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REPORT ON THE
MAGNETIC AND ELECTROMAGNETIC SURVEYS

on the Property of

COPCONDA MINES LIMITED

situated in

Marriott Township - Larder Lake Mining Division
Province of Ontario

by

Michael Zurowski, B.Sc., P. Eng.

SIMARD, KNIGHT & ZUROWSKI

Toronto, Ontario

October 13, 1964

REPORT ON THE
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COPCONDA MINES LIMITED
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SUMMARY

The results of the electromagnetic survey did not reveal any anomalous conditions which could be interpreted to be caused by massive sulphide mineralization. Numerous anomalies were outlined, but these are generally of very weak magnitude and exhibit characteristics usually caused by conductive overburden and shear zones.

Several magnetic anomalies were outlined. All but one are broad anomalies and of low intensity. These are interpreted, for the present, to be caused by disseminated magnetite in dioritic intrusive bodies.

CONCLUSIONS

Further exploratory work on the property should be confined to investigation of the magnetic anomalies as they may represent intrusive bodies and these could be structurally favorable for precious metal mineralization. Also for the sake of completeness of interpretation, one of the better electromagnetic anomalies should be investigated.

It is also worthy to note that no appreciable magnetic or electromagnetic anomalies were obtained over the zones of disseminated pyrite mineralization on claim L-79115.

RECOMMENDATIONS

It is recommended that four diamond drill holes, strictly of a cross-sectional nature, be bored to investigate magnetic anomalies M1, M2 and M3 and electromagnetic anomaly EM7.

Co-ordinates of the proposed drill holes are as follows:

<u>Hole No.</u>	<u>Latitude</u>	<u>Departure</u>	<u>Bearing</u>	<u>Dip</u>	<u>Length (ft.)</u>
1	3 + 00 N. of B. L.	Line 20 + 00 E.	North	45°	500
2	4 + 00 S. of B. L.	Line 36 + 00 E.	North	45°	500
3	18 + 00 S. of B. L.	Line 38 + 00 E.	North	45°	500
4	29 + 00 S. of B. L.	Line 26 + 00 E.	North	45°	400
Total --					1900 feet

A total of 1900 feet of drilling would be required and additional drilling would necessarily depend upon the results obtained in these initial holes.

PROPERTY, LOCATION, ACCESS, ETC.

The property of Copconda Mines Limited consists of thirty-three (33) unsurveyed and unpatented mining claims, all located in the southeast corner of Marriott township, Larder Lake Mining Division, Province of Ontario.

They are numbered L-85647 to L-85661 inclusive and L-79064 to L-79081 inclusive. All but claims L-79080 and L-79081 are in one contiguous compact block. These are contiguous but removed several hundred feet in a northwesterly direction from the main block.

The claim group is situated immediately west of McDiarmid lake. Seven of the claims cover part of the land under the waters of the lake. The south boundary of the claim group is the township line common to Marriott and Dokis townships, whereas the east boundary of the claim group is very nearly coincident with the east boundary of Marriott township which is also the common boundary of the provinces of Ontario and Quebec.

The property is most easily reached by air from the town of Lasarre, Quebec. From Lasarre to the property, in a southwesterly direction, it is 30 air miles. McDiarmid lake is a large lake excellent for landing of float or ski equipped aircraft.

Highway 101, joining Matheson, Ontario and the road connecting Noranda to Lasarre, Quebec, passes through the northern part of Marriott township, four and a half miles north of the property.

PROPERTY GEOLOGY

The greater part of the bedrock surface of the property is covered by varying thicknesses of glacial debris. From the limited outcrops present, the property appears to be underlain entirely by Keewatin volcanics, all Precambrian in age. These consist principally of basic flows and fragmental, although tuffs, breccias and rhyolite flows are fairly common.

