REPORT

ON

GEOPHYSICAL SURVEYS

FOR

OLYMPIA MINES INC.

GLASS TOWNSHIP, ONT.

INTRODUCTION

Magnetometer and electromagnetic surveys were carried out over the property held by Olympia Mines Inc. in Glass township, Kenora District of Ontario.

The following report and accompanying maps describe the results obtained and give an interpretation of the results.

PROPERTY AND LOCATION

The property consists of 42 claims of approximately 40 acres each, situated in Glass township, District of Kenora in Northwestern Ontario. The claims are registered with the Ontario Department of Mines under the following numbers, as shown on the accompanying maps.

K 38154 to K 38158 inclusive

K 37962 to K 37987 "

K 13464

K 13467

K 13544

K 13564 and K 13565

K 38163

K 40772 to K 40776 "

The property covers the north portion of Clytie Bay on Shoal Lake and the land surrounding the bay. About one-third of the claims are covered by water.

The property is accessible from Kenora, a distance of approximately 25 miles.

GEOLOGY

The terrain on the land portion of the property is quite rugged and rock outcrops are quite numerous.

There are no detailed geological maps of the area but it would appear that the property is largely underlain by Keewatin volcanic rocks. A granite plug has been mapped to the east of the property.

SURVEY METHODS AND INSTRUMENT DATA

The geophysical surveys were carried out along a network of lines cut in a northwest direction at 400 foot intervals, as shown on the accompanying maps.

The electromagnetic survey was carried out using a Ronka Mark 1V horizontal loop equipment. A 200 foot coil interval was used over the land portion but a 300 foot interval was used over the water portion for greater penetration.

In the horizontal loop type of survey both the in-phase and out-of-phase components of the secondary field are measured whose special characteristics make possible a fairly accurate evaluation of the conductivity. A conductor caused by sulphide mineralization will produce a curve going from positive readings through zero to negative and back again to positive. Both the in-phase and out-of-phase readings will show the same general curve. The ratio between the in-phase and out-of-phase readings over a conductor is an indication of the conductivity of the body. A good conductor would cause a greater deviation of the in-phase component than the out-of-phase component. The opposite is true of a poor conductor.

When working over uneven topography with the Ronka unit the cable tends to be shortened, thus bringing the coils closer together. This increases the effect of the primary field on the receiving coil and produces an apparent positive anomaly. There are numerous readings of this type, as shown on the accompanying map.

It is also important to keep the coils in the same plane when working in uneven ground. If one of the coils is tilted so they are not in the same plane, a negative anomaly will be obtained on the in-phase component. In some portions of the property the terrain was so rugged that it was not practical, or in some cases not possible, to carry out the electromagnetic survey.

The magnetic readings were taken with a Sharpe MF-1 fluxgate magnetometer measuring the variations of the vertical component of the earth's magnetic field. Readings were plotted as gammas and contoured on the accompanying map after correction for diurnal variation.

RESULTS OF THE GEOPHYSICAL SURVEYS AND INTERPRETATION

The electromagnetic and magnetic surveys were carried out over the network of lines with readings at 100 foot intervals but 50 foot readings were taken over anomalous areas. The results are plotted on the accompanying maps on a scale of 400 feet to the inch.

An examination of the electromagnetic map shows a great many irregular responses, many of which are high positive anomalies and due to the terrain. It will be noticed that there are a great many positive readings over the lake and this is probably due to irregular bedrock.

The negative anomalies are shown as conductors but some of these are believed to be caused by the topography rather than possible sulphides. There are several conductors shown in the bays in the northwest corner of the property, such as B and C zones. These appear to follow the shore line and may possibly represent it rather than sulphides.

The most significant conductor is shown as "A" zone on the map and would appear to have a northerly strike. The terrain is quite rugged here but the anomaly is too pronounced to be entirely caused by the terrain. The conductivity on line 0 is quite strong and the magnetic readings over the conductor show high positive and negative readings which suggests the presence of pyrrhotite. This conductor lies within a strong magnetic anomaly that extends across the southern part of the property in a northeasterly direction. The magnetic anomaly shows on the magnetic map and the high readings indicate a fairly high magnetite content in the rocks. The conductor shows on three lines cutting obliquely across the magnetic anomaly but it may be that there are three separate conductors following the trend of the magnetic anomaly.

There are a few other conductive responses on the property but these are on one line only and their significance is not known at this time. Only partial coverage was possible in the northeast corner of the property due to the terrain.

The magnetic map shows a few small anomalies in addition to the major one and they would appear to be due to local concentrations of magnetite.

