



OCT 1974

## Introduction

PROJECTS UNIT

A VLF-EM survey was carried out in October, 1973, June and July 1974 over lines previously cut for a magnetometer survey. Re-cutting of lines was necessary in the easterly part of the property.

## Location, Access and Ownership

The property is located in lots 1 and 2 Concession 6 of Catherine and Skead townships, District of Temiskaming, Ontario. It comprises 18 claims numbered L341819-341836 inclusive. The claims are recorded in the name of R. A. MacGregor, 134 Palace Drive, Sault Ste. Marie, Ontario. Access is by logging roads leading north from Highway 624 approximately 9 miles south of Larder Lake, Ontario

## Previous Exploration

In previous work, ground and airborne magnetic surveys have been carried out, with a little bulldozer stripping near the McElroy-Catherine boundary. Extensive areas of drift have limited conventional prospecting in the past. The area is largely covered by sand plains in the western part and swamp in the eastern part.

## Geology

Large areas of the property are covered by drift which is over 100 feet thick in the south-west part. Outcrop is mostly serpentized peridotite with some mafic volcanics. The serpentized peridotite occurs as north-west trending sills in the mafic volcanics. Sills are up to 700 feet wide (from magnetic data) and may be locally displaced by north-east trending faults.

## Survey Procedure

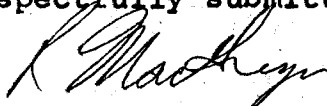
A base line through the centre of the claims in the western part with north-south cross lines at 400' intervals had been previously cut and was re-used. Tie lines had also been run for control. In the eastern part recutting and re chaining was necessary in the swampy areas which were overgrown.

A VLF-EM survey was carried out using a Crone Radem instrument set to read the signal from the Cutler, Maine station (17.8  $KH_z$ ). Readings were taken at 100 foot intervals using the procedure outlined in Appendix I. A looping method was used in taking readings. A base station was selected and readings taken along lines describing a loop, arriving back at the starting base station. The time was noted for each station. Subsequent loops were then tied to previous readings.

Results and Conclusions

The Radem survey shows a number of cross-overs. Most are weak and fairly short. A conductor crossing the centre of claim L341833 approximately follows the south edge of the 3000 gamma magnetic contour. Two fairly strong cross-overs at 15 + 70S on Base Line 'L' and 12 + 50N on line 4E may be connected, giving a conductor with a trend north of east. These two conductors, both covered by thick overburden, are worth further checking.

