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LOAD: COMBO

2.1935



52007SE0023 52007SE0012 CALEY LAKE

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2-1935'  
RECEIVED  
OCT 1 1975  
PROJECTS UNIT

LONG LAC MINERAL EXPLORATIONS LTD

KOVAL GROUP

PICKLE LAKE AREA, ONTARIO

REPORT ON

MAGNETOMETER SURVEY

A. JAMES WALKER. P. Eng.

July 31, 1974.

## INTRODUCTION

At request of Mr. Dennis Sheehan, Exploration Manager for Long Lac Mineral Exploration Ltd., the wtiyer contracted to carry out linecutting and a magnetic survey over part of their claim group of patented as well as recently staked claims. The survey was carried out to assist a programme of geological mapping and as a possible aid to exploration in extending or locating gold bearing structures.

Linecutting was established to coincide with and expand an old grid.

Field work for this survey was carried out during the period June 18 to July 15th, 1974

## SUMMARY OF RESULTS

The magnetic survey indicates a trend of N 75 E of the underlying Precambrian volcanic rocks. An iron formation with the same general trend is indicated in the north west part of the grid. Numerous isolated magnetic highs were located. A magnetic high occurs over the main showing area and other highs are located along strike both east and west of the showing area. A limited VLF EM test over showing area gave anomalous results.

## PROPERTY

The property is located just south of Bancroft Lake about 25 miles south west of Pickle Lake. Access is by aircraft.

The property consists of 28 patented claims Nos. Pa. 14352 to 14377 inclusive and Pa. 14380 and 14381 as well as 22 claims staked this spring Nos. Pa. 384689 to 384710 inclusive.

## GEOLOGY

Precambrian mafic to felsic volcanics occur on the property. Preliminary information supplied by the Long Lac geologists shows andesite along thr north west part of the grid and is coincident with generally higher magnetics. Rhyolite tuffs occur over the southern two thirds of the grid. The general strike is North 75 East.

**DUPLICATE COPY  
POOR QJALITY ORIGINAL  
TO FOLLOW**

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The showing area is in rhyolite tuffs with minor disseminated sulphides and some shearing.

#### PREVIOUS WORK

Map P. 808 states that "the Koval-chman gold prospect was investigated during 1953-1954 by Hasaga Gold Mines Ltd. Eighty-seven drill holes totalling 20,225 feet, outlined 149,000 tons averaging 0.19 ounces gold per ton and 41,000 tons averaging 0.14 ounces gold per ton".

An old grid was located and new lines were established using the old base line. Many old trenches and stripping areas, as well as drill hole locations were observed during the survey.

#### SURVEY RESULTS

A general trend of N 75 E indicated by the survey conform to recent geological mapping.

Higher values over the north west one third of grid, represents the area of andesite. An iron formation is suggested by the magnetic highs along the north west part of the grid but is covered by swamp. However an outcrop at 14 & 50 N on Line 6 W exposed a 10 foot wide silicious banded zone in andesite containing magnetite.

A weak magnetic high is present over the main showing area. Other weak magnetic zones occur along strike from the showing area and may represent similiar structures. The weak magnetics may reflect the pyrrhotite present in trenches on the zone, or along contacts of different rock types.

A limited VLF EM test on lines 2W and 2E over the showing area showed a conductor coincident with the magnetic high. Good dip angles were observed, but field strength was low, suggesting low grade sulphides or a shear or fault zone. Long Lac geologists advise the conductor in coincident with weak sulphide mineralization observed in a trench in the main showing area.

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CONCLUSION

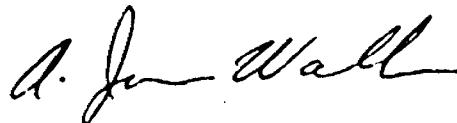
The magnetometer survey will be useful in completing the geological mapping programme.

The gold occurrence appears related to a weak magnetic high. Other magnetic highs along strike from the main showing are prime targets for further exploration, stripping, trenching or drilling. Where possible, the " iron formation " should be checked for gold content.

