



41P14NE0113 63.2523 MIDLOTHIAN

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### SUMMARY

A detailed airborne magnetic survey was completed over a block of Canadian Johns-Manville Co. Limited claims during March of 1969. These claims are situated in Midlothian Township, Montreal River Mining Division, Province of Ontario.

The magnetic survey has outlined several moderate to high anomalies occurring over ultrabasic intrusive rocks and Huronian age sediments.

It has been recommended that the magnetic anomalies be checked on the ground to further delineate same and that detailed geological mapping be carried out to aid in the final interpretation.

REPORT ON AIRBORNE MAGNETOMETER SURVEY  
MIDLOTHIAN TOWNSHIP, MONTREAL RIVER MINING DIVISION  
PROVINCE OF ONTARIO  
ON BEHALF OF

CANADIAN JOHN-MANVILLE CO. LIMITED

Introduction

During the early part of March, 1969, an aerial magnetometer survey was undertaken by Survair Limited on behalf of Canadian John-Manville Co. Limited on mining claims in Midlothian Township, Montreal River Mining Division, Province of Ontario.

A total of approximately 30 miles of survey was flown on the group. Fifty-one claims, comprising approximately 2,040 acres, were included in the block.

The purpose of the aerial magnetic survey was to outline the ultrabasic intrusive rocks known to occur in the area.

Survey Equipment and Procedure:

A Barringer Research AM101B Nuclear Precession magnetometer having a scale constant of 100 gammas, was used for the aerial survey. This unit was mounted in an Apache C.F. - MPD type aircraft piloted by Mr. A. Lambros. The Electronic Technician on the job was Mr. R. Youngberg. The actual flying was carried out on March 6th, 1969.

### Survey Equipment and Procedures (cont'd)

A Bonzer TRN - 70 altimeter was used and the altitude flown during the survey was 500 feet MFC.

The flight direction was north - south with grid line spacing of one-eighth of a mile. Base map used was the Forest Inventory Sheet on a scale of one inch equals 1320 feet. The final plans were compiled on a scale of one inch equals 400 feet.

### Geology:

The geology of the surveyed area is shown on Map No. P.386 entitled "Midlothian Township" on a scale of one inch equals 1320 feet. This map was issued by the Ontario Dept. of Mines in 1967.

Huronian sediments, mainly arkose and argillite, underlie the entire eastern portion of the map area. The remainder is covered by acidic volcanics of Keewatin age which have been intruded by small bodies of ultrabasic rocks.

Several small sulphide showings occur in the rhyolites in the area while asbestos fibre showings have been explored at Lloyd Lake.

In general topography is rugged and rock exposures are numerous throughout the claims group.

### Interpretation:

The results of the aerial survey are shown on the accompanying two map sheets on a scale of one inch equals 400 feet. Gamma values have been

Interpretation: (cont'd)

contoured to 10 gamma intervals where required. This is shown under "Legend" on the plans.

Magnetic values over the claims group range from a low of 58,600 to a high of 63,700 gammas. In general the "lows" occur over the acidic volcanics in the west part of the group. Magnetic "highs" have been outlined over the ultrabasic intrusives on the south shore of Lloyd Lake - 63,700 gamma peak, over the rhyolite in the same general area and over the Cobalt sediments in the east part of the block. Magnetic values reached a peak of 61,740 gammas over the sediments.

The results of the survey indicate that the ultrabasic intrusives have been folded into a synclinal structure which plunges to the east beneath the Cobalt sediments. The sediments overlying the nose of the fold are flat lying and assumed to be quite shallow on the basis of the magnetic data.

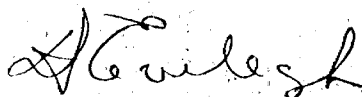
Conclusions and Recommendations:

The airborne magnetometer survey has indicated the occurrence of folded ultrabasic intrusive rocks striking in a general east-west direction with the nose of the fold plunging to the east beneath the sedimentary formations. Magnetic values are sufficiently anomalous to warrant ground checking for chrysotile asbestos mineralization.

