

### INTRODUCTION

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During the period from February 1, 1967 to March 21, 1967 a magnetic survey was carried out over a group of 21 claims located in the northwest part of Reid Township, Porcupine Mining Division.

LOCATION AND ACCESS

The property is situated in northwest Reid Township approximately twenty miles northwest of Timmins, Ontario. A semi-permanent camp was established on Thorburn Creek and was serviced by rotary aircraft from Timmins, Ontario.

#### PREVIOUS WORK

The claim group has been covered by two combined magnetic and electromagnetic airborne surveys.

Two ground electromagnetic surveys have also been performed on the group.

All surveys indicated the presence of several electrically conductive zones.

#### INSTRUMENTS USED AND SURVEY METHOD

A Sharpe MF-1 Fluxgate megnetometer was used for the survey. Lines were spaced at two hundred foot intervals and stations were established every hundred feet.

All readings were tied to a base on the grid and drift corrections were made. A total of 1407 stations were established. GEOLOGY

There are no outcrops within the area but all consolidated rocks are believed to be of Precambrian age.

A few drill holes located to the east of the group indicate that the area is underlain by an acid to intermediate volcanic rocks and graphitic sediments which have locally been intruded by ultrabasic material.

### SURVEY RESULTS

Three major faults are indicated within the map area.

The pronounced easterly striking magnetic anomaly is believed to be due to serpentinized ultrabasic intrusive body.

The northern portion of the area is also believed to be underlain by an ultrabasic body. The high magnetic relief is most likely a reflection of local concentration of magnetite within the intrusive body.

An arcuate band of relatively low magnetic relief in the southwestern portion of the area is believed to be underlain by acidic volcanic rocks.

The anomalies within the map area appear to be covered by 75 to 150 feet of overburden. The shallowest portions lying to the northeast and the heavily covered portions to the southwest.

CONCLUSIONS AND RECOMMENDATIONS

A detailed electromagnetic survey should be completed before consideration is given to diamond drilling within this area.

Respectfully submitted
MESPI MINES LIMITED

J.E. Steers

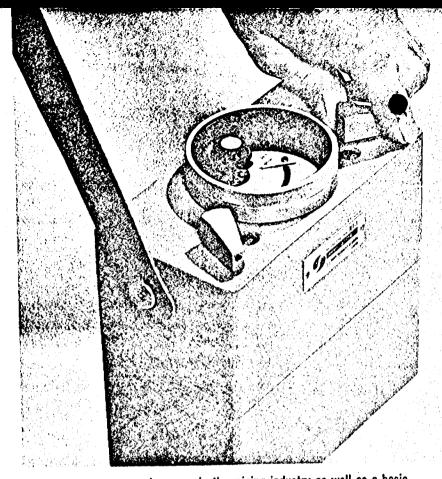
Exploration Manager

JES/jf

### MF-1 FLUXGATE MAGNETOMETER

A first order fluxgate type vertical component magnetometer. Advanced transistorized circuitry and extensive temperature compensation is the core of its accuracy comparable to precision tripod mounted Schmidt type magnetometers.

It is a hand held instrument and needs only coarse levelling and no orientation. Features such as direct reading of gamma values and the possibility of accurate zero setting at base stations ensure simplicity of operation and higher field economy.



The Model MF-1 Fluxgate Magnetometer is designed for accurate ground surveys in the mining industry as well as a basic component for air surveying by small aircraft. Technical data and comparison charts available on request.

### S P E C I F I C A T I O N S

MAXIMUM SENSITIVITY:

READABILITY.

RANGES: (FULL SCALE)

20 gammas (per scale division) on 1000 gamma range.

5 gammas (1/4 scale division on 1000 gamma range.

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1,000 gammas

3,000 gammas

10,000 gammas

30,000 gammas

100,000 gammas

MAXIMUM RANGE:

LATITUDE ADJUSTMENT RANGES:

± 100,000 gammas

10,000 to 75,000 gammas, Northern hemisphere

convertible to:

10,000 to 75,000 gammas, Southern hemisphere

or = 30,000 gammas equatorial.

DIMENSIONS: (INCLUDING BATTERY CASE)

WEIGHT: (INCLUDING BATTERY CASE)

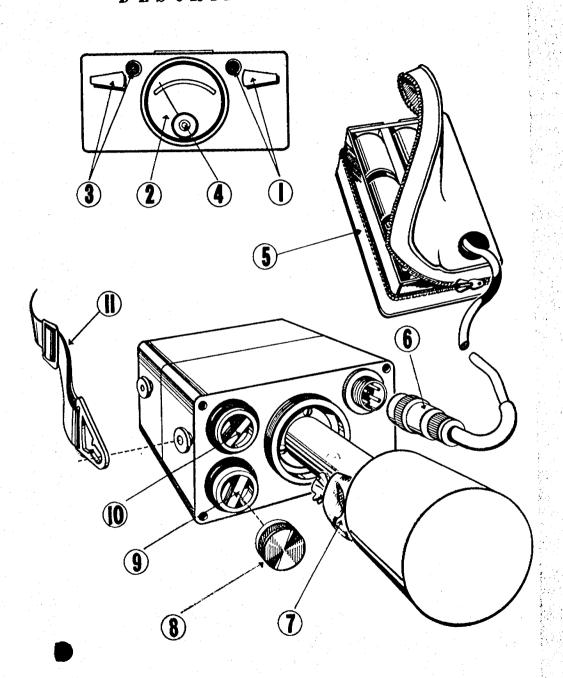
BATTERIES:

7" x 4" x 16"

Bibs.

