



CONTACT INFORMATION

Mining Records Curator
Arizona Geological Survey
1520 West Adams St.
Phoenix, AZ 85007
602-771-1601
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

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Arizona Department of Mines and Mineral Resources Mining Collection

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10/01/85

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: SOUTH PILGRIM

ALTERNATE NAMES:

MOHAVE COUNTY MILS NUMBER: 346A

LOCATION: TOWNSHIP 23 N RANGE 20 W SECTION 13 QTR. --
LATITUDE:N 35DEG 22MIN 52SEC LONGITUDE:W 114DEG 21MIN 41SEC
TOPO MAP NAME: GRASSHOPPER JCT - 7.5 MIN

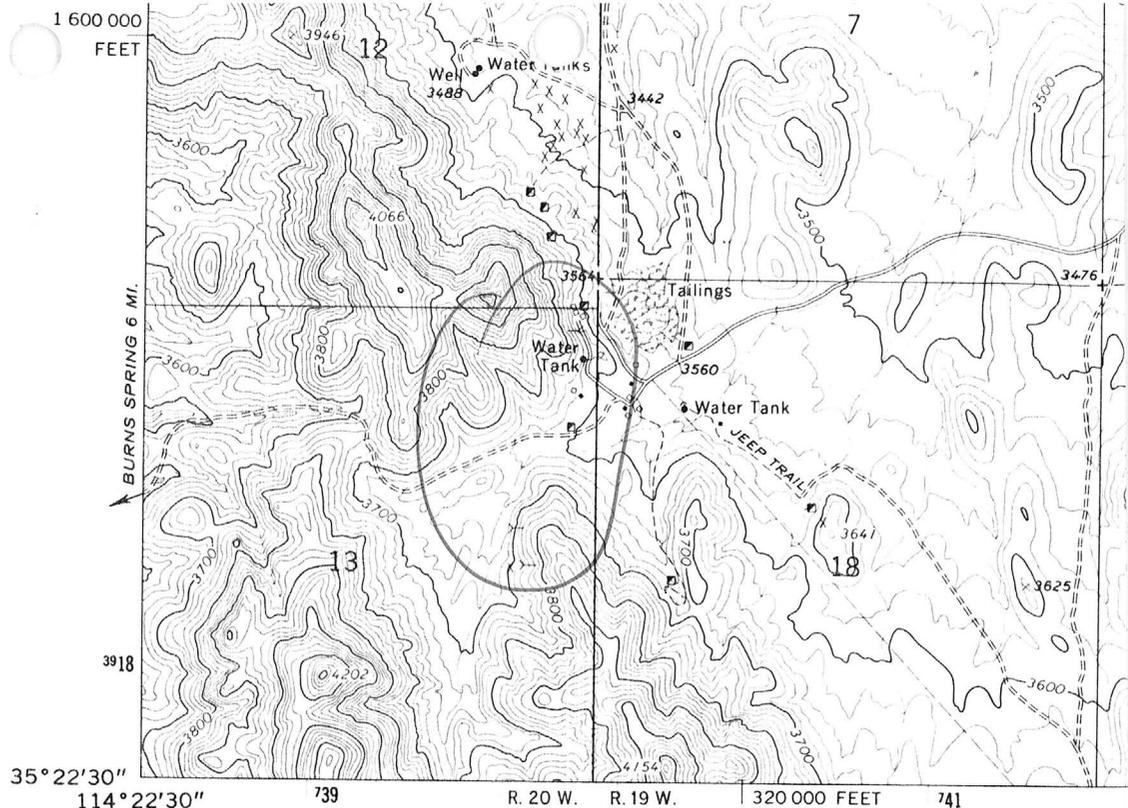
CURRENT STATUS: DEVEL DEPOSIT

COMMODITY:

GOLD-PRIMARY

BIBLIOGRAPHY:

USGS GRASSHOPPER JCT MAP
ADMMR SOUTH PILGRIM FILE
ADMMR PILGRIM MINE FILE
TENNEY, J.B. "2ND RPT ON MIN. IND. OF AZ"
AZBM BULL 129, P. 83-85; 1930



(BURNS SPRING)
3154 IV SW

Mapped, edited, and published by the Geological Survey
 Control by USGS and USC&GS
 Topography by photogrammetric methods from aerial
 photographs taken 1965. Field checked 1967
 Polyconic projection. 1927 North American datum
 10,000-foot grid based on Arizona coordinate system, west zone
 1000-meter Universal Transverse Mercator grid ticks,
 zone 11, shown in blue
 Fine red dashed lines indicate selected fence lines

South Pilgrim
 (2310 Range) Sec. 13



UTM GRID AND 1967 MAG
 DECLINATION AT CENTER

Grasshopper Jct.
 7.5'

May 10, 1941.

