

2197

CARVAL MINES LTD.  
Geochemical Soil Sampling Survey  
Claire and X Claims  
Princeton, B.C.

ALRAE ENGINEERING LTD.

December 4, 1969

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MAPS

Scale

#/ Geochemical Soil Sampling Plan  
X and Claire Claims - Princeton

1" = 400'

**Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT**

NO. **2197** MAP.....

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## INTRODUCTION

During the month of October 1969 a reconnaissance geo-chemical soil survey was conducted over the Carval Mines Ltd. claim holdings located approximately eight miles south of Princeton, B.C. This survey was conducted by Mr. Merle Cloutier and Mr. Mike Callaghan under the general supervision of the writer. During the survey base lines and grid lines were prepared and 387 soil samples collected. Samples were analyzed by a commercial laboratory in Vancouver, B.C.

## LOCATION AND ACCESS

The claims are located approximately eight miles south of Princeton and immediately south of the intersection of Whipsaw Creek and the Hope-Princeton highway. These claims adjoin the Newmont Mining project on the northwest.

Good access is provided by the main highway and by numerous logging roads through the claims.

## CLAIMS

Claims and their record numbers are as follows:

<u>Claim Name</u>	<u>Record Number</u>
Claire 1 - 6	22556 - 22561
Claire 7 - 14	23883 - 23890
Claire #1 Fr.	22562
Claire #2 Fr.	22563
Claire #3 Fr.	22682
Claire #4 Fr.	22683
X101 Fr. & X102 Fr.	21728 & 21729
X301 - 304	21910 - 21913
X256 Fr.	21904
X257 - X260	21900 - 21903
X261 Fr.	21899
X277 Fr. - X279 Fr.	23640 - 23642
X309 - X316	21918 - 21925

All 41 claims are within the Similkameen Mining Division.

### GEOLOGICAL SETTING

The Carval claims are underlain by Nicola volcanics and sediments which are immediately west of the Copper Mountain intrusive. The claims are located approximately one and one-half miles northwest of the Ingerbell Mines Ltd. deposit, which is a copper discovery similar in geological setting to the Copper Mountain Mine, approximately two miles southeast of the Ingerbell property. Both the Copper Mountain ore bodies and the Ingerbell discovery are in the Nicola rocks adjacent to the Copper Mountain granitic intrusive. Volcanic tuffs and fragmentals are the host rock of mineralization at the Copper Mountain and Ingerbell properties.

Although detailed geological mapping has not been conducted over the Carval claims, a reconnaissance traverse by the writer indicates volcanic breccias, fragmental limestones, tuffs, and argillite of the Nicola series to occur within the claim boundaries.

Tertiary basalt remnants occur on claims X301 and X302 and Tertiary sediments were observed to the northwest of Whipsaw Creek on claims X310, X312, X314 and X316.

### SOIL SAMPLING PROCEDURE

Two baselines were prepared on each of the claim groups in the vicinity of Kennedy Lake as shown on the accompanying map sheet. Cross lines were run by chain and compass survey 400 feet apart from these baselines to cover most of the claim area. Soil samples were collected each 200 feet along these lines and were taken from the 'B' horizon approximately 10 to 12 inches in depth. The soil is grey to brown in colour, fine to medium grained and generally dry. Soil appears to be shallow over most of the claim area. The grid to the southwest of Kennedy Lake tends to be slightly less well drained and contains more small swamp areas than the grid on the north slope of Kennedy Mountain.

