TELEPHONE 681-7493

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MACDONALD CONSULTANTS LTD. SUITE 12 . 425 STREET, VANCOUVER 1, в.с.

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Report on the

Blue 1 - 48

Group of Mineral Claims

for

Alpha Mines Ltd. (N.P.L.) 1111 - 409 Granville Street Vancouver, B. C.

by

MacDonald Consultants Ltd. 12 - 425 Howe Street Vancouver 1, B. C.

E. D. Dodson, P. Eng.

January 19, 1968

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INTRODUCTION

This report is a preliminary evaluation of the Blue 1 - 48 mineral claims located in the Nanaimo Mining Division approximately one and a half miles east of Alice Lake and 19 miles south of Port Hardy, B. C.

The data herein are derived from maps and reports of the Geological Survey of Canada and from the writer's personal observations. The writer was on the ground for a period of approximately six hours on the 26th of November, 1967.

The work program recommended is believed to be the most effective and economical means of establishing the mineral potential of this claim group.

PROPERTY LOCATION, ACCESS & HISTORY

The property consists of the 'Blue' numbers 1 to 48 located mineral claims. The Blue Claims are recorded as follows:

Claim Name	Record No.	Recorded Owner	Recording Date
Blue #1 - #12	20912 - 20923	Magnus Bratlien	October 30, 1967
Blue #25 - #36	20936 - 20947	Magnus Bratlien	October 30, 1967
Blue #37 • #48	20948 = 20959	Thomas H. Cross	October 30, 1967
Blue #13 • #24	20924 = 20935	Thomas H. Cross	October 30, 1967

Location of the claims is indicated on the accompanying claim location map. In brief, the group is situated approximately one and one half miles east of Alice Lake in the Nanaimo Mining Division. Access is via well-maintained private logging roads, a distance of about 19 miles from Port Hardy.

The property was staked late in 1967 and so far as is known no previous work has been done on the ground.

GEOLOGY

The geology of the area is described briefly by J. E. Muller (1967) as

follows:

"The rocks are mainly: (1) Karmutsen Group (Triassic basaltic lava and breccia); (2) Quatsino Formation (Upper Triassic massive limestone); (3) Bonanza Group (Upper Triassic to (?) Jurassic shale, limestone, and andesitic volcanic rocks); (4) Nanaimo Group sediments; and (5) Teritiary volcanic rocks. The Karmutsen, Quatsino, and Bonanza rocks have been intruded by granitic bodies."¹

The region has been known for many years to have a large number of small deposits of copper, lead, zinc, iron and precious metals. Most of these deposits have proven too small for economic mining. Immediately adjacent to the area under discussion are three producing or recently producing mines: Yreka (copper), Empire Development (iron) and Coast Copper (copper and iron). All three are in the Triassic rocks near later intrusions.

Currently, Utah Construction and Mining Company is conducting a major exploration program on what appears to be a very large low-grade deposit with values in copper and precious metals. Little concrete information is available on this project. The only information published by Utah to date is relative to a Utah bond issue in which the following Statement appears:

"• • "•Widely spaced drill holes have given results which lend encouragement to the Company's opinion that the property may ultimately be placed in production. However, closer spaced drilling is required to determine the validity of the Company's opinion."

A further suggestion of the scope of the Utah work appears in the B. C. Department of Mines Annual Report for 1966:

". . . In addition, 77 diamond drill holes totalling 15,000 feet of drilling and extensive surface trenching were completed."

Drilling continued through 1967 at an apparently similar pace. Such a drilling program by a major company suggests the probability of a very large deposit.

I. Muller, J. E.: Port McNeill Area and Nanaimo Basin, Vancouver Island; in Report on Activities, May to October 1966; Geol, Surv. of Can., Paper 67-1 Part A. P. 81

The Utah ground is shown on the geological maps as underlain chiefly by Bonanza Group rocks. The B. C. Minister of Mines Annual Report for 1966 describes the deposit as follows:

"Chalcopyrite and pyrite occur as fracture fillings in a complex shear zone in volcanic rocks of the Bonanza Formation."

The Blue group of claims is underlain by the Karmutsen Group. Where seen by the writer the Karmutsen is here represented by basaltic flows and flow. breccias.

The Karmutsen rocks are noted for the presence of copper in small amounts. In view of this it is quite possible that economic deposits do exist where structural conditions are favourable.

The writer's brief trip to the Blue group was to examine a showing in a quarry cut for road-fill. Here, basaltic flows and flow breccia are sparsely mineralized with bornite chalcopyrite and locally pyrite as discrete blebs and minute fracture-fillings over a width of 46 feet. The mineralization may be related to a shear-zone approximately one foot wide striking 040° and dipping 65° S.

