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REPORT
on
BLACK BEAUTY PROSPECT
near
Silver Peak, Esmeralda County
Nevada
by
Harry M. Hughes
May 2, 1949

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To the Board of Directors
Reorganized Silver King Divide Mining Company
Tonopah, Nevada

Gentlemen:

Attached is my report on your Black Beauty lead-zinc prospect in the Red Mountain Mining District, Esmeralda County, Nevada.

Very truly yours,

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SUMMARY AND CONCLUSIONS

The Black Beauty group of gold, silver, lead and zinc claims is located in the heart of the Silver Peak range of mountains, Esmeralda County, Nevada. The ground lies between the Mary and Vanderbilt mines, important producers for 80 years. The general and structural geology of the Black Beauty group is the same as that of the Mary and Vanderbilt, the principal difference being that in the Mary and Vanderbilt the mineralizing solutions carrying gold and silver crystallized to form the metal bearing quartz veins or lenses; while in the Black Beauty ground the mineralizing solutions replaced the dolomite.

There has been but little work done on the Black Beauty claims; but from this writer's rather wide experience in sedimentary replacement deposits he feels that the showings of ore are amply sufficient to justify a vigorous campaign of prospecting and development, and believes that by carrying out such a program important commercial orebodies will be discovered.

LOCATION AND ACCESSIBILITY

The Black Beauty claims are located on Mineral Ridge in the north central part of the Silver Peak range of mountains, about three miles (airline) northwest of Silver Peak, Esmeralda County, Nevada. The Black Beauty deposit is in a direct line between the Mary and Vanderbilt

mines which have had a production of about $20,000,000 in gold and silver. The Mary and Vanderbilt ores also carried lead as a by-product. The Black Beauty group is in that part of the range which has been known for seventy or more years as Galena Flat, thus showing that the presence of lead in the area has been known for many years.

Galena Flat is an elevated basin in the mountains lying at an altitude of between 6,000 and 6,200 feet. The Black Beauty group is in T 23, R 39E, Sections 8 and 17. There are four claims in the group, all 1,500 x 600 feet: Black Beauty, Black Beauty No. 1, Black Beauty No. 2 and Black Beauty No. 3.

The deposit is reached by a rather rough road a distance of eight miles from Silver Peak over the old road to the Great Gulch mine, an important producer in the early days of the mining camp. Formerly the road ended a short distance above the Great Gulch but since the recent discovery, (or re-discovery rather) of lead and zinc values on Galena Flat, the road has been extended to the Black Beauty ground by merely following up washes. This writer has driven right to the discovery cut in a Jeep car.

A good road could be built to the ground at a cost of a few hundred dollars by following a more

easterly wash just above the Great Gulch, thus eliminating a rather steep stretch near the end of the present road.

HISTORY

That the presence of lead was known in the Black Beauty area to the early day miners is proven by the fact that they gave the name Galena Flat to the area. In those days, however, lead and zinc were of no interest to the gold miners and had little value in an isolated location.

Therefore, the old timers paid no attention to the base-metal values. There are several prospect holes in the Galena Flat area, notably one flat incline which cuts through four feet of ore and assays .2 oz. gold; 4.7 oz. silver; 5.7% lead and 14.0% zinc, and has a value today (with lead at 15¢ and zinc 12¢ per pound) of $61.93 per ton.

In the late summer of 1948 a prospector, while walking down the trail from the top of Mineral Ridge, picked up a number of pieces of lead float in the Galena Flat area, where the trail crosses the flat. Being a native of Silver Peak and knowing that that particular section was called Galena Flat, the finding of the galena float aroused his interest. So he returned the next day and started systematic prospecting.

He shortly found an outcropping of the lead, and this was the basis for the location of four claims; and at this point he stopped prospecting. The flat incline referred to above was found to have the metal values at a later date.

GEOLOGY AND ORE DEPOSIT

In the Mineral Ridge area of the Silver Peak range of mountains is a thick series of Paleozoic sediments of the Cambrian and Ordovician periods. These sedimentary rocks have been abundantly intruded by a granitic rock locally known as alaskite. The alaskite gradually passes by loss of feldspar into pure quartz veins. Some of these quartz "veins" (most of which are lenticular) carry important values in gold and silver. These gold veins are usually in the Cambrian limestones or schist - which is a metamorphosed limestone.

