

2020

GEOLOGICAL REPORT
MAGGIE MINE MINERAL CLAIMS

of

BETHLEHEM COPPER CORPORATION LTD.
KAMLOOPS MINING DIVISION
BRITISH COLUMBIA

by

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 2020 MAP

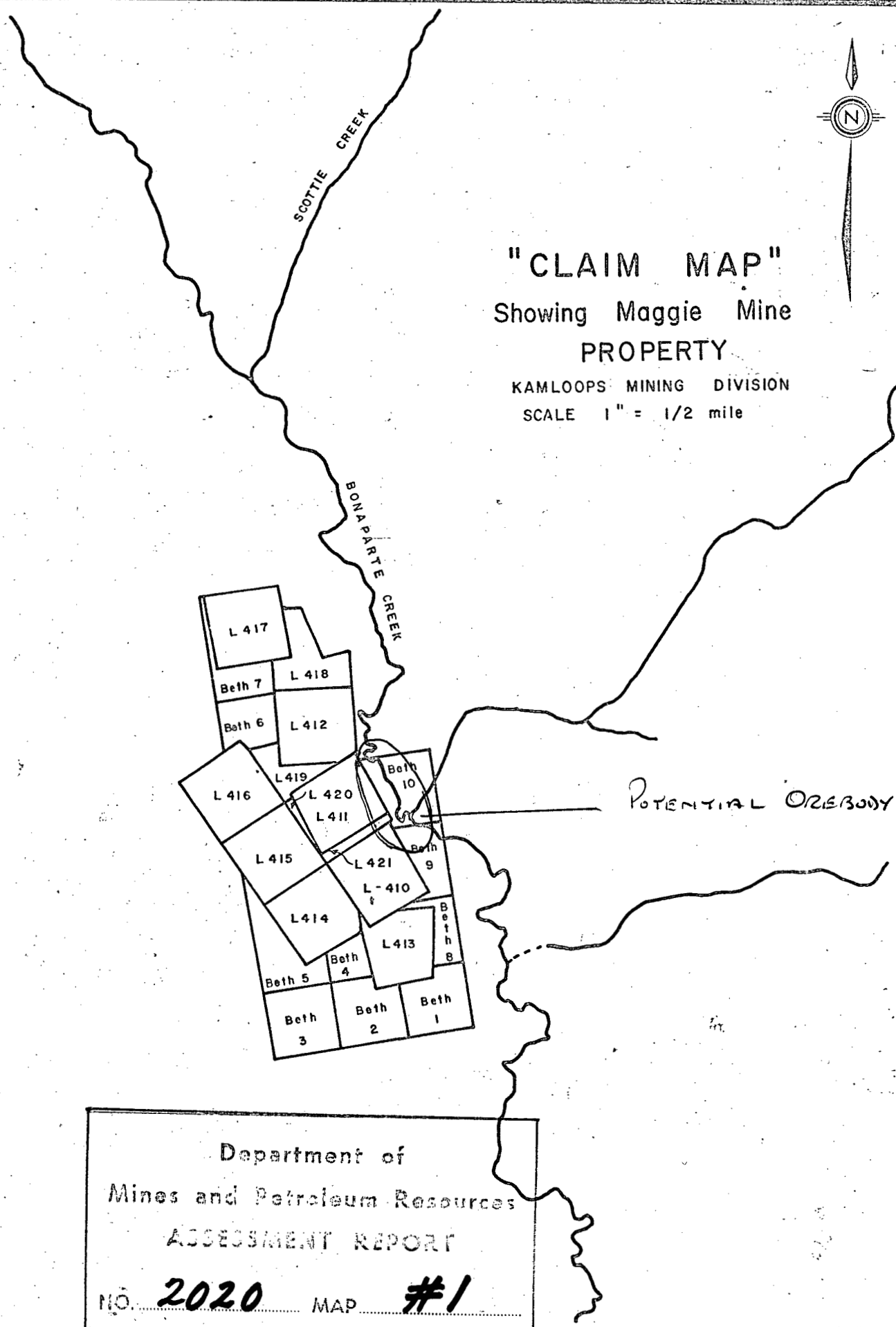
R. J. Nethery, Geologist
Bethlehem Copper Corporation Ltd.
August 22, 1969



"CLAIM MAP"

Showing Maggie Mine
PROPERTY

KAMLOOPS MINING DIVISION
SCALE 1" = 1/2 mile



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **2020** MAP **#1**

SUMMARY

Geological mapping of the Maggie Mine property, near Cache Creek, B. C., was done in June 1969 by Mr. R. J. Nethery, geologist for Bethlehem Copper Corporation Ltd. The purpose of the mapping was to determine which, if any, areas on the property should receive further exploration work.

The property comprises the Beth 1 to 10 mineral claims and fractional mineral claims, and mineral lease 33R. The Beth claims and the mineral lease have been grouped to form the Eiggam Group.

Geological mapping indicated that deep diamond drilling was warranted to test certain pyritic zones on the property.

A geological map accompanying this report is located in a pouch on the back cover.

REPORT ON THE
MAGGIE MINE PROPERTY

LOCATION

The property is located approximately 9 miles north of Cache Creek and on the west side of Bonaparte Creek. It is accessible by a good gravel road which leads off Highway 6.

CLAIMS

The property consists of one mineral lease, which includes Lots 410 to 421 and covers 460.09 acres, and ten mineral claims, of which seven are fractions (Beth 4-10 Fr.)

TOPOGRAPHY AND PHYSICAL ENVIRONMENT

The eastern half of the claim group is lightly timbered with fir, pine and jack pine. Vegetation is slightly thicker on the higher, western slope. A 1,500-foot relief change takes place in an east-west direction.

