52M/13.F. MEIPS

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BETHLEHEM COPPER CORPORATION

Suite 2100 Guinness Tower, 1055 West Hastings Street, Vancouver, B.C. V6E 2H8

Telephone 682-5211

Telex 04-507589

November 1, 1976

Geological Division Mineral Resources Branch Department of Mines and Petroleum Resources Parliament Buildings Victoria, B.C. V8V 1X4

Dear Sirs:

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Re: 1976 Summary of Exploration Work

Enclosed is a summary report setting out the exploration work carried out on the Maxwell Creek property during July, August and September, 1976.

Yours very truly,

BETHLEHEM COPPER CORPORATION

Per: Erik Andersen Property Agent

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EA:dab Enclosure

DEPT. AND PETROLI Rec'd HUV	UM	ines RFSN 197	JRCES
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Mine Office: P. O. Box 520, Ashcroft, B.C. VOK 1A0 Telephone 575-2424



DEPARTMENT OF MINES AND PETROLEUM RESOURCES GEOLOGICAL DIVISION, MINERAL RESOURCES BRANCH

SUMMARY OF EXPLORATION AND DEVELOPMENT WORK PERFORMED IN 1976 ON NONPRODUCING PROPERTIES

PLEASE COMPLETE AND RETURN BY October 31, 1976

		M.I. NO
		MINFILE I.D
Property name(s)	Maxwell Creek	

NTS 82M	1/13E	Latitude
Mining Division	Kamloops	Longitude
Owner Bet	hlehem Copper Corporation	
Mailing address	2100, 1055 West Hastings St	reet
	Vancouver, B. C. V6E 2H8	

If any of the above is not correct please cross it out and enter the correct data.

PLEASE COMPLETE THE FOLLOWING:

Total name, number, and units of all claims in good standing that form the property. Example: TAC 1-7, 9-16; FIRE 2 claim, Units 1-4, 13-20; PHOENIX Crown-granted claim (Lot 1706). 12 Claims Totalling 98 Units [PLEASE INCLUDE A MAP OF THE PRECEDING TO AID IN CLARIFICATION.] Mosquito (units 1, 2, 15-18); Bug (units 1, 2, 15, 16); Rain (units 1, 2, 15-18, 26-29); Max (units 104, 13-16); Snow (units 1, 2); Mosquito II (units 1, 2, 15, 16); Mosquito III (units 1-5, 12-16); Raft III (units 1-6, 11-22); Raft IV (units 1-3); Raft I (units 1-5, 12-21); Raft II (units 1, 2, 15-18, 26-29, 33-36); Max II (units 1, 2, 15, 16) Operator (company paying for the work) BETHLEHEM COPPER CORPORATION 2100-1055 West Hastings Street Mailing address Vancouver, B.C. V6E 2H8 **ESSENTIAL GEOLOGY:** Metals or commodities present Cu, Mo Important minerals present Sulphide mineralization consisting primarily of pyrite, pyrrhotite and chalcopyrite Capsule paragraph on lithology and mineralization see attached description of geology and mineralization (over)

WORK DONE IN 1976, INCLUDING:

- x Geological Mapping
- x Geochemical Surveys
- Geophysical Surveys
- x Drilling
 - Prospecting
- Underground
- Trenching, Stripping
- Road Building
- Linecutting
 Control Surveys

If any of the above types of work were done, please document each in the style of the examples below:

Please use metric units:

feet x 0.3 = metres square feet x 0.09 = square metres miles x 1.6 = kilometres

TYPE OF WORK EXAMPLES: Geological Mapping Drilling EM-VLF Geochemistry	NAMES OF CLAIMS AND UNITS COVERED ACE 1-12 ACE 1, 4, 7, 9, 10, 11 ACE 1-60 ACE 1-60	AMOUNT OF WORK Scale 1:1000 16 BQ holes (5 280 metres) 22 line-kilometres 822 soil samples analysed for Cu, Mo		
TYPE OF WORK	NAMES OF CLAIMS PE OF WORK AND UNITS COVERED AM			
Geological mapping	Raft 1 (13, 19, 20)	Scale 1:10,000		
Geological mapping	Raft III (4, 18, 19)	1:10,000		
Geological mapping	Mosquito (17, 18)	1: 2,500		
Geological mapping	Mosquito II (1, 2)	1: 2,500		
Geological mapping	Mosquito III (1, 2)	1:10,000		
Geochemical surveys	Snow (1, 2)	2760 line-metres; 24 samples (Cu)		
Geochemical surveys	Raft I (17)	460 ; 4 " "		
Geochemical surveys	Raft II (1,2, 16-18)	7000 ; 70 " "		
Geochemical surveys	Raft III (1-3, 14-16)	3780 ; 42 " "		
Geochemical surveys	Mosquito III (1-5)	6000 ; 60 " "		
Percussion Drilling	Mosquito (15-18)	7 holes (298.71 metres)		
Percussion Drilling.	Mosquito II (1, 2)	7 holes (237.75 metres)		
Percussion Drilling	Mosquito III (4)	l hole (45.72 metres)		

