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*exact copy*

July 29th, 1938

REPORT ON ORIZABA MINE

Mr. J. Ben Ross  
Phoenix, Arizona

Dear Sir:

As per your request, I submit the following report on the Orizaba Mine based upon information previously in my possession and,- in reference to present conditions and surface showing,- checked by a visit made yesterday to the property accompanied by Mr. Walter Larsen.

LOCATION

This mine is located at Moores Gulch in the northern part of Maricopa County, Arizona, distant 47 miles by good road from Phoenix. Your present holdings according to Mr. Larsen comprise the Belcher and Orizaba patented claims and 15 un-patented claims as follows: Lutes, Elmira, Edna, Atlanta, Abner, Southern Cross and Southern Cross #1 to 9 inclusive. It is also proposed to stake the Southern Cross #10, 11 & 12 so as to cover all the principal mineral showings in this vicinity.

HISTORY

The Orizaba was located by J. K. Truman and some of the adjacent claims by David Kile.

These men and their associates did a considerable amount of development work in the early part of the century, sunk the present shaft to a depth of 113' and did some work on the 70' and 100' levels.



Truman reported having made small shipments of high grade gold ore but the bulk of the ore developed was copper ore that would not stand the very high transportation costs resulting from the very poor condition of the Black Canyon Road during those years.

In 1917 the Orizaba Mine was optioned to a group affiliated with the Shannon Copper Company and headed by N. L. Amster of Boston. John D. Wanvig, their Superintendent, then continued to sink the main shaft and carried on some development work on the 70', 100' and 200' levels. They also did some work on the surface of the claims and altogether indicated a very substantial tonnage of ore. Shipments of 6 car loads taken from the underground development work were made to smelters after being hauled by truck to Glendale, Arizona. I have no complete statement of the tonnage or grade of shipments but two car loads sent to Hayden contained 6.10% copper and \$1.00 value in gold and silver per ton. I believe that this represents a fair average of the production from the 100' level.

In early 1919, after the price of copper dropped, the Amster people gave up their option and the shaft was allowed to fill with water. During the next few months, I had two examinations made by engineers in my employ,- I was then General Manager of the Consolidated Arizona Smelting Company (later the Southwest Metals Company) operating the smelter at Humboldt,- and as a result of these, we took options from the owners of the Orizaba and adjacent claims and proceeded to unwater the mine to below the 100' level, made a thorough sampling of both the 70' and 100' levels as well as of certain exposures on the surface and in workings

on other portions of the claims. This work was in charge of Claude Ferguson, a very careful engineer.

During this period, both T. L. White, our Chief Engineer, and I personally visited and inspected all the accessible workings on two or three occasions and I have every reason to believe that our sampling was thorough and reliable. We did not unwater the 200' level but it had previously been inspected by E. S. Smith, one of my engineers and information was given to him as to the grade of the ore by Truman, Wanvig, and J. W. Bennie, Manager of the Shannon Company.

Consolidated Arizona Smelting Company did not exercise its option for two reasons - (1) The price was higher than conditions seemed to justify in view of the difficulties and expense of transportation which still prevailed at that time and (2) The condition of the copper market was very unsatisfactory because of the huge surplus of that metal piled up during the war and already freshadowed a depression of the industry which actually developed in 1920 and forced almost all copper producers and smelters to close down entirely during 1921.

In 1928 the mine was taken over by W. B. Gohring, J. L. McIver and associates who again unwatered the mine to the 100' level and resampled the showings obtaining somewhat higher results than my engineers. In this connection it should be mentioned that the Orizaba ore is exceptionally hard and very difficult to sample with moils so that a considerable variation must be expected in individual samples or even in the general results

of a complete sampling but from the several samplings which have been made in the past and the recorded shipments of ore to smelters, I feel that it is possible to make a fairly accurate estimate of grade as is set forth in another portion of this report.

Gohring and McIver were very enthusiastic over this mine and started to carry out an extensive campaign of development work by which they hoped to first prove up a large tonnage of ore above the 300' level and they anticipated that ore would continue to a much greater depth.

They laid out a new 3 compartment shaft some 525' southwest of the Amster shaft, put in a concrete collar and erected a 60' head frame which is still in good shape and they also installed some machinery, which together with the old buildings and equipment, has since been removed.

With the stock market slump in the fall of 1929, their associates were unwilling to continue financing this program and the subsequent drop in the price of copper during the depression caused a complete cessation of their activity.

The following description of surface and underground showings is from my own observations and in part from the reports of other engineers as mentioned.

#### GEOLOGY

The country rock is classed as Yavapai schist, i.e. chlorite and sericite schist of pre-Cambrian age and apparently this forms a band about one mile in width and outcropping for several miles in length with course about N. 60° E. The dip of the schist strata is about 70° to the northwest. On the hanging



wall (northwest side) it is bounded by diorite and on the foot-wall by a rhyolitic porphyry. In the schist have been formed zones of silicification and associated with the quartz and products of the rock decomposition are found oxides and sulphides of iron and copper, these metals having been deposited as replacements in the schist and forming an ore deposit of the same type as the United Verde, Bluebell, DeSoto, Arizona Binghamton and others.

It is a definite characteristic of all of these deposits that the pay ore is not continuous but occurs in lenses or shoots with varying length and width but almost always with the longest axis in the vertical dimension so that their extension to a very considerable depth may be reasonably expected. At the United Verde there are a dozen lenses of ore, some of great size and extending to a depth of over 3000'.

At the Bluebell there are six lenses throughout the developed length of nearly one mile and all but one of them holds strong to below the 1200' level. The outcrop at the Orizaba indicates that these lenses may occur at intervals through a length of over one thousand feet and since the ore is primary, - as in the other mines mentioned, - I feel that there is good reason to expect that several lenses will be found and that these will persist to a depth of several hundred feet; - unless they are cut off by faulting, which is not apparent on the surface.

On the surface of the claims there are at least 3 well defined outcrops of silicified and mineralized rock lying nearly parallel and separated by several hundred feet of country rock.



Little work has been done except in the hanging wall zone but the other two may be considered as promising locations for further prospecting since they show the leached conditions with hydrous oxides of iron and stains of copper which often indicate the existence of copper sulphides and values in precious metals at greater depth.

From a short adit tunnel on the Southern Cross, one of my engineers obtained samples from stringers which showed good copper content and averaged \$2.50 in gold and silver. A winze which was later sunk at this location shows copper sulphate and carbonate for a depth of 40' down to the present water level. The width of this showing is some 12' and the winze should be pumped out for apparently further development at this point is clearly justified and good values may be expected as soon as the sulphide level is reached. At another point an adit had cut a soft leached outcrop in which considerable manganese was noted.

By far the most promising showing is found in the hanging wall zone on the Orizaba Claim where a heavy gossan outcrop is to be noted and practically all of the underground workings are in this vicinity.

#### DEVELOPMENT AND ORE OCCURRENCE

The main shaft (Amster Shaft) has one hoisting compartment and manway. It is reported to have been sunk vertically to a depth of over 200' and concreted to just below the 100' level and in all probability it is in good shape clear to the bottom.

Levels were cut at 70', 100' and probably at 200', although I have not personally verified the depth of this lowest level. Plans of these levels are shown on the drawings attached to this report. The pay ore,- a mixture of pyrite and chalcopyrite,- occurs in lenses in the mineralized zone and on the first and second levels these show a somewhat irregular location and width while between the veins of ore are seams of waste or lower grade material. The aggregate width of the two main shoots of ore may be taken as 20' on the 1st and 2nd levels and the length developed on the 2nd level is 150', with every prospect that the ore shoots will continue for a long distance beyond the limits of the workings. Since this ore is very massive and heavy it may be figured that 10 cu. ft. in place will equal one ton and the probable tonnage to this depth would thus appear to be over 20,000 with expectation of proving up an additional 200 tons for each additional foot of length in which the workings are extended in ore and a doubling of the tonnage by similar developments on the 200' level.

The various samplings of these ore exposures indicate a substantial variation in grade throughout different sections of the shoots and an average is difficult to calculate with any degree of accuracy. Our sampling in 1919 checked fairly well with that of Amster and gave a general average on the 1st and 2nd levels of better than 5% in copper with values of over \$1.00 in gold and silver. This average copper value was also used by Gohring and McIver and may be considered conservative but it must be noted that our average of the 100' level was not so good

as on the 70' level and this may indicate a decrease of grade with depth which makes it most important to examine the lowest working.

As to the work on the 200' level, I have no personal knowledge, but it was examined in 1918 by one of my engineers who noted the continuation of the ore shoots to this depth but did not take any samples. At that time Truman stated that the average grade on this lowest level was better than 5.5% copper but Wanvig and J. W. Bennie were not willing to confirm this statement and gave us to understand that the average grade on this level was somewhat lower, while the ore shoots,- as shown on the accompanying map,- seem to be split up into short lenses or chimneys further complicating an attempt to definitely estimate the tonnage. However, I believe that Gohring and McIver were justified in estimating probable ore at 30,000 to 40,000 tons although the average grade of this tonnage may prove to be somewhat below 5%.

In any event there is every reason to feel confident that additional development will substantially increase the present ore reserves and that much of the newly developed ore will carry over 5% copper, therefore, the possible tonnage in the mine may properly be assumed to be very much larger than can be measured from the present showings.

