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DESCRIPTION OF A ZONE OF INTENSE FRACTURING

SILVER BOW DISTRICT, NYE COUNTY, NEVADA

Submitted to: Mr. Louis W. Schlecht
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Location and Access

The Silver Bow District is in Nye County, Nevada about 52 miles southeast of Tonopah in The Kawich Range of Mountains. The intensely fractured area is located about one-half mile north of the old town of Silver Bow, all of which has been obliterated by time except for two or three old cabins.

Access from Tonopah is eastward over paved Highway 6 for about 17 miles to the paved highway to the Atomic Energy Reserve; thence, south for 13 miles to a southeasterly, unimproved dirt-road; (This road is marked by a sign "Silver Bow" and also by a windmill and corral about 1/4 mile east of the paved highway.) thence, southeast over the dirt-road for a distance of 22 miles to Silver Bow.

Before a thorough inspection of the district can be made, a dozer must be sent in to repair the roads and to divert the water now running in the roads into the old stream beds. The roads at present are impassable and can be made serviceable only with several hours of dozer-work. The water is from melting snow in the higher portions of the Kawich Range and in a few weeks it can be expected to cease running.

Rock Formations

All of the portion of The Kawich Range in the vicinity of Silver Bow is composed of lava-flows which are believed to be rhyolite as they contain abundant quartz. Generally, the flows have a deep red color, but in several

large portions of The Silver Bow District the red color has been bleached to a light grey color by hydrothermal activity. Only one intrusive into the rhyolite has been observed. It is a basaltic plug and dike located about 1/2 mile east of the old town. It seems to have had no bearing on the deposition of the ore.

The assumption is that a stock of plutonic rock underlies the district and that the bleached and altered spots overlie the high points in the stock which have never been exposed by erosion.

Ore-occurrences

There have been many small mines in The District, each with a production of a few hundred to a few thousand tons of ore. The largest was the Blue Horse Mine where a small mill was once in operation. All the ore has come from quartz veins ranging in width from a few inches to 3 or 4 feet. The writer has taken many samples of quartz with a low content of gold and silver; the gouge streaks at the sides of the quartz veins and the altered rhyolite adjacent to the gouge seem to contain more silver than the quartz itself. It is likely that there were two generations of mineralization, the first having been quartz and the second silver with minor amounts of gold. No minerals of lead, zinc or copper have been observed in the district.

The Area of Intense Fracturing

Access to this area from the old town of Silver Bow is up the middle valley on The Silver Bend Road for a paced distance of 1500 feet; thence, to the left (north) up a side valley for 1400 feet, keeping to the right hand or east fork. This location lies on the southern edge of the fractured area at survey-station No. 1 on the map.

Most of the fractures in the area are oriented approximately north and south, although in one portion, on the northeastern corner, they strike

northwest. The dip is, generally, about 80° to the east. They are spaced a few inches to a few feet apart and there is some interlacing between the fractures. A few of the fractures contain quartz but most of them are stained red with iron and some of them have fillings of a yellow, ochrous material.

The alteration at this site is more intense than any other observed portion of the district. It is grey and all the phenocrysts of feldspar have been altered to kaolin. Yet, except for the southeastern corner, it is surrounded by red, unaltered rhyolite.

Sampling

One sample was cut during the summer of 1968 across about 25 feet of the fracture system. The choice of the sample-site was random as all portions of the area were similar in appearance and at least 95% of the sample was composed of the altered rhyolite with no more than 5% having been material from the fractures. It resulted 1.25 ounces of silver per ton. This is below ore-grade but the writer considers it an extraordinary result from a sample cut from the face of a steep slope that had been exposed to weathering for an indefinite, extended period of time. This site has been marked with a survey stake with an orange colored flag attached to it.

Milling

Because of the absence of base metals, especially copper, a simple cyanide, leaching process should effect a 95% recovery of the silver and the small content of gold that is present in most of The Silver Bow ores.

Tonnage and Grade

A glance at the map will show that the fractured area is about 1600 feet long from north to south by about 1100 feet wide from east to west

covering about 1,600,000 square feet. If a vertical height of 300 feet of ore can be proved, there would be 480,000,000 cubic feet. Divide this figure by 13, the conversion factor from cubic feet to tons, to arrive at 38,000,000 tons. This would feed a 5000 t.p.d. plant for nearly 20 years. There is no question about the tonnage. The grade is the doubtful factor.

To make a profitable operation, the grade cannot be less than 3 ounces per ton plus 0.01 oz. of gold and it should approach 4 ounces. Does a sample of 1.25 ozs. at the surface indicate a grade of 3.00 ounces plus at and below the water-table? Is the ore more or less uniformly mineralized or are there portions where the grade is better than in others? These questions can be answered only by drilling.

Suggested Drilling

A drill site was chosen in the bottom of one of the valleys and was marked with a stake and orange-colored ribbon. It is suggested that one hole be drilled 600 feet in an easterly direction, pointed downward at a 30° angle from horizontal and that another hole be drilled from the same site downward at 30° toward the west. These holes will not block out sufficient ore to allow immediate construction of a mill but they will allow one to reach a decision whether further drilling is warranted.

Depth to Water-Table

Most of the area seems to contain water a few feet below the surface. It is believed that in the bottoms of the valleys, the water table should be reached in 30 or 40 feet. The relief in the area is 300 to 400 feet. On some of the higher hills, 150 to 200 feet of low grade might have to be removed to reach the water-table where better ore could be expected.

Review

A large area filled with closely spaced, small fractures is known to be mineralized with silver. There can be a reasonable expectation that there are 38,000,000 tons of this material. A sample cut on the surface that assayed 1.25 oz. of silver indicates that at and below the water-table the grade may rise to 3 or 4 ozs. per ton. A drill site has been marked to drill 2 holes, each 600 feet deep, one pointed down at a 30° angle toward the east and the other at 30° toward the west. These holes will prove whether further drilling is justified.

The writer considers this a good prospect for one with venture capital.

Besides the mill mentioned in this report - there have been as many as four more in operation in this area at various times in the early 1900's.