# GEOCHEMICAL SURVEY REPORT

# ON THE EAGLE PROPERTY

# EAGLE CLAIM RECORD #795 (7)

### CLINTON MINING DIVISION

LATITUDE 5108'

LONGITUDE 122°15' NTS -9

۰.

by

W. A. Howell J.M.T. Services Corp. 8827 Hudson Street Vancouver, B.C.

owner James S. Christie 3921 West 31st Avenue Vancouver, B.C.



#### TABLE OF CONTENTS

PAGE

i

1

1

1

1

3

3

3

3

3

.4 5

5.

6

7

8

LIST OF ILLUSTRATIONS SUMMARY INTRODUCTION LOCATION AND ACCESS MINERAL CLAIMS PREVIOUS WORK TOPOGRAPHY AND VEGETATION GEOLOGY - Regional - Generalized Property Geology GEOCHEMISTRY - General - Results and Discussion CONCLUSIONS AND RECOMMENDATIONS

APPENDIX I

- Statement of Costs - Statement of Qualifications - W. A. Howell

APPENDIX. II.

- Maps in Pocket

# LIST OF ILLUSTRATIONS

#### PAGE

ii

iii

IN POCKET

-

FIGURE 1PROPERTY LOCATION MAPFIGURE 2CLAIM MAPFIGURE 3ANTIMONY GEOCHEMISTRYFIGURE 4ARSENIC GEOCHEMISTRYFIGURE 5MERCURY GEOCHEMISTRYFIGURE 6GOLD GEOCHEMISTRY





SUMMARY

One claim (20 units) was staked in June 1980 to cover a region of reported mercury and antimony mineralization.

The area contains rocks of the Cretaceous Jackass Mountain Group and possibly late Jurassic volcanics and sediments which are intruded by a feldspar porphyritic monzonite.

Approximately 72 rock, soil and silt samples were collected on a reconnaissance basis over the claim.

The samples were analysed for mercury, antimony, gold and arsenic.

The samples responded for all elements analysed, with generally concurring anomalous patterns.

Some erratic values might be attributable to frozen ground condition and the difficulty in excavating through an overlying ash layer in the soil.

The geochemical response is considered encouraging and more detailed geochemistry combined with geological mapping at a time of year when frozen ground will not present sampling probelms is recommended

#### INTRODUCTION

The claim area was first investigated by J.M.T. geoglogists in 1980 as a consequence of regional exploration for precious metals in the area. Old records and the B. C. Ministry of Mines Mineral Inventory map describe a showing of mercury and antimony minerals in the area. The site was visited and a decision to stake 20 units was made.

#### LOCATION AND ACCESS

The property straddles a ridge at the headwaters of Roderick Creek, Stump Creek and an unnamed tributary of Ward Creek southwest of Moore Lake. The property centers approximately on UTM coordinates 5664600 M.N. and 553700 M.E. on NTS mapesheet 920/1.

Access to the property can be made by a four wheel drive road via Big Bar Creek ferry across the Fraser River or via logging and ranch access roads from Lillooet. Either route can be arduous in wet weather, as roads achieve a locally characteristic "gumbo" mud conditions.

Alternate access can be achieved by helicopter. Several companies provide service from one or more locations at Lillooet, Pemberton, Alta Lake, Williams Lake, and occasionally Bralorne or Gold Bridge.

This writer has on several occasions received excellent, prompt, courteous, and reliable helicopter service from Pémberton Helicopters Ltd., at Pemberton, B.C. This location also has the advantage of minimizing travel time from Vancouver to the point of aircraft origin and is readily accessible by good highways.

#### MINERAL CLAIMS

The property consists of aone claim EAGLE Record #795 (7) July 24, 1980 The claim is recorded in the Clinton Mining Division. The owner of record is Mr. James S. Christie, 3921 West 31st Avenue, Vancouver, B.C.

#### PREVIOUS WORK

Evidence of previous work can be found on the ground in the form of roads and "cat" trenches. It is not entirely clear at this point (1981) whether this work was completed as part of work done on adjacent ground to the south or as a separate entity.

Previous operators in the vicinity have included Rio Tinto Canadian Exploration Limited, and Canex Placer Limited whose work has included the areas to the south and possibly east of the Eagle Property.

This early work, @ 1971 to 1973 resulted in or was in consequence of the exposure of Stibnite mineralization on ground now held as the Eagle Claim.

#### TOPOGRAPHY AND VEGETATION

Relief on the property ranges from 1585 m (5200') to 2100 m (6900') The mountain tops and ridge crests are rounded and covered in sub alpine vegetation types. Small pines, grass and locally base rock gives way very quickly to a jackpine vegetation and grass land ground cover. The country is quite "open" and very pleasant to work in, although the elevation predicates a late spring thaw and early fall freeze-up.

#### GEOLOGY

Regional geology is mapped and compiled by H. W. Tipper, 1978, as open file 534 covering the Taseko Lakes Map sheet, N.T.S. 92-O, O.F. 534 includes data from H. W. Tipper, 1961-65, 1974, 1976; C. E. Carnes, 1937 and C. H. Crickmay 1939, in the Tyaughton Creek area; by G. B. Leech in Shalops Range 1947-48, by Hans Trettin along Fraser River 1957-58; and by G. J. Woodsworth in the Coast Mountains 1976.

