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Item 1

REPORT  
ON  
PACIFIC BUTTE MINES CO.

## REPORT

on

### PACIFIC BUTTE MINES COMPANY

#### SUMMARY AND CONCLUSION--

The property of the Pacific Butte Mines Company is located about 29 miles north of Tonopah, Nye County, Nevada. It consists of 13 mining claims and two mill sites.

The area in which the claims are located is in a group of hills which form a part of the San Antonio Mountains. The veins in the district, in which gold makes the only commercial mineral, occur in a series of andesite and rhyolite flows and tuffs; and were formed in fault fissures, the mineralizing solutions having replaced the andesites and rhyolites and filled shrink cracks in them.

Gold has been found over a considerable area in the district, with high values in many spots. To date the development work, which has been done by leasers as well as the Company, has been opening ore in a number of places, with very good values. And since the geological conditions are identical with many of the Nevada bonanza camps, I feel that the Company has excellent chances of developing important tonnages of ore of commercial grade.

#### LOCATION AND PROPERTY--

This property consists of thirteen claims held by possessory title under lease and option agreement

through E. M. and M. E. Booth. The group is situated on the western slope of a group of hills which form a part of the San Antonio Mountains. These are a part of the range which extend to Tonopah. The distance is 29 miles in a northerly direction from Tonopah in T. 6N., R. 42 E., M.D.M., Nye County, Nevada. The elevation above sea level on the group ranges from about 7,000 feet at the northern end to over 7,500 feet on the higher hills. The property is easily accessible by fair roads. The climate is good and work can be continued throughout the year in at least seven out of eight years. There are several springs in this ground from which ample water can be developed for a small operation. However, for a large operation, water might have to be pumped about three miles.

#### HISTORICAL--

Gold was first discovered in the area by E. M. Booth about two years ago. After carefully prospecting the surrounding country, and finding values in a number of places, he staked the ground which appeared to be the best; and some time later optioned a part of the property to the Tonopah Mining Company. It sank a shaft 120 feet deep and did a limited amount of lateral work from the bottom of it. The shaft showed good values (about \$14) to a depth of 60 feet, where the vein was displaced by a fault; and instead of trying to solve the fault from the bottom of the shaft, the Tonopah Company did a few feet of hap-hazard drifting and surrendered the option.

The writer believes that the fault can be solved by a nominal amount of work and the values followed on

in depth as well as laterally.

The Pacific Butte Mines Company optioned the 13 claims referred to above in July, 1938. It started a cross cut tunnel to prospect in depth the vein with the best surface showing; and at the same time gave a number of leasers on limited blocks of ground. The leases, as well as the Company tunnel have been worked continuously to date.

#### SAMPLING--

The following samples were taken from Mr. E. E. Whiteley's report on the property. They were checked by the writer and found to be well within the limits allowed by hand sampling. The location of them are shown on the accompanying map.

In addition to these, and since Whiteley's report was written, a diamond drill hole has been drilled from the surface to penetrate the vein which the Company tunnel will cut in depth. This went through the vein at a depth of 89 feet; and an assay of the core through this section gave a value of \$22.80 for a width of 3 feet.

In a block of ground roughly 1800' north and south, 1800' east and west, twelve samples were taken. These were taken with the motive of gaining a general idea of the distribution of gold values, especially in the mass of Rhyolite; most of the samples were taken near the surface, but two were taken over 100' underground. Four samples, Nos. 223, 224, 225, and 232 were taken in the southeast corner of the Cinco de Mayo claim.

Sample #223, assay value \$3.69, was taken from a shaft about 5' deep. There was a cut of  $2\frac{1}{2}$ ' across Rhyolite next to a seam which in places opened out to 3" or 4" of high grade, but was entirely closed where the sample was taken.

Sample #224, assay value \$3.12, was taken in another shaft 10' deep, about 20' from sample #223. It was also of slightly altered Rhyolite.

Sample #225, assay value \$2.23, was taken off of a surface exposure of Rhyolite 30' west of sample #224. This sample was cut  $3\frac{1}{2}$ ' long.

Sample #232, assay value \$3.18, was a grab of about 75 pounds from the material thrown out of a trench, and represented a distance of 56'. The above four samples were taken to check the value of the exposed Rhyolite. A cross cut tunnel is to be run under this area over 50' below the surface.

Samples Nos. 226 and 227 from the 120 ft. level of shaft on common side line between Cimarron #4 and Cimarron #5.

