

Copy of my 1954 Report
Highland Valley Copper Belt
Gneiss Huestis

HUESTIS PROSPECTING POSSIBILITIES

007866

INTRODUCTION

ACCESSIBILITY

The area of interest is some 220 to 275 miles North East of Vancouver, locally known as Ashcroft and Nicola map areas, in part accessible by paved highway, Canadian Pacific and Canadian National Railways, and Canadian Pacific Airlines, gravel roads running from the pavement throughout the area of Copper and Molybdenum Prospects.

CLIMATE

The area lies in the dry belt, having an average of 7.07 inches of precipitation over a 30 year period, up to 1945. Snow at higher elevations does not exceed 3 feet, and average temperatures during January and February are around zero.

ELEVATIONS

Ashcroft - - around 1,000 feet above sea level
Kamloops - - around 1,140 feet above sea level
Area of Interest - from 1,000 feet to 6,000 feet
above sea level.

STRUCTURAL FEATURES OF AREA CONCERNED

You will note on accompanying map West of snowstorm area are strong Regional Faults. These faults are known to be some 200 miles in length at least, and it is most interesting to note that the distance of the snowstorm area is within five miles of the same distance East of the Regional Faults system, as Copper Mountain mine, a large copper producer some 80 miles South East of the snowstorm area. The Copper Mountain and Snowstorm Fault systems could be an adjacent fault system parallel with these strong Regional Faults. If the above is correct, one would expect similar strong structural conditions to exist at the Snowstorm as at Copper Mountain Mine, making channels for large, low grade copper deposit of large, undetermined widths and deepseated ore deposits.

Structural Features assumed within the Snowstorm Area:

- (a) Guichon Shear (?) if exists, is in a wide, North-South trending valley bottom to within 4 miles of Tunkwa Lake, where Guichon Creek swings to the North West, forming part of No. 1 shear? You will note I have projected the Guichon Shear Northward from where No. 1 shear intersects it, to the mouth of Deadman River, a North-South trending stream, if I am right in my assumption, the Guichon Shear could be a major Fault System connecting to the Otter or Allison Fault system to the South, having a length of some 130 miles.
- (b) No. 1 - Huestis and North East Shears would then be off-shoots of the Guichon Shear. Again you have a similar condition as Dr. Rice mentions at Copper Mountain area. Where Huestis Shear intersects the Guichon Shear, is like the spread fingers of a hand whose palm is at the intersection.

- (c) North East Shear as shown on the accompanying map could be an adjacent structure to the Snowstorm?

ECONOMIC POSSIBILITIES OF AREA

The area is underlain by a large body of granite which occupies an area trending South, South Easterly from Ashcroft for some 36 miles in length, having a width of some 14 miles at its widest point.

Several copper and molybdenum deposits have been known in this area for more than 40 years. At various times, when price of copper warranted it, high grading was done on several of the properties, and some shipments of ore, as well as concentrates, were made. Those containing copper-molybdenum were considered as valueless metallic minerals at that time, as they were not a shipping product by high grading.

Within the granite many large shear zones are known, the granite being altered to chlorite, sericite, and quartz with which are important amounts of bornite and chalcopyrite. In places, the shear zones contain veins several inches to a foot in width of nearly solid chalcopyrite and bornite, surrounding which are wide zones in which these minerals occur as disseminated particles, thus forming large bodies of low grade copper and molybdenum ores.

The area is almost entirely covered by drift, through which only a few relatively small areas of granite project. Copper minerals were noted in some of the outcrop of granite. Its relation to the amount of granite which is visible, is encouragingly large, and suggests the probability that many other deposits may be existing in the much covered areas of granite.

In glancing at the enclosed map showing the locations of the prospects, one would immediately visualize that the drainage system of the area lends itself to structural features.

1. Along upper part of Pukaist Creek and Witches Brook, ^{called Huest's Shear} forms a wide valley approximately one mile in width, trending North West and South East, with hills rising from one to two thousand feet above the valley bottom. The valley bottom in part, could suggest a wide shear-zone or fault, and one will note that the largest percentage of prospects parallel the valley from one to four miles back on the surrounding hills, where granite outcrops, generally along a North East or South West trending stream system which are tributaries of the main North West and South East trending valleys.
2. A similar condition also exists along Guichon Creek, a North and South trending valley, where we find a series of prospects above the valley bottom to the West. This also suggests that Guichon Creek may enclose a large shear zone or fault trending North and South. The other structures, as outlined, to be dealt with in accordance with the results obtained from the first venture, at the Snowstorm.
3. Some 80 miles to the South East, similar structural and mineral conditions exist as at the Snowstorm and its subsidiary prospects, which is known as Copper Mountain Mine, producing approximately 1,300,000 tons of copper ore of around one percent grade per year for the past 15 years. Between the two areas, several copper prospects are known to occur, but none with the potential tonnage as the Snowstorm.

