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Item 30

OVERLAPED B-3556

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THE CIMMARRON MINE

The Cimmarron mine deserves a special report as it is controlled by Mr. Wisdom, who owns 50% of it and has given considerable time to prospecting and sampling the area.

The Cimmarron is located somewhat north of the Newmont and Consolidated group.

The property has been exploited by a 500 ft. shaft with drifts at several levels. The first being the 100 ft. level. Considerable high grade ore was removed and 14,000 tons of \$8.50 ore was dumped at the shaft. This dump was sampled by trenching with a bulldozer and assayed \$8.56 per ton.

The vein outcrops 500 ft. wide by 1000 ft. long, and a sample obtained by trenching 6 ft. deep, with a cat. over this surface assayed \$17.70 in gold and silver.

The vein has weathered until the surface is a soft red clay soil. The gold tellurides have been decomposed releasing the gold as small nuggets and flour. The tellurium has oxidized and coats the gold with a black varnish, which makes it difficult to amalgamate. The Wisdom acid process removes this varnish and recovers the gold as amalgam.

This mine alone represents over \$3 million in potential value and amply justifies the cost of the necessary equipment to recover it.

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**GOLDFIELD****Exploring the Possibility of Dry Land  
Dredging at Goldfield, Nevada****HISTORY**

In 1902 two prospectors filed on a gold strike about three miles north of what is now Goldfield, Nevada. This started the most fabulous gold camp in the history of the country. The mines produced ore of such richness that one mine sold for 5 million dollars. These riches spawned a bawdy town of 30,000 people who helped spend the gold that the mines produced. The records show that \$175 million in gold and silver was taken out during the life of the mines to say nothing of the untold sums secreted in lunch boxes of the miners. The last production was in 1938 when a lessor discovered a pocket that produced \$625,000.

While the experts agree that there are undoubtedly many more kidneys of high grade ore, the cost of finding them exceeds their value so today the mines are all idle and Goldfield is a ghost town.

**GEOLOGY**

The Goldfield area consists of igneous flows (dacite andesite and latite) over an eroded shale surface. These flows were faulted and brecciated before they were mineralized.

The main fault, the Columbia Mountain Fault, strikes nearly north and south and dips steeply to the east. At the point where the greatest mineralization occurs, this fault was intruded by the dacite flow which was sheared and brecciated by subsequent movement along the fault. This brecciated area has a complicated vein system. These veins roughly parallel the fault and dip steeply to the east with many interconnecting branches. These veins are massive, from 60 ft. to 150 ft. in width.

The ore is mostly low grade, \$4 - \$9 per ton. Mixed in this low grade ore like raisins in a cake are pockets or kidneys of high grade ore running as high as \$100 per lb. These pockets occur without rhyme or reason. There is no theory to account for them and no way to predict where they are.

These pockets were the goal of the early mining efforts, and as long as they were encountered with reasonable frequency the search was continued.

The vein material consists of quartz with pyrites and a complex sulphide telluride carrying gold, silver, bismuth, antimony and copper.

Above the water table these compounds have oxidized, freeing 60% of the gold and silver and changing the pyrites to a limonite hematite goossan. The sulphur is leached out as sulphates and the tellurium forms tellurite which coats the gold and silver making it hard to amalgamate.

## ECONOMICS

### Residual Placer

Where the veins outcrop the weathering thru the ages, has released the gold and silver and removed the lighter material forming residual placer carrying values in gold and silver up to \$20 per ton. A typical example of this is on the three Cimarron claims. Here an area 500 ft. by 1500 ft. has been trenched to a depth of 6 ft. and assayed at \$17.70 per ton. A shaft on the property shows that these soft oxidized ores extend to a depth of 100 ft., but it has not been sampled, beyond the 6 ft. trench. There are 500,000 tons of proven placer in sight on this property.

### Mine Dumps

In their feverish search for the bonanza ore the low grade ore was dumped at the mouth of the shaft. Today there are 3½ million tons of this mine dump assaying \$6 per ton on the average. This value could be raised considerably by selective loading. Both the placer and the dumps could be loaded and trucked to the mill at small cost.

### Ore in Place.

When the placer and dumps have been cleaned up, there would still be a vast tonnage of low grade ore in the ground. Old assays show this ore to run from \$4 - \$9 per ton. This ore could not be mined and milled at a profit by conventional methods but by using open pit methods such as are used in the copper pits the mining cost can be reduced and these ores become commercial. It is to be expected that when the entire vein is mined out that a number of high grade pockets will be found that will raise the potential return from this operation.

The enclosed drawing #1 shows a cross section of the Florence mine and illustrates the proposed method of mining.

Drawing #2 shows the Red Top vein. This vein has been tested to 265 ft. and shows average of \$7.80 per ton.

