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REPORT ON THE
MAGNETIC AND ELECTROMAGNETIC SURVEYS

on the property of

PARAMAQUE MINES LIMITED
situated in

Langmuir Township - Porcupine Mining Division
Province of Ontario

SUMMARY

The property of Paramaque Mines Limited consists of fourteen (14) contiguous, unsurveyed and unpatented mining claims situated in the north-west quarter of the township of Langmuir, Porcupine Mining Division in the Province of Ontario.

Access to the property is readily achieved from South Porcupine, Ontario, by a gravel road and bush roads. The distance from South Porcupine to the property is about 12 miles.

The property is geologically well located as it straddles a sequence of acid to basic lava flows, iron formation and altered peridotite intrusives. The sequence is quite similar to that present on the property of McWatters Gold Mines Limited and forms part of what appears to be a dome-like structure of the area.

Nickel mineralization on the property of McWatters Gold Mines consists of disseminations and massive veinlets or stringers of pyrite-millerite in serpentinized peridotite. On the Norlex Mines Limited, nickeliferous pyrrhotite occurs as disseminations and massive concentrations in peridotite and iron formation.

The current exploratory program on the Paramaque Mines Limited property consisted of detailed magnetic and electromagnetic surveys at a picket line interval of 200 feet.

CONCLUSIONS

One electromagnetic anomaly "A" is interpreted to be caused by either sulphides or a conductive shear zone.

Several interesting magnetic anomalies were outlined. These are interpreted to represent mainly interbanded sills of peridotite with volcanics and clastic sediments.

As the above sequence of rocks is quite similar to that present on both the Norlex and McWatters properties, and upon which interesting nickel mineralization is being encountered, the following is recommended.

RECOMMENDATIONS

It is recommended that four (4) diamond drill holes be bored, for a total of 2400 feet, to investigate electromagnetic anomaly "A" and the peridotite bodies for economic concentrations of base metal (nickel) mineralization.

The location of the four holes are as follows and are also shown on the plan of the magnetometer survey:

<u>Hole No.</u>	<u>Departure</u>	<u>Latitude</u>	<u>Bearing</u>	<u>Dip</u>	<u>Length</u>
Par 65-1	1.8+00 West	6+35 S of B.L.#2	S45°E Ast	45°	300 feet
Par 65-2	1.20+00 East	6+00 N of B.L.#1	S45°E "	45°	850 "
Par 65-3	1.30+00 East	8+00 N of B.L.#1	S45°E "	45°	625 "
Par 65-4	1.30+00 East	0+00 B.L.#1	N45°W "	45°	625 "
				Total	2400 feet

Overall cost of the above recommended program is estimated at \$15,000.00.

Immediately after the snow has left the surface of the property, it should be geologically mapped in detail. It would be preferable to have the results of the geological survey before proceeding with the recommended drill program. However, the middle of June would be the earliest that the results of such a survey would be available.

PROPERTY, LOCATION, ACCESS, ETC.

The property consists of (14) fourteen contiguous, unsurveyed and unpatented mining claims numbered P-72798 to P-72811 inclusive. They form an irregular block, roughly one and one-half miles north-south and one mile east-west.

The claims are located in the northwest quarter of Langmuir Township, Porcupine Mining Division, in the Province of Ontario. Langmuir township is situated southeast of Timmins, Ontario, a distance of about 17 air miles. The line common to Langmuir and Carman Townships forms the northern boundary of the group.

Access to the property is best achieved from South Porcupine, Ontario via a gravelled road. This road leads southeasterly from South Porcupine and terminates at Croteau Creek in the southeast part of Shaw Township. A bush road leads from this point to the subject acreage. The distance from South Porcupine to the property is about 12 miles.

The topography is rolling. An outcrop ridge trends northeasterly through the property. Elevations seldom exceed 50 - 75 feet above swamp level. Surface of the property is wooded with spruce and poplar.

The abandoned Northern Canada Power Company transmission line traverses the property.

There are two small lakes on the property.

HISTORY

There are no records available regarding past exploratory work done on this property. No doubt the outcrop areas have been prospected.

