



Report on Magnetometer
Hearst, Skead and Rattray
Townships, Ontario

Introduction

Linecutting, followed by Magnetometer and VLF-EM surveys were carried out on three separate grids in Hearst, Skead and Rattray townships. The results are shown on the plans in the back pocket.

Location, Access and Ownership

The claims covered by the surveys are located in the south west corner of Hearst township, lot 1 concession 6 Skead Township, along the north end of the Skead-Rattray townships boundary and in the north-west part of Rattray township. The claims are numbered L 442070-442074 recorded in the name of R.A. MacGregor, 134 Palace Drive, Sault Ste. Marie, Ontario and L 476695, 476697, 476699, 476702-476704, 476706-476710 and 491641 recorded in the name of L. Lacasse Larder Lake, Ont.

Access is by old logging roads which lead from highway 624 about 8 miles south of Larder Lake, Ontario.

Previous Exploration

Previous work has consisted of some pits, trenches and stripping for which no records could be found.

Geology

The property is underlain by a volcanic sequence of rocks, mostly mafic volcanics with narrow felsic volcanic bands. The geology of Rattray township is not well known, and will be mapped in more detail when the snow is off the ground.

Survey Procedure

Base lines were cut east-west along the Hearst-Skead boundary' at N 30° W in the Skead-Rattray boundary area and north-south on the Rattray township group. Cross lines were run at 400 foot intervals normal to the base lines. All lines were chained and picketed at 100 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 KH). 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

Magnetometer

Grid 1 shows a band of high magnetics in the north east corner. This is possibly a band of ultramafics similar to that found on the claims to the south.

Grid 2 has relatively flat magnetic profile except at 5+50 S to 7+00 S on the baseline where there is a strong negative magnetic anomaly. The cause is not known.

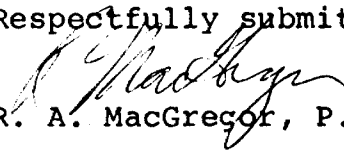
Grid 3 also has relatively flat magnetics except at 3+00W on line 12 N and 1+00W on 8N where there is a narrow strong magnetic anomaly with an adjacent magnetic negative anomaly on 8N. This anomaly could be caused by pyrrhotite.

VLF-EM

On Grid 1 there are a number of cross-overs. The most interesting is on line 32E near the north end. It approximately coincides with a band of high magnetics.

Grid 3 shows a strong cross-over on line 12N coinciding with a narrow magnetic high. Sulphides are the suspected cause.

Respectfully submitted


R. A. MacGregor, P.Eng.

Feb. 18, 1977



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) Magnetometer
Township or Area Skead & Ratray
Claim Holder(s) L. Lacasse
Survey Company
Author of Report R.A. MacGregor
Address of Author 134 Palace Dr. SAULT STE. MARIE, Ont
Covering Dates of Survey Jan - Feb. 1977
Total Miles of Line Cut 3.4

Table with 2 columns: SPECIAL PROVISIONS CREDITS REQUESTED, DAYS per claim. Includes rows for Geophysical (Electromagnetic, Magnetometer, Radiometric, Other) and Geological (Geochemical).

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

DATE: September 11/78 SIGNATURE: [Signature]

Res. Geol. [Signature] Qualifications 2.1102
Previous Surveys Table with columns: File No., Type, Date, Claim Holder

MINING CLAIMS TRAVERSED List numerically. List of claim numbers (L. 476697 to L. 491641) with handwritten annotations and a calculation: Area of claims N.C. = 4 1/2, 20 x 8 = 160 / (8+4) = 10 days. Includes 'Circled mining claims not covered / No Credits' and 'TOTAL CLAIMS 11'.

OFFICE USE ONLY

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 195 Mag. Number of Readings 195 Mag.
Station interval 100' Line spacing 400'
Profile scale
Contour interval 1000 gammas

MAGNETIC

Instrument Sharpe MF-1
Accuracy - Scale constant 20 gammas on lowest scale
Diurnal correction method looping method
Base Station check-in interval (hours) two hours or less
Base Station location and value

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
Method [] Time Domain [] Frequency Domain
Parameters - On time Frequency
- Off time Range
- Delay time
- Integration time
Power
Electrode array
Electrode spacing
Type of electrode

McFadden Twp.