Corporation Commission
Capitol Annex
Phoenix, Arizona.

Attention Mr. Dempsey;-

Gentlemen;-

I am enclosing a copy of a report made by our field engineer
Elgin B. Holt on the South Pilgrim Mine.

From the Holt report and from my personal knowledge of the
district and of this particular area exploratory and devel-
opment work seem justified.

Very truly yours,

J. B. Coupal,
Director.

F/H

Duluth, Minn. Oct. 30, 1929

Mr. Fred W. Koehler,
San Fernando, Calif.,

My Dear Mr. Koehler:

You have asked me for a brief statement of my views as to the possibilities of the South Pilgrim mining property, in Arizona, which carries the Pilgrim vein southerly from the mine of that name.

Very little work has been done on this property, but the Pilgrim has been developed considerably and has just now made some remarkable discoveries. It is this work and these discoveries that are calling attention to the South Pilgrim ground.

Therefore this statement of mine will have to do chiefly with the Pilgrim, and with the connection between the two, the bearing which the one has on the other.

Pilgrim mine is in Mohave County, Arizona, and is some ten miles west of Chloride, connected therewith by a good road which is at present some 15 miles in length, but is to be shortened when work now contemplated has been done. The mine lies on the eastern slope of the Black Mountains, along the western side of which the Colorado River flows. The elevation of the mine is about 3,500 feet above the sea. Chloride is the present terminus of the Arizona & Utah branch of the Santa Fe railway, and is the town from which supplies for most of this mining region are secured. This branch railroad connects with the main line near Kingman, and is about 25 miles long. With the Boulder Dam under construction,

the road probably will be extended north to that point.

The region is typical of what is commonly called the Arizona desert, and water is not plenty. Pilgrim has developed enough for present needs by a well close to the mine, and no doubt can get more by going further into the valley. In parts of the district there is a broad belt of rhyolite tuff that seems to carry inexhaustible supplies of water, but I do not know whether this tuff is to be found close to these properties. The site of Boulder Dam is but a few miles away, and when this dam is completed power will be ample for all purposes and at low cost. Now oil is used, freighted from Chloride. It is cheap.

With the Boulder Dam completed or even well begun, the general mining and industrial development of this region will gain tremendously.

At the present time overall mining and milling costs in the district should not exceed \$5 or \$6 a ton, on any reasonable operation in veins of average width and character. Later they can no doubt be reduced. In fact, it seems to me that \$5 should be enough to cover costs now. It is not a difficult and distant mining region, labor costs are standard, but little timber is used, supplies are not high and the milling of this ore is a simple affair, with high savings of the gold contained in it.

The whole area between the railroad and the Colorado River is a well known mining district, with numerous mines. Those of the Cerbat range and near Chloride are predominantly silver; those of the Black Mountains are gold, with little else. These latter include such properties as the Tom Reed, Gold Roads, United Eastern, Vivian, Pilgrim, Mocking Bird, Moss and others,

distributed over an area of some twenty-five miles in length.

Many millions of dollars have been taken from these mines. The region is by no means exhausted and should show a long and steady production from older mines and development of the new ones.

Pilgrim mine was first developed many years ago, at a time when ores either were milled with high losses, or were packed on burro back to the Colorado River, thence transported on river steamer down to the Gulf and thence around the coast to San Francisco, for treatment. Either of these processes meant that any ore that could be treated must be rich. In those days some ore running up to \$100 a ton was shipped from the Pilgrim, but the greater part of what was mined ran not far from \$10. This could not be handled then. The mine's spectacular high grade discoveries are new and have been the cause of great interest within the past few weeks. I would not be surprised to see a boom develop thereabouts as the result of what has now been found.

Pilgrim has an inclined shaft about 350 feet deep, with a quartz vein perhaps 20 feet wide dipping west about 35°. On the 235 - and 350 ft. levels stations were cut and drifting and crosscutting has been developing the ore body. High grade ore is found on both levels and there is no reason to doubt that it extends from surface at least to the bottom of the workings. As oxidation extends a long ways beyond the bottom of the mine, it is probable that there is a very considerable further depth of good ore.