#### ORE TREATMENT

The better grade of ore is a hard and compact mixture of iron and copper sulphides, well suited for direct smelting

in a blast furnace. The copper content of this ore may be assumed to be in excess of 6% with iron, sulphur and insoluble content each close to 30% so that the charge would be self fluxing and the smelting would be at least semi-pyritic. Of this class of ore I consider that at least 15,000 tons is proven and a much larger tonnage in prospect. Certain sections of the ore shoots are lower grade in copper and the silica is higher and some of the most siliceous type of this material was tested by flotation at Humboldt yielding an excellent recovery of values with a concentration ratio as high as 5 to 1, although it is probable that the average ratio would be lower.

In mining practice it should be possible and advantageous to separate the very basic from the siliceous ore and when a sufficient tonnage has been proven to exist, it will be logical to provide smelting facilities for the more basic ore and a flotation concentrator for the siliceous material, the concentrates from which might either be bricquetted and mixed with the crude basic ore for blast furnace charge or shipped to a custom smelter equipped with a reverberatory furnace.

#### WORKING CONDITIONS AND COSTS

General conditions at the Orizaba Mine are good, the elevation is 2600' and climate excellent if rather hot during the summers.

Improvements to the five miles of road from the mine to the Black Canyon Highway can be made at little expense and will permit easy and economical truck transportation to Phoenix or



the railway at Glendale, 39 miles from the mine. The Black Canyon Highway has recently been taken over by the State, is now kept in first class condition and will probably be paved in the course of a few years.

Electric power at reasonable rates may be obtained by connecting with the transmission line of the Arizona Power Company about four miles distant or may be generated by Diesel Engines.

The mine itself should make ample water for the requirements of a medium sized mill and a small smelter and there are other sources of water in the near vicinity. A flow from one of the rock-crevasses into the 100' level was reported to be a quality satisfactory for domestic purposes.

By reason of proximity to Phoenix the market for labor and most supplies will be favorable. Coke must be obtained from Colorado and is very expensive in all this section of Arizona, but by reason of the pyritic character of the ore it will be possible to operate a blast furnace with an unusually low percentage of coke so that this handicap will not be too serious.

Mining will be comparatively expensive due to the hardness of the ore but development work may largely be carried on in the softer schist. Milling costs should be well in line with those obtained at other plants of similar capacity and transportation of matte or concentrates to a custom smelter should not cost over \$3.00 per ton of material shipped, - allowing for a back-haul of fuel or other commodities from the railway to the mine.

In 1929, Gohring and McIver figured on a profit of \$6.00 per ton treating daily 100 tons of 5% ore and marketing copper @ 15¢ per lb., they thus estimated their working costs at about 9¢ per lb. of copper.

My own tentative estimates based on a similar grade of ore or rather on a segregation of direct smelting ore of 6% grade and milling ore of 4% grade and allowing in each case a credit of \$1.00 per ton for gold and silver comes to approximately 10¢ per lb., part of which difference may be accounted for by increased taxes. Certain other conditions, such as transportation and metallurgical practice have greatly improved during the past ten years and will continue to improve in future and if a large ore body is developed and proper equipment installed, I am quite willing to concede that a 9¢ cost may be attained although I think it more prudent to figure on the higher figure for the time being. In any event detailed and final estimates cannot be submitted until the size and character of the ore-bodies have been more thoroughly investigated and the treatment of the average grade or grades of ore has been better determined by further experiments.

The future price of copper is anybody's guess but unless this industry is to remain in the "dog-house" for an indefinite period it would seem to me that the average price of American copper over any long period in the future should not be less than 12¢ per lb. and probably will stand at a higher figure.

## CONCLUSION

The Orizaba Mine unquestionably contains a substantial body of 5% copper ore with \$1.00 or better values in gold and silver and gives promise that further development will greatly increase the reserves which can be estimated at present. The metallurgy of the ore is simple and economical but a comparatively remote location and other reasons have delayed its development in the past while the tremendous fluctuations in copper prices during the last twenty years have hindered all progress in the industry and made uncertain the outcome of any and all similar ventures. On the assumption that this last condition will improve and that a fair average price will maintain, further development of the Orizaba is well justified; and if this development is favorable its subsequent operation should be substantially profitable.

## RECOMM<sup>en</sup>ODATIONS

First of all I recommend the reconditioning and dewatering of the Amster shaft and thorough examination and sampling of the ore showings on the lowest (200' level), concerning which we do not have any reliable information.

This to be followed by further drifting in the ore on both the 100' and 200' levels for a sufficient distance to prove up a minimum tonnage sufficient to repay from working profits the capital expenditure involved in providing power and mining plant and such concentrating and smelting equipment as may appear most suitable.

Obviously the required tonnage will vary with the grade of the ore developed but in my opinion it should not be less than 200,000. Such a tonnage can be estimated above the 200' level if the showings on that level prove to be as good as represented by Truman and the drifts on both 100' and 200' levels are driven to open up an added length of 350' showing an aggregate width of 20' or more.

The total cost of the above work comprising some 700' of drifting plus a certain number of short cross cuts, a couple of raises and proper sampling should run to less than \$20,000 including a small gas engine hoist, compressor, pump, drills, etc., which should meet all requirements for this purpose.

I would not at present advise you to consider connecting up with the power-line, nor doing any further work at the Gohring shaft nor installing any large mining, milling or smelting equipment until the condition of the mine and the developed tonnage of the proven ore reserve can be mathematically calculated to positively justify these large expenditures and also to serve as a guide to the best method of working the mine and the character and capacity of the mining and treatment equipment that should be installed.

If Gohring's assumption of a continuous ore shoot extending to the southwest of the Amster shaft should prove to be correct or if several other lenses of pay ore should be found in that direction along the ore zone, as seems to me more probable, then it will doubtless be in order to use the shaft which he



started as the main working shaft. This can probably be best accomplished by drifting from the Amster shaft on the 200' level a total distance of some 525' and raising up from the drift to the excellent concrete collar which Gohring put in place. In that case the mill and/or smelter should probably be located in the vicinity of his gallows frame, while the Amster shaft would serve for a second manway as required by law. This shaft is badly placed near the bed of Moores Gulch and therefore is constantly in danger from heavy floods.

I do not consider that it would be prudent or good mining practice to immediately proceed with the work which Gohring had outlined both in view of the limited developments in ore and in view of the unsettled condition of the copper market but I do believe that you are fully justified in proceeding step by step until such time as the value of the mine can be more definitely known and its future more clearly forecast. I trust that you may then be fully justified in financing a larger and more comprehensive program in the confident expectation that the capital expenditure will be fully repaid from operating profits and that,- given a reasonable price for copper,- the investment will eventually prove substantially profitable.

Yours very truly,

*J. M. C.*

GMC:MF

Exhibits attached -    Plan of 70' level  
                             Plan of 100' level  
                             Plan of 200' level  
                             Claim map

Note Re Exhibits

The attached plans of the underground workings were prepared by Mr. Gohring who seems to have drawn the limits of the ore-shoots in an entirely arbitrary manner, presumably for the purpose of calculating positive tonnage.

My own investigations and those of my engineers lead me to very definitely conclude that the ore will extend for substantial distances in length beyond the area indicated on the maps and it is highly probable that at intervals throughout the mineralized zone the separate ore shoots will converge.

O R I Z A B A

Note by G. M. Colvocoresses,

November, 1937.

The showing on the surface of this property, reports by previous operators and record of a few carloads of ore shipped to Hayden influenced the Consolidated Arizona Smelting Company to take over this mine under option in the summer of 1919.

One of my engineers, Claude Ferguson, was placed in charge and we unwatered the mine to the 100' level and carefully resampled the 70' and 100' levels. The assay maps and Ferguson's report, which were once in my files, appear to have been lost, but will be sent later if I can secure copies.

Our general results were not satisfactory since the average grade of ore exposed on the 70' level proved to be 6.75% copper, while on the 100' level the grade had dropped to 3.56% copper, and after I had made a personal inspection of the mine, it seemed best not to continue our investigation and we dropped our option without unwatering down to the 200' level.

Our general conclusion was to the effect that the better grade ore (6% copper) was limited to 15,000 tons or thereabouts and that it would not pay to reopen and equip the mine since the balance of the ore body (which was undoubtedly large) would not be likely to average better than 3 % copper. The location was bad, ore was extremely hard and working costs would be high.

The subsequent sampling of the mine by Gohring seems to have given a much better average as noted in the statement signed by him and McIvor and Gohring believed that if the development of the mine should be properly completed down to the 300' level they would open up a reserve of about 500,000 tons of 5% ore. I cannot personally agree with this opinion.

Very recently the mine has been optioned through Arthur Murphy, of Phoenix, to Ben Ross and associates, of El Paso, and these people have also optioned or staked some 17 claims in its vicinity, but have not yet unwatered the workings.



## O R I Z A B A   M I N E

Interview with Bill Gohring -- 9/20/30.

Note by G. M. Colvocoresses.

ORIZABA MINE - Now owned by Gohring and McIvor. Considers that over 40,000 tons of 5% copper ore can be considered as highly probable. Gohring's sampling of upper levels showed copper 4.7% where Ferguson's samples only gave a little better than 3%. It will cost about \$50,000 to complete the shaft which Gohring has sunk 50' down to the 300' level and to crosscut the orebody and develop same on this level, also to connect with the power line of the Arizona Power company, put in a sub-station and proper transformers. Gohring and McIvor would be prepared to give a large control to parties who would complete the development work and operate the property. See special reports.



