

GEOLOGICAL REPORT.

ON

HC - "F" Fr. Mineral Claims in the Mamit
Lake Area, 50 19', 120 50'.

B. R. SHARAN P. ENG.

and

RON J. SAVELIEFF, GEOL.

BETHLEHEM COPPER CORPORATION LTD..
ASHCROFT B. C.

JUNE 4, 5, 1968.

400 -

Text MDJ
read

922/700

50° 18' - 18'

120° 49' - 50'

15579

1557

June 14, 1968

The Gold Commissioner,
Province of British Columbia,
Victoria, B. C.

Dear Sir:

This is to certify that I am a Professional Engineer registered with the Association of Professional Engineers of British Columbia.

The geological work in the attached report for the purpose of applying towards a required assessment work has been done under my personal supervision.

Yours very truly,

BETHLEHEM COPPER CORPORATION LTD.



B. R. Sharan, P. E. N. C.
Mining Engineer

BRS:gf

BETHLEHEM COPPER CORPORATION LTD.

GEOLOGICAL REPORT

MAMIT LAKE AREA, NICOLA M.D.

BRITISH COLUMBIA

TABLE OF CONTENTS

GENERAL GEOLOGY Page 1
WORK ASSESSMENT Page 2
CONCLUSION AND RECOMMENDATION Page 3
COST STATEMENT Page 3

GEOLOGICAL MAPS

- #2 1) Mamit Lake Area, HC - 36 and HC - "F" Fr. showing recent work plus drill and trench sites of North-western Explorations Ltd., 1957.
- #1 11) Regional location map showing Crown Grants and Mining Claims held by Bethlehem Copper.

GENERAL GEOLOGY

The HC - "F" Fr. extends from Guichon Creek to the Merritt - Savona road. This fraction forms a right angle triangle with the hypotenuse perpendicular to the 25° slope from Guichon Creek. Drift cover is total for HC - "F" Fr. The adjoining claims show very little outcrop. The closest exposure of country rock is a small outcrop of malachite stained Older Quartz Diorite lying approximately 100 feet west of HC - "F" Fr. In the area outcrops occur principally along Guichon, Broome, and I.X.L. Creeks. Within one-half mile downstream along Guichon Creek, there are outcrops of the Coldwater series (arkose and shale) and Older Quartz Diorite. Northwestern Explorations Ltd. in 1957 drilled 3 holes on HC - 36 which is adjacent to HC - "F" Fr. on the south. Generally the rock type was diorite and Younger Quartz Diorite (mainly leuco granodiorite).

Common for the area is greenstone remnants carrying chalcocite, specular hematite with Ag, and in the case of the Manchester Crown Grant, Au. Mineralized fracture zones in greenstone on the Aberdeen and Plymouth Queen crown Grants are the best examples. One such occurrence was worked on the HC - 36 Mining Claim during the early part of the century. No record of this location was found and the workings are now inaccessible. The hematite rich rock is similar to the type found at the Aberdeen shaft or the adit on the Plymouth Queen Crown Grant. The host rock is an altered volcanic breccia containing strong hematite, minor chalcopyrite and malachite staining. Attitudes on this mineralized structure could not be determined but a strike of 300° is common for the other mineralized altered volcanic occurrences. Both HC - "F" Fr. and HC - 36 were examined for continuation of or parallel structures to the hematite rich volcanics. This geological examination was restricted because of glacial overburden probably averaging greater than 40 feet and offering no exposure.

ASSESSMENT WORK

Five days were spent on the Bethlehem Copper holdings in the Mamit Lake area. General reconnaissance was carried out for the first three days. This time was spent investigating the known showings on the Aberdeen, Plymouth Queen, and HC - "A" Fr. which may have been part of King Solomon Dream Crown Grant at one time. This included visits to Torwest and Northwestern Explorations Ltd. old trenches and drill sites.

