



42A14NE0008 2.10144 REAUME

010

SUMMARY OF  
1986-87 GEOPHYSICAL PROGRAM  
REAUME TWP. PROPERTY  
FOR  
IMPERIAL PLATINUM CORPORATION

BY

GEORGE BARNETT  
A.C.A. HOWE INTERNATIONAL LTD.

Report #536  
June 11, 1987

Toronto, Ontario

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	Certificate: George Barnett, B.A.Sc.	

### MAPS

Property Location  
Property Description  
Total Magnetic Field  
VLF - Inphase Component  
VLF-Field Strength Component

## SUMMARY

During the months of December 1986, January and February 1987, linecutting and geophysical surveys were conducted by A.C.A. Howe International Ltd. over the Reaume Township property currently held by the Imperial Platinum Corporation. The total magnetic field data outlined three areas of highly anomalous response on each of the two grids. These correlated with the previously inferred regional geology. The VLF-EM data delineated three excellent and three interesting conductive regions on the larger grid. Three of these correlated with the magnetic anomalies, forming three primary targets for further exploration.

It is recommended that follow-up geological mapping and targeted geophysical surveys be conducted on this property, to complement the above surveys.

## 1.0 INTRODUCTION

The following report outlines a description of the Reaume Township property, its location, access, general geology and history of exploration. The geophysical surveys conducted by A.C.A. Howe International Ltd. are then described, along with a preliminary interpretation of the results. This report has been prepared for assessment purposes.

The author of the report is George Barnett, Project Geophysicist with A.C.A. Howe International Ltd., who co-ordinated the surveys in the field, on behalf of Imperial Platinum Corporation.

The surveys were conducted from early December 1986 until mid-February 1987. These were the initial investigations of the property by A.C.A. Howe International Ltd., and were contemporaneous with line cutting operations.

The principal sources of information were the Ontario Ministry of Northern Development and Mines and Ministry of Natural Resources map files in Toronto. The assistance of the MNR, District of Cochrane, and B & F Shier (lumbering contractor), as well as field operators Brian Lum, Brian Erickson, Gerry Lafortune and Jeff Bisson is acknowledged.

## 2.0 PROPERTY DESCRIPTION, LOCATION AND ACCESS

The property consists of two groups of claims located in Reaume Township (District of Cochrane, NTS: 42A/14NE), approximately 15 kilometres southwest of the town of Cochrane, Ontario.

One property, Group A, occupies nearly half of the township, centred towards the northwest quadrant. Group A is irregularly shaped, and is approximately 3650 hectares in size. It consists of 135 claims, all of which are currently active and whose mineral rights are held by Imperial Platinum Corporation.

The second property, Group B, is located in the southeastern corner of the township, extending into the neighbouring townships of Hanna, Mann, and Duff. Group B is rectangular in shape and is approximately 865 hectares in size. The Frederickhouse River bisects it. Group B consists of 32 claims, all of which are currently active and whose mineral rights are held by Imperial Platinum Corporation (recorded at the Timmins Mining Recorder's Office).

Access onto the property is excellent, facilitated by ongoing logging and gravel operations both on the property and juxtaposed. Ontario Pulp and Paper holds the timber rights to Reaume Township. Logging roads, leading from the Dunn Lake Road and Highway #11, cross both Group A and B.

The topography is very flat, with the exception of the north-south trending esker which the main logging road follows. Much of the ground is open, due to recent logging operations and swampy conditions. Varieties of pine, spruce, birch, and alder predominate. A few outcrops are located in the north-western section of Group A. A very mild winter resulted in little snowfall and open river conditions.

Logging was occurring in the south-western section of Group A during the survey, and thus removed part of the geophysical grid.

### 3.0 GENERAL GEOLOGY

The property is underlain by three distinct geologic units, the extent of each having been inferred from aeromagnetic surveying and diamond drilling.

Mafic flows and pyroclastic rocks, early Precambrian in age, underlie the region, with a band of mixed metasediments (possibly greywacke), and felsic and mafic metavolcanics, formerly classified as the Keewatin, extending from the northeastern quadrant of the township across the central portion of Group A. Metamorphosed mafic and ultramafic rocks overlie the above in the northern portion, the eastern arm, and the southernmost portion of Group A, as well as for the majority of Group B.

Major north-south faults pass through the region, and the ultramafic units of Group A are correspondingly highly faulted. A minor syncline occurs in the southwestern section of Group B.

Several iron sulphide occurrences, as well as nickel and copper sulphides, chromite, and PGM (palladium), have been recorded on and near the property, associated primarily with the ultramafic bodies.

#### 4.0 HISTORY OF EXPLORATION

An airborne magnetic survey was conducted over the area by Spartan Air Services, from May 1963 to April 1964, by the then Ontario Department of Lands and Forests.<sup>2</sup> Highly anomalous total magnetic field response coincided with the inferred ultramafic bodies.

Over twenty exploration firms have investigated the Group A property over the past thirty-five years,<sup>3</sup> with Canadian Johns-Manville Co. Ltd. conducting geological and ground magnetometer surveys as early as 1950, and the most recent work (1978) being diamond drilling by Geophysical Engineering Ltd., Noranda Exploration Co. Ltd., Shell Canada Resources Ltd., and Western Mines Ltd. Other types of investigation have included aeromagnetics, airborne electromagnetics, ground electromagnetics, induced polarization, and geochemical. Conductive responses centre near the ultramafic bodies, with further occurrences of sulphides and magnetite. The depth of overburden varies from ten metres in the west to over 40 metres in the east.

Investigation of the Group B property began in 1947-49 by P.B. Zevely, who conducted ground magnetic and gravity surveys, geological surveys, and diamond drilling on the Mann Township portion.<sup>4</sup> Aeromagnetics and electromagnetics were flown over the area in 1965 by the Acme Gas and Oil Co. Ltd., and again in 1975 by Western Mines Ltd. As well, work was conducted by Noranda Exploration Ltd. (1971-2, 1977-8) on the Mann and Hanna Townships portions, including ground magnetics and electromagnetics, geochemistry, and diamond drilling.<sup>5</sup> The overburden averages fifteen metres in depth. More sulphide occurrences were found, and again the ground geophysical conductive responses were localized in and around the ultramafics.



## 5.0 CURRENT GEOPHYSICS

### 5.1 DESCRIPTION

Linecutting operations on both groups A and B were contracted out to Mid-Canada Exploration Services Ltd. of Timmins, Ontario. In the case of each group, the baseline was cut due east-west, with north-south gridlines spaced at 400 foot intervals, with stations every 100 feet. The grids covered both groups entirely. The cutting began in mid-December 1986, and was completed in early February.

Ground geophysical surveys covered 141.1 line miles, or 229.1 kilometres, of the grid (that portion of the grid which was on the Imperial Platinum Corporation property). The ground total field magnetics survey began in mid-December and finished in early February. The ground VLF-EM survey began in early January and was completed in early February.

### 5.2 RESULTS

#### 5.2.1 Total Magnetic Field (Grid A)

The ground magnetics data further detailed the previous airborne surveys, outlining three major areas of anomalous response.

The highest amplitude response (up to and over 10,000 gammas) occurred over an area one-tenth the size of the entire claim group. It was roughly circular in shape, extending from L72W to L4W, BL0 to at least 50+00N, centred around L32W, 30+00N. The greater than 10,000 gamma anomalous regions formed a fold-like shape, axis trending ENE, with closure to the east. The north arm continued north and west off of the property, still noticeable in the extreme northwestern corner of the property. The south arm continued along BL0 to approximately L112W. An

offshoot from this anomaly extended southwest from L12W, B10 to L40W, 15+00S.

The eastern anomaly, up to 5000 gammas, held a southeasterly trend, extending from L8E, 20+00S, to off the south end of the property from L40E to L76E.

The southern anomaly up to 9000 gammas, also held a southeasterly trend, extending from L64W, 60+00S to off the southeast corner of the grid, L12E from 100+00S to 120+00S. The most interesting part of this anomaly was a centrally located high response at L36W to L24W, 90+00S to 100+00S.

#### 5.2.2 Total Magnetic Field (Grid B)

This grid was covered to the most part by a strongly active (i.e. high gradient) anomalous zone. Two thin bands of southeasterly trending low response divided this into three sections. The western section, up to 6000 gammas, was strongest from L16W to L8E, south of 7+00S.

The central section (the most extensive), up to 7000 gammas, was in a wide band with a southeasterly trend extending from L0 to L16E at the north end of the property to L40E to L80E at the south end of the property.

The eastern section (the smallest), up to 4000 gammas, was centred in the far northeastern corner, extending east off of the property.

#### 5.2.3. VLF-EM (Grid A)

Several areas of strongly anomalous conductive response were delineated, indicating three excellent conductors and three interesting conductors.

In the northwestern section of the grid, two of the excellent conductors and two of the interesting conductors were outlined. The first excellent conductor was seen as two bands of subparallel, ENE-trending conductors, extending from L100W to L92W, at approximately 50+00N, accompanied by a strong southeasterly trending conductor from L104W to L88W at approximately TL40+00N. The second excellent conductor was picked up just north of BL0 from L124W to L92W, apparently banded and southeasterly trending. The first interesting conductor was observed as two divergent conductors across L108W and L104W, the NE-trending band at 32+00N and the SE-trending band at 18+00N. The second interesting conductor was a smaller, SE-trending band at L124W to L120W, at 15+00S. A total of seven other small single-line conductors were also picked up in the northwestern section.

