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Geological Department

Report on:

THE PROPERTY OF
THE UNITED PILGRIM GOLD MINES, INC.
WEST OF CHLORIDE, MOHAVE CO.
ARIZONA.

By

R. B. Mulchay

April 1931

REPORT ON THE
PROPERTY OF THE
UNITED PILGRIM GOLD MINES, INC.
WEST OF CHLORIDE, MOHAVE CO.,
ARIZONA

INTRODUCTION.

At the request of Mr. C. F. Kelley, of New York City, a geologic examination of the property of the United Pilgrim Gold Mines, Inc. was made during the period from March 11 to 16 1931.

LOCATION, PHYSICAL FEATURES, OWNERSHIP.

The Pilgrim Mine is located on the east slope of the Black Range Mountains in Mojave County, Arizona, and is about ten miles westerly from Chloride, Arizona, the northern terminus of the Kingman-Chloride branch of the A. T. & S. F. R. R. Four miles of good graded road and six miles of fair unimproved road connect Chloride and the mine.

The mine is at an elevation of approximately 3650 feet. There is no timber in the surrounding country, and water is scarce.

United Pilgrim Gold Mines, Inc., hold sixteen unpatented claims; seven are owned and nine are under lease and bond from United Pilgrim Mines.

GEOLOGY

The Black Mountains are made up of a series of volcanic rocks mainly of andesitic and rhyolitic composition, some earlier granite masses, and later intrusive rhyolite. Vein systems developed through the range carry gold values as the only commercial mineralization, and have a general strike west of north. Major fault structures, as developed in the Oatman district some twenty five miles to the south of the Pilgrim Mine, are northwest striking, flat west-dipping faults with normal displacements of several hundreds of feet.

At the Pilgrim Mine the rocks are entirely interbedded andesites and rhyolites with a general N 60° E strike, and a steep dip to the southeast. Development on the surface by pits and shallow incline shafts shows a six inch to two foot vein of quartz and calcite which has about a N 20-25° W strike, and a dip of 25-35° to the west. This vein is paralleled by a later strong strike fault which at the surface is immediately in the hanging wall of the vein. Drifts on the 50 and 250 levels on this structure, known as the hanging wall vein, show that only small sections of the vein developed at the surface remain in place in the footwall of the fault on these levels. No direct evidence as to the amount or direction of movement of this fault was observed, but a crosscut through the fault on the 150 level showed a solid red fault gouge two feet thick with a broken

zone in the hanging wall of over fifty feet. The indicated large amount of movement on the fault, and the apparent close adherence of the fault to the strike and dip of the narrow vein developed at the surface make the future development of anything but narrow, lenticular, brecciated portions of the vein extremely unlikely.

A narrow, stringery quartz vein, known as the footwall vein, is developed on the 150 and 250 levels and in the main shaft. On the 250 level this vein is cut by a number of northwest shears which locally brecciate the vein, and occasionally offset it a few feet. The normal width of the vein is from two to eight inches, but where it is brecciated the width may be spread over two feet. The vein is irregularly shown in the main shaft between the 150 and 250 levels; below the 250 level in the shaft it appears to pinch out.

Development which should expose this vein on the 350 level encountered only a three inch stringer of quartz, which is well in the footwall of the projected position of the vein developed on the 250 level. A shear zone which cuts this stringer has been drifted upon on the 350 level and a winze has been driven to the 450 level in this shear zone. Scattered quartz is encountered in this zone and is probably derived from brecciation of small seams of quartz such as cut in the most easterly crosscut on the 250 level.

MINERALIZATION

Veins developed on the Pilgrim property are composed of quartz and calcite, are lightly iron stained, and carry values in gold with negligible amounts of silver. The values, as shown on the geologic-assay plans that accompany the report, are very erratic, and are confined nearly entirely to the quartz mineralization; the country rock along the veins does not carry appreciable gold values.

The best values are found to occur in the footwall vein as developed on the 350 level and in the shaft. Assays of this narrow quartz vein show as high as $373.60 for a width of six inches, but the country rock on either side of the vein is practically barren. The assay values of the hanging wall vein are considerably lower, and reach a maximum of about $20.00. Scattered fair values, due to included quartz fragments, are found in the shear zone developed on the 350 and 450 levels.