Respectfully submitted

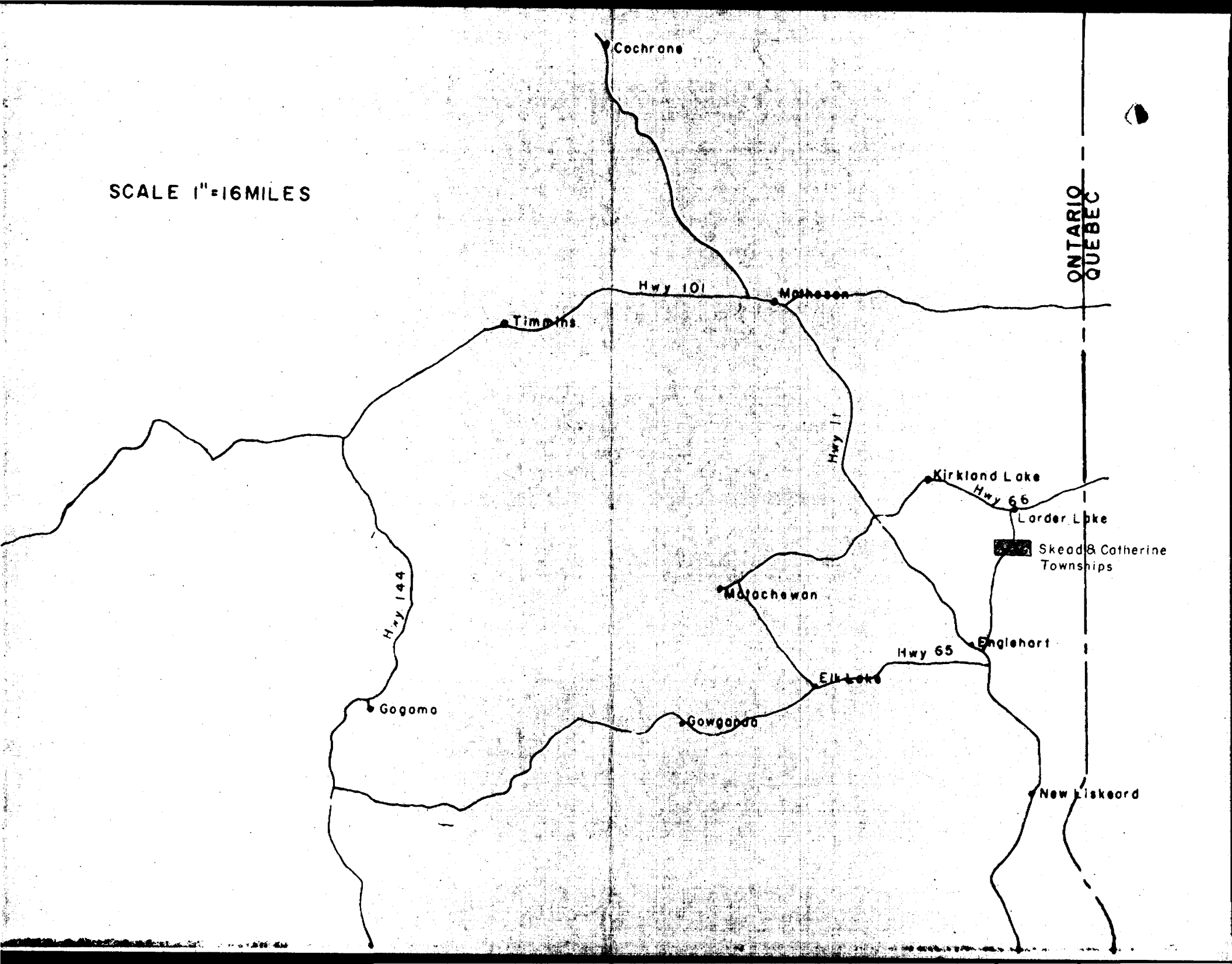


R.A. MacGregor, P.Eng.