It was concluded that 300° was a common strike of mineralized zones, especially mineralized fracture zones in greenstone remnants. From the discovery of hematite rich volcanics on HC - 36, an investigation was undertaken to the east of Guichon Creek particularly on HC - "F" Fr. and HC - 36 on the premise of finding parallel lying or continuous vein structures to those located on the Aberdeen and Plymouth Queen Crown Grants one and one-half miles to the west. A few 10 year old trenches near the HC - 36 and HC - "F" Fr. were investigated. Either they did not reach bedrock or sloughing has been extreme. Glacial overburden completely covers HC - "F" Fr. On discovering this, some time was spent tying HC - "F" Fr. in with outcrops along Guichon Creek and the structural geology such as the deflection of Guichon Creek where Camp Creek enters. This is probably due to fault control of Camp Creek. Samples containing hematite were collected from the old working on HC - 36 plus float samples from HC - "F" Fr. These were assayed at Bethlehem Copper laboratory. }

CONCLUSION AND RECOMMENDATIONS


On the east side of Guichon Creek the presence of hematite rich volcanics located in an old shaft dump opens up this area to the possibility of continuous or parallel structures to two locations one and one-half miles west. These are the Aberdeen and Plymouth Queen fracture fillings in volcanic remanents. The showing on HC - 36 is approximately 200 feet from the HC - 36 and HC - "F" Fr. boundary. Consequently work was concentrated there. Trenching will be required to re-open the old working (shaft) and to continue it along strike. Several other trenches should parallel the hill side which is close to perpendicular to the regional strike of similar showings to the west.

A drilling program, if warranted, would be the following step.

COST STATEMENT

The last two of five days spent on the Bethlehem Copper holdings in the Mamit Lake area were on the HC - 36 and HC - "F" Fr. Combined salaries for geologist and assistant for those two days amounts to \$ 116.00 and \$ 10.00 for gas expenditure. The writing of this report and drafting involved, amounted to a combined full day at cost of \$ 35.00.

