

2.2571



31M04SW0042 2.2571 STRATHCONA

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REPORT ON GROUND
MAGNETOMETER SURVEY

LOWELL LAKE
PROPERTY

RECEIVED
DEC 23 1977
PROJECTS UNIT

Toronto, Ontario
December 15, 1977

W.Ng-See-Quan
St. Joseph Explorations Limited

SUMMARY

The ground magnetometer survey delineated the pyrrhotite rich tuffaceous unit that occurs on the property. There was anomalous magnetic correlation with two horizontal loop anomalies determined in a previous survey.

INTRODUCTION

The ground magnetometer survey was run to see if any of the three horizontal loop anomalies (see "Report on Horizontal-Loop Electromagnetic survey - Lowell Lake Property" by W.Ng-See-Quan, April 1, 1977) had a magnetic expression. This survey also tried to trace the pyrrhotite rich tuffaceous unit that has some mineralization of chalcopyrite and sphalerite.

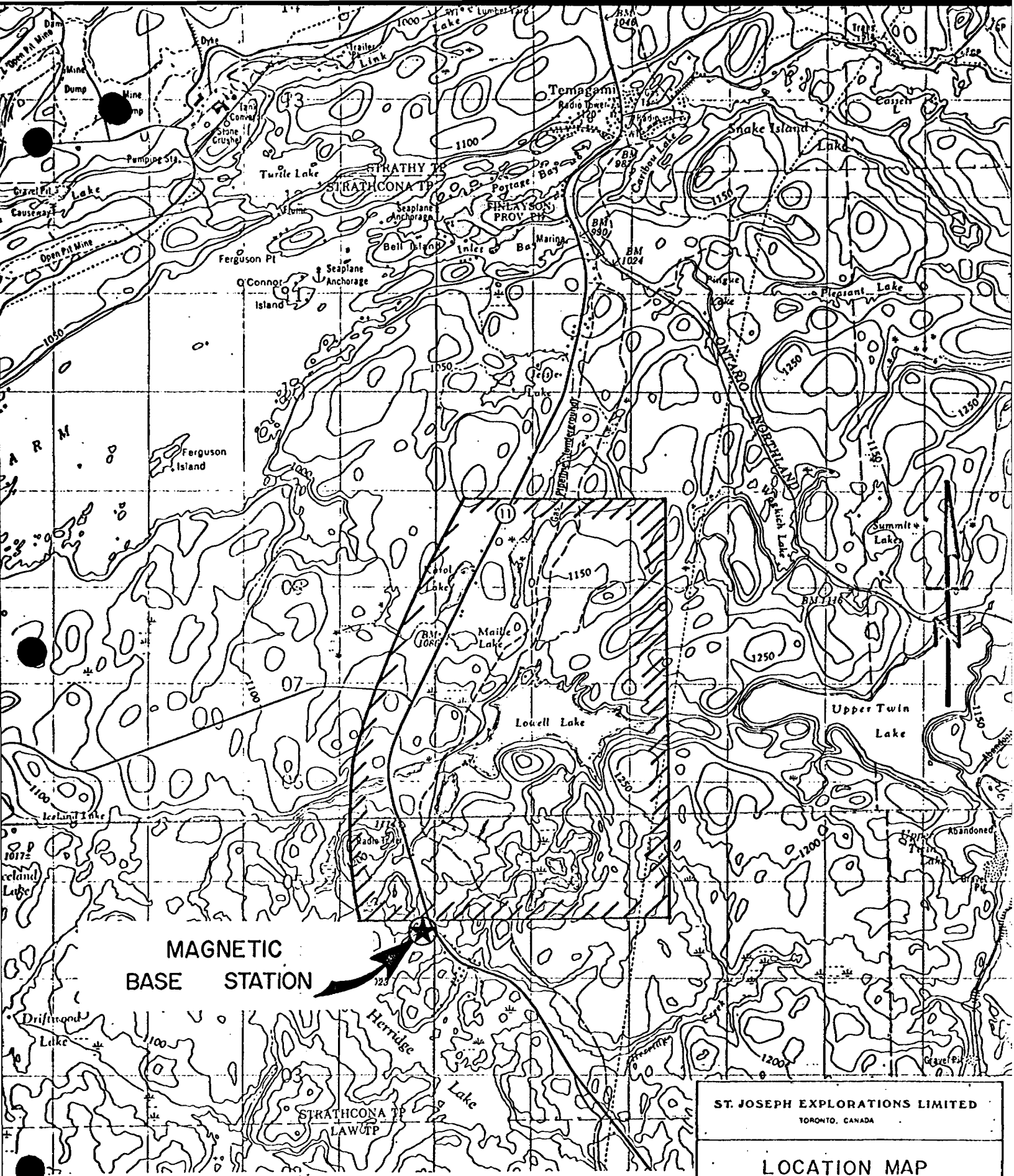
Several areas of the property were not covered because of Highway 11's right of way, commercial properties, swamps and open water on some of the lakes during the winter-time when the lakes were surveyed.