SUMMARY AND CONCLUSIONS

Structural relations and assay values of the hanging wall vein indicate that there is scant possibility that any considerable tonnage of low grade gold ore can be developed on it.

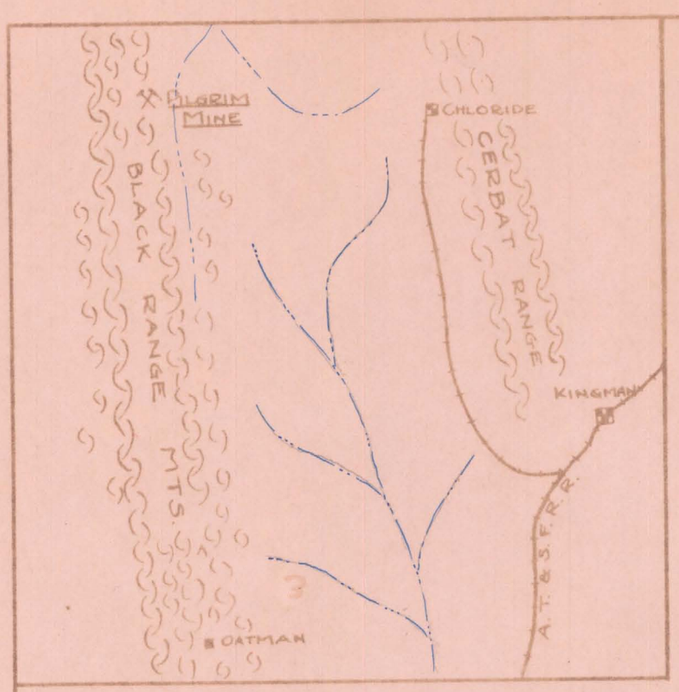
Development on shear zones on the 350 and 450 levels promises only very small isolated bunches of ore.

The footwall vein is extremely narrow and discontinuous, and the higher grade assays are not persistent. Future development on such a structure can develop only a very limited tonnage of good grade ore at best.

Consideration of the above facts leads to the conclusion that the property has no tonnage possibilities.