Chip samples were taken by the writer from south east to north west across the quarry face and were assayed by Coast Eldridge, Engineers and Chemists Ltd. with the following results:

Sample Number	Width	<u>Cu%</u>	Au/oz.	Ag/Oz.
56134	6 '	.45	Tr.	Tr.
56135	6 '	•47	Tr.	.1
56136	12'	•24	Tr.	•1
56137	10'	.09	Tr.	Tr.
SHEAR-ZO	ONE			
56138	12'	.14	•005	1

This represents an average grade of 0.24% copper over an apparent width of 46 feet.

In addition to the main showing the writer saw disseminated chalcopyrite in vesicles in a basalt flow approximately one mile to the north in a second quarry.

It should be noted that in neither of the above instances would copper mineralization have been seen in normal rock exposures as oxidation and surface leaching extend to a depth of several feet.

RECOMMENDATIONS & CONCLUSIONS

In view of the probability of a large copper deposit approximately eleven miles to the north on the Utah Construction and Mining Company ground and in view of the presence of disseminated copper mineralization on the Blue group of claims the writer recommends the following work for the 1968 season:

Geochemical Sampling

Soil-sampling of the entire block of claims on lines spaced 750 feet apart and with the samples spaced at 400 foot intervals on the lines. This represents a total of approximately 400 samples each to be analyzed for copper silver and zinc content. If an anomalous area is outlined by the geochemistry some detailed follow-up may be required to further delineate the anomaly. An allowance is made for an additional 100 samples for this purpose.

Geological Mapping

Reconnaissance geologic mapping of the area at a scale of 400 feet to one inch after airphoto study to establish structural trends which may control mineralization. Detailed geological mapping at 100 feet to the inch may be

- 4 -

Diamond Drilling

If there is sufficient encouragement from the results of the geochemical survey and geological correlation some follow up diamond drilling will be required. The writer suggests that an initial allowance of 1,000 feet should be sufficient to indicate the likelihood of economic mineralization underlying anomalous areas.

COST ESTIMATE

Geochemistry		
Line cutting	\$7 , 500 . 00	
Sample Collection	1,750,00	
Sample Analysis	3,200,00	
Final Maps & Interpretation	1,000,00	
Sub-Total	:	\$13,450.00
Geology		
Consulting & Final Report	1,500.00	

Mapping	1,000.00	
Sub -Total		2,500,002
Diamond Drilling of AXQ 1,000 ft. @ \$10.00 ft.		10,000.00
Miscellaneous		
Camp Costs	2,200.00	
Mobilization	1,600,00	
Sub-Total		3,800.00
Contingencies @ 10%		3,000,00

Respectfully submitted,

MACDONALD CONSULTANTS LTD.

\$32,750.00

E. D. Dodson, P. Eng.

EDD/st

Total Cost of Program

MACDONALD CONSULTANTS LTD.

SUITE 12-425 HOWE STREET, VANCOUVER 1,

January 19, 1968

в.с.

Alpha Mines Ltd. (N.P.L.) 1111 - 409 Granville Street Vancouver, B. C.

Attention: Mr. Harold Jacques

Dear Sir:

Re: Compliance with the Regulations of the Mineral Act in staking the Blue 1 - 48 Mineral Claims

While examining the Blue group of mineral claims the writer checked several of the claim posts for possible infringements of the Mineral Act.

These posts were of legal size and carried appropriately marked tags. The claims lines were clearly indicated.

Although the entire block was not checked common posts of the following were seen:

Blue 1, 2, 27 & 29 Blue 1, 2, 3 & 4 Blue 5,6, 7 & 8 Blue 15, 16, 17, 18 Blue 17, 18, 19, 20

In view of my knowledge of the past work of the prospectors who staked the ground it is reasonable to assume that the remainder of the claims are equally well staked.

> Yours very truly, MACDONALD CONSULTANTS LTD.

