

ON A LIMITED AREA

OF THE N.W. & OF THE 24 CLAIM GROUP

MAGUSI RIVER EXPLORATIONS INC.

DOKIS TOWNSHIP, DISTRICT OF COCHRANE

PROVINCE OF ONTARIO

NOV. 9, 1972

John A. Honsberger, P. Eng.

ELECTROMAGNETIC AND GEOCHEMICAL SURVEY REPORT

MAGUSI RIVER EXPLORATIONS INC.

DOKIS TOWNSHIP, DISTRICT OF COCHRANE

PROVINCE OF ONTARIO

#### INTRODUCTION

Upon completion of a magnetometer survey and a joint prospecting effort in June, 1972, on the company's Dokis township property, a report dated July 4, 1972, was propared which contained recommendations for a concentrated effort on the N.W. & of the 24 claim group. Recommendations were made for a east-west line grid to be established over that portion of the property on a 200 foot line spacing to be followed by detail mag. and EM-16 surveys and mapping - prospecting of the extensive outcrops contained therein.

The line cutting and magnetometer surveying were completed during July - August together with prospecting of outcrop areas. Unfortunately both the Annapolis and Panama VLF transmitting stations were out during the survey period and remain so to date, thereby elimating any possibility of a EM-16 east-west survey. It was decided to finalize the work completed in order to review

results and plan future emploration of the property.

To avoid repetition, reference is made to the various preliminary topics under headings Location, Access, Topography, Eineral Exploration of the Area, General Geology, Structural Goology, Economic Geology, etc. contained in previous geophysical reports prepared by the writer dated April 24, 1972 and July 4, 1972.

#### PROPURTY

The claim group of Magusi River Explorations Inc.

comprises 2h forty-acre mining claims in one solid block

being 6 claims long east-west and 4 claims wide north
south, consisting of 960 acres or thereabouts. They were

staked in January and February 1972 and are numbered

L-339533 to L-339539 inclusive; L-339542 to L-339547 inclusive;

L-339550 to L-339554 inclusive; L-339557 to L-339562 inclusive.

#### SELECTED SURVEY AREA October, 1972

The limited area covered by EM and geochemical surveys was on an east-west grid between lines 6N-18N inclusive between sections 75W-46W inclusive. The purpose of these surveys was to further define areas for drill investigation in an area of existing sulphide occurrences.

#### ELECTROMAGNETIC SURVEY

A McPhar VHEM survey covered the east-west grid using a 100 foot cable seperation and operated on a frequency of 2400 cps. In-phase readings were plotted on the left of the line, out-of-phase readings to the right of the line.

No apparent conductivity was encountered via this method. The depth of penetration employing the short cable is extremely limited and therefore it was not totally unexpected that results would be negative. In the Noranda-Kirkland Lake area where ore zones are known to frequently occur at considerable depth the short cable method has very limited usage.

A Geonics EM-16 survey previously recommended could not be performed due to transmitting station NBA being inoperative at date of survey.

#### GEOCHEMICAL SURVEY

#### SOIL SAMPLING PROCEDURE

In the survey area it is estimated that 90% of the overburden consists of clay, which in elevated areas is quite compact and hard. An auger was used and an attempt was made to obtain samples at the interface of 'B' and 'C' horizons ('C' being the clay surface). Generally the depth of the

sample recovered is about 10 inches.

In areas of outcrop the sample was obtained from organic soil.

#### RESULTS

Background is in the range of 5-15 ppm 'Cu', with the highest reading being 94 ppm 'Cu' in the vicinity of a known chalcopyrite showing. No spectacular grades were encountered using the hot assay method. This is not unexpected with regard to the clay overburden conditions, where depth of clay would probably amount to 30' in low lying areas.

Nevertheless, fair results were encountered within the limited area surveyed. Where chalcopyrite mineralization is known to exist in outrop areas a very favorable copper dispersion was determined. Magnetic and geochemical coincidence was also established in places. Furthermore, completely new areas of interest were located where no outcrops or magnetic indications exist, confirming confidence in the geo-chem. method.