Total expenditure \$ 161.00



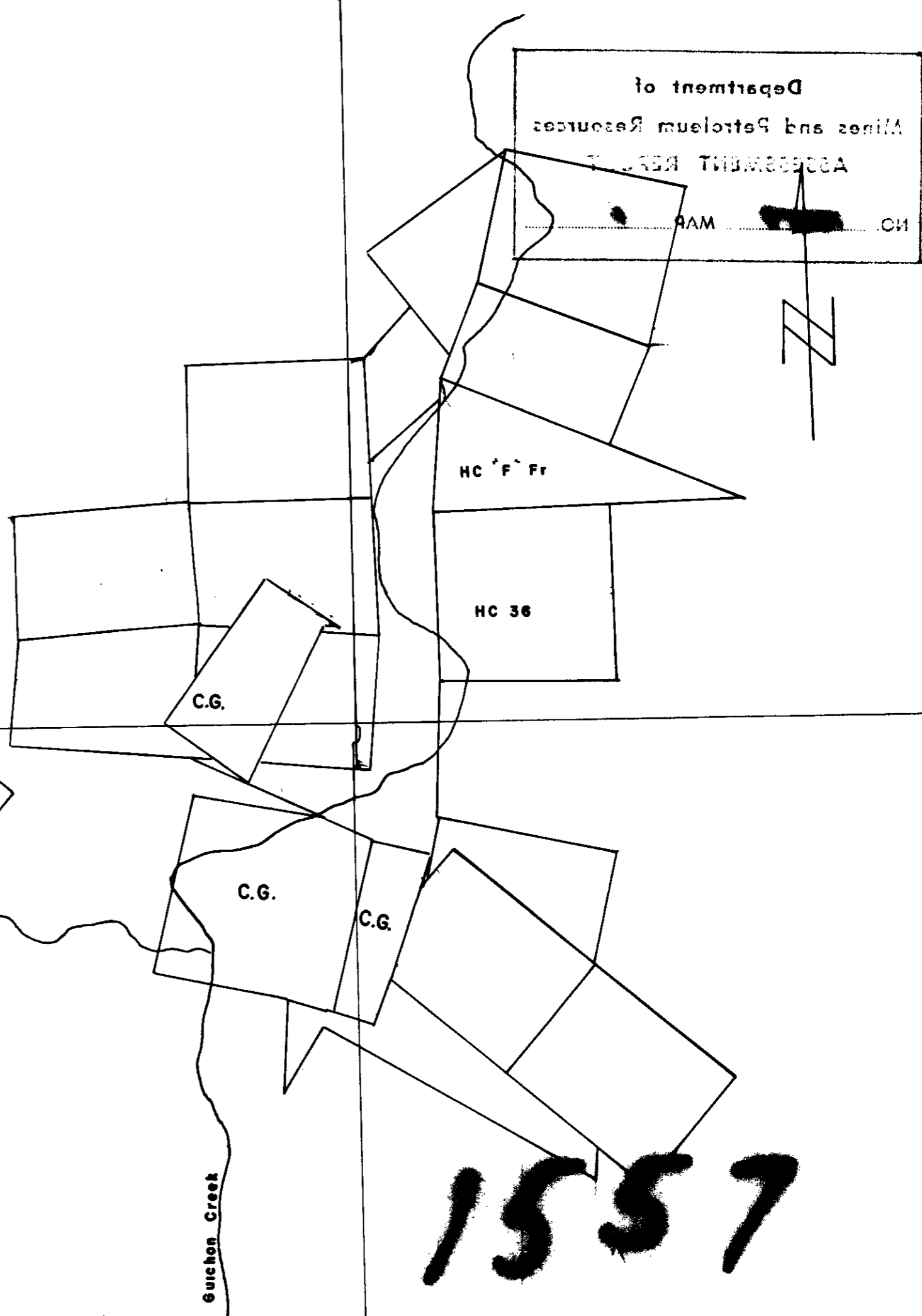