The VLF EM method seems capable of locating the low grade sulphides associated with the gold occurrence and would be a useful method for locating sulphides as well as shears or fault zones.

The extensive area of felsic volcanics mapped to date was not shown on Preliminary map 803, and the general area should also be considered for base metal possibilities.

Respectfully submitted,



Qualifications: 63.2234

A. James Walker, P. Eng.

SURVEY DATA

Instrument - Magnetometer	Scintrex MFI Fluxgate
VLF EM -	20 Gammas per scale division
	Crone Radem
	(Dip Angle & Field Strength)

CREW            June 18 - July 15, 1974

Magnetometer Survey	H. Shearer, Cranberry Portage, Manitoba
Linecutting and Chaining	S. Walker, Mississauga, Ont. I. Williams, Central Patricia, Ont. C. Beaver, Lansdowne House, Ont. A. Wavey, New Osnaburgh, Ont. H. Ash, New Osnaburgh, Ont. S. Mukuk, New Osnaburgh, Ont.
Drafting and Report	S. Walker, Mississauga, Ont. A. J. Walker, Mississauga, Ont. July 19 - 31, 1974.

DUPLICATE COPY  
POOR QUALITY ORIGINAL  
TO FOLLOW



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Drafting And Report S. Walker, Mississauga, Ont.  
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July 19 - 31, 1974.



52007SE0023 52007SE0012 CALEY LAKE

File 2.1935

900 GEOLOGICAL - GEOCHEMICAL  
TECHNICAL DATA STATEMENT

RECEIVED  
by hand  
OCT 1 1975

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.

PROJECTS UNIT

Type of Survey Geophysical.  
Township or Area Pickle Lake Area.  
Claim holder(s) Little Long Las Mines Ltd.  
Author of Report A James Walker P. Eng.  
Address Mississauga, Ont.  
Covering Dates of Survey June 18 - July 15, 1974, July 19 - 31, 1974  
(linecutting to office)  
Total Miles of Line cut 2.33 miles 8.32 miles

MINING CLAIMS TRAVERSED  
List numerically

PA	384709
(prefix)	(number)
PA	384708
PA	384699
PA	384690
PA	384691
PA	384692
PA	384693
PA	384694
PA	384695
PA	384696
PA	384697 1/2
PA	384711
PA	384712
TOTAL CLAIMS <u>13</u>	

If more insufficient, attach list

SPECIAL PROVISIONS CREDITS REQUESTED	DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	Geophysical <u>40</u>
ENTER 20 days for each additional survey using same grid.	- Electromagnetic <u>40</u>
	- Magnetometer <u>40</u>
	- Radiometric <u>40</u>
	- Other _____
	Geological _____
	Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)  
Magnetometer \_\_\_\_\_ Electromagnetic \_\_\_\_\_ Radiometric \_\_\_\_\_  
(enter days per claim)  
DATE: Oct 1 1975 SIGNATURE: A James Walker  
Author of Report or Agent

PROJECTS SECTION  
Res. Geol. L.D Qualifications 2.1933  
Previous Surveys no previous surveys

Checked by \_\_\_\_\_ date \_\_\_\_\_

GEOLOGICAL BRANCH \_\_\_\_\_

Approved by \_\_\_\_\_ date \_\_\_\_\_

GEOLOGICAL BRANCH \_\_\_\_\_

Approved by \_\_\_\_\_ date \_\_\_\_\_

OFFICE USE ONLY

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

### GEOPHYSICAL TECHNICAL DATA

#### GROUND SURVEYS

Number of Stations 950 Number of Readings 950  
Station interval 50' and 25' over anomalies  
Line spacing 200 feet  
Profile scale or Contour intervals 200 gammas - 200 gammas  
(specify for each type of survey)

