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Muskogee, Oklahoma
June 16, 1966

Union Consolidated Enterprises
983-A Johnson Place
Union, N. J.

Mr. Joseph J. Petescia

Dear Sir:

Having acquired certain mining properties in Pinal County, Arizona, with a good potential, I wish to develope same. My properties consist of eight patented mining claims on which I have full geological and assay reports. The appraised valuation of the gold and silver reserves in the ores is over two and one-half million dollars. When we take into consideration the copper ore valuation we would add considerably to this amount.

Having fully discussed the matter with dealers in mining and heavy machinery, an outlay of $200,000. would be necessary to place the properties in full production. Also, I would need $75,000 in working capital. The investor(s) would become half-owner(s) in the mines. As our intention is to place as much of our profit into additional property adjoining these properties for future development and additional machinery as needed to perform this work, the investor would also become an equal owner in these properties, at no additional expenditure. I believe we have a very good opportunity to develope something over 400 acres eventually. Should you have interested principals in mind, I shall be happy to send full particulars, including geological and assay reports for their examination.

Respectfully,

Vern B. Henry Jr.

Vern B. Henry Jr.
2352 Fredonia St.
Muskogee, Oklahoma
Ph-918-Murray 2-9128

June 22, 1966

Mr. Vern B. Henry, Jr.
2352 Fredonia Street
Muskogee, Oklahoma

Dear Mr. Henry:

My associate, Mr. Joseph J. Petescia, asked that I write relative to your letter of June 16th.

Your mining proposal looks interesting, on its face. For this reason, I would appreciate reviewing the geological data and assay reports. Upon being authorized to further represent you on a short exclusive basis, we would wish to know that you are prepared to (1) come to New York to meet with our mining associates; or (2) be available for them to see the property and otherwise faithfully pursue this matter to as timely a conclusion as circumstances permit.

Any accounting [illegible] you may have, even on a pro-forma basis will be useful.

As to our compensation, I visualize it would be on the basis of a combination of cash, equity and/or royalties. May we therefore have your proposal?

Sincerely,

George H. Starke

GHS/ab
cc: J. J. Petescia

Muskogee, Oklahoma
June 24, 1966

I. M. C. Brokerage
60 East 42nd St.
New York, N. Y.

Mr. George H. Starke

Dear Sir:

Yours of the 22nd of June received and acknowledged, in regard to development of certain mining properties owned by me in Pinal County, Arizona. Enclosed for you examination is the full geological report on four groups of the Saddle Mountain Mining District in Pinal County, by Joe D. Scott for California Consolidated Copper, Inc., in the year 1929. This firm had an option to purchase these properties for $175,000 in that year, but they did not complete the option. There were many options dropped in 1929.

There are two manners in which this matter may be approached; one, the investor makes a commitment of the necessary funds to reopen the properties, and I will develope them, or two, I will sell the properties to interested parties and they may develope them. The Christmas Mine has recently been reopened after many years of idleness. Our close proximity to this mine makes the land valuable.(See Map # 1) This operation could very well be made into an open pit method of mining. In 1929, Mr. Scott did not know that eventually machinery would be built that would do away with tunneling at depths of 200 to 250 feet and deeper. The gold and silver values could easily be mined open pit, and very economically. All that would be required would be a large bucket for digging after blasting, and loading. We would need a mill to upgrade the ores at the mine; This to be built on the Queen Millsite, which lies to the southwest of the properties on Ash Creek. An ore mill to handle our product would cost in the neighborhood of $90,000. It is entirely possible that this operation would not be as expensive as on first glance. I would be happy to have your mining engineers look over the situation and determine for themselves the most practical method.

As the road to the properties is in bad repair, it takes a four-wheel drive Jeep or similar vehicle to get on the property. Mr. Lee Acton, of Winkelman will be happy to show your people the property at any time, preferably on a weekend, as he works for the American Smelting and Refing Co. in Winkelman. He owns the properties next to mine, and as he is a native there, he can tell you far more about the mine than I can. There is another property available near mine, across the creek. This is the Hope Metals property. Mr. Joe Jameson, of Winkelman owns this property.

Leasing of necessary machinery for this development would be far better than purchase, unless it was on a lease purchase basis. Necessary equipment for the entire operation including deisel shovel (4 yd. capacity), ball mill for pulverizing ores, primary crusher mill, trucks (2-10 ton) and flotation process could be leased for $25,000 per mon. This would handle 100 tons of ore daily. As we would expect to net $25.00 per ton on our ores as an average, this would mean that we shall show a profit of $40,000 per month. This would be after wages, insurance and all expenses. As we strike on richer veins, we can expect our income to be much better; eg: where junctures of veins are attained. Our primary exploration will be conducted by coredrill work. The cost of this work, using diamond drills will be $5.00 per foot. Assuming that we need 1000 feet of drill work on each property, attaining depths of 350 feet, this would be an outlay of $40,000 for this work. However, it must be remembered that a portion of the coredrill work will be in meritorious ores, and we shall recover some of this expense, by sale of samplings.

Should I develope the properties, I would want to retain ownership, plus 65% of net profit.

Should you wish to broker the property, I will take $90,000. One/third down and the remainder in monthly installments, or retain a 10 % royalty. Either way. Frankly, I believe $30,000 and a ten percent royalty would be better, but I will allow you to decide. Your commission on the sale would be 20%.

Respectfully,

May I suggest that you procure a copy of U. S. G. S. Bulletin #771 from your library. Read what Clyde P. Ross relates on the Two Queens.

Vern B. Henry Jr.
2352 Fredonia St.
Muskogee, Oklahoma
ph. 918-Murray 2-9128

Muskogee, Oklahoma
July 8, 1966

I. M. C. Brokerage Co.
60 East 42nd St.
New York, N. Y.

Mr. George H. Starke

Dear Sir:

Enclosed you will find two photos overlapped to form a composite view of the Two Queens Properties, in Pinal County, Arizona. You will notice an X over the top of one of the blue peaks in the background; this is the Christmas Mine which has recently been reactivated after being idle for a number of years. You will also notice that the lie of the Two Queens properties will make an open pit operation very feasible. The light colored line showing at the lower left portion of the properties is Ash Creek. The Queen Millsite is centered on this creek. It enters the Gila River, approximately two miles from this point. The Christmas Mine is appr. 2 and 3/4 miles to the northwest of the Two Queens. If you will notice vegetation is pretty heavy on the Two Queens, and some geologists rely on this as a means of finding veins, although this method is not infallible. The Christmas Mine, first operated in 1882, is now being made into an open pit operation, for copper. The Christmas as well as the Two Queens have the Quartz-Mica-Diorite formations, which are vital to production, as indicated by the enclosed page # 64, copied from the Professional Paper #115, by Fredrick L. Ransome in regard to the area. The Tam o'Shanter Peak is across the river from my property, and lies in the Ray Quadrangle. I hope the enclosures will be of assistance to you in your efforts on our part.

