(13) Item 3

4170 0003

Report of Preliminary Examination

of the

Dan Tucker Group of Mining Claims

Churchill County - - - - - Nevada.

To Mr. Robert McCart
Comstock Merger Mines, Inc.
Virginia City, Nevada.

By Chas. C. Starr - August 23rd, 1923.

INTRODUCTION:-

Four days were spent by the writer and one helper in examining the property.

Sampling was done by cutting channels across the vein, except in the case of dumps which were grab sampled. Assaying was done by the Merger Mines Company, at Virginia City.

LOCATION:-

The property is situated in Churchill County, Nevada, on the Lincoln Highway, 31 miles south east of Fallon. Fallon, a farming town, is on a 15 mile branch line from the Southern Pacific Railway at Hazen, and is the nearest railroad point.

The roads are in general good and comparatively level.

PROPERTY:-

The property consists of five full sized mining claims, unpatented and unsurveyed, three of which are on the main vein system. (See Map).

They are owned by Kinney and Hoover of Fallon and are under lease and bond to W. M. Martin, of Fallon, from whom A. Heise obtained an option, now expired.

No inquiry was made of M r. Martin as to the price and terms asked.

GENERAL CONDITIONS:-

The climate is typical of central Nevada; the summers are hot, and there is little snow in the winter.

The elevation is approximately 4900 feet .

The topography of the claims is gently rolling, and the drainage toward the north west: to the south there are low mountains.

The nearest water to the property is at Sand Springs, an old stage station, 3-1/2 miles west of the mine and about 750 feet lower. Wells here furnish a considerable flow of water at a depth of 50 feet. There is no timber or firewood in the vicinity.

EQUIPMENT:-

There is practically no equipment. There are two or three small cabins a half mile from the mine, a few picks, shovels and drills, and a portable forge at the mine.

DEVELOPMENT:- (See Map)

Development work is limited to the Summit King and Dan Tucker claims, and is mostly scattered.

The totals are, roughly:-

Trenches	350 Ft.
Shallow shafts,holes, and open cuts	200 "
Deeper shafts and inclines	330 "
Tunnels, drifts and crosscuts	420 "
Winzes and raises	70"
Stopes	600 Sq. FT.

No work reaches a depth in excess of 50 feet except the "130" foot incline shaft, which, on account of no ladders and no rope, was inaccessible. 39 Present "Lost" shaft

GEOLOGY:-

The oldest rocks noted are schists, probably derived from shales, underlying metamorphic limestones; they lie a few hundred feet south of the east end of the Summit King Claim but diverge to the S W ; the dip is 50° to 60° SE.

These sediments have been intruded by a large mass of andesite of probably tertiary age which forms both walls of the principal veins of the property and is the most widely distributed rock in the vicinity.

intrusive? other reports indicate this unit is volcanics

Near the east end of the Summit King the schist and andesite are intruded by rhyolite dikes, which do not extend far to the westward. Still later dikes of basalt appear, cutting irregularly through the andesite, and basaltic flows cap most of the surrounding hills. The areal geology on and near the principal claims is indicated roughly on the map.

? same as andesite dikes of other reports ??

Considerable dynamic action has taken place, giving rise to the east-west system of vein fractures, and, later, to the north-south cross faulting.

VEINS:-

A glance at the map shows that there are a number of veins on the property; just how many it is difficult to

say on account of branching and intersecting. There are also several different types of vein filling, suggesting the possibility that some of the veins may be of different ages.

On the Summit King Claim, the north vein outcrops continuously for 2800 feet, though displaced by several faults.

The outcrop shows a width of 3 to 6 feet, but the average width as exposed by trenches is 11 feet; the dip is not well shown but is steeply southward.

The vein filling is fine grained quartz with partly replaced andesite and stringers of quartz with comb structure, all somewhat stained with iron oxides; the values are almost entirely gold. No greater depth than four feet is shown in any of the cuts.

It is said to be traceable for several miles eastward.

The two south veins on the Summit King are similar to each other in appearance and join at the "49" foot shaft. Little work has been done on them except in this shaft. They vary from 1 to 3 feet wide and dip 70° - 80° south. The southerly one lies on the schist-andesite contact while the northerly one is in andesite. The vein walls usually appear ragged; the filling is quartz and rock fragments cemented with quartz.

West of the point where the outcrop of the main Summit King vein ends, about 300 feet east of its west end line, there is a rather decided change in the character of

So silver leached from the zone reached by the shallow workings?

Later report indicates higher Ag values at greater depths.

the vein filling.

The absence of any iron stain is very noticeable.

The quartz is whiter and of a different texture, and there is often a considerable though quite variable amount of calcite in the veins.

The quartz varies from massive, to platy, to "sugary", and in places has replaced calcite, and perhaps feldspar, of the original ~~gauge~~ gangue. In places the leaching of the calcite from the vein filling is very prounounced, leaving open "watercourses", or spongy residual quartz. Spotting of the gaugue with manganese is rather common in the tunnel workings.

The northern-most vein, or veins, on the eastern 2/3 of the Dan Tucker claim, seem to contain less calcite, a more normal type of quartz, and better values than do the more southerly ones, and show a tendency for the "sugar" quartz to be of the highest grade. In the three holes near the West end of the Dan Tucker claim there is a slight increase in the iron content of the vein.

All veins dip southward, - those on the south side steeply, and those on the north side somewhat more flatly and should intersect at a few hundred feet depth.

NOTES ON SAMPLES ect.,

Samples in the East Tunnel, with the exception of the one on the footwall side, and from the 130 foot shaft dump, show an exceptionally large percentage of calcite and are of no value.

Au-free? Pyrite? Ag-as. S in el?

It is worthy of note that the ratio of ounces gold to ounces silver is approximately 1:1 on the eastern 2/3 of the Summit King Claim and 1:7 on the remainder of the property. The cause of this is not clear.

ORE:-

It would appear that about 100 tons of ore of an average value of $85 per ton have been shipped from the property.

This was apparently carefully selected and sorted; most of it came from the deeper workings, but some from surface cuts. Except for the three small stopes in the West Tunnel the ore was probably taken from pockets of small size.

There is no legitimate basis on which to estimate any ore as developed or partially developed.

CONCLUSION:-

Why? Surface enrichment?

In a vein of this type it is to be expected that there will be some secondary enrichment at a few hundred feet depth below the surface.

The extent of such enrichment will depend, among other factors, on the original value of the vein matter that has been leached. There is reason to believe that the value of the primary vein was very low except in the extreme foot wall veins, and possibly in the two south veins of the Summit King, where it is indicated the values were better.

Terminus a dip of veins [illegible] at depth?

There is a distinct tendency for the veins to converge in depth and it seems reasonably probable that at a comparatively shallow depth they may merge to one vein and contain a body of fair ore.

Based on what evidence?

The quartz-calcite gauge combination is not a favorable one for the making of a mine in the Tertiary rocks of Nevada, but the footwall, or north side veins, are of a somewhat different type and more favorable for ore.

Taking into consideration the length of vein showing ore at frequent intervals, the strength of the vein system, and the converging dip of the veins, the favorable features appear to over-balance the unfavorable ones, such as barren quartz-calcite filling in some of the veins, and the narrowness of others.

The showing is sufficient to warrant further development, if proper terms are obtainable, and to justify a reasonable hope of developing a mine of small or medium size.

Respectfully submitted,

A technical graduate → ? Chas. C. Starr

CCS:MK