It is, therefore, recommended that a program of geological mapping,

Conclusions and Recommendations: (cont'd)

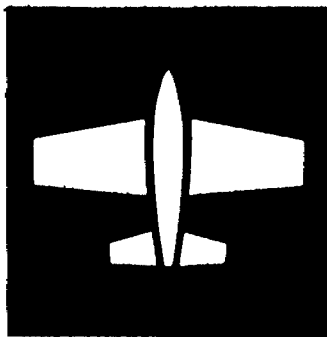
prospecting and limited follow-up ground magnetic surveying be conducted over the magnetic "highs" delineated by the aerial survey. Depending upon the results, limited diamond drilling should be carried out on key anomalies.



Submitted by: F. J. Eveleigh  
Regional Geologist.

June 4th, 1969.

ROUTE LOCATION  
GEODETIC SURVEYS  
AERIAL PHOTOGRAPHY  
PHOTOGRAMMETRIC MAPPING



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AIRBORNE GEOPHYSICAL SURVEYS

18 April 1969.

Mr. F.J. Evelegh,  
Canadian Johns-Manville Co., Limited,  
Asbestos Fibre Division,  
Exploration Dept.,  
Drawer 610,  
Matheson, Ontario.

Re: Aeromagnetic Survey  
Midlothian Township

Dear Sir:

Please find enclosed the original transparencies and 3  
cassides of each sheet in respect of an aeromagnetic survey  
flown over Midlothian Township.

The following are the particulars of the survey.

Date flown - March 6, 1969.  
Aircraft - Apache CF-MTD.  
Pilot - Mr. A. Lambros.  
Electronic Technician - Mr. R. Youngberg.  
Magnetometer - Barringer Research AM101B Nuclear Precession.  
Altimeter - Bonzer TRN-70.  
Altitude - 500' MTC.  
Flight Direction - North-South.  
Line Spacing - 1/8 Mile.  
Control - Peripheral.  
Base Map - Forest Resources Inventory Sheet 1" = 1,920'.  
Compilation Scale - 1" = 400'.

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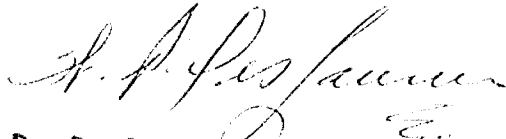


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MEMBER CANADIAN ASSOCIATION OF AERIAL SURVEYORS

18 April 1969.

The Western half of the area contains mainly acidic to intermediate, Archean metavolcanics with many small basic and ultrabasic intrusives. There are several sulphide and asbestos showings. To the East of Lloyd Lake the out crops are almost entirely Huronian sediments, mainly greywacke, quartzite and arkose.

Sincerely,



W.P. DesLaurier,  
Vice-President.

cc: Mr. H.K. Conn


WPD/mf

LEGEND SHEET - MIDLOTHIAN TWP.

HURONIAN

 1B Arkose, argillite

MATACHEWAN

 6 Quartz diabase dike

HAILEYBURIAN (?)

 4C Peridotite

TIMISKAMING

 1E Conglomerate

KERWATIN (?)

