N.T.S. 41-I-3,4

REPORT
OF
MAGNETOMETER
AND
ELECTROMAGNETIC SURVEYS
LASHBROOK CLAIM GROUP
ROOSEVELT TOWNSHIP
SUDBURY DISTRICT
ONTARIO

AUGUST 1979

R.L.LASHBROOK

2.3075

TABLE OF CONTENTS

ABSTRACT

2.5 line miles of magnetometer and electromagnetic surveys covering 2 claims located in Roosevelt Twp. , N.T.S. 41-1-3,4 were done during Aug.1979.

The claims cover a number of Huronian metasedimentary beds of the Gowganda Formation namely- conglomerates; argillites,siltstones,greywackes; quartz-feldspar sandstones, which have all been intruded by diabase dykes.

Weak single line magnetic highs and lows were delineated on the property which although not continuous are broadly correlatable with either greywacke type or quartzitic sandstones. Single line lows are thought to represent minor shears.

Three of 5 E.M. conductors are broadly correlatable with magnetic lows lying within topographic lows which are thought to represent minor shears.

A fourth E.M. conductor flanks a magnetic high, the cause of which is unknown but could be related to the Au showing as lithologic and magnetic grain are combatable and continuous.

A fifth E.M. conductor showing a positive Fraser Filter effect remains to be adequately explained.

LOCATION AND ACCESS

The property is located in Roosevelt Twp. in the central part just north of Howry Creek. The area is apprximately 35 miles south -west of Sudbury. The property is accessible by boat from Willisville , asmall village 12 miles south of Espanola via hwy. 68.

The property is located within the LaCloche range of hills which run east-west through the north shore of Lake Huron.Topographic relief around the property is of the order of 450 feet. Howry Creek passes through the south boundary of the claims. The vegetation on the property consists mostly of jack-pine,poplar and birch.

HISTORY

Some trenches were put down on quartz veins containing pyrite and minor chalcopyrite and one trench along the cliff face on massive pyrite veins and stringers. Only worked man-daye were recorded for assessment. No previous geophysical work has been done on the property to the authors knowledge.

METHOD OF SURVEY

The lines were done by the pace and compass method going North-South from an East-West baseline. All stations were flagged with red fluorescent flagging tied to trees along the way. A magnetometer base station was set up on the baseline at 8 West. The Electromagnetic station used was Cutler Maine. Readings were taken every 100 feet.

GEOPHYSICAL INTERPRETATION

MAGNETOMETER SURVEY

The magnetometer survey was carried out using a Sharpe M.F.1 fluxgate magnetometer on all lines at 100 foot spacing. Diurnal and drift control was maintained by establishing a base station on the baseline at 8 East.

Only spotty single line highs were recorded during the survey. These highs may be due to the diabase dykes that transect the area and have bee observed by the author to contain mi?or magnetite mostly near there co?tacts. The other possibility is that the argillites and greywackes contain minor magnetite in places.

Single line lows may represent mi?or shear zones as three E.M. conductors are broadly correlatable with them.

The magnetic low at the Au-Cu showing may be caused from an increase in the amount of barren quartz veining.

> A change in direction and flatness of readings,along line 8 East, separates the east-west magnetic trend on the property. This may be due either to a north-south trending faultor a dyke.

ELECTROMAGNETIC SURVEY

The electromagnetic survey was carried out with a PhoenixVLF-2 instrument employing Cutler,Maine as the transmitting station. All lines were read at 100 foot intervals and resulting dip angles were recorded. A Fraser Filter wasdone and plotted along with the dip angles. Cutler,Maine has a transmitting frequency of 17.8 kHz. All readings were done with the operator facing north. The E.M. conductors have been numbered from 1-5 on the accompanying electromagnetic map. They will be discussed separately here.

CONDUCTOR No.1

This conductor flanks a magnetic high and occurs in a small valley. It may be caused from shearing along a dyke contact, or fault. Numerous quartz veins were observed immediately east in an outcrop of quartz-feldspar sandstone.