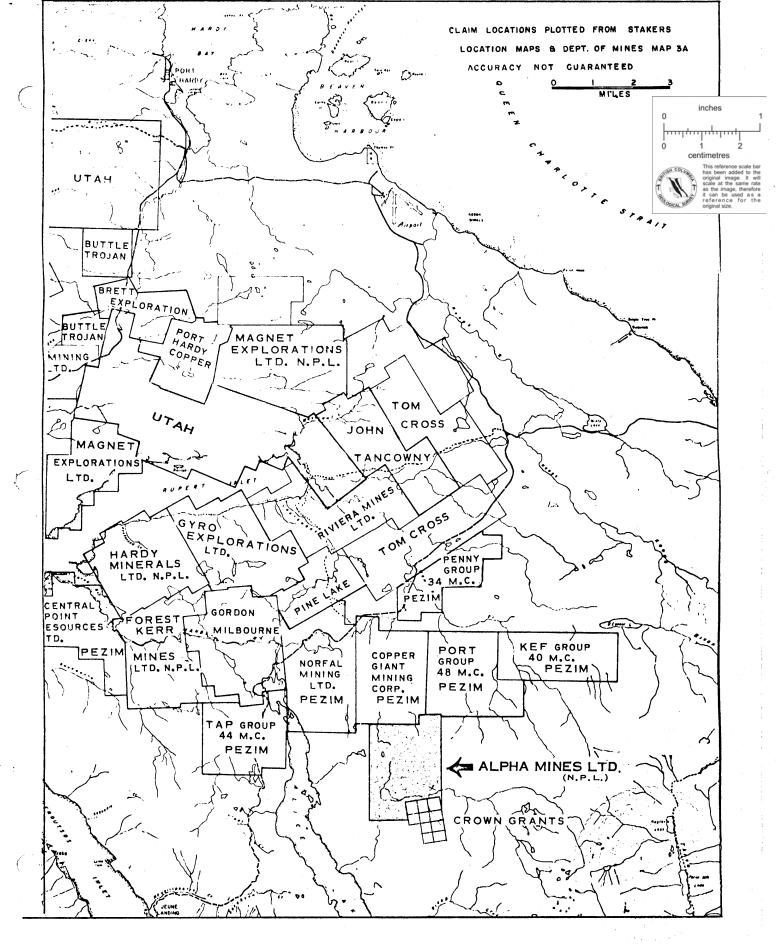
E. D. Dodson, P. Eng.

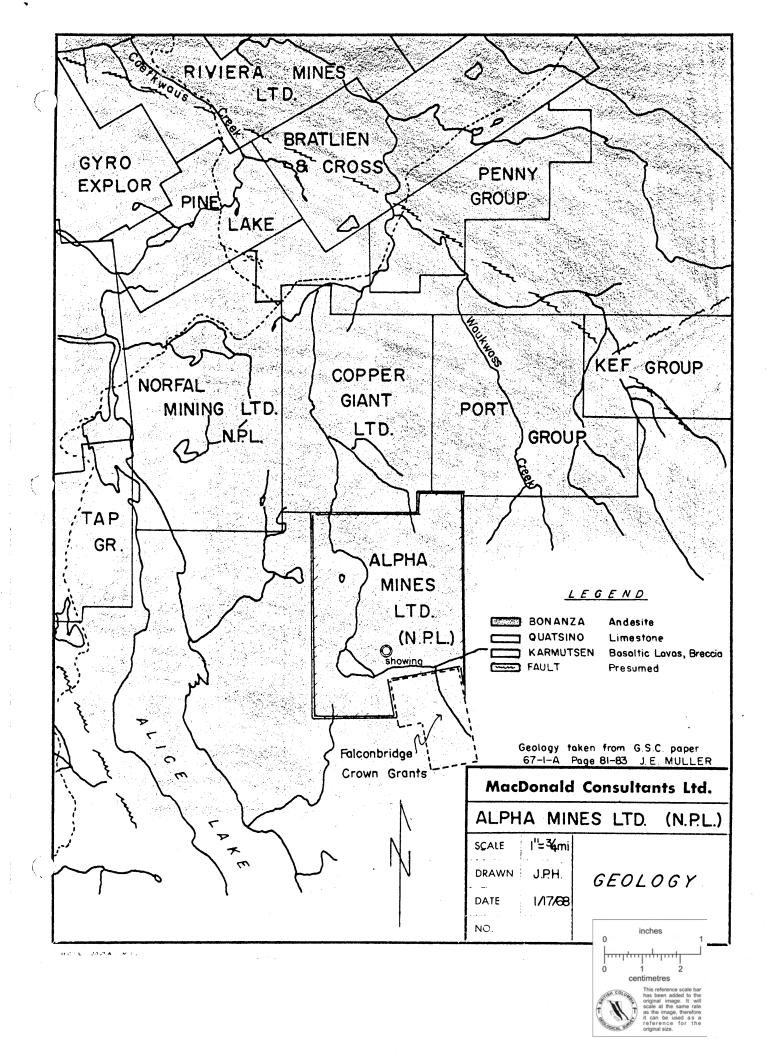
CERTIFICATE

- I, Earl D. Dodson, of Vancouver, B. C., do hereby declare that:
- 1. I am a consulting geological engineer.
- 2. I am a graduate of the University of British Columbia, 1954.
- 3. I am a registered professional engineer in the province of British Columbia.
- 4. I have been employed in geological work, chiefly in exploration, in the provinces of British Columbia, Ontario and Quebec and in the Yukon Territory since 1954.
- 5. I personally examined this property on November 26, 1967 and have studied all available information on the geology of the area.
- 6. I have no interest either directly or indirectly, nor do I expect to receive an interest, in the properties covered by this report, nor do I expect to receive any interest in the securities of Alpha Mining Ltd. (N.P.L.).

Respectfully submitted,

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