BEULAHELEN MINE in Kawich range of Mts. about 50 mi. E of Tonopah, Nye County, (Nevada)

1912

Au Ag

PLATORO CORPORATION
SUITE 1
3344 E. INDIAN SCHOOL RD.
PHOENIX, ARIZONA

S100 0520 0015

ITEM 21

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THE BELLHELEN MINE.

LOCATION:

The Bellehelen mine is situated in the Kawich range of Mountains, about 50 miles by wagon or automobile road east of Tonopah, in Nye County, Nevada. This range is exceptionally well watered and timbered.

EXTENT OF PROPERTY:

The property consists of the following mining claims: Gazabo, Gazabo No 1, Gazabo No 2, Gazabo Fraction, Homestead, and Craw Fish, together with certain Water Rights, etc.

GEOLOGY:

The general country rock is rhyolite which probably occurs as several flows. The underlying rock is apparently quartz-porphyry. The veins consist of quartz, carrying gold and silver values; the silver contents predominating. Three different veins or vein zones, have been opened up. These are more or less parallel and have a general easterly and westerly course, trending slightly to the southwest.

The main crosscut tunnel cuts these three veins; the first at a point 340 feet from the portal; the second at 415 ft. and the third, or Big Vein, at 480 ft.

The first and second have a dip of about 70 degrees to the north, while the "Big Vein", as far as could be observed, has a slight dip to the south. The second vein is known as the "Shaft" vein. This vein consists of two branches, one being a thin vein, varying from two to six inches, and the other from eight to two feet, in thickness.

At points the thickness may be greater. The Big vein is a mineralized zone from ten to eighteen feet in thickness, carrying many quartz veinlets or quartz stringers. Its average value is low grade; however, good values can be found in it at certain spots. It has been developed for a length of 400 feet; the better part of the vein will in all probability be found within a few hundred feet farther west. There is a possibility the the "Shaft" vein or veins and the Big vein may join in the western part of the property and form one large ore body. This is quite possible, as they apparently converge in dip, as well as in their westerly course.

The two "Shaft" veins carry very good values. The ore consists of secondary silver chlorides, silver sulphides (stephanite) and other silver minerals. The gold is probably carried in pyrite. On the hill, west of the west shaft, a number of quartz seams can be noticed Samples show good gold values--- chiefly free gold-- the result of oxidation of the pyrite.

The veins were no doubt formed by ascending hot waters, carrying silica and the various metals in solution. In cooling the minerals were deposited in the then existing fissures and cavities. Circulatingwaters also silicified portions of the country rock (rhyolite). The chloride of silver is the result of alteration of the silver sulphides by the action of surface.

LIST OF ASSAYS OF SAMPLES.

No	LOCATION	OZ GOLD	OZ SILVER	TOTAL VALUE
1	Surface Cut	0.76	2.8	16.60
2	98 ft. Level E Shaft	0.16	30.3	18.35
3	" " "	0.52	84.8	52.80
4	" " "	0.25	59.4	34.70
5	" " "	0.27	12.8	11.80
6	Dump at Shaft	0.9	141.8	88.90
7	" "	0.12	32.6	18.70
8	" "	0.16	42.8	24.60
9	" "	0.3	102.3	57.15
10	Small vein W Shaft	1.4	193.0	124.50
11	Cut on hill above tunnel	0.8	50.5	41.25
14	Small vein Stope W. Shaft	2.2	320.4	204.20
15	In 104 ft. Level W. Shaft	0.7	24.2	26.10
16	" " " "	1.0	77.2	58.60
17	Seam beloe 104 level	0.28	20.4	15.80
18	Former bottom EShaft	1.1	188.2	116.10
19	In raise from tunnel	0.6	45.6	34.80
20	Level to former bottom Most of raise is off the vein.	---	8.8	4.40
21	In tunnel level veins exposed for 32 ft. along drift	0.2	46.6	27.30
22		0.1	25.2	14.60
23		0.24	46.2	28.10
24		0.3	41.6	20.80
25		0.2	37.2	22.60
26		0.04	5.2	3.40

The average thickness of clean ore of the Shaft vein (the two seams combined) can safely be estimated at 15 inches. The average value of this ore is estimated at $28.00 per ton.

The values are very satisfactory and the showing is most encouraging.

DEVELOPMENT IN DETAIL.

The present development consists chiefly of a crosscut tunnel 582 feet long, the East shaft, 260 feet deep (which includes upraise recently made from tunnel level to the former bottom of this shaft) and the west shaft, about 120 ft. deep. The two shafts are 210 feet apart, and both follow the "shaft" veins. The west shaft has a level 80 feet long. It was run easterly at a depth of 40 feet. The vein is stoped from this level to the surface. At a depth of 104 ft is another short level.

