

2359.

GEOCHEMICAL REPORT

HB CLAIM GROUP AND MINERAL LEASE M-357
(Myrtle, Homestake, Gem, Daisy Fr, Porto Reco)
in the Greenwood Mining Division

Three miles northeast of Bridesville, B.C.

49° 119° SE

by: Kenneth C. Rose, P.Eng.

Claims owned by: W. E. Fraser
4 - 31 Sixth Ave.
New Westminster

Field Work: between August 10 and September 6, 1969

Report and Map: between February 26 and April 23, 1970

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ILLUSTRATIONS

#1 Map - Geochemistry, HB Claim Group in pocket

Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. 2359 MAP
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SUMMARY

The 'HB' claim group , comprising 22 located claims and five leased Crown Granted claims and all being located in the Greenwood Mining Division and near Bridesville, encompass an interesting geochemical anomaly for copper in an area having favourable geology and in which there are old gold-copper prospects. Additional work, including magnetic and electro-magnetic surveys and more soil sampling is warranted and is currently in progress.

INTRODUCTION

The 'HB' claim group includes 22 located mineral claims plus Mineral Lease No. M-357 which is comprised of five Crown Granted claims. Claim names and record or lot numbers are as follows:

<u>Claim Name</u>	<u>Lot No. Record No.</u>	<u>Tag No.</u>	<u>Anniversary Date</u>
HB 1	28827	8833M	April 14
HB 2	28828	8834M	April 14
HB 3	28829	8835M	April 14
HB 4	28830	8836M	April 14
HB 5	28831	8837M	April 14
HB 6	28832	8838M	April 14
HB 7	28833	8839M	April 14
HB 8	28834	8840M	April 14
HB 9	28835	8841M	April 14
HB 10	28836	8842M	April 14
HB 11	28837	8843M	April 14
HB 12	28838	8844M	April 14
HB 13	28839	8845M	April 14
HB 14	28840	8846M	April 14
HB 15	28841	8847M	April 14
HB 16	28842	8848M	April 14
HB 17	28843	8849M	April 14
HB 18	28844	8850M	April 14
HB Fr	28826	8851M	April 14
HB 2 Fr	29230	8852M	May 9
HB 19	29231	8853M	May 9
HB 20	29232	8854M	May 9
Myrtle	L 1654		July 4
Homestake	L 1892		July 4
Daisy Fr	L 1881		July 4
Gem	L 1880		July 4
Porto Reco	L 1778		July 4

The claims are in the Greenwood Mining Division of British Columbia and are three miles north-northeast of the hamlet of Bridesville. They are centred on $49^{\circ}04'30''$ N latitude and $119^{\circ}08'W$ longitude.

Access is good. From a point at the west side of the Rock Creek bridge, 1.6 miles east of Bridesville on highway No. 3, a good all-weather road leads northward to Camp McKinney. Between mileages two and four on this road, various old logging roads and trails extend eastward and northeastward into the claims.

The claims are at an average elevation of 3700 feet in the Okanagan Highland which comprises a rolling upland surface dissected in places by steep-walled stream valleys. There is a forest cover of open pine with occasional clearings and occasional thickets of dense small balsam saplings. The area in general is semi-arid having little or no rain in summer. Water is scarce and is found only in the major creeks.

All claims are in good standing until their anniversaries in 1970. All are owned or leased by W. E. Fraser of 4 - 31 Sixth Ave., New Westminster, B.C.

The property was examined by the writer on April 17, 1970.

HISTORY

The Rock Creek - Camp McKinney area has had a long history of mining activity. The discovery in 1860 of placer gold in Rock Creek sparked a 'rush' that resulted in the Royal Engineers constructing the Dewdney Trail eastward from Hope in order to provide access (and law and order) to the area. The 'rush' was short lived and most of the miners soon departed for the newly discovered Cariboo gold fields. The coming of the railways, both

in Canada and in the state of Washington, sparked another 'boom' in southern British Columbia in the 1880's, this time for base metals. Numerous prospects were staked and various 'camps' rapidly developed. The copper ores of the near-by Boundary camp were discovered in 1891 and smelters began producing at Grand Forks in 1900 and at Greenwood in 1901. The last of the Boundary mines closed in 1919, but production resumed at Phoenix in 1959 and still continues.

