696

Geochemical Report

The Hope Claim Group

Location: West side Coldwater River, 4 miles north of Coquihalla, B.C., along Dry Creek. 49°42'N., 121°01'W. Nicola Mining Division.

Analysis by: Bruce W. Brown, Geochemist

Report by: Peter E. Hirst, P. Engr.

92 H/11E

Claim Owners: Elmer Strom
Anaconda American Brass Ltd.

Work for: Anaconda American Brass Ltd.

Dates of Work: September 24 - October 9, 1965

GEOCHEMICAL REPORT

THE HOPE CLAIM GROUP

CONTENTS

MAPS

APPENDIX 'A'

Statement of Qualifications of Bruce W. Brown

Geochemist

1964:	B.S. Major - Chemistry & Geology - University of British Columbia.
Summer 1962 :	Geochemistry as applied to Carbon-14 dating. Geological Survey of Canada, Ottawa, Ontario.
Summer 1963 :	Assistant Geochemist, United Keno Hill Mines Ltd., Else, Yukon.
1964:	Exploration Geochemist, Anaconda American Brass Ltd., Britannia Beach, B.C.

APPENDIX 'B'

Statement of Costs of the Geochemical Survey

Soil Sampling:		
Labour	John Greenlee, Paul Lindberg 10 man days for 1 man	$120.00
Soil Sampling Supplies:	bags, tapes, markers	15.00
Sample Analysis:	298 samples @ $1.96 each	554.28
Drafting		50.00
Supervision		70.00
	Total	$809.28

I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act".

Declared before me at the City of Vancouver, in the Province of British Columbia, this 13th day of December 1965, A.D.

P. S. Hurst

A Notary Public in and for the Province of British Columbia

APPENDIX 'C'

Evidence of Expenditure Incurred

Wages:

Name	Category	Rate	Days Worked	Period	Wage
John Greenlee	Sampler	$360.00/mo.	10	Sept.24-Oct.9,1965	$120.00

Sample Analysis:

7.3 analyses per hour
Labour cost $3.00 per hour
Cost per analysis - $\frac{\$3.00}{7.3}$ - $0.41
Cost per sample with 4 analyses (Cu,Mo,Pb,Zn) - $1.64
Cost of chemicals for same 4 analyses - 0.22
Total cost per sample $1.86

I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act".

Declared before me at the City)
of Vancouver , in the)
Province of British Columbia, this 13th)
day of December , 1965 , A.D.)

P. R. Hurst

A Notary Public in and for the
Province of British Columbia

Geochemical Report

The Hope Claim Group

Introduction:

The Hope Claim Group consists of eight located claims. Six of these are optioned from Elmer Strom by Anaconda American Brass Ltd., and include the Hope #1, #2, #4, #5, #6 and #8 M.C. The Paul Fraction and Karen Fraction M.C. are owned by Anaconda American Brass Ltd. The entire boundary of this claim group is surrounded by other located claims.

During the late summer of 1965 a combined geological - geophysical - geochemical survey was conducted on this property. The geochemical work was done during the period of September 24 to October 9, 1965 and is submitted here for assessment work credit. General supervision was done by Peter E. Hirst, with field work completed by Paul Lindberg and John Greenlee. Geochemical laboratory analysis was under the supervision of Bruce W. Brown.

Cost of Survey:

The costs of line cutting, transportation, camp maintenance, etc. have not been included in the cost of this geochemical survey because the over-all project was quite diversified in effort. Only those costs which were directly applicable to geochemistry have been included. The overall cost of the survey was $2.71 per sample taken.

Location and Accessibility:

The Hope Claim Group is readily accessible by automobile. The group is located along the west side of the abandoned railroad right-of-way which follows the Coldwater River at a point about 4 miles north of Coquihalla station. Easiest access is by road from Merritt, B.C. southwesterly through Kingsvale, following the Coldwater River. Maintenance of the road south of Brodie is by the Trans Mountain Pipeline Co. and permission should be obtained before using the road.

The included map shows the major road system giving access to the Golden Ledge Mine, but there are numerous old bush roads on the lower slopes. The upper slopes are commonly 30° and well timbered.

Geology:

The upper slopes to the west of the claim group are predominantly composed of gneissic granodiorite. Across Coldwater River to the east is the Nicola volcanic sequence. Much of the intervening contact area is covered by valley alluvium, but there are local zones of pyrite, sphalerite and rhodochrosite in veins and disseminations in granodiorite and breccias.