The average gold values in the district seem to be from \$10 to, say, \$15 a ton, and it is too much to expect that the spectacular ores recently found can be more than sporadic. They need not be, for a \$10 ore ought to pay well and these very rich streaks and seams make splendid sweeteners.

From my brief examination of the mine and from what I know of the district, I am quite confident that the Pilgrim vein occurs as a contact between rhyolite and granite-porphry, with very deep oxidation, so that one can expect to go several hundred feet beyond the bottom of the present mine without encountering a change in the character of the ore. This is an important factor in milling development. This ore carries coarse gold, freely distributed through the vein material.

The Pilgrim vein extends southerly into South Pilgrim ground with-out a break; the latter carries the extension of the vein for nearly 3,000 feet with no surface indications of material faulting. The surface appearance of the vein is generally quite similar to what is along the Pilgrim, and assays made from samples taken at various points along this 3,000 feet are quite like, I am told, those that came from the surface of the Pilgrim, that is they run from a little over a dollar to several dollars a ton.

The value of South Pilgrim depends entirely on what may be the mineralization of Pilgrim vein south of the line separating the properties. While indications are that the agency which introduced gold north of the line performed the same kindly act across the line; the geology does not change, the mineralizing rocks are the same, all conditions apparently are alike, yet it is impossible to state with assurance that gold does exist on the South Pilgrim until it is found there. It ought to be there, and in quantity.

In order to answer this important question it will be necessary to do some work. It is an investigation that must be made under ground. A shaft should be sunk, and deep enough and with enough lateral development to prove the matter with some degree of authority. Diamond drilling has been suggested, but I

do not believe in it for such work as this. All a drill hole could prove would be the presence of a vein and its width at the point where it was intersected. You know now that you have a vein, and you can assume its width with some definiteness. If a drill core showed gold it would only prove that at that particular inch there was a value; if it did not you might be disappointed without reason, for it would be surprising if, even in a rich vein, gold were to show in a bit of rock like a drill core. As a machine for finding formation the diamond drill has its function, as a method of testing veins, it is almost worthless, generally.

I recommend that a site for a shaft be selected with great care and after a study of the ground throughout your property, at a spot adjacent to the footwall of the vein. That it be sunk, first, in South Pilgrim ground which it has in the immediate vicinity of the mine; and second, that the shaft be deep enough and have sufficient lateral workings to prove or disprove the presence of gold in the vein. If at first you find little or no gold in the vein, you ought not to be discouraged, for there are almost 3,000 feet of vein somewhere on which gold should exist in paying quantity.

I regard the South Pilgrim as a very favorable prospect and one that is well worth spending a large amount of money upon, and I should like very much to be consulted from time to time in the course of your development.

Dwight E. Woodbridge

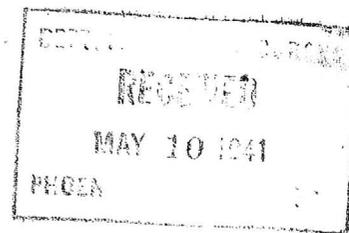
DEPT. I
MAY 10 1941
PHOL. 011

Attached hereto is an engineer's report on the below described properties:

SOUTH END, SOUTH END NO. 1, SOUTH END NO. 2, and SOUTH END NO. 3 lode mining claims, in the Pilgrim Section of the Weaver Mining District, Mohave County, Arizona, recorded in Book 3-L of Mines, pages 100, 101, 102 and 103, records of Mohave County.

SOUTH END NO. 6 and SOUTH END NO. 7, lode mining claims, in above described area, Book 3-L, pages 106 and 107.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT



Mine SOUTH PILGRIM MINE

Date May 8, 1941.

District Weaver Mining Dist., Mohave County.

Engineer Elgin B. Holt.

Subject:

B R I E F S T A T E M E N T

OWNER: South Pilgrim Mining Company, incorporated under the laws of the State of Arizona. Address: Kingman, Arizona.

METALS: Gold.

LOCATION: Property is located about 10 miles southwesterly from Chloride, Arizona, and covers the southeasterly extension of the Pilgrim Mine, belonging to Producers Mines, Inc.

NOTE: On May 6th and 7th I inspected this property, and was shown through the underground workings thereof by Mr. W. H. Clark, Superintendent. I took no samples for assay; hence my investigations herein outlined, concern mainly a physical description of the mine.