PROPERTY, DESCRIPTION and LOCATION

The Lowell Lake Property consists of 47 contiguous claims optioned from L.Savard of Val d'Or, Quebec. The property is located in Strathcona Township, N.T.S. 31M/4, in the Sudbury Mining Division. This property is about 5-6 kilometers south of the town of Temagami (see location map).

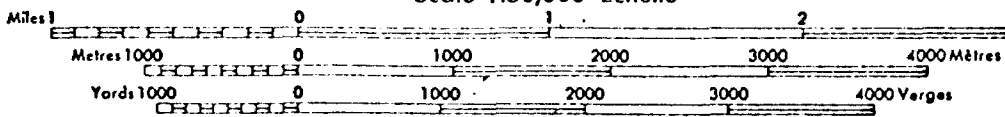
ACCESS

Access to the property is via the Lowell Lake road which runs through the property (see location map). Highway 11 runs through some of the claims along the west side of the property.



**MAGNETIC
BASE STATION**

Scale 1:50,000 Échelle



ST. JOSEPH EXPLORATIONS LIMITED
TORONTO, CANADA

LOCATION MAP

SCALE 1:50,000	PROJECT NO 189	SHEET NO
APPROX LAT & LONG OF LOWER RT COR OF DWG	REPORT NO	OF
— — — — — LATITUDE		MTS 31M
— — — — — LONGITUDE		

HISTORY

Work has been done on ground covered by this property since 1955. Below is a summary of previous work:

- 1955 - Sylvante GML: trenching and sampling of area north of Lowell Lake.
 - Newkirk Mining Corporation: ground magnetic and EM resistivity surveys and 5 short holes (269') drilled in Maille Lake area.
- 1956 - Trembor ML: ground EM and 'radiograph' surveys and geological mapping. 5 holes (1434') were drilled at south end of small lake about 305 metres SW of Lowell Lake. Only minor sulphides were encountered.
 - S.McWilliam: 3 holes (168') were drilled in area just south of ground held by Trembor ML.
- 1969 - Vinnie ML: geological mapping, soil geochemistry (Hg) survey and magnetic survey in Maille Lake area.
- 1971 - Riocanex: examination of property, samples analysed for SiO_2 , TiO_2 , K_2O , Mn_2O , Au, Cu, Zn.
- 1972 - Manbar ML: VLF and magnetic surveys in area south and southwest of Lowell Lake.
- 1974 - Copperfields (Teck): VLF-EM and magnetic surveys on SW part of Lowell Lake.
- 1975 - Umex: examination of property and several samples assayed.
- 1977 - St. Joseph Explorations Ltd.: horizontal loop EM and geological surveys.

GENERAL GEOLOGY

The Lowell Lake Property is underlain by a belt of Archean volcanics which strike N-S with dips of 30° to 50° to the east.

The volcanics are mainly mafic in composition. Intrusions of feldspar porphyries and diorite-gabbro are present. The feldspar porphyries intrude the volcanics near the showings. To the east the volcanics are overlain by Gowganda Formation and a large granitic body lies to the west.

For a more detailed look at the geology of the property see "Report on Geological Mapping - Lowell Lake Property" by W.Paul Binney, September 30, 1977;.

GEOPHYSICAL SURVEY

The property was surveyed using a Barringer Proton Magnetometer GM-122 and a Scintrex Base Station Recorder MBS 2 for diurnal corrections. (see appendix I for equipment specifications).

Readings were taken every 25m and every 12.5m on lines which were 50m apart.

Several areas of the property were not surveyed because of open water during the winter months of the survey, extremely wet swamps in the summer months of the survey, Highway 11's right of way, numerous cottages and other buildings on the property. This lack of information did in no way hinder our interpretation of the magnetic survey.

RESULTS and INTERPRETATION

The results of the survey are plotted on maps 1, 2 and 3 (see pockets).

The magnetic background of the property is about 59000 γ with magnetic relief of up to 63000 γ .

The numerous magnetic anomalies seem to correlate with the pyrrhotite rich tuffaceous unit as mapped by Binney. There is good magnetic correlation with EM anomalies II and III determined by previous HLEM survey done by St. Joseph Explorations (see "Report on Horizontal-Loop Electromagnetic Survey - Lowell Lake Property" by W.Ng-See-Quan, April 1, 1977).

