RESULTS

OF AN

ELECTROMAGNETIC SURVEY

MOGUL MINING CORPORATION LIMITED

PATTON TOWNSHIP

ONTARIO

SUMMARY

The electromagnetic survey was carried out to trace a copper bearing vein along the strike and to test the property for other mineral occurrences.

Only a weak indication was obtained over the mineralized vein which is believed to be due partly, at least, to the fact that the vein contains a considerable amount of quartz.

Several weak anomalies were obtained which bear investigation in view of the nature of the indication obtained over the known mineralized vein . Two stronger conducting zones were obtained on the north western part of the property that should be investigated.

INTRODUCTION:

This report deals with the results of an electromagnetic survey carried out over the property of Mogul Mining Corporation Limited, which is located in Patton Township, Ontario.

A grid of north-south picket lines was cut over the property at 400 foot intervals and electromagnetic readings were taken along the lines at 100 foot intervals. The readings have been plotted as profiles and are shown on the accompanying map, which is on the scale of one inch equals four hundred feet.

PROPERTY AND LOCATION:

The property consists of lots 9 and 10, Concession 111, the northeast and southeast quarters of section 30, Concession 11, the northwest, northeast and southeast quarters of section 29, Concession 11, and claims 42442 - 3 - 4 - 5 and claims 48855 - 6-7-8, which occupy the northwest and southwest quarters of section 28, Concession 11, all in Patton Township. The property covers approximately 1440 acres.

Patton Township is located about 60 miles west of Sudbury, in the Blind River area. The property is readily accessible by road.

METHOD OF SURVEY:

The following paragraphs pertain to a geophysical meth used in the search for subsurface conductors of electricity, such as massive sulphide bodies. This method is, for example, applicable when exploring for base metal ore deposits.

The method has been referred to as an Electromagnetic-Galvanic Method due to the manner in which alternating currents of electricity are caused to flow through a large volume of ground.

The excitation source is a gasoline engine driven alternating current generator. This generator is connected to two "grounded" electrodes by means of a long insulated copper cable. The cable is laid out on the ground in a straight line between the electrodes. The

distance between the electrodes may be several thousand feet, depending, of course, on the scope of the geophysical survey.

When the generator energizes the cable-electrode system, a current flows in the cable and is conducted into the ground through the "grounded" electrodes. These electrodes may actually be metal stakes driven into the ground at predetermined locations.

The energization of the cable-electrode system then gives rise to the following:

1. An alternating magnetic field due to the current flowing in the cable. This magnetic field spreads out concentrically about the cable and may penetrate into the ground and cause currents to flow in a very good subsurface conductor. The "induced" currents give rise to a corresponding alternating magnetic field which may be referred to as a secondary or anomalous field.

2. The current flowing between the electrodes and through the volume of ground will assume a characteristic distribution in a homogenous medium. A corresponding alternating magnetic field is associated with this current and will give rise to a horizontal magnetic field component under ideal conditions. Now, if a subsurface body is a much better conductor than the surrounding medium, the current distribution will be disturbed in such a way that the current density in the body will be much greater than that in the surrounding medium.

The associated magnetic field intensity will also be correspondingly greater in the body than in the surrounding medium.

The magnetic field due to the "induced" current in combination with the magnetic field due to the current flowing through the body will distort the normal magnetic field pattern or distribution. By determining the extent of this distortion, it is possible to ascertain the presence of a highly conductive subsurface conductor such as a massive sulphide body.

The detecting apparatus consists of a "pickup coil" with a clinometer, amplifier and headphones.

Conducting zones may be caused by different geological structures such as:

1. Water bearing shear zones
2. Graphite bands
3. Mineralized zones

PRESENT PROGRAM OF WORK ON THE PROPERTY:

A program of diamond drilling is being carried out on the property testing an east-westerly trending copper bearing vein. The geophysical work was undertaken to try to trace this vein along the strike and also to test the balance of the property for other mineral occurrences.

GEOPHYSICAL CONCLUSIONS & RECOMMENDATIONS:

Several weak conductors were outlined by the survey. A weak indication was obtained over the copper vein. This anomaly is shown on the accompanying map on lines 3W and 4W at chainage 800 north. To the east of this a weak conductor, probably representing the continuation of the zone, swings south easterly and crosses lines 2W at chainage 700 north and continues to line 1E where it crosses at chainage 450 north.

