COPY.

William J.Elmendorf
Mining Engineer,
Prefontaine Building,
Seattle,Washington.

018051

103I/9E
103I-64,65

REPORT

on the

SILVER BASIN GROUP

and

SILVER CROWN GROUP

of Mineral Claims in the

Omineca Mining District,

British Columbia,

Canada.

SILVER BASIN. A glacial cirque of horseshoe form and about 2 miles diameter, laying above the head of Chimdemash Creek, has been appropriately named Silver Basin. The inclined floor of this Basin rises from an altitude of 4000 feet above sea level to 4500 feet. The surrounding peaks of the Bornite Range rise more than 2000 feet higher. The scene is one of simple grandeur not easily forgotten.

LOCATION. Chimdemash Creek empties into the Skeena River about one mile above - northeast from - the town of Usk, a station on the line of the Canadian National Railway and about 100 miles east from Prince Rupert, British Columbia, Canada. Silver Basin is in the Omineca Mining District in the North-eastern Mining Division.

RESIDENT MINING ENGINEERS. Each of the Mining Divisions of the Province of British Columbia is in charge of a Resident Mining Engineer who is appointed and maintained by the Provincial Government. These trained and highly competent men report annually to the Provincial Mineralogist and their reports are published in the annual report of the Minister of Mines. This volume is freely circulated and available to anyone applying for it. The system is excellent and the highest credit should be given to the Provincial Mineralogist and to the several Resident Mining Engineers for the comprehensive and accurate information furnished.

The Silver Basin was visited by Mr. Jno.D. Galloway, Resident Mining Engineer of the North-eastern Mining Division, during the summer of 1923 and his findings are contained in the Annual for that year.

GEOLOGY. The rocks of Silver Basin are all igneous, so far as observed, but of great variety and difficult of classification owing to their altered condition. Flows of rhyolite

and trachyte have been cut by later intrusions which form dykes. These are usually very silicious but some alteration products of basic intrusives are also present. Many of the rocks are so altered that their original character is obscured. The area deserves careful study by a competent geologist who can give the needed time for a careful classification and corolation of the rock formations.

The Silver Basin area is in many ways similar to the San Juan Mining District of Colorado where the writer did his first mining and with which he is quite familiar.

Accessibility. A trail from Usk extends 7 miles up Chimdemash Creek. About 5 miles more would complete this trail to the Wells cabin in Silver Basin and give easy access to the properties there. The British Columbia Government each year appropriates a liberal sum for trail building in the districts where promising mining prospects seem to justify an attempt to render them more accessible. This work is done upon the recommendation of the Resident Engineer and the completion of this Silver Basin trail is contemplated in 1925. An excellent trail can be made of this at comparatively little expense as the grade is generally regular and deep canons on the main creek and laterals are absent.

At the time of the writer's visit the Basin was reached from the 16 1/2 mile cabin on Kleanza Creek by a barely passable trail about 6 miles in length which crosses a pass and enters the Basin from the south, a circuitous and difficult route.

SILVER BASIN GROUP. The Silver Basin, Argentite, Silver Barrier, and Silverton mining claims form the Silver Basin group. They are all full claims, 1500 feet square. The first three named claims extend up Chimdemash Creek in a general easterly direction and from an altitude of 3600 feet to 4500 feet above sea level. The Silverton claim, which lies northeast of the others, extends up the steep slope of the cirque from an altitude of 4800 to 5500 feet.

SILVER CROWN GROUP. This group, which was formerly called the Silver Horde, includes the Silver Shield, Silver Crown, Croesus and Empress claims. This group adjoins the Silver Basin group on the west and extends in a south-esaterly direction from an altitude of 4500 feet across the divide where the highest showing is about 5000 feet above sea level.

Both these groups of claims are held by location and have not yet been surveyed. All the property except the two lowest claims is above the timberline.

VEINS. The ore bearing veins in Silver Basin follow fissures in the volcanic flows of rhyolite and trachyte. The ore seams themselves, where ~~is~~ exposed, are narrow but the width of the accompanying fissuring is considerable, possible 5 to 6 feet. The veins are well defined and persist for considerable length, the Silver Basin vein having been traced through at least

three claims. In fact the vein exposed on the Silverton claim, another claim length away, may well be its extension. The strike of the veins is from north-~~east~~ west to south-east and they dip to the south. Within the width of the veins, which show a banded structure, mineralized seams or veinlets with quartz and calcite gangue, alternate with bands of altered country rock, also somewhat mineralized.

ORES. The prevailing ore is grey copper of high silver content. The gold values in the ore is low but by no means negligible. Other high grade silver bearing minerals are doubtless present and native silver is to be seen in fine flakes in many of the better pieces of ore. This native silver is of secondary origin and too much importance must not be attached to its presence. However, it usually takes high grade primary silver ores to produce any considerable quantity of native. The associated minerals are galena, pyrite, chalcopyrite, bornite and, possibly, chalcocite. Many of these minerals are silver bearing and their presence is important not for the sake of the base metal content itself but for the silver that they contain. It is most probable that the deposits will develop into silver mines if the development is satisfactory.