 3 Rhyolite

*Handwritten signature*



# MONTROSE TWP. (M.237)

# THE TOWNSHIP OF CLAIM MAP MIDLOTHIAN

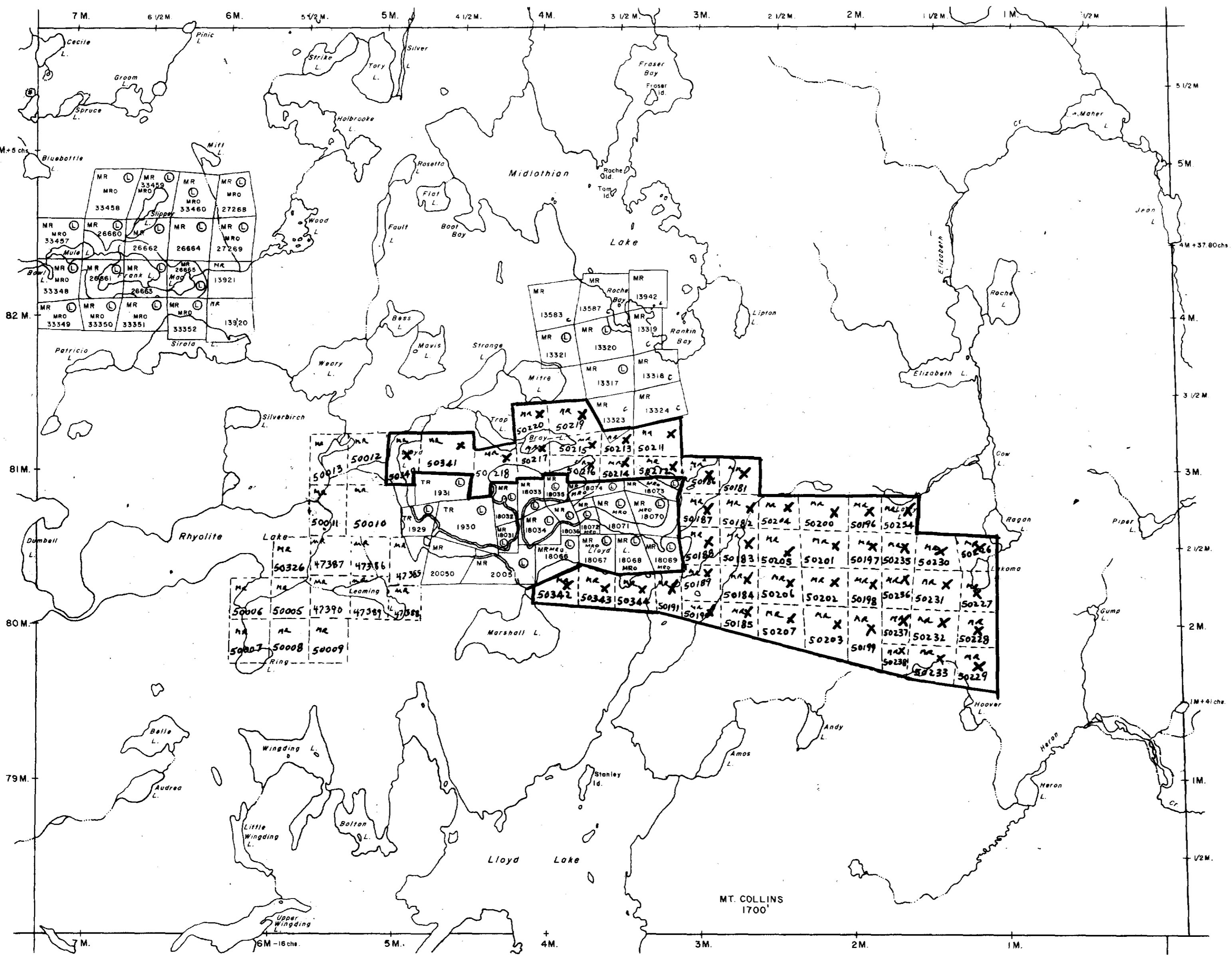
DISTRICT OF  
TIMISKAMING

LARGER LAKE  
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

HALLIDAY TWP. (M.910)

DOON TWP. (M.217)