PREVIOUS WORK

Several shafts and adits were dug in the early days, but these encountered only minor Cu, Au and Ag mineralization. In 1952 Kennco Explorations drilled three diamond drill holes running south from the old Maggie Mine. These holes encountered nothing of interest. Forbex Ltd. drilled four holes in 1964. Two holes failed to reach bedrock, and one averaged 0.15 oz. Ag per ton and 0.12% Cu over 60 feet. The other showed no mineralization of economical interest. In 1968 Bethlehem Copper drilled five percussion holes in the highly pyritized zone. Trace values were obtained for Au and Ag, and Cu usually ran less than 0.10%, with an average of 0.04% Cu.

GEOLOGY

The area is extensively covered with glacial drift. Bedrock is best exposed on the extreme eastern side of the claim group, and also on the high, western border of the claims. The property is underlain by the Palaeozoic Cache Creek Formation of greenstones and metasediments. The accompanying map shows the geology of the claims.

The southeastern part of the claims consists of east-west-striking and south-dipping argillites (dip average of 45°). The sediments are overlain to the west by greenstone. The argillites, which are generally unmineralized, are in contact to the north with highly siliceous and pyritized rock. Near this contact the sediments contain minor pyrite. Two adits were driven in this contact area, but only minor Cu and Au mineralization was encountered. The highly siliceous and pyritized zone is stained the usual orange-yellow and contains very minor Cu, Au and Ag mineralization in certain contact areas.

The northern section of the claims consists of serpentinized volcanics and what appears to be peridotite. The peridotite is thought to have intruded the volcanics. Weak to moderately altered volcanics overlay the peridotite in some areas, and volcanic dykes cut the serpentinized rock. The Maggie Mine is in the serpentinized area and contains some chrysotile. Pyrite is not too extensive in the northern zone, except in the vicinity of the mine.

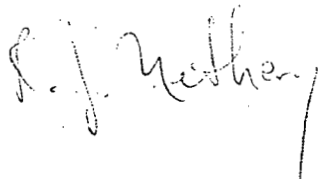
MINERALIZATION AND ALTERATION

Pyrite is the major mineral on the property, and only minor occurrences of Cu, Zn, Au and Ag have ever been reported. Pyrite can generally be observed in most all of the hydrothermally altered volcanics, but there is only one area of intense pyritization accompanied by very intense silicification. The majority of the volcanics on the property have been hydrothermally

altered. Also, some serpentinization of the volcanics has taken place in the northern claim sector.

CONCLUSION

The very high pyrite content of the area, along with the extensive alteration, are indicators of a possible large, low-grade deposit. Therefore, it is recommended that Bethlehem retain the property so it can be thoroughly tested. Deep diamond drilling in the highly pyritized area is recommended. Also, some percussion or diamond drilling should be undertaken on the drift-covered area immediately east of the pyritized zone. One deep hole of at least 1,000 feet in the pyritized zone should be sufficient to see if further drilling is warranted. In addition, two diamond drill holes spaced 1,000 feet apart in a north-south line and drilled to depths of 500 feet are required to test the possible eastern extension of the mineralized zone.



R. J. Nethery
Geologist

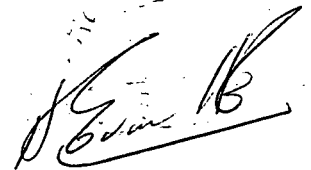
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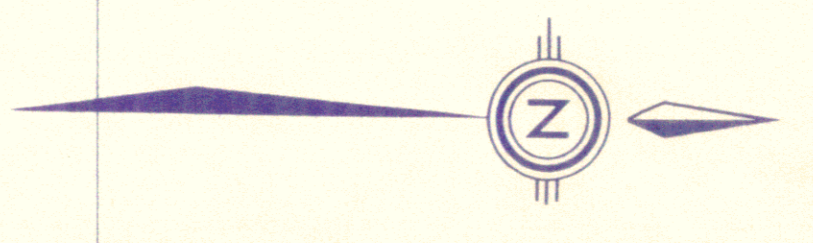
CERTIFICATION

1. I, Henry G. Ewanchuk, certify that I am a member of the Association of Professional Engineers of the Province of British Columbia, and a graduate of the University of British Columbia.
2. I hold a degree of Bachelor of Science in geology, and have been practicing my profession for eight years.
3. I reside in Ashcroft, British Columbia, and I am employed by Bethlehem Copper Corporation Ltd. as Manager of Mine Production and Manager of Exploration in the Highland Valley area.
4. I have read Mr. R. J. Nethery's report and accompanying map on the Maggie Mine property and herewith endorse this report and map.

October 31, 1969







POTENTIAL OREBODY
Maggie Mine Aug. 27/70

LEGEND

- 6 Argillite, minor quartzite
- 5 Greenstone & chlorite schist
- 4 Peridotite & highly serpentinized volcanics
- 3 Dykes, (andesite, basalt)
- 2 Diorite
- 1 Highly siliceous & Pyritized volcanics, quartzite, chert
- Bedding
- Jointing
- - - - Fault
- Outcrop

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2020 MAP #2

2020

MAP TO ACCOMPANY GEOLOGICAL REPORT
BY R.J. NETHERY, DATED AUG. 22, 1969.

DATE REVISED	BY	DEPT. —
		Geology
		Drawn by — L.A.
		Checked — R. Nethery
		Approved —
		DATE — Aug 27/69
		SCALE — 1" = 250' Approx



TITLE —
Maggie Mine Property - Geology
FILE NUMBER —
DRAWING NUMBER —