CONCLUSIONS and RECOMMENDATIONS

The ground magnetic survey was successful in delineating the pyrrhotite rich tuffaceous unit. The diamond drilling programme scheduled for January of 1978 will determine whether any economic mineralization is

associated with the anomalies determined in this survey
and those of the HLEM survey.

Respectfully submitted,

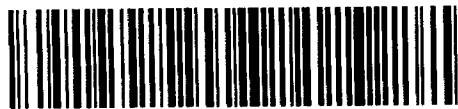
Wallace Ng-See-Quan

WN*MS

Wallace Ng-See-Quan



GEOPHYSICAL - GEOLOGIC / TECHNICAL DATA



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900

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

Type of Survey(s) Ground Magnetometer
Township or Area Strathcona
Claim Holder(s) St. Joseph Explorations Limited
Survey Company St. Joseph Explorations Limited
Author of Report W. Ng-See-Quan
Address of Author c/o St. Joseph Explorations Ltd.
Covering Dates of Survey Feb.-Apr. & Sept.-Dec., 1977
Total Miles of Line Cut

MINING CLAIMS TRAVERSED
List numerically

See Attached List

(prefix) (number)

SPECIAL PROVISIONS CREDITS REQUESTED

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

ENTER 20 days for each additional survey using same grid.

Geophysical DAYS per claim
- 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: Dec. 15/77 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. Qualifications 2.1668

Previous Surveys

Table with 4 columns: File No., Type, Date, Claim Holder

TOTAL CLAIMS

If space insufficient, attach list

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 4427 Number of Readings 4427

Station interval 25m and 12.5m Line spacing 100m and 50m

Profile scale

Contour interval 500 Y and 1000 Y

Instrument Barringer GM-122

Accuracy - Scale constant ± 1 Y

Diurnal correction method Base Station Recorder - Scintrex MBS-2

Base Station check-in interval (hours) 1 hr

Base Station location and value L7N, 2+50E (58995 Y) and 50m North of trailer at Papa John's Camp - MBS-2 (58857 Y)

Instrument

Coil configuration

Coil separation

Accuracy

Method: Fixed transmitter Shoot back In line Parallel line

Frequency (specify V.L.F. station)

Parameters measured

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

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

MAGNETIC

ELTROMAGNETIC

GRAVITY

INDUCED POLARIZATION RESISTIVITY

MINING CLAIMS TRAVERSED

S437824	S446576
S437825	S446577
S437826	S446578
S437827	S446579
S437828	S446580
S437829	S446581
S437830	S446582
S437831	S446583
S437832	S446584
S437833	S446585
S437694	S438464
S437697	S438465
S437698	S438466
S437699	S438467
S437700	S438468
S437701	S438469
S437702	S438470
S437703	S438471 ✓
S437704	S438472
S437895	S438473
S437896	S438474
S437897	
S437898	
S437899	
S437937	
S437946	

TOTAL CLAIMS = 47

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

SAND and GRAVEL

- ① Gravel File 132830
- ② Gravel File 146693

Sand and gravel in this township reserved until further notice.

AREAS WITHDRAWN FROM STAKING

S.R. - SURFACE RIGHTS		M.R.-MINING RIGHTS		
Section	Order No.	Date	Disposition	File
① 43 (R 50 1970)	W 70/76	13/12/76	S R	146693

Island 25 (Bell Id.) - all Crown land reserved. File 68120
 " 27 - " " " " " " 18119
 " 49 (O'Connor) - " " " " " " 181200

