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C. W. ARCHIBALD

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*by hand*  
OCT 29 1975

PROJECTS UNIT

MAGNETOMETER SURVEY  
GOSHANK MINES LIMITED  
OGDEN TOWNSHIP, ONTARIO

by

C. W. Archibald, B.A Sc., P. Eng., Ontario.

April, 1975

MAGNETOMETER SURVEY  
GOSHAWK MINES LIMITED  
OGDEN TOWNSHIP, ONTARIO

G E N E R A L

Ten claims of the sixteen claim group in Ogden Township, Ontario, were surveyed by an M-700 and a MF-1 fluxgate magnetometer during March and April of this year.

The base line was an east-west line (partially the claim line) running across the centre of the property.

Lines were cut at two-hundred foot centres north and south from this base line with stations at hundred foot intervals.

The base station used was at 2 + 00 West on the base line.

A total of 16.48 miles of line were cut and some 1,022 readings were taken, some at fifty-foot intervals.

### P R O P E R T Y

The property consists of sixteen contiguous mining claims in Ogden Township, Ontario.

Of these sixteen claims, ten were surveyed by magnetometer - claims 7367, 7368, 7369, 1164, 1169, 1174, 1175, 840 and 381911.

### A C C E S S

The claim group is some three and one-half miles south of the City of Timmins by an all-weather gravel road.

### G E O L O G Y

In the area surveyed, a considerable amount of rock outcrop appears on claims 1169, 1174, 1175, 381911 and the southern portions of claims 1164 and 840.

This outcrop is mainly Keewatin lavas with wide bands of iron formation. Carbonates are exposed over wide areas with associated silicification and sulphides (mainly pyrite).

A large porphyry dike (?) follows the general strike of the country rock in claim 1175. General strike is slightly north of east with the dip steeply north.

The Porcupine-Destor Fault cuts through the northwest corner of claim 7369 with a strike approximately north 75° East.

## R E S U L T S of S U R V E Y

Readings varied from a high of 32,000 gammas to minus 18,000 gammas.

In the outcrop areas, trends conformed to the country rock (slightly north of east) and many of the trends or anomalous occurrences could be directly related to the iron formation.

Anomalies A and C conformed almost completely with a known iron formation. Anomaly B was south of the known iron formation but in an area known to contain heavy sulphides.

Anomaly 'A' on line 8 West showed a text book anomaly with negative readings bracketing a high. This is probably due to a heavy concentration of magnetite but should be diamond drilled to test it. At the east end of anomaly 'A' where it becomes a magnetic trend rather than anomalous, there is a known area of silicification and mineralization containing gold values which should be diamond drilled regardless of the survey. These two drill holes in the anomalous zone should give a great deal of information and may prove helpful in utilizing the survey in future work.

Anomaly 'B' is south of a known iron formation but in an area of sparse overburden. One drill hole has been spotted on line 10 West to test the high reading and then continues into the dipole readings to the north of this high.

Anomaly 'C' is almost certainly the wide bands of iron formation crossing the claims.

Other high readings in the south part of claim 840 can also be interpreted as smaller bands of iron formation.

The most northerly four claims showed a lack of magnetic response which could be due to more acid flows in this area. The one contour line crossing claim 7369 does generally follow the Porcupine-Destor Fault. Using this contour line as an example, it may be that there is another parallel fault line south of this crossing claims 1164 and 840.

The single series of medium high readings in claim 7367 is also probably due to iron formation with the rest of the claim underlain by more acid type flows.

### C O N C L U S I O N S

This magnetometer survey, in correlation with our geological mapping, is and can be very useful for geological interpretation. With some diamond drilling to further corroborate the readings, it may become extremely useful for further interpretation.

The contour map appended to this report has a very wide range of contours and a closer contouring shall be done to see if further data can be obtained from the survey.

The results of the diamond drilling to test two of the anomalies may lead to a further interpretation of magnetometer results.

R E C O M M E N D A T I O N S

Three short holes are recommended to test anomalies A and B.

The four most northerly claims where there was a lack of magnetic response should be tested by a VLF Electro-magnetic survey using the lines cut for the magnetometer survey.

Respectfully submitted,

\* Qualification 63A.412

Toronto, Ontario.  
15th April, 1975.