CONDUCTOR No.2

This is the strongest conductor on the property and occurs in a valley

just south of a 50 foot cliff. The Fraser Filter carries a strong positive trend ENE across lines 0,4W,8W and off the property.A north-south trending fault is indicated by another high positive Fraser filteron line 4E. An offset of approximately 250ft. south is suggested.The conductor is about 200 ft. south of the gold showing which contains a number of massive sulfide veins. No adequate explaination can be made at this time.

CONDUCTOR No. 3

This conductor has no magnetic correllation and occurs in a topographic low. Minor shearing is suggested as the cause.

CONDUCTOR No. 4

THis conductor may be an extension of No. 3 but does correlate with a magnetic low and occurs in a flat , overburden covered area. It may be that the shearing is a lot wider at this place.

CONDUCTOR No. 5

This conductor Occurs on L24E at 4+00S. It is correlatable with an east - west trending magnetic low. The high Fraser Filter around 1 + 00 S may indicate another parallel conductor . A magnetic high separates the two zones. The magnetic lows suggest shear zones as the cause for this conductor.

FLUXGATE MAGNETOMETER THEORY

The Sharpe MF-1 fluxggate magnetometer operates by means of a fluxgate system which is operated by a battery. The readings are taken from a meter on the face of the instrument and are read in gamma values. Therefore, no correction is necessary except for the diurnal and instrument drift.

The fluxgate system works on the principle thet a battery current is passed through two coils which are arranged within a secondary winding. These coils are so arranged that the magnetic field set up in them is equal. If, however, an external magnetic field exists, it creates an in-balance in the system which results in a measurable voltage which is proportionate to the strength of the external field.The voltages are measured on a meter on the face of the instrumentwhich is divided in gamma values.

The accuracy of this machine is considered plus or minus 0.5% of full scale on the 1000 to 10,000 gamma ranges and 1.0% of full scale on the 30,000 to 100,000 gamma range. The sensitivity is 20 gammas/division on the 1,000 gamma scale, decreasing proportionately to the increased scale ranges.

Raymond Lashbrooke

PHOENIX VLF-2 ELECTROMAGNETIC INSTRUMENT

Parameters Measured	:	Orientation and magnitude of the major and minor axes of the ellipse of polarization.
Frequency Selection, Front Panel	:	Dual channel, front panel selectable (F1 or F2) each with independent precision 10-turn dial gain control.
Frequency Selection, Internal	:	F1 and F2 can be selected by internal switches within the range 14.0 to 29.9 kHz in 100 Hz increments.
Detection And Filtering	:	Superheterodyne detection and digital filtering provide a much narrower bandwidth and thus greater rejection of interfering stations and 60 cycle noise than conventional receivers.
Meter Display	:	2 ranges: 0 to 300 or 0 to 1000. Background is typically set at 100. Meter is also used as dip angle null indicator and battery test.
Audio	:	Crystal speaker. 2500 Hz used as null indicator.
Clinometer	:	±90°, ±0.5° resolution. Normal locking, push button release.
Battery	:	One standard 9v transistor radio battery. Average life expectancy - 1 to 3 months (battery drain is 3 mA)
Temperature Range	:	-40° to + 60° C.
Dimensions	:	8 x 22 x 14 cm (3 x 9 x 6 inches).
Weight	:	850 grams (1.9 pounds).

