



42A13SE0103 63.1721 REID

Report on the Vertical Loop Electromagnetic Survey for
Mercury-Chipman Company Limited
Reid Township - Province of Ontario

SUMMARY

Seven electromagnetic anomalies were outlined on the property. These are designated on the accompanying plan as A to G inclusive.

Anomaly E is by far the better of those outlined. It exhibits qualities which suggests that the anomaly may be due to sulphide mineralization.

Anomalies B, C, F and G are low intensity responses and they are situated adjacent to areas of low magnetic activity. The anomalies are typical of responses attributed to either good conductors at depth, poor conductors at a shallow depth and to conductive overburden.

Anomaly A appears definitely to be an overburden anomaly.

CONCLUSIONS:

The anomalies are all covered by glacial debris and are situated in a geological environment favorable for the presence of base metal mineral deposits.

As the anomalies may be caused by metallic mineralization, in the bedrock of the property, the following is recommended.

RECOMMENDATIONS:

It is recommended that each of anomalies C, E, F and G be investigated by at least one drill hole. This would entail 1600 feet of diamond drilling at an estimated overall cost of \$ 12,000.00.

The location of the four recommended drill holes and order of drilling is as follows:-

<u>Hole No.</u>	<u>Departure</u>	<u>Latitude</u>	<u>Bearing</u>	<u>Dip</u>	<u>Length</u>
65-1	Line 36+00 West	9+70S of B.L.	North, Ast.	50°	400 feet
65-2	Line 30+00 West	30+00S of B.L.	S 30° W., Ast.	50°	400 feet
65-3	Line 21+00 West	21+50S of B.L.	North, Ast.	50°	400 feet
65-4	Line 21+00 West	18+50N of B.L.	North, Ast.	50°	400 feet
TOTAL					1600 feet

PROPERTY, LOCATION, ACCESS, ETC.

The property of Mercury Chipman Company Limited consists of twelve contiguous unsurveyed mining claims numbered P-62046 to P-62051 inclusive, P-62029 to P-62031 inclusive and P-62661 to P-62663 inclusive.

The claims cover parts of lots 6 and 7 in concessions 4 and 5 of Reid Township, Porcupine Mining Division, Province of Ontario.

The area of the claim group is 480 acres, more or less.

The property is most easily reached by ski or float equipped aircraft from South Porcupine, Ontario. The Matagami River flows in a north-south direction through Reid Township and it passes about three-quarters of a mile to the east of the subject acreage. The distance from South Porcupine to a landing point directly east of the subject acreage and on the Matagami River is about 25 air miles.

Another means of access and which may be most advantageous to transport heavy equipment to the property, is by a swamp vehicle or winter road which branches from an all weather road in the northwest corner of Mountjoy Township. The road leads north to Sturgeon Falls in Mahaffy Township. This road parallels the Matagami River and occurs on the east side of it, a distance of about one-half mile. From this road and west along a line common to concessions 4 and 5, in Reid Township, it is about two miles to the property. This route necessitates crossing the Matagami River by either boat or barge.

The surface of the property is flat and forested mainly with spruce and poplar.

PROPERTY GEOLOGY:

One outcrop area is present in the central part of claim P-62029. The rock consist essentially of fine to coarse grained basic lavas. This information, coupled with the results of recently completed exploration programs, indicates that the property is mainly underlain by Keewatin type volcanics-sediments and intruded by basic bodies and dikes.

The volcanics appear to strike predominantly east-west and dip are relatively steep. The intrusive dikes, of diabase composition, trend in a north-south direction.

VERTICAL LOOP ELECTROMAGNETIC SURVEY

A dual frequency vertical loop electromagnetic survey using the McPhar 1000/5000 cycle equipment was conducted over the claim group. A minimum receiver-transmitter separation of 300 feet was maintained. This electromagnetic technique measures the inclination or dip of the resultant magnetic field in degrees.

Limited magnetic surveying was conducted over selected areas of the property, confined mainly to those exhibiting conductivity.

Seven electromagnetic anomalies were outlined and these are depicted on the accompanying plan as A to G inclusive.

