

812906

REPORT ON *92-N-1*  
HAT GROUP  
VANCOUVER MINING DIVISION  
November 4, 1970 D.C. Malcolm P. Eng.

**CYPRUS EXPLORATION CORPORATION, LTD.**  
510 WEST HASTINGS STREET  
VANCOUVER 2, BRITISH COLUMBIA  
TELEPHONE: 683-9304

February 12, 1971

Mr. J. Assef,  
2534 Gordon Street,  
Port Coquitlam, B.C.

Dear Joe:

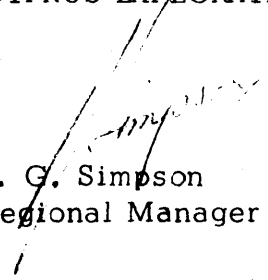
We have scrutinized Doug Malcolm's report on your Hat Group of claims. Although we have not had the opportunity to discuss the work in detail with Doug, it seems apparent that, while we would be most interested to make a field examination of the property at our own expense, there is insufficient data at present available on which to base an exploration decision.

If you are agreeable, I will make the necessary arrangements to visit the property with Doug, as soon in spring as conditions will allow.


We thank you for giving Cyprus the opportunity of reviewing the property report and are hopeful that our examination will justify further work.

Yours very truly,

CYPRUS EXPLORATION CORPORATION, LTD.

  
J. G. Simpson  
Regional Manager - Western Canada

JGS:rj



REPORT

ON

HAT GROUP

VANCOUVER MINING DIVISION

BY

D.C. MALCOLM, P. Eng.  
Consulting Geologist

Vancouver, B.C.  
November 4, 1970

C O N T E N T S

	Page
SUMMARY. . . . .	1
CLAIMS . . . . .	1
OWNERSHIP. . . . .	2
LOCATION . . . . .	2
TOPOGRAPHY . . . . .	2
GENERAL GEOLOGY. . . . .	3
CLAIM GEOLOGY. . . . .	4
DEPOSITS . . . . .	4
CONCLUSIONS. . . . .	5
RECOMMENDATIONS. . . . .	5
ESTIMATED COSTS. . . . .	6

## HAT GROUP

### VANCOUVER MINING DIVISION

#### SUMMARY

Chalcopyrite, molybdenite and pyrite occur in large stained zones in an unexplored area of the Coast Range of British Columbia. The general geology of the area is complex but the sulphides occur as disseminations and fracture fillings in an altered Cretaceous intrusive similar to a batholith at Taseko Lake known to be favorable for porphyry type copper deposits.

The Hat Group is easily accessible by roads and close to tidewater at Bute Inlet.

The claims warrant extensive preliminary work to be followed by thorough later stage exploration to search for porphyry copper deposits.

#### CLAIMS

One hundred and fourteen located claims: Hat Numbers 1 to 114 inclusive, recorded November 5, 19, and 29, 1970.

The claims were staked using witness posts which were examined by the writer.

#### OWNERSHIP

Mr. J. ASSEF, 2534 Gordon Avenue, Port Coquitlam, B.C. and Mr. E. TUCKER, 8794 Crest Drive, Burnaby, B.C.

#### LOCATION

Latitude: 51°00' North  
Longitude: 124°05' West  
Elevation: 2,500 to 6,500 Feet.

The claims are 28 miles east of the head of Bute Inlet, 120 miles northwest of Vancouver and 8 miles southwest of Chilco Lake. They are reached by boat to Bute Inlet and by a logging road along the Southgate and Bishop Rivers.

The writer examined the claims October 29, 1970 using a helicopter from Vancouver.

#### TOPOGRAPHY

The relief in the general area is extreme but, on the claims, it is relatively gentle. The Bishop River occupies a valley at elevation 2,500 feet

and the claims cover a ridge at elevation 4,500 feet to 6,500 feet, 3 miles to the east or northeast of the river. The claim area is near and above timber line in open rock strewn slopes and terminal moraines.

There are glaciers to the north and east but these are retreating rapidly.