Respectfully,

Vern B. Henry Jr.

Vern B. Henry Jr.
2352 Fredonia St.
Muskogee, Oklahoma
Ph. 918-Murray 2-9128

Muskogee, Oklahoma
July 9, 1966

I. M. C. Brokerage
60 East 42nd St.
New York, N. Y.

Mr. George H. Starke

Dear Sir:

Yesterday, I visited the Born Library of the University of Tulsa, and found a copy of U.S.G.S. Bulletin No. 771, by Clyde P. Ross. Enclosed is a portion copied from the bulletin, and it could possibly be of assistance to you. I copied only what pertained to the Two Queens properties.

I also found the reason of cessitation of operation on the properties to have been caused by entrance of water in 1908. Also, disagreement among the owners led to faulty operation, and it is my opinion that the principals were not mining men to begin with. It seems that a large amount of stock was sold in the project, but no honest effort was ever put forth to mine the property. At any rate, the properties were never mined again to my knowledge. Mr. Hubbell the owner did a small amount of mining before his death, but only surface and fissure mining. His operation was very small and in no way would constitute the removal of large amounts of the ore existing on the properties. After his set-to with the Central Mining and Development Co., he never again leased the property to anyone.

If I can be of further assistance, kindly inform me. I shall render any possible aid that you may deem necessary in this matter.

Respectfully,

Vern B. Henry Jr.

Vern B. Henry Jr.
2352 Fredonia St.
Muskogee, Oklahoma

Page 32 U. S. G. S. Bulletin No. 771 by Clyde P. Ross-1925

PYRITIC GOLD DEPOSITS

The deposits in which pyrite is the characteristic sulphide and gold the metal of principal importance, economically, may be termed the pyritic gold deposits. The deposits in the vicinity of the lower part of Ash Creek are of this character. They include those on the Hoosier Group, the prospects held by Rieder+and his various partners, Cook & Piper+, R. F. Cook, Charles Courtney, part of the claims of J. N. Carmichael, and those of the Two Queens and Pool Mines.

+These claims are found in Mr. Joe D. Scotts report.

The deposits lie in shear zones, which so far as known strike somewhat north of east and dip sharply. They are principally in Cretaceous volcanic rocks. Some are in apparently intrusive hornblende prophry. There are dikes of quartz-mica diorite near most of them, and such rock has been sheared and mineralized in places.

Page 33 U. S. G. S. Bulletin No. 771 by Clyde P. Ross-1925

Metallic gold can be panned from some of the specimens of oxidized rock, and the rock containing pyrite also carries gold. Much of the unoxidized ore is reported to carry $5 to $15 worth of gold to the ton, although considerably higher assays have been obtained on such ore samples. There is sufficient copper in some of the ore to be of commercial value, assays as high as 10 percent of copper being reported.

2nd paragraph-same page

Oxidation is irregular and in most places does not extend very deep. On the Hoosier group it goes down less than 50 feet. From the information available it seems that it may reach greater depths on the Reider & Bailey group and at the Two Queens mine. In most of the outcrops oxidation has been thorough and the sulphide minerals are completely destroyed. Gold has been concentrated in favorable parts of the oxidized ore bodies, probably in the main by leaching out of more soluble constituents. Much of the oxidized material is stained with copper.

Note: Ores of silver, galena, and more soluble minerals that have been removed from the oxidized zones by solution have no doubt been taken down to the sulphide zones and will be mined from them. In other words, a metal can not be destroyed by solution but only removed from its original zone, and redeposited as a sulphide material. VBH

Two Queens Mine

Location.-The Two Queens mine is near the summit of the ridge on the north side of Ash Creek about three-quarters of a mile northeast of Old Mill+ There is a road up to the mine from Ash Creek, but it is now washed out in several places. The distance from Finney, the nearest siding on theArizona Eastern Railroad, up Ash Creek to the mine is somewhat over three miles.

Property.-The property comprises about nine patented claims. From 1906 to 1908 it was operated by the Central Mining and Development Co., but since then it has been idle. Three lots of ore averaging $36.53 per ton are reported to have been shipped to a smelter. The workings are said to comprise a shaft 260 feet deep with two 100 foot crosscuts off it, a tunnel over 400 feet long with a 90 foot winze offit, and several shallower shafts.

Character of the deposits.-The country rock comprises Cretaceous strata of both sedimentary and volcanic origin cut by small intrusive masses. Sandstone, in part calcareous, conglomerate, and carbonaceous shale make up a large part of the Cretaceous strata. The rest consists of andesitic lava, flow breccia, and tuff. West and south of the mine are masses of gray hornblende prophry which lie approximately parallel to the stratification of the sedimentary rocks and andesitic lava. These are probably intrusions. There is a dike of quartz-mica-diorite at the principal shaft and another somewhat longer one a short distance to the north. The dump of the principal shaft shows andesitic breccia, quartz-mica diorite, and a brown mineralized rock. Under the microscope the quartz-mica diorite is seen to be altered. It has a finer-grained ground mass than most of the rock of this type. The feldspars are sericitized, and the biotite chloritized and replaced by calcite. Pyrite, chlorite and calcite are sparsely disseminated throughout. The alteration in the andesite breccia is similar to that in most of the Cretaceous lava in the Christmas Area, except that there is more calcite than in most specimens examined. The brown rock is thoroughly altered. It now contains calcite, quartz, sericite, chlorite, epidote, and slightly oxidized pyrite. Most of the rock is a fine mosaic of quartz with small amounts of the other minerals disseminated through it, but in places calcite is segregated into masses of good sized grains. The minerals have evidently resulted by metasomatic replacement of those of some previously formed rock during the process of ore deposition. Although the original minerals have been destroyed, vestiges of what appears to have been a porphyritic texture can be discerned. From the appearance of this almost obliterated texture and the fact that incipient alteration of the same type has occurred in quartz-mica diorite found at the same place it is thought that the brown rock was produced by the mineralization of quartz-mica diorite. Gold ore is reported found in veins on the surface. The tunnel is said to cut a mass of oxidized ore, and the winze below it to have in the bottom sulphide ore carrying $16 in gold to the ton, and 10 per cent of copper.

+ Old Mill is the Queen Millsite

From Professional Paper #115
by Fredrick L. Ransome-1919

Quartz Diorite Prophyry

Occurrence and Distribution:

The rocks here included under the heading quartz diorite porphyry are widely distributed over the Ray Quadrangle as dikes, sills, and small intrusive masses. In dikes they are abundant in the vicinity of Troy and are likely to attract the attention of a traveler over the stage road, from the fact that they crop out in the granodiorite area as narrow ridges of darker color than the surrounding granitic rock. The general trend of the dikes near Troy is due east, but in the vicinity of the Alice and Buckeye mines, southwest of the settlement, some of the dikes branch into nearly north fissures. The widtn of most of the dikes is between 10 and 100 feet. Intrusions of this porphyry are abundant also between Tam o'Shanter Peak and Gila River. In this part of the Mescal Range the porphyry cuts the andesite tuff and has invaded the Tornado limestone both as dikes and sills. The ore deposits of the London-Arizona mine and at Christmas appear to be genetically dependent upon the quartz diortie porphyry.