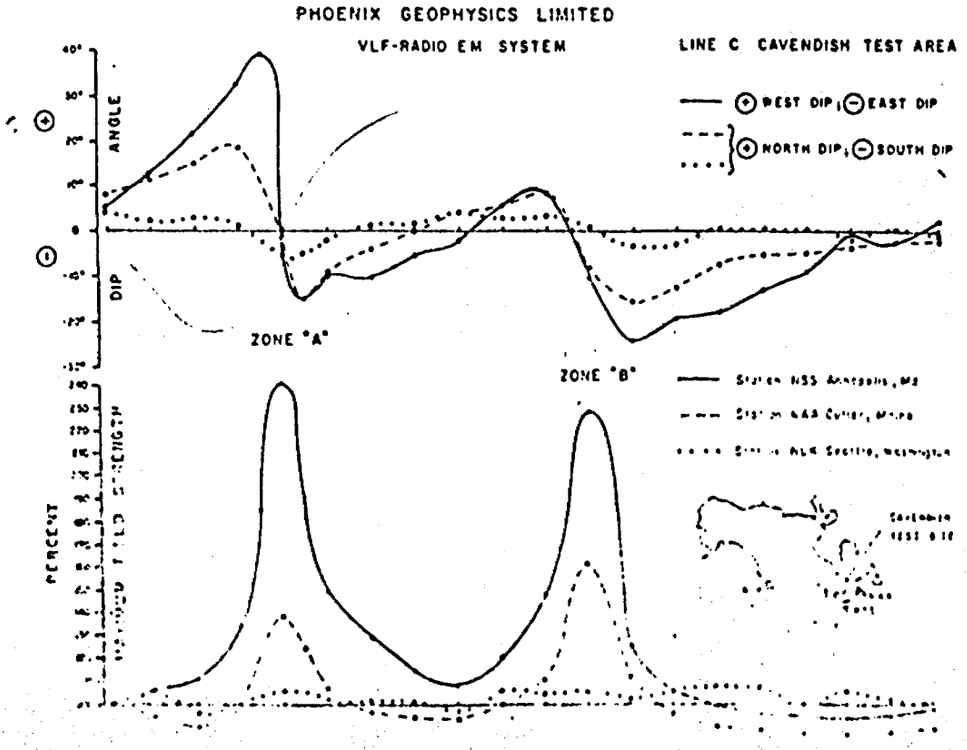
All of the established stations may be selected, or alternatively, a local VLF transmitter may be used which transmits at any frequency in the range 14.0 to 29.9 kHz.

VLF Station	Frequency (kHz)
Bordeaux, France	15.1
Odessa (Black Sea)	15.6
Rugby, U.K.	16.0
Moscow, U.S.S.R.	17.1
Yosamai, Japan	17.4
Hegaland, Norway	17.6
Cutler, Maine	17.8
Seattle, Washington	18.6
Malabar, Java	19.0
Oxford, U.K.	19.6
Paris, France	20.7
Annapolis, Maryland	21.4
Northwest Cape, Australia	22.3
Loulualei, Hawaii	23.4
Buenos Aires, Argentina	23.6
Rome, Italy	27.2

Field Data

The results below illustrate the need for using two orthogonal stations when the strike of the prospective conductor is not well-known. The dip angle and amplitude data measured using station NLK in Seattle, Washington, show only a very weak anomaly associated with the two conductive sulphide zones at Cavendish, Ontario.

The results obtained using Cutler, Maine reveal a more prominent anomaly, but the best response was obtained using Annapolis, Maryland since the station lies almost due south and the transmitted electromagnetic field is thus maximum-coupled with the North-South trending conductors.



Ontario

Ministry of Natural Resources

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(s) ELECTROMAGNETIC

Township or Area ROOSEVELT TWP

Claim Holder(s) DONALD LASHBROOK

Survey Company _____

Author of Report RAYMOND LASHBROOK

Address of Author 1272 CHENIER ST, TIMMINS

Covering Dates of Survey _____ (linecutting to office)

Total Miles of Line Cut _____

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	20
–Magnetometer	
–Radiometric	
–Other	
Geological	
Geochemical	

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

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

DATE: Jan 16/90 SIGNATURE: Raymond Lashbrook
Author of Report or Agent

Res. Geol. _____ Qualifications new on file

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
	398157
	398158

41104NE0002 001241 ROOSEVELT

900

If space insufficient, attach list

TOTAL CLAIMS 2

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 135 Number of Readings 135

Station interval 100' Line spacing 400'

Profile scale 1" = 40° (IN PHASE)

Contour interval FRASER FILTER IN INTERVALS OF 10

MAGNETIC

Instrument

Accuracy – Scale constant

Diurnal correction method

Base Station check-in interval (hours)

Base Station location and value

ELECTROMAGNETIC

Instrument PHOENIX VLF-2

Coil configuration

Coil separation

Accuracy

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

Frequency CUTLER, MAINE (specify V.L.F. station)

