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REPORT

GEOLOGICAL SURVEY

on

6 MINING CLAIMS

of

QUEENSLAND EXPLORATIONS LIMITED

HUTTON TOWESHIP, SUDBURY MINING DIVISION

ONTARIO

by

HOPKINS MINING CONSULTANTS LIMITED

Toronto, Canada, 30 July, 1959.

# REPORT ON A GEOLOGICAL SURVEY ON 6 CLAIMS

# QUEENSLAND EXPLORATIONS LINITED

# MILNET, HUTTON TOWNSHIP, SUDBURY MINING DIVISION, ONTARIO

### INTRODUCTION

The present program was authorized to perform a year's assessment work, as no further extensions were likely to be allowed. The property was originally acquired due to a reported occurrence of copper and gold on a claim which this property surrounds.

### PROPERTY:

This consists of 6 unpatented mining claims numbered S-100012 to S-100017 inclusive. No. S-100012 is detached by one claim from the other five claims. The claims form a figure that is shaped like a period followed by a seven: .7

The claims are small, having an area of approximately 200 acres. An additional year's work is due 31 December, 1959.

#### LOCATION:

The property lies at Milnet in the southeast quarter of and on the east boundary of Hutton Township,
Sudbury Mining Division, Ontario. This is 3½ miles ESE of
Lowphos Iron Mine and about 4 miles WNW of Jonsmith Nickel
Mine.

### ACCESS:

The property is most accessible, being at the hamlet of Milnet on the CNR transcontinental railway and highway 69, ten miles north of Capreol. There is a telephone there, Milnet No. 800 Ring Two Two, which is very convenient. The southwest claim of the property is traversed by Fraser Lake, a part of the Vermilion river, so this narrow lake must be crossed from Milnet to reach the property.

# GENERAL GEOLOGY:

The property lies astride the same granitegreenstone contact as do Louphos Iron Mine and Jonsmith Mickel Mine. The Keewstin series includes andesite, rhyolite, and banded magnetic iron formation.

The Algoman intrusives include massive pink granite and granite gneiss out by pegmatite dykes, also diorite and felsite.

The Timiskaming sediments include quartsite, greywacke, argillite, and conglomerate.

The Vermilion river valley which traverses the west part of the property is covered by Pleistocene unconsolidated sediments.

Since the time the present-day Vermilion river watershed was fully established, there has been little modification of the Pleistocene deposits. Only a very few feet of Pleistocene gravels appear to have been removed along the rapids, and peaty muds have been deposited on the lake bottoms.

The Pleistocene deposits of the Capreol-Milnet area include those deposited by the agencies of ice, water, and wind, and combinations of these agencies. They may be classified us follows:

Glacio-eolian: Glacio-lacustrine:

Dune sands and silts, losss. Lake bottom silts and clays, shoreline sands and gravels, deltaic

deposits.

Glacio-Fluvial:

The great bulk of the boulders, gravels, sands, and silts deposited as (a) eskers and orevasse fillings, (b) Kame terraces, (c) outwash,

Glacial:

(b) Kame terraces, (c) outwash. Bouldery, gravelly, and sandy till deposited as (a) end moraine, (b) lateral moraine, (c) ground moraine.

# LOCAL GEOLOGY:

There are very few outcrops on your property proper, with the exception of Claim No. S-100013 at the southeast corner of the property. The property was methodically traversed by the writer and assistants, using the picket lines at 200-foot intervals as a control.

As mentioned above, the property straddles a northwesterly Algoman granite-Keevatin greenstone contact. There are large embayments of granite in the greenstone, inclusions of greenstone in the granite, and some granitized

greenstone near the contact. Granite pegmatites also invade the greenstone in the contact areas.

The southern two-thirds of Claim No. S-100013 is underlain by granite (with the abovementioned inclusions).