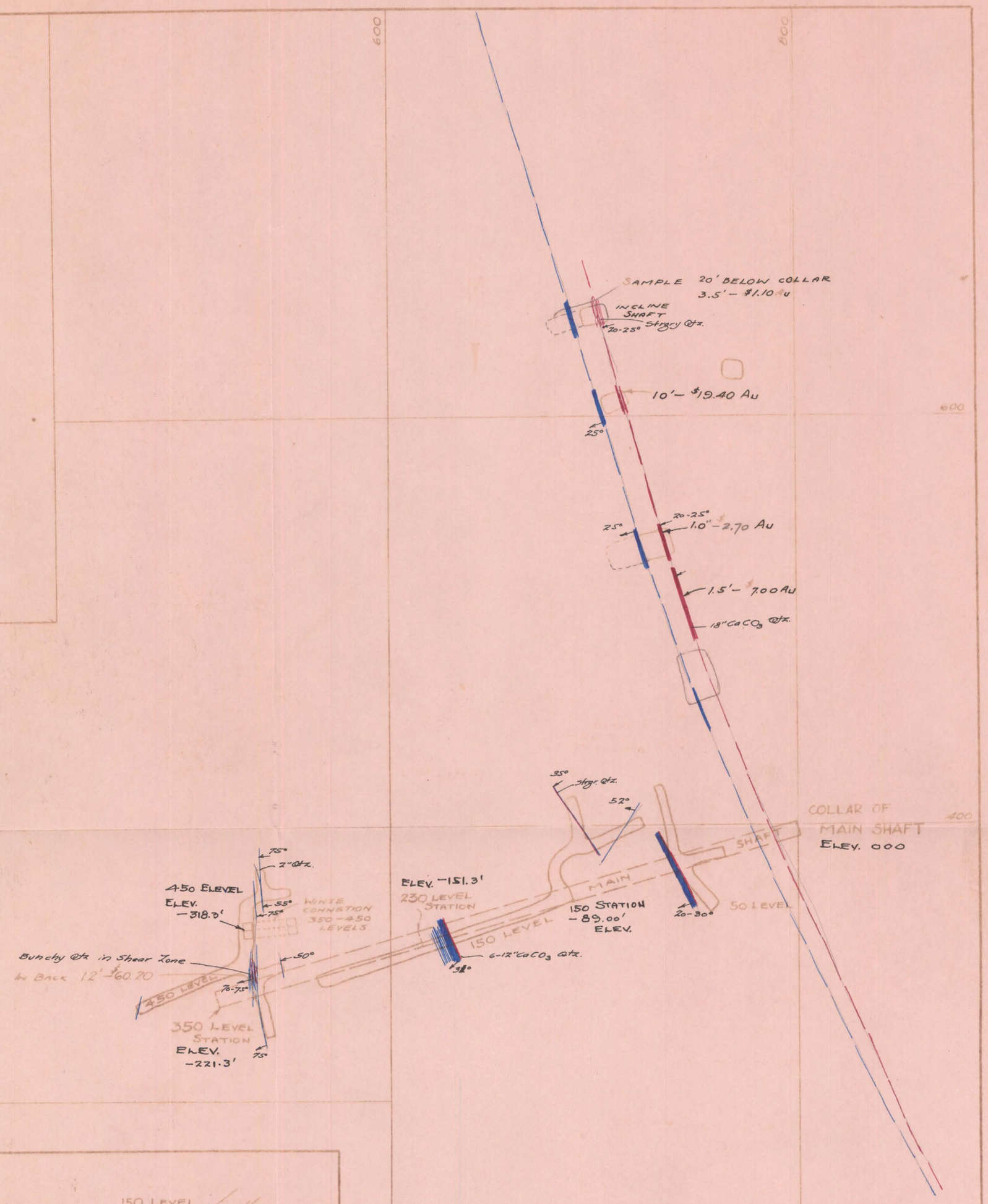
Respectfully submitted,

Cananea, Sonora, Mexico,
April 12, 1931.



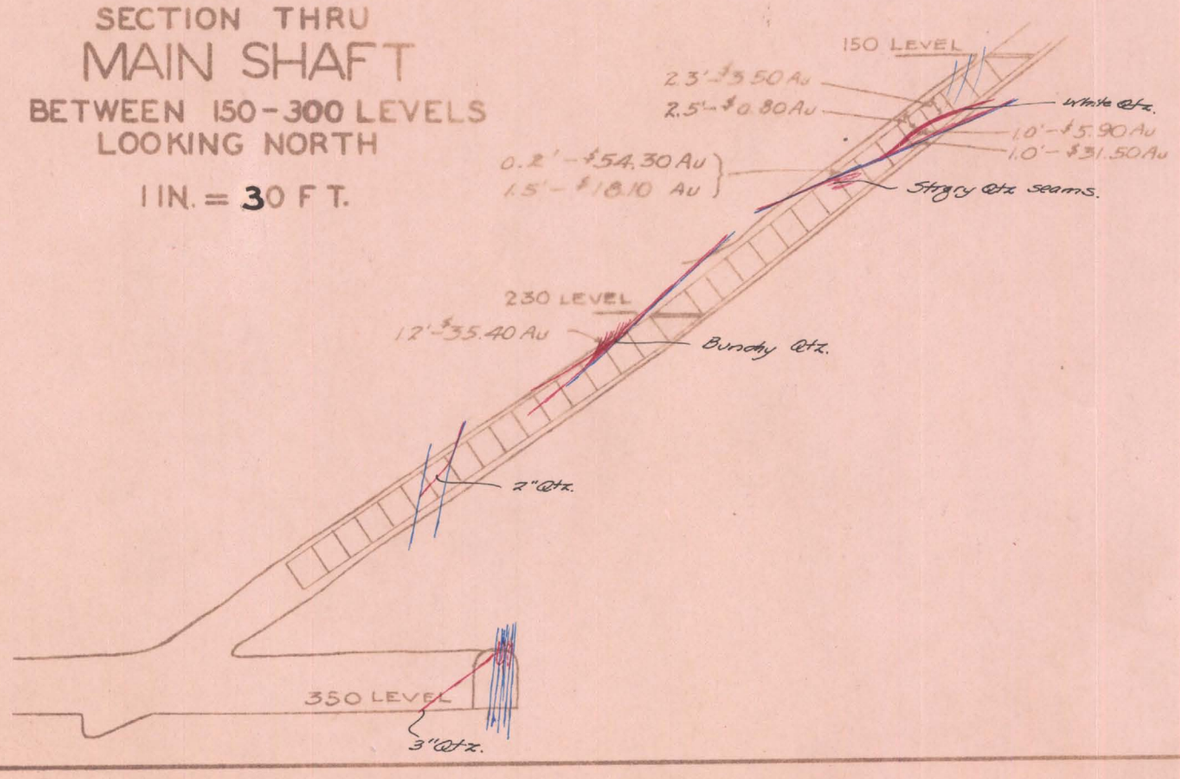
INDEX MAP
PILGRIM MINE
MOHAVE CO. ARIZONA