THE TOWNSHIP
OF 22791

RATTRAY

DISTRICT OF
TIMISKAMING

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	⊕
CROWN LAND SALE	C.S.
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	C.

NOTES

400' Surface rights reservation around all lakes and rivers.

South Boundary taken from Forest Resources inventory maps.

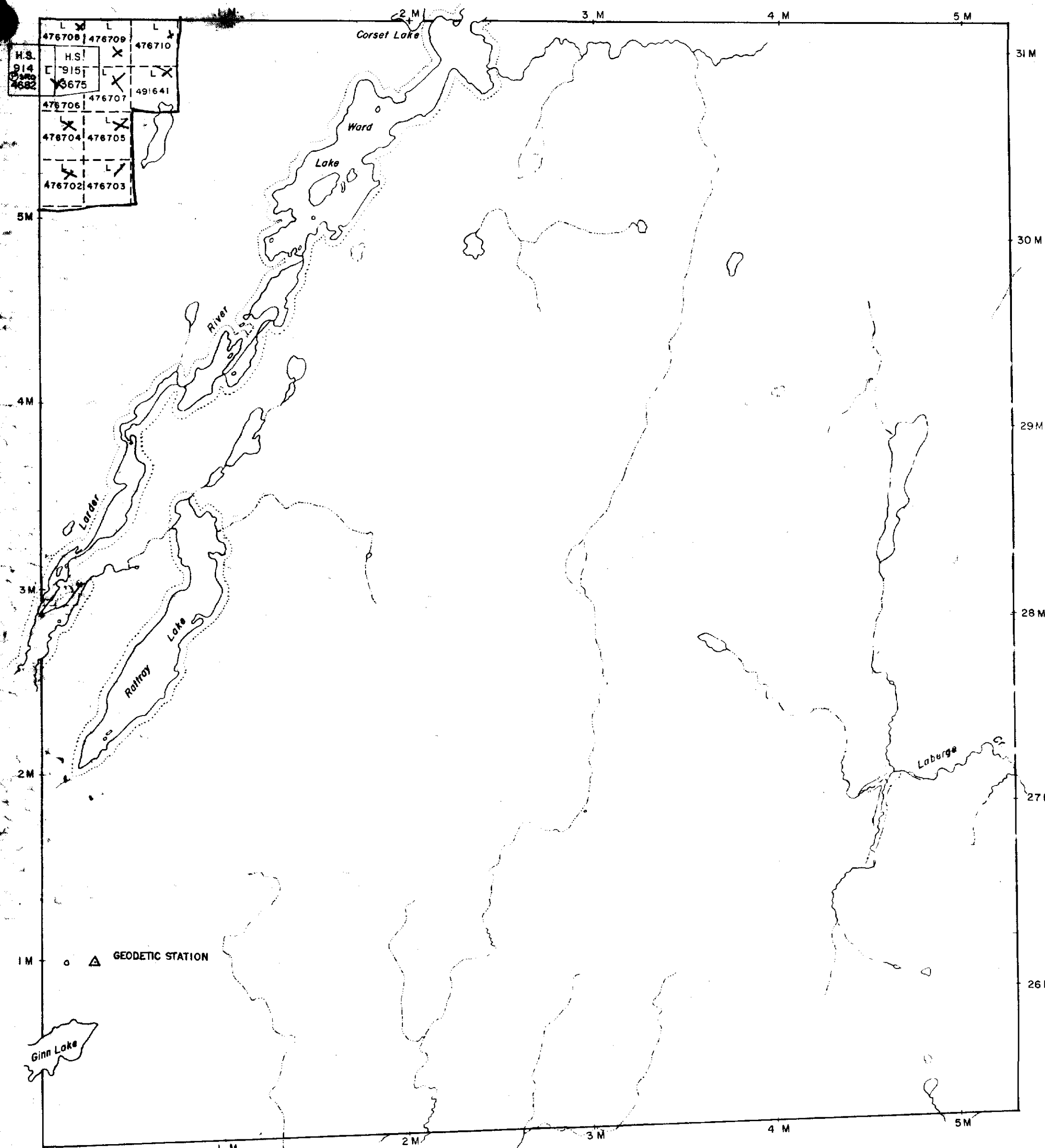
DATE OF ISSUE
SEP 19 1978
SURVEYS AND MAPPING
BRANCH

PLAN NO.- M.384

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

L	L	L	L
476708	476709	476710	
H.S. 914 915 916	H.S. 915 916 917	X	X
	476701	491641	
476706	476707		
476704	476705		
476702	476703		

Province of Quebec



Skeels Twp.