## PROPOSAL.

It is proposed to tie up all mines in this area as the price will go up when the mill has proven a success. Then install a pilot mill to handle around 500 tons per day. This mill to be designed to handle the oxidized ore in the residual placers by a special process.

When this mill has proven the potential profit in this operation a larger mill will be built to handle up to 4,000 tons per day.

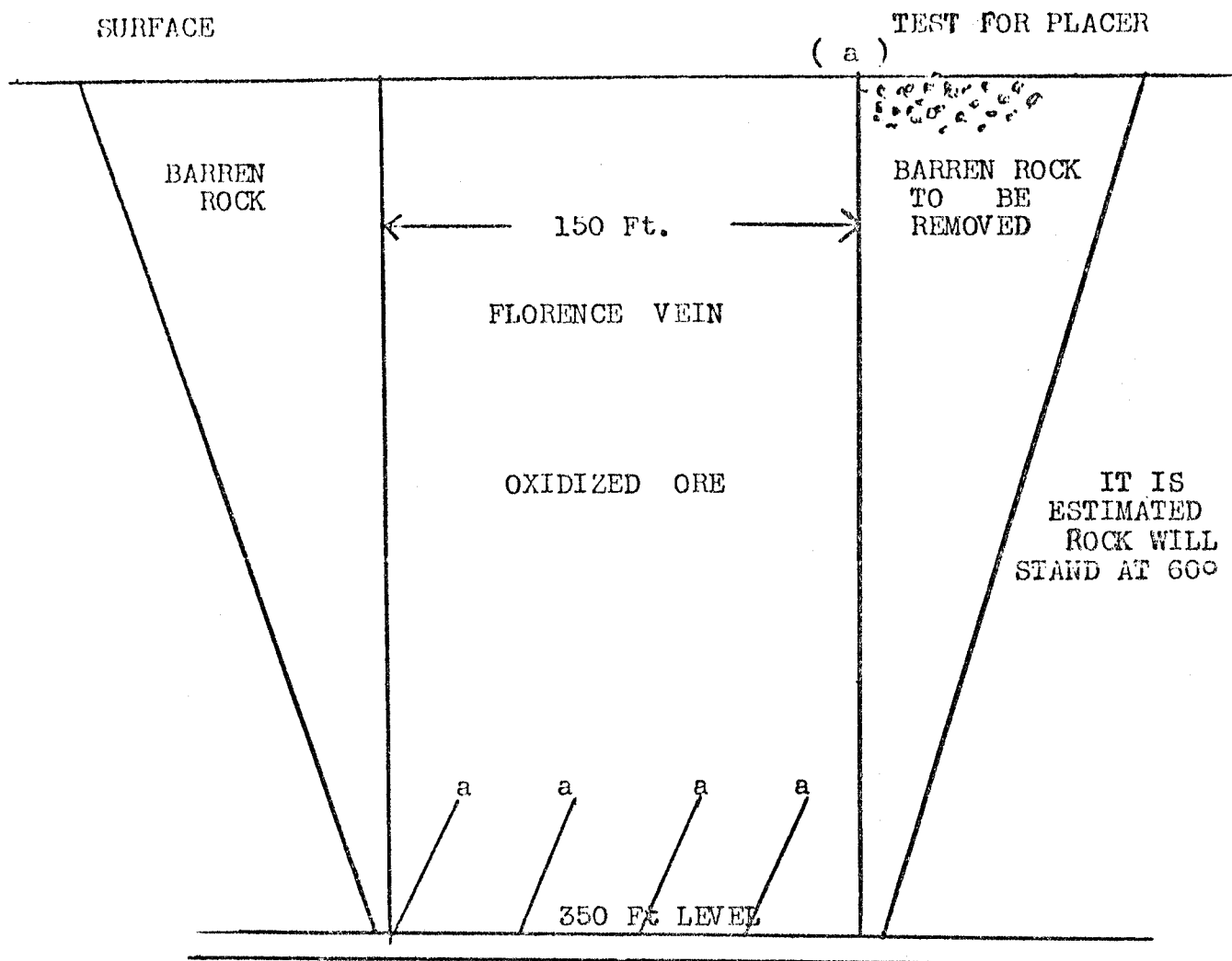
The mill will be placed on a 14 acre patented tract at Goldfield, which has a well that furnishes 160 gallons per minute. When the larger mill requires more water and tailing disposal area there is a 600 acre tract available with ample water.

The proven placer ground is ample justification for the investment in the pilot mill and the equipment to loan and haul the ore to the mill.

While the pilot mill is working on the Cimarron placer the area will be prospected and sampled systematically to prove up any other commercial ground. The dumps will be sampled and assayed and the ore remaining in the mines will be blocked out. As soon as enough ore has been proven to justify the larger mill it will be built and the pilot mill will be moved to one of the other placers available.