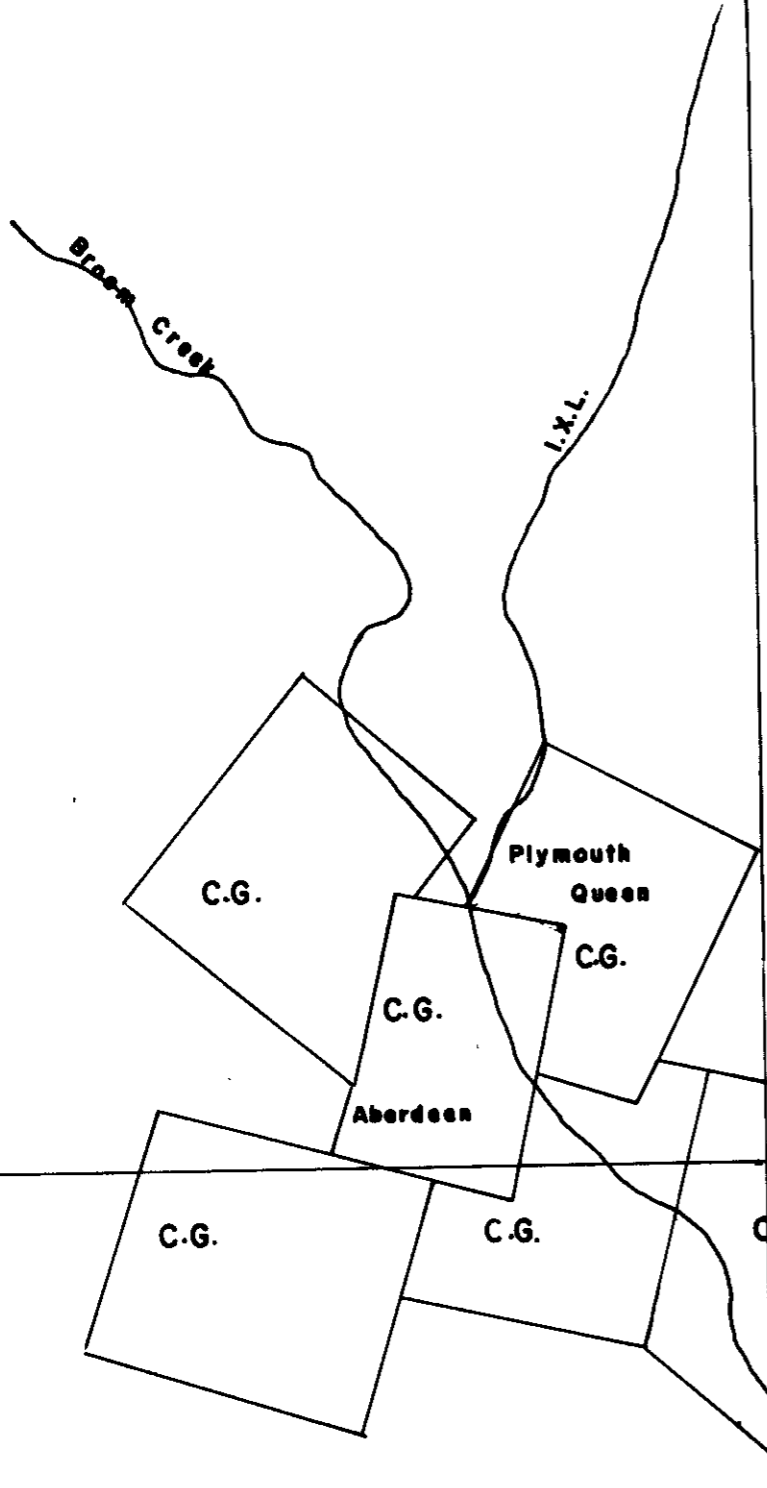
R. J. Savelieff