12 Flashlight Batteries ("C" cell).

## DESCRIPTION OF FLUXGATE MAGNETOMETER MODEL MF-1



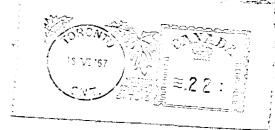
- 1. RANGE SWITCH
- 2. METER
- 3. MAIN SWITCH
- 4. LEVEL
- 5. BATTERY PACK
- 6. BATTERY CONNECTOR
- 7. SILICA GEL BAG
- 8. PROTECTION CUP
- 9. LATITUDE ADJUSTMENT CONTROL-FINE
- 10. LATITUDE ADJUSTMENT CONTROL-COARSE
- .11. CARRYING STRAP

This unit is also available in geodetic or observatory models.



SHARPE INSTRUMENTS OF CANADA LIMITED

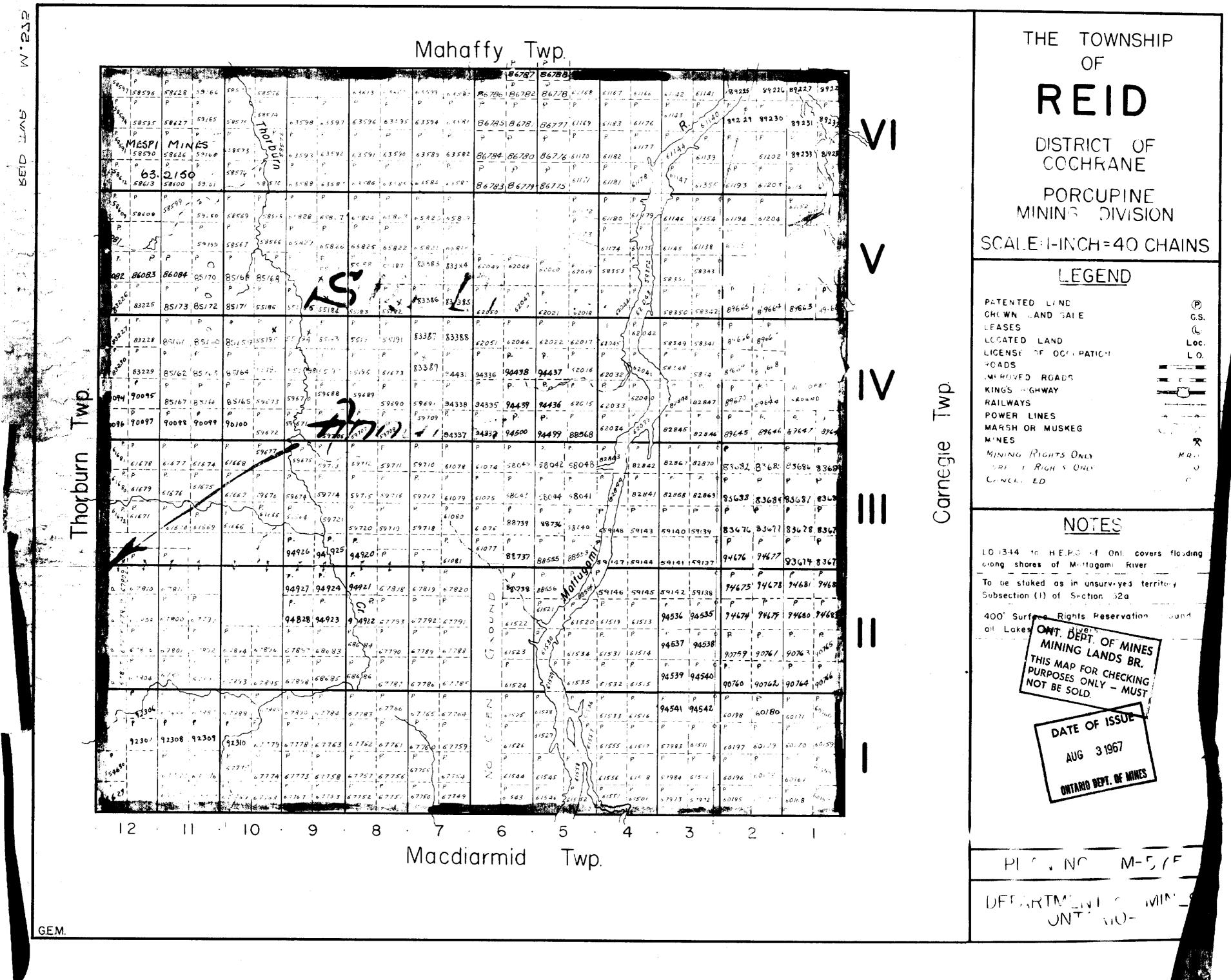
### SUITE 1705 80 RICHMOND STREET WEST TORONTO 1, CANADA



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Mr. R. V. Scott,
Director,
Mining Lands Branch,
Department of Mines,
Parliament Buildings,
Toronto 2, Ontario.