Anomalies A, B and C: - These occur on claims P-62048, P-62049 and P-62050. The conductors are of short strike length, of weak magnitude and the type of responses are typical of a conductor at considerable depth, or of extremely poor conductivity at a shallow depth. Anomaly A occurs along the south flank of a magnetic zone. There is no magnetic correlation with anomaly B. Anomaly C occurs along the north flank of a low intensity east-west trending magnetic zone.

Anomaly D: - This anomaly occurs on claim P-62046. It is a very weak response and trends across a magnetic zone. This anomaly is interpreted to be caused by conductive overburden.

Anomaly E: - This anomaly occurs on claim P-62261. The magnitude of the responses are good and the ratio of the high to low frequency readings indicates a conductor of fair conductivity. The anomaly trends across the south end of a narrow north-south striking magnetic anomaly, which may represent a diabase dike or a thin bed of iron formation. Several picket lines were surveyed, striking east-west with the idea that this anomaly may be trending in this direction. However, the responses obtained were mainly reversals and located along the west edge of the magnetic zone, indicating a zone of high permeability and poor conductivity.

Anomaly E is the better of the anomalies outlined on the property and definitely worthy of investigation.

There is a slight magnetic response directly over the zone. The cause of this anomaly appears to be sulphide mineralization rather than graphitic material.

Anomaly F:- This anomaly occurs in the south part of claim P-62030. The magnitude of the response is rather weak and it is confined entirely to the 1000 cycle frequency. There is no supporting magnetic response over the zone. The anomaly appears to be genuine and probably at some depth.

Anomaly G:- This anomaly occurs along the common boundary of claims P-62662 and P-62663. It is of weak magnitude and could well represent a genuine conductor at some depth. It flanks a moderate intensity magnetic anomaly.

The magnetic pattern on claims P-62046 and P-62048 is interpreted to represent a north-south striking diabase dike.

Respectfully Submitted,

M. E. M. CONSULTANTS LIMITED.

MZ/sp

Toronto, Ont.
August 12th, 1965.