The new operators have abandoned the idea of concentrating this very basic ore and I am told that they are negotiating for the purchase of a 250 ton water-jacket copper blast furnace, which they intend to erect and operate at the mine, shipping a copper matte to some custom smelter. It seems somewhat doubtful that this program will actually be put into effect considering the present low price and uncertain future of copper.

A complete analysis of two cars of ore shipped to Hayden in 1918 was as follows:

	<u>37 tons</u>	<u>46 tons</u>
Au.	0.02 oz.	0.015 oz.
Ag.	0.29 oz.	0.37 oz.
Cu.	5.93 %	6.26 %
Ins.	33.7	32.8
SiO <sub>2</sub>	32.6	32.0
Fe	28.0	27.9
CaO	1.0	0.8
S	23.3	23.5

From which it will be seen that the ore would be suitable for direct smelting but the disadvantages of operating a small smelter at an isolated location so far from a railroad need not be discussed.

O R I Z A B A   M I N E

DISTRICT: Canyon, Arizona

PROPERTY: Orizaba Mine.

LOCATION: 5 miles east of a point on the Prescott-Phoenix Auto road. 8 miles south of Canyon.

OWNERS & OPERATORS: Chief Owner, N. L. Amster, Boston, Mass. John D. Wanvig, Jr., Superintendent.

DATE VISITED: September 27, 1918, by E. S. Smith.

NOTES: Made a partial inspection of the surface and went underground with J. K. Truman, the original locator. Truman located the property about 30 years ago, and held it until it was optioned or sold to Amster about eight months ago. Stated he had spent \$20,000 in development work.

Main development is by shaft with short level at 80 feet depth, and lowest level at 120 feet. About 80 feet of drifting and cross cutting at 80 foot level indicates two ore bodies, each about 10 feet wide, separated by 15 feet of waste (schist). Ore is a heavy sulphide, and said to contain here 6 to 8% copper. The 80 foot level is Truman's old work.

The ore occurs as replacement lenses in schist. The strike of the formation (and ore bodies) is generally about 30° east of north. The 120 foot level, (work of the present operators) consists of two drifts reaching points about 70 feet south of the shaft and two drifts north of the shaft, the further north face being about 110 feet from the shaft. The two north drifts are connected by a cross cut the south side of which is largely in waste, but other ore bodies may lie beyond. All drifts are either in ore or following ore on one wall to make better progress in the softer schist. The south drifts are apparently following two streaks of ore 6 to 10 feet wide, separated by a narrow band of barren schist. Truman states that the average grade of all ore encountered on this level would be around 5½% copper. Development on the 120 foot level so far has, then, proved ore for a length of 180 feet with an average width of perhaps 20 feet. (Combined width of two



separate lenses. E.S.S.)

There is a strong gossan outcropping, showing in many places striking copper staining. Near the shaft the outcrop is more than 200 feet wide, but looking up the gulch it can be seen to split into three separate and narrower leads, each holding strong for some 2000 feet until they disappear over the top of the hill. Truman states there are good copper indications in these outcrops at various points throughout their length, and that a tunnel he had run (on the other side of the hill, I believe, and a couple of thousand feet from the shaft) showed a good width of good grade sulphide ore, but somewhat more siliceous than the ore near the shaft, which is self-fluxing. (Wanvig states (Oct., 1918) that I must have misunderstood Truman about work on the other side of the hill since so far as he knows the old work on that side had shown nothing of importance. E.S.S.)

Initial shipments at the rate of 150 tons per month are going to Hayden. The ore is said to run about as follows:

Gold	.02 oz.
Silver	0.40 oz.
Copper	6.4 %
Insol.	28 %
Iron	30 %
Sulphur	25 %

There is apparently no oxidized ore to speak of and no secondary ore. This holds at least near the shaft which is sunk in the bottom of the gulch. Apparently the underground flow has dissipated the copper as fast as leached.

The property is equipped with a small gasoline hoist and pump. Drilling is now by hand but a 4-drill compressor is being installed. When this is operating, a new shaft is to be sunk with its collar about 75 feet above the bottom of the gulch.

Ore is hauled to Glendale, about 42 miles distant, by 6½ ton trucks. Turkey station is some 8 miles nearer but steep grades out that way make the Glendale haul easier.

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NOTES: by Mr. J. L. White, who visited the property June 15, 16 and 17, 1919:



The country rock is schist dipping west about  $70^{\circ}$  from the horizontal and having a N  $57^{\circ}$  E strike. The schist belt according to reports is quite narrow, being enclosed to the East and West by porphyry.

Two very prominent outcroppings are readily traced for the full length of the claims and beyond. There is very little copper showing on these outcrops which are simply bands of schist showing heavy iron staining and some quartz.

The outcrops are parallel and about 300 feet more copper shows than at any other point on the property. In fact the only other place where copper was seen was in the foot-wall outcrop about 500 feet from the shaft.

Near the shaft, the outcrop is certainly more promising than at any other point observed and very good judgment was used in doing all the work here, although the shaft itself is very badly located in the center of a gulch having a large drainage basin and subject to floods.

The outcrops as a general thing are not particularly promising and where it looks the best it does not seem to justify the hope for a very large body of ore beneath.

The group of claims (7 in number) lie along the strike of the formation being 4 full claims long and 3 claims wide in the center. The 3 claims in the center are patented.

To the north are located the Hualapai patented claims. There have been two shafts sunk here. In one of them a crosscut at 180 feet passed thru a band of iron sulphide. Sample No. 4371 Au 0, Ag trace, Cu. 0.12%. The other shaft apparently uncovered nothing at all and as far as can be seen on the surface, there was no good reason for expecting anything more. Sample #4371: Insol. 33.8; Fe. 27.7. The Hualapai claims appear to be worthless.

Northwest are located the Palo Verde, patented claims, 4 in number. On these claims there are several open cuts and shafts upwards of 100 feet deep. They were all sunk on stringers of white quartz which carried small bunches of copper sulphides.

Mr. Truman states that altogether two carloads of ore

were extracted and shipped by him years ago. The ore was sorted and ran very well. The gold values being as high as \$80.00 per ton. There is nothing of the kind in sight at present.

The Bret Harte claims lie to the West of the Orizaba and are laid out at right angles to the strike of the formation. They are supposed to have values all in gold. These claims were not visited, neither were the Santa Anna claims adjoining to the South.

The Cabinet group of claims owned by Mr. David Kyle, of Phoenix, are the south extension of the Orizaba. One short tunnel was visited. This tunnel was driven to crosscut a copper bearing outcrop showing on the surface. The mineralized section of the outcrop were two stringers about one foot wide. Where the tunnel intersected the formation, at 20 feet of depth, sulphides 18" wide were found in the floor of the crosscut and a winze of 5 feet was sunk on them. Samples of the best of this assayed

Au.	Ag.	Cu.	Insol.	Fe.
.07	1.53	10.56	31.8	25.9
.04	.46	5.61	26.6	25.6

This ore appeared to be a streak of schist and there is no reason, judging by the surface to expect it to enlarge or develop into anything of commercial importance.

The Orizaba Camp has accomodations in the way of tent houses and Boarding house, sufficient to take care of 25 or 30 men, in addition there is an assay office and a mine office in tent houses and 2 small 3 room bungalows.

Water for domestic purposes can be obtained from the 100 foot level where it is unwatered. While that work is being done there is a limited amount of water to be had near by.

There is a two compartment shaft sunk in the bed of Moores Creek and it has workings on the 75 ft., 100 ft., and 200 ft. levels. The shaft is concreted to just below the 100 ft. level. The workings are said to make considerable water in the wet seasons.

The equipment on the surface includes a hoist, gas engine driven, which was used in doing all of this work; and a pump belted to a separate engine which is sufficient to unwater the 100



foot level. There is also a blacksmith shop, a timber framing shop and an engine room with foundation for compressor and engine.

CONCLUSION:

The Orizaba Camp is 40 miles from Glendale, the natural outlet for it.

For any mine to be valuable in this location depends upon transportation. Either the product must be of high grade or possible of concentration on the spot. This apparently is not true of the Orizaba ores. Samples on the dump: Iron -; Au. 02; Ag N; Cu 1.34; Insol. 34.6; Fe 28.2; Best ore - Au .04; Ag .56; Cu 8.30; Insol. 30.8; Fe 27.6.

On the other hand developed ore in sufficient quantity to justify the construction of a railroad would also be a solution.

Unfortunately I do not believe that there are surface indications that justify the hope of any large ore deposits.

Reports of the 100 level however are so glowing that it would be advisable to unwater this level to permit of a thorough sampling and examination.

oOo oOo oOo



# CONSOLIDATED ARIZONA SMELTING COMPANY

## MINE DEPARTMENT

ALL COMMUNICATIONS SHOULD BE  
ADDRESSED TO THE COMPANY

*[Handwritten signature]*  
Blue Bell Mine,  
Mayer, Arizona,  
July 8th, 1919.

### Orizaba Mine

District: Moores Gulch, Maricopa County, Arizona.

Property: Orizaba Mine,

Location: 45 miles from Phoenix, 5 miles East of the  
Black Canon-Prescott Road.

Owner: J. K. Tuttleman of Phoenix, Arizona.

Date Visited: June 15, 16, and 17 by Mr. J. L. White.