In the central western section, the third excellent conductor was delineated, consisting of two subparallel pairs of conductors, one SE-trending and another NE-trending. The SE-trending pair included one band at 15+00S, extending from L80W to L60W and a second band at 30+00S, extending from L72W to L48W. The NE-trending pair was at 35+00S, extending from L60W to L48W. The two pair may possibly converge at 35+00S, from L52W to L48W. Five other smaller single-line conductors were seen in the central-western section.

In the southern section of the grid, the third interesting conductor was outlined, consisting of a small conductive band at 90+00S, from L40W to L32W. In addition, nine other smaller conductors were located in the southern section.

In the central eastern and eastern sections, a mild response was registered. Fifteen small single-line conductors were outlined. The response was noisy on some lines, and very quiet on others, especially in the far east.

In the northeastern section, very little response was observed, with two small conductors outlined.

#### 5.2.4 VLF-EM (Grid B)

Very little response was measured on grid B, with three small conductors noted. A great deal of conductive noise was observed over the entire grid, yet without significant trends.

### 5.3 DISCUSSION

For the total magnetic field survey, the anomalous responses coincided with the inferred ultramafic sites in both grids (see page 5). The offshoot of the northern anomaly in grid A may be due to the metasedimentary belt crosscutting the mafic volcanics. The strongly faulted regions of grid A were not apparent from the magnetic survey, but the boundary between the western and central anomalies of grid B may be the result of faulting.

For the VLF-EM anomalies of grid A, the first excellent conductor was located in the ultramafic suite, close to possible SE-trending faulting and the Cu, S, and Cr mineralization. The second excellent conductor was located partly in the ultramafic and partly in the mafics. The third excellent conductor was located in both the metasediments and the mafic volcanics, near a sulphides occurrence.

The first interesting conductor was close to the first excellent conductor, yet closer to the chromite occurrence. The second interesting conductor was located in the mafic volcanics, while the third was located in the southern ultramafic suite, in a NE-trending faulted region.

In grid B, one of the single-line conductors (at TL26+40S, 61+00E) may coincide with the Ni, Cu, Pd occurrence.

Three of the VLF-EM conductors correlated with the anomalous magnetic response. The first two excellent conductors of grid A each was located on one arm of the possibly folded northern anomaly, the first on the northern arm, the second on the southern arm. The third interesting conductor of grid A was located at the highly anomalous inner section of the southern magnetic anomaly. These correlations would suggest that these three locations form the primary targets for further exploration.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Geophysical surveys were conducted over the Reaume Township property currently held by the Imperial Platinum Corporation. Several anomalous regions were delineated, including three primary targets for further exploration. As a result, it is recommended that comprehensive geological surveying and targeted geophysical surveying be completed, to evaluate these results properly.

Respectfully submitted

  
\_\_\_\_\_  
George Barnett

REFERENCES

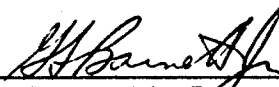
- Map 2205                    Timmins - Kirkland Lake, Geological Compilation Series, Cochrane, Sudbury, and Timiskaming Districts, Ontario, Division of Mines, 1973.
- Map 2319G                    Crawfish Lakes, Cochrane District, Ontario, Ontario Department of Lands and Forests, 1964.
- Hunt, D.S.  
Richard, J.A.  
Carey, E.R.  
1980                        Reaume Township, District of Cochrane; Ontario Geological Survey Prelim. Map P.767 Rev., Timmins Data Series. Scale 1:15,840 or 1 inch to 1/4 mile. Data compiled 1979.
- Hunt, D.S.  
Richard, J.A.  
1980                        Mann Township, District of Cochrane; Ontario Geological Survey Prelim. Map P.755 Rev., Timmins Data Series. Scale 1:15,840 or 1 inch to 1/4 mile. Data compiled 1979.
- Hunt, D.S.  
Richard, J.A.  
1980                        Hanna Township, District of Cochrane; Ontario Geological Survey Prelim. Map P.2307, Timmins Data Series. Scale 1:15,840 or 1 inch to 1/4 mile. Data compiled 1979.

CERTIFICATE

I George Alexandre Barnett, of 897 College Street, Toronto, Ontario, hereby certify that:

1. I have been employed since December 1986 as a project geophysicist at A.C.A. Howe International Ltd., Mining and Geological Consultants, with offices at Suite 400, 199 Bay Street, Toronto, Ontario, M5J 1L4.
2. I am a graduate of the University of Toronto, Toronto, Ontario, with a Bachelor of Applied Sciences (1985) degree in Engineering Science (Geophysics option).
3. I have practised my profession since graduation in the field of mineral exploration for base and precious metals in Canada.
4. This report is based on firsthand supervision of the surveys in the field, and data supplied by A.C.A. Howe International Ltd.
5. I hold no interest in Imperial Platinum Corporation.

Toronto, Ontario  
June 11, 1987

  
\_\_\_\_\_  
G.A. Barnett Jr.





Ontario



42A14NE0008 2.10144 REAUME

900

Ministry of  
Northern Development  
and Mines

August 25, 1987

Your File: 58  
Our File: 2.10144

Mining Recorder  
Ministry of Northern Development and Mines  
60 Wilson Avenue  
Timmins, Ontario  
P4N 2S7

Dear Sir:

RE: Notice of Intent dated July 21, 1987  
Geophysical (Electromagnetic & Magnetometer)  
Surveys on Mining Claims P 884369, et al,  
in Reaume, Mann, Hanna and Duff Townships

The assessment work credits, as listed with the above-mentioned  
Notice of Intent, have been approved as of the above date.

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

Yours sincerely,

R.M. Charnesky (Mrs.)  
Acting Manager  
Mining Lands Section  
Mineral Development and Lands Branch  
Mines and Minerals Division

Whitney Block, Room 6610  
Queen's Park  
Toronto, Ontario  
M7A 1W3

Telephone: (416) 965-4888

AB

AB/mc  
cc: Imperial Platinum Corporation  
Suite 400  
199 Bay Street  
Toronto, Ontario  
M5J 1L4  
Attention: Daniel J. Gillis

Mr. G.H. Ferguson  
Mining & Lands Commissioner  
Toronto, Ontario

Resident Geologist  
Timmins, Ontario

Encl.



AMENDED

Recorded Holder	IMPERIAL PLATINUM CORPORATION
Township or Area	REAUME, MANN, HANNA AND DUFF TOWNSHIPS

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ 40 _____ days	
Magnetometer _____ 20 _____ days	P 884369 to 88 inclusive
Radiometric _____ days	884391 to 437 inclusive
Induced polarization _____ days	884439 to 73 inclusive
Other _____ days	884475 to 80 inclusive
	884482 to 86 inclusive
	884489 to 93 inclusive
	884495 to 500 inclusive
	884503 to 06 inclusive
Section 77 (19) See "Mining Claims Assessed" column	893550-51
	890829 to 37 inclusive
Geological _____ days	890839 to 43 inclusive
Geochemical _____ days	890879 to 82 inclusive
	890884 to 95 inclusive
	890838
Man days <input type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

20 DAYS ELECTROMAGNETIC  
10 DAYS MAGNETOMETER

P 884494  
890883

10 DAYS ELECTROMAGNETIC  
5 DAYS MAGNETOMETER

P 884474  
884481

No credits have been allowed for the following mining claims

- not sufficiently covered by the survey       insufficient technical data filed

P 884487-88

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; Section 77(19) - 60.



Ontario

Ministry of  
Northern Development  
and Mines

August 5, 1987

Your File: 58  
Our File: 2.10144

Mining Recorder  
Ministry of Northern Development and Mines  
60 Wilson Avenue  
Timmins, Ontario  
P4N 2S7

Dear Sir:

RE: Notice of Intent dated July 21, 1987  
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Surveys on Mining Claims P 884369, et al,  
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so indicate on your records.

Yours sincerely,

R.M. Charnesky (Mrs.)  
Acting Manager  
Mining Lands Section  
Mineral Development and Lands Branch  
Mines and Minerals Division

Whitney Block, Room 6610  
Queen's Park  
Toronto, Ontario  
M7A 1W3

Telephone: (416) 965-4888

AB/mc  
cc: Imperial Platinum Corporation  
Suite 400  
199 Bay Street  
Toronto, Ontario  
M5J 1L4  
Attention: Daniel J. Gillis

Mr. G.H. Ferguson  
Mining & Lands Commissioner  
Toronto, Ontario

Resident Geologist  
Timmins, Ontario

Encl.



*Amended.*

Recorded Holder  
**IMPERIAL PLATINUM CORPORATION**

Township or Area  
**REAUME, MANN, HANNA AND DUFF TOWNSHIPS**

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic <u>40</u> days	
Magnetometer <u>20</u> days	P 884369 to 88 inclusive
Radiometric _____ days	884391 to 437 inclusive
Induced polarization _____ days	884439 to 73 inclusive
Other _____ days	884475 to 80 inclusive
Section 77 (19) See "Mining Claims Assessed" column	884482 to 86 inclusive
Geological _____ days	884489 to 93 inclusive
Geochemical _____ days	884495 to 500 inclusive
Man days <input type="checkbox"/>	884503 to 06 inclusive
Airborne <input type="checkbox"/>	893550-51
Special provision <input checked="" type="checkbox"/>	890829 to 37 inclusive
Ground <input checked="" type="checkbox"/>	890839 to 43 inclusive
<input checked="" type="checkbox"/> Credits have been reduced because of partial coverage of claims.	890879 to 82 inclusive
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	890884 to 95 inclusive
	<b>890838</b>

Special credits under section 77 (16) for the following mining claims

<u>20 DAYS ELECTROMAGNETIC</u> <u>10 DAYS MAGNETOMETER</u>	<u>10 DAYS ELECTROMAGNETIC</u> <u>5 DAYS MAGNETOMETER</u>
P 884494 890883	P 884474 884481

No credits have been allowed for the following mining claims

not sufficiently covered by the survey       insufficient technical data filed

P 884487-88

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; Section 77(19) - 60.