#### CONCLUSIONS AND RECOMMENDATIONS

Based on all accumulated data, particularly the magnetic information coupled with the geochemical results it is recommended that diamond drill investigation be undertaken to test a number of selected target areas.

A toal of seven drill holes totalling approximately 2500 feet have been laid out on the accompanying survey plan. Holes 1, 2 and 3 in the west map area are in an area where chalcopyrite mineralization has been discovered within the favorable rhyolitic formation. These 3 targets are further supplemented with magnetic and/or geochemical correlation. It is noteworthy that all three anomalies are N.N.E.'ly trending in an otherwise east-west regional geological horizon.

Holes 4 and 5 collared from the same set-up are proposed to test two lenticular N.N.E. 1y trending geochemical anomalies. No 4 hole is coincident with a magnetic anomaly of lower than background intensity.

Hole No 6 is proposed to test a coincident maggeochem anomaly while hole No 7 is located to test a coincident geochemical and magnetic high-low anomalous condition.

All holes are numbered in order of preference to be drilled due to proximity of water which is expected to be from a begver pond, 3200 feet N.E. of hole No 1. Secondly, hole moves in that order will minimize moving costs and at the same time reduce water heating charges as the drill advances in the direction of the water source.

Due to rugged terrain and poor accessibility, mobilization and demobilization costs are expected to

contrubute to higher than normal drilling costs, than might be otherwise expected in the region. Based on the present hole lay-out, drilling quotes covering maximum total cost have been requested but at this time of writing have not yet been received. These will be forwarded under seperate cover upon their receipt.

Dated at Val d'Or, Quebec, this 9th day of November, 1972.

John A Honsberger, P. Eng.

#### CERTIFICATE

I, John A. Honsberger, residing at 1030 - 6th Street, Val d'Or, Que., do hereby certify as follows:

That I attended the University of Missouri School of Mines and Metallurgy and graduated with a B. Sc. Degree in Mining Engineering.

That I am a member of the Association of Professional Engineers of the Province of Ontario.

That I have no direct or indirect interest, either present or expectant in the claims forming the property of Magusi River Explorations Inc. Dokis Twp., District of Cochrane, Ontario, nor in the shares or securities of that company.

That the survey report on the Dokis township property, attached herewith and dated November 9, 1972, is based:

- a) on detailed examination of all pertinent data describing the local, regional and economic geology and relative developments in the area, as to be found in government reports and geological maps.
- b) on a general familiarity with the Rouyn-Norm da region derived through the supervision of various exploration programs in that area.
- c) on a study and interpretation of the survey results carried out under my supervision earlier this year on the same property.

Dated at Val d'Or, Quebec, this 9th day of November, 1972.

John A. Honsberger, P. Eng.

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MAGUSI RIVER EXPLORATIONS LTD.

DOKIS TOWNSHIP

LARDER LAKE MINING DIVISION, ONT.

November 14, 1972.

# Magusi River Explorations Limited Dokis Township

Larder Lake Mining Division, Ontario

#### SUMMARY

The company holds a group of 24 claims in Dokis Township, Ontario, 8 miles west of the recent copper discoveries of the Keevil Group in Hebecourt Township, Quebec. On the company's claim group geophysical and geochemical surveys, together with limited prospecting, have been carried out. Seven geochemical copper anomalies were located in an area of widespread chalcopyrite mineralization.

It is recommended that 2500 feet of diamond drilling be carried out to test the seven geochemical anomalies. The budget for this programme is \$33,500.

Contingent on results, additional funds may be required.