### - Notes -

The country rock is shist dipping west about  $70^{\circ}$  from the horizontal and having a N  $57^{\circ}$  E strike. The shist belt according to reports is quite narrow being inclosed to the East and West by porphyry.

Two very prominate outcroppings are readily traced for the full length of the claims and beyond. There is very little copper showing on these outcrops which are simply bands of shist showing heavy iron staining and some quartz.

The outcrops are parallel and about 300 feet apart. All work of any importance has been done on the hanging-wall band which has the better indication of the two.

At the point where the main shaft has been sunk more copper shows than at any other point on the property. In fact the only other place where copper was seen was in the foot-wall outcrop about 500 feet from the shaft.

Near the shaft, the outcrop is certainly more promising than at any other point observed and very good judgment was used in doing all the work here although the shaft itself is very badly located in the center of a gulch having a large drainage basin and subject to floods.

The outcrops as a general thing are not particularly promising and where it looks the best it does not seem to justify the hope for a very large body of ore beneath.

The group of claims (7 in number) lie along the strike of the formation being 4 full claims long and 3 claims wide in the center. The 3 center claims are patented.

To the north are located the Hualapai patented claims. There have been two shafts sunk here. In one of them a crosscut at 180 feet passed thru a band of iron sulphide. Sample No. 4371 Au 0, Ag ~~1.53~~ <sup>1.53</sup>, Cu .12% The other shaft apparently uncovered nothing at all and as far as can be seen on the surface, there was no good reason for expecting anything more.

The Hualapai claims appear to be worthless.

Northwest are located the Pólo Verde, patented claims, 4 in number. On these claims there are several open cuts and shafts upwards of 100 feet deep. They were all sunk on stringers of white quartz which carried small bunches of copper sulphides.

Mr. Trueman states that altogether two car loads of ore were extracted and shipped by him a years ago. The ore was sorted and ran very well. The gold values being as high as \$80.00 per ton. There is nothing of the kind in sight at the present.

The Bret Hart claims lie to the West of the Orizaba and are laid out at right angles to the strike of the formation. They are supposed to have values all in gold. These claims were not visited, neither were the Santa Anna claims adjoining to the south.

The Cabinet group of claims owned by Mr. David Kyle of Phoenix are the south extension of the Orizaba. One short tunnel was visited. This tunnel was driven to crosscut a copper bearing outcrop showing on the surface. The mineralized section of the outcrop were two stringers about one foot wide. Where the tunnel intersected the formation, at 20 feet of depth, sulphides 18" wide were found in the floor of the crosscut and a winze of 5 feet was sunk on them. Samples of the best of this assayed Au .07, Ag 1.53, Cu 10.56. *Insol 31.8* *Fe 25.9*  
                   .04, Ag .46, Cu 5.61. *26.6* *25.6*

This ore appeared to be a streak in the shist and there is no reason, judging by the surface to expect it to enlarge or develop into anything of commercial importance.

The Orizaba Camp has accommodations in the way of tent houses and Boarding House, sufficient to take care of 25 or 30 men, in addition there is an assay office and a mine office in tent houses and 2 small 3 room bungalows.

Water for domestic purposes can be obtained from the 100 foot level where it is unwatered. While that work is being done there is a limited amount of water to be had near by.



There is a two compartment shaft sunk in the bed of Moores Creek and it has workings on the 75 foot, 100 foot and 200 foot levels. The shaft is concreted to just below the 100 foot level. The workings are said to make considerable water in the wet seasons.

The equipment on the surface includes a hoist, gas engine driven, which was used in doing all of this work; and a pump belted to a separate engine which is sufficient to unwater the 100 foot level. There is also a blacksmith shop, a timber framing shop and an engine room with foundation for compressor and engine.

### Conclusion

The Orizaba Camp is 40 miles from Glendale, the natural outlet for it.

For any mine to be valuable in this location depends upon transportation. Either the product must be of high grade or possible of concentration on the spot. This apparently is not true of the Orizaba ores. Samples on the dump: Iron - Au .02, Ag N, Cu 1.34; Best ore - Au .04, Ag .56, Cu 8.30. *Insool 30.8 Fe 27.6* → *Insool 34.6 Fe 28.2*

On the other hand developed ore in sufficient quantity to justify the construction of a railroad would also be a solution.

Unfortunately I do not believe that there are surface indications that justify the hope of any large ore deposits.

Reports of the 100 level however are so glowing that it would be advisable to unwater this level to permit of a thorough sampling and examination.

The Kay Copper Company's holdings, 1 mile south of Canyon were visited on June 19th.

The working on the 500 and 600 foot level of the No. 2 shaft and the 100 foot level of the No. 3 shaft were visited. The only so-called ore body lies south of the No. 2 shaft where small bodies of very rich ore were seen. These bodies of almost solid chalcopryrite ore varied in width from 7 feet to 1 foot and appeared to be the core of a mineralized section of ground, reported to carry considerable copper. It did not appear to me to carry 3% Cu. and I am rather inclined to believe that all of the real ore in sight is in these small bunches of chalcopryrite.

*A picked piece of this chalcopryrite assayed  
Au 0.12 Ag 6.68 Cu 18.47 Insool 17.4 Fe 22.6*



Orizaba Mine  
Kay Copper Co.

Some diamond drill work was being done on the 600 level but nothing important had yet been uncovered, I was told. From this work I received the impression that they were not looking for any definite ore bodies but rather were simply covering ground.

In No. 3 shaft, mineralization in shist is exposed on the 100 foot level but surely no ore. On the 200 foot level, here conditions are said to be better.

Kay did not impress me with its possibilities.

Very truly,

  
Superintendent

JLW/H

SHIPMENTS TO SMELTER FROM ORIZABA MINE,  
1918, AS SAMPLES OF ORE, 100 and 200 ft.

LEVELS

	Cu.	Insol.	Fused	Fe	CaO	S
37 Tons	5.93	33.7	32.6	28.0	1.0	23.5%
46 Tons	6.26	32.8	32.0	27.9	.8	23.5%
	<u>12.19</u>					

Pop shot samples by Wanig (of Jerome)  
October, 1928

	% Cu.	
	9.1	)
	6.7	)
Taken from the	4.4	)
	6.4	)
100 foot level	8.6	) - - - Average 6.89% Cu.
	6.0	)
Pyritic Ore	8.2	)
	6.1	)
	9.2	)
	4.2	)

Above contains about .4 oz. silver and .05  
Oz. Gold, which would be about \$2.00 per  
ton, saved in smelting



### THE ORIZABA MINE

J. L. McIver and W. B. Gohring own, outright, the above copper mine.

J. L. McIver is a director of the United Eastern Mining Company and is the original discoverer of that mine, in Oatman, He is a veteran mining man.

W. B. Gohring is a well known engineer who has been, for twenty years and more, connected in various capacities with the copper industry of Arizona.

#### THE MINE:

The property consists of two patented and six unpatented claims, forty-five miles North of Phoenix, on the Humboldt road, and is thirty-five miles from the Santa Fe Railroad. The property is located on a heavily mineralized shear-zone in schist, dipping about  $70^{\circ}$ . this is strongly marked by a prominent quartz outcrop sticking out boldly on the surface and in places this is accompanied by a heavy copper stain. The owner, Mr. J.K. Truman, who is also the original locator, sunk some shallow holes on this and showed up high grade oxidized copper ore to a depth of thirty feet, at which point massive copper sulphides appeared. In 1919, or thereabouts, Mr. N. L. Amster, of the Shannon Copper Company, took an option on the property and sunk a shaft 200 feet deep and developed ore on the seventy, one hundred, and two hundred foot levels. Mr. Amster ran against a payment on the property during the post war slump, and at this time a flood came down the gulch and drowned out the mine. Mr. Truman's state-



ment is that he was reluctant to waive the payment so when the flood came Mr. Amster dropped the option.

In October, 1928, Mr. McIver and Mr. Gohring attempted to unwater the property, with old equipment on the ground and succeeded in getting to the one hundred foot level but no deeper.

#### 70-FOOT LEVEL:

We found about 50 ft. along the vein opened up on the 70-foot level in continuous high grade sulphide ore. The ore here and on the 100-ft. level is a very uniform pyrite, copper and iron, intergrained with quartz. On the 70-foot level it runs better than six percent copper.

#### 100-FOOT LEVEL:

On the 100-ft level we found the same ore opened up for about 125 feet along the vein. The formation here is well shown up by cross-cutting. It shows a zone of fifty feet in width containing nothing but quartz and the above ore. The ore is very clean and distinct from the quartz, occurring in bands, the widest being 10 feet. There are three, possibly four, other bands of three to four feet in width and altogether there is a mineable width of at least 20 feet. The ore is opened up for a length of 120 feet with the faces both ways still in ore.

#### THE ORE:

We took numerous samples and think this ore will average better than 5% copper. Samples taken by Mr. Amster's superintendent, shown on his blueprints and supposed to be shovel samples as the drifts were run, average 6.8% on the 100-ft level. They shipped six carloads of ore to three different smelters, this being ore broken only in drifting on the 100-ft level. The owner tells us that only one of these ran under 6%. We were able to



obtain the original smelter settlement sheets on two of these cars, from the Hayden Smelter. One ran 5.93% copper and the other 6.23%, with about 60¢ in gold and silver. This is the most authentic guage of the value of the ore and, checking up with our own sampling, we feel we are safe in figuring 5% as the average of the ore, and we use this in all our estimates.

