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DOME MOUNTAIN EXTENSION CLAIMS.

October 23rd, 1922.

T. E. Jefferson, Esq., TELKWA, B.C.

Dear Sir:-

I have pleasure in making the following report on the various claims on Dome mountain, viz:-

Hercules. Ptarmigan, Pioneer & Whistler, known as Heslip Group.

Raven, known as Higgins Claim.

Mars, Jupiter, Venus, Comet, Star, Planet & Saturn, known as Star Group.

Bisbie, known as Cabin Group extension.

Elk, known as Hoops Group extension.

Jane and Bertha Fraction. known as Chisholm Group extension.

Eagle Fraction.

These claims are located on Dome Mountain, in the Telkwa section of the Omineca Mining Division, approximately 24 miles from Telkwa Station on the Canadian National Hallway at an elevation ranging between 3700 to 5200 feet. They are reached by wagon road (eight miles) and mountain trail (fourteen miles). About 50% of the ground is above timber line, the other 50% being covered with timber serviceable for mining purposes generally. Necessary water for domestic purposes can be obtained almost at any point below timber-line.

1. HESLIP GROUP: The four claims comprising the group are the most westerly of the Dome Mountain locations and extend grom timber-line to a stretch of meadow land at the northwest end of the group.

The veins, like all others on Dome Mountain, occur in schistoge andesite. The known veins are four in number and have a more or less parellel strike of N 50° W. They occur in a sheared zone about 500 feet wide and have been opened up by a number of surface cuts and test pits. The objective aimed at in the work performed on the group was continuity rather than depth, which objective was generally attained, especially in the case of the most important vein.

(Vein 1) This vein was opened up in a cut 50 feet long, located on the Whistler claim, about 100 feet east of the line between that claim and the Pioneer, 200 feet from No.1 Post. It has a dip of about 65° to East. Hear the middle of the cut the vein appears to have been faulted a distance of 6 feet. The vein has the usual quartz gangue with bands of schist included in the vein filling, giving a total width of 20 2°0°. The quartz is well mineralized with arsenopyrite, pyrite and galena. This vein is again exposed in an open cut, 200 feet N.W. near No.l Post in Ptarmigan claim and shows good definition. A sample of quartz at this point gives - .20 oz.gold for a width of 9".

(Vein ii) This vein has been opened up by a number of surface outs for a distance of approximately 1000 feet. The best exposure is about 400 feet S.E. No.1 Post of Pioneer. The At this point on the Pioneer the vein has a width varying from 3 to 4 feet. It occurs in schist, is well mineralized with arsenopyrite. Samples taken from this point gave:-

(a) 12" quartz from bottom test pit (8'0" down): silver 2 oz. gold 1.24 ozz.

(b)	4" quartz from surface:	3.57 oz. 1.40 oz.
(c)	Grab sample from dump test pit:	10.92 02. 2.64 02.
(d)	Selected ore 100' south of test pit:	15.40 oz. 6.32 oz.

Samples from open cuts on extension of Vein 11 on Ptarmigan:

(e)	Discovery, 65'	from No. 1 Post	Ptarmigan:	gold	.16 oz.
(f)	Open cut, 350'	from No. 1 Post	Ptarmigan:	Silver Gold	15 oz. 6.80 oz.

(Vein 111) exposed on Pioneer in shaft 200' west of No. 1 Post Ptarmigan, 75', from end line. Width of 1'6" quartz gangue with pyrite gave traces of silver and gold.

(Vein iv) exposed on Ptarmigan in open cut, 100' north of Ptarmigan Pioneer line. 300' west of No. 1 Post. 3" vein of mixed quartz and schist striking N 72 W, dip to N.E. gave traces of silver and gold.

It thus appears that the most important lead on this group of claims is the one on which most work has been done, and the continuity, depth and value of which have to a certain extent been proved; viz: Vein ii, and further expenditure would therefore be amply justified. A shaft should be sunk about the point where the present test pits are located and should the payshoot prove consistent, a tunnel from a point on the Ptarmigan claim can be considered. This vein is one of the most interesting on the N.W. end of the Mountain, as ore of a good shipping grade can be handsorted from the dump.