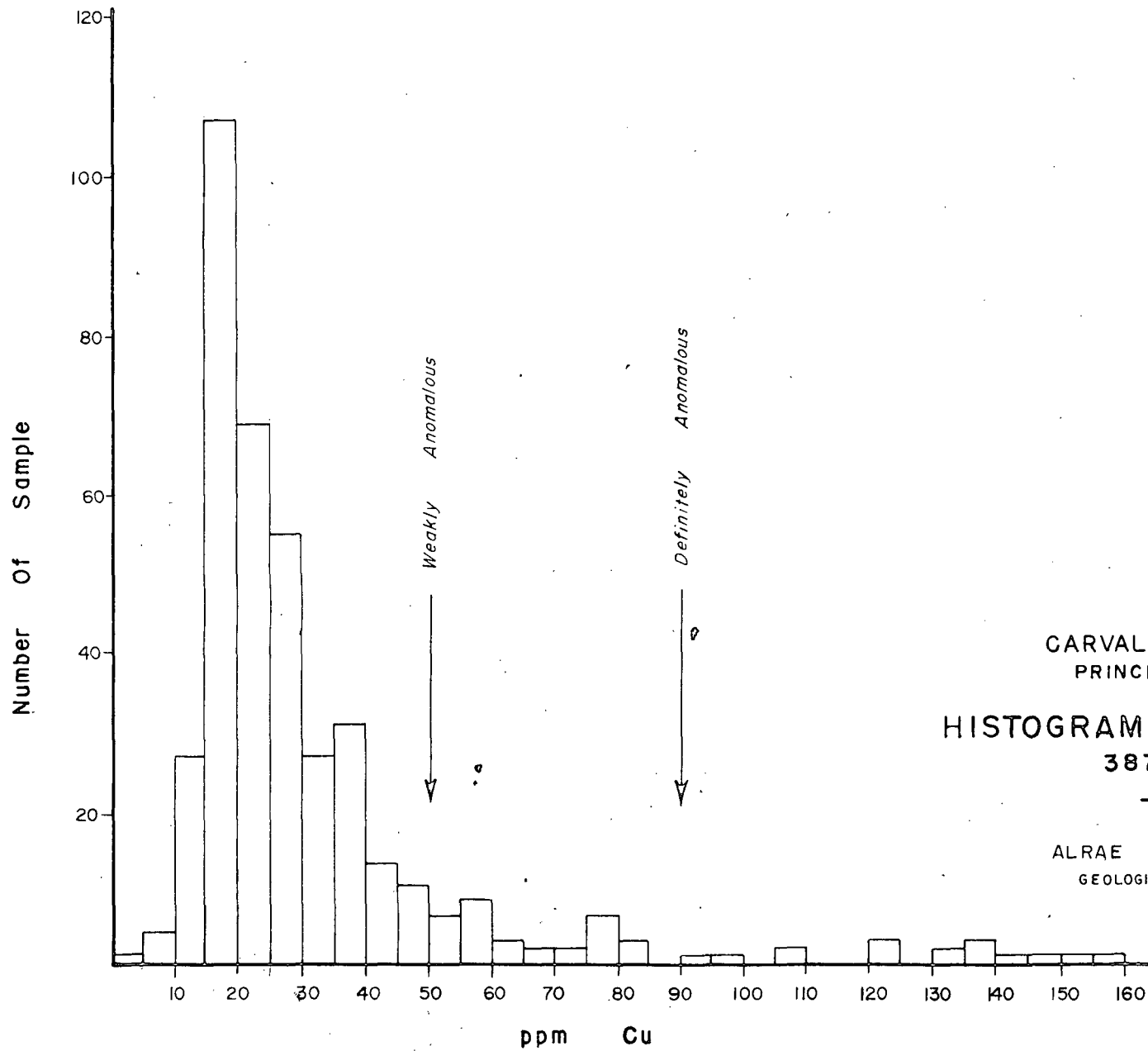
Samples were placed in numbered paper envelopes and analyzed in Vancouver by Crest Laboratories (B.C.) Ltd. At this laboratory the samples were dried, sieved to -80 mesh and digested by hot  $\text{HNO}_3$  and  $\text{HClO}_4$  acids before being analyzed by the atomic absorption method. Analyses noted on the accompanying map sheets are copper content of the soil in parts per million.

#### INTERPRETATION

As may be seen on the accompanying histogram, the samples containing over 50 ppm copper may be considered weakly anomalous and those over 90 ppm copper definitely anomalous. The accompanying plan shows zones anomalous in their copper content. As may be seen there is one long linear anomaly occurring on the Claire claims southwest of Kennedy Lake and four anomalies on the X claims to the north of Kennedy Lake. Of these five anomalies, one may be considered of the first order and three of moderate size and strength. The anomaly on the Claire claims may be disregarded because it is coincident with a long linear swamp and samples high in copper contain much organic material. The most prominent anomaly occurs on claims X257 to X260. This is at the northeastern end of the company's property and on the north slope of Kennedy Mountain. The remaining anomalies; on the X313 and X256 Fr.; on the linear anomaly crossing the baseline; on claims X301 and X302; and a small anomaly at the western boundary of the Claire claims on Claire #3 and #4 Fr's. are worthy of further investigation but less prominent than the anomaly on claims X257 and X260.

#### CONCLUSIONS AND RECOMMENDATIONS

The Carval Mines Ltd. claims in the Princeton area are underlain by the Nicola volcanics and sediments in a similar geological setting to known copper ore bodies in this mining camp. Five anomalous areas have been encountered in reconnaissance geochemical soil sampling for copper on the company's claims. Four of these anomalies warrant further investigation which should take the form of



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 PRINCETON PROPERTY  
**HISTOGRAM OF Cu IN SOIL**  
**387 SAMPLES**

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detailed soil sampling, geological mapping, and bulldozer trenching or shallow diamond drilling, as warranted.

SURVEY COSTS

Following is the list of personnel employed and wages paid for the above described geochemical soil sampling survey work.

M. Cloutier	Field Supervisor	Oct. 1 - 25/69	\$ 1,029.58
M. Callaghan	Soil Sampler	Oct. 1 - 25/69	913.57
R. Jury	Supervision	Oct. 8 and Nov. 30/69	250.00

DISBURSEMENTS

Sample analyses and field equipment	566.31
Vehicle rental and gas	414.46
Topographic map preparation	600.00
Drafting	<u>60.00</u>

Total \$ 3,833.92

Respectfully submitted:

*Rae G. Jury*  
Rae G. Jury, P. Eng.

Declared before me at the *City*  
of *Vancouver*, in the  
Province of *British Columbia*  
on the *12*  
day of *January* *1969*

*William J. Coulter*

*Jan Jones*  
A Generalist  
of the *British Columbia*  
Engineering Association  
SUB-MINING RECORDER