September 29, 1974

SCALE 1"=16MILES

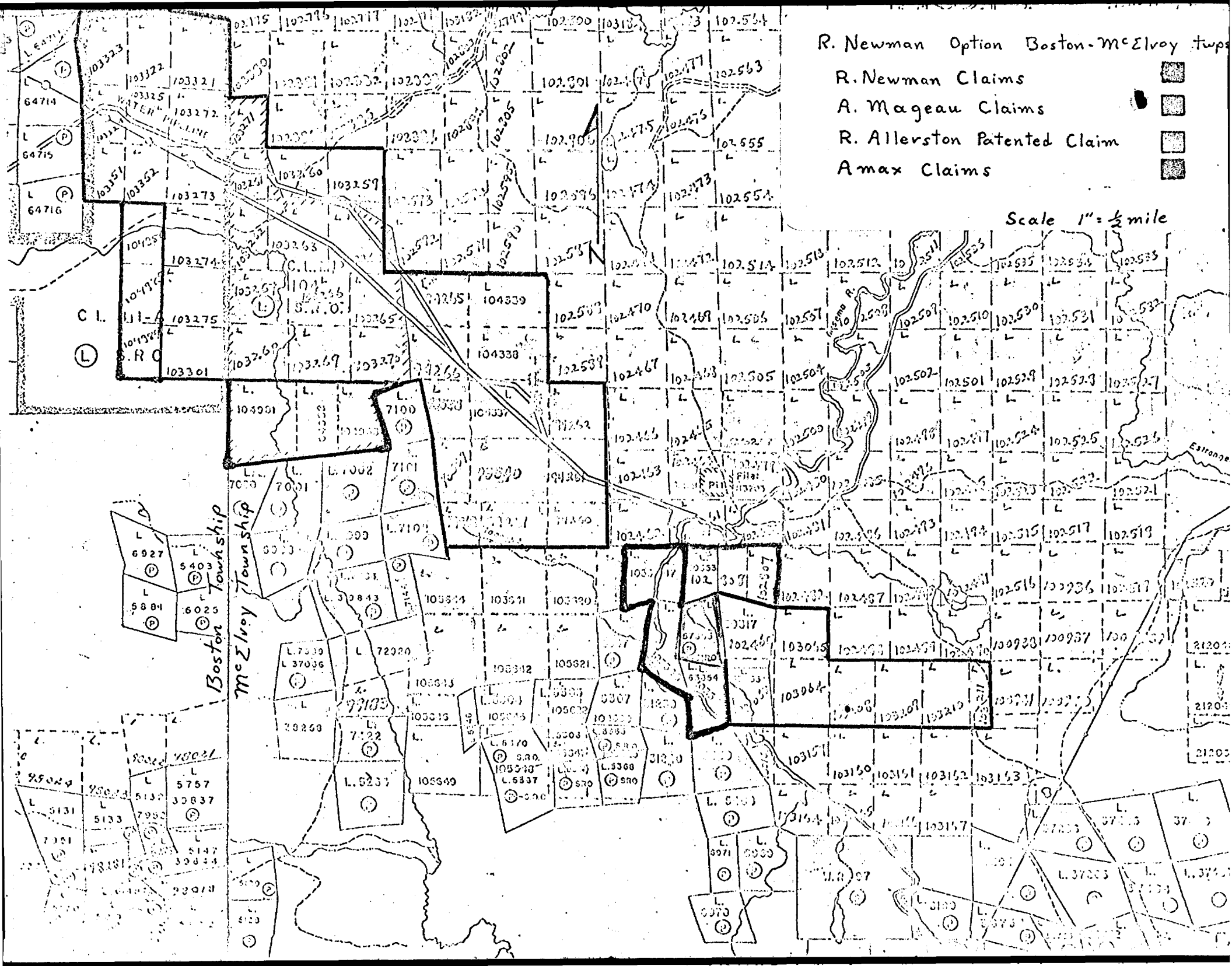
ONTARIO  
QUEBEC



R. Newman Option Boston-McElroy tups

- R. Newman Claims
- A. Mageau Claims
- R. Allerston Patented Claim
- Amax Claims

Scale 1" = 1/2 mile



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 VLF-E.M.

Township or Area Catherine & Skead

Claim holder(s) R.A. MacGregor

134 Palace Dr. Sault Ste. Marie, Ont.

Author of Report same as above

Address \_\_\_\_\_

Covering Dates of Survey Oct. 20-22/73; June 25-30;

July 20-24/74 office Sept. 25-26/74  
(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.

Geophysical \_\_\_\_\_

--Electromagnetic 20

--Magnetometer \_\_\_\_\_

--Radiometric \_\_\_\_\_

--Other \_\_\_\_\_

Geological \_\_\_\_\_

Geochemical \_\_\_\_\_

DAYS  
per Claim

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

Magnetometer \_\_\_\_\_ Electromagnetic \_\_\_\_\_ Radiometric \_\_\_\_\_  
(enter days per claim)

DATE: Sept. 30/74 SIGNATURE: \_\_\_\_\_  
Author of Report or Agent

PROJECTS SECTION

Res. Geol. \_\_\_\_\_ Qualifications 2.1102

Previous Surveys 2-1316 mag performed 1973 received  
40 days 63.1370 Airborne

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

GEOLOGICAL BRANCH

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

GEOLOGICAL BRANCH

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

MINING CLAIMS TRAVERSED	
List numerically	
(prefix)	(number)
L. 341819	✓
L. 341820	✓
L. 341821	✓
L. 341822	✓
L. 341823	✓
L. 341824	✓
L. 341825	✓
L. 341826	✓
L. 341827	✓
L. 341828	✓
L. 341829	✓
L. 341830	✓
L. 341831	✓
L. 341832	✓
L. 341833	✓
L. 341834	✓
L. 341835	✓
L. 341836	✓
TOTAL CLAIMS <u>18</u>	

OFFICE USE ONLY L.D.

If space insufficient, attach list

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

## GEOPHYSICAL TECHNICAL DATA

### GROUND SURVEYS

Number of Stations 893 Number of Readings 893  
Station interval 100 ft.  
Line spacing 400 ft.  
Profile scale or Contour intervals 1"=20'  
(specify for each type of survey)

### MAGNETIC

Instrument \_\_\_\_\_  
Accuracy - Scale constant \_\_\_\_\_  
Diurnal correction method \_\_\_\_\_  
Base station location \_\_\_\_\_

### ELECTROMAGNETIC

Instrument Crone Radem  
Coil configuration Not applicable  
Coil separation Not applicable  
Accuracy ±.40  
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

