



42A13SE0045 63.1446 REID

010

INTRODUCTION

Coincident with a diamond drilling programme, an electromagnetic survey was carried out on the property of Transterre Explorations Limited, Coastal Mining Limited and Black River Mining Limited. Previously in 1960 - 61 Texas Gulf Sulphur conducted a geophysical programme on a portion of the property and subsequently drilled one hole to a depth of 191 feet. The geophysical results are unavailable but the diamond drill log on file at the Timmins resident geologist's office indicated the presence of sulphides, mainly pyrite. With the presence of sulphides on the property and the recent base metal discovery in Kidd township by Texas Gulf Sulphur an electromagnetic survey was initiated on the property.

The following report and accompanying maps describe the results of this survey, and the interpretation is based partially on the drill hole data.

PROPERTY LOCATION AND ACCESS

The property consists of twelve claims located in Concession I, lots 8, 9 and 10 in Mahaffy township and two adjoining claims in Concession VI, lots 9 and 10 in Reid township, Porcupine Mining Division, Ontario. The claims are recorded with the Ontario Department of Mines with numbers 63601 to 63612 inclusive, 63614 and 63615 as shown on the accompanying map.

Access is by helicopter to the campsite on Thorburn Creek immediately west of the property. The Mattagami River located about 4 miles east of the property is suitable for landing float-equipped aircraft or navigation by large boat.

GEOLOGY

There are no rock outcrops on the property or adjacent areas. The terrain is low, flat and heavily wooded. Immediately southwest of the property previous drilling on an airborne magnetic anomaly indicates the presence of a gabbro plug two to three miles in diameter.

Diamond drilling completed to date on the property shows the presence of slate, graphitic slate, and rhyolite tuff and agglomerate. The contact between the graphitic slate and rhyolite strikes northeast and dips near vertically as indicated by limited drilling in the southwest of the property.

Pyrite, chalcopyrite, sphalerite and galena have been noted in the drill core. The pyrite, massive and disseminated is largely confined to the graphitic slate. Small amounts of silver are associated with the pyrite and carbonate. Chalcopyrite, sphalerite and galena are confined to the rhyolite formation. Copper, zinc and lead assays have ranged to 0.45, 1.05 and 0.52 per cent respectively, over narrow widths.

This is definite evidence for the possible existence of a base metal deposit on the property, especially since two out of the three holes drilled to date contained sulphides of economic importance.

ELECTROMAGNETIC SURVEY RESULTS AND INTERPRETATION

The electromagnetic survey was conducted along cut lines spaced at 300 foot intervals as shown on the accompanying map, at a scale of one inch to 400 feet. The equipment used for the survey was a Crone unit with 200 foot coil separation. Each electromagnetic conductive zone was checked using an Askania Torsion bar magnetometer.

Several conductive zones were indicated by the survey. The largest zone is located on line 0 + 0, station 0 + 0. Here the zone is 900 feet long and attains a width of 150 feet. The east end of this zone has been intersected by drilling which shows the conductivity to be caused by pyritized graphitic slate under about 75 feet of overburden. East-northeast of the zone the conductivity continues.

On line 9E, station 4S a conductive zone approximately 100 feet long and 30 feet wide is present. This zone is probably between 50 and 75 feet from surface and dips vertically. On line 18E, station 7 + 50 S is located a conductive zone approximately 300 feet long and 50 feet wide. The profile of the zone indicates a conductor perhaps 50 feet from surface which dips north at about 60 degrees. Immediately south of the conductor the magnetic values increase slightly. This magnetic change may be the result of change in rock type. Thus the conductor would be located along or very close to a rock contact.

The above three conductive zones line up in an east-northeast direction suggesting that the conductivity may be associated with a particular rock horizon, which in this case, as shown by drilling, is pyritized graphitic slate. However, the drilling shows the rocks to be striking northeast and

dipping vertically. This does not coincide with the strike of the conductive zones or the dip of the most easterly conductor. Magnetometer work over each of the conductive zones indicated a lack of pyrrhotite and magnetite. The most easterly conductor may in part contain some massive sulphides since the conductivity is relatively strong.

On line 15 E, station 6 + 50 N a fourth conductive zone was found. Additional electromagnetic check work in this area indicates the zone to be 200 feet long and almost 100 feet wide. Apparently 75 to 100 feet below surface, it strikes north-northeast and appears to dip vertically. Again magnetometer work in the area indicates a lack of pyrrhotite and magnetite. This conductor is presently being drilled.

A few other responses perhaps responsible for a conductive zone were encountered during the survey, but deep overburden conditions and the lack of magnetic work makes any interpretation highly theoretical.