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# Magusi River Explorations Limited Dokis Township

Larder Lake Mining Division, Ontario

#### I. INTRODUCTION

The company holds a group of twenty-four mining claims in Dokis Township, Ontario. This group lies in the general area of the volcanic complexes that make-up the Noranda-Rouyn base metal camp. Ground geophysics, prospecting and geochemistry have been carried out on the property during the current year. A further exploration programme is outlined.

#### II. PROPERTY, LOCATION AND ACCESS

The property comprises a group of twenty-four, 40 acre unpatented claims which are contiguous. The claims are as follows:

L-339533 - 39 inclusive (7 claims) L-339542 - 47 inclusive (6 claims) L-339550 - 54 inclusive (5 claims) L-339557 - 62 inclusive (6 claims)

Total 24 claims (960 acres)

The claims are located in the central portion of Dokis

Township, District of Cochrane, Larder Lake Mining

Division, Province of Ontario. The property lies 13 miles

southwest of the mining town of Duparquet, Quebec and

22 miles northwest of Noranda-Rouyn. Eight miles due east, the Keevil Group has made a recent base metal discovery.

The property is accessible by river from Duparquet Lake up the Magusi River with two short portages. Seven miles to the north, an all-weather highway runs from Matheson to Rouyn.

#### III. GENERAL GEOLOGY

The bedrock of the area is Precambrian,

Archean in age, with the exception of late Keweenawan

diabase dykes. These rocks consist of mafic, inter
mediate and felsic volcanic rocks intruded by stocks, sills

and dykes of gabbro, diorite granodiorite, felspar por
phyry and diabase.

The mafic volcanic rocks occur in the central and south parts of the township. They are pillowed flows with some flow breccia.

Intermediate volcanic rocks constitute the most abundant rock type in Dokis Township. They consist of flows described as massive, pillowed and flow-breccia, varying in thickness from 10 feet to 200 feet. Within these flows, poorly bedded pyrodastic rocks occur.

22 miles northwest of Noranda-Rouyn. Eight miles due east, the Keevil Group has made a recent base metal discovery.

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The felsic volcanic rocks are massive rhyolite in the form of sub volcanic sills and dykes.

Gabbro and quartz intruded the volcanic rocks.

Felsic intrusive bodies occur in the central and south-west

parts of Dokis Township, They consist of quartz diorite

and granodiorite.

In the southern haif of the township, one anticline extends west from the Quebec boundary and curves south.

#### IV. ECONOMIC GEOLOGY

Dokis Township is a good area for primary exploration, being part of the Noranda volcanic dome.

In the past it has received little attention in base metal exploration because of difficult access. Some gold exploration was evidenced in the 1930's.

#### V. GEOLOGY OF THE MAGUSI RIVER CLAIM GROUP

A circular granodiorite stock about one-half mile in diameter intrudes the volcanic rocks in the central part of the claim group. A large outcrop of rhyolite flow breccia occurs on the west of the granodiorite.

Pillowed mafic volcanics are mapped on the south, southwest and northeast portions of the property. Along southside of the Magusi River, there are prominent outcrops of

quartz diorite and gabbro. Pyrite and pyrrhotite mineralization occurs in the ryholite and other volcanic rocks around the granodiorite plug in the west central part of the claim group.

#### VI. HISTORY

Early prospecting between 1920 and 1950 consisted of pits and trenches sunk on quartz veins and pyrite-rich gossans presumably in search of gold and base metals. Little is known about this early work.

In 1960 Southwest Potash Corporation mapped the central portion of Dokis Township. Since then no other mineral exploration has been reported.

#### VII. RECENT WORK

exploration programme in March 1972, carrying out linecutting and an electromagnetic (EM-16) survey. No strongly
conductive zones were located. A magnetometer survey
was carried out on the western portion of the property in
June together with limited prospecting. Widely distributed
sulphide mineralization was found to occur in the west-central
portion of the property. Varying portions of these sulphides
were chalcopyrite. The writer visited the property to
examine these copper occurrences in July 1972.