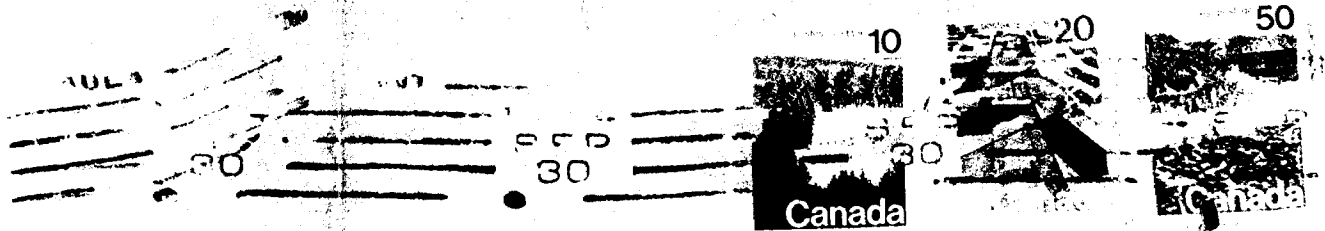
Instrument \_\_\_\_\_  
Scale constant \_\_\_\_\_  
Corrections made \_\_\_\_\_  
Base station value and location \_\_\_\_\_

Elevation accuracy \_\_\_\_\_

### INDUCED POLARIZATION - RESISTIVITY

Instrument \_\_\_\_\_  
Time domain \_\_\_\_\_ Frequency domain \_\_\_\_\_  
Frequency \_\_\_\_\_ Range \_\_\_\_\_  
Power \_\_\_\_\_  
Electrode array \_\_\_\_\_  
Electrode spacing \_\_\_\_\_  
Type of electrode \_\_\_\_\_

GREGOR, P. ENG.  
PALACE DRIVE  
STE. MARIE, ONT.



2,1581

J.R. McGinn, Director  
Lands Administration Branch,  
Whitney Block, Room 1617,  
Queen's Park, TORONTO, Ontario  
M7A 1X1