Sample #226, assay value \$119.03, was from a 1' contact vein 152' south of the shaft. This is a contact between Andesite and Rhyolite. The contact strikes nearly north and south and dips about  $80^{\circ}$  to the east. The shaft was sunk on a narrow vein in the Rhyolite, dipping  $80^{\circ}$  to the west, or opposite to the contact vein.

Sample #227, assay value \$13.81, was taken from the face of a cross cut in hard Rhyolite, about 60' north of the shaft. Two cuts were taken across the face,  $4\frac{1}{2}$ ' long and

combined to make the sample. The high value of this Rhyolite is quite surprising, as it is over 100' below surface, and as far as known, nowhere near a vein.

Sample #228, assay value \$116.30, was taken from bottom of high grade shaft 21' below surface. The high grade stringer in the bottom of shaft is 1' wide. The vein filling here is quartz and Rhyolite boulders.

Sample #229, assay value \$2.10, was cut in hard Rhyolite bottom of shaft for 3 $\frac{1}{4}$ ' on either side of rich vein. This high grade shaft is on the Northeast corner of the Cimarron Claim.

Sample #233, assay value \$44.42. This sample is grab from the ore dump at high grade shaft, about 4 to 5 tons.

Sample #230, assay value \$9.93. This sample was taken from the face of drift at 22' below collar of shaft and 8' from center line west. This is a lease on the north end of the Gray Cat Fraction. The vein where sample was cut is 3' wide. The filling is quartz, with some clay. The walls are both Andesite striking N 50° W, and dipping 69° southwest. The clean quartz from this vein is much higher grade than this sample, as there is considerable dilution with clay.

Sample #231, assay value \$15.81. This sample was taken from the same vein and at the same elevation as sample #230, but 16' south of it. Here the vein is 1 $\frac{1}{4}$ ' wide and mostly quartz.

Sample #234, assay value \$6.24. This is a grab from a dump from a shaft sunk on a vein in Andesite on the west

side line of Cimarron No. 1, just north of the road. This work is being done by a leaser and while he is installing equipment, the shaft filled with water. He states that he has good ore in the bottom. This vein strikes N 45° W, and dips 70° northeast.

Of these twelve samples, six were taken from veins or ore dumps; the other six were from the Rhyolite. Four of these were on surface, and two were underground, some 1200' apart. Yet all of these samples of Rhyolite had an assay value ranging from a minimum of \$2.10 to a maximum of \$13.81. While this is not conclusive, it indicates that all the Rhyolite over a large area carries values in gold.

#### GEOLOGY--

The values which are almost entirely in gold, occur in a series of tertiary eruptive rocks consisting of andesitic and rhyolitic tuffs and flows; and in one place what is thought to be intrusive andesite was noted. No granitic rocks were noted in the area; and a rock which is called, locally, grano-diorite is probably a phase of one of the andesites.

The thickness of the eruptive series is probably three thousand feet, more or less, as is indicated from the exposures seen in the valley and on the highest ridges. They are typical of the Great Basin volcanic rocks which have produced most of Nevada's gold and silver.

The veins are fault fissures through which the mineralizing solutions have circulated. In some places they have replaced the wall rock, and in others have filled shrink cracks in it.

They cut both the rhyolitic tuff which is exposed in the mineralized area; and the andesite; though the best values so far found are in the andesite. These are in the fissure being developed by the Pacific Butte Company; and which will be prospected in depth by the cross-cut tunnel now being driven. On the surface along this fissure there has been a brecciation, bleaching and silicification of the andesite over a considerable width. This alteration product has been called a rhyolite breccia; but a close inspection shows that it is undoubtedly andesitic; and that the silicification is secondary.

At the time of the writer's last visit to the property the tunnel was just getting into the brecciated zone, which indicates that the fissuring persists to this depth (192 feet). Panning of this material showed a few colors of gold, considerable magnetite and some sulphides. Fifteen to twenty feet ahead the tunnel should intersect the fissure which carries the values on the surface. However, certain indications on the surface indicate a rake of this particular ore shoot to the north; and it may be necessary to turn the tunnel and drift a few feet north, along the fissure, to pick up the ore at this depth.

#### ESTIMATE OF OUTCOME--

In considering a property such as this, which is entirely in the prospect stage, it is very difficult to estimate what the outcome of the venture will be. And the only criterion we have on which to base an opinion, aside from excellent surface showings, is a comparison with other successful mining camps

which are geologically similar. Both Searchlight and Bullfrog in Nevada are similar in many respects to Cimarron; and the writer is familiar with three districts in Mexico which have many points in common with the one we are considering. Therefore, I will advance the opinion that there will be found at Cimarron a number of occurrences of rich ore in irregular bonanzas.

September 5th, 1938

H. H. HUGHES, JR.