SURVEY METHOD AND INSTRUMENT DATA

The Crone EM unit used in the survey is comprised of two similar coil units which both transmit and receive on a frequency of 1800 or 480 cycles and are maintained at a distance of 200 feet apart.

In this type of survey the resultant reading is a measurement in degrees and an anomaly is usually a resultant reading greater than plus or minus 4 degrees. Interpretation is based on the type of profile, the negative or positive degrees of which is dependent upon the depth of overburden and the conductivity of the zone.

All of the conductors were checked by magnetometer work. Also lines 15 E and 18 E were surveyed from boundary to boundary to determine the magnetic variance of the rock horizons.

CONCLUSIONS

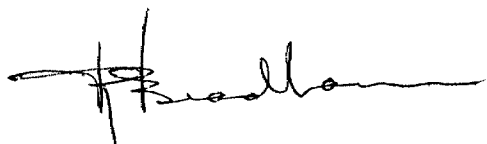
The electromagnetic survey outlined four definite conductive zones, one of which, the largest has been investigated by drilling. Several other weak conductive responses were noted which could be significant especially if the sulphides are disseminated. However, the depth of overburden and the lack of geological structure information which may be provided by a magnetic survey makes interpretation very obscure at this stage.

Two of the conductive zones merit diamond drilling.

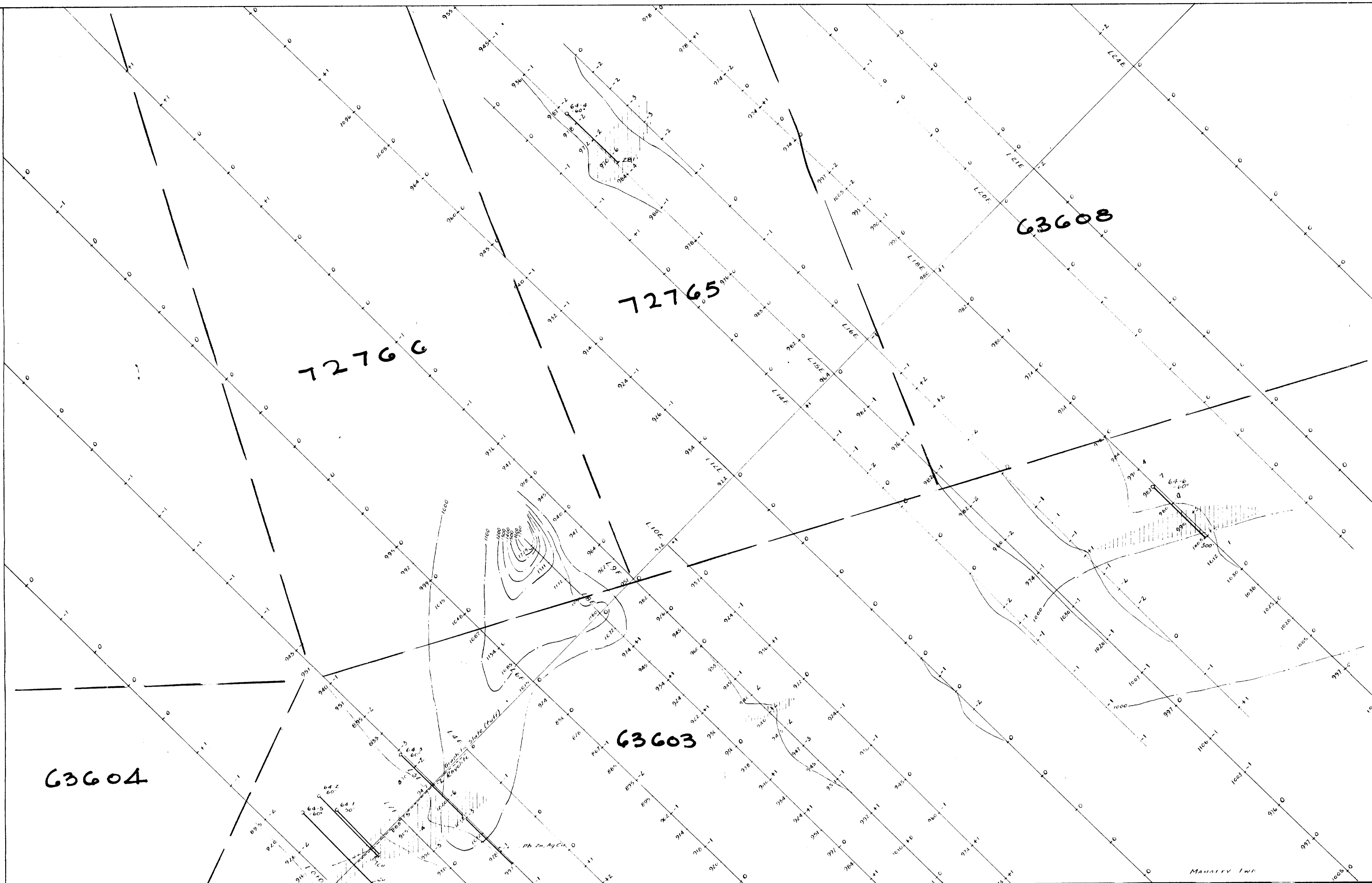
On line 15 E, station 6 + 50 N an ellipsoidal conductor probably 75 to 100 feet below surface is presently being drilled. On line 18 E, station 7 + 50 S is located a conductor approximately 300 feet long and 50 feet wide. The magnetic and electromagnetic work indicates a lack of magnetite and pyrrhotite, and the possibility of some massive sulphides. The conductor strikes east-northeast and probably dips 60 degrees north, an attitude unconformable with the presently known structure.

