



42A13SE0036 63.1523 THORBURN

63.1523

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REPORT ON

MAGNETOMETER AND EM SURVEYS

CLAIMS P-66011-28, P-69843-57 AND P-69881

PORCUPINE MINING DIVISION, ONTARIO

MINING RECORDERS OFFICE—TORONTO											
RECEIVED											
APR 30 1965											
AM						PM					
7	8	9	10	11	12	1	2	3	4	5	6

Property

This group of 34 claims is the eastern part of a larger group of 78 claims staked along the boundary of Thorburn and Geary townships. The 34-claim group forms an irregular area of some 1,460 acres, varying from one to eight claims wide east-west and eight to ten claims long north-south. Access is by helicopter from Timmins airport to a clearing centrally located on the claims, the distance being 19 miles.

Geology

No rock outcrops were seen on the property, and it is largely covered by muskeg and cedar swamp. Regional mapping indicates that it is located in the general contact area of a granite batholith to the northeast and an area of volcanics to the southwest.

Exploration

Linecutting

A baseline bearing S 55° E was cut across the southern part of the property, and picket lines at 400-foot intervals were cut at right angles to it. A second baseline in the northern part of the property provided control for lines cut in that area. Line cut totalled 31 miles.

Magnetometer Survey

Magnetometer readings by Sharpe MF-1 instrument were taken at 100-

foot intervals on all lines.

Two prominent linear anomalies, sub-parallel and 1,300 feet apart were outlined. They bear N 10 to 20° W, and no doubt are caused by basic dikes, probably diabase. Anomaly varies up to 1,600 gammas. There are no other magnetic anomalies of consequence.

EM Survey

The EM survey was carried out using a Sharpe SE-200 instrument by the broadside technique.

This instrument consists of a battery-powered coil of wire 18 inches in diameter, the transmitter, developing an alternating current of 1,250 cps, and a second 18-inch coil of wire, the receiver, equipped with earphones and a clinometer by which the tilt plane of the coil may be measured. In operation, one man carrying the transmitter walks along a picket line stopping at every station to transmit a signal to the receiver. When transmitting, the coil is held in a vertical plane pointed at the receiver. The man operating the receiving coil walks along a picket line 400 feet away from, and exactly opposite the transmitter. To take a reading the receiver coil is held in a horizontal plane and then rotated in either direction from the horizontal until in the earphones a noticeable increase in the sound signal is heard. The angle of inclination of the coil from the horizontal at these two positions is noted, and the mean of the two angles is the null angle, or point of minimum signal strength. This is the parameter which is measured. If the magnetic field set up by the transmitter is not distorted by a conductive body in its vicinity, the null angle will be zero. If there is a conductive body lying

below surface between the conductor and the receiver, and at a depth detectible by the instrument (normally half their distance apart or 200 feet), the null angle will be deflected away from the conductor on either side of it and zero directly over it. Conductors are thus delineated by zero angles lying between angles of opposite distortion, and the total amplitude of the distortion ("peak-to-peak angle") is a rough measure of the strength of the conductor.

In this survey, readings were taken at 100-foot intervals on the lines. Detailed work from a fixed transmitter location was done at two locations where conductivity was encountered.

Several weak anomalies were noted at various locations on the property, and seem to be due to conductivity in the overburden, for the most part. One anomaly from fixed transmitter location No. 2 showed a rather attractive conductivity curve with a peak-to-peak maximum of 28° .

CONCLUSION

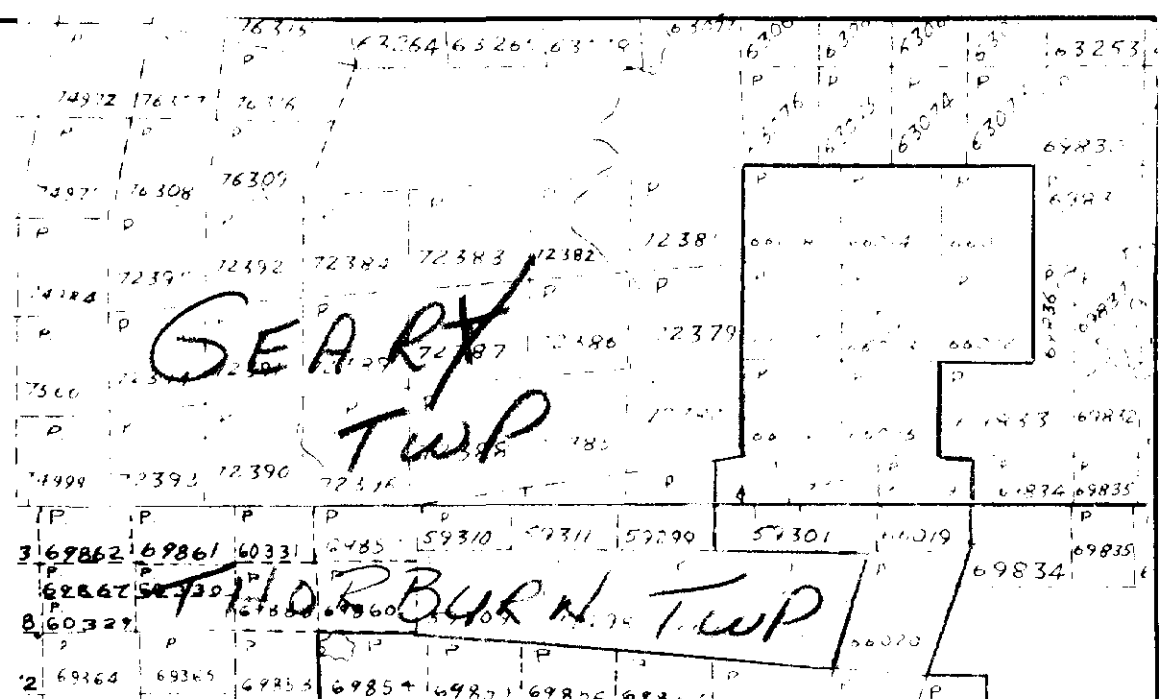
The above anomaly is worth drilling, as it could be due to a sulphide source. The hole should be collared on line 6000 E at footage 1300 N, with a bearing of S 35° W, dip of 50° and proposed depth of 500 feet.



PHILIP ECKMAN

Toronto, December 28, 1964

L 400E L 600E L 1200E L 1600E L 2000E L 2400E L 2800E L 3200E L 3600E L 4000E L 4400E L 4800E



10000 N
9200 N
8400 N
7600 N
6800 N
6000 N

L 6200E L 6600E L 6800E L 7000E L 7200E L 7400E L 7600E L 7800E

4000 N
3200 N
2400 N
1600 N
800 N



Instruments: Sharpe MF-1 magnetometer & SE-200 E.M. unit.

..... E.M. conductor
Magnetic contour interval 200 gammas.

THE PATINO MINING CORPORATION
MAGNETOMETER & E.M. SURVEY
CLAIMS P66011-28 & 69843-57 THORBURN AND
GEARY TWP'S, ONTARIO

Scale 1" = 400'
Date Dec 28, 1964
J. W. Schuman

