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A GEOCHEMICAL REPORT ON  
A SOIL SAMPLING PROGRAM CONDUCTED  
OVER THE DAHL GROUP OF MINERAL CLAIMS  
OMINECA MINING DIVISION, BRITISH COLUMBIA  
(54°, 127° <sup>N.E.</sup> ~~S.W.~~)

BUVAL MINES LTD. (N.F.L.)

BY

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MAP POCKET

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Scale 1" = 400' #1

Buval Mines Ltd. (N.P.L.) Claim Maps

Scale 1" = 1500' #2

## INTRODUCTION

The forty mineral claims comprising the Dahl Group are located on the southeastern flank of Hudson Bay Mountain lying approximately two miles southwest of Smithers, B.C. As shown in Figure 2, the group lies within the central portion of a contiguous block of 176 mineral claims held by Buval Mines Ltd.(N.P.L.) of Vancouver, B.C. Claims over which the soil sampling program was conducted include the Seymour 11 to 16 inclusive, Seymour 31 to 36 inclusive and Seymour 51.

The predominant rock types underlying the Buval claim block consist of unaltered andesites, dacites, rhyolites, basaltic lavas, tuffs and breccias, striking north, northwesterly and dipping moderately towards the southwest. They occupy a section within the Hazelton Group which is comprised of an apparently conformable succession, possibly 10,000 feet thick, of interbedded sedimentary and volcanic rocks ranging in age from pre Middle Jurassic to lower Cretaceous.

Within the main mass of Hudson Bay Mountain, lying immediately to the northwest of the Buval ground, surface exposures of intrusive rocks are limited to a few small to medium sized stocks of general granodioritic composition. The possibility of a near surface, southeasterly trending, parent intrusive is suggested by the pattern and frequency of these occurrences. Other geological data lending partial support to this assumption would include (1) the bleaching, silicification and general fracturing of the volcanic cap rocks, (2) the apparent tendency towards mineral zoning and (3) the presence of domal structures. Block faulting, doming and overthrust faulting are the

dominant factors controlling the geologic structure of Hudson Bay Mountain.

Numerous mineral occurrences are known to be present within the Buval claim block and other sections of the mountain. Probably the most important of these is the molybdenum prospect located in Glacier Gulch which is currently being explored by Climax Molybdenum (B.C.) Ltd. Ore structures associated with many of the known occurrences range from simple veins to sheeted veins and shear lodes to joint stockworks and general fracture systems. Of the smaller vein type deposits, those which have so far proved most productive, are situated in N.N.E. to N.E. striking systems of fractures. i.e. Duthie, Glacier Gulch. Structures within this class are typically associated with relatively small but high grade concentrations of argentiferous galena, tetrahedrite, sphalerite and chalcopyrite.

The claims comprising the Dahl Group are extensively covered by overburden, consisting of clay or grey-brown soil topped by a variable thickness of humus. Vegetation is typified by dense underbrush, including closely spaced stands of spruce, poplar, willow and balsam. Some of the larger trees have attained diameters of up to twelve inches at the butt and logging operations have been conducted over parts of the claim block.

Due primarily to the lack of outcrop and as a method of defining possible targets for more detailed investigation, a geochemical soil sampling program was initiated as a first stage approach in the preliminary exploration of the claim group.

ANALYTICAL METHOD

Field samples were collected and transported daily to a temporary laboratory established in Smithers where they were artificially dried, crushed, sieved and tested for copper content using the Rubeanic Acid field method. Relative values, ranging from 0 to 5 were assigned to each sample on the basis of the analytical results obtained and the data compiled in map form. (Fig. 1)

Equipment & Procedure

- (1) Measure  $\frac{1}{2}$  teaspoon of 80 mesh soil into a 10 ml. pyrex test tube.
- (2) Add 1-2 ml. Acetic Acid Sodium Acetate solution
- (3) Place stopper in test tube and shake vigorously
- (4) Filter through filter paper folded and placed in a 10 ml. beaker. Rubeanic acid litmus strip placed in bottom of beaker with point of filter paper just touching the rubeanic acid strip.
- (5) Observe reaction on rubeanic acid strip - blue spot positive.

NOTE: 2 ml. acetic acid solution = approximately  $\frac{1}{4}$  teaspoon  
1 - 2 grams soil = approximately  $\frac{1}{4}$  teaspoon  
Acetic Acid Sodium Acetate solution available in purified form through Chemical Supply distributors.

FIELD PROCEDURE

As shown in Fig. 1, a central base line, trending N 20 Degrees W, was established by chain and compass over a distance of 7200 feet. Spaced at 1200 foot intervals along the base line, grid lines were cut 1400 feet westerly and 3600 feet easterly. Soil samples were collected at 200 foot intervals along each of the grid lines from the "B" horizon which generally occurred within a depth of 3 to 5 inches below the humus material. Within the eastern portion of the area, grid lines were established at 100 foot intervals and samples collected at 200 foot stations. In the northeastern corner of the block, samples were collected on 100 foot centers. During the course of the program, 740 samples were collected and tested for copper content from grid lines extending over a distance of 17.5 line miles.