File \_\_\_\_\_

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 and VLF  
 Township or Area Reaume Twp., Hanna Twp., Mann Twp.,  
Duff Twp.  
 Claim Holder(s) \_\_\_\_\_  
Imperial Platinum Corporation  
 Survey Company A.C.A. Howe International Ltd.  
 Author of Report George Barnett  
 Address of Author 897 College St., Toronto, Ont.  
 Covering Dates of Survey December 1986 - February 1987  
 (linecutting to office)  
 Total Miles of Line Cut 141.1

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

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

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

DATE: May 14, 1987 SIGNATURE: [Signature]  
 Author of Report or Agent

Res. Geol. \_\_\_\_\_ Qualifications this file

Previous Surveys

File No.	Type	Date	Claim Holder

**MINING CLAIMS TRAVERSED**  
List numerically

see attached list  
 (prefix) (number)

RECEIVED  
 JUN 12 1987

MINING LANDS SECTION

TOTAL CLAIMS \_\_\_\_\_

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 7,446 each Number of Readings (approx.) 10,000 each
Station interval 100 feet Line spacing 400 feet
Profile scale VLF: 1" = 200'
Contour interval Magnetic: 100 nT and 1000 nT

MAGNETIC

Instrument \* GSM-18 Memory storage proton precession magnetometer (Gem Systems Inc.)
Accuracy - Scale constant +/- 0.5 nT
Diurnal correction method GSM-18 base station digital correlation
Base Station check-in interval (hours) automatic digital recordings @ 5 second intervals
Base Station location and value (approximate) L46+00E, 3+00N
base datum value = 59,000 nT
\* others (see attached)

ELECTROMAGNETIC

Instrument radem VLF-EM receiver (Crone Geophysics)
Coil configuration one coil
Coil separation N/A
Accuracy dip angle = +/- 1/2 degrees field strength = +/- 2 %
Method: [X] Fixed transmitter [ ] Shoot back [ ] In line [ ] Parallel line
Frequency Cutler, Maine (24.0 KHz) and Annapolis, Maryland (21.4 KHz)
(specify V.L.F. station)
Parameters measured dip angle and field strength

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

SELF POTENTIAL

Instrument \_\_\_\_\_ Range \_\_\_\_\_

Survey Method \_\_\_\_\_

Corrections made \_\_\_\_\_

RADIOMETRIC

Instrument \_\_\_\_\_

Values measured \_\_\_\_\_

Energy windows (levels) \_\_\_\_\_

Height of instrument \_\_\_\_\_ Background Count \_\_\_\_\_

Size of detector \_\_\_\_\_

Overburden \_\_\_\_\_

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey \_\_\_\_\_

Instrument \_\_\_\_\_

Accuracy \_\_\_\_\_

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

Additional information (for understanding results) \_\_\_\_\_

AIRBORNE SURVEYS

Type of survey(s) \_\_\_\_\_

Instrument(s) \_\_\_\_\_

(specify for each type of survey)

Accuracy \_\_\_\_\_

(specify for each type of survey)

Aircraft used \_\_\_\_\_

Sensor altitude \_\_\_\_\_

Navigation and flight path recovery method \_\_\_\_\_

Aircraft altitude \_\_\_\_\_ Line Spacing \_\_\_\_\_

Miles flown over total area \_\_\_\_\_ Over claims only \_\_\_\_\_

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken \_\_\_\_\_

Total Number of Samples \_\_\_\_\_

Type of Sample \_\_\_\_\_  
(Nature of Material)

Average Sample Weight \_\_\_\_\_

Method of Collection \_\_\_\_\_

Soil Horizon Sampled \_\_\_\_\_

Horizon Development \_\_\_\_\_

Sample Depth \_\_\_\_\_

Terrain \_\_\_\_\_

Drainage Development \_\_\_\_\_

Estimated Range of Overburden Thickness \_\_\_\_\_

**SAMPLE PREPARATION**

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis \_\_\_\_\_

General \_\_\_\_\_

**ANALYTICAL METHODS**

Values expressed in: per cent   
p. p. m.   
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, -(circle)

Others \_\_\_\_\_

Field Analysis (\_\_\_\_\_ tests)

Extraction Method \_\_\_\_\_

Analytical Method \_\_\_\_\_

Reagents Used \_\_\_\_\_

Field Laboratory Analysis

No. (\_\_\_\_\_ tests)

Extraction Method \_\_\_\_\_

Analytical Method \_\_\_\_\_

Reagents Used \_\_\_\_\_

Commercial Laboratory (\_\_\_\_\_ tests)

Name of Laboratory \_\_\_\_\_

Extraction Method \_\_\_\_\_

Analytical Method \_\_\_\_\_

Reagents Used \_\_\_\_\_

General \_\_\_\_\_



**GRID A:** REAUME TWP. M.576

TB 884369

884370 to 884388 inclusive

884391 to 884399 inclusive

884400 to 884437 inclusive

884439 to 884499 inclusive

884500

884503

884505

884506

893550

893551

**GRID B:** REAUME TWP. M.576

MANN TWP. M.541

DUFF TWP. G-3234

HANNA TWP. M-490

TB 890829 to 890843 inclusive

890879 to 890895 inclusive

**MAGNETIC**

Instrument: Barringer Model GM-122 portable proton precession  
magnetometer

Accuracy: 1.0 nT

Diurnal Correction Method: GSM-18 base station (same as at left)

NOTES

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

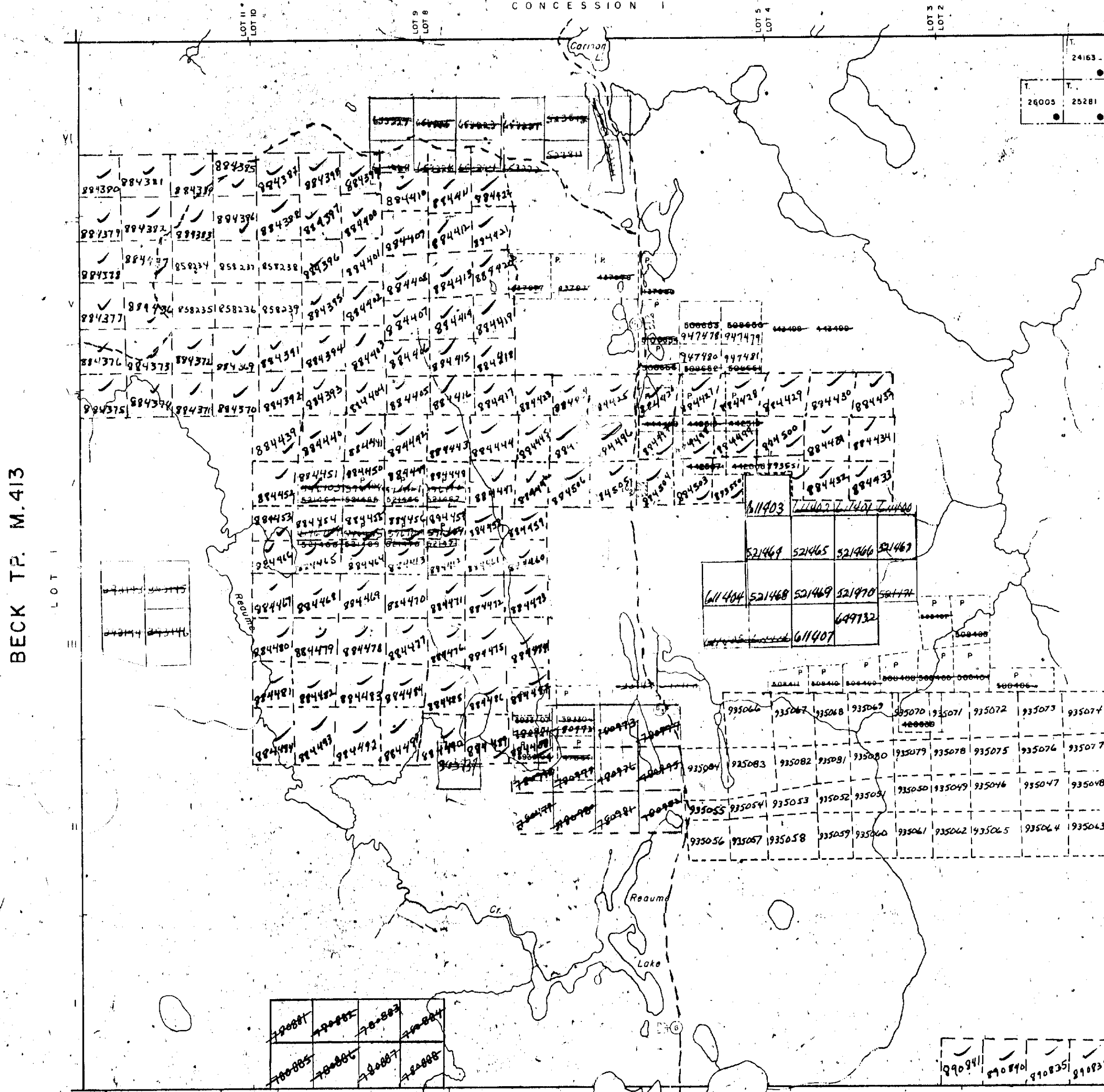
Subdivision of this township into lots and concessions was annulled July 9, 1962.