#### 200-FOOT LEVEL:

The Two Hundred foot level we have never seen and neither has the owner who was away when the work was done. Heresay from the miners is that they cut three ore bodies; that there was more quartz than ore on this level; and that the richest ore in the mine came from the 200-foot. They did considerable work but apparently did not drift on the ore as they did on the 100-foot level.

#### OTHER VEINS:

In addition to this big main vein, there are two other smaller veins, one on either side and within a few hundred feet and parallel to the Orizaba vein and our program calls for cross-cutting to these, eventually. One of them shows good copper mineralization on the surface and the other, which is cut by a shallow tunnel, is a heavily leached zone full of manganese.

#### SUMMARY:

There is enough ore in this mine now to pay, on any copper price above 15¢, for extensive development.

The heavily copper stained outcrop exists for at least a thousand feet and the only hole sunk on it shows continuously good ore. There is not the slightest reason why this same ore should not exist throughout the whole 1000 feet. There is every reason to expect it will continue to great depth, for the surface outcrop is strong and big and continuous and developments in the



Bleubell Mine, a very similar mine in the same formation some miles further North, prove their best values on the 1600-foot level. We believe we have a reasonable certainty of developing ore which will show a net profit of four or five times the cost of development; that there is strong probability of proving up many times more than that; and that there is a reasonable possibility that it will develop into a really big copper mine. We know we have now 20,000 to 40,000 tons of ore which can be mined and shipped at once, with copper at present high prices, at a profit of four or five dollars a ton, with a very moderate equipment expense, but we have so much faith in the ultimate development that we are glad to waive present profits and await the proper development of the mine.

The above is all based on the 1000 feet along the Orizaba vein where copper shows. The strong, wide quartz outcrop is continuous with this for several thousand feet further and whether the copper ore is continuous under this is one of the interesting possibilities of the property. Also, ultimately, there are interesting possibilities in the other two veins.

#### DEVELOPMENT PLAN:

We propose to confine ourselves at present to the development of the Orizaba vein. It will be necessary to sink a new shaft. Our estimate is as follows:

Power line; new equipment and preparation .....	\$ 47,850.
600 ft. two-compartment shaft @ \$70. ....	42,000.
2500 ft. Drifts, Cross-cuts and Raises @ \$16 on 300 and 600 ft. levels .....	40,000.
Diamond Drilling .....	7,000.
Total .....	\$ 136,850.

We believe we can do the above for much less.



#### ALTERNATIVE DEVELOPMENT PLAN:

By stopping the shaft at 300 feet, drifting on the vein at that depth, and then at once starting a 100-ton plant, and mining ore, our estimate of cost is as follows:

Power line etc. ....	\$ 47,850.
300-foot shaft .....	21,000.
1200-foot drifts etc. ....	19,200.
Mill or Smelter .....	40,000.
Total .....	\$ 128,050.

We favor this last plan because if we can get on the present copper market, or any market above 15¢, we can make the mine pay development expense below the 300-foot level.

This ore can be treated by flotation, or concentrated into matte in a simple shaft furnace. Mace, of Denver, a manufacturer of small furnaces, was, a few years ago, in search of a pyrite copper deposit on which he could operate one of his own furnaces. He investigated the Orizaba and found it an ideal ore for pyritic smelting. We have a copy of his estimate, showing twenty-five thousand dollars as the cost of a 100-ton furnace, installed, and eight dollars per ton of ore net profit over all expense.

We are having flotation tests made now and have no figures yet, beyond the mere assurance that the ore is amenable to that process.

Whichever type of plant is picked will be a matter of later decision. We should be able in either case to earn six dollars per ton on 15¢ copper, with a 100-ton plant.

#### FINANCING:

We propose to turn in a clean title to this mine and take a half interest in a company to be formed, the other half to go to the contributors of One Hundred and Fifty Thousand Dollars into



the Company treasury. On advice, we propose a 500,000 share, no par, company, we to take 150,000 shares and the men who put up the \$150,000. to take 150,000 shares, or one share for each dollar.

We are willing to allow the directors of the proposed company to decide on which of the above plans shall be carried out, and in case the alternative plan is adopted it is extremely unlikely that it will be necessary to raise the entire \$150,000. In that event we are willing that the men who have already subscribed to the 150,000 Dollar fund be entitled to subscribe to the balance.

Phoenix, Arizona,  
March 25, 1929.

*H. B. Gohring*  
*J. M. Lusk*

File

Re Statements of Dun & Bradstreet on Allied Mining & Smelting Co.

Notes by G. M. Colvocoresses 2/21/39.

- (1) I am told that A. S. & R. have advised the local office of Allis Chalmers that they have no record of Mollohan's employment in any branch of their organization.
- (2) So far as I can learn the only smelting equipment acquired by this company is an old blast furnace which operated at Pearce, Arizona (Black Diamond Co.) in about 1902. Ross purchased this for its junk value of \$400 or \$500 and junk it is for fair.
- (3) Cash position seems to depend entirely on whether D. Feurer pays up or not.

Am told that some truckers and other employees recently working at the Orizaba are still waiting for their pay and threatening to take action through the labor board.

J. m. c.



CHARLES H. DUNNING  
MINING ENGINEER

817 W. Madison St.  
1635 W. EARLL DRIVE  
PHOENIX, ARIZONA  
Dec 11th, 1952

Mr. W. L. Allison, Sr.,  
Allison Steel Co.,  
Phoenix, Ariz.

Dear Bill:-

In regard to the Orizaba Mine I have some knowledge but not in great detail. I visited the mine twice when I was in the Dept and when it was being operated by Brock.. I have also talked about it a great deal with Jerry Elliott, who made an unsuccessful attempt to operate it during the war.

While I do not recall the details on which my opinion was based I do retain the impression that a moderate diamond drilling program up the gulch to the east of the old workings should be a worth while but very speculative venture. This opinion was shared by other engineers.

The old workings and vicinity have never been successful and have very doubtful potentialities. One is caught in a trap between having a marginal ore that requires a mill, and not having enough to justify a mill. There is no reason why development at further depth there should show an increase in values, or is size of the ore lenses.

However, I do retain the impression, that a much more favorable territory exists up the creek - that is for orebodies of larger size and more continuity. Any drilling program there must be considered as highly speculative. I think it is a good gamble if you can obtain a deal without pre-payment on any purchase price. But I cannot advise that any cash be paid for this privilege. If the present ownership concurs in this opinion they should be willing to string along, provided you assure them of a moderate amount of drill exploration. If they do not concur - and certainly they have nothing commercially tangible in the present workings - they they should get rid of the thing for a nominal few dollars.

Sorry I cannot give you more details,

Yours Sincerely,

*Charles H. Dunning*

FOR REGISTERED ARTICLE NO. 33, 10-4, 1919

class postage paid.



pt desired

Tricted { To addressee in person

To addressee or order Postmaster, per

OCTOBER 3rd, 1919

m

Mr. J. K. Truman,  
820 N. Second Str.,  
Phoenix, Arizona.

Dear Sir:-

ORIZABA PROPERTY

Under separate cover, we are sending you, by registered mail, the following maps of the Orizaba workings, that you had loaned us.

1. Pencil sketch - 200 foot level plan;
2. Blue print - - 70 foot level plan;
3. Blue print - assay map; 100 foot level;
4. Blue print - - 200 foot level plan.

Also, in the same parcel, you will find a blue print of our assay plan of the 70 foot level, and blue print of our assay plan of the 100 foot level. The average assay of all our samples from the 70 foot level, excluding samples in waste and stringers of uncommercial importance was 6.75 % copper. In the same manner, our average assay of samples from the 100 foot level was 2.82 % copper and on these samples, excluding samples in waste and stringers of uncommercial importance, the average assay was 3.56 % copper.

I think the package being forwarded at this time holds all the maps that you furnished us; if not, kindly let me know at once and we will look up any other maps that there may be. Mr. Ferguson is still holding up his



Mr. Truman #2

re Orizaba

OCTOBER 3rd, 1919

m

drawings to enter on his assay map the results obtained on the composite samples run for gold, silver and copper. In a few days after we have received the completed assay map I will send you further blue prints.

If there is any way in which we can be of assistance to you in interesting other parties in the Orizaba property, please do not hesitate to call on us. There is certainly some ore there which it should be possible to mine and ship with profit, particularly if the copper market goes somewhat higher as there is promise that it will do before the end of the year. The Orizaba ore is of a character very desirable for our operations and we could offer very favorable terms of purchase for it and would particularly endeavor to quote the most favorable smelting terms possible in order to encourage development of the property. --

Yours very truly,

m

10/3

Ass't General Manager.



December 12, 1952

Mr. Dan Garvey  
Reconstruction Finance Corporation  
Goodrich Building  
Phoenix, Arizona

Dear Friend:

In answer to your telephone conversation, it occurs to me that maybe you people are taking the wrong attitude regarding the Orizaba Mine. In other words, what I am trying to tell you is that I don't think it's fair for you people to penalize me \$1000 to make an examination of the Orizaba Mine. The only thing that I want to do is to put in about 3 diamond drill holes, as suggested by Charles Dunning. This will probably cost me in the neighborhood of \$2,000 and it seems to me that in all fairness to both parties that you people should give me an option for 120 days in which to do this work and then if these drill holes prove satisfactory, then of course I would want to take up my option of \$5000 and I would appreciate it very much if you would write Mr. Lockwood and send him a copy of my letter and tell him just what I am planning on doing and I can't help but believe that he will go along with you on a venture of this kind. In other words, you people put up the mine to show your good faith and I will drill three diamond drill holes with the advice of Mr. Dunning and if we prove up something with our drilling, we will both profit by this deal.