# THORBURN

PORCUPINE MINING DIVISION

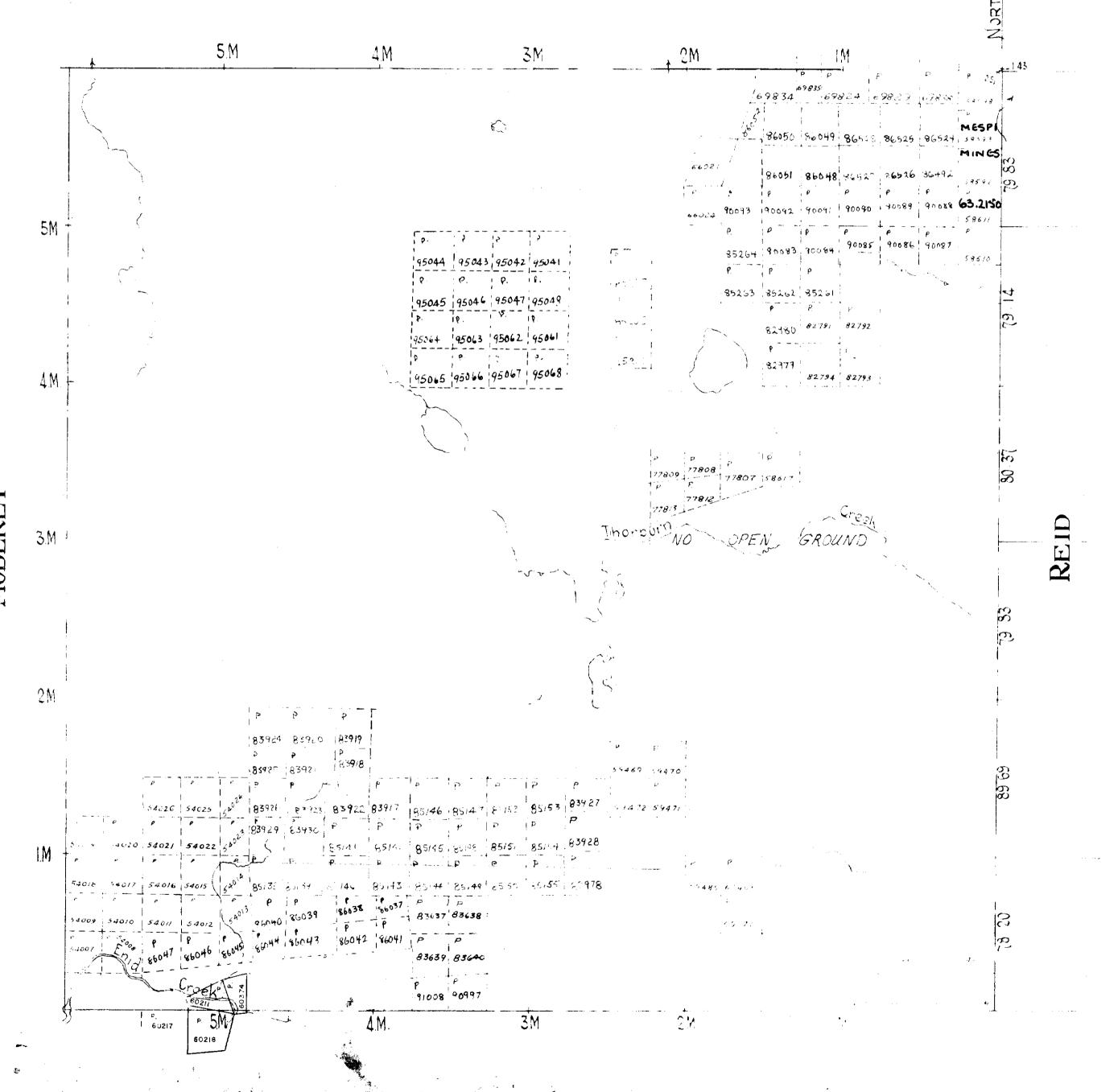
DISTRICT OF COCHRANE

Scale - 40 Chains = 11nch

NOTE

400' Surface Rights Reservation around all Lakes and Rivers.

GEARY



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DATE OF ISSUE

AUG 3 1967

ONTARIO DEPT. OF MINES

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