Mulligan Twp.



32045E0325 2.2791 RATTRAY

NOTES

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

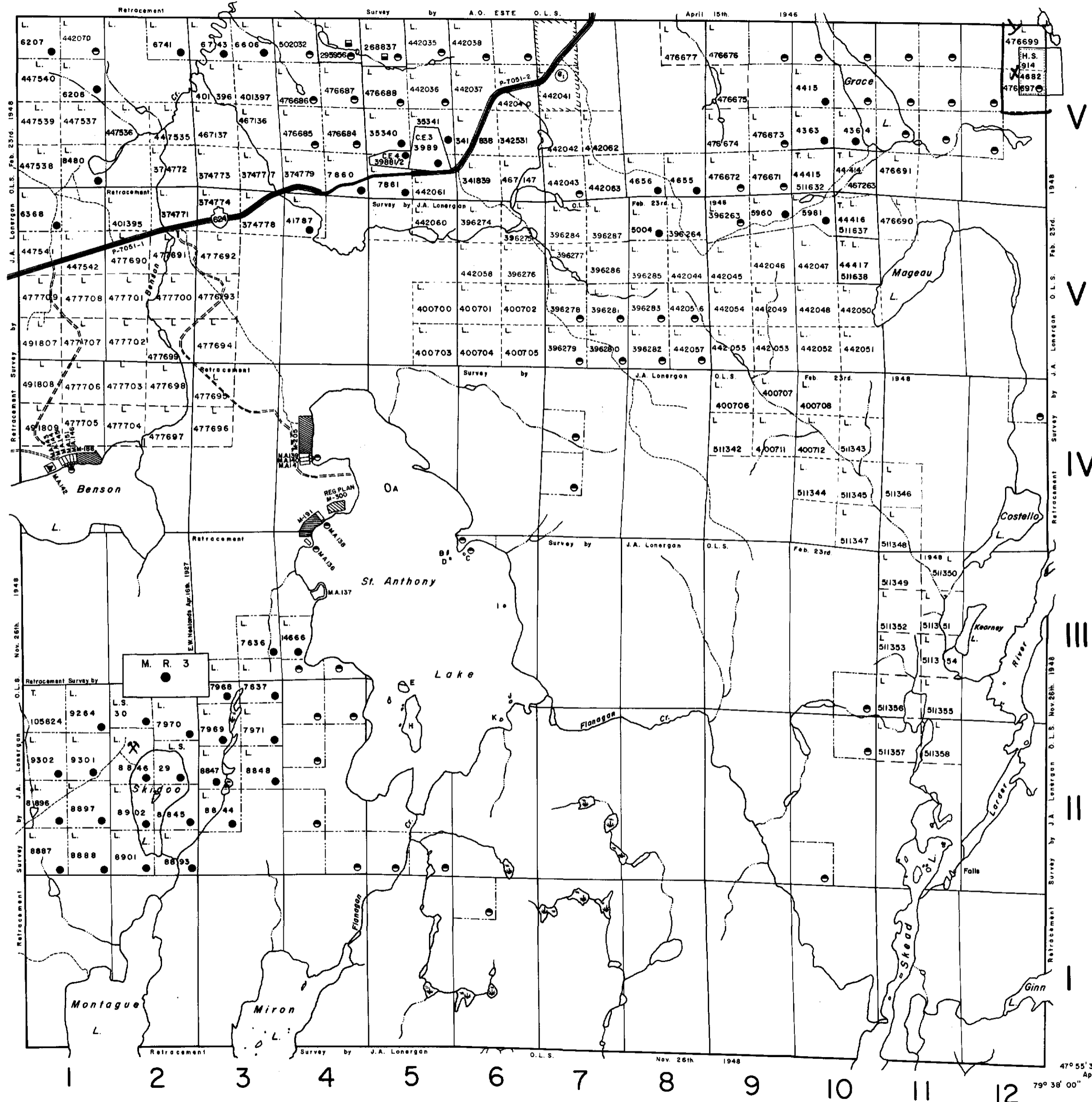
All unpatented mining claims accepted subject to survey, Section 118 of the Mining Act (R.S.O. 1970).