On claims L-79073, L-79079 and adjacent claim L-79115 rock outcrops are abundant. They consist mainly of massive and pillowed andesitic lava flows, intruded by a few feldspar porphyry dikes. Epidotization is the main type of alteration. Pyrite mineralization, principally as disseminations, is present in the epidotized portions of the pillowed horizons. Minor chalcopryite is also present. Trenching and diamond drilling was conducted on these occurrences during the years 1927 and 1928.

GEOPHYSICAL SURVEYS

Magnetic Survey

This survey was performed using a Sharpe MF-1 Fluxgate Magnetometer. It measures the vertical component of the earth's magnetic field. Results are shown on the accompanying plan to the scale of one inch equals 200 feet.

Four magnetic anomalous conditions were outlined on the property. These are numbered as M1 to M4 inclusive on the enclosed map of the survey.

Magnetic anomaly M1 is a broad anomaly about 700 feet in length, north-south and 500 feet east-west, in width. Peak response is about 340 gammas above background.

Magnetic anomaly M2 strikes about N45°E and is somewhat irregular in outline. Peak response is about 1300 gammas above background.

Magnetic anomaly M3 is elliptical in shape and situated about 1200 feet south of M2. Peak response of this anomaly is about 750 gammas above background.

Magnetic anomaly M4 is a very small one and its amplitude is very low.

Preliminary interpretation is that these anomalies are probably caused by a low content of disseminated magnetite in intrusive bodies of probably dioritic composition.

Electromagnetic Survey

The survey was conducted using a Ronka Mark 4, Horizontal Loop Electromagnetic Unit, utilizing a coil separation of 200 feet and a frequency of 876 c.p.s. This method measures the in-phase and out-of-phase components of the secondary magnetic fields in terms of percent of normal or uniform field. Ratios of the in-phase to out-of-phase readings are considered to give indications of conductivity of causative bodies. A coil separation of 200 feet was used, giving a depth penetration in the order of 75 to 100 feet.

This survey revealed eleven (11) anomalous zones. These are indicated on the accompanying plan of the electromagnetic survey as EM1 to EM11.

The magnitude of the anomalies is low and conductivity characteristics of each are generally poor. They are mostly 200 feet or less in length, with the exception of anomalies EM4 and EM7 and EM11. These are 600, 300 and 700 feet in length respectively. There is no corresponding magnetic correlation with any of the electromagnetic anomalies.

It is interpreted that massive sulphide mineralization is not the cause of these anomalies. The anomalies exhibit characteristics usually obtained from conductive overburden and conductive shear zones.