Only four miles distant from the 'HB' claims is Camp McKinney where the Cariboo-Amelia mine began producing gold ore in 1894 and to 1962 has produced 137,184 tons, most of it prior to 1905. The gold-copper mineralization in the area of the 'HB' claims was found and staked in 1896 and numerous trenches and open cuts plus several shallow shafts were excavated in the next few years. Another shallow shaft was sunk at the Le Roi claim about 1930 and Cominco is reported to have done some diamond drilling. In 1962 Cumberland Mining Co. Ltd. drilled six short holes in the vicinity of the Le Roi shaft. In 1966 Gunnex Limited mapped and soil sampled a small area between the Le Roi and Dayton shafts. Early in 1969, W.E. Fraser staked the 'HB' claims and leased several of the old Crown Granted claims. He took soil samples along picket lines which he had cut and eventually interested Gunnex Limited in his property; Gunnex Limited is currently continuing the exploration of the 'HB' group.

GEOLOGY

The regional geology is shown and described in G.S.C. Memoir No. 179 (1935) and on G.S.C. Map 15-1961 - Kettle River West Half (1961). Palaeozoic and Mesozoic volcanics and sediments were highly deformed and then intruded by the complex Nelson batholith of Cretaceous age in which at least two distinct groups of granitic rocks are recognized. Following erosion and exposure

of the granite, early Tertiary sediments and volcanics were deposited and, shortly after, the Oligocene Coryell granitic plugs were intruded. Finally, Miocene plateau basalts flooded the whole of the interior of British Columbia. Recent erosion has cut into the Tertiary layered rocks and had exposed the older rocks beneath them.

The 'HB' group is located on meta-sediments of the Permian and/or Triassic Anarchist Group that are intruded by and contained between a large tongue of Nelson granitic rocks (chiefly diorite) on the south and the main mass of the slightly younger Valhalla granitic rocks (chiefly granodiorite) on the north. Within the 'HB' claims the Anarchist sediments are so altered, fractured and oxidized that their identification is extremely difficult. They are best described by the Precambrian term of "greenstone". Occasional limey zones and scattered calc-silicate minerals suggest that limestone may originally have been present. A few medium-grained diorite dykes intrude the meta-sediments.

Numerous rusty zones are present and all have been explored by the 'old timers' with trenches, open cuts or shafts. Most of the rust results from widespread disseminated pyrite and pyrrhotite with very minor chalcopyrite, all of which are largely altered to oxides and carbonates in the near-surface rocks. Massive sulphides are found on the old dumps. The sulphides seem to be related to steeply dipping shears and/or minor faults having various strikes.

A study of air photos reveals various lineaments which probably are the surface expressions of the stronger shear zones. All the old shafts and most of the trenches occur on or adjacent to lineaments. The lineaments have five preferred directions whose azimuths are 000° , 025° , 060° , 105° and 155° . Most of the geochemical anomalies can also be related to these same directions.

GEOCHEMISTRY

All soil samples were collected by a person experienced at soil sampling. They were taken along picket lines at regular intervals, but all picket lines have not yet been sampled. The sample locations are plotted on the accompanying map. The samples were taken at depths of 18 inches wherever possible, but at no time was organic matter included. Since no 'C' layer is present, since no 'A' layer was sampled, and since no glacial silts are present, the samples must have been collected from the 'B' layer.

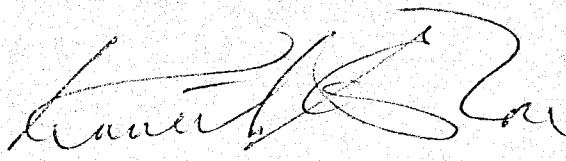
Analyses were for copper only and were made by T.S.L. Laboratories Ltd. and by Vancouver Geochemical Laboratories Ltd. T.S.L. dried and screened the samples, digested a portion of the -80 mesh fraction in hot hydrochloric acid, and then aspirated the solution in a 0.25 meter Jarrell-Ash atomic absorption unit using acetylene and air. Vancouver Geochem dried and screened the samples, digested part of the -80 mesh fraction in hot nitric and perchloric acids, and aspirated the solution in a Techtron AA4 atomic absorption unit using acetylene and air. Copper contents were reported in parts per million and these values are plotted beside the sample locations on the accompanying map. The copper contents varied from a low of 8 ppm to a high of 1800 ppm. A total of 200 samples was collected but since a few were of a reconnaissance nature they are not plotted on the map.

The samples are too few in number to be analyzed statistically, but their results are such that statistical analyses are not required. The copper values have been contoured at 100, 200, 300, 500 and 1000 ppm which outlines what is obviously a strong anomaly having a complex shape. The complex shape can be related to the preferred directions of the air photo lineaments. The anomaly itself occurs at the intersections of at least three lineaments.