O.F. 534 shows the claim area to be underlain by "buff to green greywacke, light grey shale, pebble conglomerate; and massive boulder conglomerate", of the Lower Cretaceous (option and albian) Jackass Mountain Group.

Detailed geology has not been completed on the Eagle Property, however, the regional description of rocks would seem to apply. Also present on the Eagle property are small stocks or dykes and/or silts of a grey biotite-feldspar porphyritic monzonite to quartz monzonite.

Outcrops of the intrusive are locally common, but the distribution and relationships to the sediments is not clear at this time.

#### GEOCHEMISTRY

A reconnaissance sampling programme was designed to evaluate soil response to arsenic, gold, mercury and antimony in the area of a known mineral occurrence and to check for geochemical expression of possible extension to the occurrence.

Two soil sample lines were run across the hill below the showing and one line was run across the hill and through a drainage basin northwest of the showing and on the opposite side of the ridge.

Control for the lines was based on topographic maps, altimeters and chain and compass methods.

Soil holes were excavated to "B" horizon soils wherever possible using a hand pick. An appropriate sample was collected using a stainless steel spoon or scoop and transferred to a standard kraft sample bag. Much of the area is covered by a 3 to 10 cm layer of volcanic ash, believed to be part of the Bridge River Ash, which forms a light grey layer immediately beneath the vegetation cover. Care was taken to sample beneath the ash wherever possible.

Frozen ground conditions at several places made the task of excavating soil holes very difficult and several samples must be considered suspect on the basis of ash content either by contamination or as a result of poor pentration to underlying B horizon.

Silt samples were collected from active silt using a stainless steel spoon or scoop and placed in a kraft sample bag.

Rock chip samples were also placed in kraft bags in readiness for shipment to the assayers.

Analyses were prepared by Chemex Labs Ltd., 212 Brooksbank Avenue, North Vancouver, B.C. Soil and silt smaples were dried and sieved, and the -80 mesh fraction, or a portion of it, was used in the analysis.

Rock samples were crushed, split and pulverized to approximately /-100 mesh. The analysis was carried out as for the soils and silts.

The antimony and arsenic analyses were performed using a perchloric/nitric

extraction and a standard atomic absorption hydride finish.

The gold analysis was done using a fire assay preconcentration followed by neutron activation analysis.

The mercury analyses were completed using a 1 gram concentrated nitric acid digestion and a flameless atomic absorption finish.

Using the above procedures and techniques, 72 samples were , collected resulting in 288 analyses.

#### RESULTS AND DISCUSSION

acid

<u>Antimony</u> - Antimony yielded the widest range of values and the greatest geochemical disperson.Values ranged from .2 ppm to 1000. Very high values were expected considering the presence and local abundance of stibnite mineralization at the showing area. Results have been plotted and are presented in a contoured format on Figure 3, appended to this report.

<u>Arsenic</u> - Arsenic yielded values ranging from 1 ppm to 430 ppm. The results have been plotted and are presented in a contoured format on Figure 4 appended to this report.

<u>Mercury</u> - Mercury yielded values ranging from 20 ppb to 10,000 ppb. Results for mercury appear limited to the area of the mineral showing. Results are plotted and presented in a contoured format on Figure 5 appended to this report.

<u>Gold</u> - Gold has one of the most apparently erratic and widest areal distribution of the elements analysed. Values ranged from less than 1 ppb to 374 ppb. Results are plotted and presented in a contoured format on Figure 6 appended to this report.

A close correlation appears to exist between high values for each of the elements with best correlation between antimony and arsenic.

The somewhat elongate zones up and down hill might be explained by narrow zones of mineralization. The elongate anomalous zones are in several cases only separated by one or two low values samples. Should these low values correlate with poor quality samples (i.e. frozen ground and ash contamination), the anomalies become quite considerably enlarged. In any case, the only conclusion which can be drawn from the limited data available is that the elements analysed are all present in locally

geochemical anomalous quantities.

CONCLUSIONS AND RECOMMENDATIONS

Soils respond very well to geochemical analysis for Sb, As, Hg and Au. All four metals are present in anomalous quantities in the soils.

Further detailed sampling is required in conjunction with geological mapping to delineate sources for the anomalous metal content of the soils.

### STATEMENT OF COSTS

# EAGLE PROPERTY

## TIME

W. A. Howell	May 30, 31	2 days @ \$200	\$ 400.00
P. Stuart	May 30,31	2 days @ \$125	250.00
A. Muir	May 30,31	2 days @ \$125	250.00
G. Lauzon	May 30,31	2 days @ \$125	250.00

## DISBURSEMENTS

Chemex Invoice #11467, pro rate	9	й	1,114.40
Pemberton Helicopters #1809	4	•	855.00
Food - 4 man days @ \$20.00			80.00
Truck rental	1.		60.00
Report and maps			700.00

\$3,834.40

## STATEMENT OF QUALIFICATIONS

I, WILLIAM A. HOWELL of Vancouver, British Columbia, do hereby certify that,

1. I reside at 10611 Ainsworth Crescent, Richmond, B.C.

- I am a graduate of the University of British Columbia and have a Bachelor of Science degree in geology, 1971.
- 3. I have been employed in the mineral exploration industry since 1967, continuously since 1971 in a variety of supervisory capacities.
- 4. This report is based on my personal knowledge of the district, and mapping of the geology at the property.

W.A. Howell

W. A. Howell