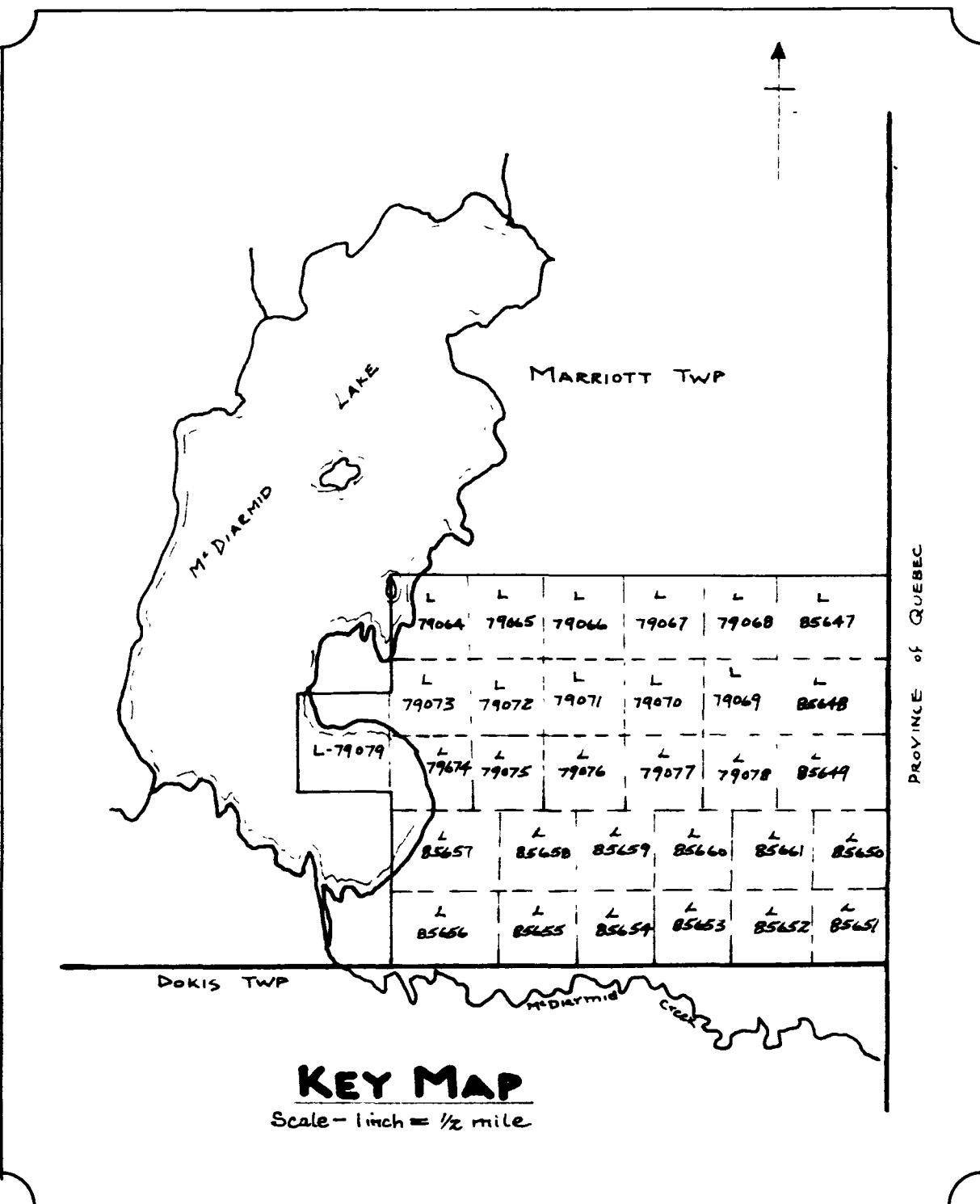
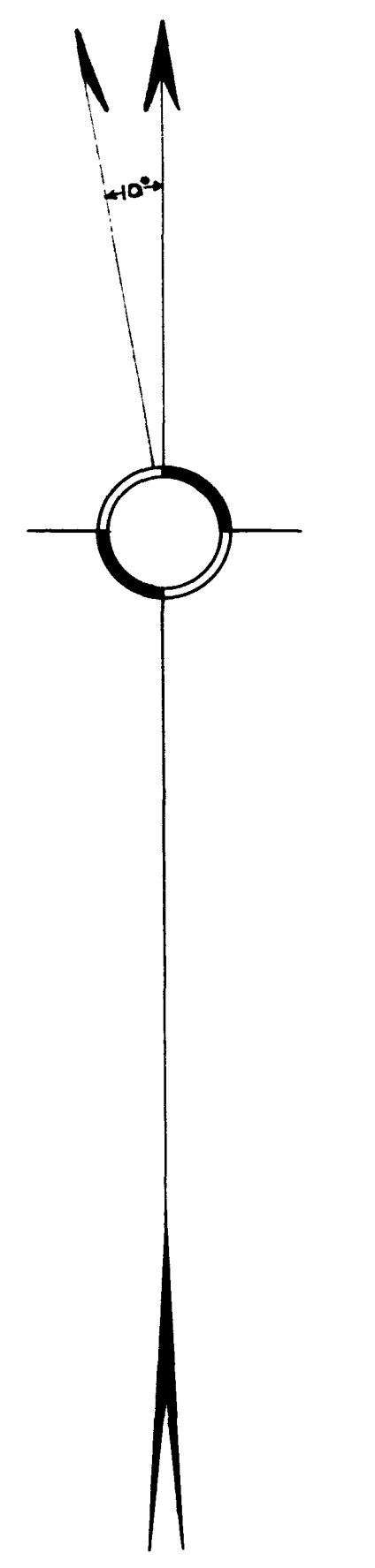