DEVELOPMENT. On the Silver Basin claim, about 600 feet up the Creek from the Wells cabin, a cut has been made into the wall of the little canon through which ~~the~~ Chimdemash Creek flows at this point. Just above the cut is a little waterfall. Here the vein shows about 5 feet in width with mineralized bands of ore forming, perhaps, 1/3 of its width. From this point this vein has been traced, and opened at several points, down the creek through the Argentite and Silver Barrier claims, a distance of 3000 feet, and up the creek into the Silver Shield claim, a further distance of 1500 feet. A vein has been opened on the Silverton claim beyond this point and up the steep side of the cirque which shows similar mineralization and may well be the further extension of this vein. What appears to be a second and roughly parallel vein shows on the south side of the pass on the Silver Shield and Silver Crown claims. Finally, what appears to be still another vein has been opened still farther to the south-east on the Croesus and Empress claims. Along all these outcrops there are numerous open cuts but no serious underground work has yet been attempted. This is as it should be. As most of the outcrops are above timberline and the rocks afe bare, the tracing of the veins is not a difficult matter. It is important that the most likely point for underground development should be determined before such work is initiated and this can only be done by careful exploration, sampling and assaying of the surface showings. as development, and with it exploration, proceeds, it is probable that other veins will be exposed. The area gives promise of extensive mineralization.

ORE VALUES. Three samples were taken by the writer from the showings described above. Two other samples from

the ground were later sent to me and assayed. In none of these samples was any attempt made to obtain the best of the ore. Rough hand sorting would raise, perhaps double, the grade of any of these. The descriptions and results of assays on these follow.

Silver Basin Sample No. 1 - Silver Basin Claim, average of 10 inch streak in vein in cut below falls-
Gold 0.02 ozs. Silver 161.6 ozs. per ton. Value $ 117.12

Silver Basin Sample No. 2 - Silver Shield Claim, average 10 inch streak in vein in creek bed.-
Gold 0.06 ozs. Silver 50.1 ozs. per ton. Value $ 36.27

Silver Basin Sample No. 3 - Silver Shield Claim, average 6 inch streak in cut at elevation of ~~xxxx~~ pass-
Gold 0.01 ozs. Silver 54.2 ozs. per ton. Value $ 39.94
This sample was also assayed for copper and carried 26.66 %.

Silver Crown Claim. Sample from vein.
Gold 0.20 ozs. Silver 151.0 ozs. per ton. Value $ 109.70

Croesus Claim. Sample from vein.
Gold 0.08 ozs. Silver 68.0 ozs. per ton. Value $ 49.20

The results of many assays on the Silver Basin ores have been submitted to me and two sets are worth recording here as confirming the values obtained from my own sampling.
On June 6th. 1923 Mr. Galloway reports the results of 3 samples taken by Mr. J.D. Wells and assayed in the Govt. Assay Office. The average of these three is:-

Gold 0.59 ozs. Silver 250.2 ozs. per ton. Copper 2.8 %.

The highest of these ran:-

Gold 1.36 ozs. Silver 597.0 ozs. per ton. Copper 5.0 %.

It would be interesting to know what character of mineralization carried the high gold value.

On Aug. 13th. 1923, Mr. Galloway reports the results of what is supposed to be a more general and average sampling by Mr. Wells as follows:- The average of 8 samples:-

Gold 0.03 ozs. Silver 58.9 ozs per ton. Copper 2.2 %.

The highest of these ran:-

Gold 0.04 ozs. Silver 142.0 ozs per ton. Copper 5. 6 %.

OPINION. The Silver Basin and Silver Crown groups of mining claims are in the initial stages of their development. They are"prospects" in every sense of the word. But they are very promising prospects and I believe will make pay mines if properly handled. The veins, so far as seen, are not wide and only a portion of their width is ore. This ore, however, is of excellent grade

and may be easily mined and easily sorted. The properties should be developed with the idea of obtaining quality - grade - rather than quantity - tonnage. Located as they are, a comparatively small expenditure should accomplish much in the way of stripping and open-cutting. When good showings of ore are opened by these means - and there are several such already exposed - glory-holing, drifting, and, if necessary, sinking will be the logical further means of development.

The installation of power, or extensive and expensive improvements in the means of transportatiom need not be considered now. The trail up Chimdemash Creek must be completed; that is of prime importance and the first thing to be done. This trail should be so built that pack animals can carry good loads over it in both directions. This should not be difficult as the nature of the topography is favorable to this end.

Hand-mining, sorting, sacking, and packing ore out to the railway are not the general idea of what constitutes up-to-date mining methods. They are, however, just the methods by which many small profitable mines - and some of the large ones too - have operated ever since mining was first known. And they will always be the methods of operation indicated under certain conditions. If large enough and rich enough ore bodies are opened later - and this is entirely possible - then will be the time for improvement in transportation facilities and power installations.

I heartily recommend the Silver Basin to prospective investors as an area of great promise where heavy expenditure is not needed to accomplish results.

(Signed) W. J. Elmendorf
Mining Engineer.

Seattle Washington, U. S. A.
October 27th. 1924.