

306

BC-306

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GOLDEN, COLORADO

Reconnaissance

Aztec Mine
Dolores Co., Colo.
1001.01
S. W. H. A.

Aztec Mine--Rico, Colorado,

The Aztec property, ^{by} Warren C. Prosser consisting of the Aztec, Collar and Cuff and Trio claims, is situated in Aztec Gulch, west of the Dolores River and to the immediate north of Rico. The lower and main tunnel is about 4000 feet from the Rio Grande Southern Railroad and at an elevation of 9400 feet.

The property is located on a fault fissure which is supposed to be the extension of what is known as the Nelly Bly fault on Nigger paby Hill, across the Dolores to the East.

The Columbia property, on the same fault and to the East and below the Aztec property was operated by Searles, Pope and patrick Bros. in 1894. The Columbia produced about 2000 tons of sulphide ore much of which was, it is supposed, taken from the Aztec ground into which the Columbia tunnel ran.

In 1895 the Aztec property produced a little lead ore which was treated at the smelter in Rico.

Two main levels are driven on the vein or fault system 50 ft. apart. Near the entrance of the upper tunnel a mass of pyrite extends from level to level, bordering the vein on the hanging wall side. This pyrite is from 2 to 5 ft. in width in places and is ~~sixtimes~~ associated with sulphides of lead, zinc and copper.

A little of the pyrite mass has been stoped out. The present owner, August Myers, has, however, confined his development work to searching for ore under the porphyry beds, which lie conformably with the Strata.

In the upper level a raise from the drift encountered a shale bed and under this, in the lime, a replacement was made. The product is principally pyrite with a little lead, zinc and copper sulphides associated, and carrying some rhodochrosite.

The altered area included in the Aztec lode is about 15 feet wide. It consists of a quartz vein, profusely filled with

pyrite and typical lode material of brecciated pieces of country rock, cemented with quartz. The wall on both sides of the vein is highly altered and oxidized for several feet. The course of the vein is N 76° W.

A few tons of ore, taken from the vein and left on the dump show its character. It consists of galena and sphalerite associated with Chalcopyrite.

Between the two levels the vein is exposed on the surface. It shows to be 2 ft. of quartz standing out above the general surface. On the north is a 10 ft. zone of brecciated material bordered by a clean cut wall, against which is a gouge filled streak, 3 inches wide. The pyrite ore can be seen here replacing the breccia. The vein dips to the north at an angle of 75°. The lower tunnel is 400 feet in length, the upper 300 feet.

Above the upper level and on a parallel vein to the Aztec the Collar and Cuff tunnel has been driven. Here again a shale contact was exposed and under it a replacement of the limestone by pyrite is shown. The pyrite is associated with Galena, Sphalerite and Chalcopyrite with some barite. This ore is said to carry about 20 ozs. of silver and not much gold. Farther up the gulch to the southwest, about 300 feet is the Trio tunnel. This tunnel is caved and cannot be inspected. The dump displays massive pyrite associated with chalcopyrite. It is said to come from a contact on a vein parallel to the Aztec vein.

The speculative possibilities are present in ore which may replace limestone beds bordering the fissure, as in the Wellington on C.H.C. Hill, to the east, and the Puzzle Mine in Horse Gulch to the north.

The strata are members of the upper Carboniferous and dip to the north. A shale contact underlain with limestone is present which meets the level of the creek south of Burns. At Burns, where the Blackhawk fissure is supposed to pass, a winze was sunk to this contact and encountered sulphide ore, carrying good values in gold and silver. This same contact is supposed to

have carried the ore in the Puzzle mine.

It appears therefore, that the continuation of the same contact to the southwest into the Aztec property, may carry commercial metallic values bordering the Aztec fissure.

The S 83° E break on the Wellington property, elsewhere referred to has, within the past two weeks, disclosed other important ore bodies bordering it, which ore bodies seem to be entirely independent of the Blackhawk and parallel fissures.

To summarize, therefore, it may be expected to find ore bordering the Aztec fissure in the limestone beds and under important shale contacts, unless the presence of monzonite porphyry intrusions near at hand, or other geological conditions have prevented such replacement and deposition.

6

IRON MINE.

This property consisting of the Iron, Iron Mine, Lucky Number and Uncertainty lode mining claims, lies at the base of Nigger Baby hill on Silver Creek and opposite the mouth of Allyn Gulch.

Two tunnels have been driven in on the vein.

In the lower tunnel, a crosscut intercepts the vein 100 feet from the portal. The vein runs approximately N 25° W. It is from 6 inches to 3 ft. in width, showing brecciated quartz, calcite and siderite with a development of varying amounts of Pyrite, chalcopyrite and sphalerite.

At 170 feet from the point where the vein is cut, an incline drift is driven S 75° W, for 68 ft. at an angle of plus 28° with the horizontal, thence N 75° W. 27.5 ft. This drift is driven in massive gray limestone and near the breast is shown a replacement of calcite and pyrite conforming with the strata, about 6 ins. in width. The strata dips N 10° E at an angle of 34°

The dump of the lower tunnel is quite large and is said to

have been worked over several times. In 1897 and 1898 six small cars of ore were sorted out and shipped. It is being worked over again at this time. By means of screening and washing a good looking grade of chalcopyrite ore is being taken out. The quantity is not important.

The dump of the upper tunnel shows angular pieces and lenses of chalcopyrite, inclosed in banded calcite and siderite with slight pinkish cast, together with much sphalerite.

The vein filling in the upper tunnel is sheeted calcite, with lenses of sulphide ore. On both sides of the vein the country rock is brecciated and shifted with development of much fresh calcite in the breaks.