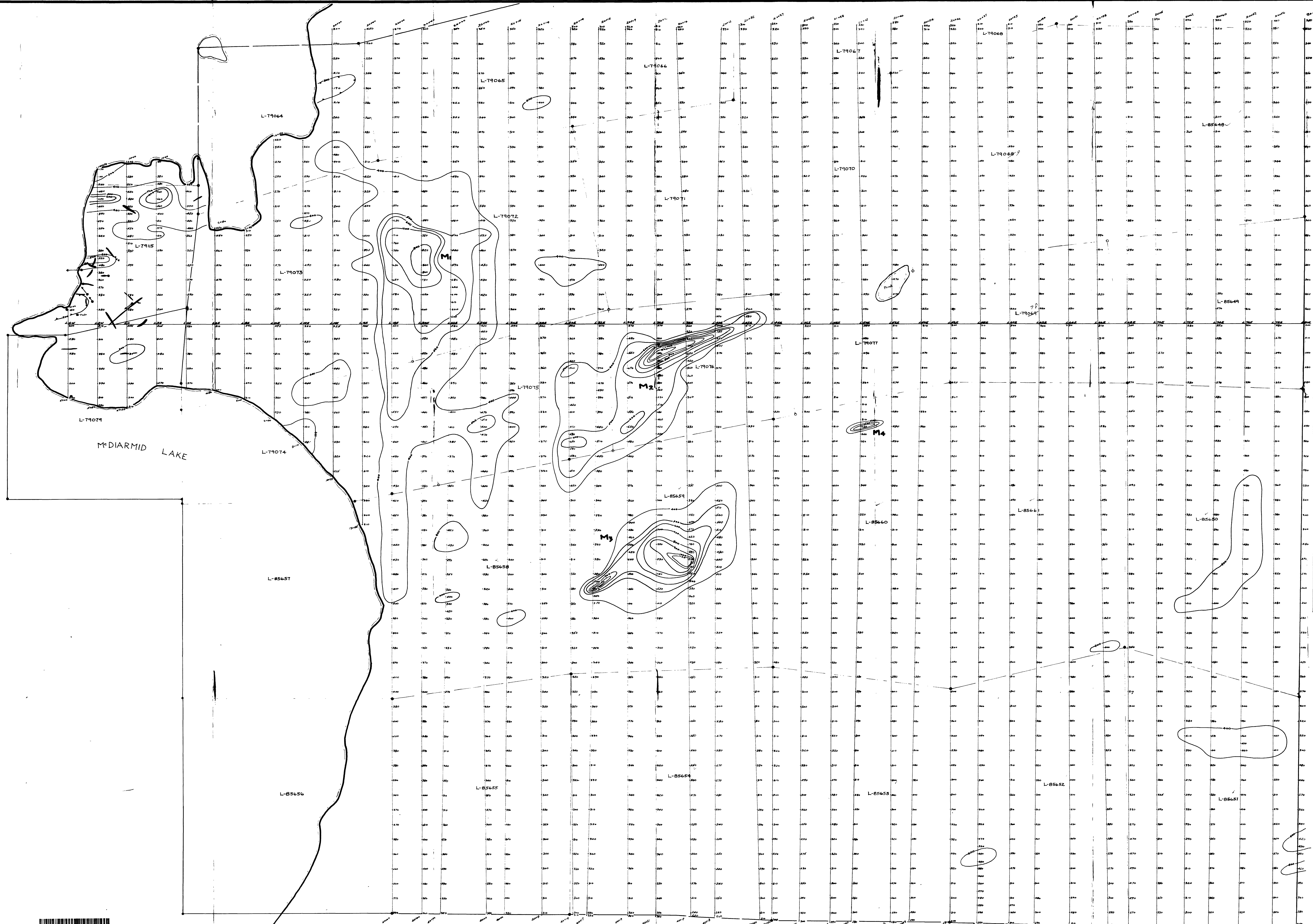
Respectfully submitted,