CONCLUSIONS AND RECOMMENDATIONS

The geophysical surveys outlined several zones containing conductive responses but some of these are believed to be due to the terrain. The most significant zone is referred to as "A" zone and this has a possible length of 1,800 feet in a northerly direction and lies within a major magnetic anomaly. Another interpretation could be three separate northeast striking zones situated en echelon.

The major magnetic anomaly extends across the southern part of the property with a maximum width of approximately 2,000 feet. The readings in places are quite high suggesting a fair content of magnetite.

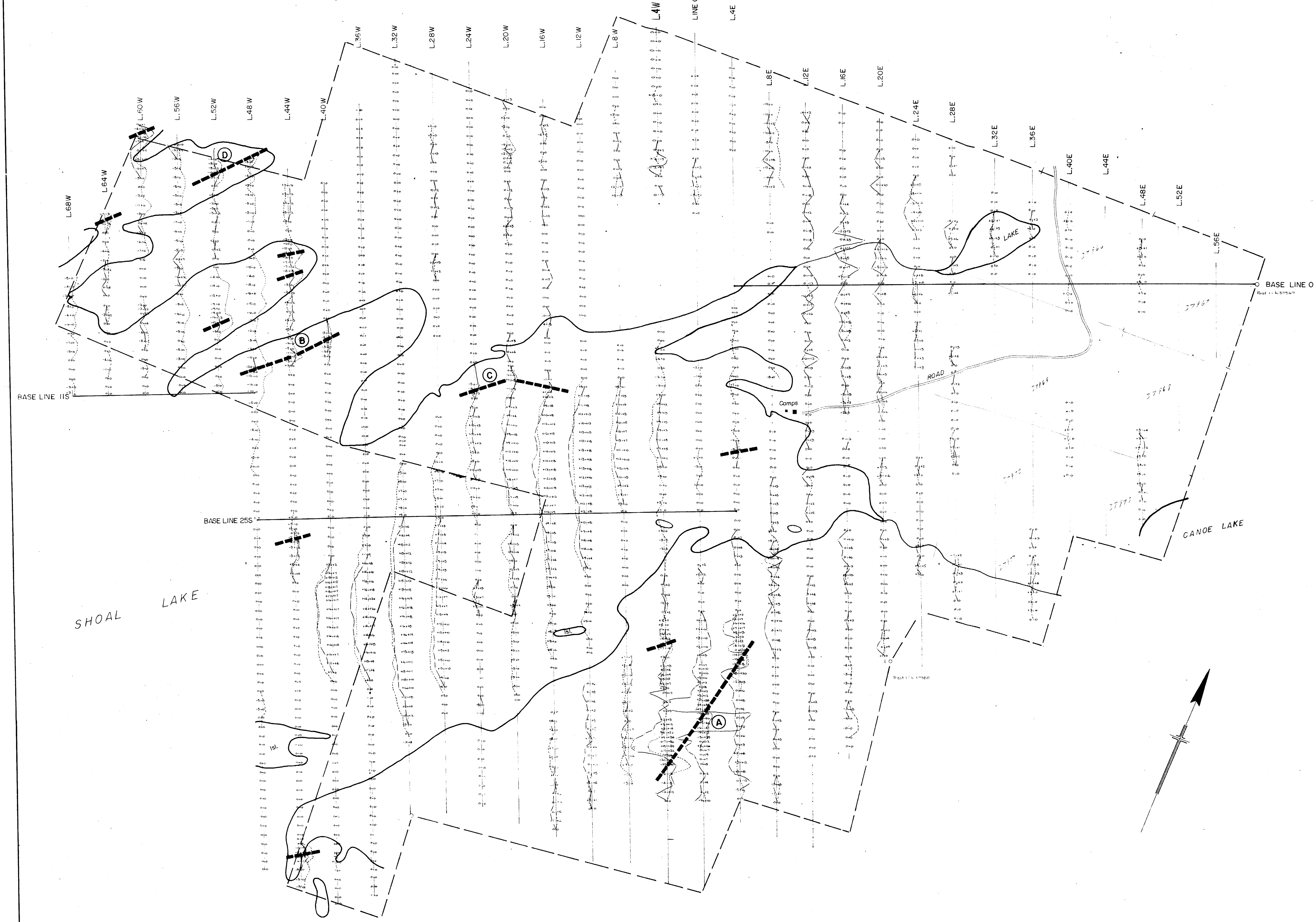
There are numerous rock outcrops on the land portion of the property and it is recommended that geological mapping be carried out, paying particular attention to the southern portion of the property. This information, correlated with the geophysical data, should help to determine the importance of the conductive zones. The conductive zones on the lake can only be tested by diamond drilling but this should only follow the testing of "A" zone.