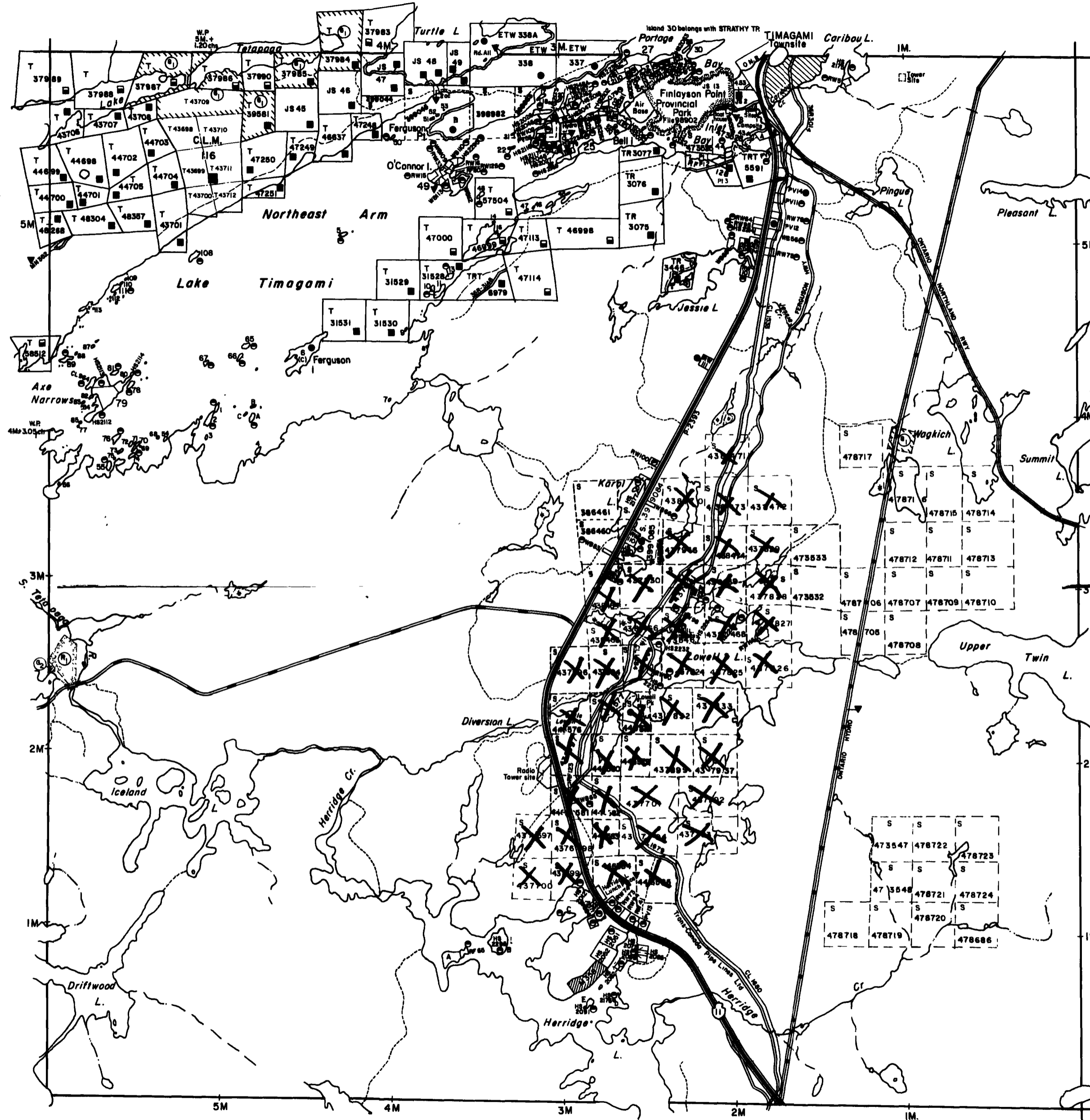
Islands in Lake Timagami NOT OPENED FOR STAKING.

This Township lies within THE CORPORATION OF THE IMPROVEMENT DISTRICT OF TEMAGAMI. File 176049.

BRIGGS TP. M.428

RIDDELL TP. M.578

STRATHY TP. M.596



LAW TP. M.529

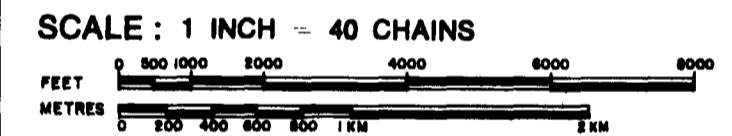
SE CORNER co-ordinates
 LAT. 46°58'20" APPROX.
 DER. 79°45'20" APPROX.

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
 TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
 LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" SURFACE RIGHTS ONLY	○
" MINING RIGHTS ONLY	◐
LEASE, SURFACE & MINING RIGHTS	◑
" SURFACE RIGHTS ONLY	◒
" MINING RIGHTS ONLY	◓
LICENCE OF OCCUPATION	◔
CROWN LAND SALE	CS.
ORDER-IN-COUNCIL	OC
RESERVATION	⊙
CANCELLED	⊘
SAND & GRAVEL	⊚



ACRES	HECTARES
40	16

TOWNSHIP 2.2571
STRATHCONA

DISTRICT NIPISSING

MINING DIVISION SUDBURY

Ministry of Natural Resources

Ontario Surveys and Mapping Branch

Date MAY 1974

Plan No.