SIMARD, KNIGHT & ZUROWSKI

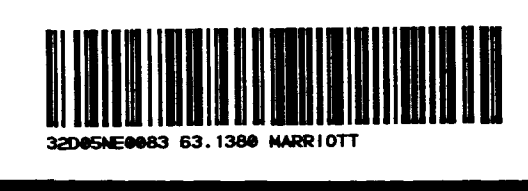


Michael Zurowski.

Toronto, Ontario
October 13, 1964.



- SYMBOLS**
- Vertical Component of Earth's Magnetic Field in Gamma
 - Isomagnetic Line
 - Trenches and Pits
 - Diamond Drill Hole
 - L-79066 — Claim Number



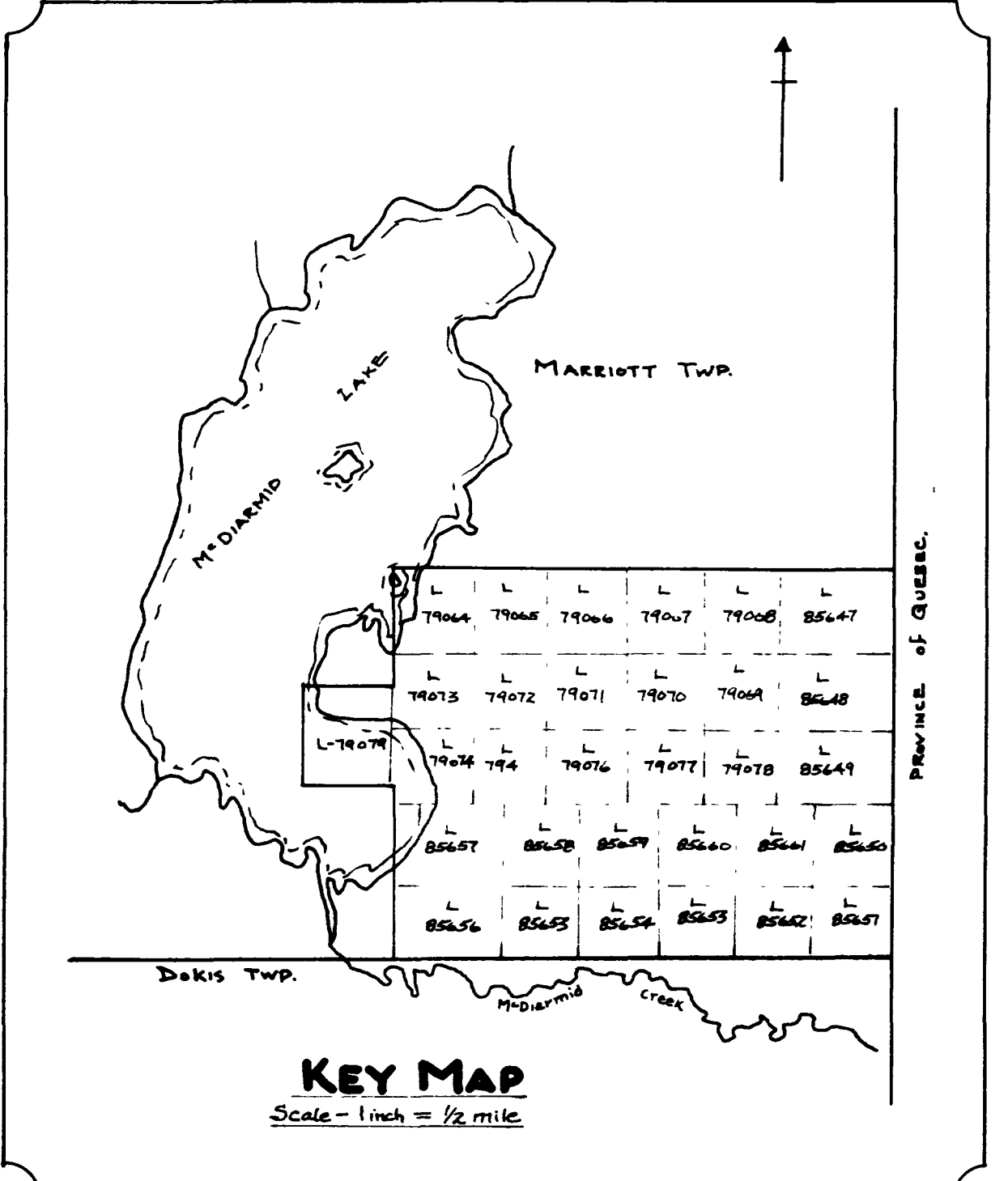
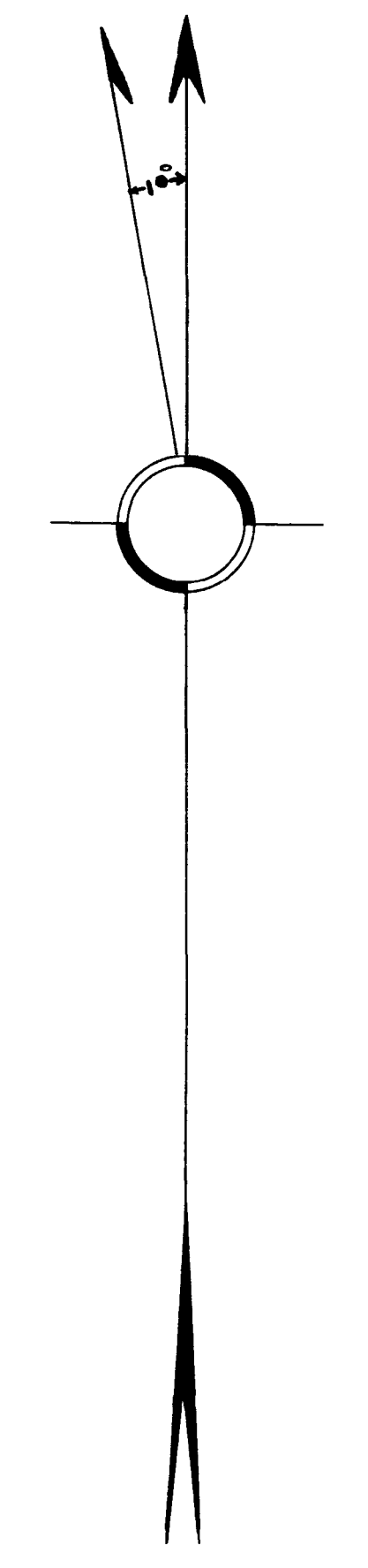