### ECONOMIC GEOLOGY:

This may be divided into four parts, namely coppergold mineralization, nickeliferous pyrrhotite, magnetic iron ore, and auriferous gravels. As mentioned above, the property was acquired due to a reported copper-gold occurrence on Claim No. S-86439, which is partially surrounded by your property. We obtained permission from the owners of S-86439, Messrs. Hugh Craig and Joe Castonguay, to examine their showings and to cut picket lines across their property, which we did. In the course of our mapping we discovered three outcrops of banded magnetic iron at 800' N and 700-800'W on Claim No. S-86439. We then performed a dip-needle survey which is described in a separate report. This opened up interesting speculation on the possibilities of iron ore or nickeliferous pyrrhotite of the Jonswith type.

Finally, a group of companies headed by Concor-Chibougamau Mines Limited is testing the gravels of the Vermilion river valley by churn drills for gold-bearing channels and bars to ascertain if there are sufficiently continuous pay streaks to warrant dredging. Their main post-glacial buried auriferous channel appears to cross your Claim No. S-100012, and possibly Claim No. S-100017.

We did dig 36 test pits with pick and shovel and took gravel samples from the bottom of each pit. These samples were weighed in Toronto and panned down to a concentrate in the Humber River. The concentrate was weighed and assayed by the Ontario Department of Mines. Thus, we have been able to work out a gold content in cents per yard of gravel. However, these samples could not be expected to yield pay dirt as the auriferous bars and channels are 50 or 60 feet below surface and just above the bed rock. The main point of our sampling was to show that the gravel did contain gold so that "Mother Nature's Sluice Box" - in other words, post-glacial river channels could concentrate these lean gold-bearing gravels into beds that would pay to dredge on a large scale.

### REFERENCES:

1. Report on Moose Mtn. - Wanapitei Area by L. F. Kindle, Ontario Dept. of Mines Annual Report 1932, Part IV.

- 3. Ontario Dept. Mines P.R. No. 1949-2, "Pleistocene Geology of the Vermilion River System, Sudbury, with special reference to placer gold" by V. X. Prest.
- 4. Nat. Topo. Map No. 41-1/NE, Capreol Sheet.
- 5. Ontario Forestry aerial photo, No. 46-140-40-67.

# CONCLUSIONS:

- l. Four types of economic mineral deposits occur on or near the 6-claim property of Queensland Explorations Ltd. at Milnet, Sudbury Mining Division, Ontario, namely:-
  - (a) Copper-gold mineralization in siliceous shear zones
  - (b) Nickeliferous pyrrhotite (e.g. Jonsmith mine)
  - (a) Magnetic iron (e.g. Louphos mine)
  - (d) Placer gold (Concor-Chikougamau Mines Ltd.)
- 2. This geological survey has located the granite-greenstone contact and shows a paucity of outcrops, except on the SE claim No. S-100013.
- 3. Our systematic prospecting has turned up nothing of interest except magnetic iron outcrops on Craig-Castonguay Claim No. S-86439. This iron compares favourably with that of Lowphos Iron Mine.
- 4. Our examination and sampling of the copper-gold showings on the north boundary of Craig-Castonguay Claim No. S-86439 showed them to be of no economic importance, in our opinion.
- 5. The dip-needle survey we performed over the part of your property covered by sand plains shows a strong magnetic anomaly on Claim No. 3-100012 and on the adjoining Craig-Castonguay Claim No. 3-86439. Our geophysicist, Ralph Hutchison, in his report of this week, believes the anomaly is caused by a body of magnetite or pyrrhotite occurring as a replacement body on the granite-greenstone contact.
- 6. Our sampling of the gravels was only to determine if they were auriferous, which they are to the extent of trace to a few cents per yard. However any pay streaks would be down below, just above bed-rock in the buried post-glacial channels,

and these could only be sampled by churn drill. Indications are that Concor Chikougamau and associates have indicated by drilling a gold-bearing channel approaching your claims 8-100012 and 8-100017 (see our sketch map).

# RECOMMENDATIONS:

It is recommended by the writer that:-

- An agreement be negotiated between Queensland Explorations Ltd. and Messrs. Hugh Craig and Joe Castonguay to cover an amalgamation of the two properties. Thus the iron and/or pyrrhotite body and the gold placer gravels which cross your common boundary could be explored and/or disposed of as units. No time should be lost in pursuing this matter, as assessment work is due on your claims in December, 1959.
- 2. Assuming that para. I were consumated, the gold placer mining rights be offered to Concor Chikougamau on a royalty basis, and the magnetic iron mining rights be offered to Lowphos Ore Ltd.
- 3. If Lowphos Ore Ltd. were not interested in exploring the indicated iron deposit, a magnetometer survey should be performed over the vicinity of the magnetic anomaly before snowfall, so that an intelligent program of diamond drilling may be planned. This drilling would also be necessary to perform the required assessment work due in December, 1959.