#### MAGNETIC

Instrument Sintrex MFI Flux gate magnetometer SINTREX MFI FLUXGATE MAG.  
Accuracy - Scale constant 20 gammas 20 GAMMAS  
Diurnal correction method time-drift subtraction TIME-DRIFT SUBTRACTION  
Base station location 0+00, 38+00W; 21+00E, 16+00E; 21+00E, 6+00E; 6+00E, 40+00E  
0+00, 38+00W; 21+00E, 16+00E; 21+00E, 6+00E; 6+00E, 40+00E  
6+00E, 52+00E; 6+00E, 58+00E  
6+00E, 52+00E; 6+00E, 58+00E

#### ELECTROMAGNETIC

Instrument \_\_\_\_\_  
Coil configuration \_\_\_\_\_  
Coil separation \_\_\_\_\_  
Accuracy \_\_\_\_\_  
Method:  Fixed transmitter  Shoot back  In line  Parallel line  
Frequency \_\_\_\_\_  
(specify V.L.F. station)

Parameters measured \_\_\_\_\_

#### 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 \_\_\_\_\_

Recorded Holder <b>Little Long Lac Mines Ltd.</b>
Township or Area <b>Matapesatakun Bay and Caley Lake Areas</b>

Type of survey and number of Assessment days credit per claim	Mining Claims
<p><b>Geophysical</b></p> <p>Electromagnetic _____ days</p> <p>Magnetometer <u>40</u> days</p> <p>Radiometric _____ days</p> <p>Induced polarization _____ days</p> <p>Section 86 (18) _____ days</p> <p>Geological _____ days</p> <p>Geochemical _____ days</p> <p>Man days <input type="checkbox"/> Airborne <input type="checkbox"/></p> <p>Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/></p>	<p>Pa. 384689 to 97 inclusive</p> <p>384708 - 09 - 11 - 12</p>
<p><b>Notice of Intent to be issued:</b></p> <p><input type="checkbox"/> Credits have been reduced because of partial coverage of claims.</p> <p><input type="checkbox"/> Credits have been reduced because of corrections to work tabs and figures of applicant.</p> <p><input type="checkbox"/> No credits have been allowed for the following mining claims as they were not sufficiently covered by the survey.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<div data-bbox="1112 712 1469 989" style="border: 2px solid black; padding: 5px; text-align: center;"> <p>MINISTRY OF NATURAL RESOURCES</p> <p><b>RECEIVED</b></p> <p>MAR 17 1976</p> <p>RESIDENT GEOLOGIST'S OFFICE</p> <p>SIoux LOOKOUT</p> </div>

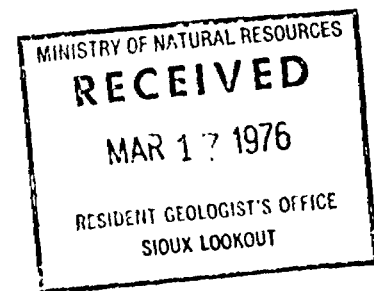
The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical -- 80; Geological -- 40; Geochemical -- 40;



Ontario

Ministry of  
Natural  
Resources

March 11, 1976



Mr. H. L. Bell  
Mining Recorder  
Ministry of Natural Resources  
Box 669  
Court House  
Sioux Lookout, Ontario  
POV 2T0

Our file number 2.1935

Your file number

Dear Sir:

Re: Mining Claims Pa. 384689 et al, Matapesatakun and  
Caley Lake Areas, File 2.1935