## 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.

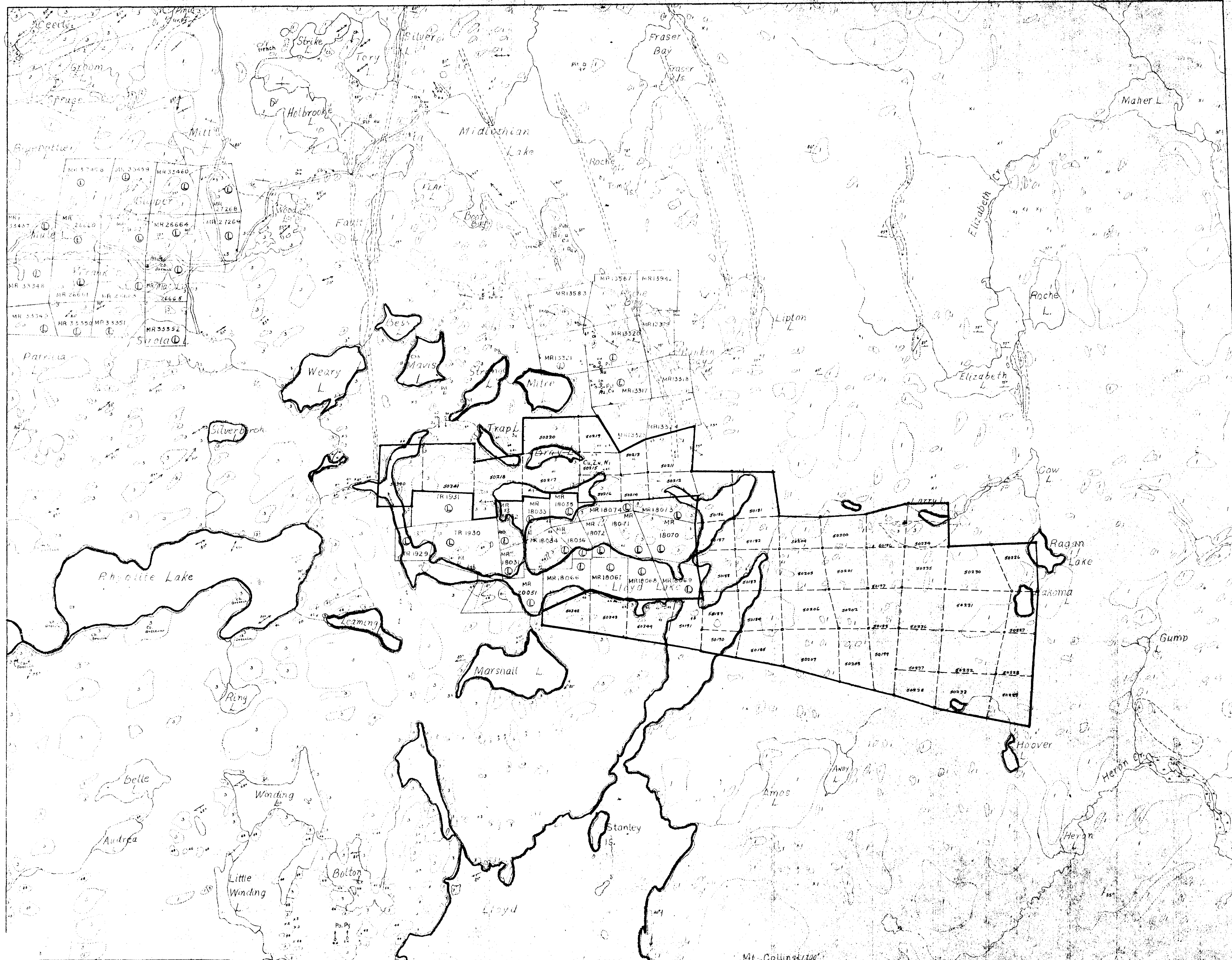
*X - claims covered*