I am also sending you a letter that I received from Mr. Dunning and I think this also should be sent to Mr. Lockwood.

Thanking you in advance, I remain

Very truly yours,

ALLISON STEEL MANUFACTURING COMPANY

W. L. Allison  
President

WLA/sef

P. S. If we decided not to go ahead, I would give you all of the assays I had taken during this examination period.

C O P Y  
1939 FINANCIAL STATEMENT  
DUN & BRADSTREET, INC.

ALLIED MINING & SMELTING CO.

PHOENIX, Arizona  
Maricopa County  
726 Heard Building

ST 7 242 January 19, 1939

STATEMENT

From Balance Sheet of Nov. 30, 1938:

<u>ASSETS</u>		
Cash in Bank	\$ 74.49	
Accts. Rec. -D, Feurer	<u>15,829.00</u>	\$ 15,903.49
Total current Assets		
Mining Properties-		
Orizaba & Belcher	\$475,192.95	
Belmont Group	<u>646,424.53</u>	1,121,617.48
Buildings-Mill	5,500.00	
-Smelter	3,149.93	
-Camp-Orizaba	<u>700.00</u>	9,349.93
Power Line & Equipment		1,500.67
Machy. & Equipment-Mill	67,534.00	
-Smelter	5,550.94	
-Camp	<u>94.75</u>	73,179.69
Office Furniture & Fixtures		241.60
Autos & Trucks		<u>3,058.04</u>
Total Fixed Assets at Cost		1,208,947.41
Deposits- Mt. States Tel. & Tel. Co.	100.00	
- Arizona Industrial Commission	207.36	
Prepaid Royalties on Craker Option	<u>22.84</u>	
Total Prepaid & Deferred Items		330.20
Total Assets		<u>\$1,225,181.10</u>

<u>LIABILITIES</u>		
Accts. Payable as per Schedule attached	\$ 1,613.99	
Contracts Pay.-		
Free & Craker	4,549.71	
Universal Credit Co.	855.00	
G.M.A. Corp.	345.78	
Mrs. Carrie L. Sparks	<u>800.00</u>	6,550.49
Social Security Taxes Payable		26.66
Total Current Liabilities		8,191.14
Lease & Options Pay.-Arthur Murphy	175,000.00	
-Lillian Craker	<u>45,716.95</u>	
Total Contingent Liabilities		220,716.95
Capital Stock issued	1,000,000.00	
Cost of Operations to date as per statement attached	<u>3,726.99</u>	
Total Capital less Deficit		996,273.01
Total Liabilities & Net Worth		<u>1,225,181.10</u>

(Signed) Dec. 12, 1938 (by) J. B. Ross, Vice-Pres.

Audited by A.W.Crane, Certified Public Accountant  
Phoenix, Arizona.  
1-19-39 (7)

Cynthia 7/23

Len 2600

Plant & Plan 47 in

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✓ B. C. Road

Len 8 in ✓

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South Canyon Wb

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Dip  $60^{\circ}$  to N

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34'

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on N & depth



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303 about 9.30

There is oil tank  
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Just



RE J. BEN ROSS AND ALLIED MINING & SMELTING COMPANY  
AND BULLARD GOLD MINES, INCORPORATED

3/2/39

According to Al. Moriarty of Central Arizona Light & Power Company, the Allied Co. built their own power line from the Power Co. line to the Orizaba Mine, some 4 or 5 miles, and presumably this line is their own property. Their statement gives this a value of \$1500 and possibly the Power Co. or others might purchase the line for the value of the poles and wire which might be \$400 - \$500.

The Power Co. have refused to put in transformers at the Orizaba Mine until the Allied Co. post a deposit or bond of \$1800 which so far has not been done.

If shipments are being made from the Belmont Group belonging to this Co., it seems that these might be attached and also any of the equipment at the Belmont Mine to which the Allied Co. have title.

There may be some equity in their autos and trucks valued at \$3,058.04 less liens to Universal Credit and G. M. A. Corp. amounting to \$1200.78 on Dun & Bradstreet Statement which would leave equity of \$1857.26.

THE BULLARD GOLD MINE, INC. was incorporated in Arizona by the Stoddard Incorporating Co. on Jan. 5th, 1939, Capital 500,000 shares of \$1.00 par value.

I have reason to believe that J. Ben Ross is an officer and large stockholder of this Company, which it might be well to garnishee. (See previous note regarding shipments from Bullard Mine.)

Balance sheet of Allied Co. should find to take up  
with Lums & Bradstreet (Hend Ross) & then if  
advisable write to Ariz State Board of Accts. in Phoenix  
with copy of letter to  
Eliot &  
Tucson - (Allied will give  
address)

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COPY

Phoenix, Arizona,

May 31, 1919.

Consolidated Arizona Smelting Co.,

Humboldt, Arizona.

Dear Sirs:

Yours of the 28th just came to hand, and contents carefully noted; and I do not see why we cannot come to some kind of an agreement on the proposition, provided you people entertain interest enough in the property to make it worth while.

I am not hard to make a deal with, and am always willing to meet the other party half way, and always ready to help all I can in the way of extensions of time, etc., and to lighten the load when it seems necessary. But there is one thing I always have uppermost in my dealings, and that is: I will not tie up my property to any Person or Company for the sole purpose of their tying up the property to hold it without carrying on exploration or other necessary work to be done on the property and showing good faith on their part; so that should we be fortunate enough to have any dealings together, this will have to be taken into consideration.

As requested, I saw Mr. Kile, Dr. Swetman and Mr. E. Conel in regard to their properties, and will enclose their addresses so you can correspond with them direct at any time. I think you can make most any kind of a bargain with the Hualapai Agent, if you get him just right, but Mr. Kile is not particular about doing anything unless it was a cash offer, as he is inclined to carry on some more development himself and prove it up some more. However, I think on a cash basis, between \$5,000 and \$10,000 ~~he~~ would take it. I would consider it a good buy at that for any one who has use for it, but I presume that you would not want it at any price, unless you became interested in the other properties of the district.

The Brett Harte, (a gold property), and Paloverde (both held by the same parties) can be had, but the owners are pretty hard to deal with, and want what I should consider more than the properties are worth, except probably the Paloverde group could be had separately on a more reasonable basis, and I think that probably this is the only part you would care for.

The following are the addresses:

Cabinet Mine

David Kile,  
Commercial Hotel.

Hualapai Mines

T. Connell,  
With Wells Fargo Express Co.

## SUGGESTIONS FOR OPTION

I am prepared on the part of myself and co-partners, from whom I hold power of attorney, to give an option for a lease and bond on the Orizaba Group of Mining Claims as soon as you have decided that you are interested enough in them to proceed with further investigation, and covering some of the main points as follows:

1--The option to be for a period of 90 days from date, but actual work must be begun within 30 days from date of the option, namely, the 15th of June, 1919, as per paragraph 3, or the option will become void and of no effect.

2--The consideration to be \$75,000, to be paid as follows:

\$25,000 to be paid on September 15, 1920

\$50,000 to be paid on or before Sept. 15, 1921

Or these payments may be scattered along to suit purchaser.

If you should elect to take advantage of my cash offer to make full payment by Sept. 15, 1919, then, and in that case all other considerations will become void and of no effect, and I will immediately execute a deed, together with abstract of title to the property to the purchaser or purchasers. But the cash offer must be taken advantage of within the 90 days, that is, by the 15th of September, 1919, otherwise the purchase price will be as above.

3--You to start operations of getting in supplies on ground to commence unwatering shaft preparatory to examination within 30 days from date of option, and to continue operations until examination has been completed.

4--If, at any time, during, or at the expiration of the option, September 15, 1919, you are satisfied to proceed with the property, on demand, I will execute contract for lease and bond to purchase said property, or deed in escrow in some Phoenix Bank to be mutually agreed upon.

5--After the lease and bond, you will be required to work a minimum of 150 shifts per month, in development and other necessary work to be performed upon the property (except by mutual agreement), during the life of the bond or until the first payment shall have been made on the property.

6--On or before the 15th of September, 1920, you shall signify your intention of completing purchase of Mine, and within ten (10) days after that date you shall make the first payment on the Mine, and shall place to the credit of J. K. Truman, the sum of twenty-five thousand (\$25,000) dollars in the same bank in Phoenix that holds the escrow papers. The balance, fifty thousand (\$50,000) dollars to be paid in twelve (12) months thereafter, on or before the 15th day of September, 1921, thus completing the payment of the Mine.

7--No ore shall be stoped, (except by agreement), above the one hundred foot level of the present working shaft; but all ores taken from drifts, corss-cuts, upraises or winze, together with all ores opened up below that level, may be taken out and shipped to smelter or reduction works as hereafter provided.



8--A certain price to be paid to owners on all ores so mined and shipped (either flat rate or % royalty), such settlement to be made by the 10th of the month for the month previous, and placed to the credit of J. K. Truman, in the Phoenix Bank above mentioned. The same to be credited to the purchase price of the Mine and shall be deducted from subsequent payments.

