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RIO DEL MONTE CLAIMS  
YUMA COUNTY, ARIZONA

October 27, 1961

E. N. PENNEBAKER  
CONSULTING GEOLOGIST  
SCOTTSDALE, ARIZONA



RIO DEL MONTE CLAIMS  
ELLSWORTH MINING DISTRICT  
YUMA COUNTY, ARIZONA

-- Submitted to Pinnacle Mining Company  
October 27, 1961

By E. N. Pennebaker  
E. N. PENNEBAKER



RIO DEL MONTE CLAIMS  
YUMA COUNTY, ARIZONA

On October 25, 1961, the writer made a brief inspection of the so-called Rio Del Monte mining claims situated  $4\frac{1}{2}$  miles south of Salome, Yuma County, Arizona. The claim map presented to the writer by Mr. O. K. Gilliam shows a group of 20 lode mining claims reported to be patented under Mineral Survey No. 1738.

The area consists of low rolling hills with little vegetation. It is underlain by rather poorly exposed gneiss and schist, with possibly a few patches of younger volcanic rocks on the west.

The feature of interest in the Rio Del Monte area is a robust group of quartz veins that in general strikes east-and-west. There are at least ten or twelve principal members of this group, plus numerous branches and spurs, that in detail give a complex pattern of many elements. Exposed croppings of individual veins can be followed for several hundred up to possibly a thousand feet, to give an aggregate strike length of several thousands of feet. The widths of the veins vary for the most part from two to ten feet.

Certain of these veins are said to have been explored to modest depths, say 100 to 150 feet, from which an unknown amount of gold ore was produced. Some of this is said to have been very rich, but much was of low to moderate grade. Apparently



most of the work was done in the oxidized zone, although a few pieces containing sulfides are scattered on several of the dumps.

The quartz filling of the veins is of two types. One kind is white and dense and is obviously barren or of very low grade. The other is iron-stained and pitted, with iron oxide filling or coating many of the cavities. Some of this quartz is coated by a light-green stain of copper silicate. Study of the type of iron oxide in the cavities and inspection of the few pieces of sulfide-bearing rock available leads to the conclusion that the pits were formerly occupied by pyrite, chalcopyrite (copper-iron sulfide), and galena (lead sulfide).

The best parts of the veins are obviously those with the iron-stained pitted quartz, which is of substantial amount but is discontinuous along the courses of the various veins. Thus the ore occurs in shoots and does not occupy all of an individual vein. The total amount of the "good parts" of the veins can only be determined by careful study and mapping.

Past exploration consists of many pits, tunnels and shafts, and there are said to be numerous drives following veins out from several shafts. The writer has seen no underground maps and therefore is not in a position to report on the amount of underground development. Water is said to stand at a depth of around 100 feet in the shafts.

It is difficult to determine the average assay value of the veins where exposed in the oxidized zone. The writer has seen



no assay maps, and no location is given for the samples reported on many assay sheets; however, the general impression is an average precious metal assay value of around \$6.00 to \$8.00 per ton, carried mostly by gold, with occasional small shoots of richer ore.

These values are in the oxidized zone where there may have been some near-surface enrichment, although the writer doubts if this was of substantial amount.

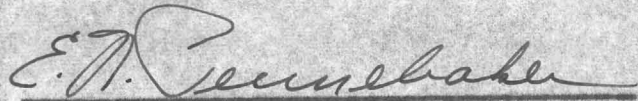
In order to find ore of generally better grade in these veins, it would be necessary to conduct exploration in the sulfide zone at greater depth. Although the values here in precious metals might fall off a little, the appearance of copper and lead sulfides would be expected to improve the value of the veins, possibly in amounts that would make them of commercial value. Therefore the property is not without promise.

As the situation now stands, the writer doubts if most of the major mining companies would take an interest in this property based on the cursory examination that would probably be accorded to it. On the other hand, if seller's presentation included a vein map giving the aggregate of the "good parts" of the veins, plus adequate sampling of available sections, then an appraisal could be made that might attract favorable attention on the part of a prospective buyer.

Exploration of the sulfide zone is best done by diamond drilling from the surface, with holes laid out on the basis of a careful geometric study of the vein pattern. In the Harqua Hala mine, 3½ miles to the south, the water level is reported to be



170 feet below the collar of the shaft, and the oxidized zone lies above the fifth level, which is said to be about at water level. Consequently, holes of only moderate depth would probably reach into the sulfide zone of the Rio Del Monte property.



