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REPORT ON SNOWSTORM GROUP OF CLAIMS PROPER Sufficient timbe

LOCATION:

The Snowstorm Group of Mineral Claims is comprised of eight claims situated on the west side of Ladner Creek, a tributary of the Coquahalla River, in the Yale Mining Division. The property is easily reached by a good pack trail, about three miles long, which connects with the Kettle Valley Railway at a point about 17 miles above the town of Hope. Two of the claims are on Emancipation Mountain, and adjoin the well-known Emancipation Mine. The Claims continue down the west slope of the mountain and Claims continue down the west slope of the mountain and across Ladner Creek and up the slope of Ladner Mountain to its crest. The Claims are well located and cover a block of ground that will give excellent tunnel sites for mining purposes. others have made favourab

GEOLOGY: The Snowstorm Group is located in a belt of highly altered sedimentary rocks, mostly

slates, bordering on a massive dyke of serpentine which can be traced for miles through this section of country. There is evidence of intrusive dyke rocks at certain points along the mineralized area but what relation they have to the zones of enrichment has not as yet been proven on account of the small amount of development work done to date. A mineralized zone, varying in thickness from 5 to 20 feet wide, seems to strike through the full length of the Claims. This mineralized area in places is in the form of replacement veins along the bedding places of the slates. At other points, the heavy mineralization seems to occur in rocks of an igneous character. These are probably intrusive rocks which have forced their way through the slates and follow the same general strike. The same general strike

covered by soil. Considerable calcite is noticed in the veins, also pyrrhotite and arsenopyrite and gold. Likemost of the properties in this district, the highest values obtained are in association with the arsenopyrite although considerable free gold can be seen in portions of the vein containing only the pyrrhotite. Most of the gold is free but no doubt some is in solid solution with the sulphides as is the case all through the district.

work, much ore of commercial value will be found that is now

A small tunnel, about 30 feet long, has been driven at a point on the Pittsburg This tunnel was started with the object of penetrating at depth a large mineralized area about 100 feet farther up the hill where good values in gold has been demonstrated both by assays and pannings. About 20 feet in, a small crosscut was started to reach the hanging wall at this point but which was started to reach the hanging wall at this point but which gives good values in gold all over the face at the present time although the hanging wall has not yet been reached. All other work is confined to surface stripping and open cuts entirely of which there is a considerable amount and which has been done in a very intelligent manner, it having shown wide areas of mineralized rock, giving fair values in gold but mostly low.

A noticeable feature about these areas is their consistency in values. Sampling by chance samples gives values over cuts from 3' to 8' wide of from \$1.60 to \$22.40 per ton. Sufficient work has not been done to prove any continuation of the richer portions of the vein but the writer is of the opinion that shoots of ore of good payable quality will be found in subsequent development work.

Sufficient timber is available on the Claims for all purposes and an ideal water power site right in the centre of the property makes it a very attractive proposition from the development standpoint. Here 100 H. P. can be had at a minimum cost as Ladner Creek enters a canyon on the Pittsburg Claim, the Creek making a sheer drop at one place of over 80 feet.

SURMISES:

The gold-bearing nature of the rocks
exposed in this belt has been recognized by many leading engineers and geologists. First among whom was G. M. Dawson who, in his Report of 1877 and again in the annual report of the Canadian Geological Survey for 1894, says: "one point of particular interest with respect to the schistose and slaty rocks of the Boston Bar Series loking and their representatives in the area is their auriferous wo character". Many others have made favourable mention of this particular district and hold it as one of exceptional promise, considering its close proximity to the Emancipation Mine and its geological nature. I think the property has considerable merit and has a very good chance of developing into a mine of prominence. The relized sone approximately 80 feet to Further stripping should be done along the line of strike and an effort made to uncover richer shoots of ore than at present have been found. The existence of much free gold in the surface dirt would tend to the of much free gold in the surface dirt would tend to the belief that these exist.

This work can be done very cheaply as not there are several small gulches cutting the vein system which in the spring and early summer produce enough water for sluicing purposes. I believe that, in the doing of this work, much ore of commercial value will be found that is now covered by soil.

In conclusion, I would say that this work property is worthy of the expenditure of considerable money. order to determine value and extent of ore shoot modes and To the west of the foot wall of the "Intermediate North Vein" is an area of slate, 6 foremasde. Rerruss by a blue-white quartz vein. 18 feet wide. Careful sempling with a channel cut across its width gives an assay of 34.80 per ton. The mineralization is similar to that of the North Vein. Separated from the blue-white quartz vein, by an approximately 10 feet wide. Competent sampling of this vein over Vancouver, B. C., 100 per ten values.