SAND and GRAVEL

- ① Gravel Reserve File: 144579
- ② Gravel Reserve File: 144585
- ③ Gravel Reserve File: 173973
- ④ Quarry Permit

FOURNIER TP. M.477

CONCESSION



BECK TP. M.413

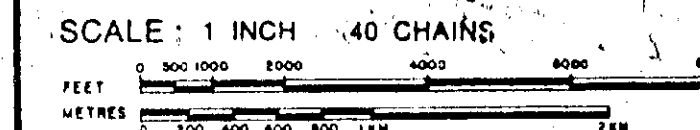
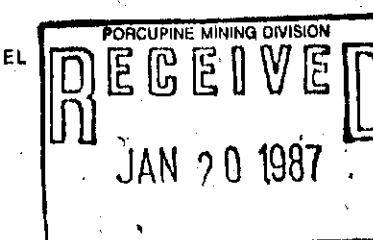
HANNA TP. M.490

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  
**REAUME**  
 DISTRICT  
 COCHRANE  
 MINING DIVISION

Porcupine  
 Received May 5/80  
 Ministry of Natural Resources

Ontario Surveys and Mapping Branch

Date OCT. 1975 Plan No.

Whitney Block Queen's Park, Toronto **M.576**

UCAS TP. M.537

DUFF TP. M.466



REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

- M.R.O. - MINING RIGHTS ONLY
- S.R.O. - SURFACE RIGHTS ONLY
- M+S. - MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
sec 36/80	W.1/80	8/8/80	M+S	

The Mining & Surface Rights of the former Mining Claim P-60933, are withdrawn from staking by Order NW 1/87

Subdivision of this township into lots and concessions was annulled May 10, 1963

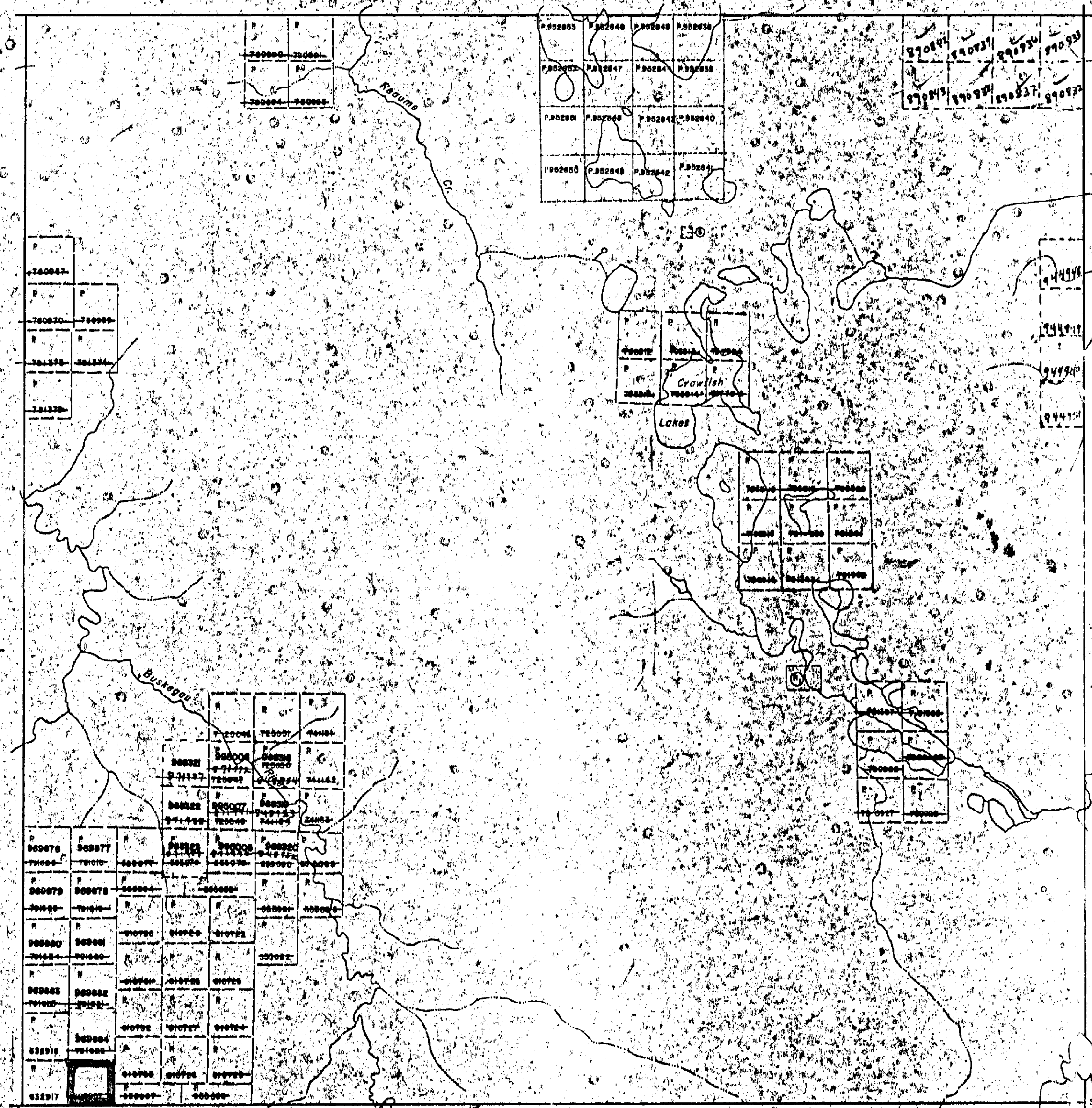
SAND and GRAVEL

QUARRY PERMIT



42A14NE0008 2.10144 REAUME

REAUME TP.



TULLY TP.

S.E. CORNER CO-ORDINATES (Approx.)  
LAT. 48° 47' 50"  
DEP. 81° 04' 28"

LEGEND

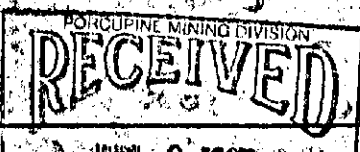
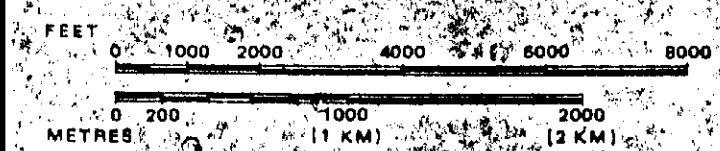
- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES: TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES: LOT LINES:
- PARCEL BOUNDARY: MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION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

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	▼
ORDER-IN-COUNCIL	OC
RESERVATION	⊙
CANCELLED	⊖
SAND & GRAVEL	⊙

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1915, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 280, SEC. 63, SUBSEC. J.

SCALE: 1 INCH = 40 CHAINS



TOWNSHIP *Duff*  
**DUFF**  
M.N.R. ADMINISTRATIVE DISTRICT  
**COCHRANE**  
MINING DIVISION  
**PORCUPINE**  
LAND TITLES / REGISTRY DIVISION  
**COCHRANE**

Ontario Ministry of Land Natural Resources Management Branch

Date: MARCH, 1985  
Number: **G-3234**

Lamarche Twp

THE TOWNSHIP OF






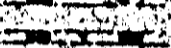





# HANNA

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

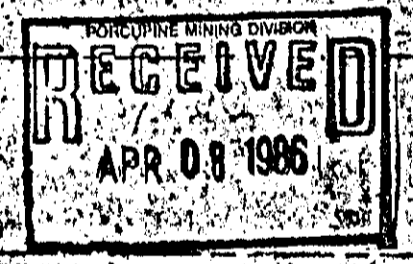
SCALE: 1-INCH=40 CHAINS

## LEGEND

- PATENTED LAND 
- CROWN LAND SALE 
- LEASES 
- LOCATED LAND 
- LICENSE OF OCCUPATION 
- ROADS 
- IMPROVED ROADS 
- RAILWAYS 
- POWER LINES 
- MARSH OR MUSKEG 
- KING'S HIGHWAY 

## NOTES

400. Surface rights reservation around all lakes & rivers



REG. PLAN NO. M 490 COVERS LOTS A TO S IN CON. 3 TO CON. 6

Surface Rights: Only reserved in Dept. of Lands & Forests shown thus. File 688767