Aeromagnetic sheet 2930, entitled "Timmins", published by the Department of Mines and Technical Surveys shows a broad magnetic anomaly trending northeasterly across the property.

GEOLOGY

Regional

Striking in a N50°W direction and lying in the townships of Eldorado, Carman, Adams, Langmuir, Deloro and parts of Whitney and Tisdale, is a broad dome shaped structure. It is about 14 miles long and 8 miles wide. The outer rim of this dome-like structure is characterized by a zone of basic intrusive rocks (mainly peridotite in composition) approximately two miles wide.

The rocks inside the dome-like structure consist mainly of Keewatin acid to basic lava flows, some fragmentals and interbanded with both clastic and pyroclastic sedimentary rocks. At the southeast end of the dome-like structure is a stock of granite some 2 miles in diameter intruding the Keewatin rocks. The basic rocks, as well as the Keewatin rocks, are wrapped around the intrusive granite body.

The peridotite can be considered as the rim of the dome-like structure. The rocks outside peridotite rim are in general similar to those inside it.

Olivine diabase and quartz diabase intrude the above described rocks. The widest and most continuous of these basic intrusives is the Keeweenawan

olivine diabase. They strike $N75^{\circ}E$ and attain a width of 700 feet. The quartz diabase dikes, Matachewan in age, are much narrower, of the order of 40 to 200 feet and strike in a north-south direction.

The subject property is situated at the northeast end of the dome-like structure, straddling part of the rim of the ultra-basic rocks and about one mile from the granite contact.

Property

The rocks on the Paramaque property consist mainly of acid volcanics (dacite and rhyolite), serpentinites and diabase. The diabase is the youngest intrusives and they strike predominantly in a north-south direction. The serpentinites (altered peridotite), intrude the acid volcanics as sill-like bodies.

The strike of the geological formations on the Paramaque property is about $N40^{\circ}E$ and dips are steep.

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 field in terms of percent of normal or uniform field. A coil separation of 200 feet was used giving a depth penetration in the order of 75 to 100 feet.

One zone of weak electrical conductivity was outlined near the south boundary of claim P-72802.

It is narrow in width and exhibits poor conductivity characteristics. There is no appreciable magnetic response over the zone.

The anomaly is either due to sulphide mineralization, graphitic sediments or a shear zone. One short drill hole is justified to investigate this anomaly.

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.

Magnetic relief on the property varies considerably. A zone, about 900 feet wide and striking $N45^{\circ}E$, astronomic through the central part of the

property shows the greatest range of magnetic susceptibility. The magnetic relief varies from -2300 gammas to in excess of 12,000 gammas. This magnetic zone is interpreted to represent mostly interbanded sequence of serpentized peridotites and iron formation with basic volcanic rocks. There is a considerable variation in width of this zone, suggesting multiple sill-like intrusive bodies. Folding may also account for the variation in width of the zone.

In addition to the main zone of magnetic susceptibility, there is a series of narrow, northerly trending magnetic closures. These are interpreted to be caused by quartz diabase dikes.

The locale at the intersection of the quartz diabase dikes with the sill-like bodies of peridotite are considered favorable areas for localization of metallic mineralization.