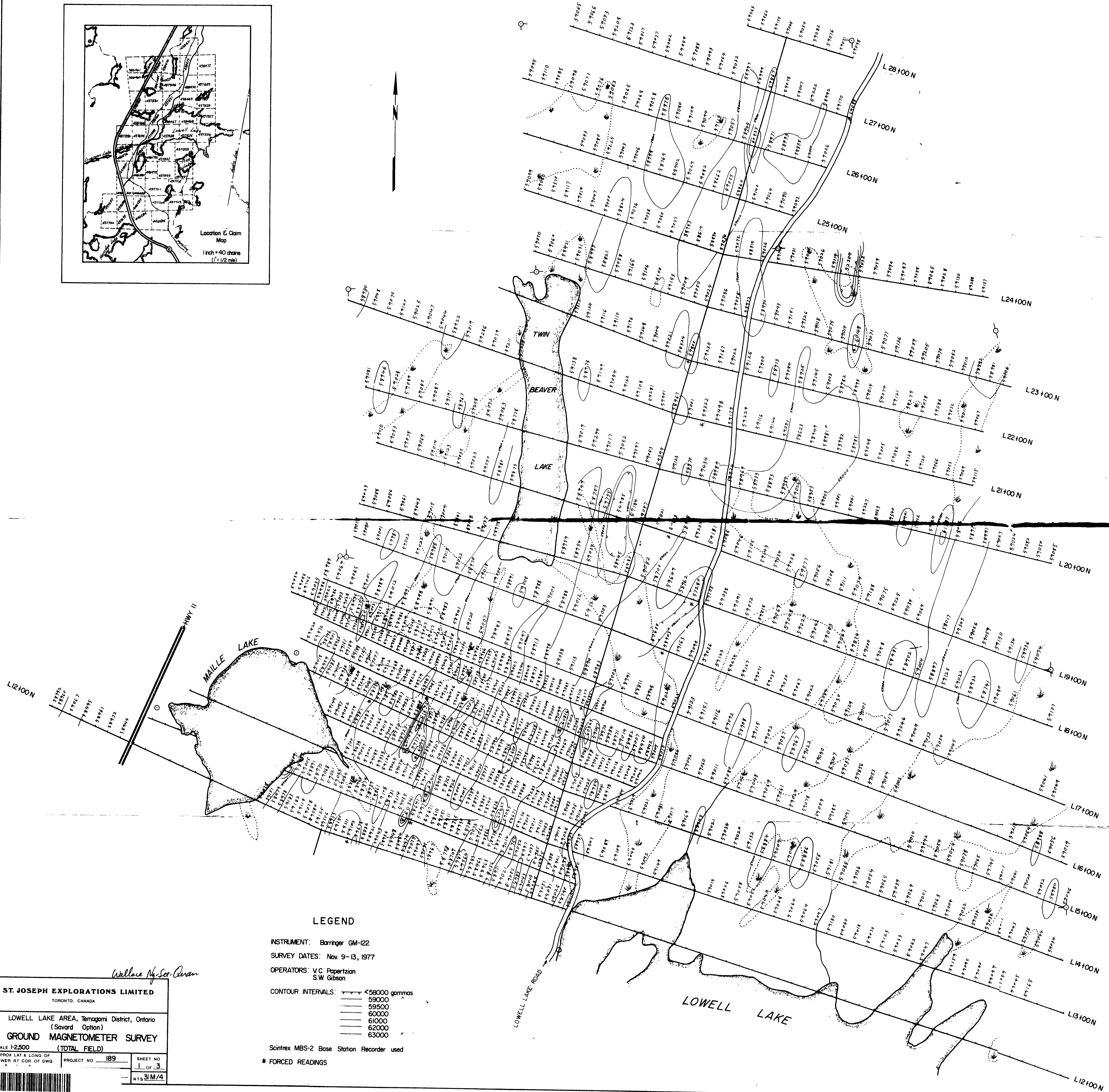