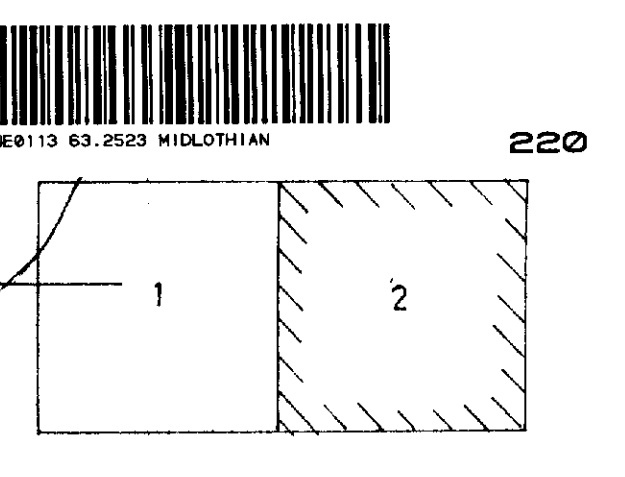
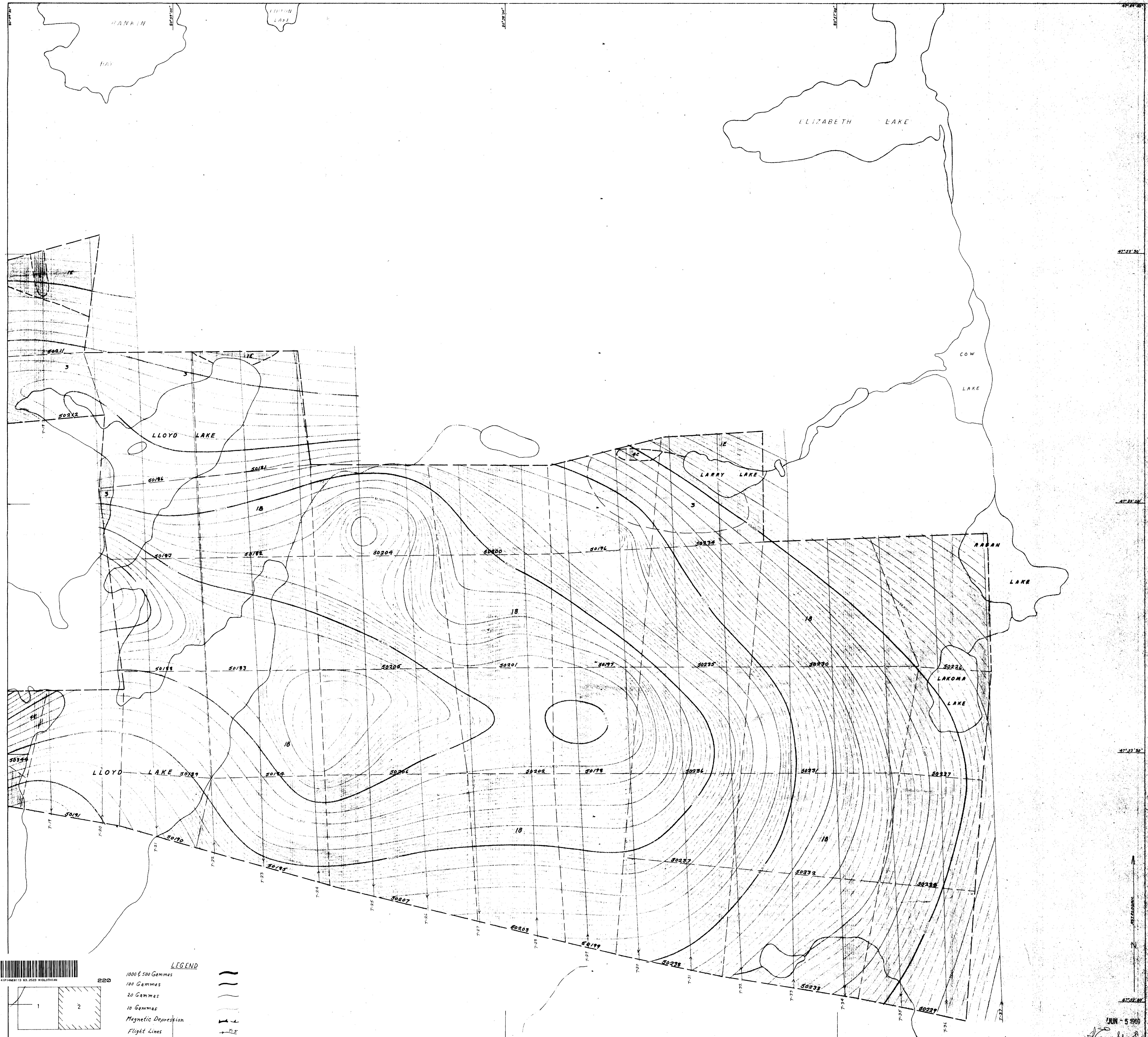
PLAN NO. **M.235**

