Contour interval 200 gammas - MAG / ±10% - EM-16

MAGNETIC

Instrument PROTON MAGNETOMETER (UNIMAG G-836)

Accuracy -- Scale constant 10 gammas through -20°C to +60°C Temperature Range

Diurnal correction method Check stations at base line - winglike intersections

Base Station check-in interval (hours) 1 hour (No diurnal correction)

Base Station location and value 4+00S @ 12+00W 60,250 gammas

8+00S @ 12+00W 61,360 gammas

12+00S @ 12+00W 60,370 gammas

ELECTROMAGNETIC

Instrument GEONICS EM-16 VLF

Coil configuration

Coil separation

Accuracy ± 1%

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency Annapolis, Maryland 21.4 KHz
(specify V.L.F. station)

Parameters measured In-Phase Fraser Filter

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time Frequency

– Off time Range

– Delay time

– Integration time

Power

Electrode array

Electrode spacing

Type of electrode

File _____

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 Geophysical.

Township or Area EVANS LAKE AREA

Claim holder(s) D. ERIC HADLEY

R.R. #1, Nipissing Bay, P7E 5J3

Author of Report TOM GLEDHILL

Address 21 SANDALWOOD PLACE

Covering Dates of Survey June 1 / Oct 15/79
(linecutting to office)

Total Miles of Line cut 1 mile

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	40
–Magnetometer	20
–Radiometric	
–Other	
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Oct 22/79 SIGNATURE: Tom Gledhill
Author of Report or Agent

PROJECTS SECTION

Res. Geol. _____ Qualifications 63.1085

Previous Surveys _____

Checked by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

Pa 349297
(prefix) (number)

TOTAL CLAIMS 1

If space insufficient, attach list

Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 53 Number of Readings May-21-2 EM16-106

Station interval 100 feet

Line spacing 400 feet

Profile scale or Contour intervals May 200 gamma, 10% Inphase data
(specify for each type of survey)

MAGNETIC

Instrument Geometrics G836

Accuracy - Scale constant 1 Gamma - digital

Diurnal correction method looping on base Station

Base station location L0+00, 0100

ELECTROMAGNETIC

Instrument Geonics EM-16 ~~AT~~ NSS - 21.4 KHz

Coil configuration

Coil separation

Accuracy 1%

Method: ☑ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency NSS 21.4 KHz
(specify V.L.F. station)