The rock structure of the Silver Peak range is complicated, to such an extent that in over a period of more than 80 years' mining and study no detailed geologic section has ever been worked out, even by some of the world's great geologists. Certain facts have been learned, however, which are indisputable: There are many faults and much folding; in the general geologic column the limestones into which the quartz veins have been injected are lower than the schists which contain the ores in the

Vanderbilt mine; the Vanderbilt ore horizon lies directly below the brown massive dolomite; the latest phase of geologic activity is a series of diorite dikes (altered to greenstone) - they are younger than either the alaskite or the quartz veins, and are almost always associated with the orebodies.

There are certain other facts which although are not absolutely indisputable they have been noted and studied to an extent which makes them very probably true: In the Mary mine type of gold mine there are several stages of quartz mineralization, one of which (probably the latest) brought in the gold; in the Vanderbilt type of silver-gold mine it is believed that a stage of mineralization later than the one introducing the gold brought in the silver.

The Mary and Vanderbilt mines have been mentioned several times because the general geology of them is exactly the same as that of the Black Beauty or Galena Flat area, and the three are almost in a straight line, although the Black Beauty is in a higher geologic horizon: That is the massive brown dolomite.

The base metal mineralization in the dolomite is later than that of the gold or gold-silver ores; and unlike the gold-bearing quartz solutions which crystallized to form lenses, the base metal solutions replaced the

dolomite, leaving what will no doubt be found to be blanket or "manto" deposits.

Our term "blanket" deposit originated from the Mexican term "manto", which translated means blanket. One lead-silver mine in which the writer worked at Ojuela, Durango, Mexico, had one single orebody of the manto type which cropped at the surface and had a slope distance of more than 2,500 feet of continuous, high grade ore. It had a width of about 150 feet and approximately the same thickness. This, however, was only one of many orebodies in the mine. The manto type deposit has, of course, a source fissure which fed the mineralizing solutions, although at times, or usually even, it may be small. And the fissure filling will remain small until the solutions reach the beds of dolomitic limestone or dolomite which are easily replaced.

To this writer the dolomite or dolomitic limestone is particularly attractive as a home for lead and zinc. He spent seven years mining and doing geologic work on the lead-zinc deposits of northern Mexico; and in the states of Chihuahua, Coahuila and Durango the so-called favorable horizons in the large lead mines are the dolomite or dolomitic limestone beds.

ECONOMIC POSSIBILITIES

The Black Beauty is an undeveloped prospect; and the evaluation of a prospect is the hardest task the engineer or geologist can be given to do. He can see into the ground no farther than the layman, so the only advantages the engineer can have over the layman are experience and judgment.

The writer's experience in one of the great lead mining areas of the world has been mentioned; and in addition he acted for several years as geologist for the Mary mine with some measure of success in finding ore. These would seem to qualify him from the standpoint of experience both generally, and especially locally; and the finding of ore should indicate some soundness of judgment.

These statements are made to justify the opinion that the prospect has considerable merit from the standpoint of the possibility of finding orebodies of important tonnages.

Three samples were taken in the routine examination of the ground. No. 1 was across four feet of ore at the portal of the old incline. It assayed as follows: .2 oz. gold; 4.7 oz. silver; 5.7% lead and 14.0% zinc per ton. No. 2 was taken east of the new open cut, outside of the ore exposed by the cropping. It assayed

.01 oz. gold; .2 oz. silver; .7% lead and 2.2% zinc. No. 3 was taken across 4½ feet at the open cut, and this cropping is exposed for a length of 70 feet. It assayed: .06 oz. gold; 6.7 oz. silver; 10.3% lead and 11.2% zinc.

With lead at 15¢ per pound and zinc at 12¢ per pound, gold at $35.00 per oz. and silver 90¢ per ounce, No. 1 has an assay value of $61.93 and No. 3 $65.91 per ton. Since a blanket type ore deposit is indicated, a considerable tonnage could be mined by open cut method and a low mining cost should be obtained. So that even allowing for metal losses in milling and smelting a handsome operating profit would be won.

RECOMMENDATIONS

The entire area should be carefully prospected for additional outcropping of the ores, and the findings mapped in order to correlate the exposures. The present open cut should be continued in order to outline its dimensions, since none of them are known. There is ore in the faces and bottom of it. This work could be done cheaply and rapidly with a one-drill compressor and a bulldozer.