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

RETURN TO



ONTARIO

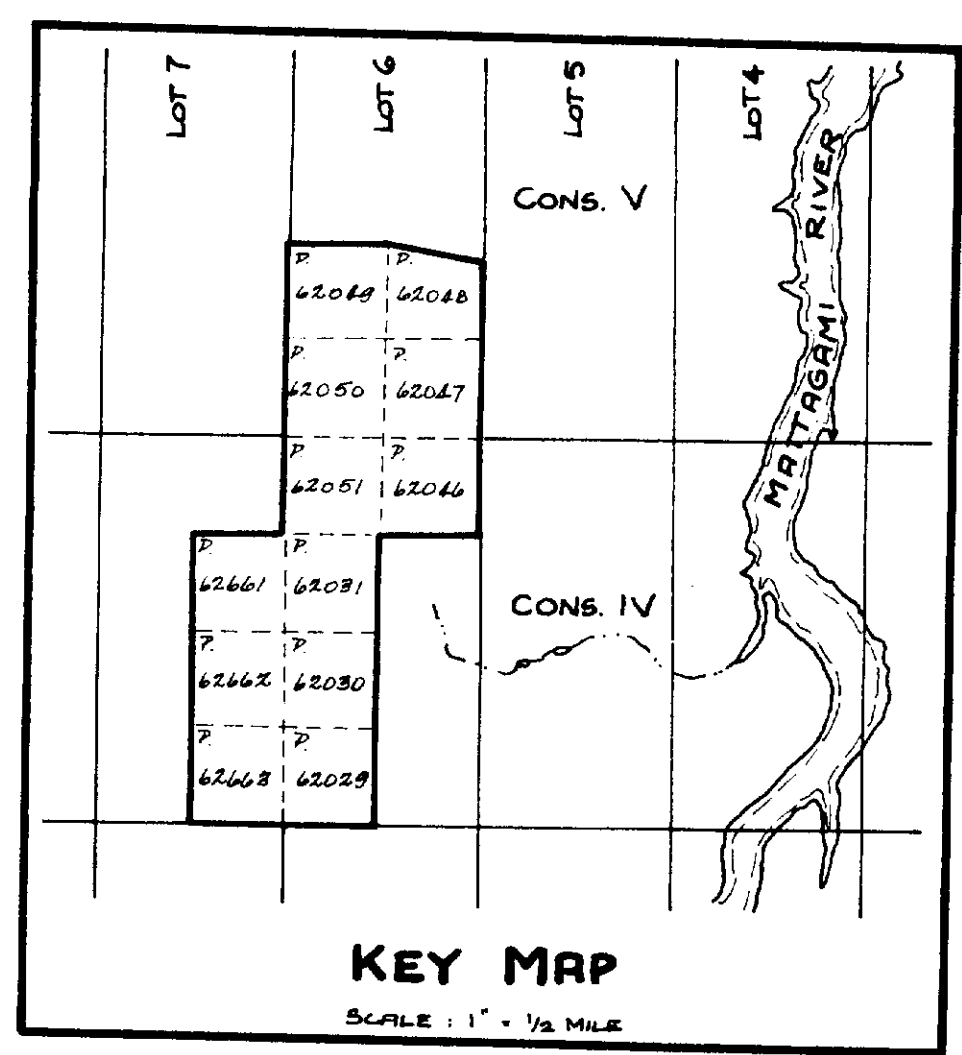
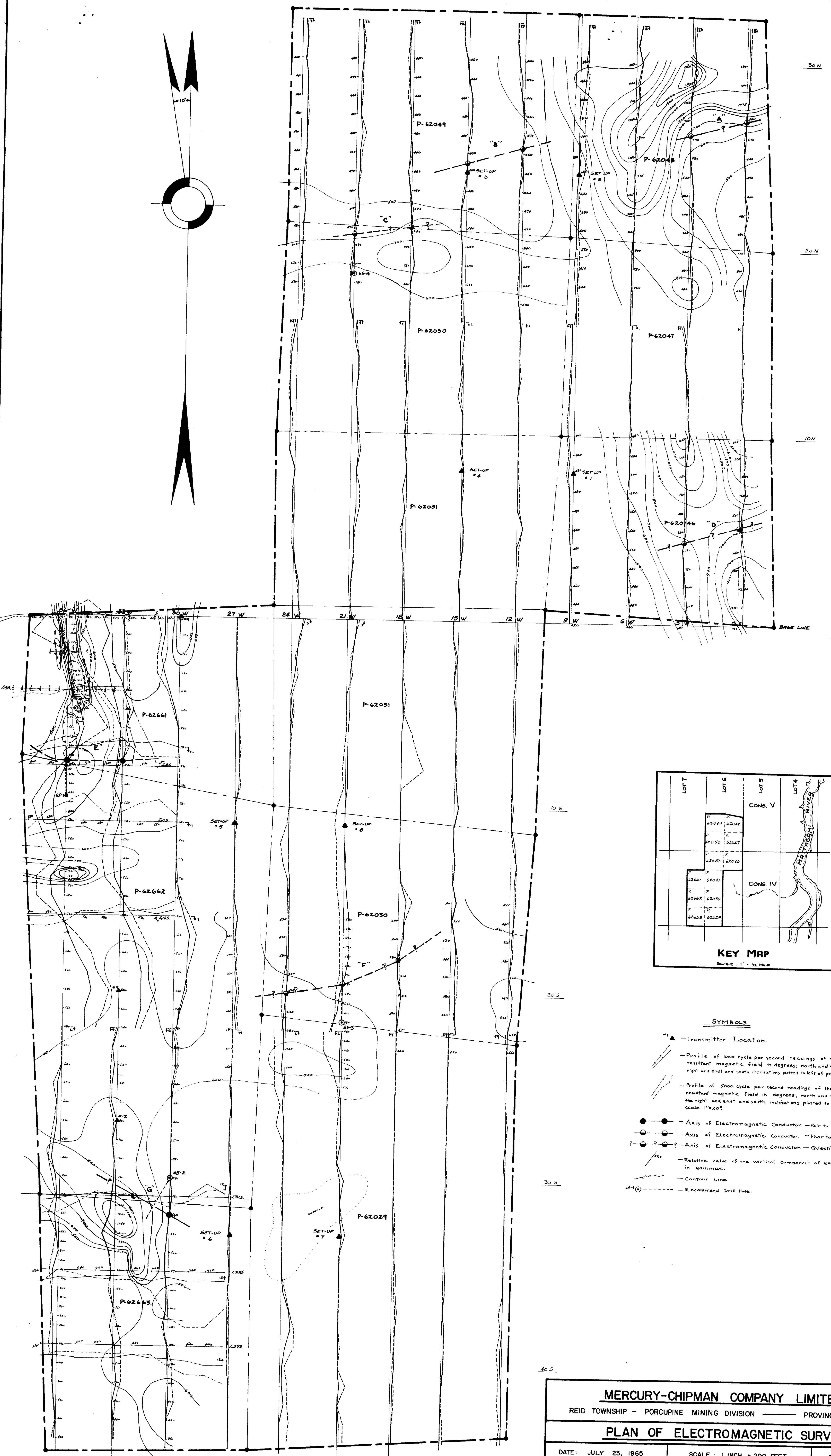
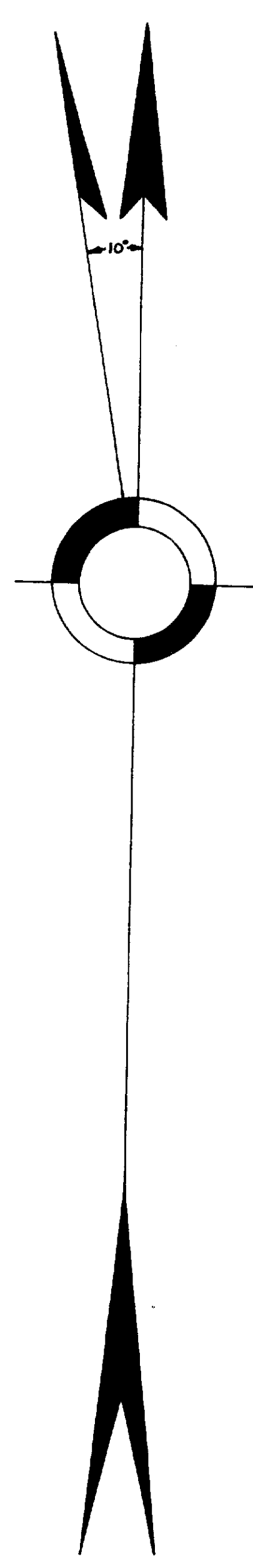
ONTARIO DEPARTMENT of MINES