Eagle Fraction consusts of about a half claim lying between the Whistler and the Eagle claims and contains the extension of the Eagle lead, a sample from which assayed: silver, 1 os; gold, 1.12 os.

2. STAR GROUP: This group of seven claims is located on the top of the small divide between the East and West ends of the Dome Mountain locations, and extend to the Southern escarpment of Dome Mountain. The greater part of the ground covered by this group is free of timber and comparatively free of overburden. The group contains the extension of a number of veins which have been prospected on the adjoining claims of the Dome Mountain Group. The Star Group has not been prospected to any extent, merely a few open cute at points on veins close to the adjoining claims, but sufficient to show that such veins do extend into this ground. Running along the North East side of the Mars claim is a rock slide in which is exposed in several places the "Gem" lead; while no phenomenal assays have been obtained in these exposures, samples taken have shown good mineralization and taking into consideration the decomposed, leached out condition of the vein on the Mars claim, there is every possibility of an improvement in values when a less leached condition is reached. The vein shows excellent continuity and definition.

On the <u>Star</u> claim, near the Hawk-Mars corner is a strong lead carrying, in addition to gold and silver, a high copper content. This is probably an extension of the Gem-Mars lead and is exposed at a point where it has been eroded below the leached zone which appears on the Mars, thus supporting the contention that the Mars will improve as depth is attained. Strike and dip coincide with that on the Mars and main Gem lead. Fairly high up on the Star are some narrow leads of decomposed quartz, samples of which gave small gold values. Among the rock debris scattered around the foot of the ridge which runs along the south side of the Star, are many big boulders of float which do not appear to have travelled any great distance.

The <u>Saturn</u> claim will possibly contain the S.W. extension of the Cabin vein of the Dome Mountain group, which vein will probably cross the S.E. corner of the Saturn before entering the Dome claim.

Comet: The claim contains several outcroppings of what is probably the West extension of the Jane Vein, which is also the case on the Jupiter and Venus claims. On the Jupiter the min vein can be traced up the Mountain side over the top of the Dome to the Higgins Vein on the Raven, a distance of over two thousand feet, thus giving a line of croppings along the strike of the Jane vein for nearly 5000 feet.

<u>Higgins Claim - Raven</u>: This claim is located on the top of Dome Mountain. The Higgins vein has been opened up by a short tunnel about 30 feet long, and the vein matter taken out above the tunnel by means of a long open cut. The formation and vein filling at this point show an exceptional amount of folding and distortion. An average sample of a few tons of ore on the dump gave; silver, 3 oz; gold, .94 oz; copper, 3.9%. Seventyfive feet below the tunnel the vein has been exposed in an open cut. The Higgins vein varies in width from 6" to 1 foot. It should be prospected to located possible lenses of ore. In the event of milling operations being carried on in connection with the Forks ore body, this vein could probably produce a little tonnage of more than average grade ore, which could be treated at the "Forks" plant.

<u>Cabin Group Extension. - Bisbie Claim.</u> This claime is located at the sastern end of the Grizzley claim. It is unprospected, but should contain the Cabin vein on its eastern extension. Hoops Extension - Elk Claim. This claim will possibly contain the Hoops and Forks veins. The ground covered by the claim includes quite a little meadow land which would be an asset to any permanent camp established on Dome Mountain, as is also the case with the Bertha Fraction located between the Forks and Chisholm groups.

Jane Claim is a new location upon which very little work has been done. There are a number of quarts outcrops which however at the surface do not appear to be very heavily mineralized. The Jane Claim is on the Southern end of Dome Mountain, lightly timbered and comparatively free from overburden.

Summarizing these claims, the most important is the Heship group, together with the Eagle Fraction. This Group would be the centre of a development operation and has every prospect of producing a mine that would be capable of supporting a small reduction plant, which would be best located on the north end of the Ptarmigan claim, which point would be of easy access from Jefferson Lake. The remaining claims would form a valuable addition to the present Dome Mountain group, and should be considered as such.

Respectfully submitted.

(Sgd.) Alfred J. Gaul

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