Respectfully submitted,

PROSPECTING GEOPHYSICS LTD.

Montreal, Que.
March 4, 1968

H. J. Bergmann, ~~P. Eng.~~



ELECTROMAGNETIC SURVEY

OLYMPIA MINES INC.

GLASS TOWNSHIP, ONTARIO

- by -

PROSPECTING GEOPHYSICS LTD.

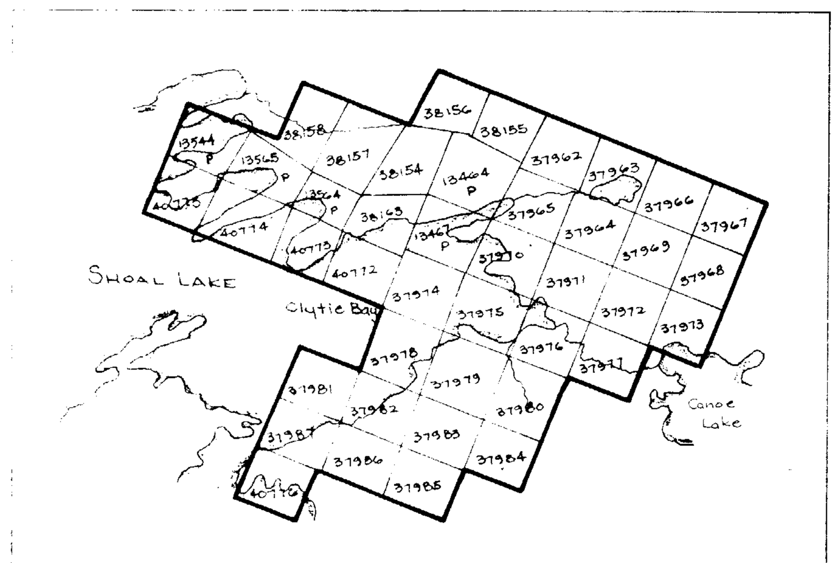
SCALE 0 400 800 1200 FEET

200 87

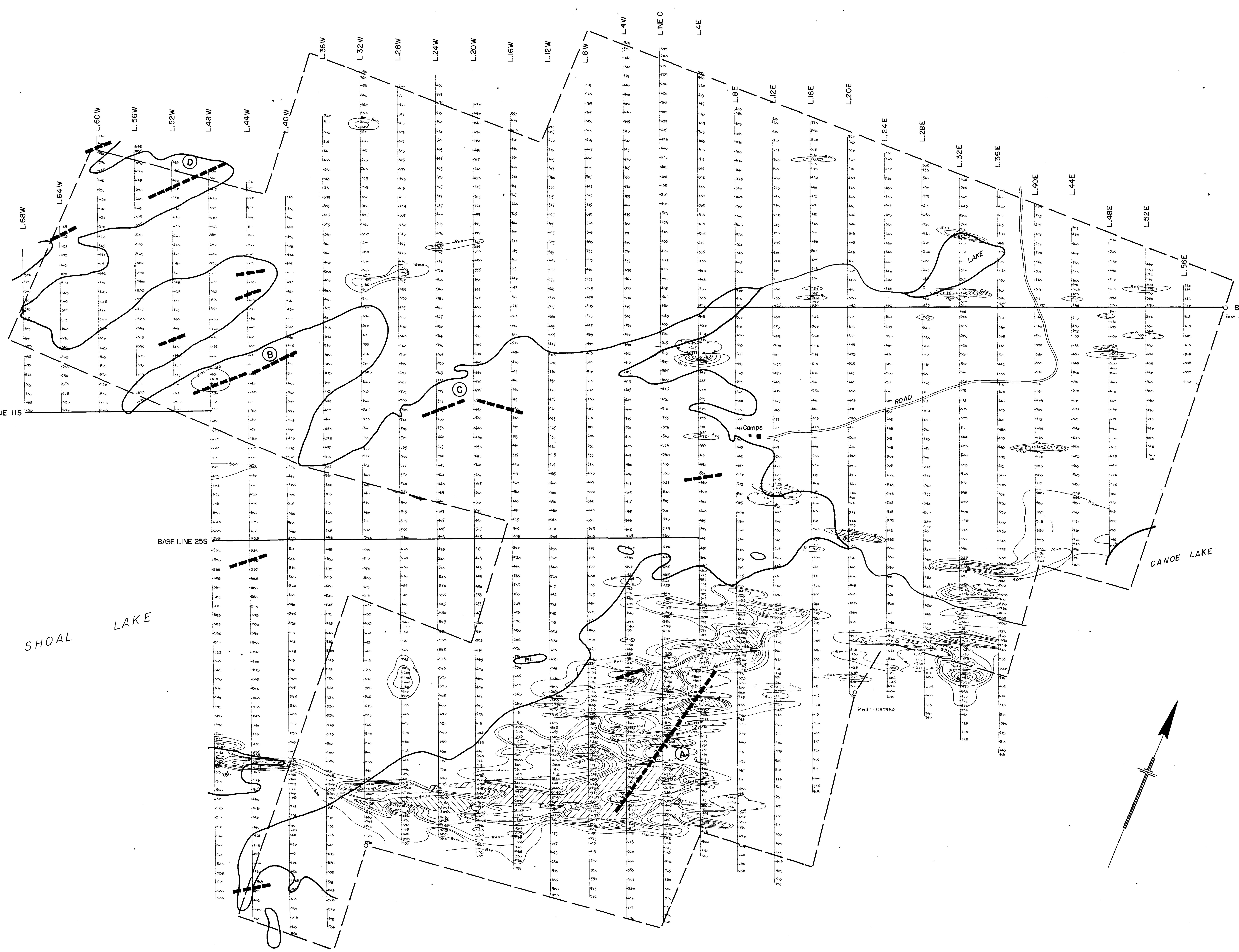
Feb. '68

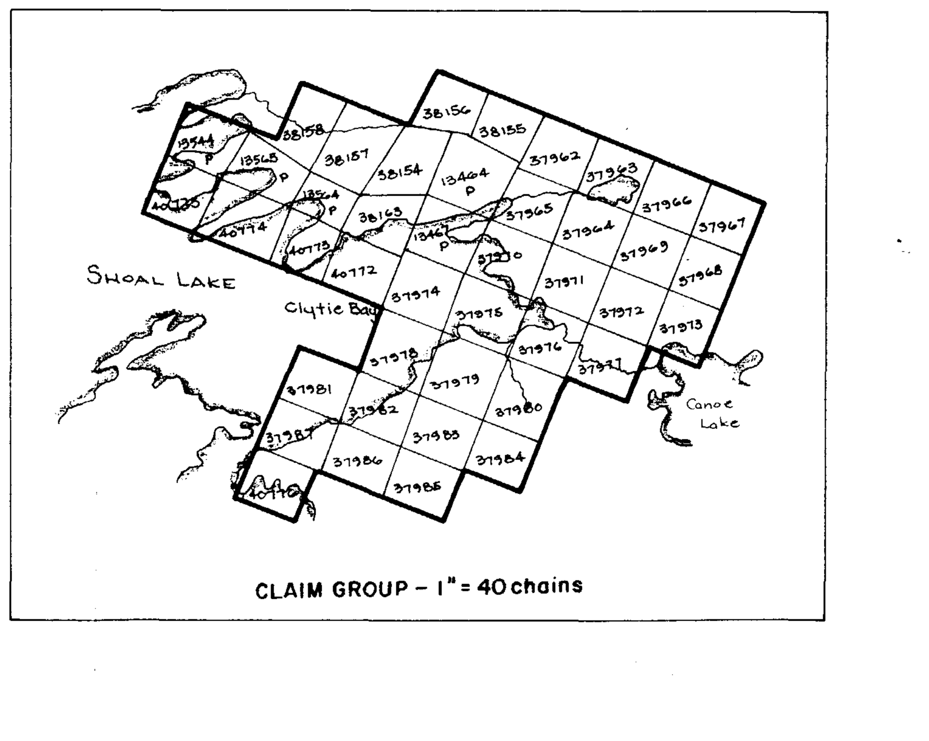
LEGEND

- MEASUREMENT STATIONS ALONG PICKET LINES
- ELECTROMAGNETIC READINGS – In Phase Component (%)
- ELECTROMAGNETIC READINGS – Out of Phase Component (%)
- PROFILE – In Phase Component (Scale 1" = 40 %)
- PROFILE – Out of Phase Component (Scale 1" = 40 %)
- ELECTROMAGNETIC CONDUCTOR



CLAIM GROUP – 1" = 40 chains





CLAIM GROUP - 1" = 40 chains

LEGEND

- MEASUREMENT STATIONS ALONG PICKET LINES
- RELATIVE VALUES OF THE VERTICAL COMPONENT FORCE OF THE EARTH'S MAGNETIC FIELD (in Gammas)
- MAGNETIC CONTOURS
- MAGNETIC BASE STATION
- ELECTRICAL CONDUCTOR

MAGNETOMETER SURVEY

OLYMPIA MINES INC.

GLASS TOWNSHIP, ONTARIO

- by -

PROSPECTING GEOPHYSICS LTD

SCALE 0 400 800 1200 FEET

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