Above the upper level the vein has been stoped out for a vertical distance of from 50 to 80 feet. It appears that the best and largest bodies of ore had been developed in the vein between sandstone walls.

in 1895 and 1896 Ben Hogan is said to have produced \$60,000 worth of ore from these stopes, and to have sunk a winze from the lower level for a distance of 140 feet, and to have encountered ore running as high as 90 ozs. silver. Later on, Walter Brace drew the filling of the stopes, sorted out a copper ore and shipped it to the smelter at Curay.

From the lower level, a crosscut driven to the east, encounters a parallel vein from which 900 ozs. silver ore was shipped in small quantities. The crosscut is open but the timbering in the vein is in bad shape.

There is a probability of encountering much low grade ore from the lower level, The mine is not in good shape, the winze is full of water and a pumping plant will be required to handle a considerable flow of water. On account of the conditions of the workings it is impossible to determine to what extent lateral development has been carried on.

The presence of thick limestone beds should be inducive to much replacement by ore. It is said that most of the ore
extract

extracted was taken from the fissure. The Iron mine fissure is 1800 feet southwest of the Blackhawk fissure and roughly parallel to it. As the Wellington to the northwest is approached similar conditions to those governing ore deposition should naturally be expected to repeat their performance on the Iron property.

Mr. A.P.Lofquist, Superintendent of the Wellington is inclined to believe that a fissure coming into the property running parallel to the Nellie Bly and which seems to have produced much of the ore on the Yellow Jacket and Phoenix may eventually be found to be an important mineralizer in the neighborhood of the Iron mine. This would require some development work to determine.

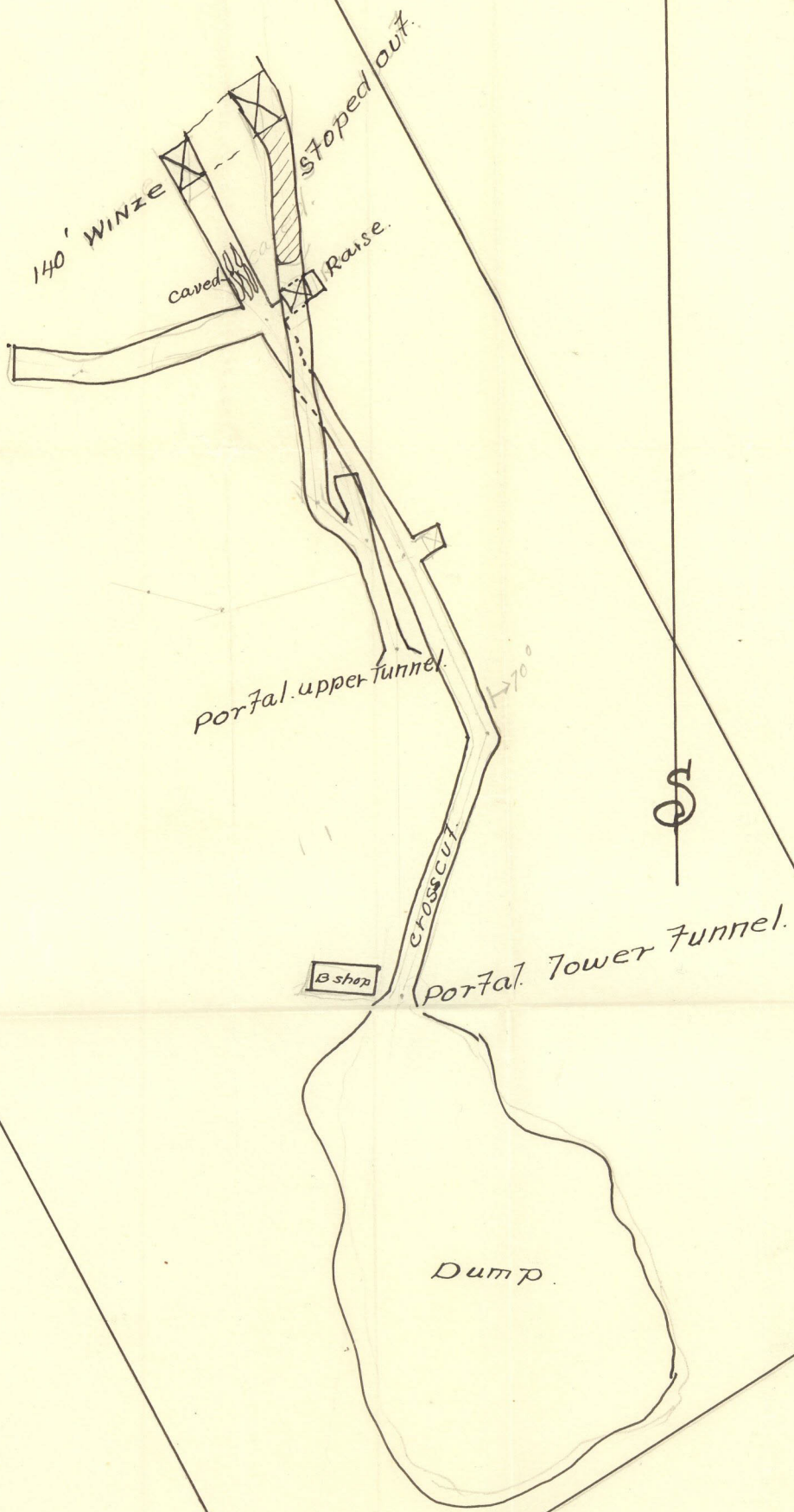
Mr. Henry Obendorfer informs me that the price of the property is \$15,000, payable in three years, the first payment falling due in one year, of \$5,000.

Respectfully Submitted

Warren C. Prosser

IRON 8758

IRON MINE LODE



SKETCH - ACCESSIBLE WORKINGS
IRON MINE
Scale 1" = 60'
Warren C. Prosser.