DEPARTMENT OF MINES  
- ONTARIO -

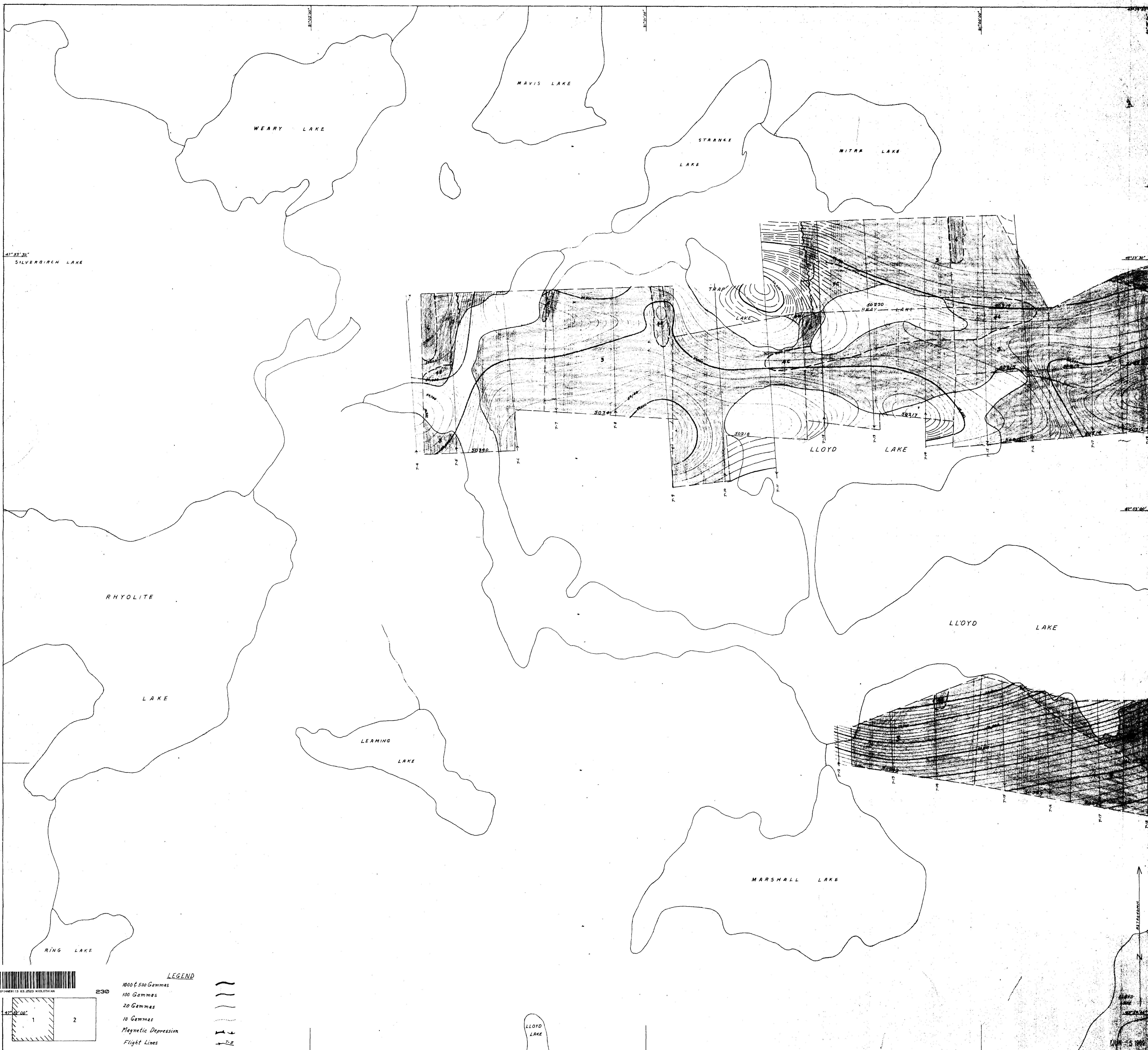
# RAYMOND TWP. (M.244)







**LEGEND**  
1000 & 500 Gammas  
100 Gammas  
20 Gammas  
10 Gammas  
Magnetic Depression  
Flight Lines



47° 53' 30"

47° 53' 30"

1 2

- LEGEND**
- 1000 & 500 Gemmas
  - 100 Gemmas
  - 20 Gemmas
  - 10 Gemmas
  - Magnetic Depression
  - Flight Lines