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

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

Yours very truly,

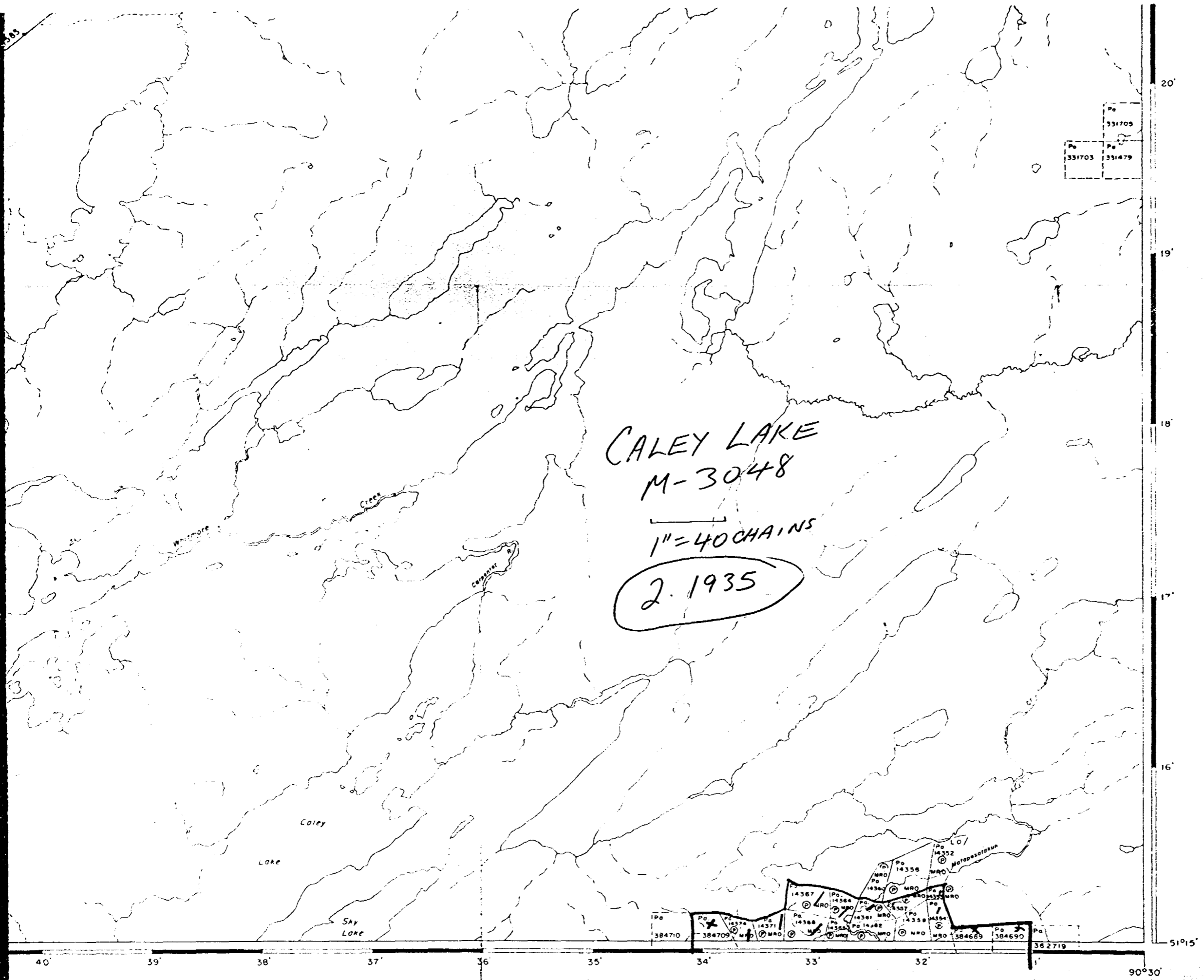
J. R. McGinn  
Director  
Lands Administration Branch

Whitney Block, Room 1617  
Queen's Park  
Toronto, Ontario  
M7A 1X1  
Phone: 416-965-6918