See L.B.F. File # 605-12598 Re. Dragg. On Loc. XE & Loc. Y

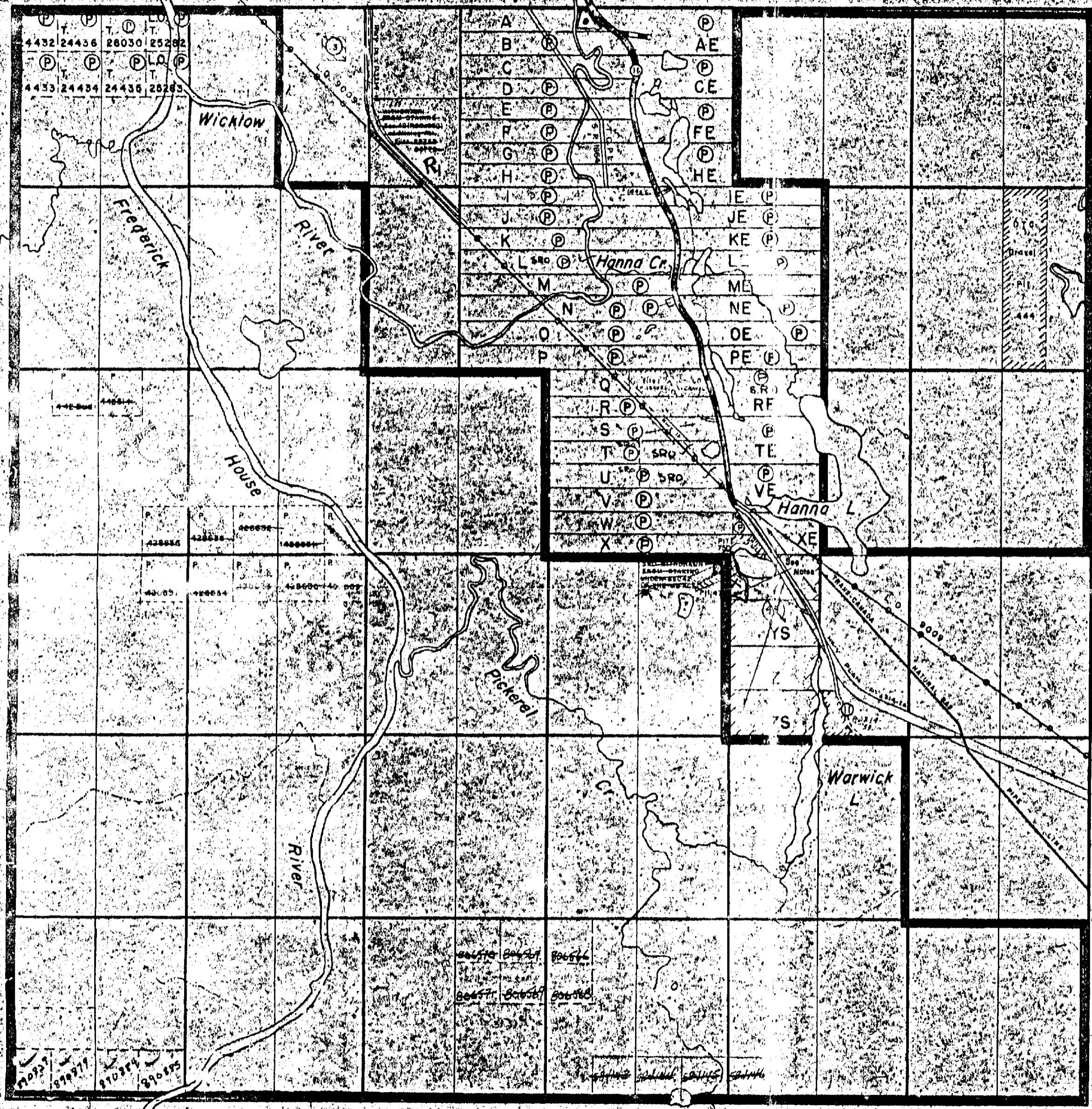
Opening under Section 1250, 1977

No.	Date	Disposition
W 54/75 (45)	08/75	S.R.O.
W 32/74 (4)	08/08	S.R.O.
W 20/05	01/14/05	S.R.O.

R.L. S.R. & M.R. REOPENED FOR STAKING  
 L.B.U.P.  
 X L.U.P. Reopened N.R.O. 7/1/84  
 Received May 5/80

PLAN NO. - M 490

ONTARIO  
MINISTRY OF NATURAL RESOURCES



Reaume Twp

ST. John Twp

Mann Twp



42A14NE0008 2.10144 REAUME 220

NOTES

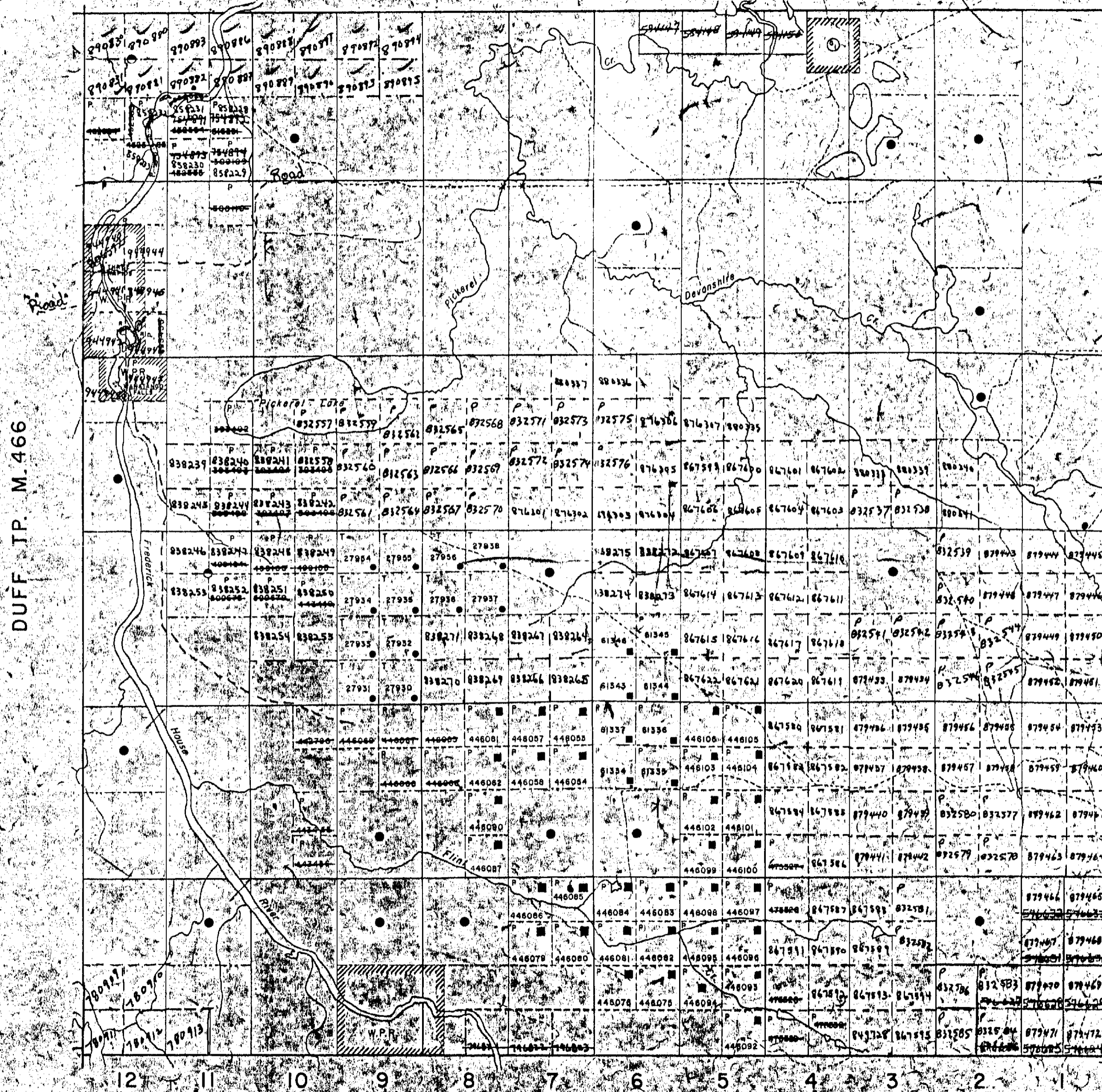
400' surface rights reservation along the shores of all lakes and rivers.

SAND and GRAVEL

Gravel File 144153

HANNA TP. M. 490

210144



DUFF JP. M. 466

VI

V

IV

III

II

I

NEWMARKET TP. M. 557

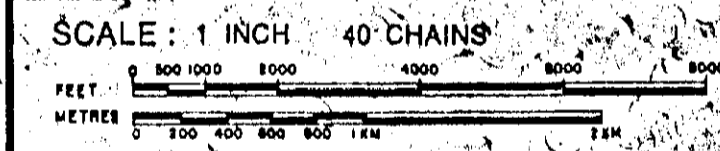
LITTLE TP. M. 535

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                 |        |
| ORDI A-IN-COUNCIL               |        |
| RESERVATION                     |        |
| CANCELLED                       |        |
| SAND & GRAVEL                   |        |



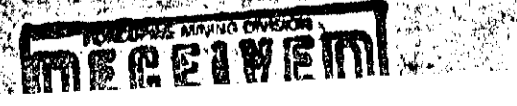
TOWNSHIP  
**MANN**  
 DISTRICT  
 COCHRANE  
 MINING DIVISION  
 PORCUPINE

