

2.1582

Report on VLF-EM and Ma
Claim TB283388 Syine (
Ontario



42D155W0134 2.1582 SYINE

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Introduction

Linecutting, followed by magnetometer and VLF-EM Surveys were carried out in July and September 1974.

Location, Access and Ownership

The claim is located in the north-west part of Syine township (formerly 82) District of Thunder Bay, Ontario. It is recorded in the name of R.A. MacGregor, 134 Palace Drive, Sault Ste. Marie, Ontario. The claim can be reached by a trail about $\frac{1}{2}$ mile in length from Highway 17 about 8 miles east of Terrace Bay, Ontario.

Previous Exploration

Work consisting of one long and one short adit, with considerable trenching and some mining was reportedly carried out from 1896-1900. Some stripping was done in the 1930's. Most of the old workings are badly overgrown but the adit may still be seen. No recent work is known to have been carried out.

Geology

The property is underlain by hornblende schist and gneiss. The topography is very steep with an estimated difference in elevation from No. 2 post (the lowest) to No. 4 post (the highest) of 450 to 500 feet.

Survey Procedure

A base line was laid out in an east-west direction along the north boundary of the claim. Cross lines were run south at 400 foot intervals. Magnetometer readings were taken with a Sharpe MF-1 fluxgate magnetometer at 50 foot intervals. The looping method was used for control of diurnal variation. In this method a base station is selected, and readings taken along lines describing a loop, arriving back at the starting base station in less than two hours. A second loop is then started using either the same base station or another which is tied to the previous loop. Readings are then corrected for diurnal variation by assuming the time between readings is the same and distributing any variation equally among the intervening readings. No correction was applied less than the accuracy of the base station reading.

A VLF-EM survey was carried out using a Crone Radem instrument set to the signal from Cutler, Maine (17.8 KHz). Readings were taken at 100 foot intervals using the procedure outlined in Appendix I. The looping method was used for control of variation, the same as described for the magnetometer survey excepting that the time was noted for each station.

Results and Conclusions

The magnetic survey shows the trend of the formation E.N.E.-W.S.W. Some higher readings along the base line and 12W may be due to basic dykes.

The VLF-EM survey showed no cross overs.

Neither system seems to give any indication of the mineralized area, although the quartz veins appear to be in an area of lower magnetic readings.