Finally it is recommended that the remainder of the property be covered by a magnetometer survey.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "R.J. Bradshaw". The signature is written in dark ink and is positioned above the typed name.

R.J. Bradshaw,
Consulting Geologist.



- SYMBOLS**
- Measurement station along picket lines
 - Electromagnetic reading in degrees
 - Magnetic value in gammas
 - Magnetic contour line
 - Electromagnetic Conductor
 - Drill hole
 - Profile: resultant dip angle, (scale: 1" = 10')

63604

72760

72765

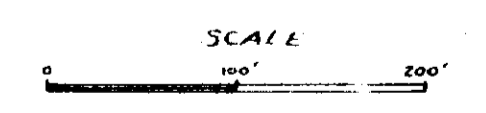
63608

63603

63615

63614

DETAIL GEOPHYSICAL SURVEY
 ON PART OF THE PROPERTY OF
BLACK RIVER MINING LTD., TRANSFERRE EXPLORATIONS LTD. COASTAL MINING LTD.
 Mahabaly and Reid Townships, Porcupine Mining Division, Ontario
 By
 EXPLORATION AND DEVELOPMENT MINING SYNDICATE LTD.



JUNE, 1964

By: R.J.B.

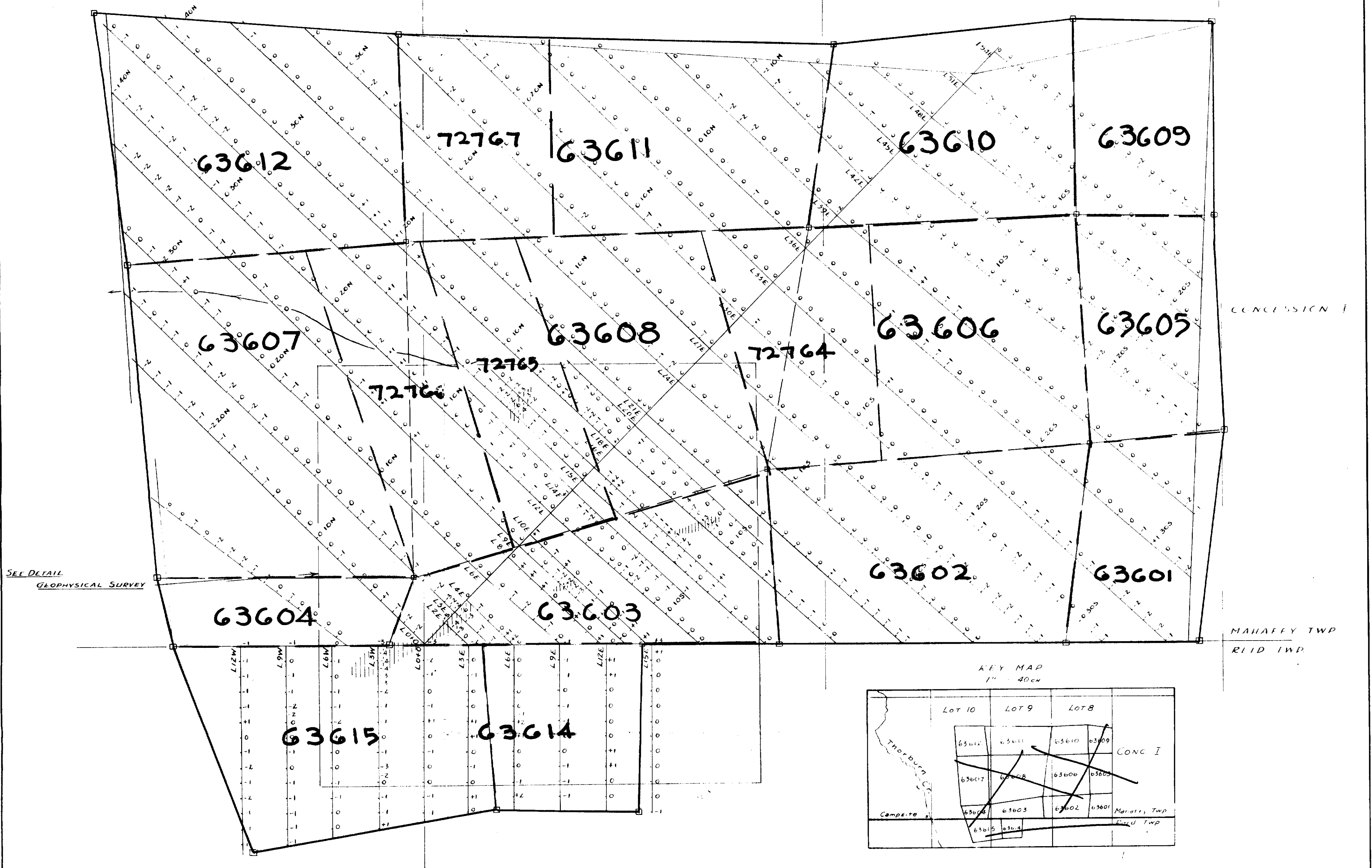
Handwritten signature Feb. 17th, 1965

63.1496

LOT 10

LOT 9

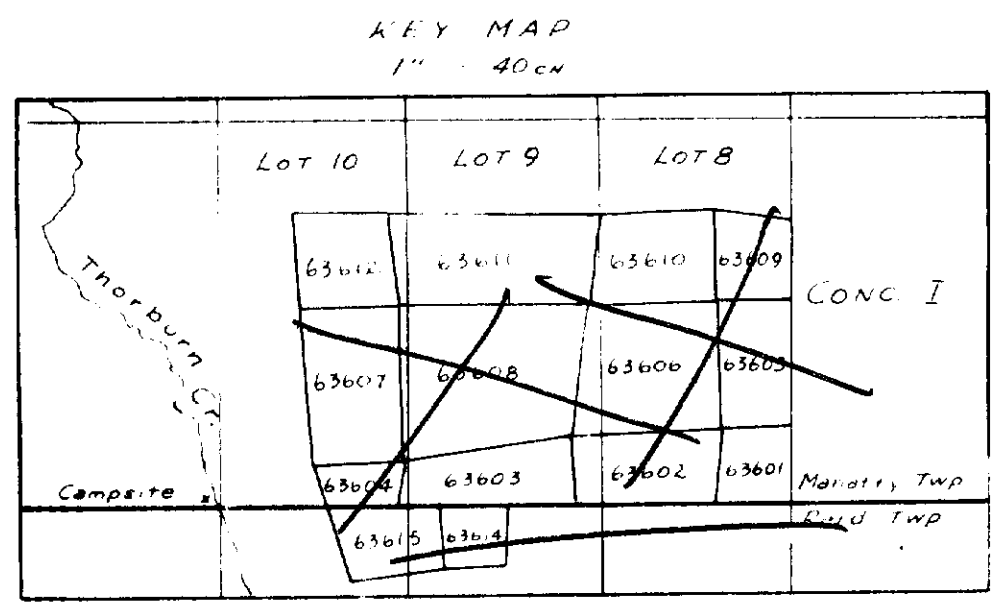
LOT 8



SEE DETAIL
GEOPHYSICAL SURVEY

CONCESSION 1

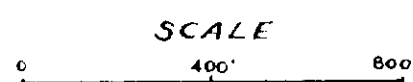
MAHAFFY TWP
REID TWP



ELECTROMAGNETIC SURVEY
Crone L.M. unit; 200 foot coil separation
Frequency: 1800 cps

ELECTROMAGNETIC SURVEY
ON THE PROPERTY OF
BLACK RIVER MINING LTD., TRANSFERRE EXPLORATIONS LTD., COASTAL MINING LTD.
Mahaffy & Reid Townships, Porcupine Mining Division, Ontario

By
EXPLORATION AND DEVELOPMENT MINING SYNDICATE LTD.



JUNE, 1964

BY: R.J.B. Feb. 17th, 1965

- SYMBOLS**
- Measurement station along picket lines
 - Electromagnetic readings in degrees
 - Claim post
 - Drill hole
 - ||| ELECTROMAGNETIC CONDUCTOR



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