November 30th, 1921. The four veins which comprise the "North Vein Lone" are bold and persistent and give the firm impression of extending to great depth. The walls are well defined and free. It is highly probable that further development of the North Vein Zone of 80 feet will disclose higher values than are at present shown, although 4 feet of All 20 rock in the Intermediate North Vein indicate profitable milling temage even now. This area should be further explored in length and aristed on at favourable locations as there is every probability of encountering considerable townspe of profitable milling ore on in printed out by Mr. Geneell in his report.

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Since the report of Mr. Kerruish, development has been prosecuted during the field season of 1922.

open cuts have been made, proving greater continuity of vein. The width is varying from 15 to 25 feet. Channel cuts over 25 feet, made by competent men, have gone as high as \$12.50 per ton over entire width. On the hanging wall side, at one point, a one foot cut ran \$378.80 per ton, showing the presence and high probability of a rich ore shoot in the neighborhood. At another point, sampling gave high returns. The result of the season's operations on the South Vein give much encouragement to prosecute development with every reasonable expectation of picking up a large body of milling ore and possibly opening one or two rich ore shoots.

The more noteworthy developments, however, have occurred in what is known as the North Vein System, about which little mention is made in the report. About 250 feet to the east of the South Vein is a mineralized zone, approximately 80 feet wide, containing four known veins, varying from 20 feet to 9 feet in width, and separated from the South Vein by a slate belt which may or may not contain mineral. The most easterly vein in this zone is known as the North Vein. This is a large body of mineralized quartz, heavy with pyrite and pyrrhotite, some calcite and occasionally fine-grained arsenopyrite. Competent sampling of this vein repeatedly yields values over its width of 20 feet of \$5.00 per ton and upwards. Some picked specimens, weighing 20 pounds, went \$59.60 per ton. This vein can be traced for several hundred feet and gives persistent values as mentioned.

Immediately alongside this, with about one foot of gangue between, is the "Intermediate North Vein". This Vein is similar in structure to the North Vein. It is 9 feet wide. Careful sampling of a five foot section on the hanging wall side yields \$3.20 per ton, while 4 feet on the foot wall side assays \$11.20 per ton. Here is very likely looking ground to investigate and underground prospecting at this point would be justified in order to determine value and extent of ore shoot.

To the west of the foot wall of the "Intermediate North Vein" is an area of slate, 6 feet wide, followed by a blue-white quartz vein, 18 feet wide. Careful sampling with a channel cut across its width gives an assay of \$4.80 per ton. The mineralization is similar to that of the North Vein.

Separated from the blue-white quartz vein, by an area of 21 feet of slate, is a blue-ribboned quartz vein approximately 10 feet wide. Competent sampling of this vein over its width gives \$5.00 per ton values.

The four veins which comprise the "North Vein Zone" are bold and persistent and give the firm impression of extending to great depth. The walls are well defined and free. It is highly probable that further development of the North Vein Zone of 80 feet will disclose higher values than are at present shown, although 4 feet of \$11.20 rock in the Intermediate North Vein indicate profitable milling tonnage even now.

This area should be further explored in length and drifted on at favourable locations as there is every probability of encountering considerable tonnage of profitable milling ore as is pointed out by Mr. Cansell in his report.

5-69

It must be observed that the work done on the property last season has been confined to the Pittsburg Claim. The Arrowhead Claim deserves careful prospecting as it contains several outcrops of importance, while the Jackfull Claim contains an exposure of a zone, 20 feet wide, of stringer veins running from 6 inches to 18 inches in width, separated by bands of slates. These stringers contain free gold and should be investigated at an early date. It is possible that, if these were drifted on, the whole zone may prove of value. The distance between these stringer veins and the work done on the Pittsburg Claim is approximately 2,500 feet and this entire length should be prospected and in places open cut and sampled for the discovery of other rich showings.

On the top of Emancipation Mountain, on the Snowstorm Claim, is another large outcrop which in various places gives high grade values. While these are promising, the large belt of mineral ground on the Ladner Mountain side is so much easier to work and has such high probabilities of developing a large tonnage of profitable ore that the Emancipation Mountain slope could be left for subsequent development.

It is to be observed that mining can always be carried on on this property very economically. The slope of the mountain averaging about 30 degrees, tunneling will always admit of overhead mining. Sinking for ore need not be contemplated for many years.

The ore of this deposit does not involve any difficult metallurgical problems. 85% of the values can be recovered by amalgamation on grinding to 80 mesh. 65% of the values can be recovered by grinding to 40 mesh. 15% of the values are in sulphides and can be recovered by concentration and either shipped as concentrates or handled by cyanide process.

The year's developments, although modest and inadequate due to lack of money to prosecute work, has strongly tended to confirm the opinion held by the engineer.

Notwithstanding the fact that the property could be operated in a large way and milled with profit on the values disclosed at the present stage of development, further development in this highly mineralized ground, 80 feet in width, as well as in the South Vein, might easily encounter ore shoots yielding much higher values.

BRADFORD W. HEYER.

Vancouver, B. C., December 15th, 1922.