In July and August a small detail grid was cut over the area of the sulphide mineralization. The grid was

prospected and surveyed with magnetometer. It was not possible to survey this grid with EM-16 either at this time or in October when a soil geochemical survey was carried out. Both VLF transmitters at Annapolis and Panama were off. Several chalcopyrite showings were located by prospecting magnetic highs.

In October 1972, a horizonal loop electromagnetic survey and soil geochemical survey for copper were carried out. The electromagnetic survey was inconclusive. Seven soil geochemical copper anomalies were detected.

#### VIII. CONCLUSIONS AND RECOMMENDATIONS

The presence of the chalcopyrite mineralization is encouraging as is the soil copper anomalies. Further work should be undertaken. A selected grab sample from one of the old pits gave an assay of 3.44% copper.

It is recommended that seven diamond drill holes be used to test the seven most promising copper soil anomalies. In some instances as drilling progresses more specific data may be required to locate drill holes in places where neither magnetic anomalies nor chalcopyrite mineralization occurs.

A budget for this work would be:

(1) Diamond drilling of the seven areas contingent on the outcome of the Induced Polarization 2500 feet at \$11/ft. \$27,500.00 There is difficult access. (2) Provision for winter water line \$1/foot. 2,500.00

(3) Supervision and Engineering

2,500.00

Travel, assays and other (4)

1,000.00

Total

\$33,500.00

Contingent on results, additional funds maybe required.

Respectfully submitted,

Tom Selliel Tom Gledhill, B.A., P. Eng.

November 14, 1972,

#### CERTIFICATE

I, Tom Gledhill, of the Borough of North York in the Province of Ontario hereby certify:

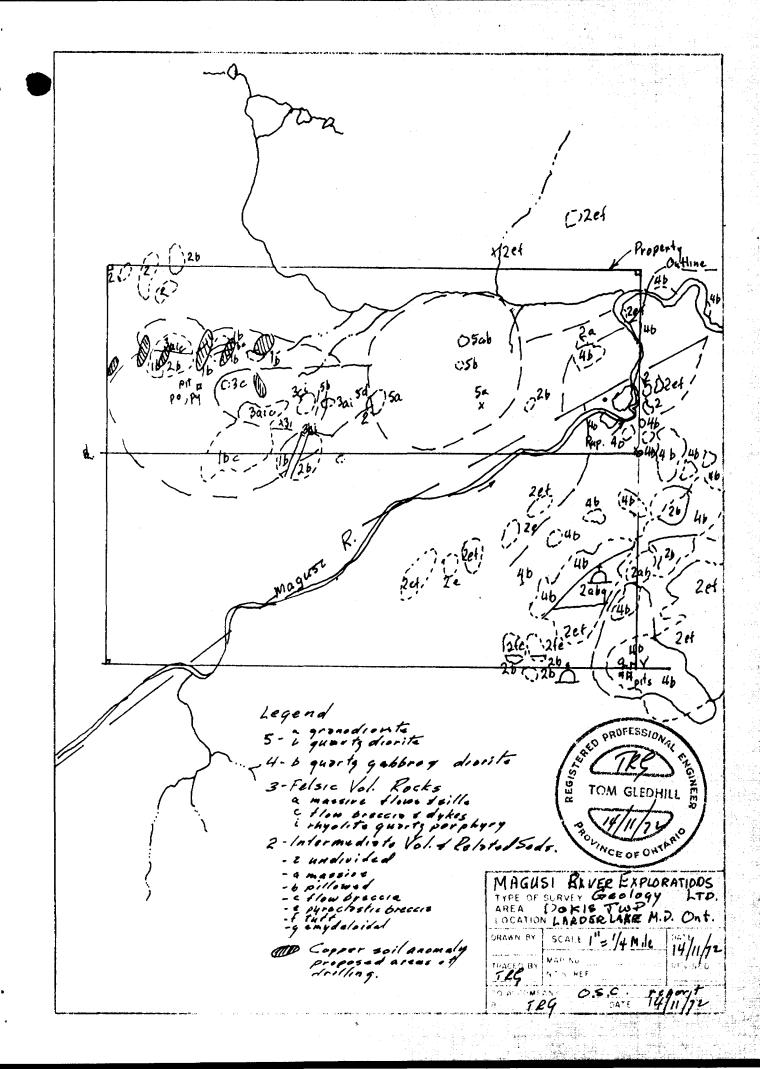
- 1. That I am a practicing Professional Engineer with offices at 21 Sandalwood Place, Don Mills, Ontario.
- 2. That I am a graduate of the University of Toronto and hold a degree in Physics and Geology and I am a member of the Association of Professional Engineers of the Province of Ontario. I have been practicing my profession for over fifteen years.
- 3. That I do not have either directly or indirectly, nor do I expect to receive either directly or indirectly, any interest in the properties or securities of Magusi River Explorations Limited.
- 4. That the accompanying report was prepared on the basis of a study of the following reports and maps:
  - (a) Ontario Department of Mines and Northern Affairs:
    Map (707, 1971
  - (b) Company reports and maps
  - (c) Personal visit to the property in July 1972.
- 5. That this certificate applies to properties in Dokis Township, Larder Lake Mining Division, Ontario.