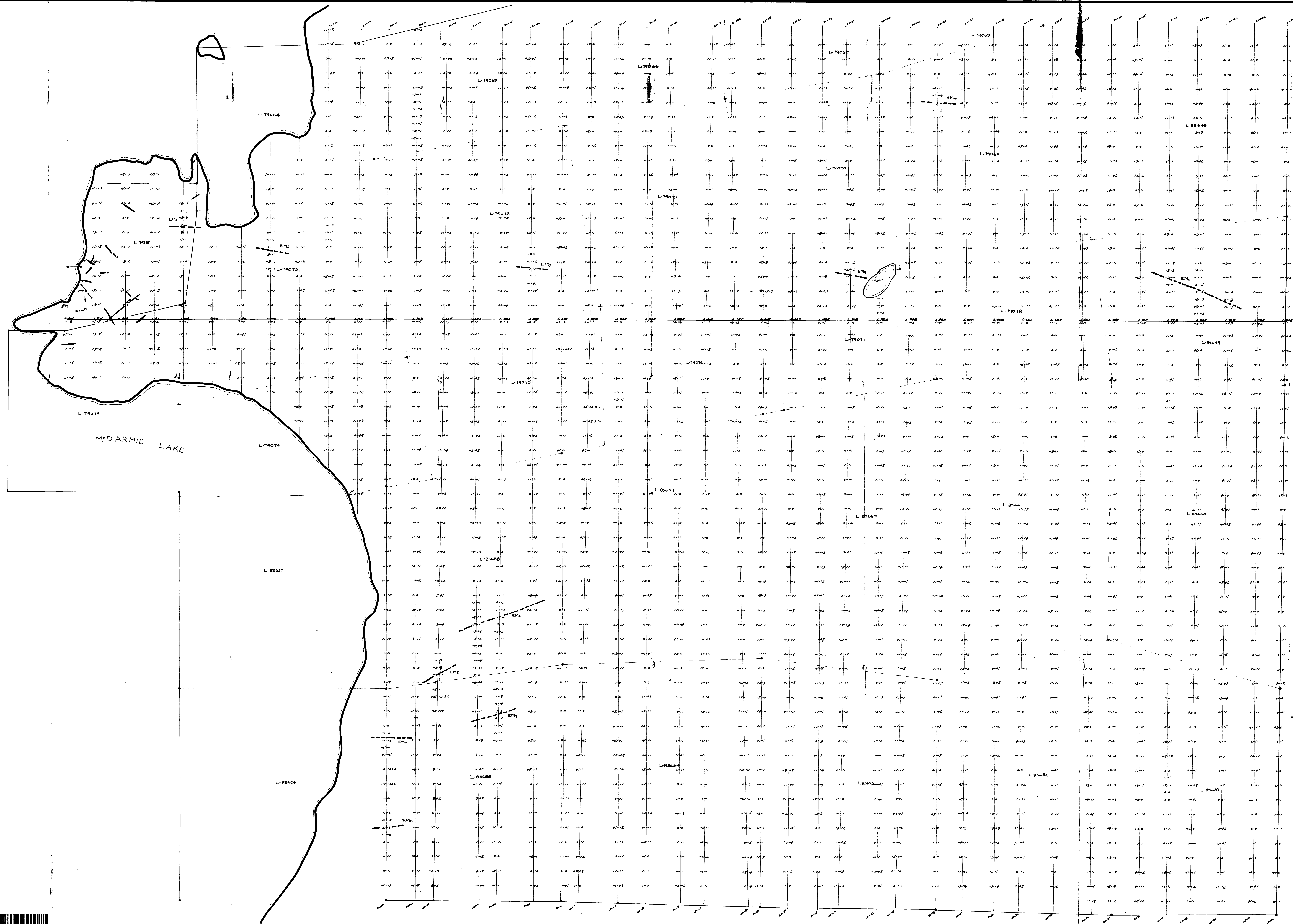
63-1380

Michael J. [Signature]

COPCONDA MINES LTD.
MARIOTT TOWNSHIP - LAMAR LAKE MINING DIVISION - ONTARIO

MAGNETOMETER SURVEY

Date: OCT 27, 1989 Scale: 1 inch = 200 feet Drawn by: [Signature]



- SYMBOLS**
- In phase component of secondary field plotted to left of line.
 - Out of phase component of secondary field plotted to right of line.
 - Translated EDS
 - Buried Drill Hole
 - Claim Number
 - Axis of Electromagnetic Anomaly

63/1310

Michael [Signature]

COPCONDA MINES LTD.
 MARSLETT TOWNSHIP - LARDEE LAKE MINING DIVISION - ONTARIO

PLAN OF ELECTROMAGNETIC SURVEY

Date: OCT 14 1964 Scale: 1 inch = 200 Feet Survey: Mines, Ontario