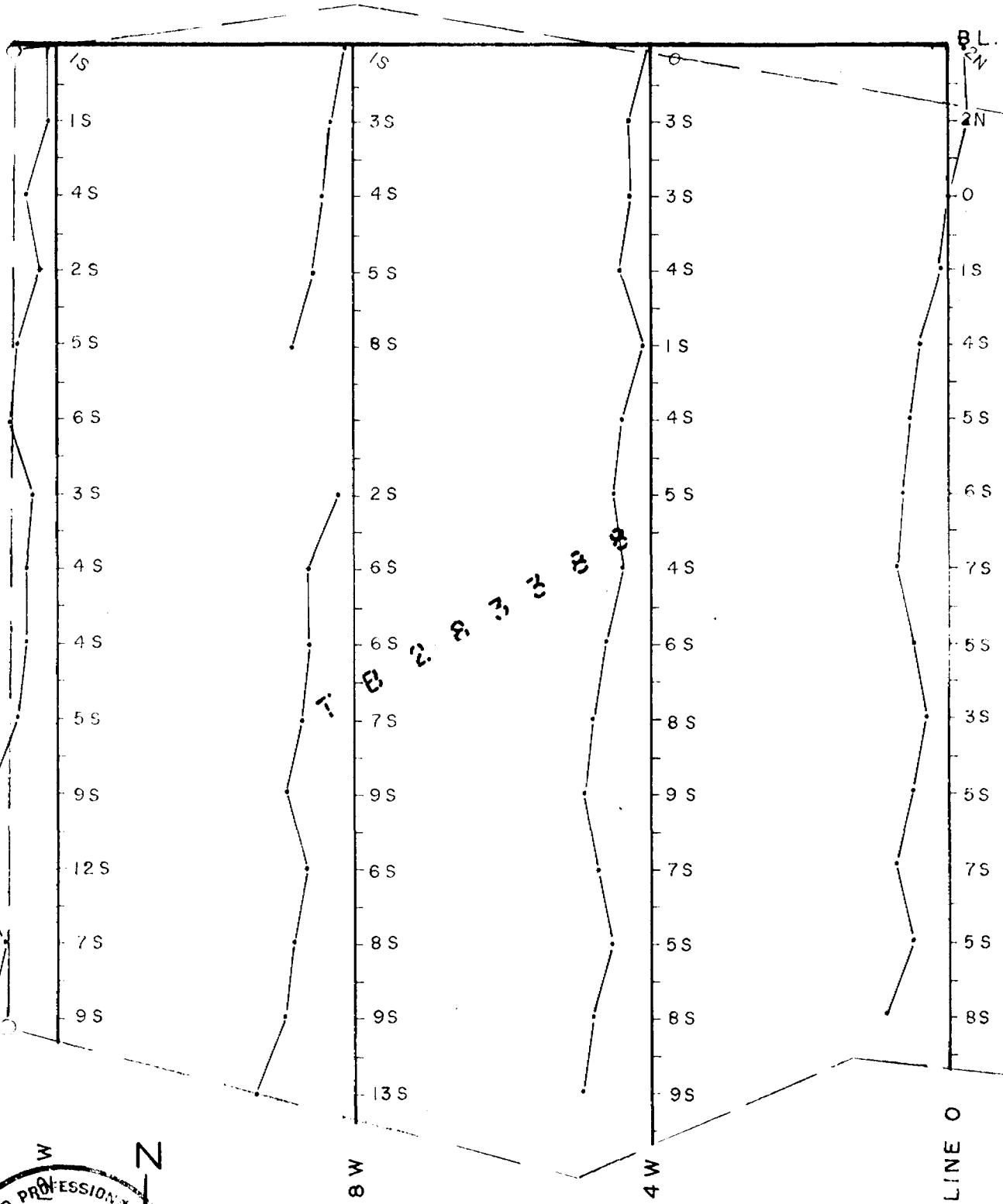
Respectfully submitted,



R. A. MacGregor, P.Eng.

September 29, 1974





INSTRUMENT: CRONE RADEM
 STATION: CUTLER, MAINE 17.8 KHZ.
 DIP ANGLE OF THE RESULTANT
 FIELD IN DEGREES
 September 1974 R. A. M.

VLF-EM SURVEY
 SYINE TOWNSHIP
 SCALE 1" = 200'
 1" = 20°

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

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 135 Number of Readings Mag. 135
VLF-EM 57
Station interval Mag. 50 ft. VLF-EM 100 ft.
Line spacing 400 ft.
Profile scale or Contour intervals Mag. contour 500 gammas VLF-EM dip angle 1"=20°
(specify for each type of survey)

MAGNETIC

Instrument Sharpe MF-1
Accuracy - Scale constant 5 gammas on lowest scale
Diurnal correction method Corrected in time along a loop from base station
Base station location 1400 on 4W

ELECTROMAGNETIC

Instrument Crone Radem
Coil configuration Not applicable
Coil separation Not applicable
Accuracy ±1%
Method: Fixed transmitter Shoot back In line Parallel line
Frequency Cutler, Maine 17.8 KHz
(specify V.L.F. station)
Parameters measured Dip angle of the Resultant 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 _____

R.A. MacGREGOR, P. ENG.
134 PALACE DRIVE
ST. STE. MARIE, ONT.

AUG 2 1971
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Lower Aguasabon Lake Area - M.2518

Santoy Lake Area - M.2676.

THE TOWNSHIP OF SYINE

(Tp. 82)

DISTRICT OF THUNDER BAY

2,1582

THUNDER BAY MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

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

NOTES

400' Surface Rights Reservation around all Lakes and Rivers.

Improvement District of Terrace Bay shown thus: —

Parcels patented for Surface Rights Only shown thus: ⊗

Parcels patented for Surface & Mining Rights shown thus: ⊙

Land under the waters of Lake Superior, withdrawn from staking by O.C. - Apr 30, 1962.

MINING LANDS - DATE OF ISSUE
OCT - 3 1974
MINISTRY OF NATURAL RESOURCES

PLAN NO. M.1930

ONTARIO
MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