Parameters measured In phase field

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION -- RESISTIVITY

Instrument

Time domain Frequency domain

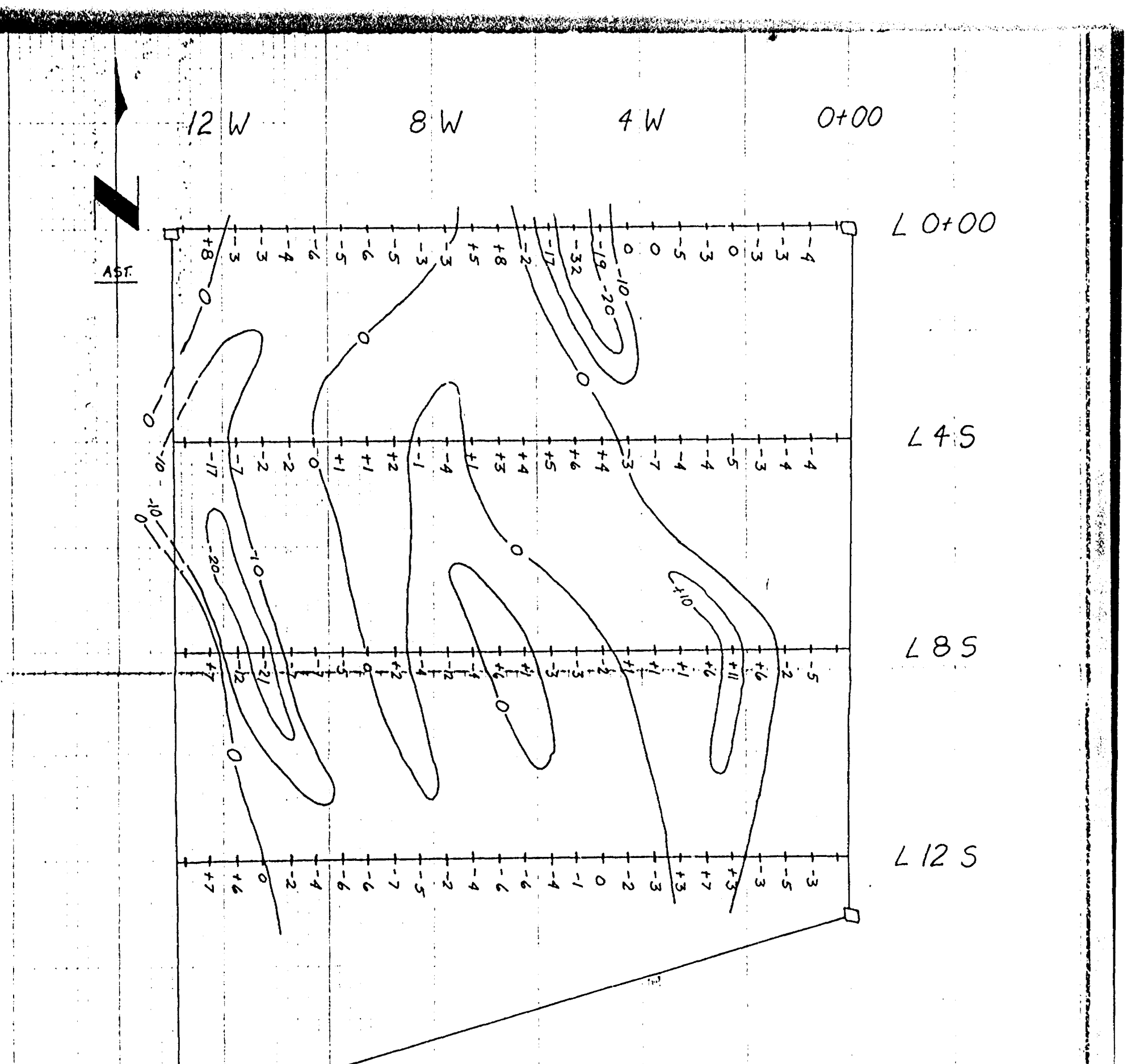
Frequency Range

Power

Electrode array

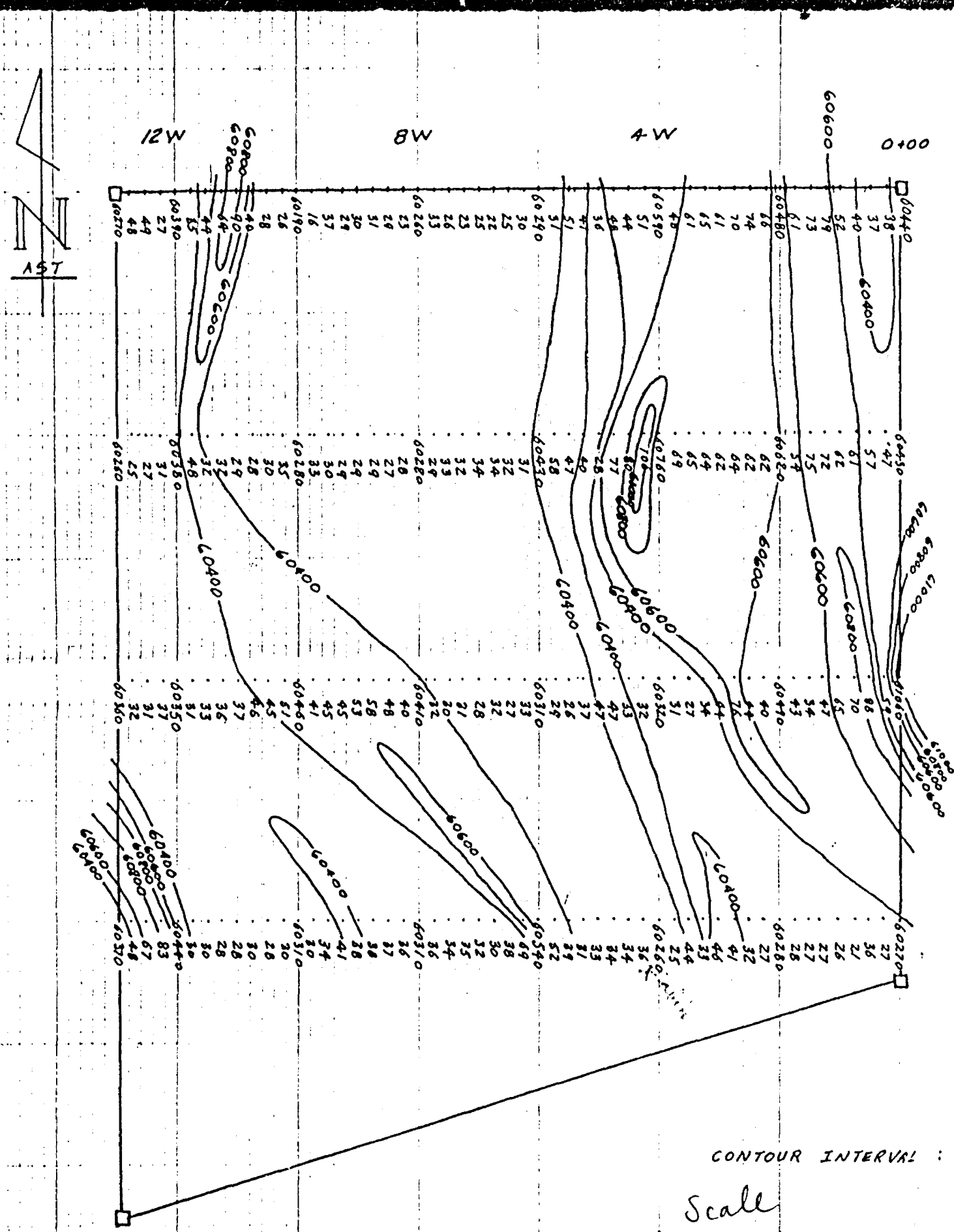
Electrode spacing

Type of electrode



EVANS LAKE AREA
CLAIM Pa. 349297
GEONICS EM-16 SURVEY
IN PHASE FRASER-FILTERED DATA
SCALE - 1 IN. : 200 FT.
AUGUST 6, 1979.

CONTOUR INTERVAL ± 10 %



EVANS LAKE AREA - M 1774
CLAIM : Pa 349297
INSTRUMENT : PROTON MAGNETOMETER (UNIMAG G-836)
SCALE : 1" = 200'
DATE : AUG. 6, 1979
BEARINGS: 090°
DATA : TOTAL MAGNETIC FIELD IN GAMMAS

Eric W. Hadley

HOUGHTON LAKE - M.2165

PROJECTED LINE

Harold

Evans Lake

Harris

L.

BOUCHER TWP.

FOR STATUS REFER TO TWP. PLAN - M. 1664

6M.

7M.

8M.

9M.

10M.

GRAVEL FILE 180277

M.T.C. Gravel Pit No. 1654

523/07SE
EVANS LK
Scale
40 Chains
M-1774

Ministry of Natural Resources
Ontario

Technical Assessment Work Credits

File 2.3080

Recorded Holder: Eric W. Hadley

Township or Area: Evans Lake Area

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic 40 days	Pa. 349297
Magnetometer 20 days	
Radiometric ____ days	
Induced polarization ____ days	
Section 86 (18) ____ days	
Geological ____ days	
Geochemical ____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☐ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 86 (15a) 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 86(18)-60:

828

Ontario

RECEIVED
SEP 18 1979
MINING LANDS SECTION

Ministry of Natural Resources

Notification of recording of assessment work credits

Lands Administration Branch