Received May 8/00

Ministry of Natural Resources  
 Ontario - Surveys and Mapping Branch

Date: OCT. 1975  
 Plan No. M. 541

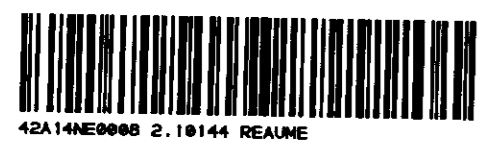
Whitney Block  
 Queen's Park, Toronto



42A14NE000 2.10144 REAUME



2.10144



4241462998 2.10144 REAUME

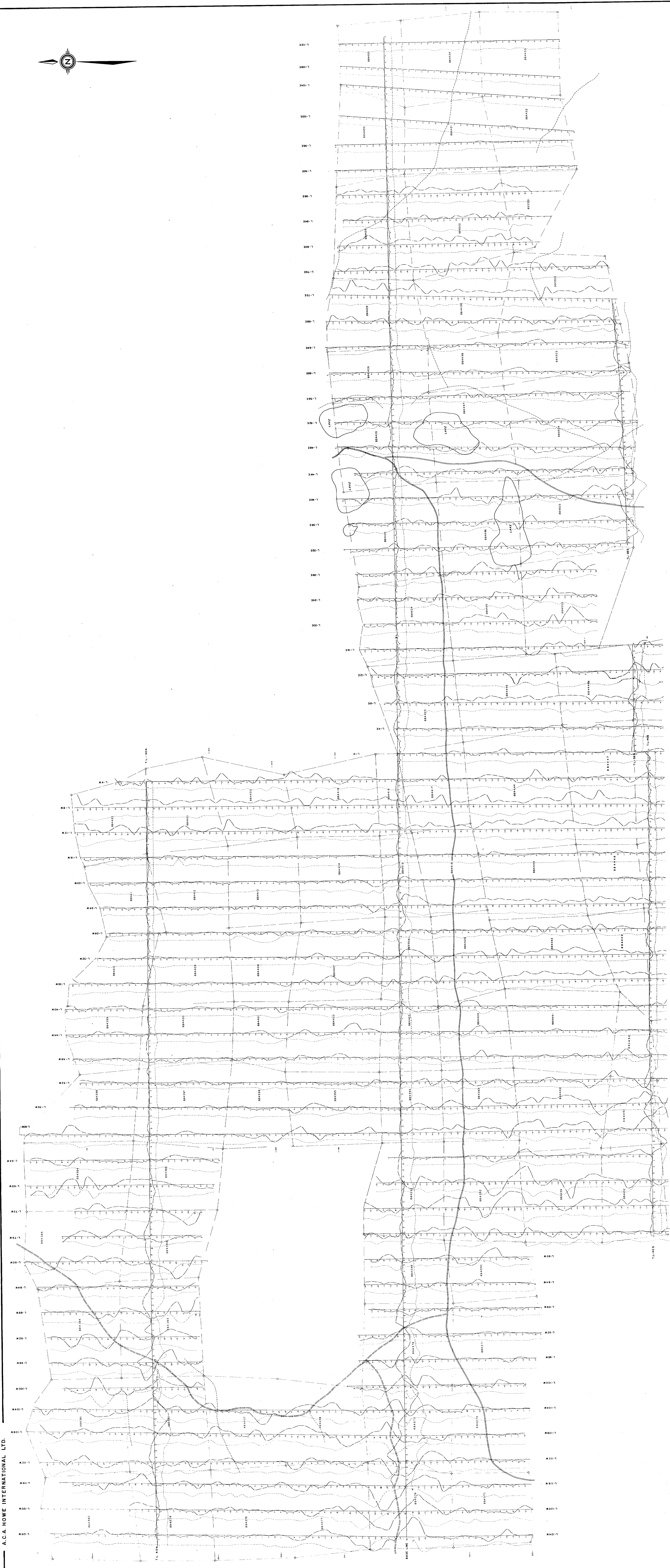


**IMPERIAL PLATINUM**  
 REAUME TOWNSHIP PROJECT - ONT.  
 A GRID  
**CLAIM MAP**  
 SHOWING  
**GEOPHYSICAL GRID**  
 FEB., 1987 By: B. Lum Map No.

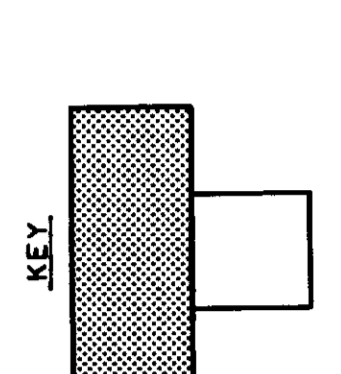
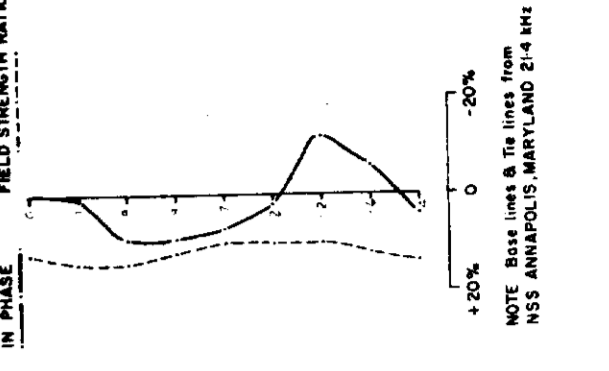


2.10144

IMPERIAL PLATINUM  
REAME TOWNSHIP PROJECT - ONT.  
A GRID  
CRONE RADEM EM PROFILES  
N.A.S. OUTLER, M.A.S.C. 840 811  
FEB. 1987 By B. L. U.P. Map No.

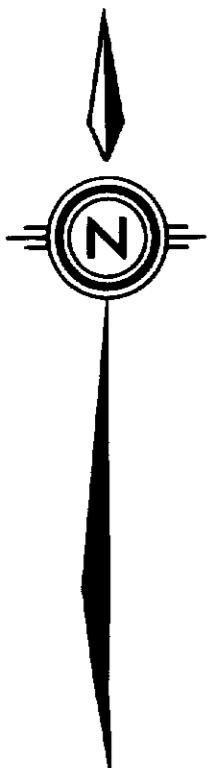
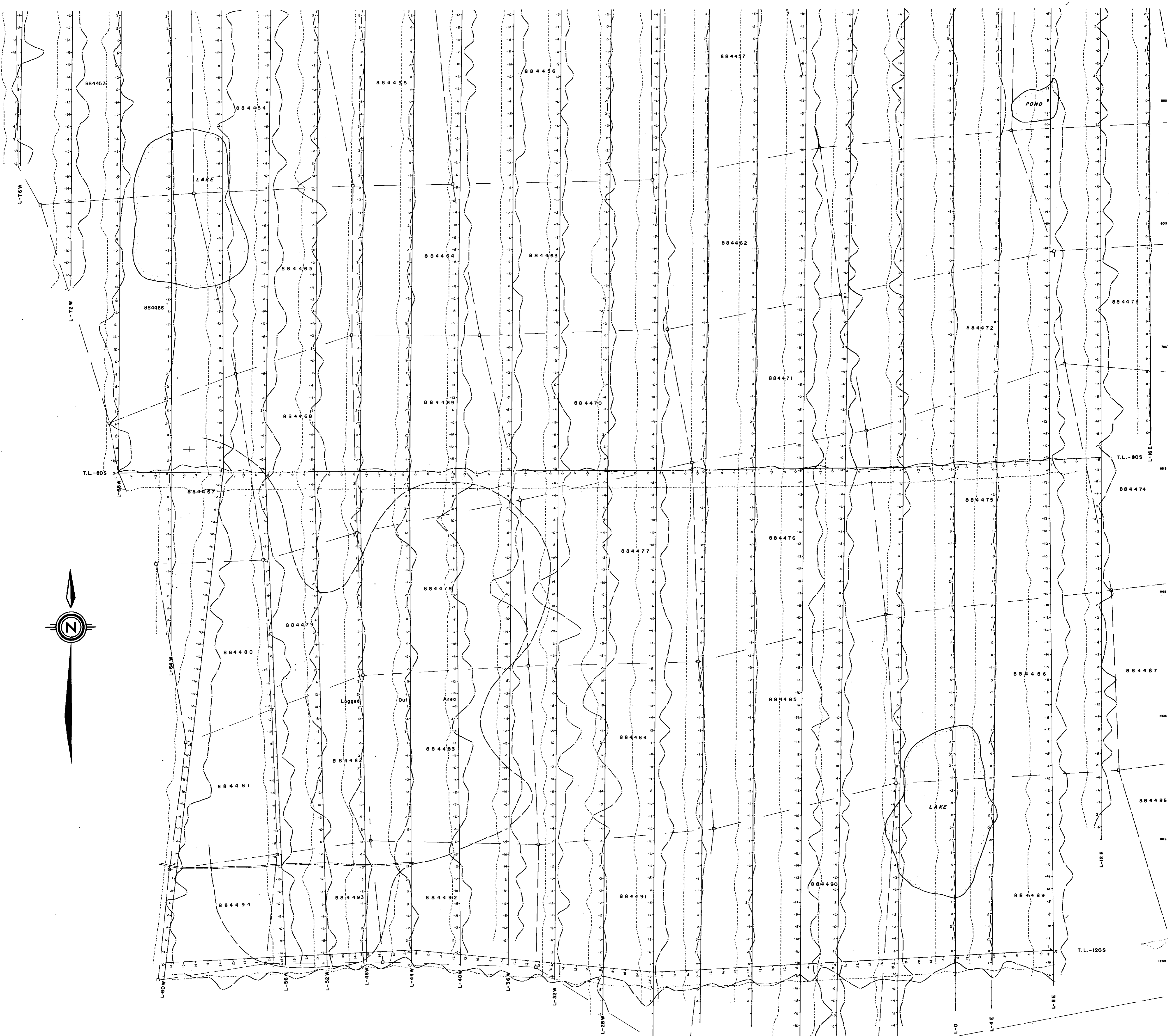


LEGEND

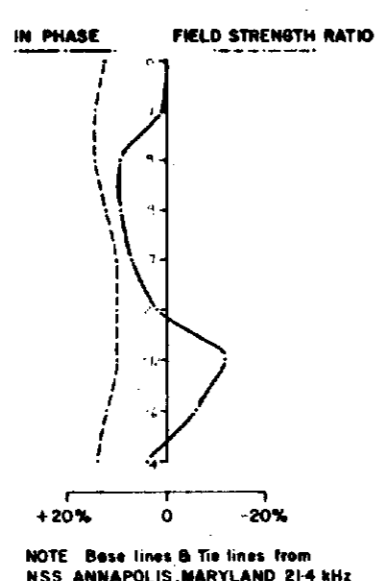


A.C.A. HOWE INTERNATIONAL LTD.