C. W. Archibald, B.A. Sc.,  
Prof. Engineer of Ontario.

MOUNTJOY TWP. M-302

THE TOWNSHIP OF **2-1960**

**OGDEN**

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 20 CHAINS

**LEGEND**

- PATENTED LAND (P)
- CROWN LAND SALE (C.S.)
- LEASES (L)
- LOCATED LAND (L.O.)
- LICENSE OF OCCUPATION (L.O.)
- MINING RIGHTS ONLY (M.R.O.)
- SURFACE RIGHTS ONLY (S.R.O.)
- ROADS (R)
- IMPROVED ROADS (R)
- KING'S HIGHWAYS (K.H.)
- RAILWAYS (R)
- POWER LINES (P.L.)
- MARSH OR MUSKEG (M)
- MINES (M)
- CANCELLED (C)

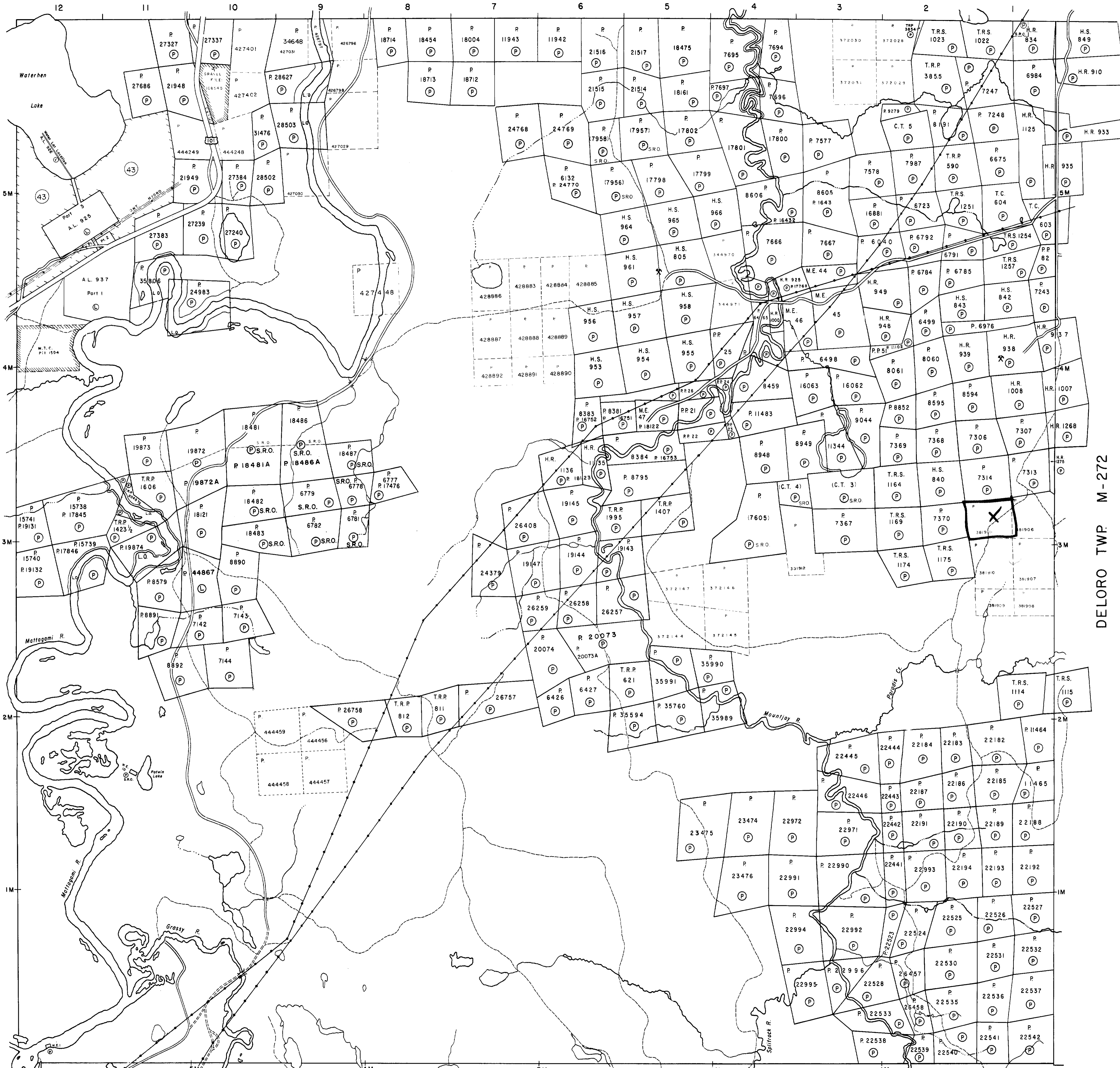
**NOTES**

400' Surface Rights Reservation along the shores of all lakes and rivers.  
 L.O. 6613 - Booming Grounds - covers the westerly half of the bed of the Mattagami River flowing through this township. File: 73543.  
 This township lies within the Municipality of CITY of TIMMINS.

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970)

File	Date	Disposition
W.55/74	18/4/27	6/11/74 S.R.O.