E. N. Pennebaker

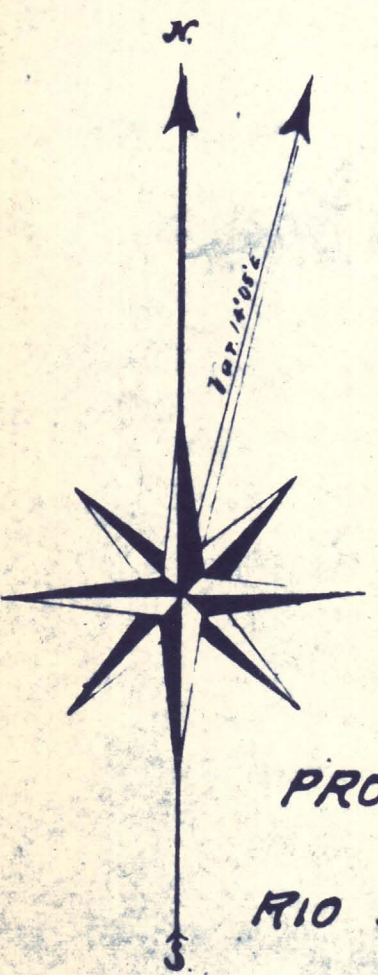
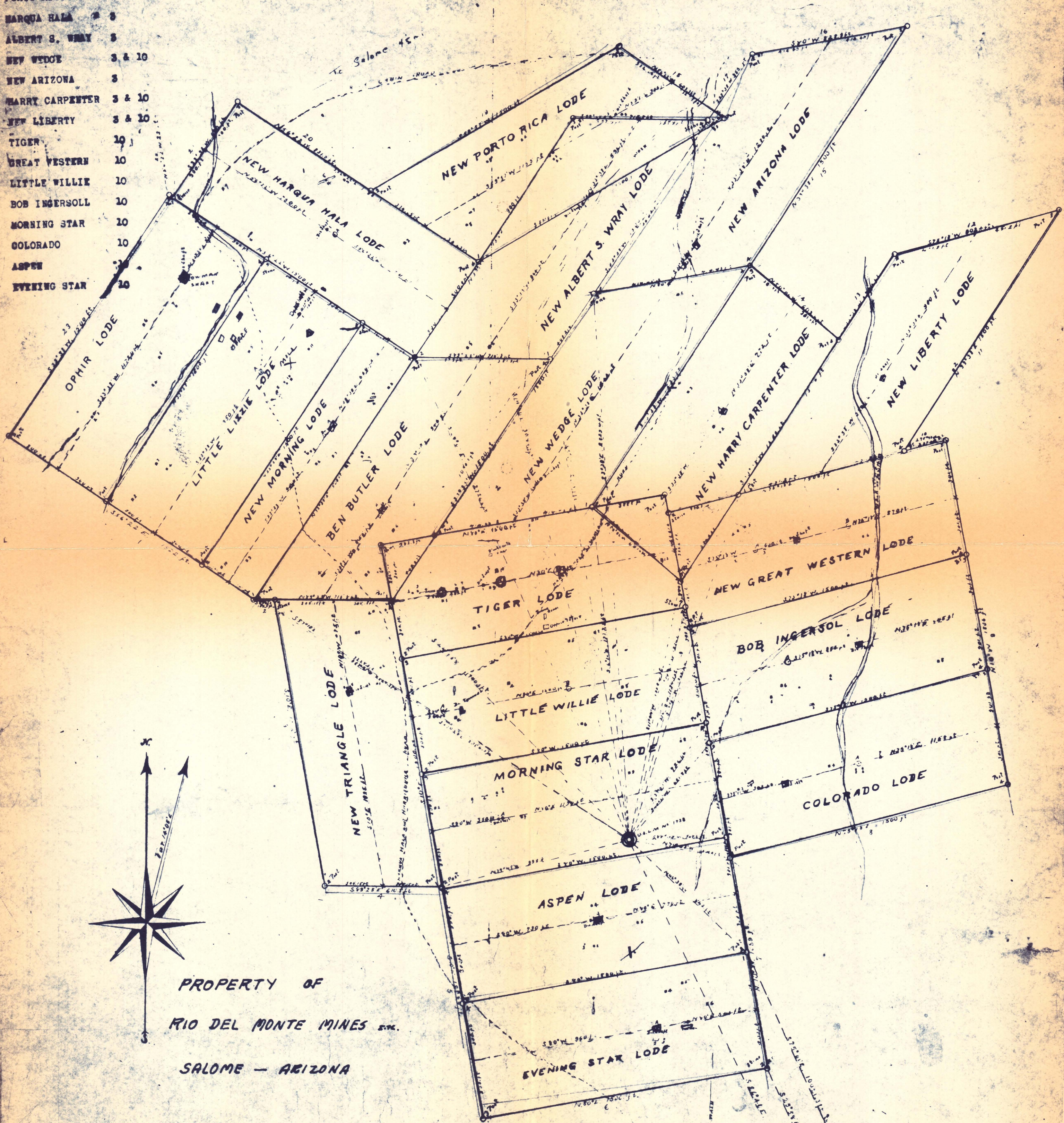
Scottsdale, Arizona  
October 27, 1961



OPHIR	3 & 10
NEW LIZZIE	3, 9 & 10
NEW MORNING	3 & 10
BEN BUTLER	3 & 10
NEW TRIANGLE	10
PORTO RICO	3
HARQUA HALL	3
ALBERT S. WRAY	3
NEW WEDGE	3 & 10
NEW ARIZONA	3
HARRY CARPENTER	3 & 10
NEW LIBERTY	3 & 10
TIGER	10
GREAT WESTERN	10
LITTLE WILLIE	10
BOB INGERSOLL	10
MORNING STAR	10
COLORADO	10
ASPEN	10
EVENING STAR	10

# MINERAL SURVEY NO 1738 TUCSON LAND DISTRICT.

Scale 1 inch = 300 feet.



PROPERTY OF  
RIO DEL MONTE MINES INC.  
SALOME - ARIZONA