9--All work shall be done in good Mine fashion, and in case of forfeiture, the shaft and workings shall be returned in good condition, (barring damage by floods, etc., usual acts of God clauses).

10--To have the use of the present machinery on the ground but if at any time it becomes necessary to change or replace any of the present machinery with new, on account of wear and tear and inadequate for the work, then in that case the same shall become a part of the Mine and shall not be removed from the Mine in case of forfeiture.

11--In case of relinquishment of forfeiture you are to notify me in time to get to the property, and shall hold the water out a reasonable time, pending arrival and investigation.

12--You shall at all times be required to keep posted at the Mine, notices relieving the owner of all liability for debts or damages incurred in or around the Mine, and to comply with all the laws and regulations of the State in protecting the men and owner against all liability.

13--Any failure on the part of lessee in not complying with any part or parcel of this agreement will render this option or lease null and void.

The Undersigned or his agents, shall at all times have access to the workings for the purpose of investigation.

I send the above as a partial guide in your making out any papers as to what I will do. I hope that it will meet with your approval and get action on it if you are sufficiently interested in the property. But if such is not the case, I will greatly appreciate, if you will notify me at your earliest convenience. Yours as above.



O R I Z A B A

Note by G. M. Colvocoresses,

November, 1937.

The showing on the surface of this property, reports by previous operators and record of a few carloads of ore shipped to Hayden influenced the Consolidated Arizona Smelting Company to take over this mine under option in the summer of 1919.

One of my engineers, Claude Ferguson, was placed in charge and we unwatered the mine to the 100' level and carefully resampled the 70' and 100' levels. The assay maps and Ferguson's report, which were once in my files, appear to have been lost, but will be sent later if I can secure copies.

Our general results were not satisfactory since the average grade of ore exposed on the 70' level proved to be 6.75% copper, while on the 100' level the grade had dropped to 3.56% copper, and after I had made a personal inspection of the mine, it seemed best not to continue our investigation and we dropped our option without unwatering down to the 200' level.

Our general conclusion was to the effect that the better grade ore (6% copper) was limited to 15,000 tons or thereabouts and that it would not pay to reopen and equip the mine since the balance of the ore body (which was undoubtedly large) would not be likely to average better than 3 % copper. The location was bad, ore was extremely hard and working costs would be high.

The subsequent sampling of the mine by Gohring seems to have given a much better average as noted in the statement signed by him and McIvor and Gohring believed that if the development of the mine should be properly completed down to the 300' level they would open up a reserve of about 500,000 tons of 5% ore. I cannot personally agree with this opinion.

Very recently the mine has been optioned through Arthur Murphy, of Phoenix, to Ben Ross and associates, of El Paso, and these people have also optioned or staked some 17 claims in its vicinity, but have not yet unwatered the workings.

The new operators have abandoned the idea of concentrating this very basic ore and I am told that they are negotiating for the purchase of a 250 ton water-jacket copper blast furnace, which they intend to erect and operate at the mine, shipping a copper matte to some custom smelter. It seems somewhat doubtful that this program will actually be put into effect considering the present low price and uncertain future of copper.

A complete analysis of two cars of ore shipped to Hayden in 1918 was as follows:

	<u>37 tons</u>	<u>46 tons</u>
Au.	0.02 oz.	0.015 oz.
Ag.	0.29 oz.	0.37 oz.
Cu.	5.93 %	6.26 %
Ins.	33.7	32.8
SiO <sub>2</sub>	32.6	32.0
Fe	28.0	27.9
CaO	1.0	0.8
S	23.3	23.5

From which it will be seen that the ore would be suitable for direct smelting but the disadvantages of operating a small smelter at an isolated location so far from a railroad need not be discussed.



*Original*

The Hulapai claims appear to be worthless.

Northwest are located the Paolo Verde, patented claims, 4 in number. On these claims there are several open cuts and shafts upwards of 100 feet deep. They were all sunk on stringers of white quartz which carried small bunches of copper sulphides.

Mr. Truman states that altogether two car loads of ore were extracted and shipped by him years ago. The ore was sorted and ran very well. The gold values being as high as \$80.00 per ton. There is nothing of the kind in sight at present.

The Bret Harte claims lie to the West of the Orizaba and are laid out at right angles to the strike of the formation. They are supposed to have values all in gold. These claims were not visited, neither were the Santa Anna claims adjoining to the south.

The Cabinet group of claims owned by Mr. David Kyle of Phoenix are the south extension of the Orizaba. One short tunnel was visited. This tunnel was driven to crosscut a copper bearing outcrop showing on the surface. The mineralized section of the outcrop were two stringers about one foot wide. Where the tunnel intersected the formation, at 20 feet of depth, sulphides 18" wide were found in the floor of the crosscut and a winze of 5 feet was sunk on them. Samples of the best of this assayed

	Au.	Ag.	Cu.	Insol.	Fe.
.07		1.53	10.56	31.8	25.9
.04		.46	5.61	26.6	25.6

This ore appeared to be a streak of schist and there is no reason, judging by the surfact to expect it to enlarge or develop into anything of commercial importance.

The Orizaba Camp has accommodations in the way of tent houses and Boarding house, sufficient to take care of 25 or 30 men, in addition there is an assay office and a mine office in tent houses and 2 small 3 room bungalows.

Water for domestic purposes can be obtained from the 100 foot level where it is unwatered. While that work is being done there is a limited amount of water to be had near by.

There is a two compartment shaft sunk in the bed ~~and~~ ~~200~~ of Moores Creek and it has workings on the 75 ft., 100 ft., and 200 ft. levels. The shaft is concreted to just below the 100 ft. level. The workings are said to make considerable water in the wet seasons.

The equipment on the surface includes a hoist, gas engine driven, which was used in doing all of this work; and a pump belted to a separate engine which is sufficient to unwater the 100 foot level. There is also a blacksmith shop, a timber framing shop and an engine room with foundation for compressor and engine.

#### Conclusion

The Orizaba Camp is 40 miles from Glendale, the natural outlet for it.

For any mine to be valuable in this location depends upon transportation. Either the product must be of high grade or possible of concentration on the spot. This apparently is not true of the Orizaba ores. Samples on the dump: Iron -; Au .02; Ag N; Cu 1.34; Insol. 34.6; Fe 28.2; Best ore - Au .04; Ag .56; Cu 8.30; Insol. 30.8; Fe 27.6



On the other hand developed ore in sufficient quantity to justify the construction of a railroad would also be a solution.

Unfortunately I do not believe that there are surface indications that justify the hope of any large ore deposits.

Reports of the 100 level however are so glowing that it would be advisable to unwater this level to permit of a thore sampling and examination.

oOo

J. G. White

MEMO RE J. BEN ROSS

Residence in Ambassador Apartments  
845 North Fourth Avenue  
Phoenix, Arizona

Apparently out of city for last week but is expected back any day.

Phone 3-6380,- can get no answer during last few days.

Has been actively connected with the promotion, *Cash in Jan 3, 35* *of Standard* *60* *has as history* *by* *himself* financing and operating of the Santa Maria ~~Gold~~ Mining Company, - working the old Turnbaugh, Pochontas and other mines on the Santa Maria River, and treating ore in a mill at the Gold Standard which they purchased.

This Company has spent some \$80,000 during the past year, largely furnished by a Texas Oil man named Barrett who is highly spoken of. This Company has always met its pay roll and local accounts. It banks with the Phoenix National. I presume that Ross owns a considerable block of this stock but doubt if it has any cash value. Ross also claims to have an equity in a considerable quantity of bullion from this mine which has recently been sent to the mint.

In association with H. D. Mollohan and others, Ross has taken over the Tonopah Belmont Mine, west of Wickenburg, (formerly known as the McNeill or Washington) and they are operating a small mill on that property and making some shipments. The same syndicate also has an option on the Orizaba Mine near Black Canyon Road which was the subject of my report and they have recently staked a number of claims in its vicinity.

I understand that it is the intention of these people to organize a Company to operate the Tonopah and Orizaba Mines and Ross tells me that a substantial sum of money has been placed in a California Bank for this purpose but not yet made available to the syndicate. The interest of Ross in this syndicate might have some value.

Ross has been driving a good car but I do not know whether it is his personal property. If he has a local bank account it is probably with the Phoenix National but I am told that his banking in the past has mostly been done in Fort Worth.

He has been connected with a large number of oil and mining promotions and has raised and spent a lot of cash at various times.

The Santa Maria Co. *of Ross has* *jointly* has an office in the Heard Building, Room # 619, *phone 4,3508*, *Office in charge of* C. C. Boone who expects

*Ross & return tonight (Aug 29th) on tomorrow morning.*



IN THE SUPERIOR COURT OF THE STATE OF ARIZONA  
IN AND FOR THE COUNTY OF MARICOPA

G. M. COLVOCORESSES,

Plaintiff,

vs.

J. BEN ROSS,

Defendant.

No. 46567

DEFENDANT'S  
MEMORANDUM BRIEF

This action is brought upon a promissory note to which the defendant has plead a failure of consideration.

The position of the defendant is that in his agreement with the plaintiff (and which agreement is necessarily the foundation of this action), it is expressly provided that the report should contain the reports of at least two mining engineers who, as plaintiff testified on the stand, examined the lower level of the Orizaba property about the year 1919.