GEOLOGY: The country rock within and surrounding this property consist of tertiary lavas, such as andesite, rhyolite, latite, etc. Schrader states: "The Pilgrim district, which is about two miles in length and trends northwestward, lies 9 miles west of Chloride, in the eastern foot hills of the range, at an elevation of about 3,600 feet. The country rock is principally rhyolite and granite porphyry. The main opening is the Pilgrim mine, on the northwest. It was discovered March, 1904 ~~XXXXXXXXXX~~. Soon after it was bonded to Brockman, who developed it. ~~XXXXXXXXXX~~. This mine is situated on a contact vein between rhyolite breccia, with trachytic rhyolite, forming the hanging wall and granite porphyry in the foot wall." (F. C. Schrader, U. S. G. S. Bulletin 397, 1909.)

THE PILGRIM MINE is now operated by the Producers Mines, Inc., H. W. Thorne, president and treasurer, under contract of purchase from original owners. This property was producing, in July, 1940, 4,700 tons of ore per month, and treating it in a 230-ton counter-current cyanidation plant. Ore treated is oxidized material carrying mainly gold values, with some silver. At the present time the Producers mill, just mentioned, is treating mainly customs ores from properties within a 100-mile radius.

AREA consists of 6 unpatented mining claims - belonging to the South Pilgrim Mining Company - 3 claims wide by 2 claims in length, running North 22 degrees 25 minutes West. These claims cover the main southeasterly extension of the Pilgrim mine as well as the mineralized ore zone thereof.

THE MUD WALL VEIN, traversing both the South Pilgrim and Pilgrim properties, lies on a contact between rhyolite breccia on the hanging wall and andesite on the foot wall. Its strike is N 57 deg. W; its dip being 45 deg. southwesterly.

DEVELOPMENT WORK: The South Pilgrim shaft is sunk in andesite on the footwall side of the Mud Wall vein to a depth of 525 feet, and at an angle of 46 deg. southwesterly; 5 stations being cut at 100-foot intervals, more or less.

On the 100-foot level, a drift was run southeasterly 240 feet and northwesterly 140 feet; both of these on the Mud Wall vein; but no commercial ore was found.

NOTE: Broadly speaking, the Mud Wall vein, so far developed in South Pilgrim ground, is practically barren of gold values, except at points where this vein is intersected by a series of parallel fractures, occurring on the foot-wall side of said vein, and striking about north and south. At points where these fractures intersect the Mud Wall vein, small shoots of gold ore have been found, of no great importance.

On the 200-foot level, no drifting on the Mud Wall vein has been done; but a station was cut and a cross-cut was run southwesterly to the Mud Wall vein, 60 feet from shaft; no ore being found in this cross-cut.

On the 300-foot level, a cross-cut was run 40 feet southwesterly from shaft to the Mud Wall vein, on which a drift was run 60 feet southeasterly on vein and a small lens of ore was found in this drift, assaying \$21.00 gold per ton, per Mr. Clark.

On the 400-foot level, a cross-cut was run 40 feet southwesterly to Mud Wall vein, on which a drift was run 500 feet southeasterly. At a point in this drift 200 feet from shaft, a small broken ore shoot was found, assaying from \$8.00 to \$10.00 gold per ton, per assay certificates furnished me by Mr. Clark. This ore shoot has a length of about 20 feet, and is of no great importance.

On the 500-foot level, a cross-cut was run southwesterly from shaft to Mud Wall vein, a distance of 35 feet. Thence, a drift was run 140 feet southeasterly on said vein, showing bunches of gold ore occasionally.

THE 500-FOOT LEVEL CROSS-CUT: On the said 500-foot level, Mr. Clark is now driving a cross-cut northeasterly from shaft, with the express end in view of intersecting the FOOT WALL VEIN, which will be discussed in the next paragraph of this statement. This cross-cut, which now has a length of 150 feet from shaft crosses an ore-bearing fracture, in andesite, about 130 feet from shaft. Samples taken by Clark from this fracture, showing bands of calcite and quartz, assayed \$7.35 and \$10.50 gold per ton. This is most promising, in that this fracture may lead to an ore body. The strike of this fracture is about North 10 degrees East; hence it may lead to the Foot Wall vein, at some distance further north, where it is believed important workable ore shoot will be found, as hereinafter set forth.

THE FOOT WALL VEIN: The Foot Wall vein, in Pilgrim ground, parallels the Mud Wall vein, lying about 200 feet therefrom, on the foot-wall side thereof, or on the northeasterly side, and dipping in the same direction as the said Mud Wall vein, at exactly what angle I did not have time to determine. This Foot Wall vein is a strong ore-bearing fissure, with long workable shoots of excellent grade milling ore, proven in the Pilgrim mine to contain the most important ore bodies yet found in that property.