RECEIVED  
OCT 2 1974  
PROJECTS UNIT

First Première  
Class Classe

**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

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

**HEARST TP. M.354**

**CATHARINE TP. M.336**

**VI**

**V**

**IV**

**M.384**

**TP. M.384**

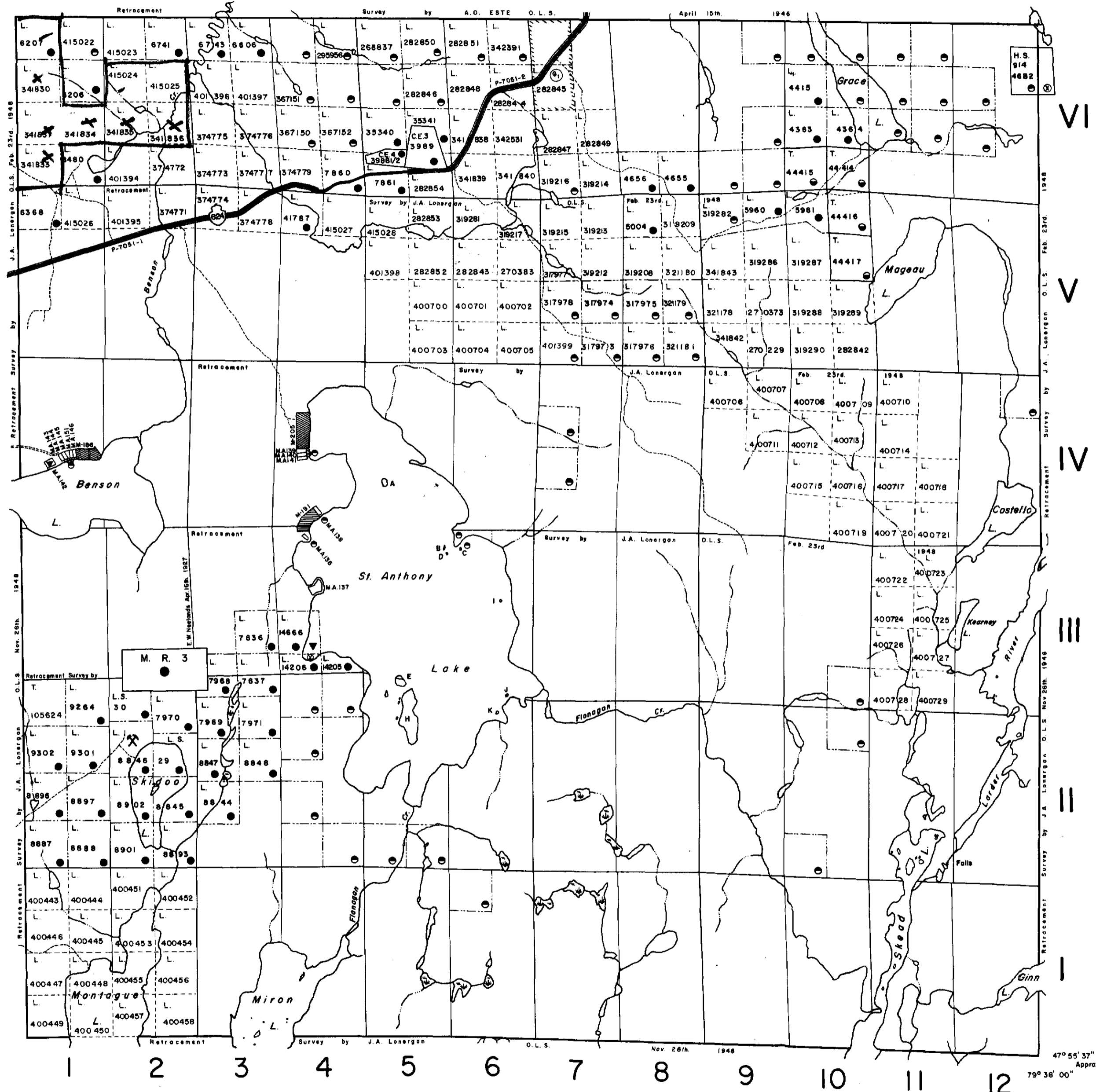
**III**

**RATTRAY TP. M.384**

**II**

**I**

**BAYLY TP. M.323**

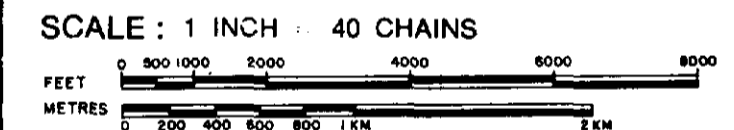


**LEGEND**

- 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 MUSKOG
- 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	OC
RESERVATION	
CANCELLED	
SAND & GRAVEL	