Note: The same formations classified by Ransome, as a Quartz-Diorite-Porphry, are classed by Clyde P. Ross, and Joe D. Scott as a Quartz-Mica-Diorite. V.B. H.

RLG

I. M. C. BROKERAGE CO.
60 EAST 42ND STREET
NEW YORK, N. Y. 10017

SYLVIA T. STERN

TELEPHONE
(212) 687-7466

July 12, 1966

Mr. Thomas D. Hogan
President
Univest Corporation
63 Wall Street
New York, N. Y.

Dear Tom:

The enclosed is a part of the Arizona mining project you have had in hand for a number of days. I am being pressed by the owner for a preliminary acknowledgement of some sort.

If it appears you have no interest or can not have it evaluated this week, Tom, it may be best for me to ask that the file be returned. I don't mean to press you, but I've got to do something definite quickly.

Best regards.

Sincerely,

George

George H. Starke

GHS/ab

the Arizona property?
Gam you was not the same as Fulcades I believe!
TH

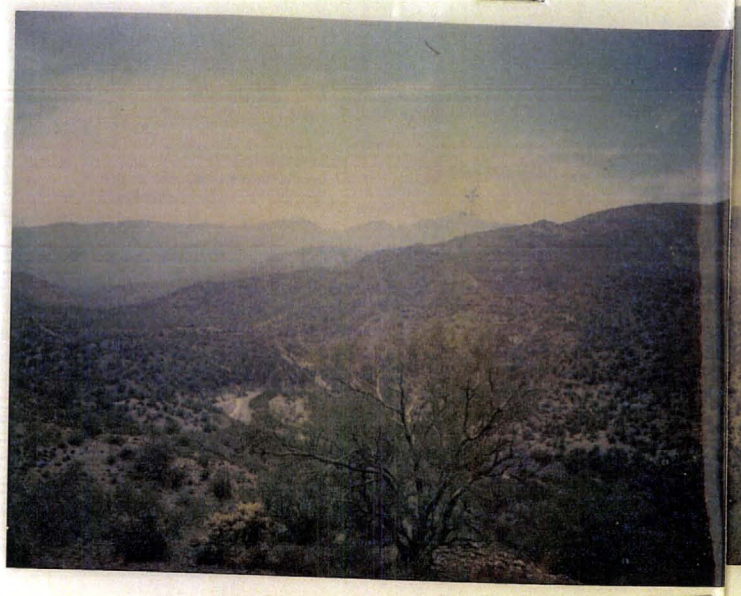
ASSAY SHEET

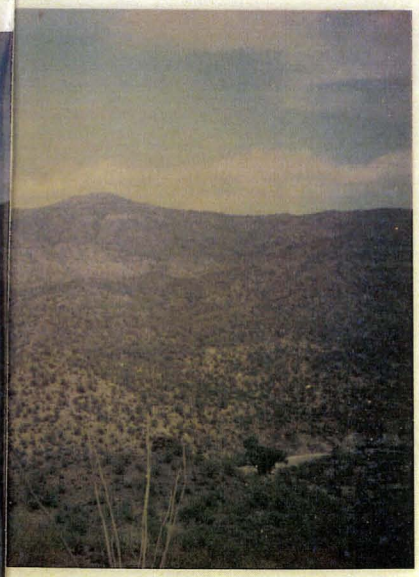
TWO QUEENS GROUP

Values based on Gold-$35.00 per oz. Silver $1.29 per oz.

Sample No.	Au Oz.	Value	Ag Oz.	Value	Total Value
1245	.12	4.20			$ 4.20
883	.22	7.70	1.5	1.93	9.63
880	.01	.35			.35
875	.02	.70			.70
882	.78	28.30	.6	.77	29.07
876	.42	14.70			14.70
863	.40	14.00	.6	.77	14.77
877	.02	.70			.70
873	.32	11.20	2.2	2.83	14.03
1059	.06	1.80	1.7	2.19	3.99
864	.46	16.10	1.8	2.32	18.42
867	.15	5.25			5.25
868	.60	21.00			21.00
869	.70	24.50	1.6	2.06	24.56
861	.28	9.80	1.2	1.54	11.34
845	.56	19.60			19.60
851	.93	32.55	2.4	3.09	35.64

Supplement to indicate today's values for gold and silver.





A607921

TWO QUEENS PROPERTIES
Section 3 Twp. 5S R 16 E
Pinal County, Arizona
Gold and Silver Claims.
96.5 acres.

XX Marks the Christmas
Mine- appr. 3 miles to
northwest

A607921

Left end of Tw
Lap over on to
for overall pi
ing formation
X marks old Ch
This is 2-3/4
Two Queens pro

PROPERTY AS SEEN
FLY DIRECTION.

A607921

THIS SHOT TAKEN FROM SAME
DISTANCE AS #1. SHOWS MOST OF YOUR
PROPERTY. THE BLUE PEAK IN THE
BACKGROUND IS THE SAME ONE AS IN #1

... QUEENS, Etc. PINAL County

RLG

Thornton

(1) $5,000 guarantee against engineering study

(2) $100,000 cash from earnings for outright assignment

Two Queens

R E P O R T

on the

~~HAY GENERAL GROUP~~

TWO QUEENS MINE

SADDLE MOUNTAIN MINING DISTRICT

PINAL CO. ARIZONA

Prepared for

CALIFORNIA CONSOLIDATED COPPER, INC.

Los Angeles, California

- - - - - - - - - -

May 1929

- - - - - - - - - -

By

Joe D. Scott

Mining Engineer

Winkelman, Arizona, May 14, 1929

Mr. Geo. S. Forest, President,
California Consolidated Copper, Inc.
507 National City Bank Building,
Los Angeles, California.

Dear Sir:

I take pleasure in transmitting my report on the Two Queens, Rieder, Piper and Carmichael Groups, located in the Saddle Mountain Mining District.

The first of these, the Two Queens Group, is the only one I consider as being worthy of a further development.

This property shows a great deal of promise and I would recommend the completion of your option on it at an early date.

The development and bringing into production of this property would require only a comparatively small investment.

The blocking out of sufficient ore to justify the erection of a fifty-ton mill can be accomplished at a cost of thirty-six thousand dollars. This will include the unwatering of the mine, repair of hoist and head frame, sinking of well on the Queen Millsite, one thousand feet of drifting, six hundred feet of cross cuts, purchase of pumps and additional equipment, and the building of a camp on the millsite. The fifty-ton mill, a combination amalgamation concentration plant, can be erected completely equipped for $35,000.00.