RETURN AT POINT OF MAILING

Ontario Department of Mines,
Parliament Buildings,
TORONTO 2, Ontario.



50M-64-1204



- SYMBOLS**
- ▲ — Transmitter Location.
 - Profile of 1000 cycle per second readings of the inclination of the resultant magnetic field in degrees; north and west inclinations plotted to the right and east and south inclinations plotted to left of picket line. Profile scale 1"=20'.
 - Profile of 5000 cycle per second readings of the inclination of the resultant magnetic field in degrees; north and west inclinations plotted to the right and east and south inclinations plotted to left of picket line. Profile scale 1"=20'.
 - — Axis of Electromagnetic Conductor — Fair to Good Conductivity.
 - — Axis of Electromagnetic Conductor — Poor to Fair Conductivity.
 - ⊙ — Axis of Electromagnetic Conductor — Questionable.
 - Relative value of the vertical component of Earth's magnetic field in gammas.
 - Contour Line.
 - ⊙ — Recommend Drill Hole.

MERCURY-CHIPMAN COMPANY LIMITED
 REID TOWNSHIP - PORCUPINE MINING DIVISION — PROVINCE OF ONTARIO

PLAN OF ELECTROMAGNETIC SURVEY

DATE: JULY 23, 1965	SCALE: 1 INCH = 200 FEET	DRAWN BY: <i>W. J.</i>
M.E.M. CONSULTANTS LTD.		