ACRES	HECTARES
40	16

TOWNSHIP  
**SKEAD**  
 DISTRICT 2,1581  
 TIMISKAMING  
 MINING DIVISION  
 LARDER LAKE

**Ministry of Natural Resources**  
 Ontario Surveys and Mapping Branch

Date 10/4/74 Plan No. **M.387**





McELROY TP M.366

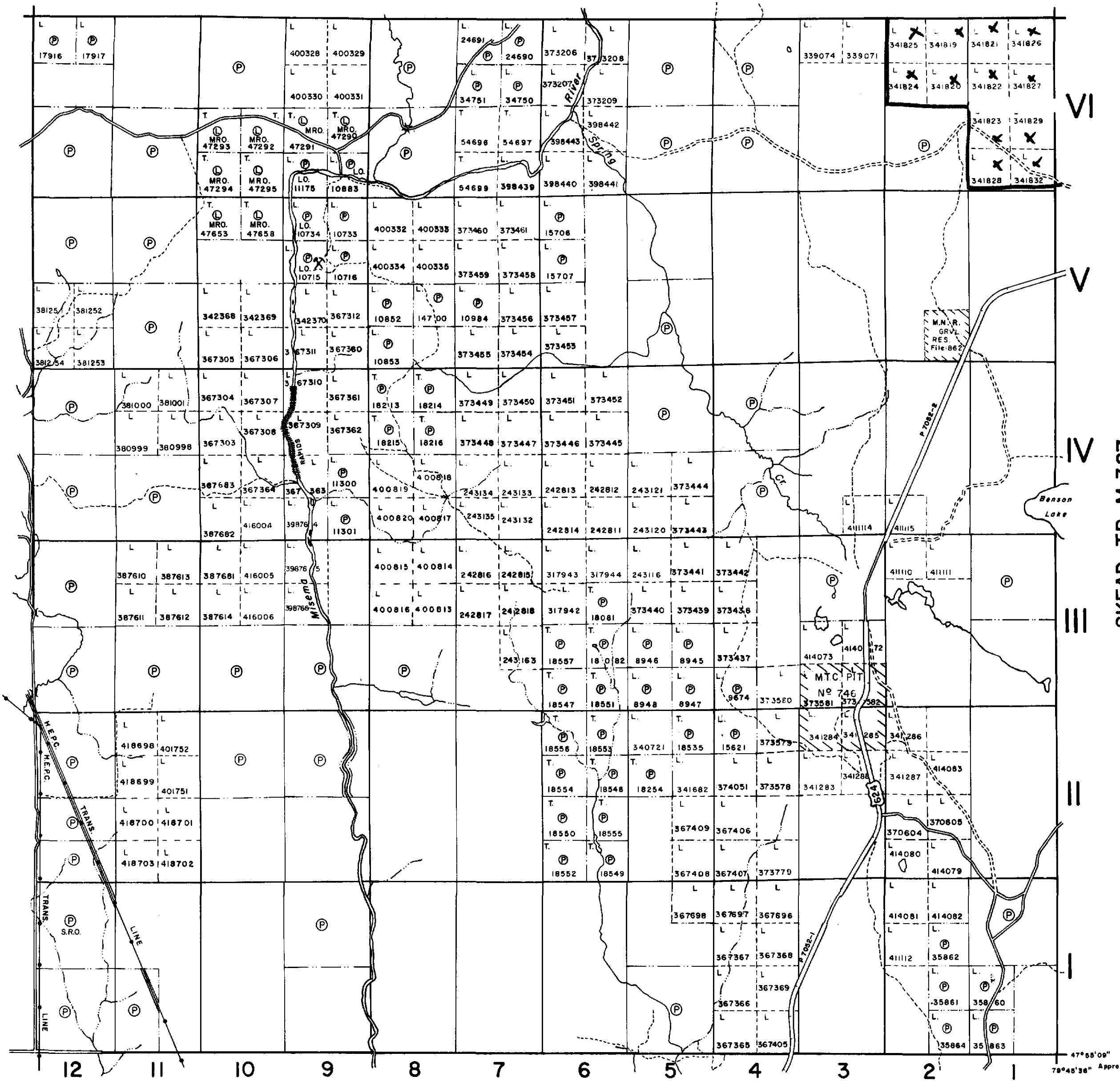
NOTES

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

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

PACAUD TR. M.380

SKEAD TR. M.387



LEGEND

- PATENTED LAND (P or ●)
  - PATENTED FOR SURFACE RIGHTS ONLY (●)
  - LEASE (L)
  - LICENSE OF OCCUPATION (L.O.)
  - CROWN LAND SALES (C.S.)
  - LOCATED LAND (Loc.)
  - CANCELLED (C)
  - MINING RIGHTS ONLY (M.R.O.)
  - SURFACE RIGHTS ONLY (S.R.O.)
  - HIGHWAY & ROUTE NO. (17)
  - ROADS (—)
  - TRAILS (---)
  - RAILWAYS (—+—)
  - POWER LINES (—+—+—)
  - MARSH OR MUSKEG (—+—+—)
  - MINES (X)
- \*used only with summer resort locations or when space is limited

TOWNSHIP OF

**CATHARINE**

DISTRICT OF  
TIMISKAMING 2.1581

LARDER LAKE  
MINING DIVISION

SCALE : 1 INCH = 40 CHAINS (1/2 MILE)