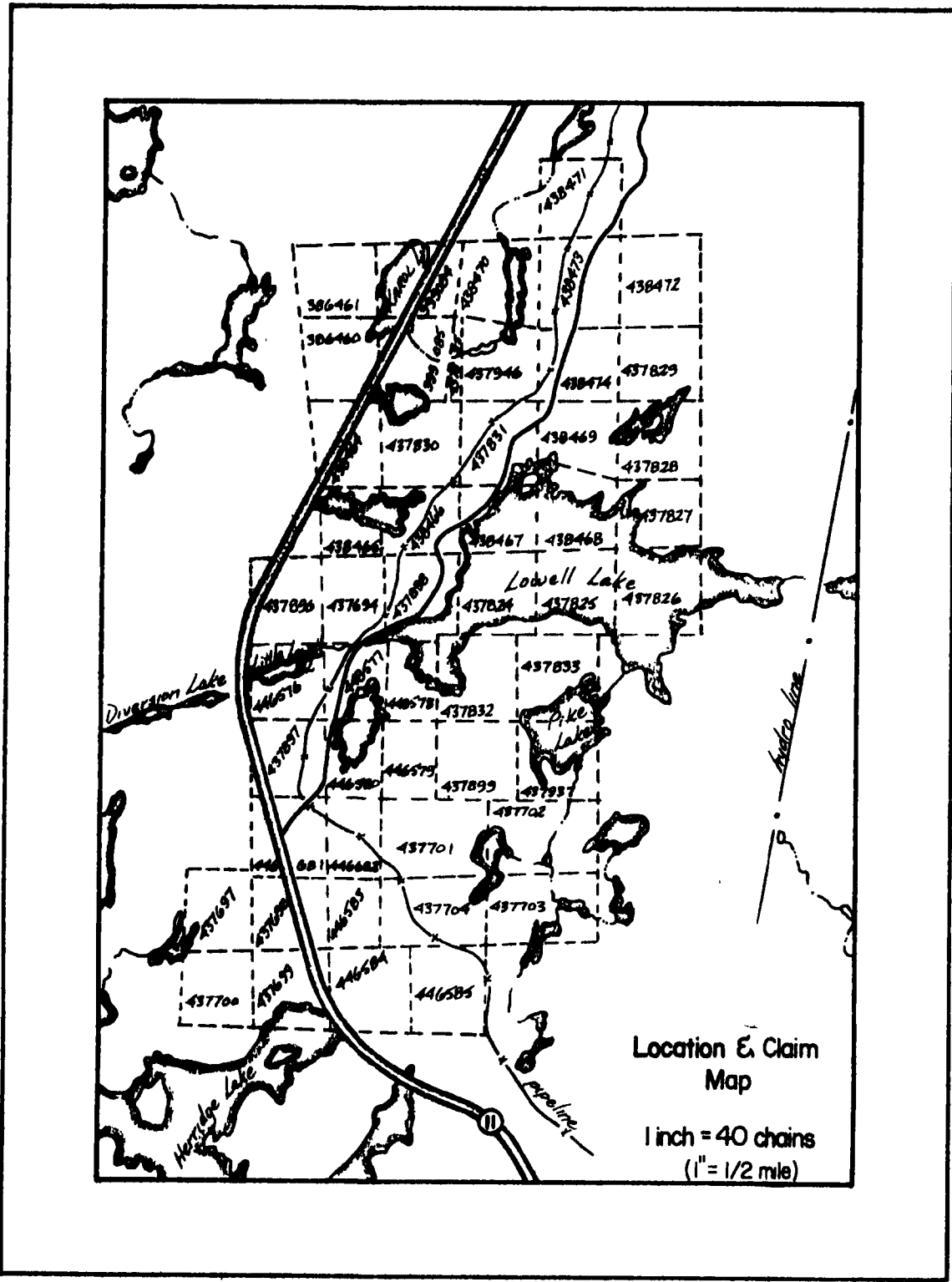
Whitney Block
 Queen's Park, Toronto