### GENERAL GEOLOGY

The area is in the transition zone between the Jurassic Coast Range intrusives and the sediments, volcanics and younger intrusives of the Interior Plateau. To the north the sediments and volcanics, ranging in age from Triassic to Tertiary, are extensively faulted and deformed by numerous transcurrent faults, many low angle thrust faults and huge overturned folds. South and west the rocks are gneisses and granodiorites of the Coast Ranges with northwest trending inliers of metamorphosed Triassic sediments and volcanics.

Between these two areas there are a series of Cretaceous and Tertiary intrusives and some Tertiary and Recent volcanism.

Intensely altered porphyry copper deposits are associated with these intrusives along the east side of the Coast Ranges throughout British Columbia

and especially in the Taseka area 25 miles to the east and in the Tatlayoko Lake area 25 miles to the north.

#### CLAIM GEOLOGY

The claims are underlain by a Cretaceous biotite granite in fault contact with a Jurassic hornblend diorite. The granite is intruded by numerous lamprophyre and aplite dikes, by pegmatites and by quartz veins and stringer zones.

The hornblend diorite is in part gneissic and contains inclusions of meta volcanics and meta sediments. It contains some epidote, pyrrhotite and some chalcopyrite.

The granite is a fresh appearing rock silicified in some areas and with the extensive development of biotite in other places. It contains fracture fillings of pyrite and molybdenum and some disseminated chalcopyrite and pyrite. Small quartz stringers or fracture fillings occur throughout the rock and these often contain molybdenum.

#### DEPOSITS

The claims have been examined only in a cursory manner but they contain 3 large gossan or rust areas along a northwest trend in the biotite granite.

Samples of float in a creek wash, taken by the writer, of ribboned quartz assayed trace gold and 1.25% Mo.



A sample of granite float with pyrite, molybdenite and chalcopyrite assayed 0.27% copper and 0.43% MoS<sub>2</sub>.

### CONCLUSIONS

The Hat Claims cover three large stained areas in a Cretaceous or younger granite intrusion which shows extensive silicification and biotization. There are indications that the pyritized areas contain copper and molybdenum mineralization similar to deposits now being worked at Taseko Lake in a similar Cretaceous intrusion and similar to others being explored to the north near Chilco and Tatlayoko Lakes.

The area and the property are easily accessible and close to tidewater.

### RECOMMENDATIONS

The Hat Group should be geologically mapped, thoroughly prospected and sampled. The area, adjacent to the claims, should be examined in conjunction with this work using helicopter transportation.

When this work is completed the better mineralized areas on the claims should be bulldozed and bulk sampled.

ESTIMATED COSTSStage I

The first stage in the work would entail the erection of a temporary camp on the claims with a helicopter pad in May, 1971. Supplies would have to be brought into Bute Logging Company's camp by barge and trucked to the property. A helicopter would be contracted for a month and the area, both on the claims and near them, examined by prospectors and by a geologist.

Helicopter	\$10,000.00
Camp & Supplies	5,000.00
Equipment	800.00
Geologist & Helper	2,000.00
Cook	800.00
Prospectors & Helpers	4,000.00
Transportation	1,000.00
Assaying	2,000.00
Staking	1,000.00
Consulting	1,000.00
Contingencies	<u>2,400.00</u>
TOTAL	<u>\$30,000.00</u>

Stage II

When this work is completed plans would have to be made to bring a bulldozer to Bute Inlet and transport it to the end of the logging roads on Bishop River near the claims. A tractor road, several miles in length, would be needed to reach the area of the float and a camp would be required there.

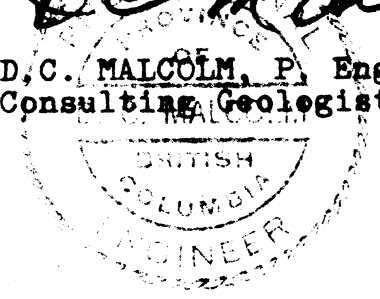
Some geophysical and geochemical surveys would be made and areas of better mineralization would be bulk sampled.