The development of the high grade veins, three of which outcrop about five hundred feet above and northeast of the main shaft, could be made to pay at least the first payment on the purchase price of the property in a very short time. One sack of ore taken from the south vein in a cut two feet deep, four feet wide and ten feet long netted the present owner $2650.00. The vein showing here a width of four inches.

I would recommend that you secure as much time as possible before any cash payment is required and that immediate development of these high grade veins be commenced.

I take pleasure in recommending the further development of this property.

Yours respectfully,

HUBBELL-RIEDER-PIPER-CARMICHAEL GROUPS—

Owing to the isolated position and lack of early transportation facilities, the State of Arizona did not attract attention as a mining state until the early seventies. About the year 1874 the first locations were made in the Saddle Mountain and Bannor districts by prospectors in search of gold and silver ores. Frequent Indian uprisings and the excessive cost of transporting the ores, made it impossible to handle any except extremely high grade.

The deposits of the districts were worked in only a small way and at intermittent periods, until the beginning of the present century.

GEOLOGY OF THE DISTRICT:

The geology of this district is taken up in detail by Clyde P. Ross in Bulletin No. 771 of the U. S. G. S. and in Professional Paper No. 115 by Frederick L. Ransome.

A brief outline of their conclusions is given here for the purpose of indicating and accounting in a measure for the formation of the ore bodies of the groups of claims covered in this report.

STRUCTURE:

"In a broad way the structure of this area appears to be synclinal. The axial plane of the synclinal basin appears to strike about

N 60° E and seems to pass somewhere in the neighborhood of Lee's Mine," (the location of which is shown on Plate 1 accompanying this report).

A number of Quartz Diorite dikes, which Ransome classes as Quartz Diorite Porphyry, lie near the position of synclinal axis and appear to trend approximately parallel with the strike of the axis. Toronado limestone arises from under the Cretaceous rocks in the northeast, southwest and southeast corners of the Christmas area. This appears to have been folded at the same time as the Cretaceous rocks, which make up the greater part of the formation of the district and to underlie them throughout. A very slight unconformity in the southeast corner of the area, and one under Reed Basin, indicates that there was little distrubance of these limestone beds before the Cretaceous strata was laid down. It is probable that the only movement of any consequence in Pre-Cambrian times was a faulting of these beds as evidenced by the slight angular unconformity before mentioned.

In the southwestern corner of the Christmas Areas the Toronado limestone dipping out from under the Cretaceous rocks, is bent into a number of small folds and cut by numerous small faults in addition to a general tilting to the northeast.

The Cretaceous rocks are broken by normal faults and the veins of the Saddle Mountain district follow fractures, which roughly parallel the strike of the Quartz Diorite dikes, the average of which is about N 60° E. In fact, these dikes

may occupy fault fissures. Numerous occurrences of slickensides on andesitic rocks indicate other faults which are indicated by neither veins or dikes.

GEOLOGIC HISTORY OF THE DISTRICT:

The early history of this district can only be inferred from that of adjacent districts, and for that reason, only the succession from the Cretaceous is here considered. After the deposition of the Cretaceous rocks, they and the rocks below them were lifted to a position above sea level and folded. This folding in the Christmas area preceeded the deposition of the Tertiary strata. This folding was succeeded by faulting which lasted through the Tertiary period and probably extended into the Quaternary, and there is evidence that some faulting has continued up to the present time. In other words, the formations have not been in stable equilibrium since the Mesozoic era. This has necessitated adjustments which have been made through slipping and fracturing of the rock, the slipping taking place along the fracture.

The igneous action, both intrusive and extrusive, is clearly closely related to these adjustments. The intrusion of the quartz hornblende diorite no doubt contributed to the uplift of the Cretaceous strata. It is probable that the crustal disturbances of the Cretaceous took place in this district before the deposition of the early Tertiary beds.

After the first uplift erosion leveled the relief of the region. Then a period of vulcansism which produced the

basaltic lava, the siliceous tuff and then a tuffaceous agglomerate followed by an outflow of rhyolitic lava.

After the period normal faulting was resumed, and this followed by a further uplift, which accelerated erosion. This period probably produced what is known as the Gila conglomerate, which occurs in isolated areas in the District.

CONCURRENCE OF ORES:

The deposits of these groups may properly be termed pyritic gold deposits and lie in shear zones, which lie near dikes of quartz mica diorite and both the veins and dikes strike north of east and dip sharply. Pyrite is present wherever it has not been destroyed by oxidation. The surface ores are found in a brown altered rock, which has probably been produced through the mineralization of a quartz mica diorite. It contains quartz, calcite, sericite and chlorite, and the disseminated pyrite has nearly all been oxidized.

The development of this District has been extremely limited, the largest producer being the Christmas mine, which has had rather a varied history from its discovery.

The active development of this property began in 1882, when it was purchased by Dr. James Douglas for the Phelps-Dodge Company, and two small water jacket furnaces installed for the treatment of the ores. In 1884 the prohibition of mining on the San Carlos Indian Reservation caused the shut-down of the property. In 1902 the deposits

were located by G. B. Chittenden and associates, and after a compromise settlement with the Phelps-Dodge Company, the Saddle Mountain Company took over the property and installed another furnace which had a capacity of 150 tons. This and the two small water jacket furnaces were used from 1905 to 1907 and the ore, 113,322 tons, is said to have returned $872,000. In 1909 the Gila Copper Sulphide Company took over the operation of the property and operated it until 1914. From 1915--1919 the American Smelting and Refining Company worked the property under contract and mined about 400,000 tons of ore.

Total production of the property is said to have been about $4,500,000.

The developments consist of about 20,000 feet of lateral workings and 1600 feet of shafts, together with a number of stopes above the 400-foot level.

The total production of the district is said to be in the neighborhood of 1,000,000 tons of copper ore, 10,000 tons of lead-silver ore, a small amount of zinc ore, and a very little vanadium.

The gold production is very difficult to estimate, but from information obtained from various owners in the district the total would probably not have a value of over $500,000.

LOCATION:

The Hubbell property, which is also known as the Two

Queens Group, is located in the Saddle Mountain Mining District, about eight miles northeast of the town of Winkelman, in ~~Gila~~ Pinal County, Arizona, and is reached by wagon road up Ash Creek. However, this road is washed out in several places and is not suitable for hauling all seasons of the year. The most practical road would be to follow the Hope Metals road to a point opposite their lower camp, then up the ridge a distance of about one and three quarters miles to the Group. This would necessitate the building of one and three quarters miles of mountain road. Since this report was made a good road has been made to the property.