According to surveys, the said Foot Wall vein strikes southeasterly into South Pilgrim ground, more or less paralleling the Mud Wall vein. However, the said Foot Wall vein has not yet been located in the underground workings of the South Pilgrim mine. It is the object of the 500-foot cross-cut, as stated, to pick up this vein. Hence, this cross-cut should be continued by all means, an unknown distance, ranging from 50 to 300 feet further, in order to locate the vein referred to; and once found, should the vein be proven to have commercial ore, drifts, of course should be run each way on the same. This is the work I recommend to be done in the South Pilgrim mine, as a first consideration. Other work should be planned later, after

the work just referred to has been completed, and after the property has been thoroughly examined and surveyed by a competent geologist or engineer.

In other words, I am confident, that with skillfully directed work, ore bodies of importance will be found somewhere along the main ore zone within South Pilgrim ground. I have little or no confidence, however, that these ore bodies will be encountered along the Mud Wall vein, which, I understand, was not very productive of milling ore in the main Pilgrim property.

For instance, the Pilgrim mine is developed to the 700-foot level by a winze from the 500-foot level, which is reached by a main inclined shaft. The winze is located approximately 2,000 feet northwesterly from main shaft, in that part of the mine from which the major production has been obtained.

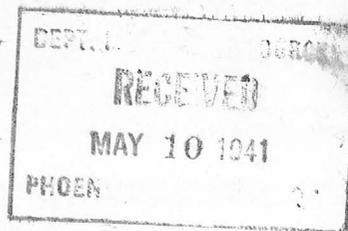
Note that the main productive area of the Pilgrim mine is located 2,000 feet northwesterly from the shaft. Hence there is ample room for the existence of important workable ore bodies along the main ore-bearing zone within the boundaries of the South Pilgrim mine.

Therefore, while this property is now in the prospect stage, and has not as yet produced commercial ore in quantity, I believe, from facts herein outlined, that the expenditure of considerable additional money is warranted in carrying forward exploratory work, more or less set forth, or indicated, in this statement.



Elgin B. Holt,
Field Engineer.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT



Mine SOUTH PILGRIM MINE

Date May 8, 1941.

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Pilgrim mine was first developed many years ago, at a time when ores either were milled with high losses, or were packed on burro back to the Colorado River, thence transported on river steamer down to the Gulf and thence around the coast to San Francisco, for treatment. Either of these processes meant that any ore that could be treated must be rich. In those days some ore running up to \$100 a ton was shipped from the Pilgrim, but the greater part of what was mined ran not far from \$10. This could not be handled then. The mine's spectacular high grade discoveries are new and have been the cause of great interest within the past few weeks. I would not be surprised to see a boom develop thereabouts as the result of what has now been found.

Pilgrim has an inclined shaft about 350 feet deep, with a quartz vein perhaps 20 feet wide dipping west about 35°. On the 235 - and 350 ft. levels stations were cut and drifting and crosscutting has been developing the ore body. High grade ore is found on both levels and there is no reason to doubt that it extends from surface at least to the bottom of the workings. As oxidation extends a long ways beyond the bottom of the mine, it is probable that there is a very considerable further depth of good ore.

The average gold values in the district seem to be from \$10 to, say, \$15 a ton, and it is too much to expect that the spectacular ores recently found can be more than sporadic. They need not be, for a \$10 ore ought to pay well and these very rich streaks and seams make splendid sweeteners.

From my brief examination of the mine and from what I know of the district, I am quite confident that the Pilgrim vein occurs as a contact between rhyolite and granite-porphry, with very deep oxidation, so that one can expect to go several hundred feet beyond the bottom of the present mine without encountering a change in the character of the ore. This is an important factor in milling development. This ore carries coarse gold, freely distributed through the vein material.

The Pilgrim vein extends southerly into South Pilgrim ground with-out a break; the latter carries the extension of the vein for nearly 3,000 feet with no surface indications of material faulting. The surface appearance of the vein is generally quite similar to what is along the Pilgrim, and assays made from samples taken at various points along this 3,000 feet are quite like, I am told, those that came from the surface of the Pilgrim, that is they run from a little over a dollar to several dollars a ton.