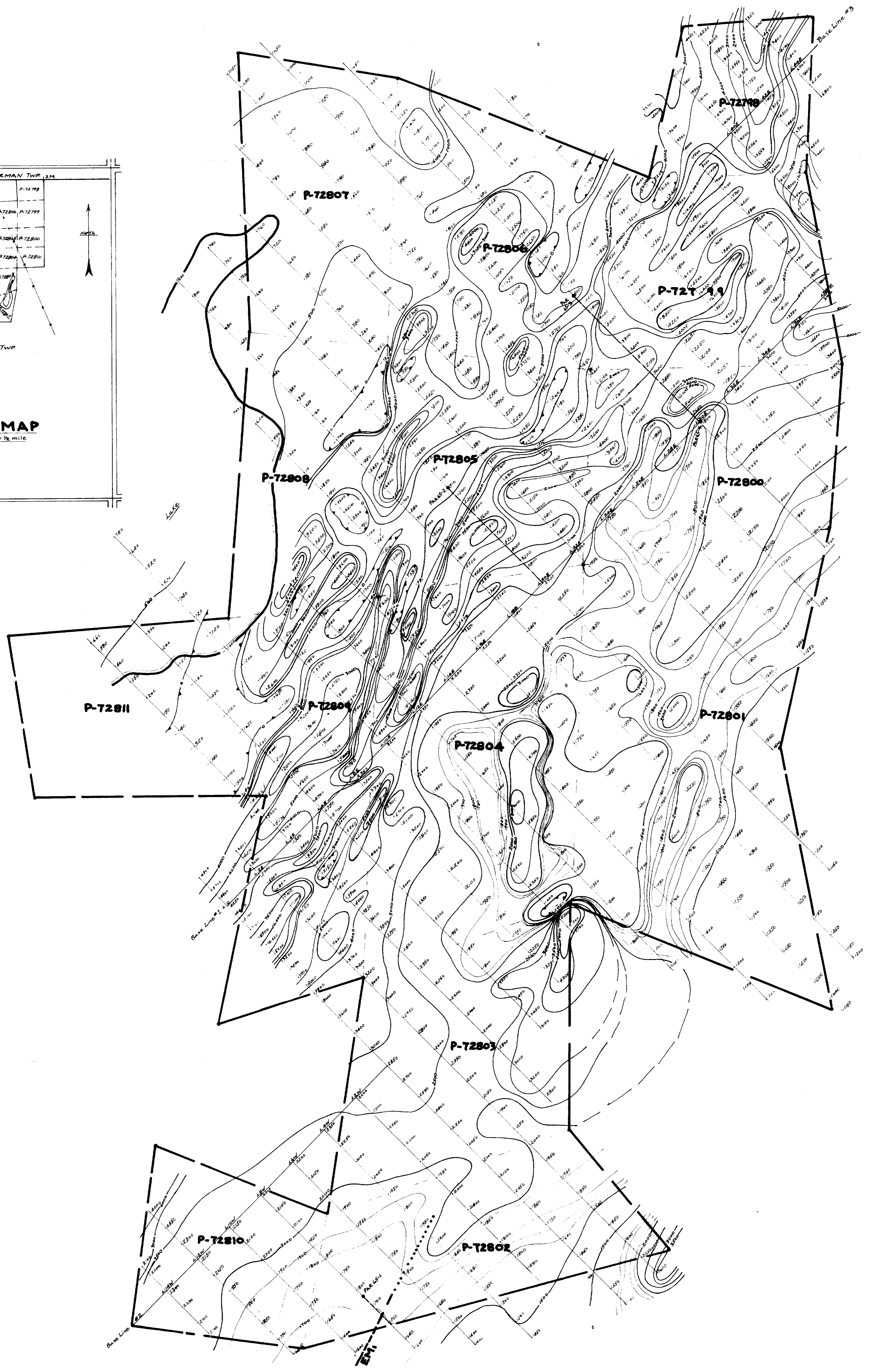