M.595

DATE OF ISSUE
 JAN - 6 1978
 SURVEYS AND MAPPING
 BRANCH



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LEGEND

INSTRUMENT: Barringer GM-122
 SURVEY DATES: Nov. 9-13, 1977
 OPERATORS: V.C. Papertzan
 S.W. Gibson

CONTOUR INTERVALS: <58000 gammas
 58000
 59500
 60000
 61000
 62000
 63000

Scintrex MBS-2 Base Station Recorder used
 * FORCED READINGS

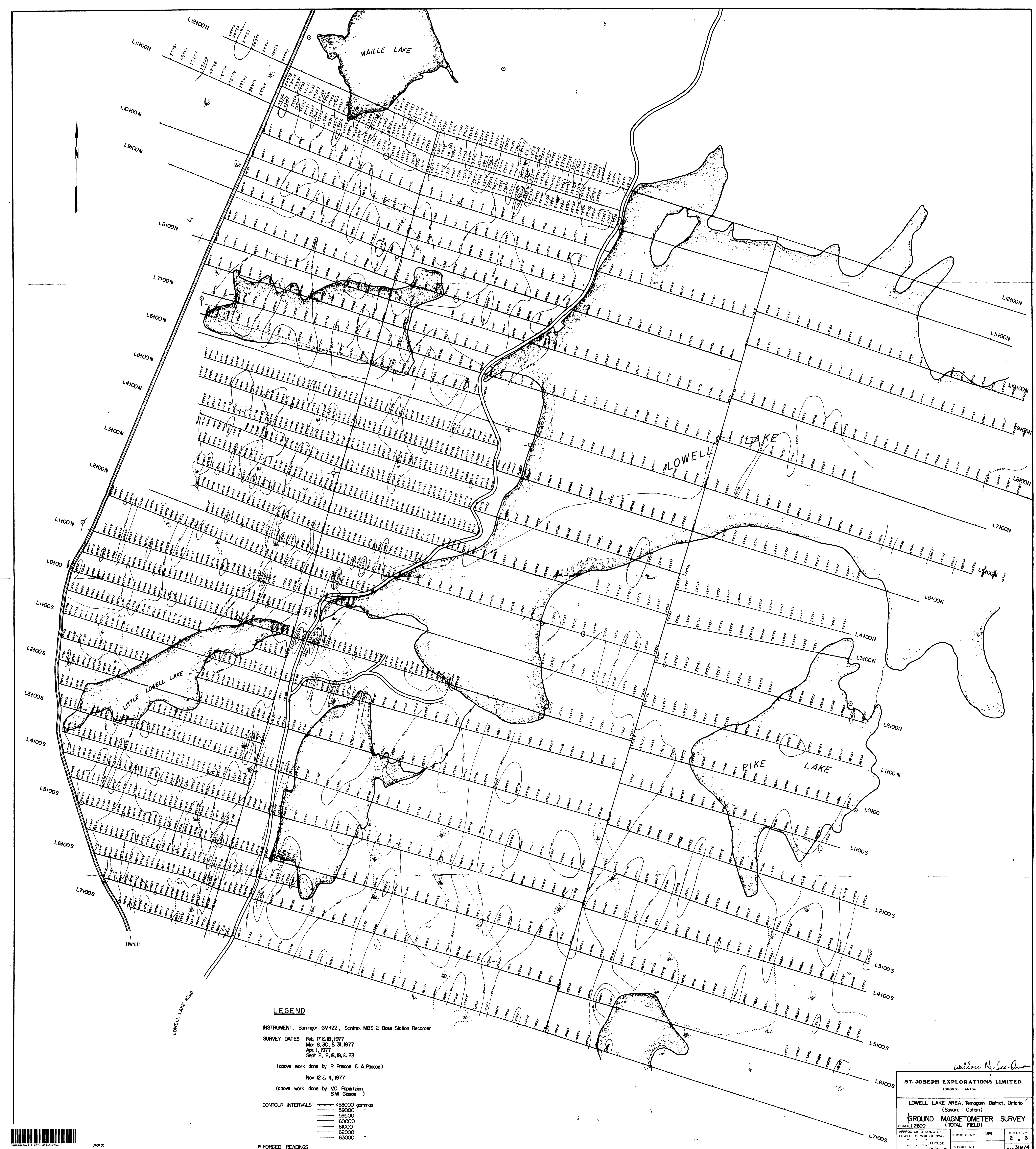
Wallace H. Sec. Owen

ST. JOSEPH EXPLORATIONS LIMITED
 TORONTO, CANADA

LOWELL LAKE AREA, Temagami District, Ontario
 (Savard Option)
GROUND MAGNETOMETER SURVEY

SCALE 1:2,500 (TOTAL FIELD)
 APPROX LAT & LONG OF LOWER RT COR OF DWG PROJECT NO. 189 SHEET NO. 1 OF 3
 NTS 31 M/4





LEGEND

INSTRUMENT: Barringer GM-122, Scintrex MBS-2 Base Station Recorder
 SURVEY DATES: Feb. 17 & 18, 1977
 Mar. 8, 30, & 31, 1977
 Apr. 1, 1977
 Sept. 2, 12, 18, 19, & 23
 (above work done by R. Pascoe & A. Pascoe)
 Nov. 12 & 14, 1977
 (above work done by VC. Repertizan & S.W. Gibson)

CONTOUR INTERVALS:
 ———— 58000 gamma
 ———— 59000
 ———— 60000
 ———— 61000
 ———— 62000
 ———— 63000

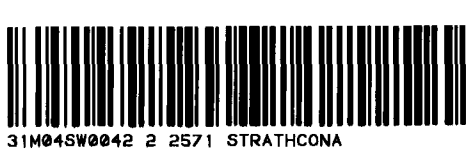
* FORCED READINGS

Wallace Ng, Sec. - Geo.

ST. JOSEPH EXPLORATIONS LIMITED
 TORONTO, CANADA

LOWELL LAKE AREA, Temagami District, Ontario
 (Saward Option)
 GROUND MAGNETOMETER SURVEY
 (TOTAL FIELD)
 SCALE 1:2800

APPROX. LAT. & LONG. OF LOWER RT. COR. OF DWG.	PROJECT NO. 189	SHEET NO. 2 OF 3
— LATITUDE	REPORT NO.	NTS 31M/4
— LONGITUDE		



LEGEND

INSTRUMENT: Barringer GM-122

SURVEY DATES: Aug. 1-4, 1977
Aug. 24-31, 1977

(work done by L. Binney, E. A. Pascoe)