The value of South Pilgrim depends entirely on what may be the mineralization of Pilgrim vein south of the line separating the properties. While indications are that the agency which introduced gold north of the line performed the same kindly act across the line; the geology does not change, the mineralizing rocks are the same, all conditions apparently are alike, yet it is impossible to state with assurance that gold does exist on the South Pilgrim until it is found there. It ought to be there, and in quantity.

In order to answer this important question it will be necessary to do some work. It is an investigation that must be made under ground. A shaft should be sunk, and deep enough and with enough lateral development to prove the matter with some degree of authority. Diamond drilling has been suggested, but I

do not believe in it for such work as this. All a drill hole could prove would be the presence of a vein and its width at the point where it was intersected. You know now that you have a vein, and you can assume its width with some definiteness. If a drill core showed gold it would only prove that at that particular inch there was a value; if it did not you might be disappointed without reason, for it would be surprising if, even in a rich vein, gold were to show in a bit of rock like a drill core. As a machine for finding formation the diamond drill has its function, as a method of testing veins, it is almost worthless, generally.

I recommend that a site for a shaft be selected with great care and after a study of the ground throughout your property, at a spot adjacent to the footwall of the vein. That it be sunk, first, in South Pilgrim ground which it has in the immediate vicinity of the mine; and second, that the shaft be deep enough and have sufficient lateral workings to prove or disprove the presence of gold in the vein. If at first you find little or no gold in the vein, you ought not to be discouraged, for there are almost 3,000 feet of vein somewhere on which gold should exist in paying quantity.

I regard the South Pilgrim as a very favorable prospect and one that is well worth spending a large amount of money upon, and I should like very much to be consulted from time to time in the course of your development.

Dwight E. Woodbridge

DEPT. I

MAY 10 1941

PHOENIX

ARIZONA

Attached hereto is an engineer's report on the below described properties:

SOUTH END, SOUTH END NO. 1, SOUTH END NO. 2, and SOUTH END NO. 3 lode mining claims, in the Pilgrim Section of the Weaver Mining District, Mohave County, Arizona, recorded in Book 3-L of Mines, pages 100, 101, 102 and 103, records of Mohave County.

SOUTH END NO. 6 and SOUTH END NO. 7, lode mining claims, in above described area, Book 3-L, pages 106 and 107.

May 10, 1941.

Coropration Commission
Capitol Annex
Phoenix, Arizona.

Attention Mr. Dempsey;-

Gentlemen;-

I am enclosing a copy of a report made by our field engineer
Elgin B. Holt on the South Pilgrim Mine.

From the Holt report and from my personal knowledge of the
district and of this particular area exploratory and devel-
opment work seem justified.

Very truly yours,

J. S. Coupal,
Director.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
304 HOME BUILDERS BUILDING
PHOENIX, ARIZONA

RETURNED
REASON CHECKED
Unclaimed
Unknown
For better address
Moved (off) address
No such office in state

Edward

South Pilgrim Mng. Co.
Kingman
Arizona

PHOENIX ARIZ.
AUG 6 8 PM 1947



Kingman Mining Project
3 claim maps

May 27, 1957

SOUTH PILGRIM MINE MOHAVE COUNTY

This property idle.

MARK GEMMILL

cccccccccccccccccccccccccccccccc

SEE: PILGRIM MINE (file) MOHAVE CO.