All of which is respectfully submitted,

Albert Hopkins ... Albert Hopkins ...

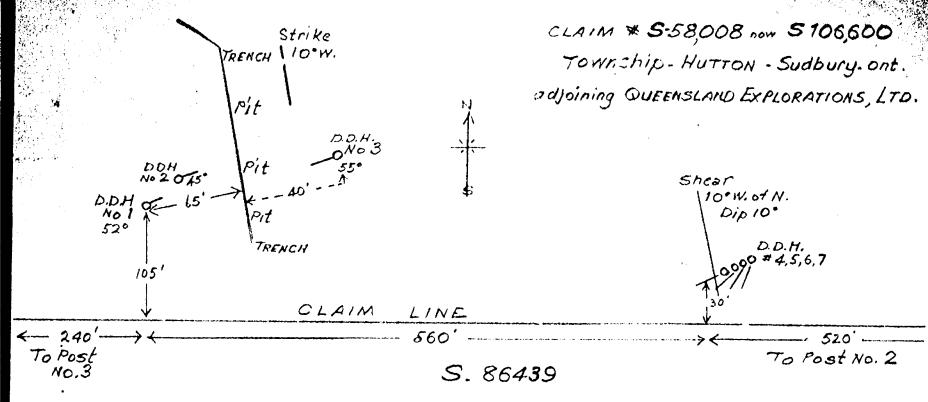
HOPKINS MINING CONSULTANTS LIMITED

Toronto, Canada, 30 July, 1959.

# QUERNSLAND ASSAY RESULTS TO DATE

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# Joe Castonguay's Pits & Trenches

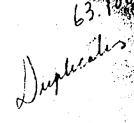
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3 cases dynamite used.



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# REPORT ON A MAGNETIC SURVEY

### POR

### QUEENSLAND EXPLORATIONS LIMITED

# IN HUTTON TOWNSHIP, MEAR SUDBURY, ONTARIO

### INTRODUCTION:

The following report is based on the results of a magnetic dip-needle survey carried out by Hopkins Mining Consultants Limited for Queensland Explorations Limited, on part of a group of mining claims in Hutton Township, District of Sudbury, Ontario.

Dip-needle readings were made in conjunction with a geological survey of six claims - numbered S-100012 to S-100017. The dip-needle readings were confined to Claims 100012 and 100017. They were taken with a Sharpe D-2 instrument. Readings were at 100-foot intervals along survey lines spaced 200 feet apart and directed east-west (magnetic). The magnetic survey totalled 2.7 line miles.

### SUMMARY OF RESULTS:

The principal magnetic feature is a strong anomaly occurring in the northeasterly part of Claim 100012. The anomaly has a north-easterly strike and apparently extends into an adjoining claim - S-86439. Although one line of readings was carried across this neighbouring claim, the anomaly remains incompletely mapped.

Dip-needle readings are not directly convertible into gammas, but an approximate figure for this case is 250 gammas per degree. The strength of the anomaly is therefore about 10,000 gammas, and possibly more. Also, the anomaly is a negative one, being consistently below the

# SUMMARY OF RESULTS (cont'd):

regional magnetic level. This point is interesting, because disseminated magnetite seldom produces negative anomalies although it may produce quite strong anomalies. The present case suggests an occurrence of massive magnetite, or possibly pyrrhotite.

Apart from the above anomaly, the magnetic survey shows nothing else of interest.

### RELATION TO MINERALIZATION:

About 600 feet east of the magnetic anomaly an occurrence of banded magnetite has been mapped; and at a slightly greater distance to the northeast there are two trenches with copper showings. No outcrop was found closer to the anomaly.