Mining Lands Section
Ministry of Natural Resources
Room 1617, Whitney Block
Queen's Park, Toronto
M7A 1W3

Date of recording of work: August 27, 1979

Recorded holder: Eric W. Hadley

Address: R. R. #13, Thunder Bay, Ontario P7B 5E4

Township or Area: Evans Lake M-1774

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	
Electromagnetic 20 days	Pa. 349297
Linecutting 20	
Magnetometer 20 days	
Radiometric ____ days	
Induced polarization ____ days	
Section 86 (18) ____ days	
Geological ____ days	
Geochemical ____ days	
Man days ☐ Airborne ☐	
Special provision ☐ Ground ☒	

Notice to recorded holder: Oct. 16 '79

☒ Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.

☐ Reports and maps are being forwarded to the Lands Administration Branch with this letter.

for Mining recorder

c.c. Mr. Eric Hadley
Thunder Bay

Mr. Michel Gagnon
General Delivery
Savant Lake, Ontario

792 (6/77)

#79-95; #79-96; #79-97

LA. 065

Ministry of Natural Resources
Ontario

Your file:

Our file: 2.3080

1980 01 14

Mr. Albert Hanson
Mining Recorder
Ministry of Natural Resources
Box 669, Court House
Sioux Lookout, Ontario
P0V 2T0

Dear Sir:

Re: Mining Claim Pa. 349297, Evans Lake Area, File 2.3080

The Geophysical (Electromagnetic & Magnetometer) assessment work credits as shown on the attached statement have been approved as of the above date.

Please inform the recorded holder of this mining claim and so indicate on your records.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

DN:ie

cc: Mr. Eric Hadley
Thunder Bay, Ontario

Tom Gledhill
Don Mills, Ontario

Michel Gagnon
Savant Lake, Ontario

Resident Geologist
Sioux Lookout, Ontario