Parameters measured IN PHASE, OUT OF PHASE, FIELD STRENGTH

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

RESISTIVITY

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time Frequency

– Off time Range

– Delay time

– Integration time

Power

Electrode array

Electrode spacing

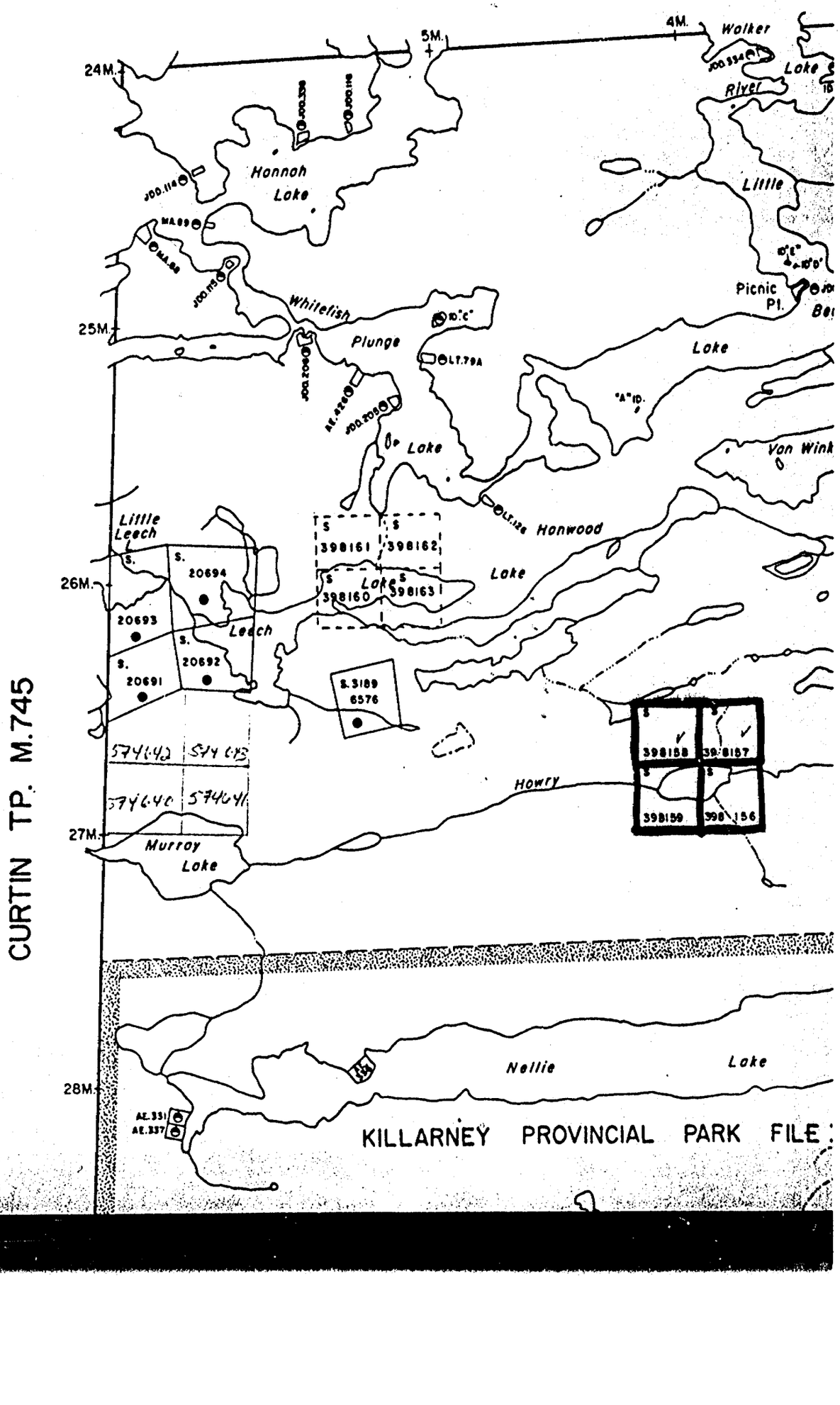
Type of electrode

Kashbrook Claim Group
Aug. 179: Mag + EM survey Roosevelt Township
+ maps

hores

Scall

1" = 40 chs.