About four miles northwesterly is the property of Lowphos Ore Limited, an iron producer; and about the same distance southessterly is the Johsmith Mines' property, a former nickel-copper producer. Both of these mineral occurrences are at or near a granite-greenstone contact, which apparently passes through the Queensland property somewhere in the vicinity of the magnetic anomaly.

In view of the above, the magnetic anomaly might be considered as an iron prospect or a copper-nickel prospect. There is not sufficient evidence to place it with any assurance in one class or the other. As an iron prospect, it may be small: present information gives no indication of its possible extent towards the northeast, but, as a magnetic formation, it cannot extend much more than 200 feet into Claim S-100012.

### RECOMMENDATIONS:

Further work would depend in part on obtaining control of Claims S-86439 and S-106600, and in outlining the rest of the anomaly. Lateral extent and depth extent would be of prime importance for an iron prospect, and certainly of some importance for a base-metal prospect. These factors are at present undeterminable, but could be derived if the magnetic anomaly were fully mapped. If the magnetic formation has a major depth extent, its boundaries must lie within the contour of 75° in the present survey. With the anomaly fully mapped, it would be possible to draw useful analytical conclusions without having to make unwarranted assumptions beforehand.

Subject to the question of property control,

# RECOMMENDATIONS (cont'd):

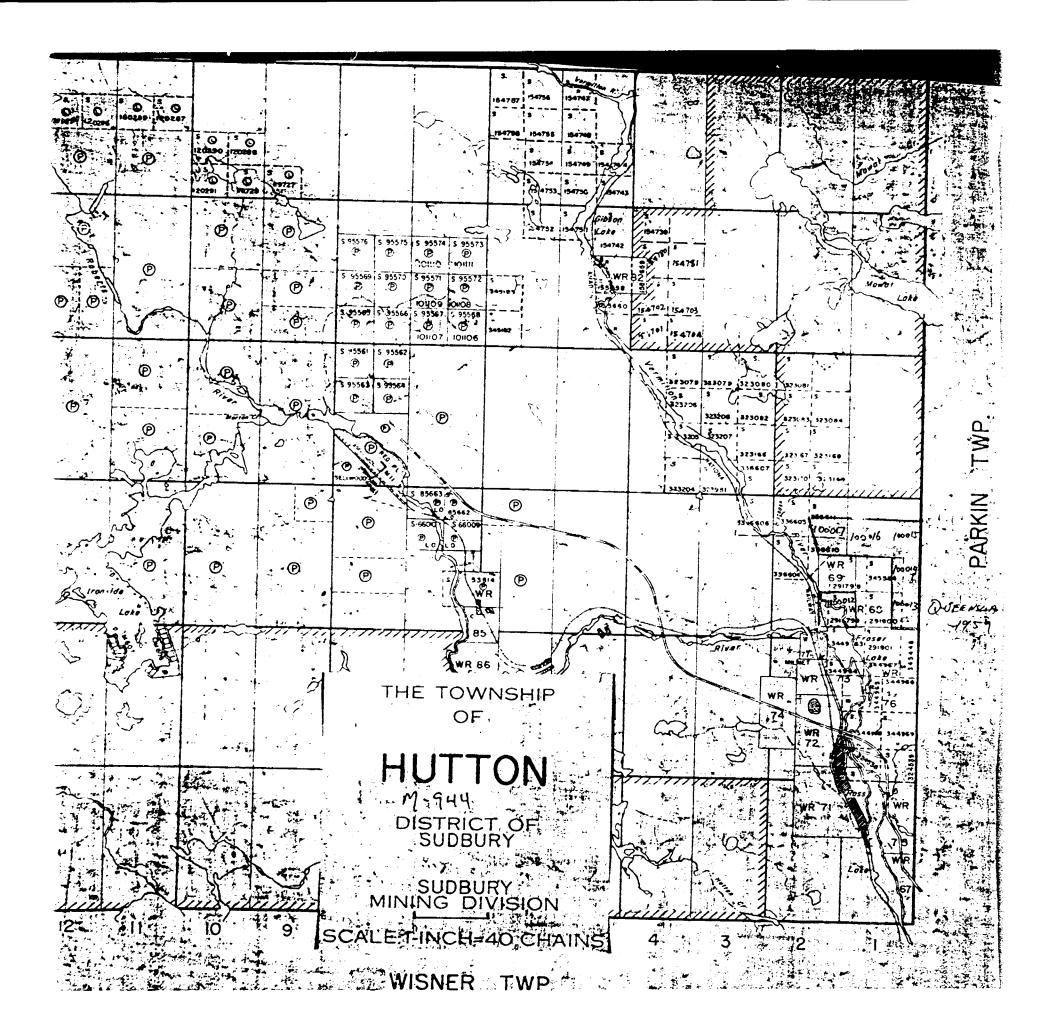
the magnetic survey should be completed as the first step and preferably with a magnetometer, rather than a dipeneddetala Self Potential survey would also help interpret the cause of the anomaly. This should give pafficient control for investigation by drilling or trepshing.