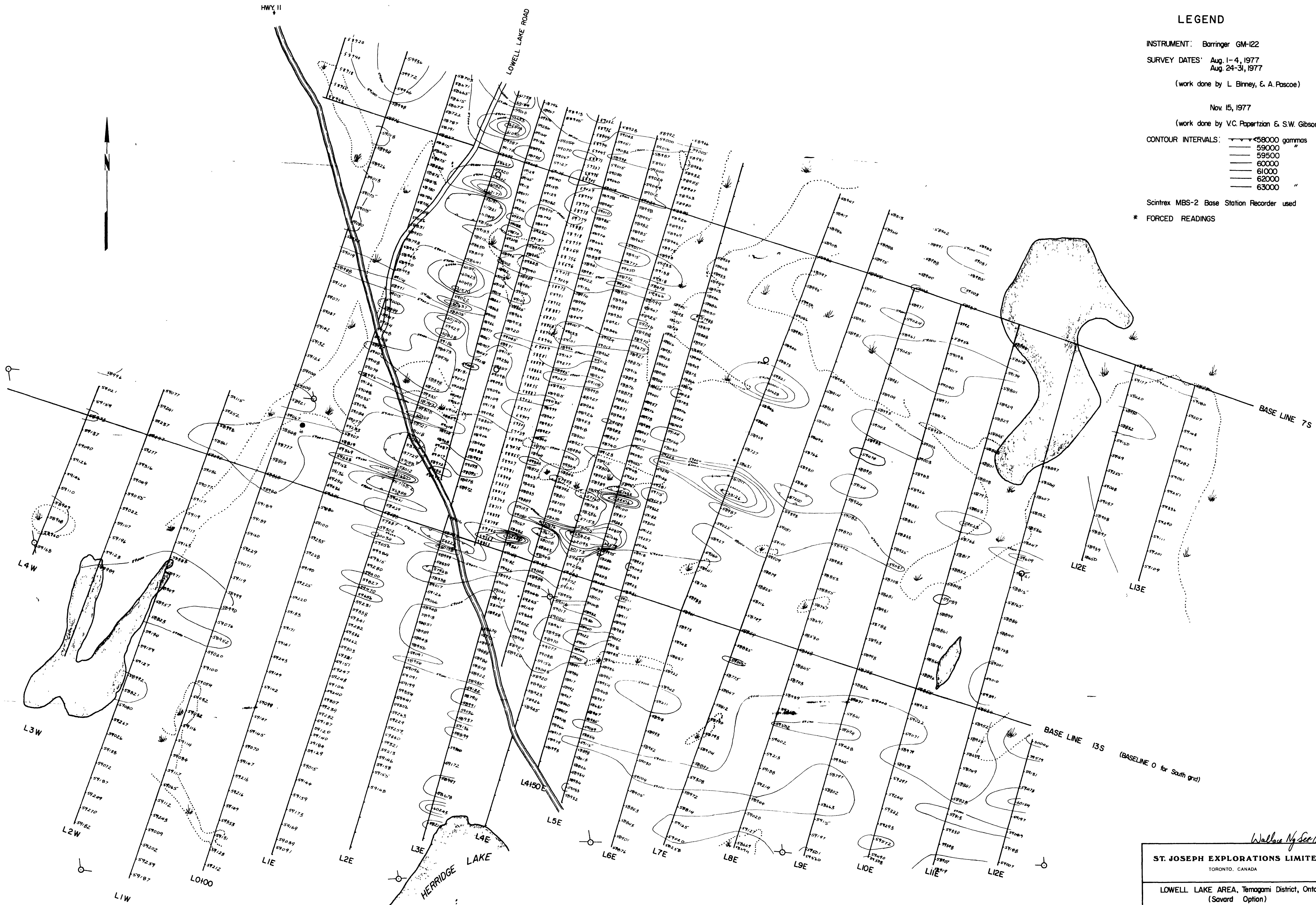
Nov. 15, 1977

(work done by V.C. Papertzion & S.W. Gibson)

CONTOUR INTERVALS:
 - - - 58000 gammas
 - - - 59000 " "
 - - - 60000 " "
 - - - 61000 " "
 - - - 62000 " "
 - - - 63000 " "

Scintrex MBS-2 Base Station Recorder used

* FORCED READINGS



Wallace Ng See Arman

ST. JOSEPH EXPLORATIONS LIMITED
 TORONTO, CANADA

LOWELL LAKE AREA, Temagami District, Ontario
 (Savard Option)

GROUND MAGNETOMETER SURVEY
 SCALE 1:2500 (TOTAL FIELD)

APPROX LAT & LONG OF LOWER RT COR OF DWG	PROJECT NO. 189	SHEET NO. 3 OF 3
— — — LATITUDE	REPORT NO. —	NTS 31M/4
— — — LONGITUDE		