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Report on Geomagnetic Survey  
of  
Canada Iron Limited Property  
Glamorgan and Monmouth Townships  
Haliburton County, Ontario

INTRODUCTION

Titaniferous magnetite deposits have been known in the Haliburton area for over 100 years. A limited amount of mining was done at various times on certain of these occurrences.

A magnetometer survey was carried out by Mining Geophysics Corporation on a group of claims in Glamorgan and Monmouth Townships for Canada Iron Limited in an attempt to outline bodies of titaniferous magnetite.

LOCATION AND ACCESS

The area surveyed for Canada Iron Limited consists of claims <sup>19 claim</sup> EC 5617 to 25 inclusive, 5243 to 48 inclusive, 5259 to 62 inclusive and one patented claim west of 5243 and 44 in Monmouth Township, and lot 35, Conc. 4 and north part of Lot 35, Conc. 3 in Glamorgan Township.

The property is convenient to transportation being located within one mile of the Canadian National Railway and a good motor road.

GENERAL GEOLOGY

References:

F.D. Adams and A. E. Barlow, "Geology of the Haliburton and Bancroft Areas", Geol. Surv. Can., Memoir 6, 1910.

A. H. A. Robinson, "Titanium", Mines Branch, Can. Dept. Mines, No. 579, 1922.

J. Satterly, "Mineral Occurrences in the Haliburton Area", Ont. Dept. Mines, Vol. LII, Pt. 2, 1943

In the vicinity of the area surveyed the rocks consist of Precambrian gneisses and crystalline limestone and dolomite which are cut by an intrusive complex of diorite, gabbro, anorthosite and peridotite. Granite and pegmatite intrude all these rocks, and are in turn cut by nepheline syenite, alkali syenite, and dikes and masses of pink granite.

Titaniferous magnetite occurs in a metamorphosed gabbro which underlies much of the southeast section of Glamorgan Township and extends into the southwest portion of Mormouth Township. The gabbro varies considerably in composition and texture in various parts of the intrusive and ranges from pyroxene-rich to feldspar-rich phases. A marked foliation is a common characteristic of this intrusive.

#### GEOPHYSICAL SURVEY

The survey was carried out using an Askania magnetometer having a sensitivity of 23.0 gammas per scale division. Readings were taken at intervals of 100 feet along lines spaced 400 feet apart.

#### GEOPHYSICAL INTERPRETATION

The results of the geophysical survey indicate a complex pattern of magnetic highs and lows. It is believed that the magnetic highs are the expression of magnetite-rich sections of the gabbro. Certain of the magnetic lows, indicated on the map as large negative values, are probably caused by dipping magnetite-rich lenses.

With the exception of "Anomaly A" and "Anomaly B" in the southwest section of the map area the magnetometer survey did not indicate the presence of any large concentrations of magnetite. While these two anomaly areas do not indicate particularly high magnetic intensities for potential magnetite-ore, they are worthy of investigation as it is reported (Reference 1, Page 156) that

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the iron ore is "rather feebly magnetic".

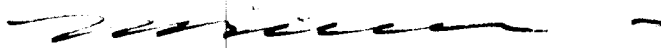
RECOMMENDATIONS

It is recommended that anomaly A be investigated by surface work as trenching or stripping if overburden conditions permit.

Respectfully submitted,

MINING GEOPHYSICS CORPORATION LIMITED

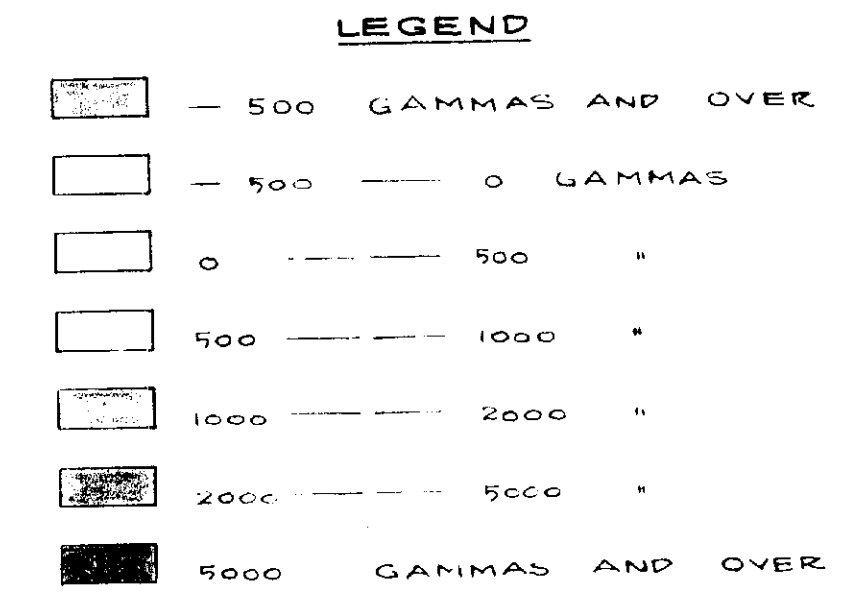
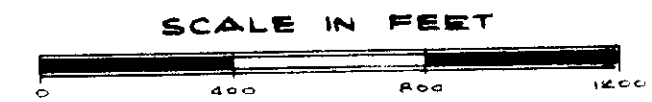
  
J. C. Frantz

  
N. B. Keevil

Toronto,

May 2, 1952.

GEOMAGNETIC SURVEY  
 BY  
 MINING GEOPHYSICS CORP. LTD.  
 FOR  
**CANADA IRON MINING LTD.**  
 GLAMORGAN AND MONMOUTH TWP'S.



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