**MINING LANDS - DATE OF ISSUE**  
**OCT 30 1875**  
 MINISTRY OF NATURAL RESOURCES



BRISTOL TWP. M-264

DELORO TWP. M-272

PRICE TWP. M-307

PLAN NO. **M-305**

ONTARIO  
 MINISTRY OF NATURAL RESOURCES  
 SURVEYS AND MAPPING BRANCH





# MAGNETOMETER SURVEY

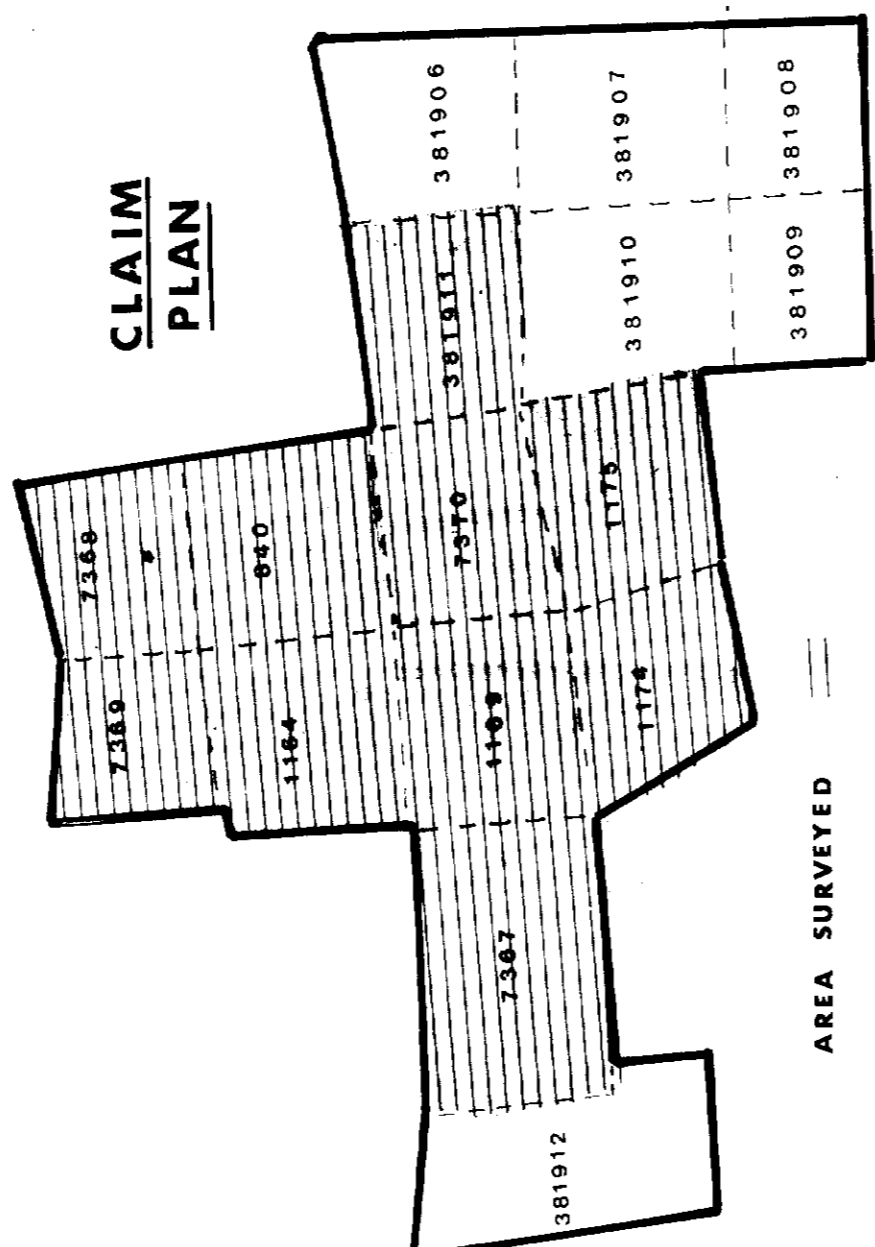
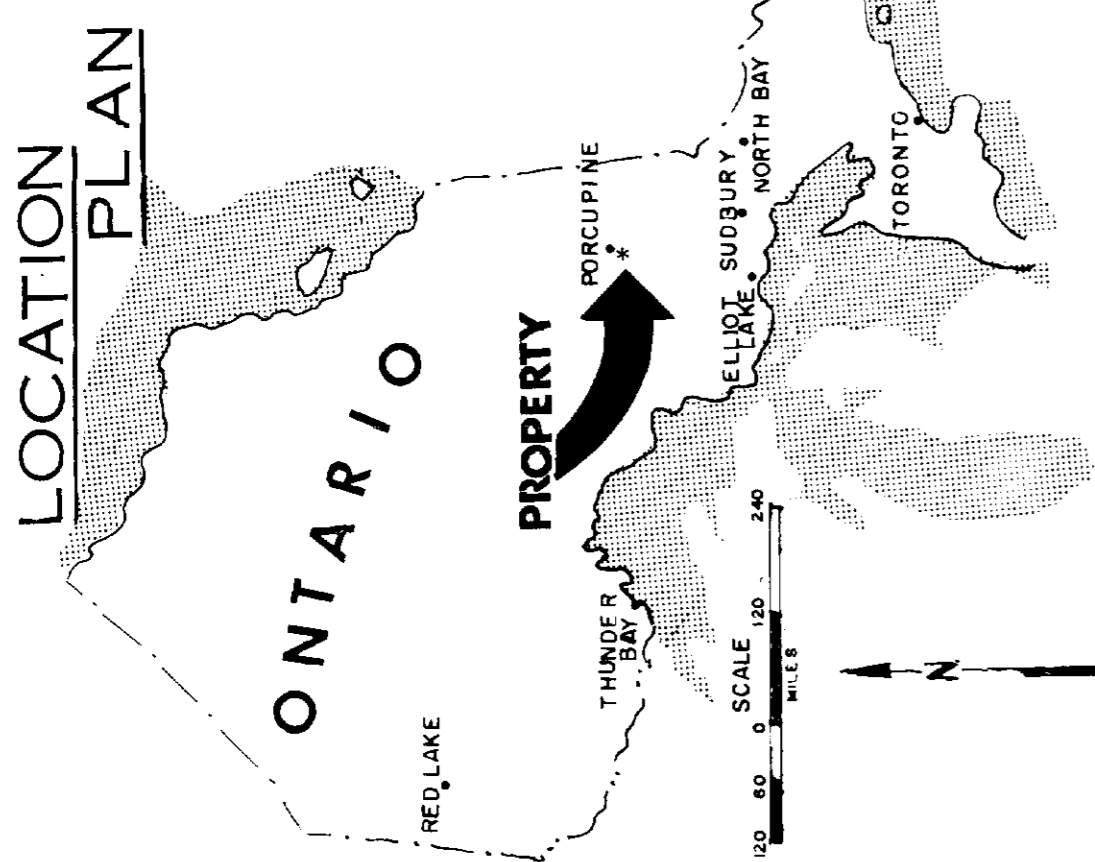
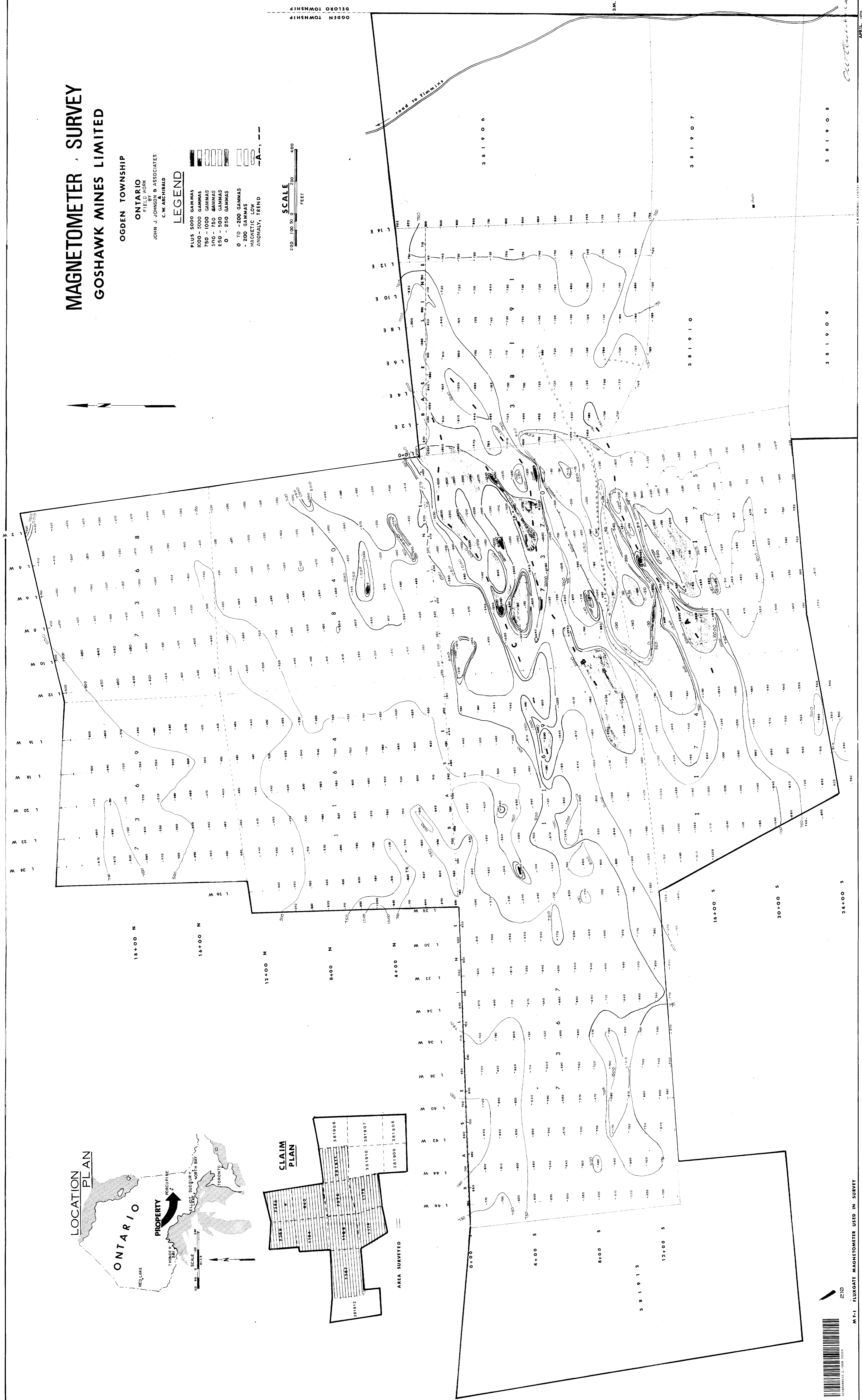
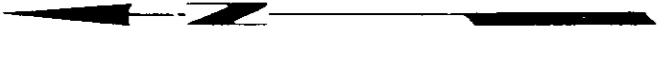
## GOSHAWK MINES LIMITED

OGDEN TOWNSHIP

ONTARIO  
FIELD WORK  
BY  
JOHN J. JOHNSON & ASSOCIATES  
C.W. ARCHIBALD

### LEGEND

- PLUS 5000 GAMMAS
- 1000 - 5000 GAMMAS
- 750 - 1000 GAMMAS
- 500 - 750 GAMMAS
- 250 - 500 GAMMAS
- 0 - 250 GAMMAS
- 0 TO -200 GAMMAS
- 200 GAMMAS
- MAGNETIC LOW ANOMALY, TREND



AREA SURVEYED