The Rieder Group lies to west and southwest and joins the Two Queens Group. The Carmichael Group of five claims, lies to the southwest of the Rieder-Eureka Claims and joins them. The Piper Group joins the Carmichael group on the northwest and lies near the mouth of Ash Creek and adjacent to the Gila River just a short distance from Finney, a siding on the Arizona Eastern Branch of the Southern Pacific Railroad. Location of these properties is shown on the attached maps.

PROPERTIES:

The Hubbell, or Two Queens Group consists of seven patented mining claims, as shown by mineral survey No. 2471. They are, namely: Two Queens, Bull Frog, Oro Sacheta, Mayflower, Mountain Side, Gold Charm and Queen Millsite.

The Piper Group consists of five unpatented unsurveyed claims, namely: Piper Nos. 1, 2, 3, 4 and 5.

The Carmichael Group consists of five full claims which are also unsurveyed and unpatented and held by annual assessment work. They are: Yellowstone Nos. 1, 2, 3, 4 and 5.

The Rieder Group consists of 18 full claims, unpatented and unsurveyed, and held by annual assessment work, namely: Eureka Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12, and Bailey Nos. 1, 2, 3, 4, 5 and 6.

DEVELOPMENT:

On the Two Queens Group there are a number of shallow shafts, together with one shaft of 200 feet; a number of short drifts and open cuts and one cross-cut tunnel 400 feet in length; a winze 75 feet in depth sunk on a parallel vein or fissure paralleling the main vein which lies north of it a distance of about 400 feet.

On the Rieder Group are two tunnels, one 200 feet and the other 250 feet run within 50 feet of each other and approximately parallel. A shaft 90 feet deep, together with numerous short tunnels, shallow shafts and open cuts, constitute the development. None of the other shafts exceed fifty feet in depth and none of the tunnels 70 feet in length.

On the Piper Group are several open cuts and one shaft a depth of 100 feet, together with a number of short drifts and shallow shafts which make up the development work of this Group.

On the Carmichael Group one tunnel 200 feet in length and a number of open cuts compose the development.

At no place on any of the properties is a depth of

over 100 feet attained except in the main shaft on the Two Queens property. This, with the 400 foot cross-cut tunnel which was being driven to intersect the main vein at a point approximately 400 feet north of its present face, represents the most interesting features of the existing development.

ORE DEPOSITS AND SAMPLING:

On the Two Queens the principal ore bearing deposits are a series of parallel veins which run across the property striking from 75 to 80° east. Near the main shaft, a distance of about 100 feet from it, a dike of quartz mica diorite parallels the main vein. A little further north another dike of the same character cuts across parallel with both the vein system and the first dike.

The main vein is traceable on the surface for a distance of over 4000 feet, showing a width of from thirty inchest to nine feet. This vein was sampled along its strike at several exposures, as follows: On the Standby Claim a fifty foot shaft sunk 100 feet west of the endline shows a nine-foot vein at the collar. The shaft was inaccessible but a sample across the nine feet at the collar gave .15 oz. gold and 1.7 oz. silver. Collar of a 40-foot shaft on the Bull Frog sampled across four feet gave .78 oz. gold, 6 oz. silver. An outcrop 150 east, on which no work had been done, gave across five feet .42 oz. gold and no silver. A short drift 200 feet east of the main shaft shows a vein width of 36 inches sampled .32 oz. gold, 2.2 oz. silver. 50-foot drift, 150 feet east of main

tunnel, showed .28 oz. gold, 1.2 oz. silver.

A parallel vein 75 feet south of the main vein sampled across 20 inches showed .22 oz. gold, 1.5 oz. silver. A drift on the contact vein cut in main tunnel off of winze across 24 inches sampled .40 oz. gold and .6 oz. silver.

In addition to the veins mentioned, there are numerous small veins of high grade gold ore cross the property, running parallel with the main vein. Three of these, lying north of the main vein, show extremely high grade on the surface and would assay in places several thousand dollars in gold per ton. These dip toward the main vein and will no doubt at depth cause a further enrichment of the ore by their junction with the main vein.

ON THE PIPER GROUP:

Three veins which vary from 22 to 36 inches in width seem to traverse the property in a northeasterly and southwesterly direction. On the south vein an inclined shaft 30 feet deep sampled across 22 inches gave gold .14 oz., silver none. On the center vein an open cut from which some sorted ore has been shipped, gave, across 30 inches, .42 oz. gold, silver none. On center vein 250 feet southwest of first cut, across 30 inches, gold .45 oz., silver none. On same vein, 18 inches on foot wall, 18 inch streak, .55 oz. gold, silver none. On the upper vein, open cut sampled across 12 inch streak, .24 oz. gold. Dump from shaft and tunnel sorted ore 1.23 oz. gold, silver none. Numerous other samples as shown on accompanying sheet were taken on these three veins.

ON THE CARMICHAEL GROUP:

A tunnel 200 feet long follows a seam of from one to three inches thick, through a quartz porphyry. This is filled with an iron zinc sulphide which shows some little copper. It being too small to be of importance, was not sampled. The other ore exposed is all in open cuts which were sampled, with the results shown on the accompanying sheet.

ON THE RIEDER GROUP:

The ore occurrences sampled were principally from poorly defined shear zones which cut through andesite and porphyry and the outcrop of which is merely an altered country rock, which shows some quartz stringers, a little cripocolla hemonite, magnetite and specularite, and in some of the seams of this rock gold occurs as free gold.

Two tunnels run almost side by side on the Eureka No. 2; show small slips which are stained with iron and some copper along their length. A stope above tunnel No. 1, from which hand sorted ore is said to have been shipped, sampled across a pillar of the ore left a width of 49 inches gave gold .45 oz., silver none. 250 feet from portal of tunnel No. 2, a cross-cut intersected a slip which sampled across six feet gave gold .01 oz., silver none. A shaft sunk on Eureka No. 1 and a tunnel and drift along an 18-inch vein gave gold .40 ozs., silver none, sampled across the vein. Other samples taken show results as indicated on the accompanying sheet.