The reason that the copper shows up only as a weak conductor is believed to be due to the fact that a considerable amount of quartz, which is a poor conductor, is present in the vein and detracts from the conductive effect of the mineralization.

Two stronger conducting zones occur on the north western part of the property. The best conductor occurs on line 13W at chainage 2000 north and continues east to line 10W. Another conductor occurs on line 7W at chainage 1700 north and continues to line 4W where it crosses at chainage 1800 north. It is recommended that these two conductors be investigated. Other weaker conductors are shown on the map and merit investigation in view of the weak nature of the indication obtained over the copper vein.

Respectfully submitted,

J. G. Christopher, B.Sc., P. Eng.

Toronto,
April 23, 1956

Personnel engaged in carrying out electromagnetic survey on property belonging to Mogul Mining Corporation Ltd. located in Patton Township, during period February 11 - March 8, 1956.

Name	Occupation	Address	Days
G. O'Connell	Field Operator	Bathurst, N.B.	27
G. Ward	" "	" "	27
F. Corcoran	" "	" "	10
J. McAloon	Calculating Drafting	" "	5
A Fehrmann	Draftsman	Toronto, Ont.	4
I. Christopher	Interpretation	" "	3
F. Kelly	Typist	" "	1
		Total	77 days

77

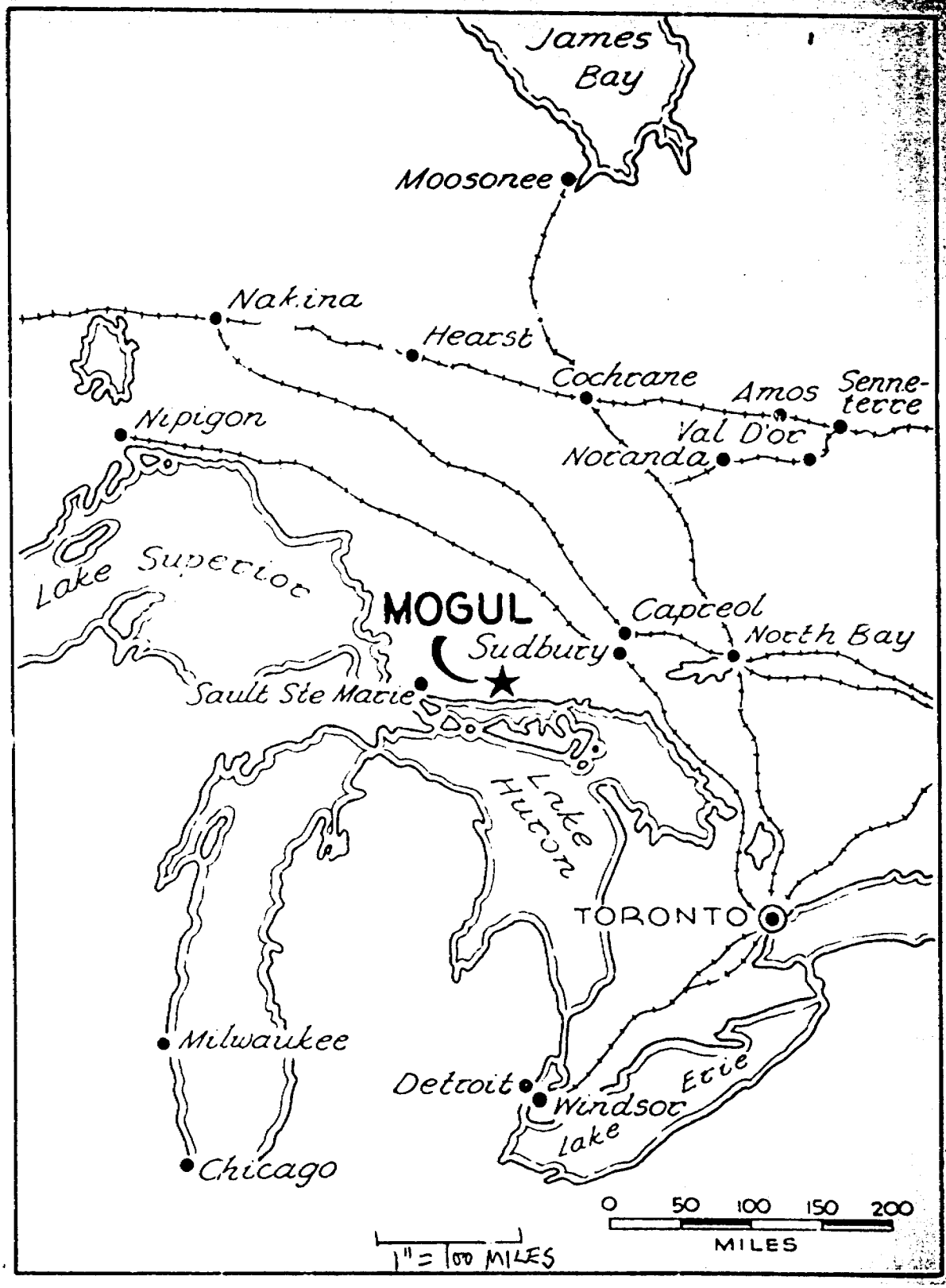
Map Showing Location of

MOGUL MINING CORPORATION

L I M I T E D

Property in Patton Twp. - Blinds River Mining Area

O N T A R I O

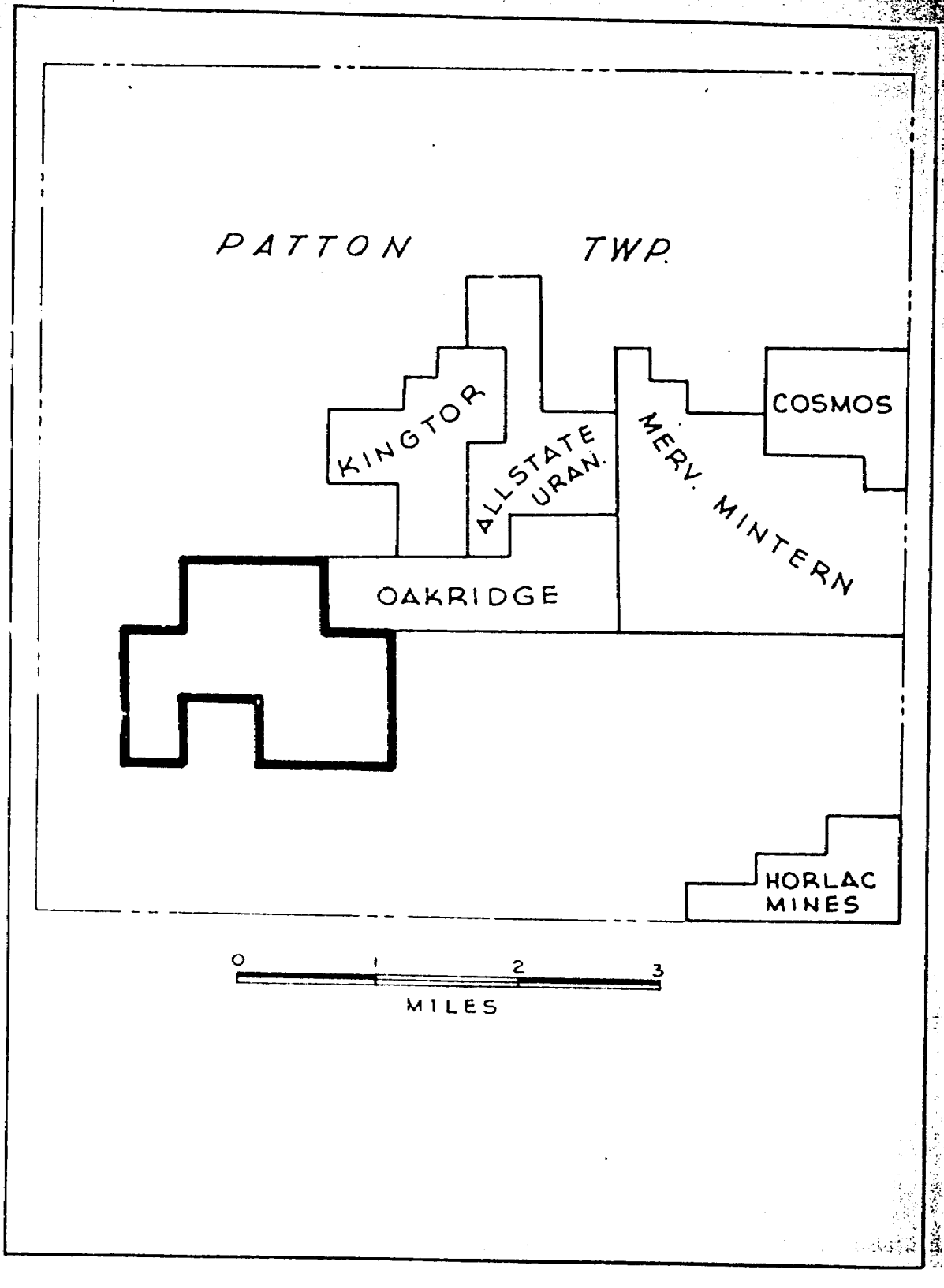


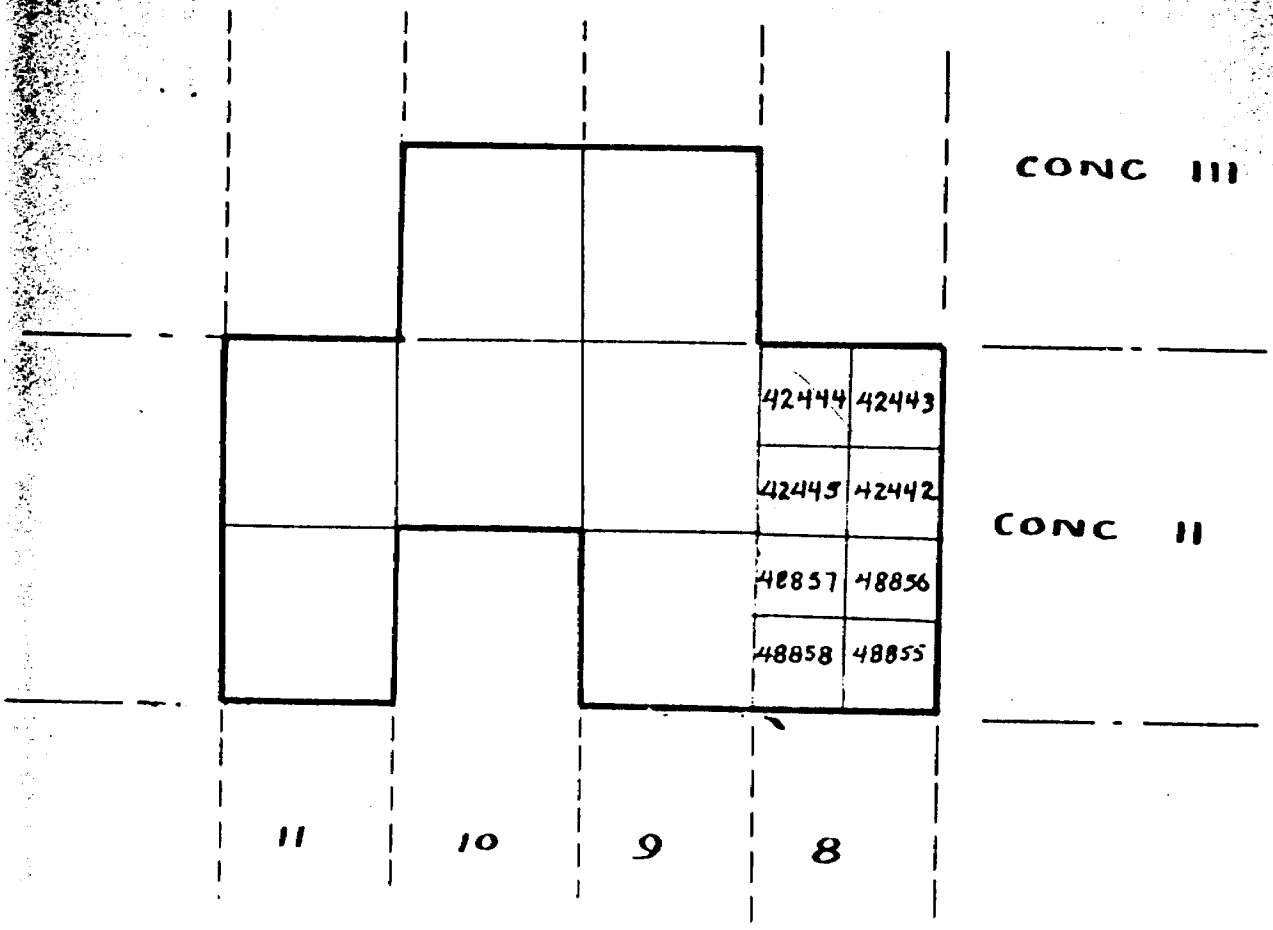
map showing location

MOGUL MINING CORPORATION
LIMITED

Property in Patton Twp.- Blind River Mining Area

ONTARIO





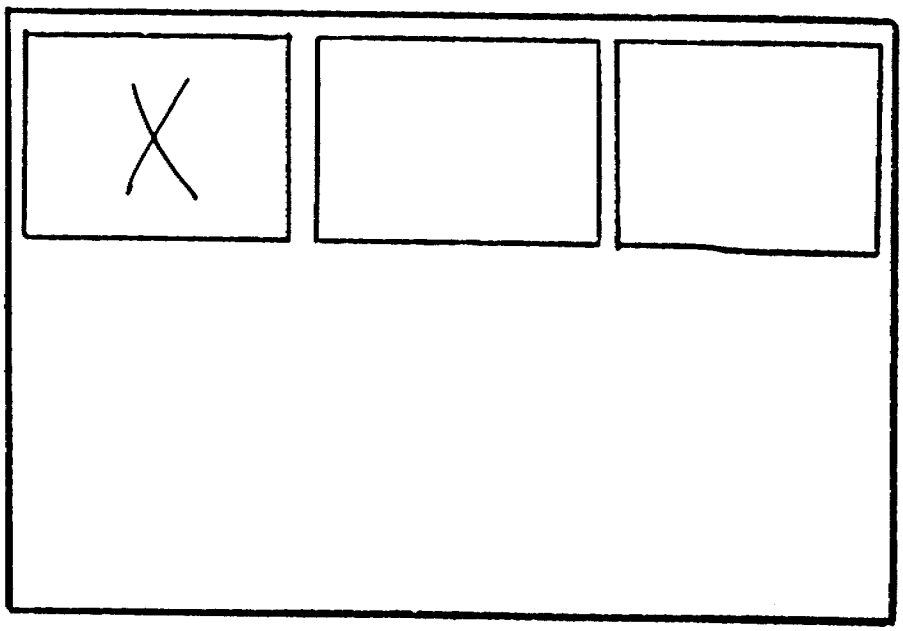
PATTON TOWNSHIP
ONT.

MOGUL MINING CORP. LTD.

SEE ACCOMPANYING MAP(S) IDENTIFIED AS

PATTON-0014-B1 #1

LOCATED IN THE MAP CHANNEL IN THE FOLLOWING SEQUENCE (X)



MOGUL MINING CORPORATION
LIMITED

PROPERTY IN PATTON TWP. - ONTARIO

RESULTS of ELECTROMAGNETIC SURVEY
BY G.G.I. SURVEYS

0 400 800 1200 1600
SCALE - FEET

LEGEND

- PICKET LINE CUT AND SURVEYED
- PROFILE OF READINGS FROM ELECTROMAGNETIC SURVEY
- POWER LINE
- SECONDARY ROAD
- BOUNDARIES OF FARMLAND

LOT 10 Con. III

LOT 9 Con. III

BASE LINE # 2

BASE LINE # 1

NE-30

NW-29

NE-29

SE-30

SW-29

SE-29

COBDEN RIVER

COBDEN RIVER

SSM-42444

SSM-42443

SSM-42445

SSM-42442

SSM-48855

SSM-48856

SSM-48858

SSM-48857

PATTON-0014-A1 #1