SEE ACCOMPANYING

MAP(S) IDENTIFIED AS

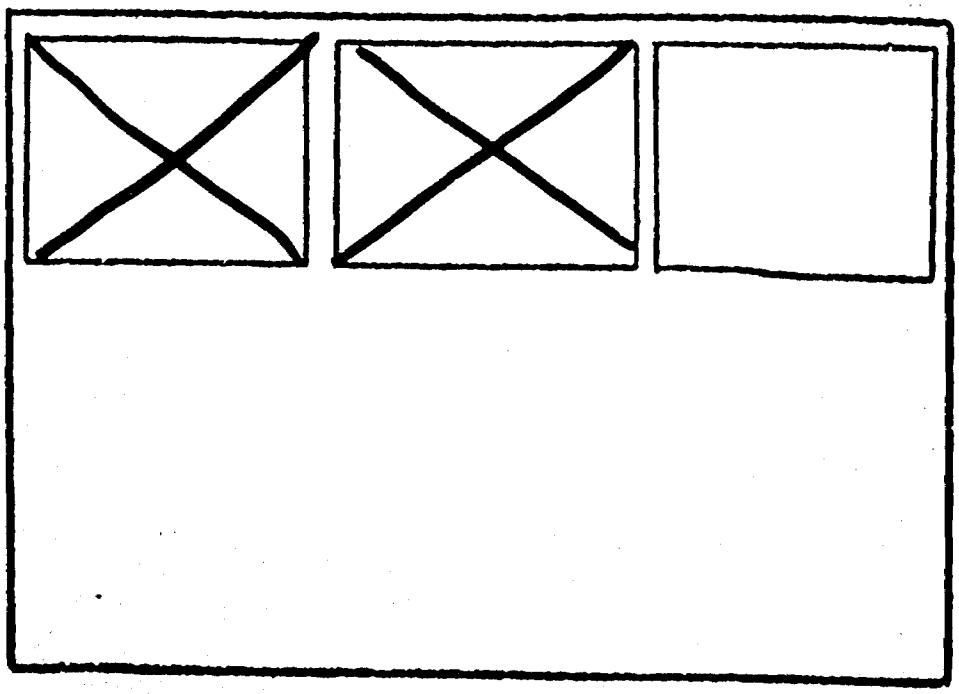
ROOSEVELT-0012-A1 #1

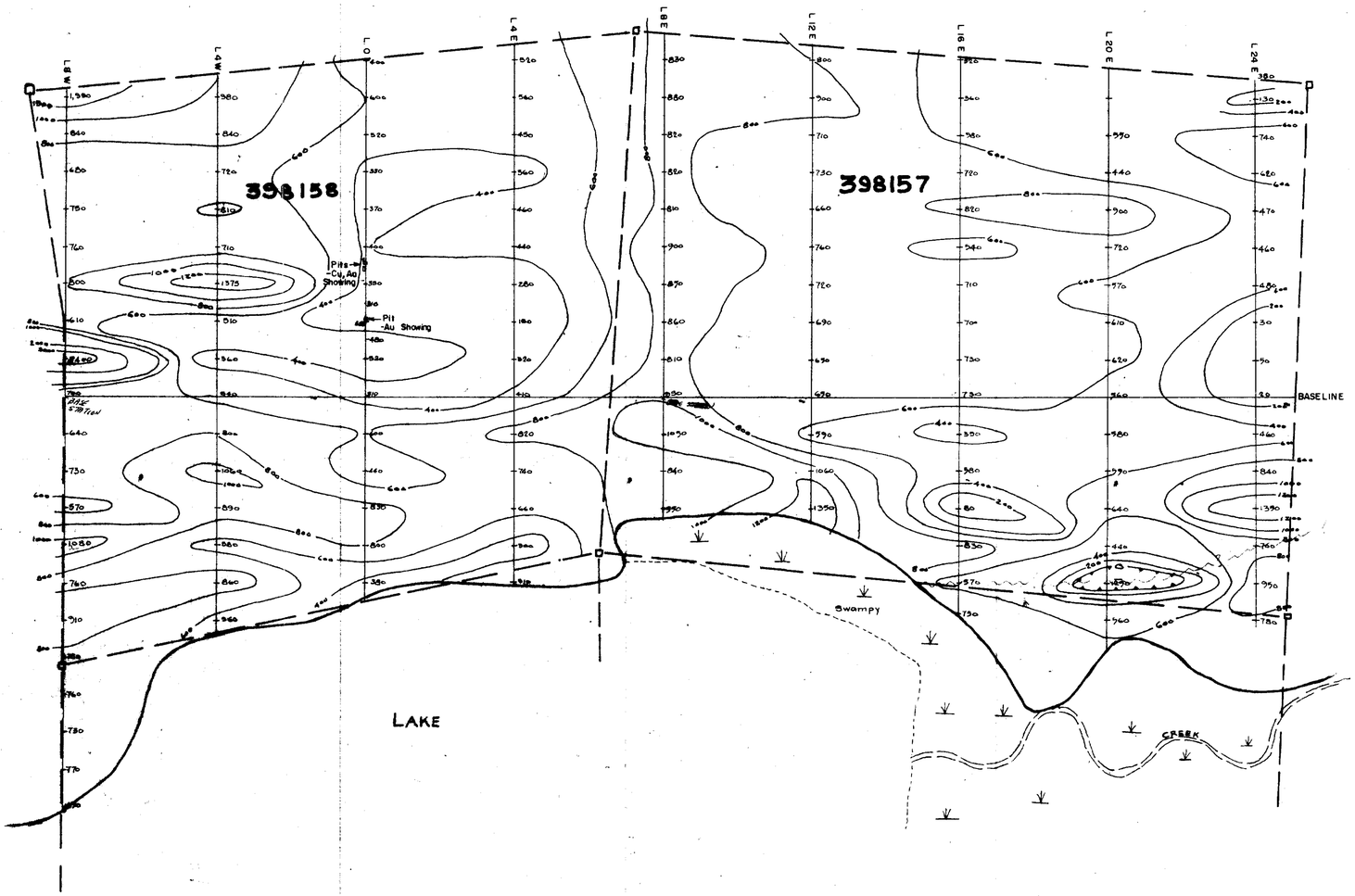
ROOSEVELT_0012-A1 #2

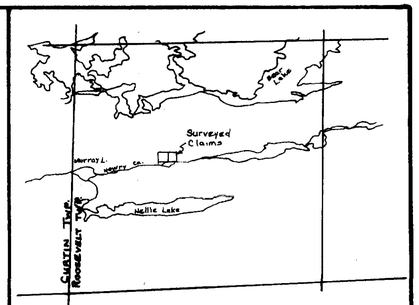
LOCATED IN THE MAP

CHANNEL IN THE FOLLOWING

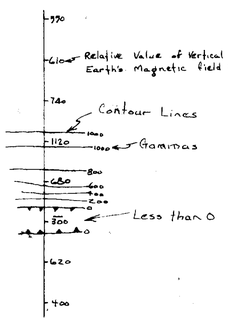
SEQUENCE (X)