CONCLUSIONS AND RECOMMENDATIONS

1. A strong geochemical anomaly for copper having a complex shape occurs in an area having favourable geology and known to be mineralized with iron and copper sulphides.
2. The location of the geochemical anomaly and its complex shape can be related to air photo lineaments which probably are surface expressions of shears and/or faults. Most of the old prospect excavations are located on or adjacent to the lineaments.
3. Additional exploration work is merited and it is proposed to:
 - a) Extend the area of soil sampling to search for other geochemically anomalous zones.
 - b) Make a reconnaissance magnetic survey of the entire claim group and detailed surveys of interesting areas.
 - c) Make a reconnaissance electro-magnetic survey of the entire claim group and detailed surveys of interesting areas.
 - d) Trench interesting areas with a 'cat' where possible, or diamond drill areas where trenching is not feasible.

The recommended work is, in fact, in progress at the time of this report.


Kenneth C. Rose, P.Eng.
Vancouver, B.C.
April 22, 1970



STATEMENT OF COSTS AND OF DAYS WORKED

Line cutting and soil sampling was done by W.E. Fraser of 4 - 31 Sixth Ave., New Westminster. The work involved 14 days labour between August 10 and September 6, 1969. The work was done by contract and no wages as such were paid.

Engineering, geology, maps and reports were done by Kenneth C. Rose, P.Eng., of 1019 - 409 Granville Street, Vancouver. They involved a total of six days between February 26 and April 23, 1970 which time was charged at the rate of \$125.00 per day and involved a total of \$750.00.

Cut and chain five miles of picket line @ \$100.00 per mile	500.00
Collect 200 soil samples @ \$1.00 per sample	200.00
Geochemical analyses:	
T.S.L. Laboratories Ltd. - 150 @ \$1.35	202.50
Vancouver Geochemical Laboratories Ltd. - 50 @ \$1.20	60.00
Truck rental - three weeks @ \$350.00 per month	262.50
Engineering, geology, maps, reports, etc. (as above)	750.00
	<u>1975.00</u>

Kenneth C. Rose

Kenneth C. Rose, P.Eng.
Vancouver, B.C.
April 22, 1970

Kenneth C. Rose

Declared before me at the *City*
of *Vancouver*, in the
Province of British Columbia, this *22*
day of *April* 1970, A.D.

Kenneth C. Rose

Jill Turner

GEOCHEMISTRY
'HB' CLAIM GROUP

SCALE: 1"=200'

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2359 MAP #1

CLAIM BOUNDARY: - APPROXIMATE
 - SURVEYED

SURVEY MONUMENT LOCATED

CLAIM POST LOCATED

SHAFT

TRENCH

ROAD

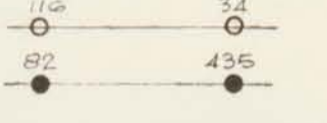
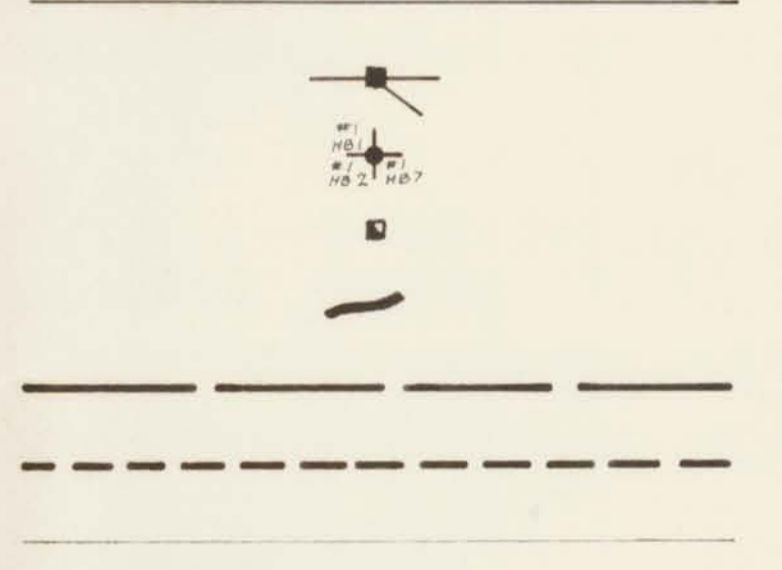
TRAIL

PICKET LINE

SOIL SAMPLE LOCATION WITH COPPER CONTENT IN ppm:

- ANALYSIS BY T.S.L. LABORATORIES LTD.

- ANALYSIS BY VANCOUVER GEOCHEMICAL LABORATORIES LTD.



TO ACCOMPANY GEOCHEMICAL REPORT BY KENNETH C. ROSE, P.ENG.
ON THE 'HB' CLAIM GROUP, NORTHEAST OF BRIDESVILLE, GREENWOOD
MINING DIVISION, DATED APRIL 27, 1970.

Kenneth C. Rose
KENNETH C. ROSE, P.ENG.



Kenneth C. Rose
APRIL 23/1970



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