Tests indicate that this ore can be mined and milled at a direct cost for labor, power, chemicals and water not to exceed \$1.50 per ton when handled on a large scale. Actual operation will probably cut this figure considerably.

*Walter Van der Hoff*



a ( a ) DRILL HOLES SAMPLING THE VEIN AT DEPTH

AVERAGE \$ 6.00 TON.

*Silver 91¢  
Gold 35 dollars.*

FIGURE No. 1.

TEST PLACER BELOW VEIN AND REMOVE ALL COMMERCIAL GROUND TO  
MILL. REMOVE HANGING WALL AND PLACE IN PLACER PIT. FOOT WALL WILL  
STAND AS IS. CUT HANGING WALL BACK TO ANGLE OF REPOSE (  $50^{\circ}$  -  $60^{\circ}$  )

IT WILL REQUIRE MOVING THREE TONS OF ROCK FOR EACH TON OF ORE.

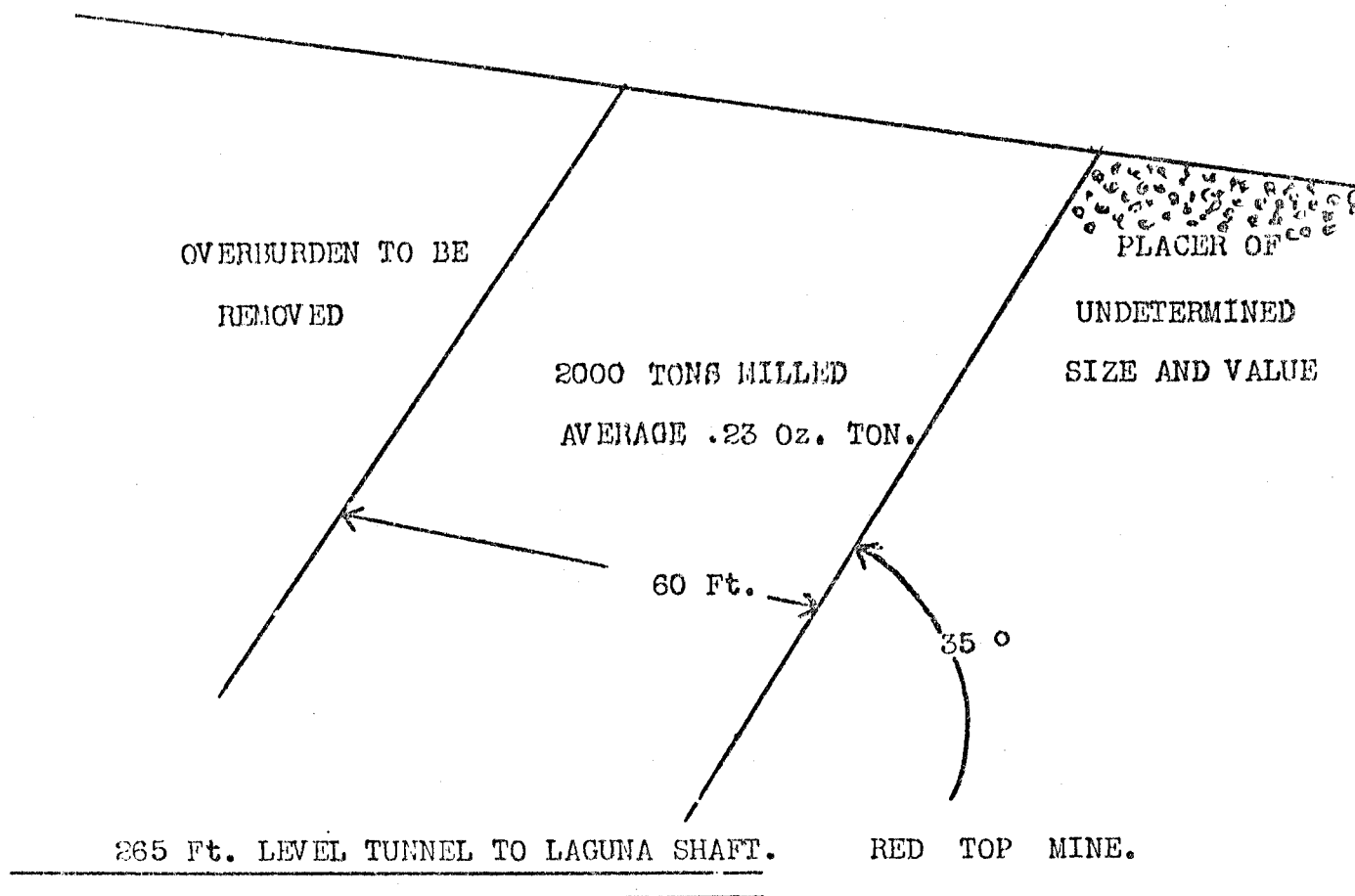


FIGURE No. 2.