DISCUSSION OF THE RESULTS

In reviewing the results obtained in completing the soil sampling program, it is apparent that no significant trends or selected areas of interest have developed which warrant further investigation. Of the total number of samples tested, approximately 88% yielded a nil value and of the balance only 19 or approximately 2% yielded anomalous values ranging between 2 and 5.

Results obtained from selected samples forwarded to T.S.L. Laboratories in Vancouver for check analysis, in general substantiate the results obtained in field testing.

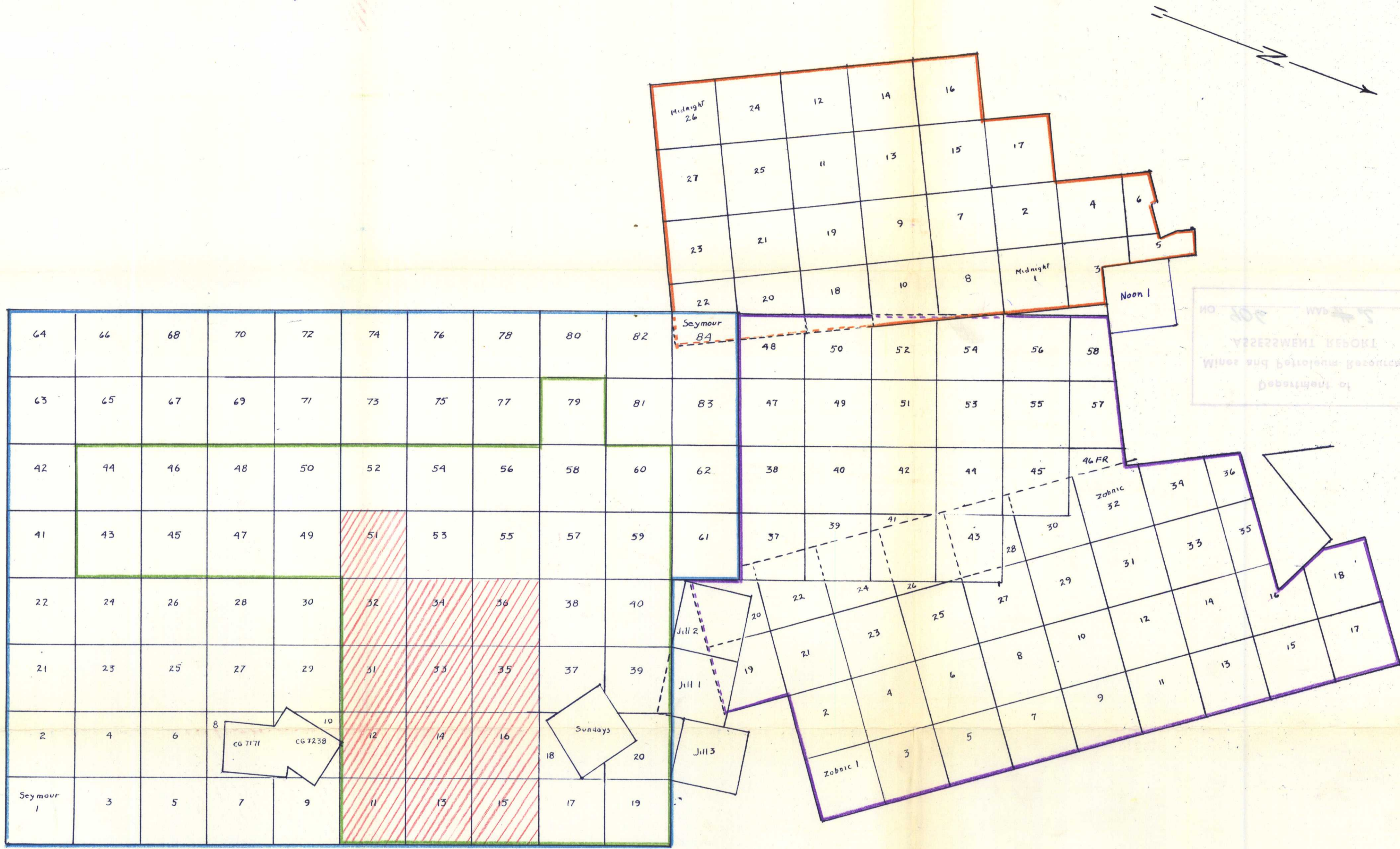
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LEGEND

- SEYMOUR N<sup>o</sup>s 1-84
- ZOBNIC N<sup>o</sup>s 1-58
- MIDNIGHT N<sup>o</sup>s 1-27
- //// SOIL SURVEY GRID
- DAHL GROUP

BUVAL MINES LIMITED (NPL)  
 GEOCHEMICAL SOIL SURVEY  
 SEYMOUR LAKE PROPERTY  
 CLAIM MAP OMINICA MIN. DIV.  
 SCALE 1"=1500'

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To ACCOMPANY REPORT BY:  
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