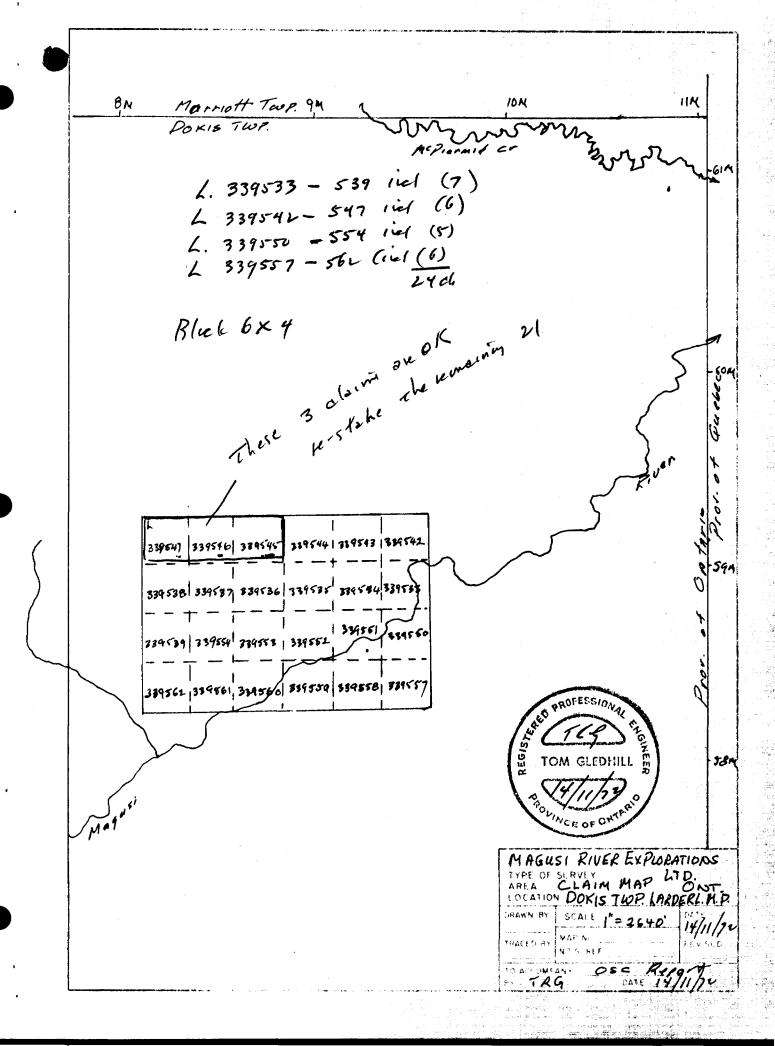
Dated at Don Mills Ontario this 14th day of November 1972.

