TELEPHONE: CASTLE 4-6257

DR. A. C. SKERL
A.R.S.M., PH.D., P.ENG.
CONSULTING MINING GEOLOGIST

1758 WESTERN PARKWAY
VANCOUVER 8, B.C.

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NOTES ON THE HOLDINGS OF RIO PLATA SILVER MINES IN SILVER BASIN, KENO HILL YUKON TERRITORY.

INTRODUCTION

I spent two days examining, mapping and sampling the Silver Basin and Golden Queen claims preparatory to the arrival of the bulldozer that had been ordered by Mr. D. Ross. A third day was used in making up a map to the scale of 1 inch to 50 feet from the field notes.

Some of the claim corners and showings had already been located and flagged by Mr. Ross so that under the guidance of his assistant Mr. Gerry Cannon no time was lost in finding them.

The bulldozer contractor finally cancelled his agreement.

PROPERTY

In the Silver Basin area the company owns the crown-granted claims numbered 41, 600, 601, 602, 603, 637 and 638 of which the first(Silver Basin) and the last(Golden Queen) contained the showings herein described.

TOPOGRAPHY

The claims are on the steep west side of the Silver Basin valley with the elevation ranging from below 4000 to above 6000 feet.

G E O L O G Y

The area is in the so-called Sourdough Hill Schist Formation that consists mostly of thinly interbedded quartzite and schist bands.

In the Silver Basin claim there are two bands of more massive quartzite with occasional schist horizons that are possibly 50 and 100 feet thick respectively with 100 feet of more schistose rocks between them.

These quartzite horizons contain all of the known prospects - presumably because of the through-going fractures that are more readily mineralized as is the case of the No 9 quartzite member on Keno Hill and the Central Quartzite Formation on Galena Hill.

A sill of intrusive porphyry is present just above the upper quartzite and two sills were seen in the lower quartzite.

The geology is sufficiently complex that it is possible that each of the major quartzite horizons is actually a tight isoclinal syncline.

M I N E R A L I Z A T I O N

Dr. Cockfield briefly described 5 separate veins in the Silver Basin claim in his report for the Geological Survey of Canada in 1923. Unfortunately the limited workings are now caved so that in most cases only a small quantity of high grade material, some still in its rotted sacks, is available for inspection.

The ore in each case consists of quartz well mineralized with galena, siderite, friebergite and arsenopyrite. The latter mineral is reported by Cockfield and probably present although I have not recognised it.

I surveyed the various showings on the Siler Basin claim with brunton and chain to make the accompanying map (scale 1" to 50').

Although there is probably no direct continuity it is interesting to note that the No 1 vein is probably a continuation of the Gambler vein that is known in the No 9 Quartzite member about 1½ miles to the west in Faro gulch.

In the Golden Queen claim there is a strong siderite-quartz-galena vein striking N 70°E and dipping about 60°S. All the vein material is almost black in colour due to the oxidation of the manganiferous siderite.

There are two main open-cuts in the vein and an adit that is about 50 feet long. The open-cuts are about 200 feet apart on either side of a gully. Owing to slumping the vein is only partially exposed in each case. At the easterly trench a sample across 10 inches of the footwall portion of the vein assayed 4.40 oz Ag per ton. At the western trench there is a large dump from which numerous fragments were taken at random and on assay gave 46.35 oz Ag per ton.

At another 50 feet to the west there is a tunnel that has a bearing of S 25°W. It is partly accessible but dangerous because of rotten timber. The dump appears to be mostly vein material and random sampling gave 4.0 oz Ag per ton.

This vein is present where there are more massive quartzite bands over a possible thickness of 300 feet. These bands dip at 40° to 50°W and have considerable bedded quartz veining.

This Golden Queen vein may well be an extension of the important Comstock-Keno structure which has already been traced to within 2000 feet from the west.

D I S C U S S I O N

The assay results for the segregated ore on the dumps range from 31 to 88 oz Ag per ton which is not very high if the material represents only a streak an inch or two wide in an otherwise low grade vein.

At No 5 vein the sacked material gave 23.6 oz Ag per ton whereas across six feet of vein the average is 6.4 oz Ag per ton including two sulphide streaks totalling about six inches.

Where the veins are no longer accessible their widths are unknown. Also richer ore may have been shipped previously so that the present sorted ore may not be representative of the best material.

The vein on the Golden Queen claim appears to be the most promising because of the more abundant vein material on the dump and its assay of 46.35 oz Ag per ton in spite of the small amount of galena present.

It is interesting to note that where an assay was made for lead because of its abundance the ratio of silver to lead was only 1½ to 1 in all but one case which was at the south end of the supposed No 4 vein where the ratio was 10 oz Ag per ton to 1% Pb. A similar ratio must exist at the Golden Queen vein.

E X P L O R A T I O N

In the case of each of the known veins it would be ideal to strip along the projected strike to the limits of the favourable quartzite horizon. The oldtimers attempted to do this with limited success by booming with the melting snow water in the spring. Their cuts were essentially straight downhill and could easily miss the veins of which many strike in this direction.

Unfortunately the slope where the veins are known in the Silver Basin claim is very steep and not suitable for ordinary bulldozing.

A limited amount of stripping could be tried at the foot of the steep slope below each of the veins where favourable quartzite is present.

At the Golden Queen some stripping had been planned at the east end and possibly on the sides of the gulch that separates the two main open-cuts. It would probably take at least a day for a bulldozer to reach this area however.

Another difficulty will be the fact that the overburden consists of slide rock resting on a solid irregular bedrock so that the bulldozer would not be able to do a clean job.

For the amount of money that it is proposed to spend on bulldozing ($2000 to $3000) a gang of four men could clean out a number of the old workings as well as make new cuts over a period of one month so that the size, attitude and value of the veins could be assessed.

R E C O M M E N D A T I O N S

1. At the Golden Queen showings clean out the old cuts to expose the full width of the vein.
2. Make the Golden Queen tunnel safe for sampling.
3. Try to recover the cut on No 4 vein that gave 88 oz Ag per ton.
4. Try to open up the assumed tunnel with flowing water on No 4 vein.
5. Re-timber the portal and open up the tunnel on No 1 vein.

A. C. Skerl