SOUTH PILGRIM MINE

Au

Mohave

8 - 7

T 23 N, R 20 W

South Pilgrim Mng. Co., Kingman

'41

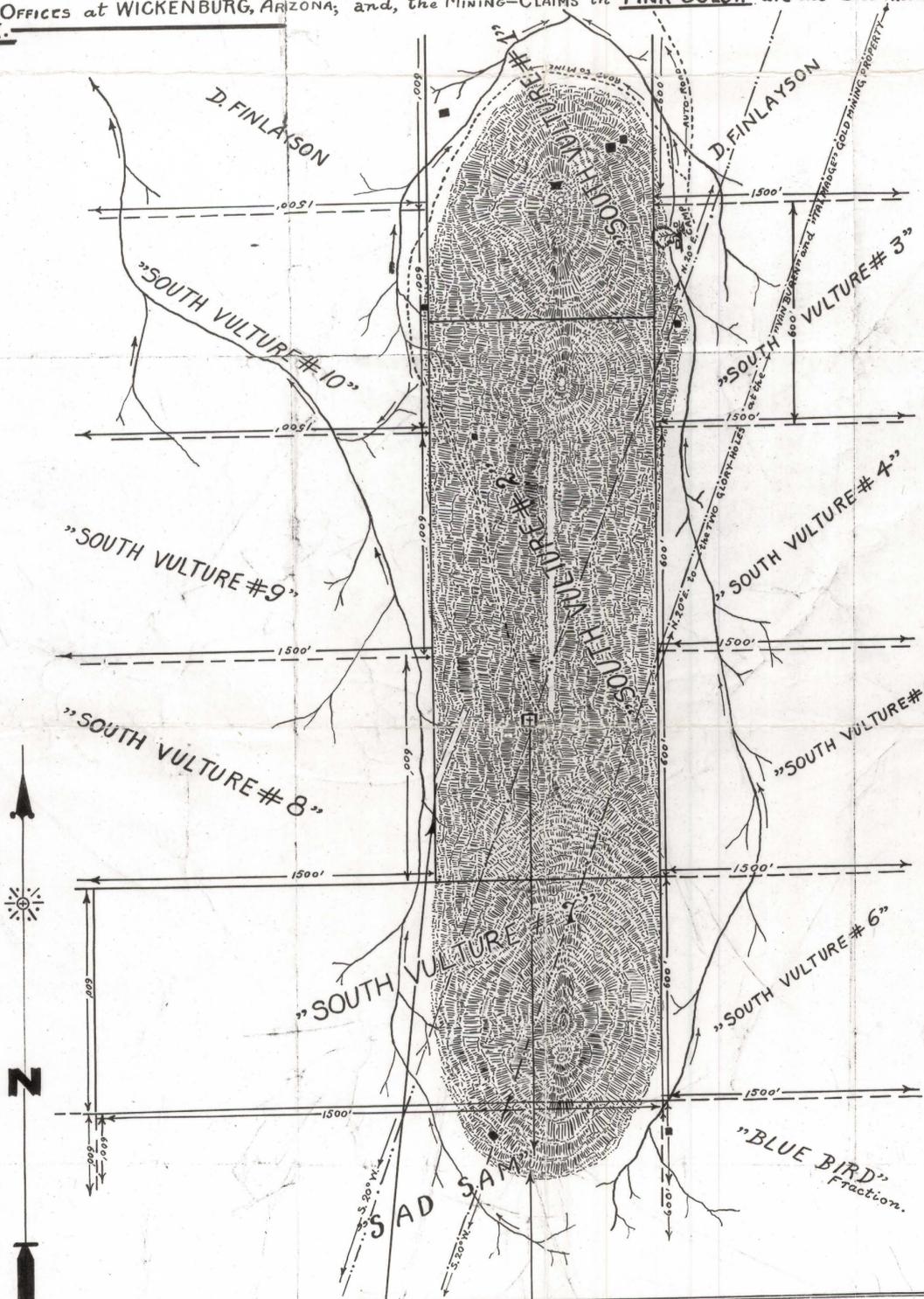
(Moved. Left no address. 8/6/46)

MAP N^o 3 CORRESPONDING TO GENERAL MAP N^o 1 and

AS PER IN DESCRIPTIVE-DETAILED GENERAL REPORT UPON THE "SOUTH VULTURE GROUP OF GOLD MINING CLAIMS."
 THIS MAP N^o 3, Showing the general Topography upon 3,000 FEET in length and 600 FEET in width covering all the Area of the North and South "ISOLATED-HILL" or "RIDGE" situated on the Flat-Country, covering mostly the "SOUTH VULTURE #2" and part of the "SOUTH VULTURE #1" GOLD MINING CLAIMS, located within the famed VULTURE-GOLD-MINE at 3,000 FEET South-Westerly distant from where the Enormous amount in GOLD-BULLION of \$68,000,000.00 was obtained from the Two-different GLORY-HOLES upon the GOLD-MINING-PROPERTY and CLAIMS "VAN-BUREN" and "TALMADGE" at this date in operation by the well known MINING-MAN and MINING-OPERATOR Mr. JAMES S. DOUGLAS the PRESIDENT of the "UNITED VERDE EXTENSION" MINING COMPANY, and within the VULTURE-MINING-DISTRICT and Region, at 52 Miles North-Westerly of PHOENIX, at 16 Miles South-Westerly of WICKENBURG, in MARICOPA-COUNTY, STATE OF ARIZONA.