Respectfully submitted,

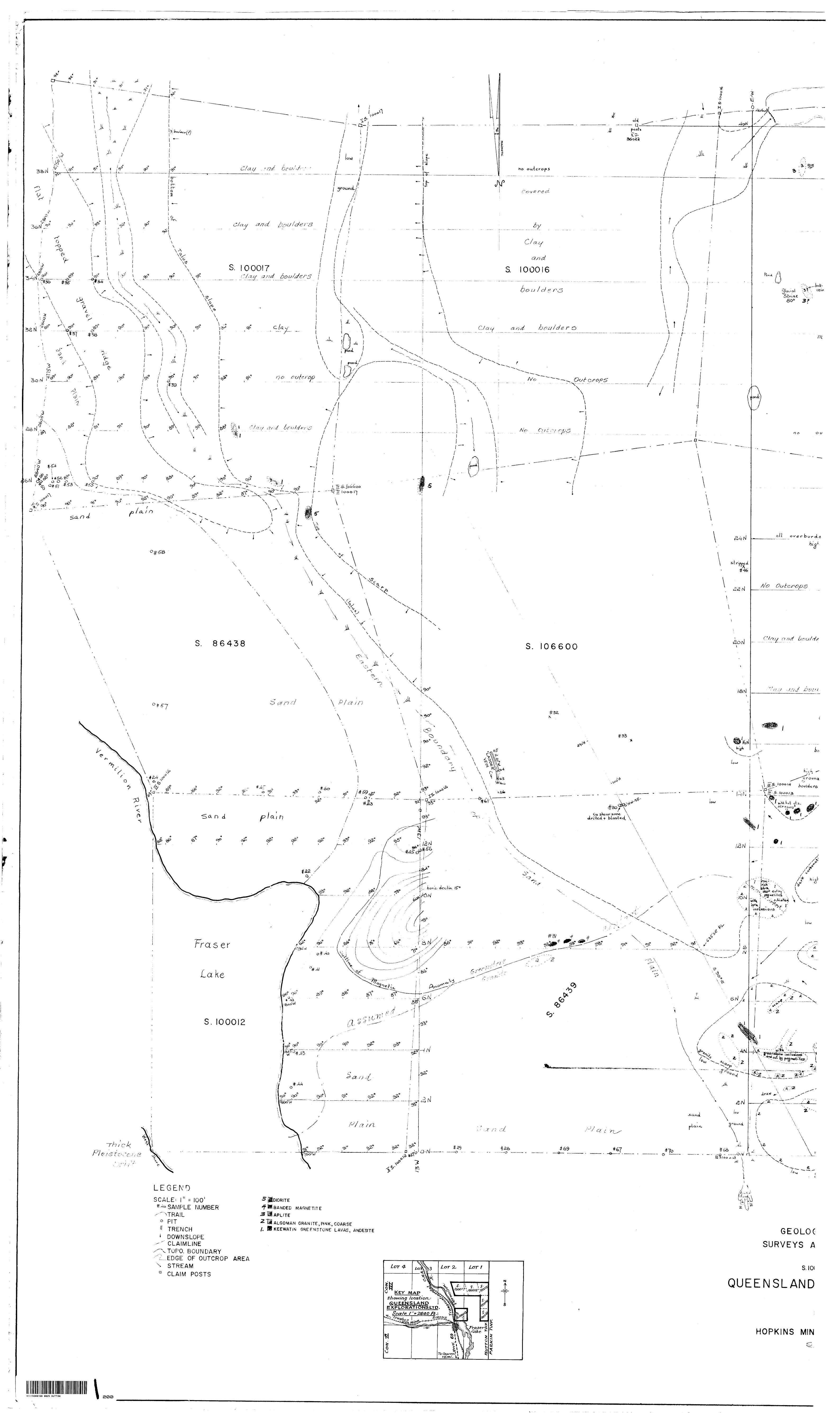
HOPKINS MINING CONSULTANTS LIMITED

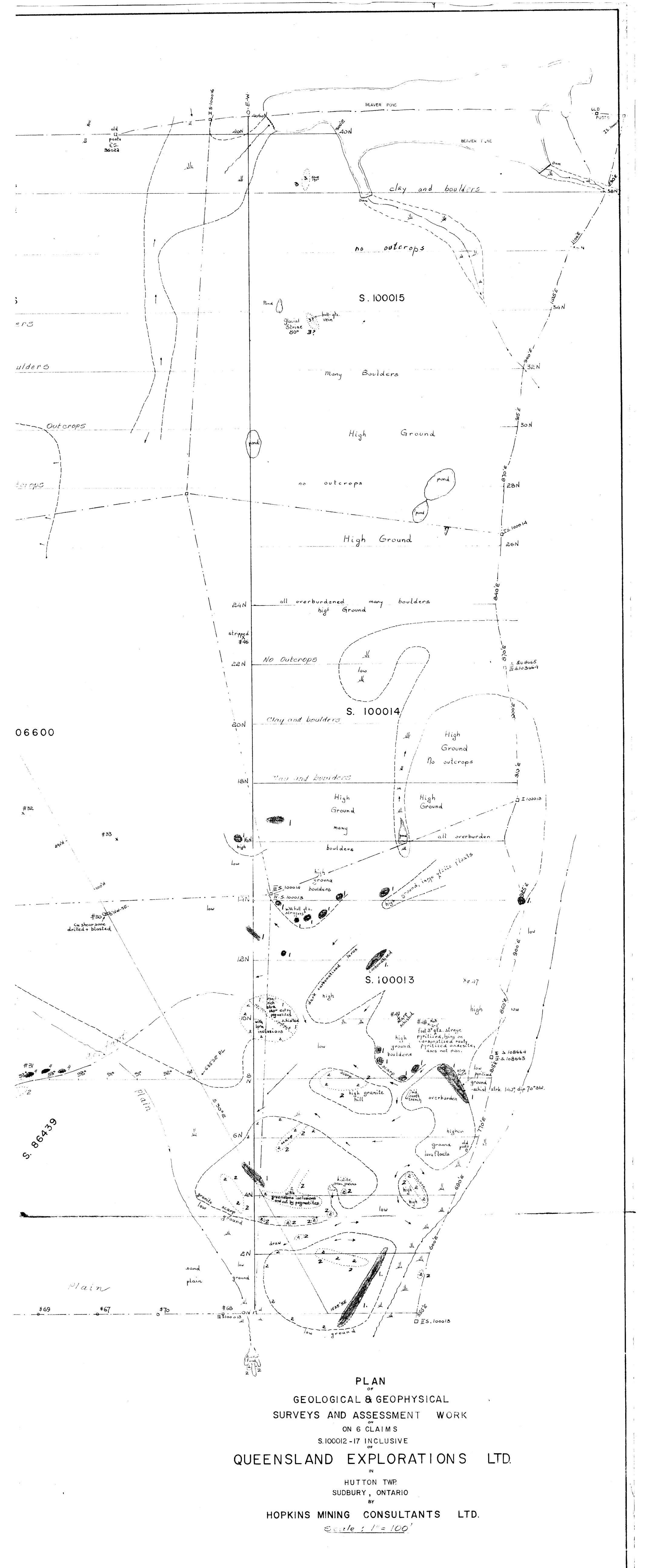
Ralph Hutchison, per a Hopking.
Ralph D. Hutchison, P. Eng.,
Consulting Geophysicist.

Toronto, Canada, 30 July, 1959.









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Albert Hopkins B.A.Sc.