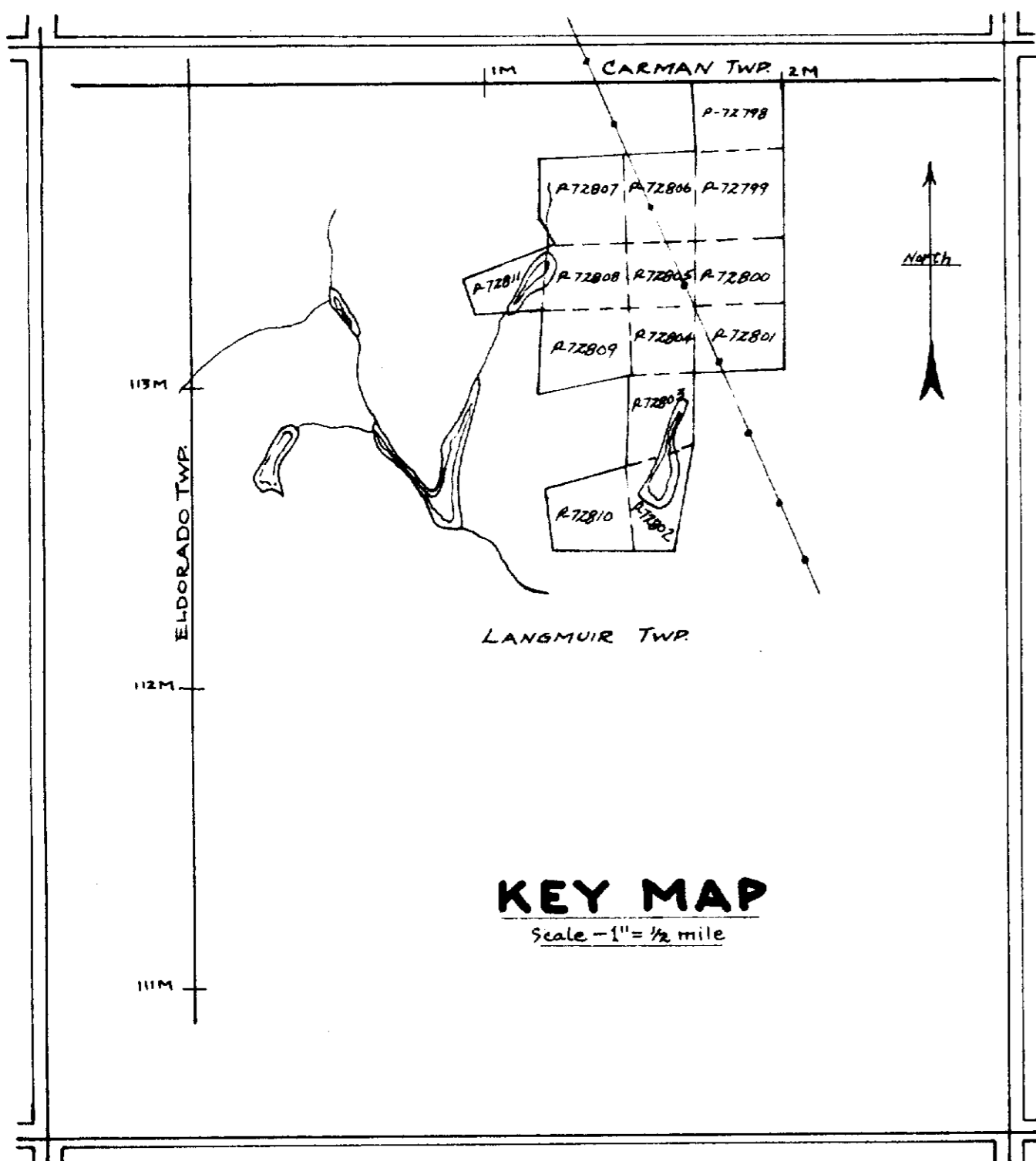
Respectfully submitted,