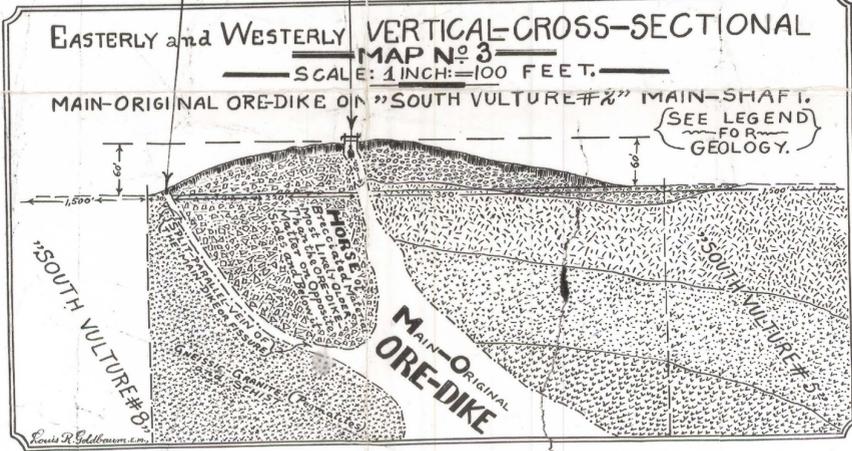
At this TOPOGRAPHY:—Showing an INCLINE SHAFT of 10° from the VERTICAL on the "SOUTH VULTURE #2" MINING CLAIM, which as per "Sights" or ART WS pointing to the South Shows the EASTERLY and WESTERLY VERTICAL-CROSS-SECTION and GEOLOGY of the mentioned "ISOLATED-HILL" or RIDGE on the Flat-Country and Plain.
 The SCALE in FEET of the TOPOGRAPHICAL-SECTION and different MINING CLAIMS being of:—1 INCH EQUAL TO 200 FEET, while the SCALE of the VERTICAL-CROSS-SECTIONAL MAP N^o 3 and GEOLOGY being of:—1 INCH EQUAL TO 100 FEET. The COMPASS-COURSES and the NORTH and SOUTH NEEDLE taken from the MAGNETIC.

NOTE: In a separate smaller Map marked as per in DESCRIPTIVE-REPORT with MAP-N^o 2 shows the PROFILE-CONTOUR in Two-SECTIONS of the EAST-SIDE and of the WEST-SIDE SLOPES along the NORTH and SOUTH Longitudinal length topography. The MINING-CLAIMS in YELLOW-COLOR are of the PROPERTY of the SOUTH VULTURE GOLD MINING CO., LTD., with EXECUTIVE-OFFICES at WICKENBURG, ARIZONA; and, the MINING-CLAIMS in PINK-COLOR are the SOLE PROPERTY of MRS. RAY SIEDLETZ.



GEOLOGICAL COLUMN and LEGEND

- GNEISSIC-GRANITE (PEGMATITES) SCHISTS.
- SOIL, CLAY, PEBBLES, BASALTIC ANDESITE and RHYOLITES.
- QUARTZ-SiO₂ SILICATE SOLUTION HAVING COOLED and CRYSTALLIZED IRREGULARLY.
- PORPHYRY and INTRUSIVE ANDESITE.
- OXIDIZED-PORPHYRY.
- HORSE OF BRECCIATED ROCK.
- VULTURE GREAT-DIKE OR LODGE DIPPING 10° TO EAST OF THE PRE-CAMBRIAN ERA.
- DRY SMALL GULCHES.
- MAIN 10° FROM THE VERTICAL, INCLINE SHAFT.
- HIGHWAYS AUTO-ROADS.
- YELLOW COLOR IN VERTICAL-CROSS-SECTION, REPRESENTS THE MAIN ORIGINAL ORE DIKE.
- SHAFTS and SHALLOW LOCATIONS-WORK.
- "SOUTH-VULTURE MINING CO., LTD." CAMP.



FOR GEOLOGICAL-SIGNS:—SEE GEOLOGICAL-COLUMN ON THE EXTREME RIGHT-HAND MARGIN.
 THIS MAP HAS BEEN DRAWN AND CONSTRUED FROM ACCURATE FIELD-NOTES, AT WICKENBURG, MARICOPA-COUNTY, STATE OF ARIZONA, ON THE 27th., DAY OF JUNE, 1931.

BY Louis R. Goldbaum—E.M., CONSULTING-GEOLOGIST—METALLURGIST. (RESIDENCE ADDRESS: 1033 1/2 SOUTH BOYLE AVE. LOS ANGELES, CALIFORNIA.)