LOCATION MAP 1" = 2 mi



Instrument Used : SHARPE MF-1
Contour Interval : 200 Gammas

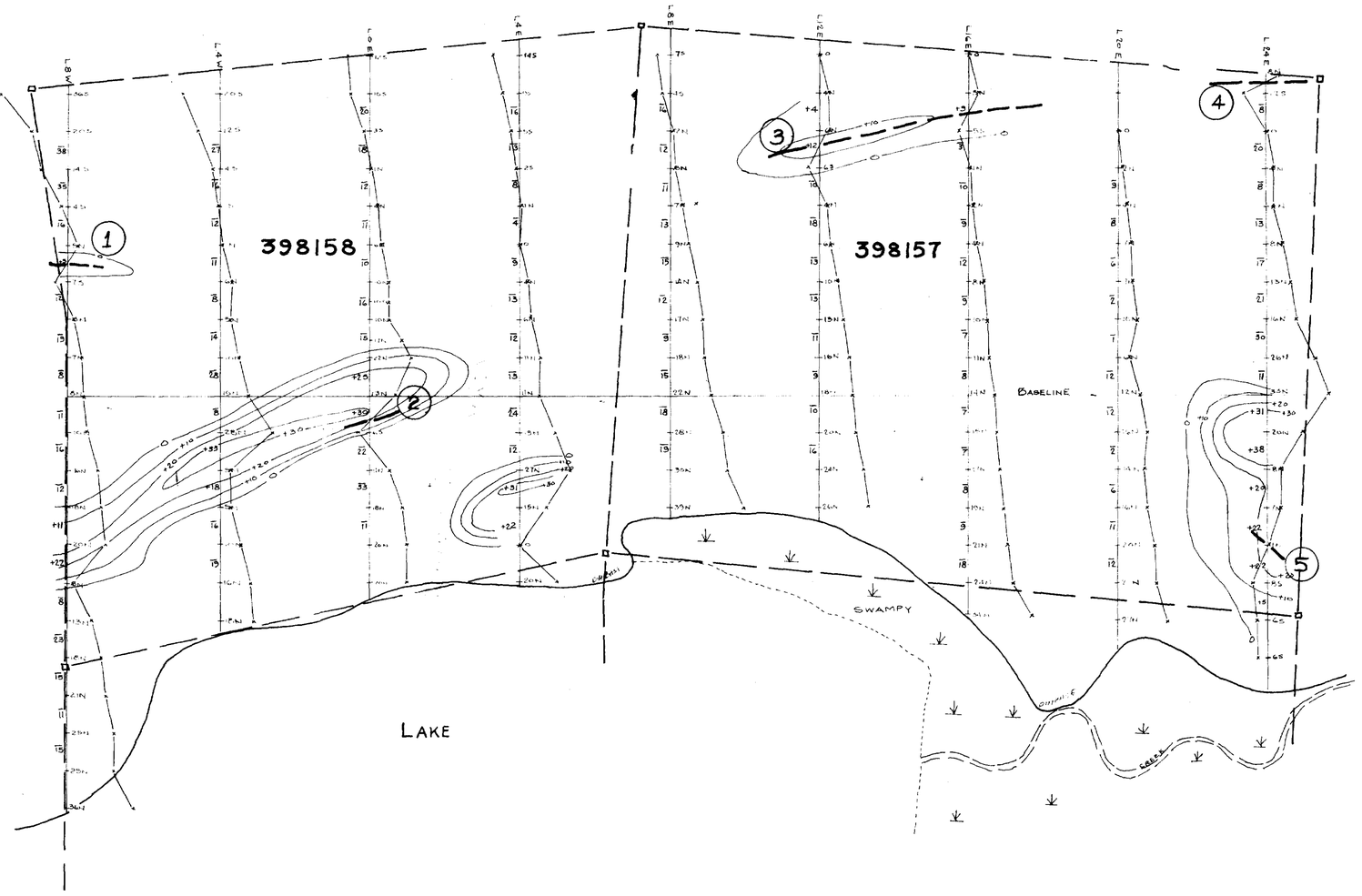
MAGNETOMETER SURVEY
ROOSEVELT TWP.

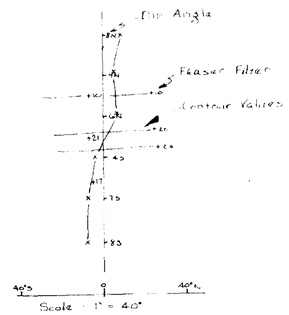
SCALE : 1" = 200'
0 200' 400' 600' 800'

Date of Survey : AUG. 1979	Drawn By : Ray Lashbrook
Survey By : J. Sykora	NTS 41-1-3/9

Raymond Lashbrook

ROOSEVELT-0012-A1 #1
2.3075





Instrument Used : PHOENIX V.L.F. 2
Station : OUTLER, MAINE

ELECTROMAGNETIC SURVEY
ROOSEVELT TWP.

Scale : 1" = 200'
0 200' 400' 600' 800'

Date of Survey : AUG 1979	Drawn By : R Lashbrook
Survey By : D. Lashbrook	N.T.S : 41-I-3/4

Raymond Lashbrook

2.3075

ROOSEVELT-0012-A1 #2