SCALE 0 5 MI 10 MI



SECTION THRU
MAIN SHAFT
BETWEEN 150 – 300 LEVELS
LOOKING NORTH

1 IN. = 30 F T.



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COMPOSITE PLAN
PILGRIM MINE

1 IN. = 50 FT.

NOTE: SEPERATE 50 SCALE MAPS OF THE 230 & 350 LEVELS ACCOMPANY THE REPORT.

400

600

800

600

70°

3.0'-$0.20 Au

500

45°

Irreg Qtz.

1.5'-$0.20 Au

4.9'-$0.35

2.3'-$1.30

1.9'-$12.60

270

Irreg broken Qtz.

300

1.2'-$2.10 Au
6.0'-$0.40 Au

12" $CaCO_3$ Qtz.

0.9'-$7.30

2.5'-$3.10 Au
2.7'-$0.50 Au
2-3' Qtz. $CaCO_3$ - Irreg

3.5'-$12.40 Au
2.5'-$0.70 Au

1.0'-$3.70 Au

2' gouge

32°

80°

5.5'-$0.40 Au

12" $CaCO_3$ Qtz.

2.0'-$0.75 Au
1.0'-$1.80 Au
24.7'-$0.85 Au

75°

Brecciated volcanics with little Qtz. in shear zone.

60°

2.0'-$0.80

30°

2.2'-$1.50 Au ABOVE VEIN
0.7'-$22.80 Au VEIN
3.0'-$0.60 Au BELOW VEIN

6" Qtz.

0.5'-$133.70 Au

20°

6"-8" Qtz.

(ON VEIN IN WINZE)
a5'-$373.60 Au
3.5'-$1.50 Au
(COUNTRY ROCK ABOVE VEIN)

WINZE

STOPE

60°

1.0'-$247.20 Au

11'-$20.60 Au
1.1'-$2.50 Au
1.3'-$5.10 Au

68°

0.7'-$14.80 Au
0.2'-$5.20 Au

Qtz. Stgr.