DR. K.K.I. PLAN NO. **M. 336**  
DATE JUNE '78

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH

MARTER TP M. 543



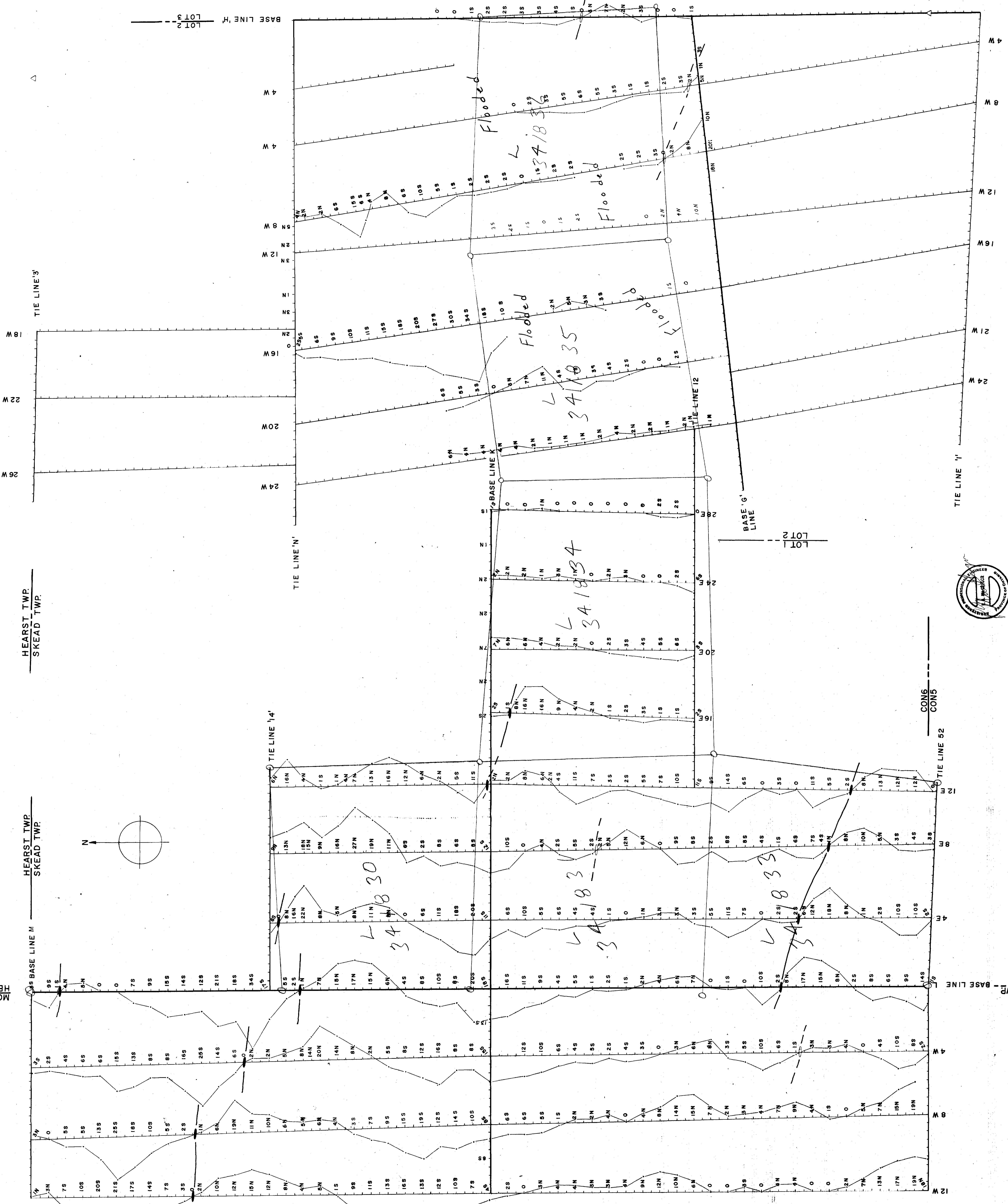
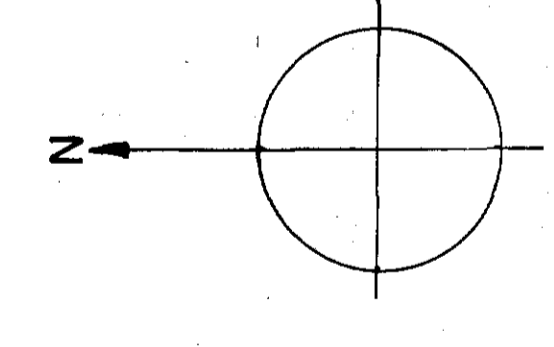
MEALROY TWP

HEARST TWP

HEARST TWP

HEARST TWP

SKEAD TWP



BASE LINE 'H'

LOT 2

LOT 3

CATHARINE TWP

BASE LINE

TIE LINE '52'

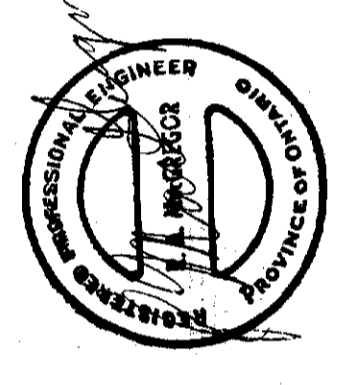
CONG

CONS

TIE LINE '1'

CONDUCTOR

INDICATED CONDUCTOR



### VLF-E M SURVEY

SKEAD TOWNSHIP

LOTS 1&2 CON. 6.