November 14, 1972. 40 PROFESSION REL

Tom Gledhill, B.A., P. Eng.

Tom Salinel







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MAGUSI RIVER EXPLORATIONS LTD.

NEW GOLDVUE MINES LTD.

EXTRA DEVELOPMENTS INC.

DIAMOND DRILLING PROGRAMME

DOKIS TOWNSHIP

LARDER LAKE MINING DIV., ONTARIO

October 15, 1973.

Magusi River Explorations Limited

New Goldvue Mines Limited

Xtra Developments Incorporated

Diamond Drilling Programme

Dokis Township

Larder Lake Mining Division, Ontario

#### SUMMARY

attractive area of the property to test the significance of the chalcopyrite showings, the geochemical anomalies, the conductors and the eastward extension of the copper mineralization to the west located by Abitibi Copper.

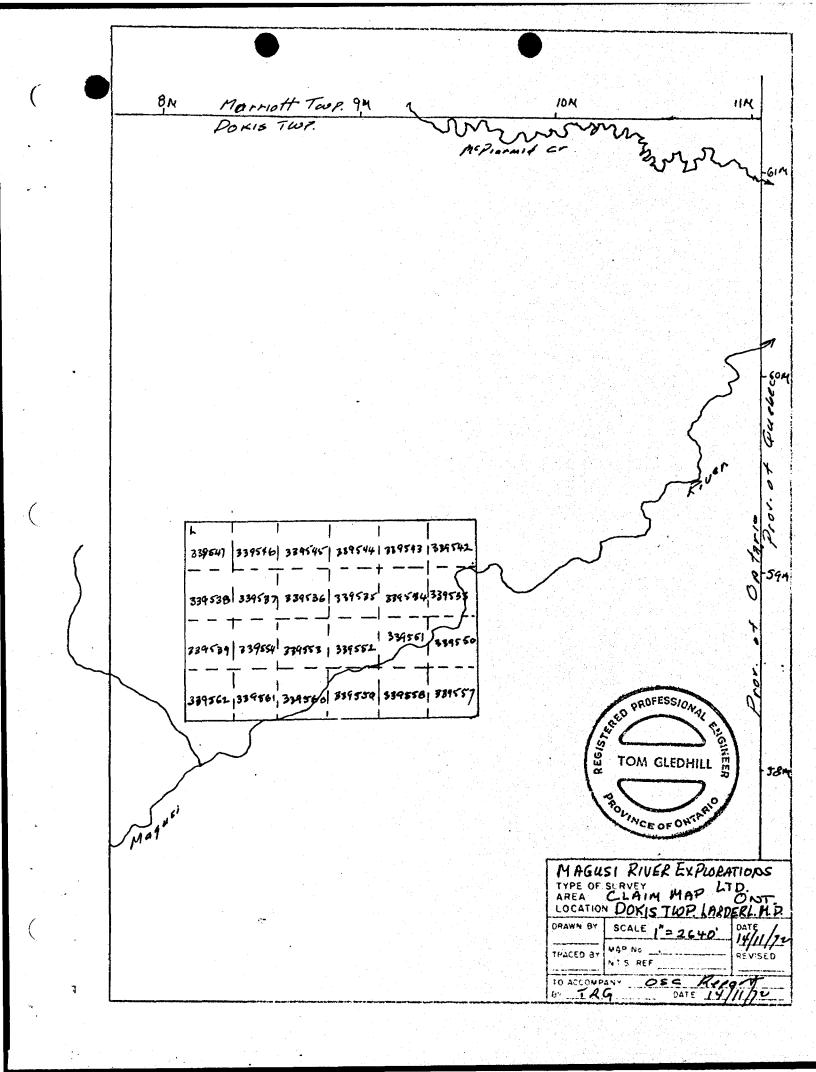
Hole 1 tested a weak electromagnetic conductor striking through the area of copper mineralization located by Abitibi Copper. Hole 2 drilled a section under the original copper showing, sampled a section of acid volcanics and one of the geochemical anomalies. Hole 3 tested the ground between Holes 1 and 2 and lies on strike 600 feet east of the Abitibi Copper drilling.