FIELD WORK SUPERVISED BY:

Name Jon G. Collins; Ronald G. Simpson Position Field Supervisor; Project Geologist

REFERENCES:

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Geology and Mineralization

The claims are underlain by rocks of the Shuswap Metamorphic Complex of undetermined age. Structure is complex with multiphase deformation indicated by refolded folds and lineations. There is a general north to northwesterly trend of major and minor structures, including fold axes, lineations and compositional layering, evident in the cleared area of the MOSQUITO and MOSQUITO II claim blocks.

Rock types consist mainly of interbedded schist, gneiss and amphibolite within intrusive rocks ranging from granitic gneiss to slightly altered quartz diorite. Marble and siliceous skarn is exposed in the RAFT I claim block. Later stage granite pegmatite occurs as small dykes and replacement masses cutting all other rock units over the entire property.

Specific rock types were mapped as follows:-

Unit 1 GARNET-MICA SCHIST is restricted to only one outcrop on a knob in the MOSQUITO II claim block where it lies between granitic gneiss and muscovite chlorite schist. Schistosity appears conformable with these other units. Fractured garnets up to 2 cm. in diameter occur throughout this rock type.

- Unit 2 AMPHIBOLITE was previously mapped as hornblende (epidotegarnet) schist and weathers a dark green color. Schistosity does not appear conformable to other schists. This unit is the primary host for copper mineralization both in float and outcrop. The mineralized sections and float boulders weather very rusty and are dark green to black on fresh surfaces.
- Unit 3 MUSCOVITE-CHLORITE (BIOTITE) SCHIST crops out on several knobs in the MOSQUITO II claim block in contact with other schists and gneisses.
- Unit 4 BIOTITE-MUSCOVITE-QUARTZ SCHIST is the second most common rock type, cropping out mainly on knobs in the Max Fire vicinity. Minor copper mineralization occurs in this rock type but is very localized.
- Unit 5 MARBLE and siliceous skarn is exposed in outcrops along a cat road on the RAFT I claims. The main metamorphic minerals are garnet, wollastonite, diopside and idocrase. The garnet is probably of grossularite composition. Beds of muscovite-biotite schist, and minor quartzite occur conformably within the unit which is bounded on at least two sides by altered intrusive rocks.
- Unit 6 GRANITIC GNEISS is the most common rock type on the property and ranges from altered granodiorite/quartz diorite to muscovite-biotite gneiss. Foliation is quite variable from unfoliated in the southern area to well foliated in the Max Fire vicinity. Road cuts in

the south part of the property include large xenoliths of mafic-rich biotite gneiss.

Unit 7 QUARTZ DIORITE crops out in road cuts in the area of the RAFT I and RAFT III claims. It is a relatively fine grained intrusive rock ranging from fresh to moderately altered biotite quartz diorite and seems to grade into Unit 3 (possibly partly equivalent).

Unit 8 GRANITE PEGMATITE with coarse crystal of quartz, k-feldspar, plagioclase muscovite and minor biotite, occurs in nearly all areas of outcrop. It takes the form of small dykes and irregular replacement masses cutting all other rock types. Minor molybdenite was encountered locally on the MOSQUITO II claim block (Sanguinetti, 1975).

Sulphide mineralization consists primarily of pyrite, pyrrhotite, and chalcopyrite. These sulphides are concentrated mainly in localized zones within amphibolite and biotite-muscovite schist.

In outcrop these zones contain less than 0.3% copper but values exceeding 2% copper occur in rounded float boulders of dark amphibolite.

The most common sulphides are pyrite and pyrrhotite which may range from 10 to 15% in mineralized zones, but usually comprise less than 2% of most rock types. The intrusive rocks in the southern extensions of the property generally contain less than 0.5% total sulphides.

Copper mineralization consists exclusively of chalcopyrite associated with pyrite and pyrrhotite. It occurs as fine grained disseminations and as elongated blebs and layers within amphibolite and schist.

Trace amounts of molybdenite were noted at only two localities in pegmatite dykes (Sanguinetti, 1975).