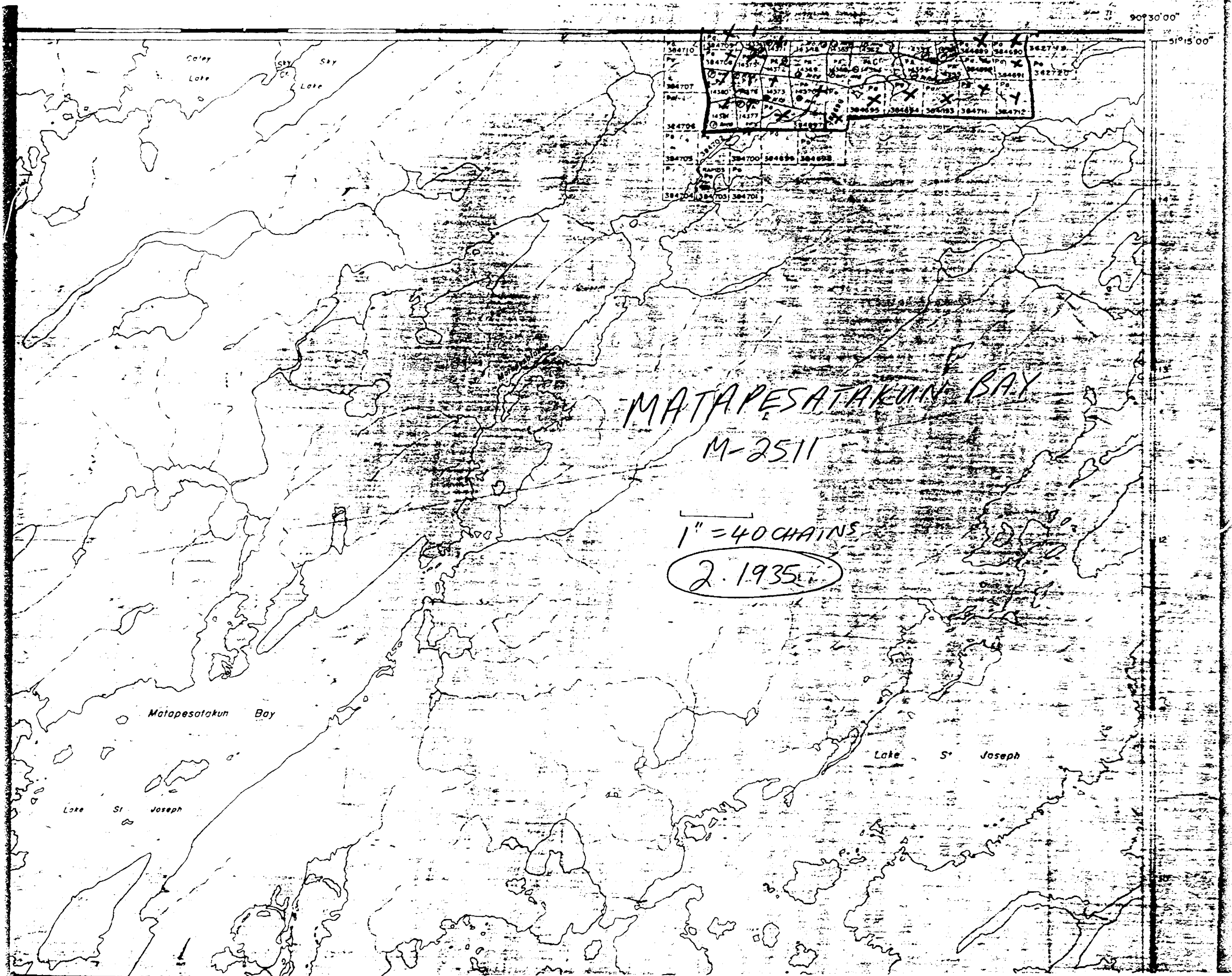
DN/nw

cc: Little Long Lac Mines Ltd.  
Toronto, Ontario  
Attn: Mr. G. Alex Motzok

cc: Resident Geologist  
Sioux Lookout, Ontario /



METAPESATAKUN BAY M-2511



90°30'00"

51°15'00"