PROPERTIES

Numbers Correspond to Map Numbers.

- 1 O.K. Group - Crown Granted held. - *Now Alwin Mining (under ground) looking for & finding High Valley Area*
Remarks: Production - 10,000 tons mined of 3.60% Cu. From this 1,487.8 wet tons of concentrates of 20.33% Cu. - 1.90 ozs. Ag. a ton
Zone - 10 to 12 feet wide - Strike N.80°E.
- 3 Toketic Iron - Lapsed *still a prospect*
Remarks: No production.
Zone - 300 feet wide, 3,000 feet long - Strike N.65°E. containing a series of short lenses of specular Hematite, with minor amounts of chalcopyrite.
- 5 Kathleen - One claim held. - *Held by Valley Copper (prospect) High Valley Area*
Remarks: No production. Similar conditions exist as on O.K.
Zone - Strike N.25°E.
- 11 Highland - Lapsed. - *North Pacific - Exploration stage (High Valley Area)*
Remarks: No production.
Zone - Strike N.E. Series of small lenticular veins.
- 12 Transvall - Crown Granted held. - *North Pacific - Exploration stage (High Valley Area)*
Remarks: No production. Similar occurrence as Highland.
Strike N.S. direction.
- 13 Glossy - Crown Granted held. - *Prospect*
Remarks: Forge claim production 21.80 Tons of .03 ozs. Au, 2.96 ozs. Ag, 12.62% Cu. - Strike N.80°W.
Glossie Claim - Zone 100 feet wide of around 1.00% Cu.
- 63 Snowstorm - Claims held - *Now Bethlehem*
Remarks: Production - 96 tons. 27 to 31.64% Cu - .07 to .10 ozs. Au - 5.08 to 6.77 ozs. Ag. Strike N.E.
One Zone 1,000 feet wide and 3,000 feet long of disseminated copper. One section averages .64% Cu across 280 feet - 1,000 feet west a 12 foot zone of Cu-Mo^S.

64 Gnawed Met. - Claims - held - *Exploration - Highland Valley Area*
Two shear zones - showing Cu-Mo^s. Strike N.80E.

65 Aberdeen - Crown Granted held. - *Bethlehem - Chataway Exploration (drilling in progress)*
Remarks: Production - 1,089 tons yielded 9 ozs. Au - 761 ozs. Ag - 391.381 lbs. Cu. Strike of Zone N.60°W.

76 Eric - Lapsed - *Now part of Craigmont Mines*
Remarks: Several small veins of copper mineralization.
Strike - N.65°E.

Burr - Crown Granted held. - *Prospect*
Remarks: No production.
Large body of disseminated pyrite, some copper - gold - silver.

Tamarac - Crown Granted held. - *Part of Valley Copper (High Valley Area)*
Remarks: No production. *1,000,000,000 tons + Bethlehem owns 20%*
Zone consists of a series of veins carry appreciable values in copper and molybdenum.

Albatros - Lapsed - *Trojan mines - No production (High Valley Area)*
Remarks: No production. Large zone carries copper mineral - low grade.
Strike @ N.W.

Victor - Lapsed - *Part of Lorne (Highland Valley Area) (500,000,000 tons) Reading for production 1973*
Remarks: No production. 3 small copper bearing veins. *at 40,000 tons.*

Black Bluff - Lapsed *Prospect*
Remarks: Large area of low-grade copper and molybdenum minerals.

Copper King - Lapsed - *Part of Bethlehem - Chataway Summit Lake Area (drilling in progress 1971)*
Remarks: Large zone of copper and molybdenum minerals.

CONCLUSIONS

In the writer's opinion, large areas underlain by this granite, warrant extensive prospecting and developing.

1. By doing a detail Geological and Structural mapping of the area.
2. By driving a 2,000 foot long drift through the best mineralized section of the Snowstorm property and 300 foot cross-cuts within the tunnel every 200 feet for sampling purposes, as diamond-drilling to date shows less than fifty percent core recovery, due to the fractured ground of the deposit.
3. By cross-cutting with open cuts along the copper-molybdenum prospect zones to located continuity and widths for sampling purposes of these known prospects to appraise their economic value.
4. To test the area by diamond-drilling where the strike of the Snowstorm, Transvaal and O.K. intersect in the valley bottom of Witches Brook. Witches Brook, as mentioned before, could be a large N.W. and S.E. trending shear-zone; if this be true, the intersection of the four structures may be important large copper deposits. - *Now Valley Copper ORE BODY*
5. The area is a pleasant countryside in which to reside, whereby labor problems would be practically nil in relation to other remote areas.
6. To undertake the above program, several million dollars will be needed to establish large low-grade copper deposits now indicated, as open pit mining, also one must bear in mind the possibility of leaching due to the wide fractured area of disseminated copper deposits such as located on the Snowstorm Group.

Respectfully yours,

H. H. Huestis

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