The East shaft has a level at a depth of 98 ft. it is about 100 ft. long and extends in a westerly direction. The two shaft veins show in this level averaging about 15 inches in thickness. A little stoping has been done in this level. At a depth of 140 ft. is a short level. At the present bottom of this shaft is a level 75 feet long. The veins are exposed in this level for a distance of about 31 feet. The westerly part of the level is apparently off the course of the vein. By turning the drift a little more northerly the vein will be "picked up" again.

From the tunnel, a drift about 400 feet long has been run westerly on the Big vein. It does not, however, strictly follow this vein for the entire distance. From the present breast of this drift, a crosscut was run in a general southwesterly direction to the "Shaft" veins. This crosscut is about 100 feet long. When the veins were encountered, an upraise was made to the former bottom of the East shaft, a distance of about 90 feet on the dip of the vein. This work was done chiefly for the purpose of ventilation. From the crosscut, a level was run for a distance of 31 feet easterly, and for 44 feet westerly. This level has been referred to above (See also Maps)

ORE RESERVES:

Both, the East and West Shaft workings show ore exposures of good quality. That good ore exists in the territory between these two shafts (they are 210 feet apart) has been satisfactory proven. Allowing an addition to this area, 50 feet west of the West Shaft, and 50 East of the East Shaft, and 50 feet below the lowest level at the East Shaft, there is a block 300 feet by 300 feet, which should contain (allowing for contractions) about 7000 tons of ore. Owing to the fact that in mining the ore, it could not be kept free of waste, an addition of 25 pre cent is allowed for waste rock. This makes a tonnage of about 8750 tons which would then have an estimated gross value of about $184,000. After deducting operating costs, the net profit per ton should be at least $3.00 on such material, if handled economically and on a sufficiently large scale.

Allowance has also been made for loss in treatment. However, no milling plant should be erected until a much larger ore tonnage, than the present ore tonnage, has been put in reserve, which can readily be done by extending the level westerly. The method of ore treatment will very probably have to be "Leaching"

RECOMMENDATION:

By extending the lower level from the East Shaft westerly, following the "Shaft vein", toward the West Shaft, and driving beyond the same, a large tonnage of ore will no doubt be developed in the territory west of the West Shaft. An intermediate level should also be run westerly from the West Shaft, in order to "block out" the ore. When the lower level has reached the point where it would intersect the West Shaft (if projected downward) an upraise should be made on the vein in order to connect the level with the present bottom of this shaft. The distance between these points is about 140 feet.

A crosscut should then also be made in a northerly direction toward the Big Vein. This vein and the Shaft vein may be very close to each other in that vicinity. The continuation of the shaft below the lower level may also serve to prove whether or not the Big Vein joins the Shaft veins in this part of the mine. Should there be a junction of these two veins, in this part of the mine or anywhere in the westerly portion of the property, or within a reasonable depth, we may then look for a large ore body, and it may be reasonable to suppose, that it will very likely carry good values, in quantities.

However, development only can prove this. Another crosscut should also be rum southerly.

The crosscut run from the 104 ft. level (West Shaft) might be continued northerly in order to ascertain the position of the Big Vein. This should be done very soon.

However, the immediate work to be done is the driving of the west drift, westerly, from the East Shaft, as rapidly as possible. The distance from the present face to the West Shaft, or to the point under it, is only 170

Investigation should also be made whether or not it would be possible to run a tunnel from the ravine in the northwestern part of the property in order to develope the Big Vein and the Shaft Vein systems. In fact this should be done immediately. An outlet in that direction would be more convenient than the present one. Furthermore, some valuable ore might be developed in that portion of the property within a short time. It seems that this matter has been neglected. Most of this work, if feasible, would be on the vein or veins.

Ultimately the property will have to be developed by shafts of considerable depth. Has the money whish was spent in driving the long adit tunnel been used for the purpose of sinking on the vein or veins, and in driving levels on the veins, the results would certainly have been more satisfactory.

The shafts show the ore, and the money, energy and time should have been expended in following the ore, instead of on so much dead work. The crosscut (adit) tunnel is nearly 600 ft. long. Six hundred feet of work on the veins would have shown a large quantity of ore, in addition to what is now exposed. Furthermore the tunnel does not give depth enough.

The question of ore treatment should receive attention in the near future.

CONCLUSION

The property is an exceptionallypromising one. With intelligent management, it should have a good future and prove a good producer. The showing is very encouraging.

(Signed) LEO VON ROSENBERG,
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Brown Palace Hotel,
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