MATAPESATAKUN BAY

M-2511

1" = 40 CHAINS

2. 1935

Matapesatakun Bay

Lake St. Joseph

Lake St. Joseph

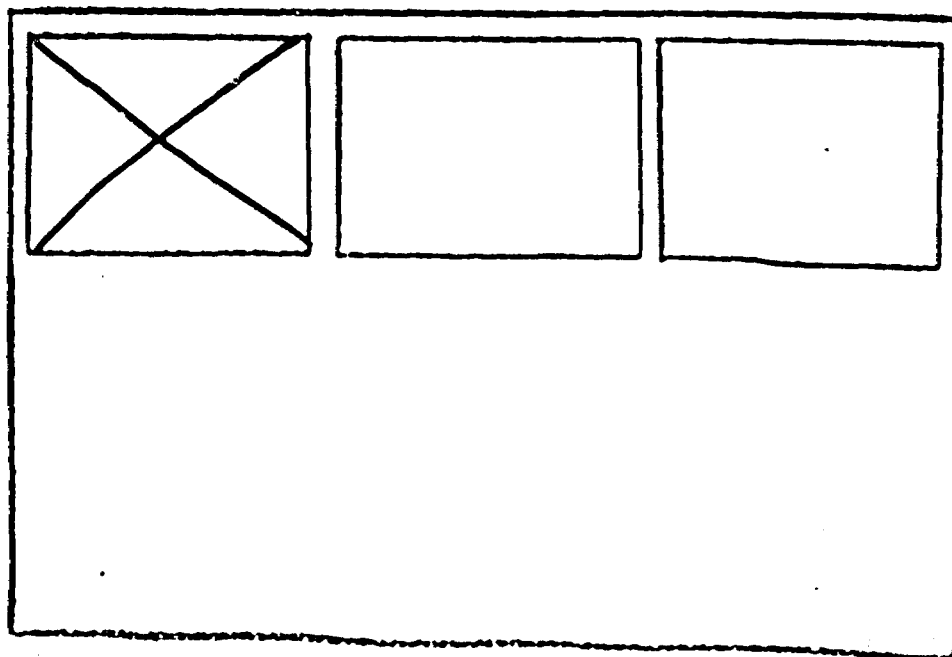


SEE ACCOMPANYING  
MAP(S) IDENTIFIED AS  
520/07SE-0012, #1

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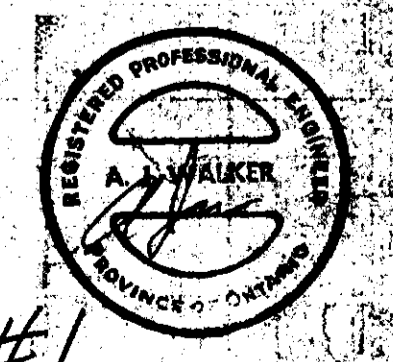
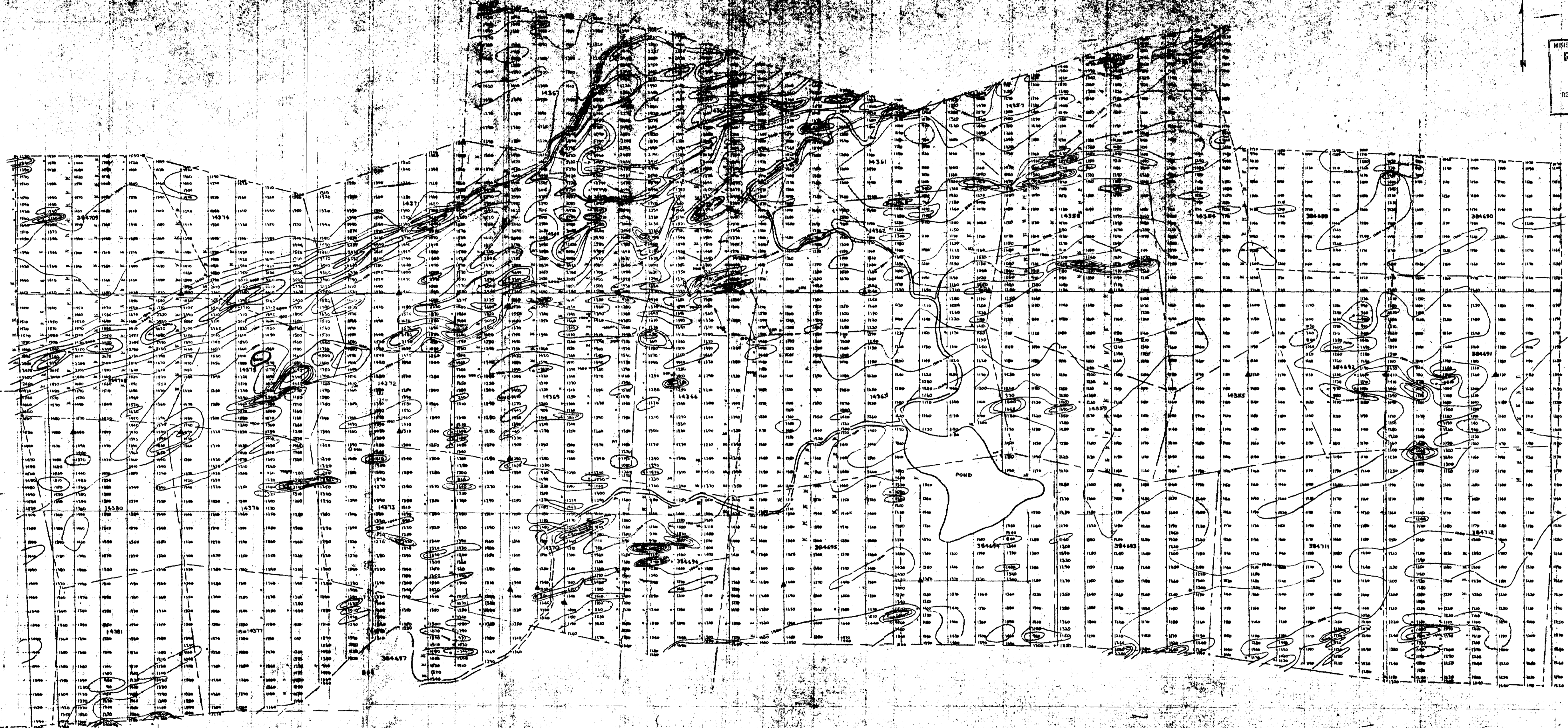
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LOCATED IN THE MAP  
CHANNEL IN THE FOLLOWING  
SEQUENCE (X)

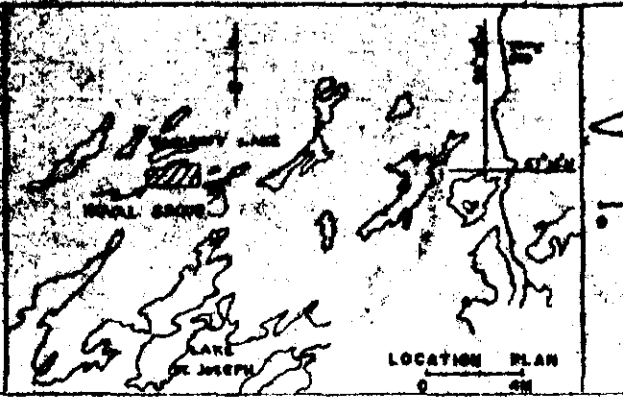




MINISTRY OF NATURAL RESOURCES  
**RECEIVED**  
MAR 17 1976  
RESIDENT GEOLOGIST'S OFFICE  
SIOUX LOOKOUT



520/07 SE - 0012, #1



1:25,000 MAP & PLAN  
VALUES IN GAMMAS ABOVE  
ARBITRARY BASE LEVEL  
NEGATIVE VALUE  
BASE STATION  
1000 GAMMAS  
2000 PROFILE SCALE  
CONTOUR INTERVAL 100 METERS  
X BUTCHER AREA  
MC SWAMP

LONG LAQ MINERAL EXPLORATIONS LTD.  
NOVAL GROUP  
PICKLE LAKE AREA, ONTARIO  
MAGNETOMETER SURVEY  
0 200 400 600  
JULY 1974  
A. JAMES WALKER SURVEY CONTRACTOR