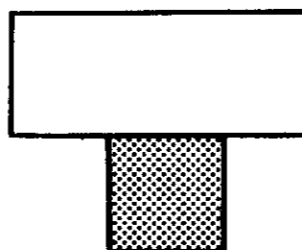


**LEGEND**



NOTE: Base lines & Tie lines from NSS ANNAPOLIS, MARYLAND 214 kHz

**KEY**

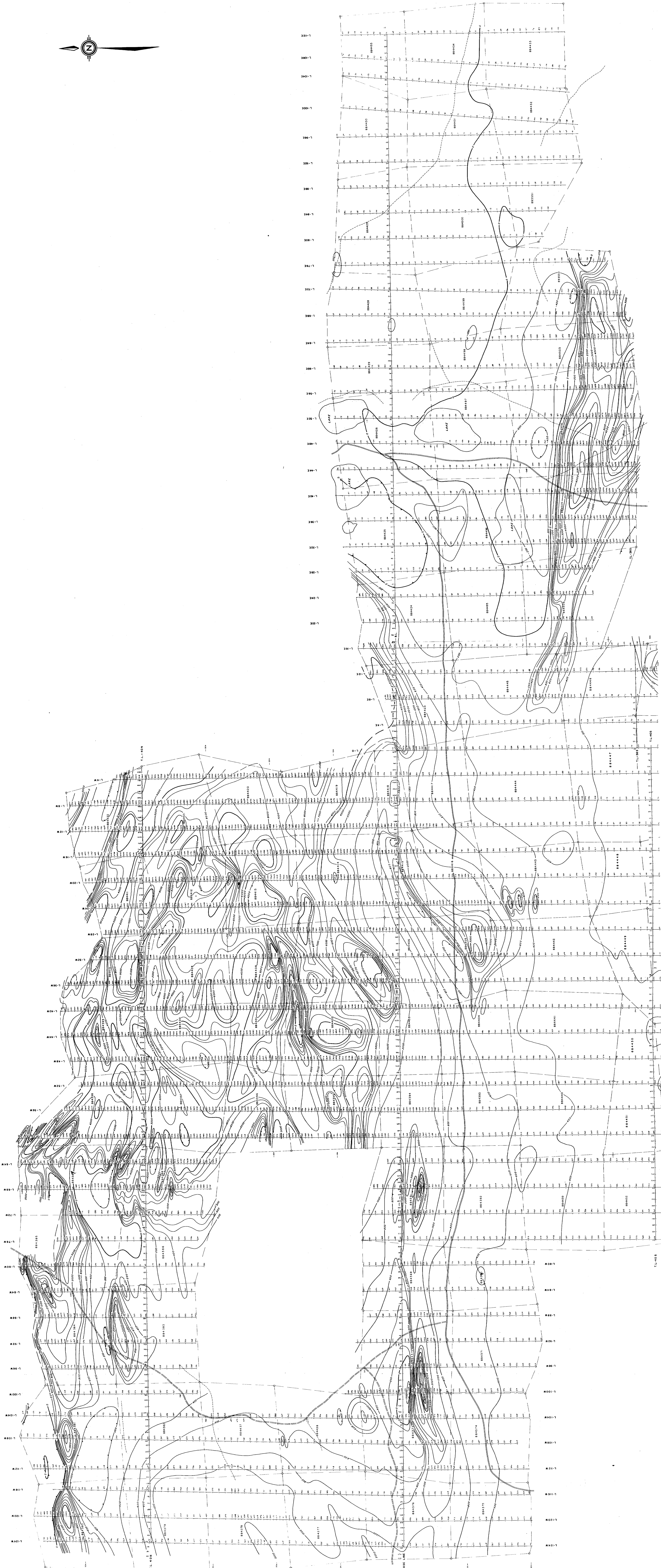
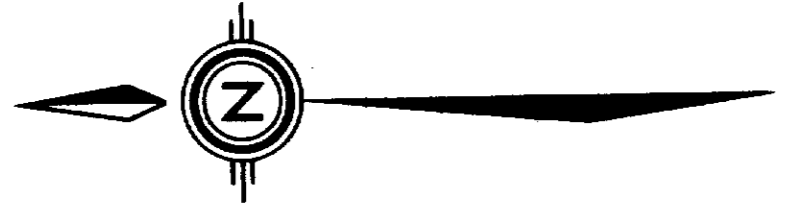


210144

<b>IMPERIAL PLATINUM</b>	
REAUME TOWNSHIP PROJECT - ONT.	
A GRID	
<b>CRONE RADEM EM PROFILES</b>	
NAA CUTLER, MAINE 240 kHz	
FEB., 1987	By: B. Lum
Map No.	



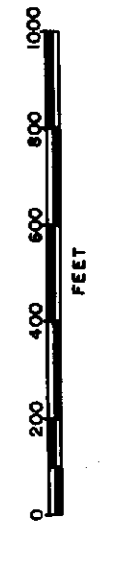
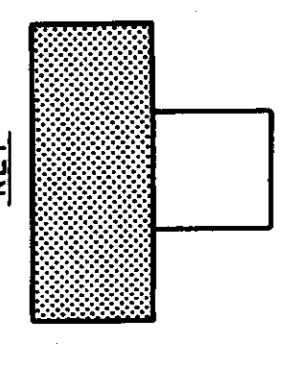


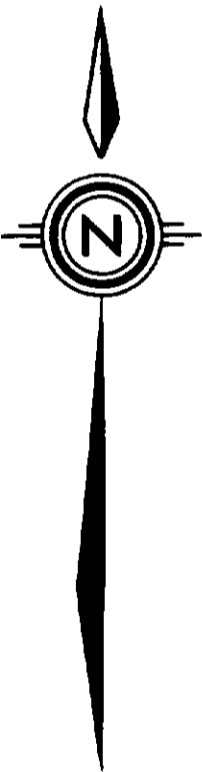
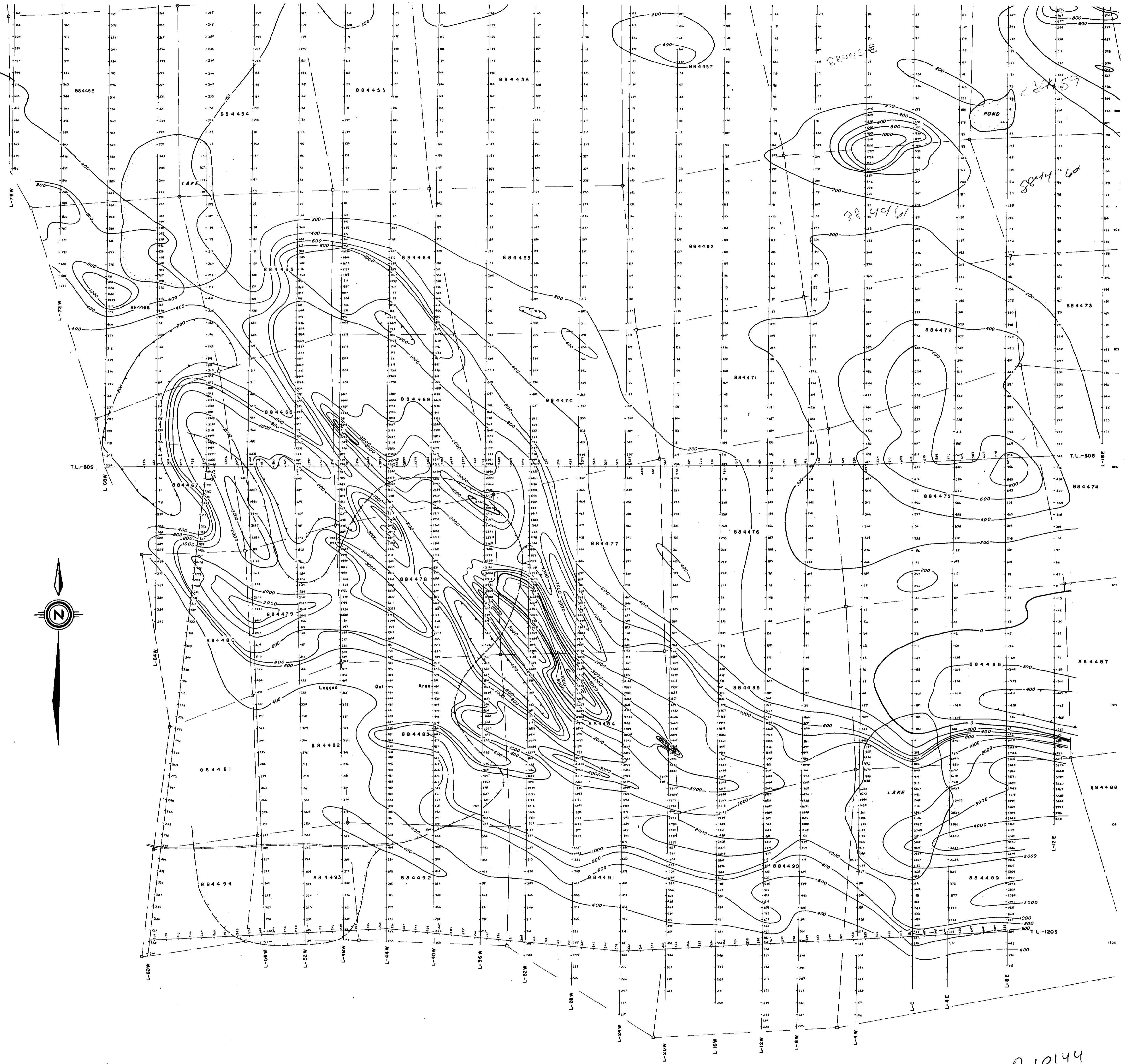


21044

IMPERIAL PLATINUM  
REARME TOWNSHIP PROJECT - ONT.  
4 GRID  
MAGNETOMETER SURVEY  
FEB. 1987 By B. Lum Map No.