M.E.M. CONSULTANTS LTD.



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

Toronto, Ontario.
February 9, 1965.



- SYMBOLS**
- γ — Relative value of the Vertical Component of Earth's Magnetic Field in Gammas.
 - Isomagnetic Contour Line.
 - P-72881 — Claim Number.
 - Proposed Diamond Drill Hole.

File G3-1645

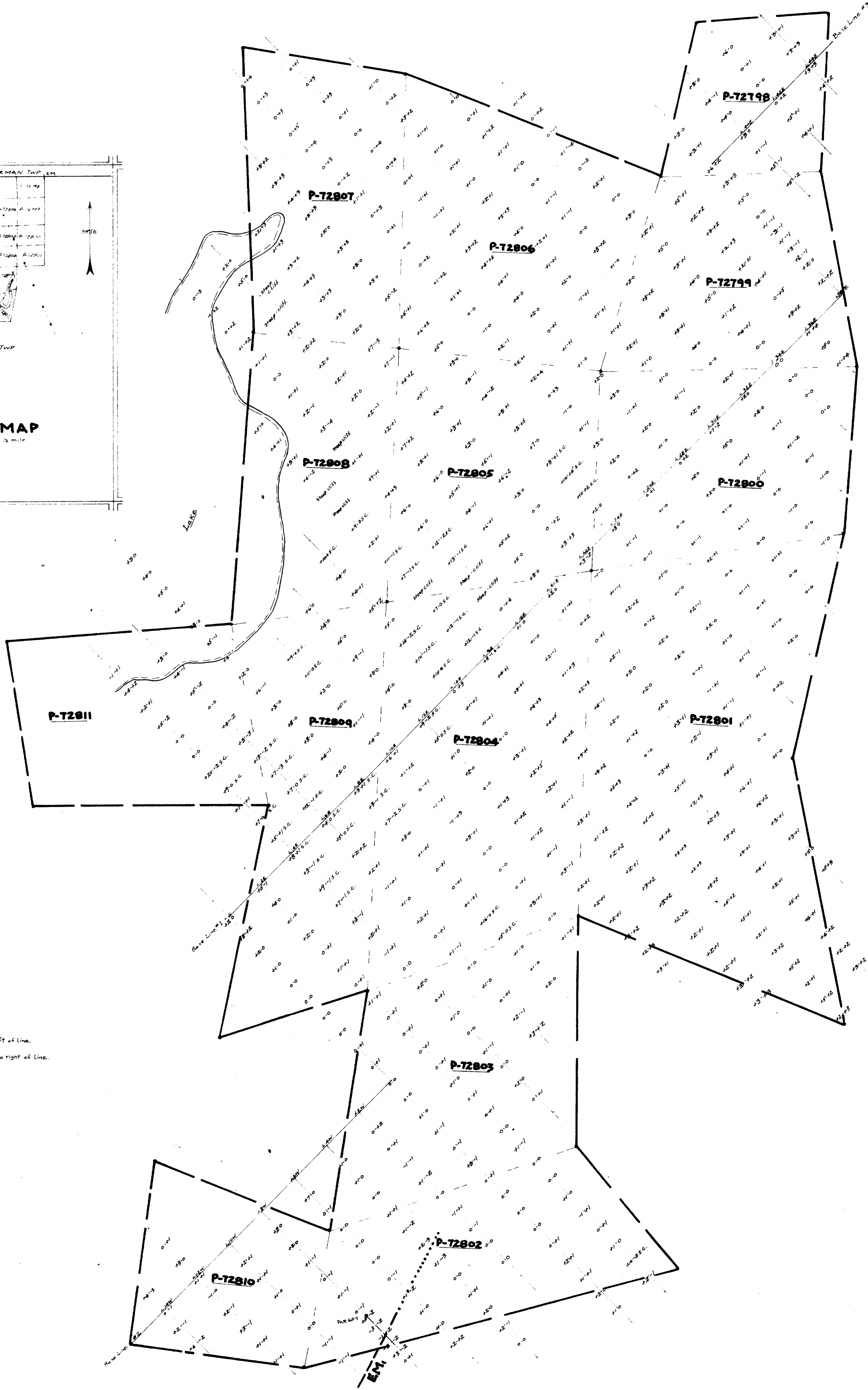
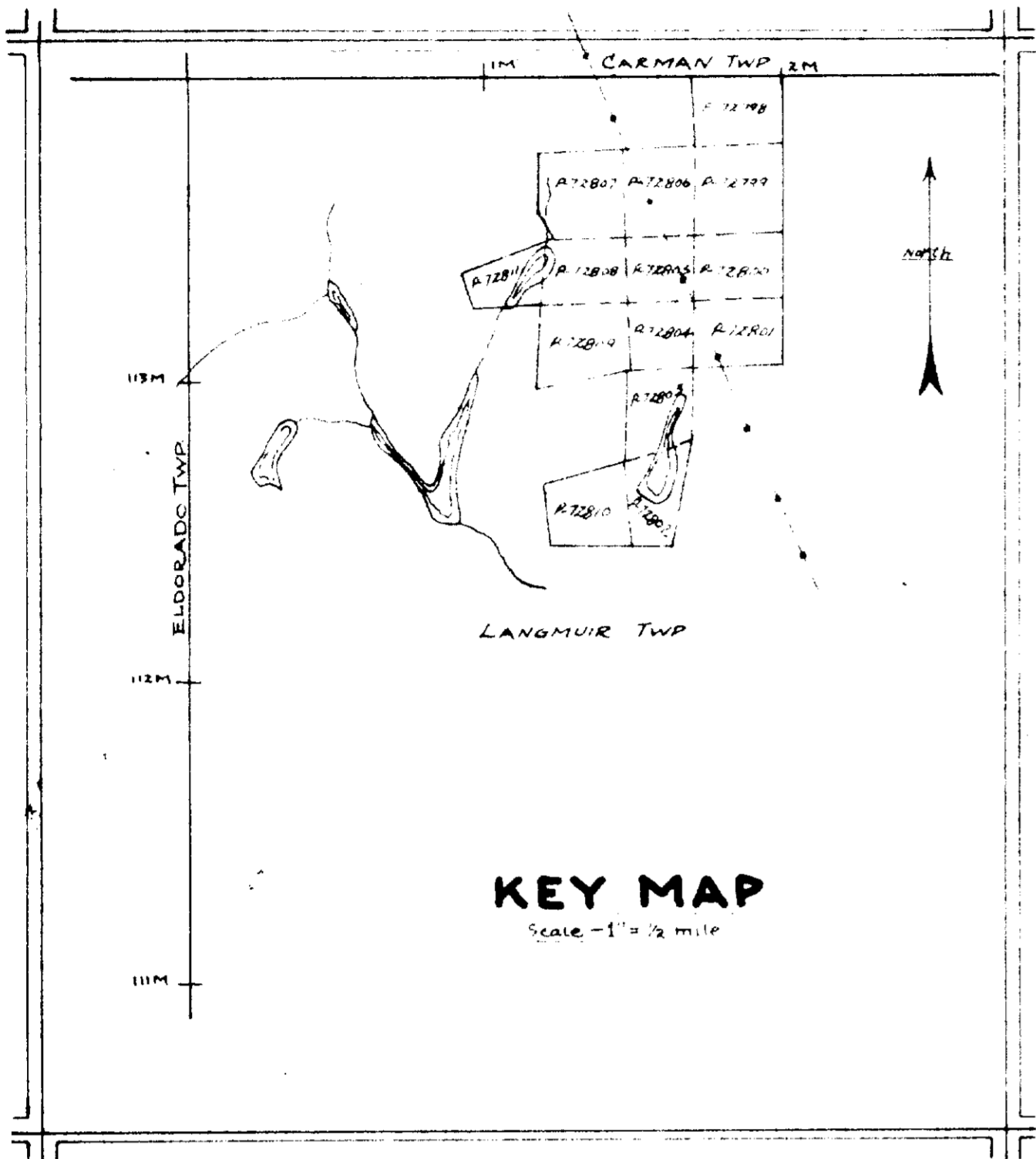
PARAMAQUE MINES LIMITED
LANGMUR TOWNSHIP—PORCUPINE MINING DIVISION—ONTARIO

PLAN of MAGNETOMETER SURVEY

Date: Jan 21, 1966 Scale: 1 inch = 200 Feet Drawn by: MZ

M.E.M. CONSULTANTS LTD.





SYMBOLS

- $\frac{1}{2}$ - In phase component of secondary field plotted to left of line.
- $\frac{1}{2}$ - Out of phase component of secondary field plotted to right of line.
- $\frac{1}{2}$ - Readings obtained from short cable.
- E.M.A. - Axis of Electromagnetic Anomaly.
- P-72806 - Claim Number.
- - Proposed Diamond Drill Hole.

Note

Survey conducted using Ronke
E.M. Unit Frequency 876 cps. Coil
separation of 200 feet.

File 43-1645

Marked

PARAMAQUE MINES LIMITED
LANGMUIR TOWNSHIP-PORCUPINE MINING DIVISION-ONTARIO

PLAN OF ELECTROMAGNETIC SURVEY

Date: Jan. 27, 1965 Scale: 1 inch = 200 Feet Drawn by: M.Z.

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