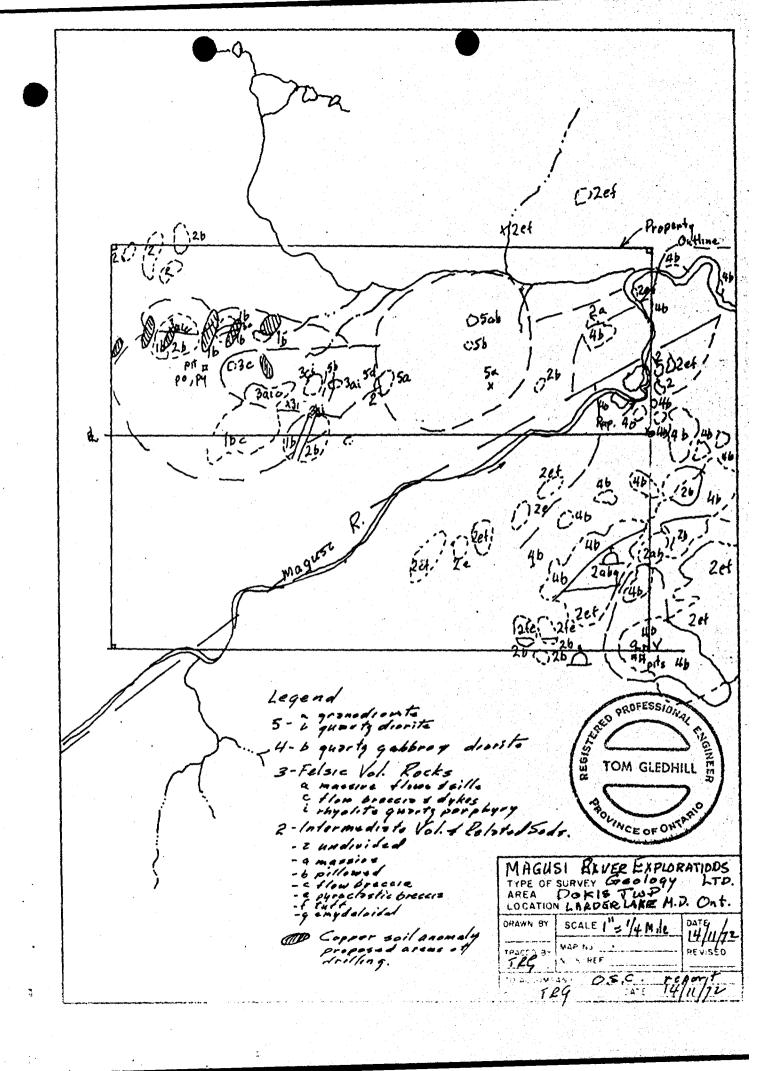
All holes intersected mainly acid volcanics flows and pyroclastics. These were mineralized with minor pyrite, pyrrhotite and chalcopyrite. Short samples of the better sections revealed copper assays from 0.02 to 0.08% copper.

It is concluded that the original programme of testing the geochemical anomalies should be curtailed. The targets are not specific enough. The presence of copper values widely distributed over the acid volcanics suggests that a programme of induced polarization over a wide spread area is the best way to locate more specific targets. This would require a large land assemblage and extensive surveys in the winter when access is best.

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### Certificate of Analysis?

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INVOICE NOV 10314

SAMPLE(S) OF 4 Split Core submitted to us show results as follows

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X RAY ABSAY DABORATORIES LIMITED

CERTIFIED BY

DATE Oct. 12/73