LEGEND:  
- VALUE IN GAMMAS  
- 5000 GAMMAS  
- 5000 GAMMAS  
- 200 GAMMAS  
- 100 GAMMAS  
- BASE VALUE 51,000 GAMMAS

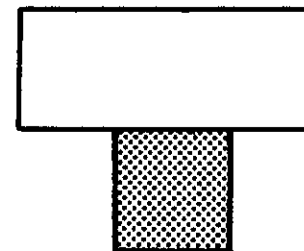




LEGEND:

- VALUE IN GAMMAS
- CONTOUR INTERVALS
- 5000 GAMMAS
- 200 GAMMAS
- MAG LOW
- BASE VALUE 59,000 GAMMAS
- LOGGED OUT AREA

KEY

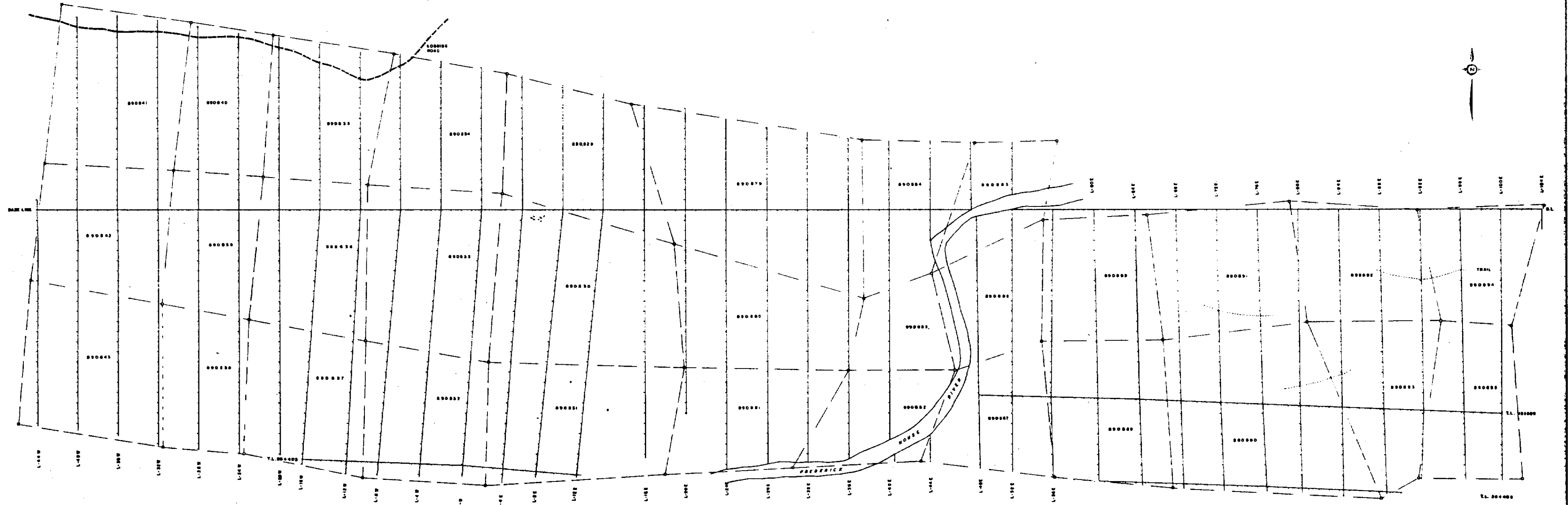


IMPERIAL PLATINUM  
 REAUME TOWNSHIP PROJECT - ONT.  
 A GRID  
 MAGNETOMETER SURVEY

FEB., 1987 By: B. Lum Map No.

210144





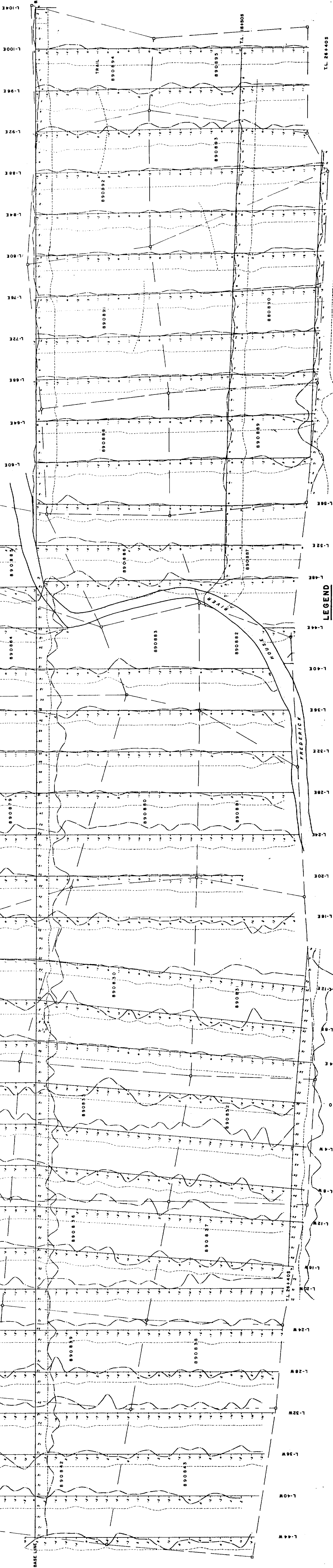
42A14NE0008 2.10144 REAUME

290

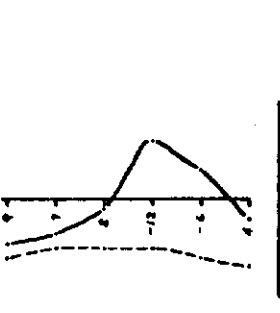
2.10144



IMPERIAL PLATINUM
REAUME TOWNSHIP PROJECT - ONT
D 010
<b>CLAIM MAP</b>
SHOWING
<b>GEOPHYSICAL GRID</b>
FEB., 1987 By S. Len Map No



LEGEND



4.25% 0 -25%  
 NOTE: Base Map & Top Lines from  
 1955 ANNUAL MAP, MARYLAND D-4-INT.

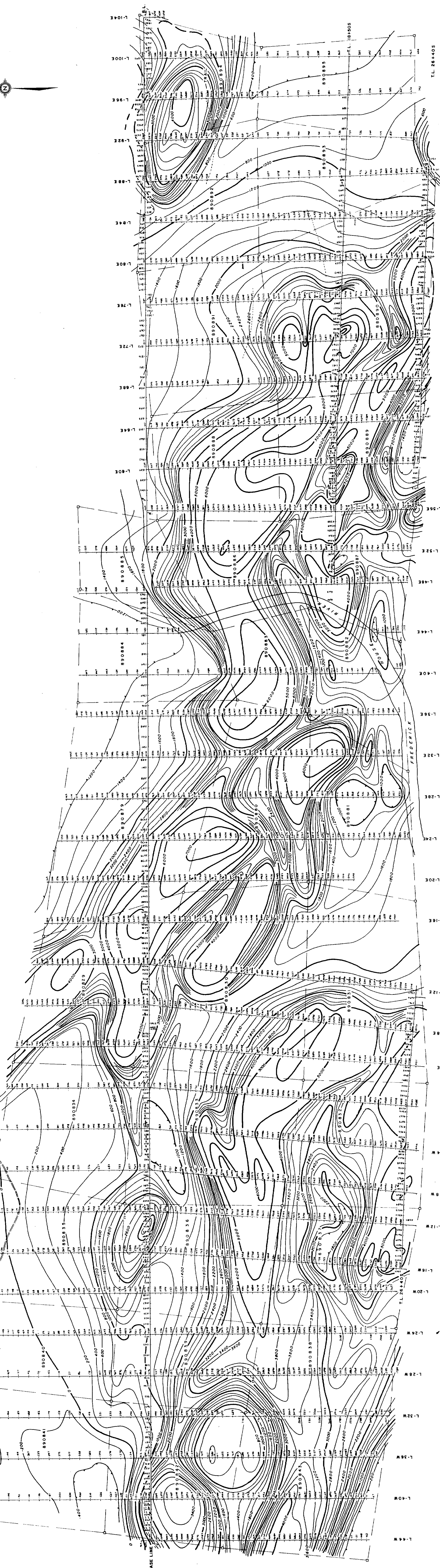
210144

IMPERIAL PLATINUM  
 REAUME TOWNSHIP PROJECT - ONT.  
 B GRID  
 CRONE RADEM EM PROFILES  
 M.A. CUTLER, MAINE 240 INT.  
 FEB., 1987 By: B. Lum Map No.





LOGGING ROAD



LEGEND:

- VALUE IN GAMMAS
- CONTOUR INTERVALS
- 1000 GAMMAS
- 200 GAMMAS
- MAG LOW
- BASE VALUE 59,000 GAMMAS

2 10144