Bulldozer 600 hrs. @ \$30/hr.	\$18,000.00
Transportation & Mobilization	3,000.00
Truck & Maintenance	5,000.00
Camp & Supplies	5,000.00
Cookhouse	3,000.00
Labour & Prospecting	6,000.00
Supervision	4,000.00
Recording	1,000.00
Assaying & Surveys	3,000.00
Expediting	1,000.00
Consulting	2,000.00
Contingencies	<u>4,000.00</u>
<b>TOTAL</b>	<b><u>\$55,000.00</u></b>

Report by

*D.C. Malcolm*

D.C. MALCOLM, P. Eng.  
Consulting Geologist



pdm

Vancouver, B.C.  
November 4, 1970



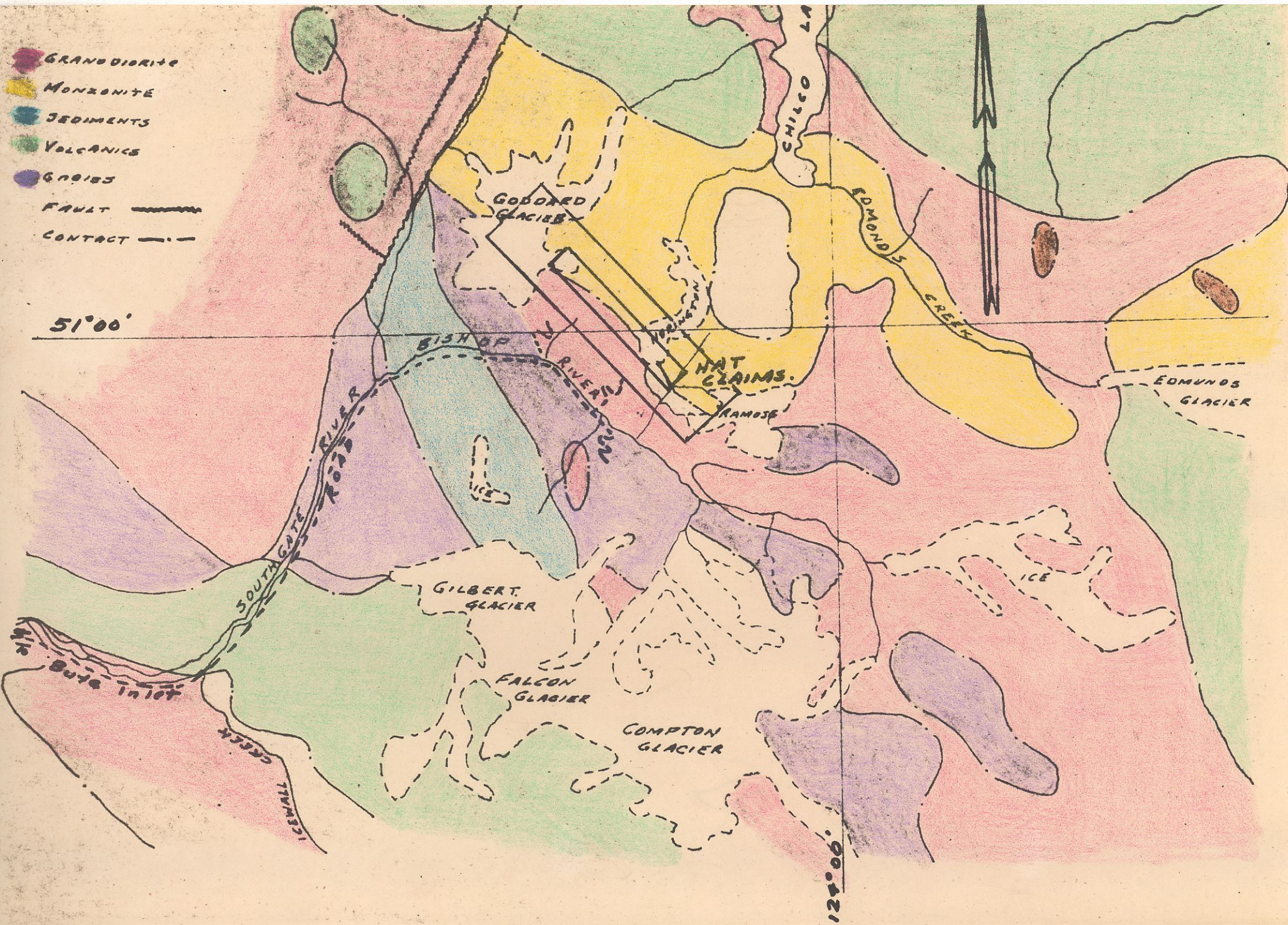