ASSAY SHEET TWO QUEENS Old - Price of Gold 20.67 Per ounce

NO.	OZ. AU.	VALUE AU.	OZ. AG.	VALUE AG.	TOTAL VALUE
1245	.12	2.50	—	—	2.50
883	.22	4.55	1.5	.85	5.40
880	.01	.20	—	—	.20
875	.02	.40	—	—	140
4 882	.78	16.10	.6	.35	16.45
876	.42	8.70	—	—	8.70
863	.40	8.25	.6	.35	8.60
877	.02	.40	—	—	.40
3 878	.32	6.60	2.2	1.25	7.85
1059	.06	1.25	1.7	.95	2.20
3.5 864	.46	9.51	1.8	1.01	10.52
1.67 867	.15	3.10	—	—	3.10
868	.60	12.40	—	—	12.40
1.0 869	.70	14.47	1.6	.90	15.37
1.83 861	.28	5.79	1.2	.69	6.46
2.8 845	.56	11.58	—	—	11.58
851	.93	19.22	2.4	1.40	20.62

ASSAY SHEET CARMICHAEL GROUP Average - 13.28

NO.	OZ. AU.	Value AU.	OZ. AG.	VALUE AG.	TOTAL VALUE
856	.06	1.25	—	—	1.25
867	.12	2.50	.5	.30	2.80
869	.22	4.55	—	—	4.55
841	.15	3.10	.6	.35	3.45
868	.09	1.86	—	—	1.86
861	.07	1.45	—	—	1.45

ASSAY SHEET RIEDER GROUP

No.	OZ. AU.	VALUE AU.	OZ. AG.	VALUE AG.	TOTAL VALUE
1224	.01	2.0	—	—	.20
1299	.48	9.90	—	—	9.90
835	.01	.20	—	—	.20
1273	.06	1.25	—	—	1.25
1241	.21	4.27	—	—	4.27
773	.32	6.60	—	—	6.60
745	.12	2.50	—	—	2.50
831	.40	8.25	—	—	8.25
830	.26	5.37	—	—	5.37
829	.07	1.45	—	—	1.45
744	.22	4.55	.6	.35	4.90
760	.15	3.10	.8	.45	3.55
850	.14	2.90	—	—	2.90
763	.36	7.48	—	—	7.48
734	.05	1.03	.8	.45	1.48
847	.39	8.06	1.2	.67	8.73
870	.27	5.58	2.2	1.28	6.86

ASSAY SHEET PIPER GROUP

No.	OZ. AU.	VALUE AU.	OZ. AG.	VALUE AG.	TOTAL VALUE
1278	.14	2.90	—	—	2.90
1274	.42	8.70	—	—	8.70
722	.06	1.25	—	—	1.25
833	1.23	25.40	—	—	25.40
836	.55	11.37	—	—	11.37
858	.27	5.58	—	—	5.58
841	.18	3.72	—	—	3.72
857	.15	3.10	—	—	3.10
862	.45	9.30	—	—	9.30
834	.24	4.96	—	—	4.96
170	.77	15.98	—	—	15.98
362	.42	8.70	—	—	8.70

Silver 35¢

EXPLANATION OF ASSAY SHEETS

Sample No. 1245 taken from a small cross fissure on

2.50 the west end of the Bull Frog claim. Cropping. $2.50

Sample No. 883. Dump 100 feet north of main shaft.

5.00 Shaft here 60 feet deep. Gold 4.55 - 50¢ — Total 5.00

Sample No. 880. 100 feet east of west end line of

.20 Two Queens, 18-inch streak of altered shale. Gold 20¢

Sample No. 875. 18 inches open cut southeast of main

.40 shaft. Gold 40¢

Sample No. 882. Across four feet at collar of a 50

16.25 foot shaft on the Two Queens. Main ledge. G. 16.10 - 15¢ - Total 16.25

Sample No. 876. Outcrop of main vein 150 feet east

8.70 of Sample No. 882. Gold 8.70

Sample No. 863. Dump from shallow shaft and drift 125

8.40 feet southwest of main shaft. Shaft inaccessible. 8.25 - 7 8.40

Sample No. 877. 30 inches in open cut on main vein

.40 180 feet east of main shaft. 40¢

Sample No. 878. Three feet in face of drift 250 feet

7.20 east of main shaft. G 6.60 — 60¢ — 7.20

1.70 Sample No. 1059. Dump pile on Standby. 1.25 - 45¢ — $1.70

10.00 Sample No. 864. Main vein Standby, 3½ feet. 9.51 — 50¢ — 10.00

Sample No. 865. Open cut on main vein Bull Frog, 4 feet.

3.10 Sample No. 867. 20 inches 10-foot shaft on Gold Charm. G. 3.10

12.40 Sample No. 868. Main vein on Two Queens, cut west end. G 12.40

14.90 Sample No. 869. 12-inch parallel fracture Mayflower. 14.47 - 45 14.90

6.14 Sample No. 861. 22-inch outcrop on Gold Charm. 5.79 - 35¢ — 6.14

11.45 Sample No. 845. Main vein drift 30 inches on Standby. G 11.45

20.00 Sample No. 851. Dump parallel vein on Standby. 19.22 - 70¢ - 20.00

PROSPECTIVE ORE:

The Rieder, Carmichael and Piper groups give little promise of developing a sufficient tonnage of commercial ore to be of interest. The Two Queens Group, however, to the contrary indicates great possibility.

The main vein varying in width from 30 inches to nine feet, sampled for 1500 feet along its strike, gave from shallow workings and surface croppings an average of about ten dollars in gold and silver values on the surface.

While it is improbable that an ore shoot of this length will be developed at depth, yet it is assured that at least half of this distance will be in ore. Assuming only 750 feet in ore, the tonnage would be in the first 500 feet of depth, $\frac{750 \times 5}{13} = 273 \times 500 = 136,500$ tons, and with a plant of 50 tons capacity this would give a life of nine years to the property.

The parallel veins which show a width of from 18 to 36 inches, would add appreciably to this tonnage.

The high grade veins, varying from two to six inches on the surface and which pitch toward the main vein, will undoubtedly cause enrichment of the ore at depth.

ASSETS:

On the Two Queens Group the main shaft sunk to a depth of 200 feet and the cross-cut tunnel run 400 feet, are of real value for future development. Estimating the cost of the sinking at $20.00 per foot, which is claimed to have been the cost, we have - 200 x 20 = $4,000. The cost of running

Russell

the cross-cut at $15.00 per foot - 400 x 15 = $6,000.

The surface equipment is of little value with the exception of the hoist, which needs only a few minor repairs to put it in running order. Value $500.00.

The value of the prospective ore reserve figured at the minimum would be:

$20 ore 90% recovery net $18.00	
Cost of mining - - - - - - - - - - - -	$2.50
Milling - - - - - - - - - - - - - - - -	2.50
Hauling - - - - - - - - - - - - - - - -	.50
Smelting concentrates (Per ton ore)	.50
Hauling concentrates (Per ton ore)	.50
Freight concentrates (Per ton ore)	.25
	$6.75

Net Recovery - - - - - - - - - - - - - - - -	$18.00
Total costs - - - - - - - - - - - - - - - -	6.75
Net returns on $20 ore - - - - - - - -	$11.25

Daily return 50 x $11.25 = $562.50 $562.50 x 300 = $168,750.00

Assuming life of only 10 years and allowing for amortization of capital and a 10% return on investment, $168,750 x 5.45 = $919,687 $919,687 + 10,500 = $930,187.00 appraised value of the Two Queens property. 1929 NET.