Bethlehem Copper Corp. Ltd.

June 14, 1968

MAP 2

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
MAM
ON

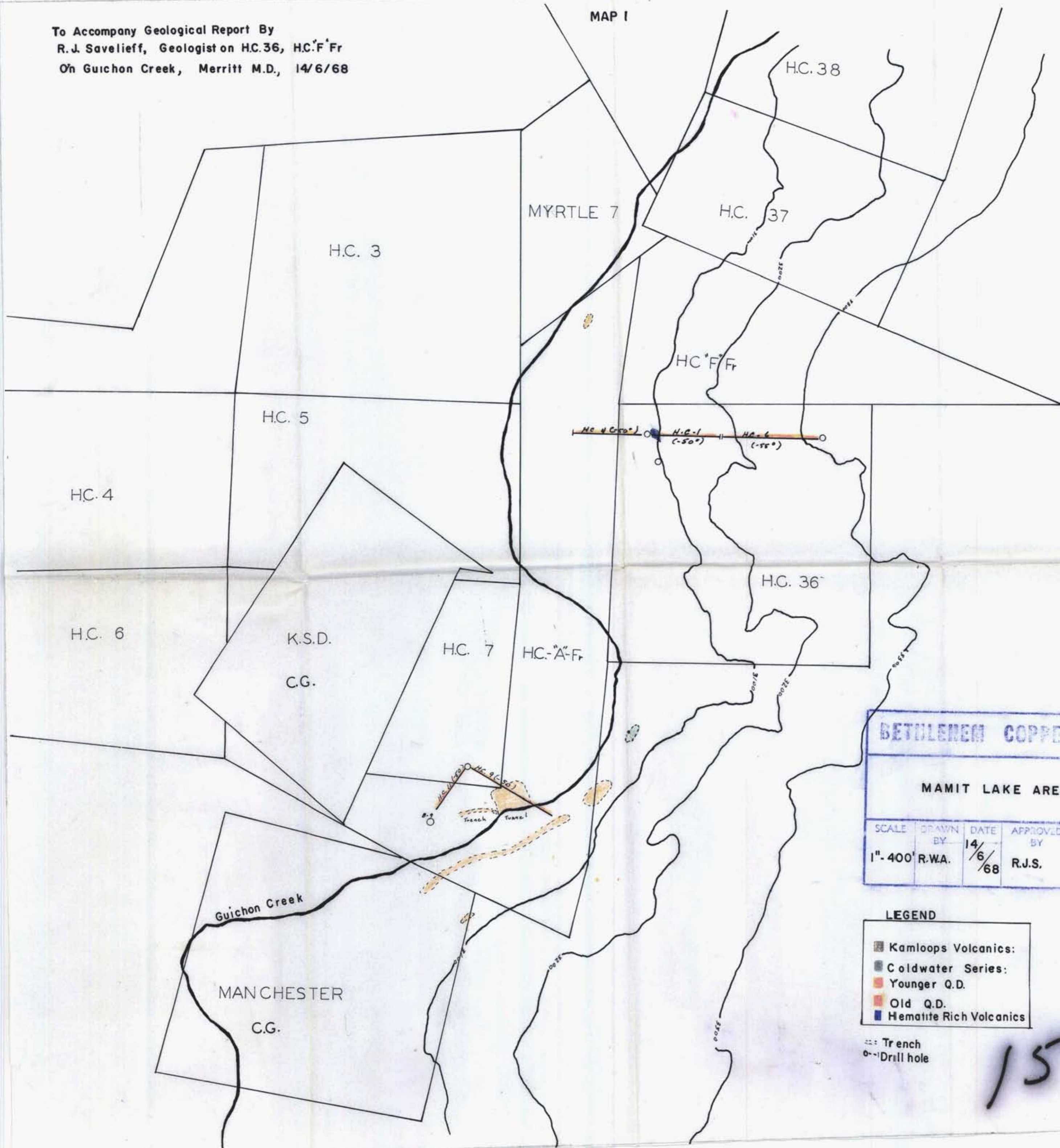
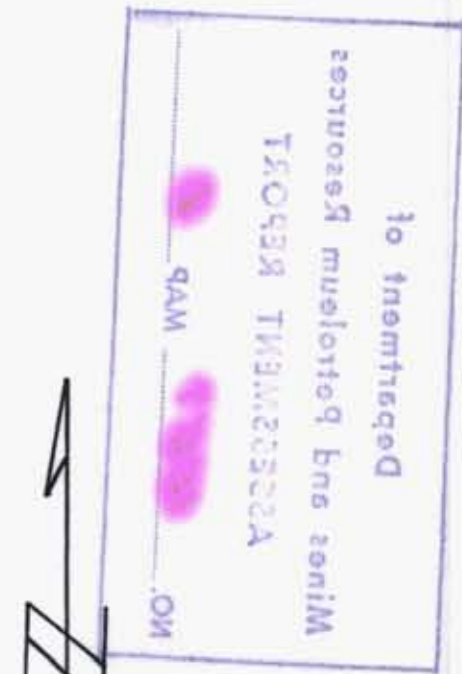


REGIONAL LOCATION MAP
Crown Grants and Mining Claims
Held by Bethlehem Copper Corp. Ltd.
SCALE: 1"=1000' DATE: 14/6/68

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To Accompany Geological Report By
 R.J. Savelieff, Geologist on H.C.36, H.C.Fr
 On Guichon Creek, Merritt M.D., 14/6/68

MAP I



BETHLEHEM COPPER CORP. LTD.

MAMIT LAKE AREA

SCALE	DRAWN BY	DATE	APPROVED BY	REVISED BY	FILE No.
1" = 400' R.W.A.		14/6/68	R.J.S.		

LEGEND

- Kamloops Volcanics:
- Coldwater Series:
- Younger Q.D.
- Old Q.D.
- Hematite Rich Volcanics

--- Trench
 ○ Drill hole

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