SAND and GRAVEL

M.T.C. PIT No. 1230

CATHARINE TP. M.336

HEARST TP. M.354



BAYLY TP. M.323

47° 55' 37" Approx.
79° 38' 00"

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 | C.S. |
| ORDER-IN-COUNCIL | O.C. |
| RESERVATION | |
| CANCELLED | |
| SAND & GRAVEL | |

SCALE: 1 INCH = 40 CHAINS



ACRES	HECTARES
40	16

TOWNSHIP 22791

SKEAD

DISTRICT
TIMISKAMING
MINING DIVISION
LARDER LAKE

Ministry of Natural Resources
Ontario Surveys and Mapping Branch

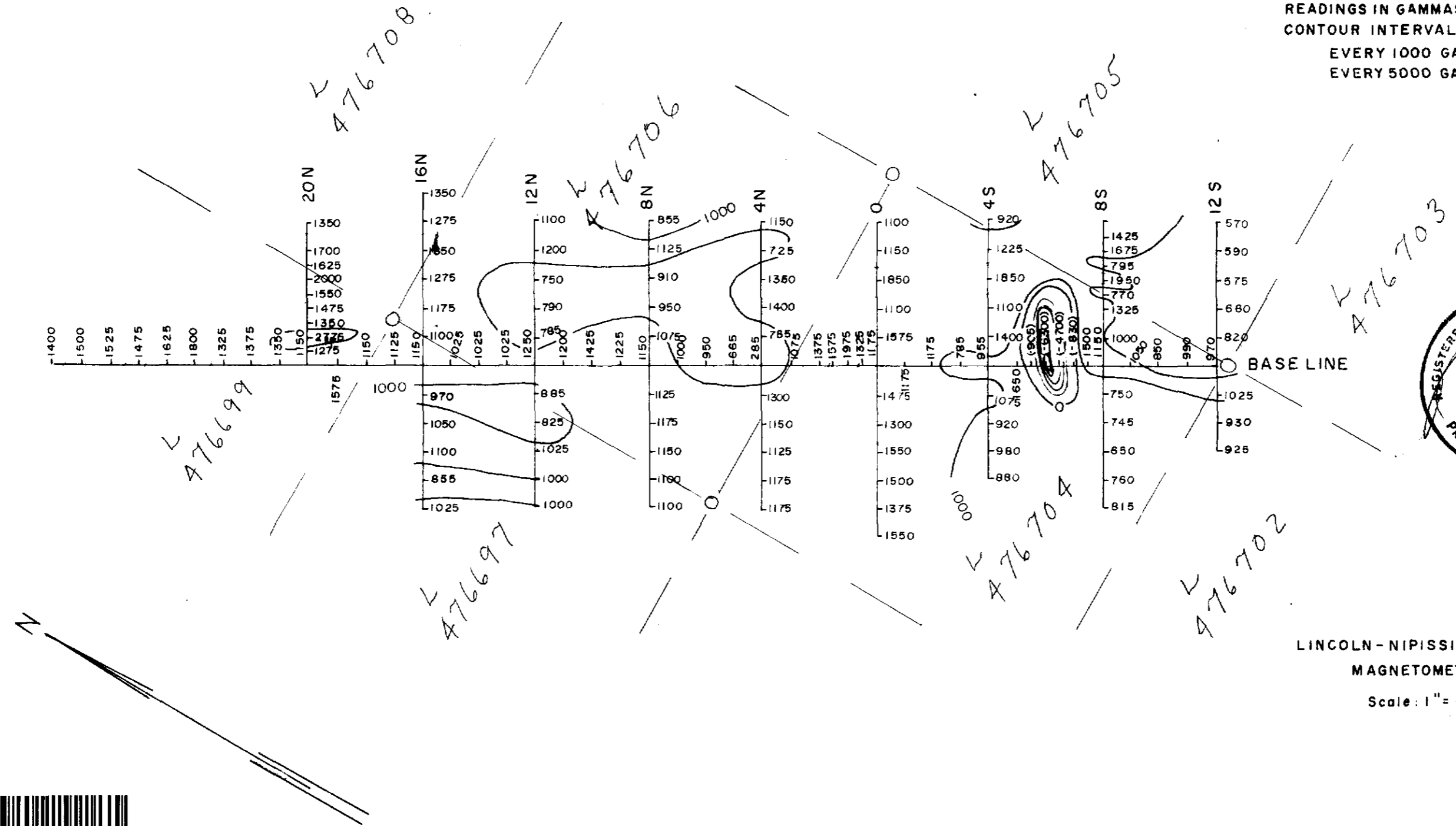
Date 10/4/74 Plan No. M.387
Whitney Block Queen's Park, Toronto