.....2

The major zone of mineralization appears to be confined to the vicinity of the Golden Ledge Mine where a N.30°E. vein chiefly composed of pyrite, was once worked. (See 1954 B.C. Minister of Mines Report, page A-113). Sphalerite, rhodochrosite, and galena are also seen in lesser amounts.

Purpose of Geochemical Survey:

Approximately 80% of the ground within the optioned area is covered by valley alluvium. Sulphide occurrences along the southwest and northwest outcrop areas indicated that potentially favourable ground could easily be concealed, particularly in the western half of the claims. The purpose of the geochemical survey was to apply this exploration tool to a sizeable piece of covered ground and to search for other potential mineral occurrences within the glacial drift covered "outcrop" areas.

Details of the Survey:

Lines were cut in a true east-west direction and measured with slope corrections. Soil samples were taken every 100 feet along these lines spaced 400 and 800 feet apart. Very few stream systems exist and the sampling was entirely of soils with no stream silts included.

Samples were collected at depths of 4-12 inches from the friable, partly sandy A_2 horizon or from the more rocky B horizon. Soil horizons are often poorly developed in this area and sometimes relatively thin on the steeper higher slopes. The lower slopes or flat valley bottoms are largely gravelly in nature with good to poor soil development.

Method of Geochemical Analysis:

Soil samples were dried and screened to minus 100 mesh size prior to analysis. A 1 gram sample of minus 100 mesh soil was then given a hot acid digestion from which standard acid solutions were prepared.

Separate aliquots of sample solution were separately analysed for lead, zinc, copper and molybdenum by colorimetric methods by which coloured organic complexes are formed that are indicative of the respective metal contents. The metal content of the coloured organic complexes was determined by reading the light transmittancy on a spectrophotometer and comparing the values with a standard graph to obtain the respective parts per million.

Lead and zinc were determined by dithizone in carbon tetrachloride. Copper was determined by reaction with biquinoline in iso amyl alcohol, and molybdenum was determined by reaction between molybdenum thiocyanate and stannous chloride in acid medium with the molybdenum thiocyanate complex being extracted by iso amyl alcohol.

.....3

Results of the Geochemical Survey:

Copper and molybdenum values are very low for the area and are probably not anomalous. Several weak trends and local erratic highs are observed but are not believed to indicate significant values.

Lead values definitely show anomalous patterns, particularly in the vicinity of the Golden Ledge Mine. Zinc shows the highest values with definite anomalous patterns along linear and non-linear trends. The linear patterns may represent vein associations, whereas the non-linear types could represent either a dispersion halo or a large area with zinc mineralization. It is believed that a number of weak veinlet systems could account for most of the anomalous patterns of lead and zinc.

Respectfully submitted,

Peter E. Hirst

Peter E. Hirst, P. Eng.

December 9, 1965

HOPE #2 M.C.

HOPE #4 M.C.

HOPE #1 M.C.

HOPE #8 M.C.

HOPE #5 M.C.

HOPE #6 M.C.

PAUL FR. M.C.

KAREN FR. M.C.

BASELINE 14 W.

67 N.

64 N.

60 N.

56 N.

52 N.

48 N.

44 N.

40 N.

36 N.

32 N.

28 N.

24 N.

20 N.

16 N.

"Golden Ledge" Mine
(Keystone property,
see B.C.M.M.R.pt 1954)

Mine dump

Cabin

Road

Old Adit

DRY CREEK

Buried Pipeline

Road following abandoned R.R. grade

To Merritt 38 miles

To Coquihalla 4 miles

Coldwater River

23°

True North

Mag. North

EXPLANATION OF GEOCHEMICAL ASSAY RESULTS

Soil sample position

Parts per million zinc — Parts per million molybdenum

Parts per million lead — Parts per million copper

LEGEND

- Road
- Stream
- Buried pipeline
- Outside boundary of Hope Claim Group
- Claim boundaries in Hope Claim Group

Map drawn by: Paul A. Lindberg

Anaconda American Brass Ltd. — Britannia Beach, B.C.

GEOCHEMICAL MAP
HOPE CLAIM GROUP, DRY CREEK

SCALE 1"=200'

To accompany "Geochemical Report, The Hope Claim Group, by Peter E. Hirst, P.Engr., West side of Coldwater River, 4 miles North of Coquihalla, B.C., dated December 9, 1965." Nicola M.D.

PROFESSIONAL ENGINEER — P. E. Hirst — BRITISH COLUMBIA

696

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 696 MAP #1