SHAFT

400

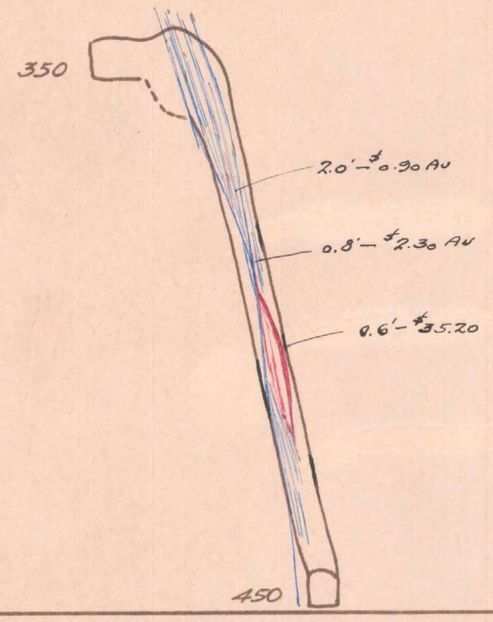
200

230 LEVEL

PILGRIM MINE

1 IN. = 50 FT.

4/6/31 EBM



SECTION THRU WINZE

BETWEEN 350 & 450 LEVELS
LOOKING SOUTH

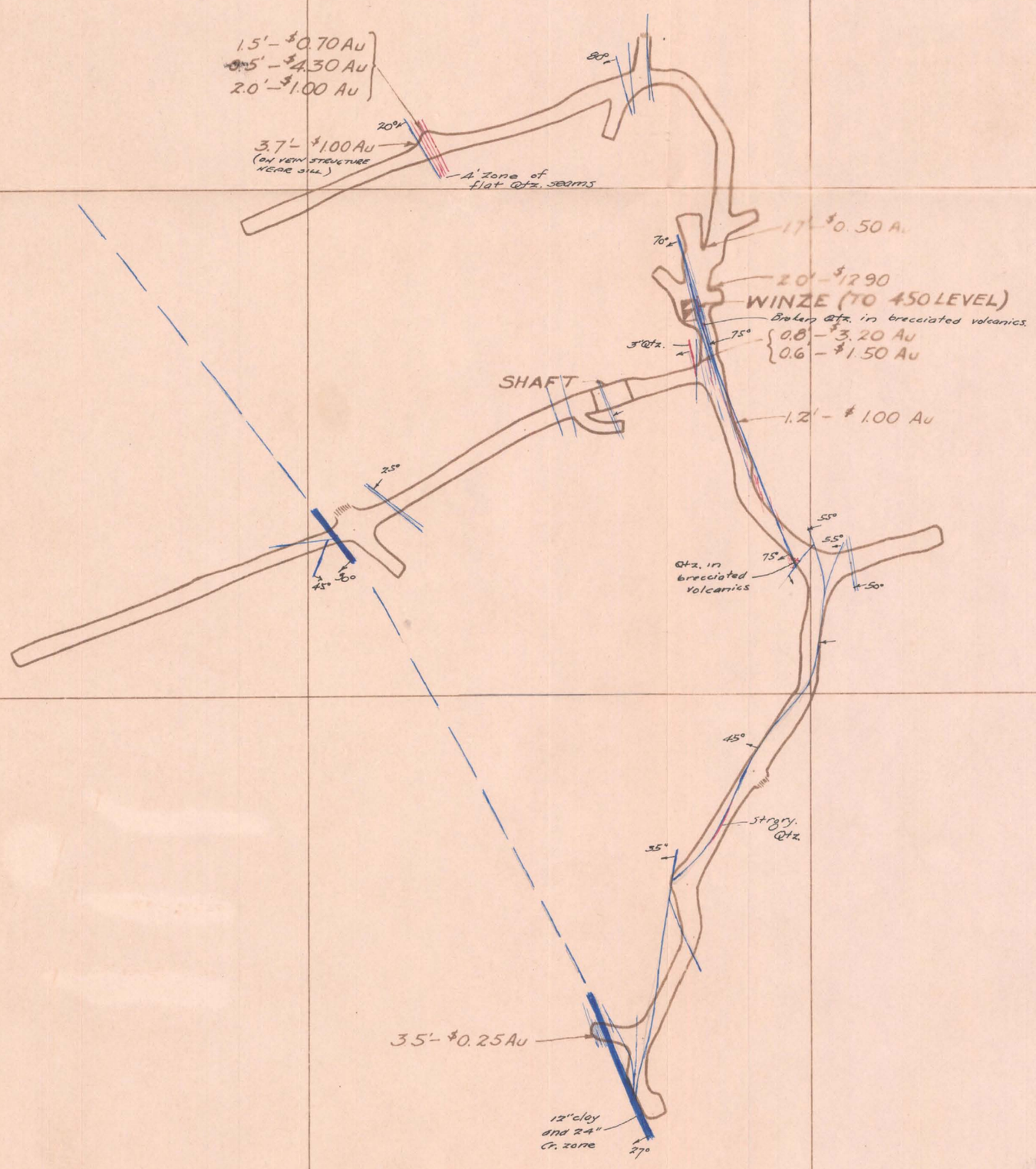
1 IN.=30 FT.

800

600

400

200



350 LEVEL

PILGRIM MINE

1 IN.=50 FT.

41:5/31
RBM