SCALE 1"=200'

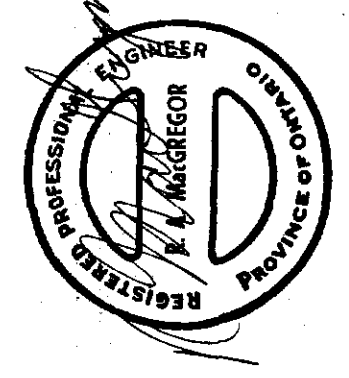
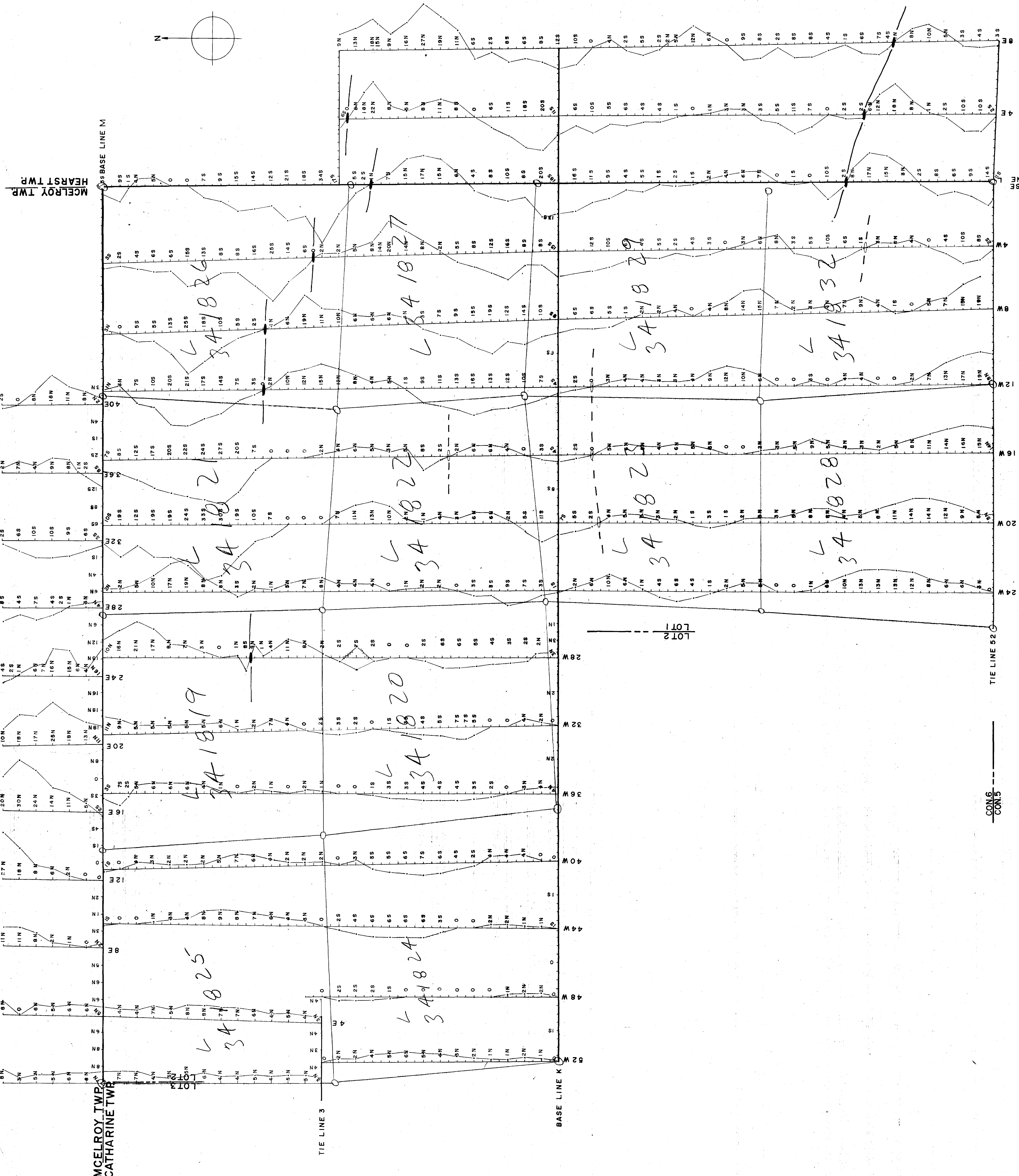
INSTRUMENT: CRONE RADOM

STATION CUTLER, MAINE 178 KHZ

DIP ANGLE OF THE RESULTANT FIELD IN DEGREES

SEPTEMBER 1979





VLF-EM SURVEY  
 CATHARINE TOWNSHIP  
 LOT 182 CON. 6  
 SCALE 1"=200'  
 11°=20°

INSTRUMENT: CRONE RADEM  
 STATION: CUTLER, MAINE 178 KHZ  
 SEPTEMBER 1974

CONDUCTOR  
 INDICATED CONDUCTOR

MCELROY TWP  
 CATHARINE TWP  
 HEARST TWP  
 CATHARINE TWP  
 SKEAD TWP