DATE OF ISSUE
SEP 19 1978
SURVEYS AND MAPPING
BRANCH



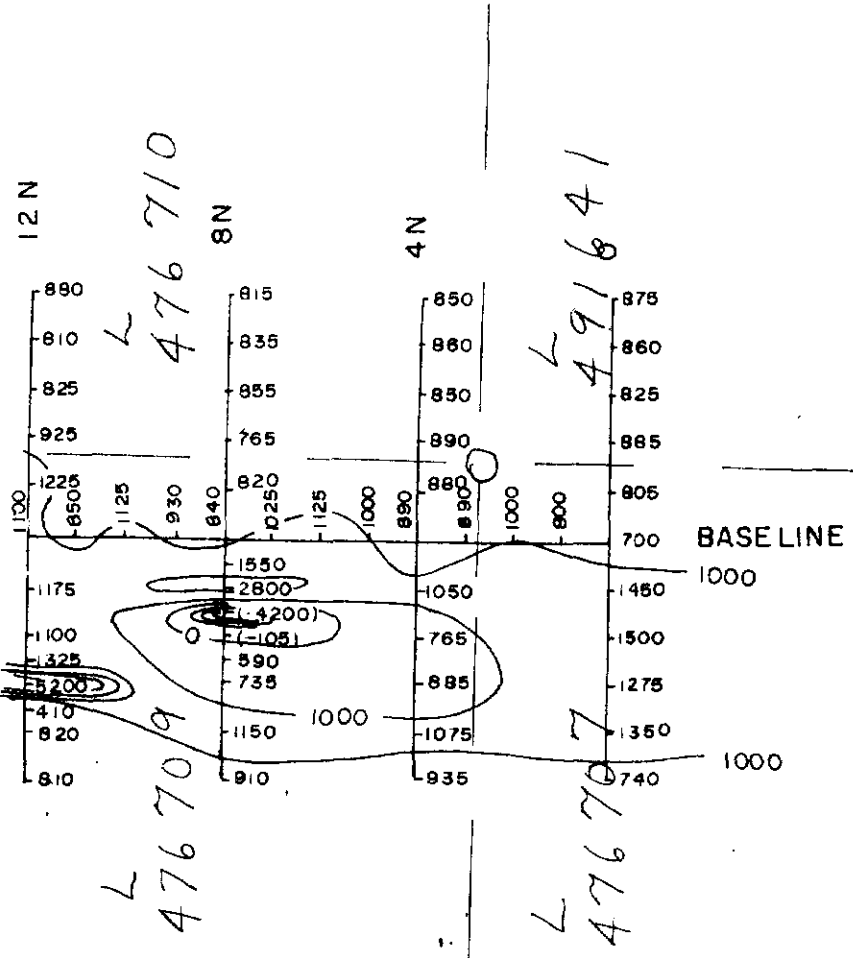
32D04SE8325 2.2791 RATTRAY

INSTRUMENT: SHARPE MF-1
 READINGS IN GAMMAS
 CONTOUR INTERVAL
 EVERY 1000 GAMMAS TO 5000 GAMMAS
 EVERY 5000 GAMMAS THERE AFTER



LINCOLN-NIPISSING PROJECT
 MAGNETOMETER SURVEY
 Scale: 1" = 400'





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