CONCLUSIONS:

The Piper-Rieder-Carmichael Groups, not showing sufficient indication of developing enough commercial ore to

justify development to any extent, therefore the following applies only to the Two Queens Group. Hewbell

The shear zones of veins which extend northeast and southwest across the property are very persistent and show every indication of permanency. The Quartz Mica Diorite, which contains disseminated pyrite throughout and which is undoubtedly closely related to the ore bodies, indicates depth to them. It is probable that the sulphide zone will be reached on this property at a depth of not over 250 feet; some sulphides showing within 30 feet of the surface. It is possible that the gold values will decrease when that zone is reached, but surface indications and samples indicate a considerable tonnage of good milling ore will be developed.

The development and investigation of this property could be accomplished at a moderate cost, by dewatering the main shaft, then cross-cutting north to the main vein 100 feet and south to the parallel vein about 25 feet, then drifting on both to develop the ore. When proven by this work the cross-cut tunnel should be extended 400 feet to cut the main vein at a depth of about 420 feet, then drift on the vein both ways from the point of intersection of the vein and cross-cut.

There is no doubt that such development will establish an ore body that will warrant the installation of a 50-ton mill and the property will return a handsome profit on the investment required.

INVESTMENT REQUIRED:

Unwatering shaft, repairing hoist and frame,		$2,000
Cross-cutting	600 feet	9,000
Drifting	1000 feet	15,000
Additional equipment and Camp		10,000
Total		$36,000
50-ton mill when required		35,000
Total investment		$71,000

As previously indicated, the possibility of immediate returns from high grade shipping ore from surface outcrops warrants the assumption that a part, if not the major portion of the proposed development may be taken care of from this source. This working of the high grade veins might also prove the advisability of the erection of a mill prior to the completion of the outlined development.

It will be advisable to raise $150,000 for the complete development and equipment of this property.

ESTIMATED OPERATING EARNINGS:

The Two Queens property can be expected to produce fifty tons of $20 ore per day, and that would insure a net earning, as follows:

Gross ore values - - - - - - - - - - - -	$20.00
Losses 10% - - - - - - - - - - - - - - -	2.00
90% extraction	$18.00

Estimated cost:

Mining	$2.50	
Milling	2.50	
Hauling Ore	.50	
Hauling concentrates (Per ton ore)	.50	
Smelting concentrates (Per ton ore)	.50	
Freight concentrates (Per ton ore)	.25	$6.75
Net return		$11.25

Estimated daily earnings:

$11.25 x 50 $562.50

Estimated annual earnings:

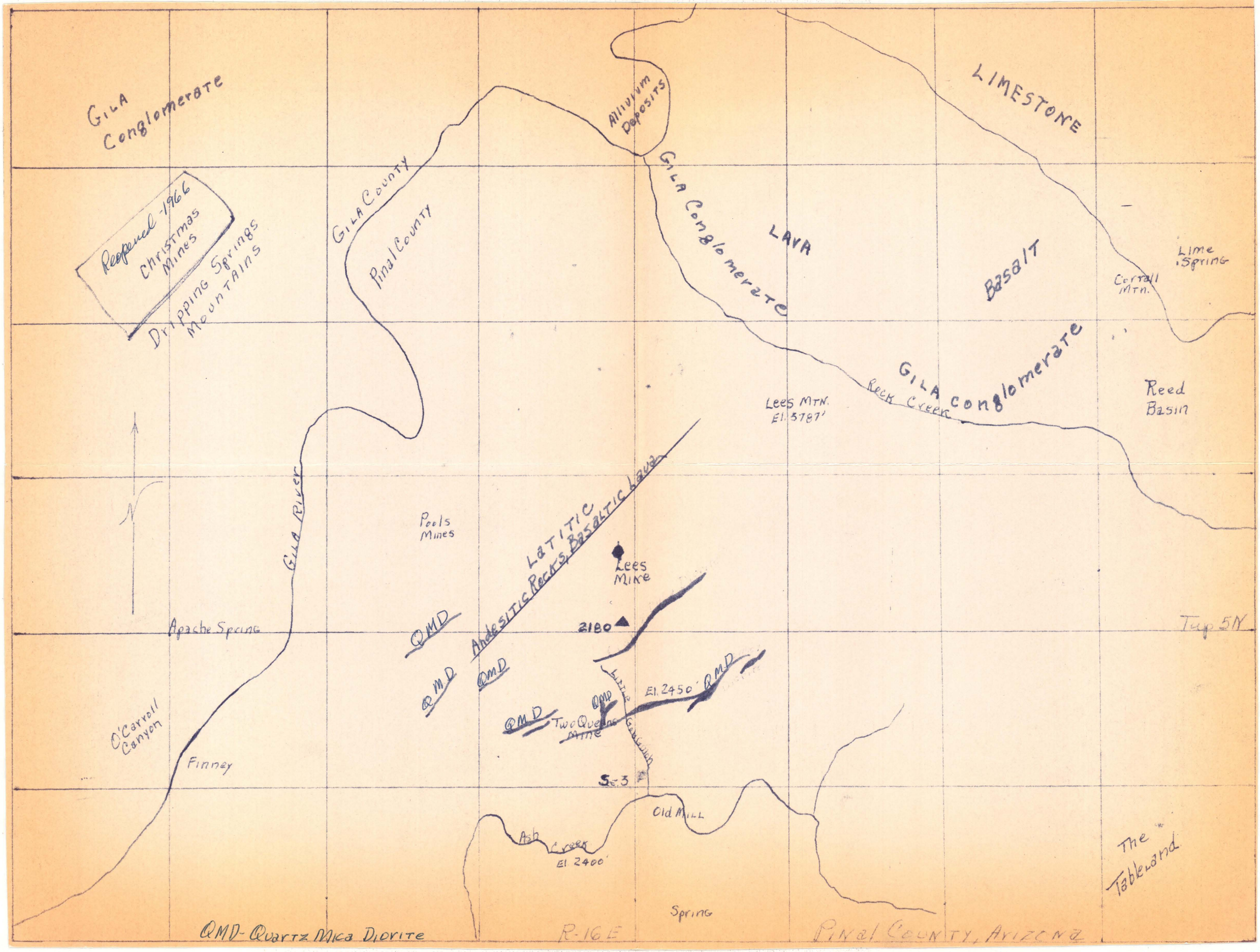
$562.50 x 300 $168,750.00

These earnings when compared with investment required are exceptional.

Respectfully submitted,

Mining Engineer.

136,500 tons ore
20 per ton
$2,730,000 gross - valuation in 1929.