BRITISH COLUMBIA

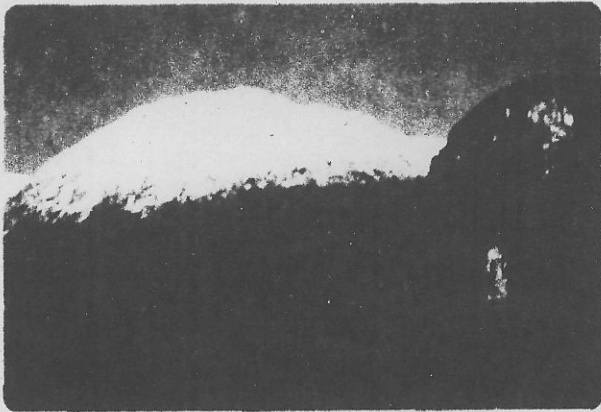
SCALE 0 50 100 150 200

NAT CLAIMS

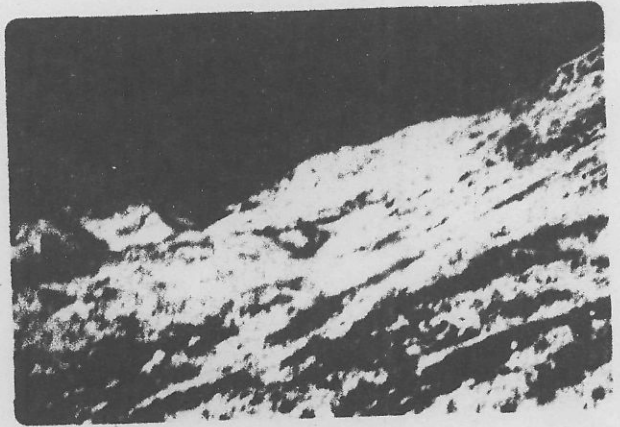
VANCOUVER

- GRANODIORITE
- MONZONITE
- SEDIMENTS
- VOLCANICS
- GLACIERS
- FAULT
- CONTACT

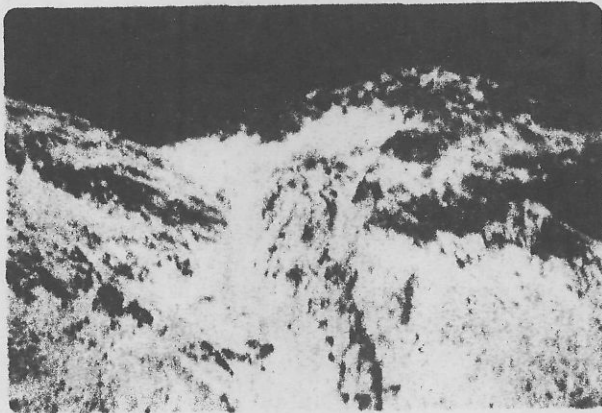




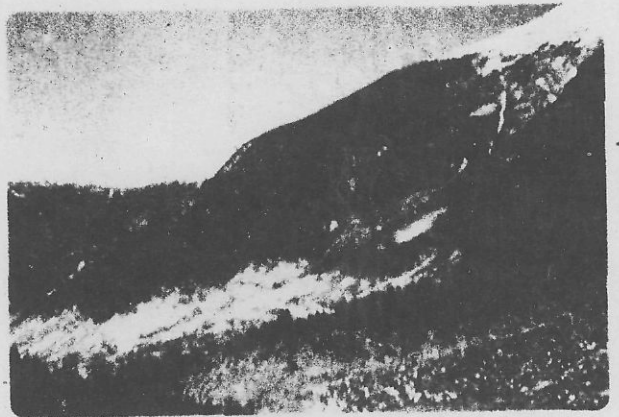
Looking East from logging  
road to claim



Looking North over claim gossan  
area from Ramose Creek



Summit of claims, looking  
North 1 mile North of  
Ramose Creek



Looking East from  
summit of claims