Gila Conglomerate
Reopened 1966
Christmas Mines
Dripping Springs Mountains
Gila County
Pinal County
Alluvium Deposits
Gila Conglomerate
Lava
Basalt
Limestone
Lime Spring
Corral Mtn.
Gila Conglomerate
Rock Creek
Lees Mtn.
El. 5787'
Reed Basin
N
Gila River
Pools Mines
Latitic Andesitic Rocks, Basaltic Lava
Lees Mine
2180
Apache Spring
Twp 5N
QMD
QMD
QMD
QMD
QMD
Two Queens Mine
Little Gulch
El. 2450'
O'Carroll Canyon
Finney
Sec 3
Old Mill
Ash Creek
El. 2400'
Spring
The Tableland
QMD- Quartz Mica Diorite
R-16E
Pinal County, Arizona

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GILA - PINAL

ARIZONA
CHRISTMAS QUADRANGLE

R.B.Marshall, Chief Geographer.
Geo.R.Davis, Geographer in charge.
Topography by T.P.Pendleton and C.A.Stonesifer.
Control by T.M.Bannon, S.H.Birdseye,
Thos.Windsor, and L.F.Biggs.
Surveyed in 1915.

14½°
TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1915

SCALE 1:62500

1 ½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 50 FEET
DATUM IS MEAN SEA LEVEL

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1957

Polyconic projection. To place on 1927 North American datum move projection lines 100 feet west.

Note. *In joining Ray and Winkelman use the dotted projection corners.*

ARIZ.
CHRISTMAS
N 3300—W 11030/15

1915

FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER 2, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

CLAIMS LOCATED See Table 190

Mineral Survey No. 2471 A & B

ARIZONA LAND DISTRICT

PLAT

OF THE CLAIM OF THE
CENTRAL MINING AND DEVELOPMENT COMPANY

KNOWN AS THE

STAND BY, BULL FROG, ORO CACHETA, TWO QUEENS, MOUNTAIN SIDE, MAY FLOWER, GOLD CHARM LODES, AND QUEEN MILL SITE

IN SADDLE MOUNTAIN MINING DISTRICT

PINAL COUNTY, ARIZONA
Containing an Area of 96.532 Acres
Variation 13 degrees 28 E

Surveyed Oct. 8 to 29 1907 By
G. A. Streitz
U. S. Deputy Mineral Surveyor

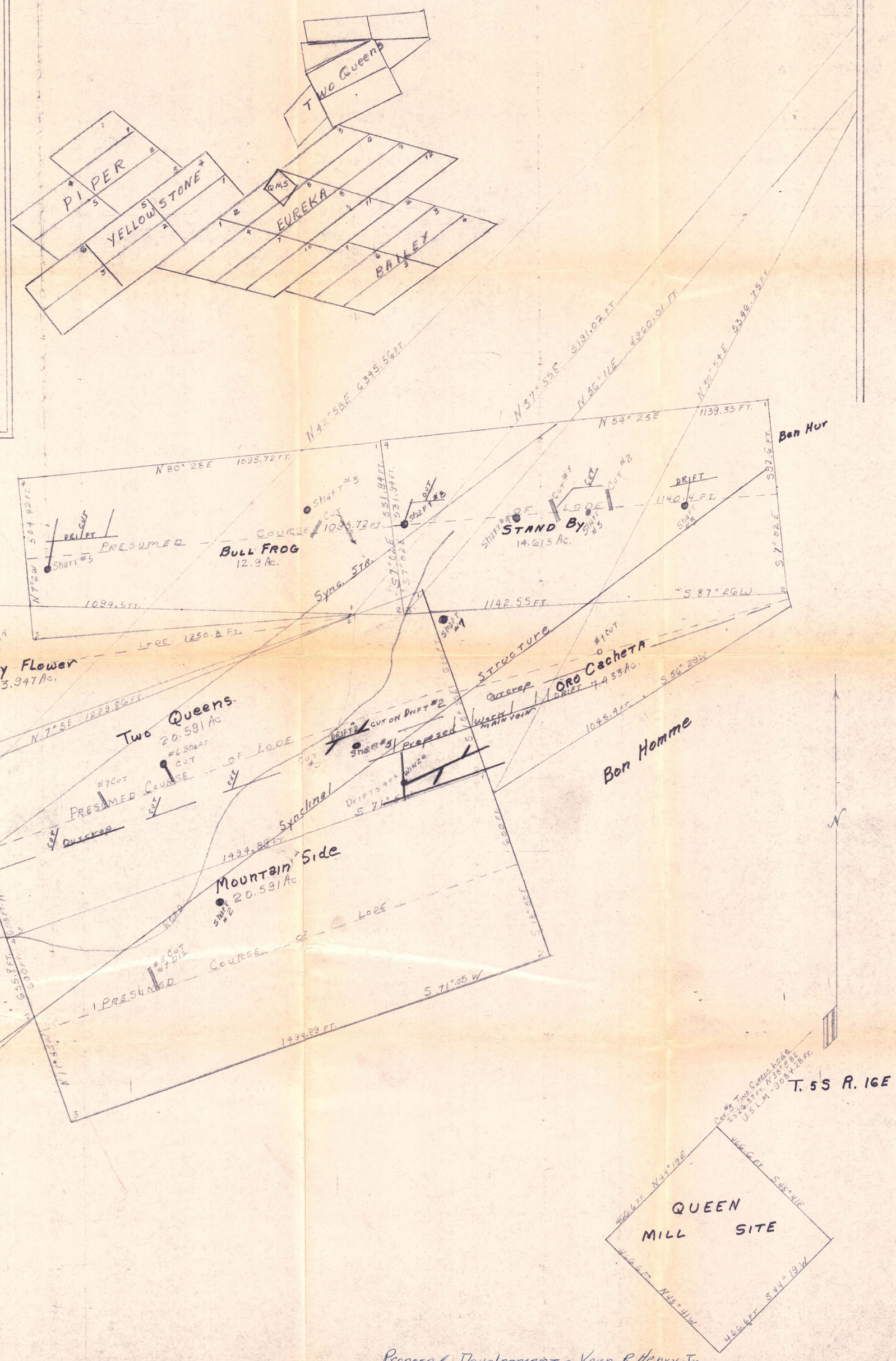
The Original Field Notes of the Survey of the Mining Claim of Central Mining and Development Company known as the Stand By, Bull Frog, Oro Cacheta, Two Queens, Mountain Side, May Flower, Gold Charm Lodes, and Queen Mill Site, from which this plat has been made under my direction, have been examined and approved, and are on file in this office; and I hereby certify that they furnish such an accurate description of said Mining Claim as will, if incorporated into a patent, serve fully to identify the premises, and that such reference is made therein to natural objects or permanent monuments as will perpetuate and tie the LOCUS thereof.

U. S. Surveyor General's Office

PHOENIX, ARIZ.
Jan. 22, 1908

Frank S. Ingalls
U. S. Surveyor General
for
ARIZONA

CLAIMS LOCATED

Two Queens	June 4, 1904
Mountain Side	July 25, 1905
Stand By	Jan. 1 1906
Bull Frog	Jan. 1, 1906
May Flower	Jan. 20, 1906
Gold Charm	Feb. 4, 1906
Queen M. S.	Aug. 3, 1905
Oro Cacheta	Mar. 1, 1907

Patent Date 11-25-1910
Patent No 163158
Serial No 07149