During the trial the plaintiff sought to vary the issues as set up by plaintiff by introducing a written memorandum of the agreement as signed by both the plaintiff and the defendant at the time the agreement for making the report was executed. This agreement fortifies substantially the case of the defendant, and in our judgment makes the defendant's case beyond question. The language of the agreement insofar as it relates to the reports made in 1919 at plaintiff's instance, is as follows:

"I understand that you will facilitate this work by turning over to me copies of certain maps of the underground workings. In preparing my report, I will use all of the data from my file giving the opinion of other engineers, as well as the result of my own investigation of the surface, which I expect to make very promptly. It is understood that the mine workings are full of water and



cannot be sampled, so that the present examination will be confined largely to the surface, and description of the underground workings will be based upon the report and investigations of others, which will include the examination made by me and engineers in my employ in 1919."

Plaintiff's Exhibit "A".

This quotation, together with the testimony of the defendant and of Mr. Mollahan, establishes clearly that it was the reports of these engineers in 1919 relating to the 200-foot level that the defendant desired and bargained for. He already had, as he testified, full knowledge of everything above the 200-foot level. His contention in this respect was fortified by the testimony of Mr. Arthur Murphy, whose letter giving in substantial detail the conditions above the 200-foot level, was introduced in evidence. All of the testimony converges upon the one point that all the defendant desired was information as to conditions on the 200-foot level, and that was to be supplied, according to the agreement, by the reports of the engineers who examined that level in 1919.

The question, therefore, is not whether the report made by plaintiff had any value, as measured by the standards of mining engineers. It is whether or not the plaintiff fulfilled his contract by including in his report those reports made by engineers under his direction in 1919. Such reports are missing. The one or two hearsay statements not purporting to come from either of the engineers of the plaintiff in 1919, are so vague and inconclusive as not to supply even an approach to the reports which the plaintiff agreed to furnish and for which he is now seeking payment in full. Those reports were what the defendant agreed to pay for, and were the only thing, under the circumstances, that could have been of value to him.

Doubtless this Court has had years of experience in

the observation and examination of reports made by mining engineers. Out of knowledge that is common to everybody in a mining country, it is apparent at a glance that the report in question lacks the most essential elements of such a report.

It does not describe or refer to a single sample taken from the 200-foot level.

It does not include the report of a single assay made from ores on that level.

It does not include an assay map of any portion of the property.

It does not give the dimensions of any ore-body.

It does recite briefly the information contained in the maps which were admittedly furnished by the defendant himself.

It contains a sketchy reference to the geology of the country which the defendant already had in ampler and more satisfactory form.

It did include the plaintiff's estimate of the cost of producing copper from the Orizaba mine; something that the defendant already knew about.

It did include a charge for reports that the plaintiff did not furnish.

There was an utter failure of proof in behalf of the plaintiff, and the agreement of which he himself offered proof, finds no support in the evidence.

Respectfully submitted,

E. S. CLARK  
Counsel for Defendant.



MEMO RE TRIAL

Colvocoresses vs. Ross; , Part 3 of County Court

Phoenix, Arizona, February 11th, 1939

Judge McFarlane of Florence sitting in place of Judge Speakman,  
9:30 A.M.

Counsel:-           For Plaintiff -- B. B. Shimmel  
                      For Defendant -- E. S. Clark and Levy

Shimmel introduced promissory note of August 18th, 1939 and agreement between parties dated July 26th and also report on mine dated July 29th. All identified by Colvocoresses as first witness who testified as to conditions under which agreement and examination were made and delivery of report to Ross in exchange for promissory note, also that he had told Ross from the outset of negotiations that he had not personally visited the 200' level of the Orizaba nor had it unwatered during the period of his investigation as is fully set forth in report.

Also testified that Ross had never complained to him concerning the lack of positive data concerning the 200' level but had told him over the phone that the said report was worthless and of no value to him because it was of no help in raising money and particularly because of the statement that it would cost 10¢ per pound to produce copper whereas he (Ross) knew that he could produce it for 6¢ per pound.

Stated that his report had conformed in all respects to his undertaking under the agreement of July 26th,- which agree-



ment Clark was heard to say that he had never seen before. Read portions of report referring to 200' level with statements of others in regard to ore and assays.

Ross testified that he had only contracted to have report made on representation that it would embody complete reports of two engineers on 200' level with assay maps and had given promissory note on false representation that it did contain this data.

Admitted on cross examination that the agreement made no specific mention of 200' level nor of any assay maps and also provided for an inspection of surface of the property which was all that could then be made as mine was full of water although his amended answer had stated that he was then (July '38) doing work on two upper levels, 70' and 100'. Responsibility for this misstatement was assumed by Clark who said it was his mistake in drawing up the answer.

Ross admitted that he had never made any payment including the advance fee of \$50.00 provided in the agreement, also admitted that he had been convicted (i.e. plead guilty) to a felony in connection with a mining-swindle. Denied that he had criticised report on account of statement re cost of producing copper. Admitted that he had never answered repeated demands for payment except by telephone conversation. Said that report was really intended for benefit of other parties including Mollohan.

Mollohan testified that he was interested in the Orizaba Mine or rather in the Allied Mining and Smelting Company which now owns it and that report was worthless because it contained no detailed reports and assay maps of 200' level and said that he had gone with Ross to get report at Ross' request but had not read report until they were out on the street although Ross admitted having glanced through it in Plaintiff's office.

Denied having ever been indicted or convicted of a felony but admitted having gone to Shimmel's office to try to compromise the case.

Arthur Murphy testified that he had been interested in the mine and had visited it but had never been underground. Said that he did not believe that any assay map of 200' level had ever been made and that he had known Truman and would consider his statements as reliable.

Said that any information regarding a mine would have a certain but varying value although he considered an assay map to be of the utmost importance. Agreed with the Judge that Engineer's reports varied greatly in character and scope and that some might properly be confined only to the surface, geology, etc. On the whole his testimony appeared to be favorable to the Plaintiff.

Shimmel took the stand to relate his conference with Mollohan during which Mollohan had never mentioned the 200' level.

In rebuttal Colvocoresses repeated that the facts concerning the 200' level had been fully explained to Ross on occasion

of first conference and exactly as they were set forth in report and that he had never heard any complaint on this score until the amended answer was filed with the Court.

Pointed out that his report consisted of 16 pages and that only brief extracts had been read at the trial.

Judge MacFarlane remarked that the entire case seemed to hinge on the agreement of July 26th which established the nature of the consideration and that he expected to find for the Plaintiff, unless a reading of the report should convince him that it did not fulfill the terms of the agreement. Said that he was very familiar with the law in regard to "failure of consideration" and felt that this was the only point at issue although he had permitted a lot of testimony to go in the record merely for the purpose of fully explaining the contention of defendant.

At request of Clark, he agreed to postpone his decision until after Clark had handed in a brief or memo which he promised to submit within 5 days, e.e. by Feb. 16th.



SPECIAL MEMO FOR ROSS TRIAL

Ross first came to my office quite alone on Tuesday, July 26th, 1938 on which occasion the arrangements for examination and report on the Orizaba Mine were made and embodied in the letter agreement of that date which was dictated on that occasion. *in his presence*

*200' level  
hunted and  
not influenced*

On Wednesday, July 27th, Ross again called alone and read over and signed in duplicate the Agreement of July 26th, one copy of which he took with him leaving me the carbon of the signed original duplicate which will be offered in evidence. Meantime, he had made arrangements for Walter Larsen to visit the property with me on the following day and promised to leave the \$50.00 advance payment in my office on that day. *(Mrs. Fountain had her with the money)*

*(hooked up  
part of report  
for file)*

July 28th - Thursday - I made the examination of the surface of the Orizaba as agreed and in company with Walter Larsen, returning to Phoenix that evening. Ross did *had* not call at my office nor send me the \$50.00 as promised although Mrs. Fountain was in the office all day.

July 29th - Friday - Wrote up report on Orizaba which was transcribed on same day and tried to get in touch with Ross but failed to do so.

*(as per file)*

Subsequently several letters written to Ross and some conferences prior to Thursday, August 18th, when Ross called at my office late in the afternoon accompanied by Mollohan whom I then met for the first and only time and still pleading

lack of cash but faithfully promising to pay, gave me the promissory note of that date payable on August 25th and specifically referring to the Agreement of July 26th as establishing the consideration. On that occasion I delivered to Ross and Mollohan 3 copies of my report of July 29th parts of which they read over in my presence and with which they then seemed well satisfied and repeatedly promised that full payment would be made by August 25th.

No payment whatever has ever been made to date.

Ross should have specifically mentioned 200' land in the agreement if he only wanted report on that.

Ross would not have arranged to be the third party if he only wanted to know about 200' land.

Certainly mine a full of both & full 20' of each of the 2

Ross & here I have mentioned the done by the surrounding as fully stated in the land law.

Agreement provided for payment a delivery of report.

Ross only agreed to & I stated & was told in  
v. 6 10¢ for the when Ross could & v. 6 6¢.



1/23/39

NOTE FOR MR. B. B. SHIMMEL

IN REFERENCE TO COLVOCORESSES VS. ROSS

*Tuesday*  
Referring specifically to the defendant's amended answer which we discussed this morning and aside from the fact that the note was given to guarantee payment for my report which was made on the basis of the written agreement of July 26th, of which you have a copy, and in which there is no reference whatever to the 200 foot level of the Orizaba Mine, the facts of the case are as follows:

In my conversation with Mr. Ross on July 26th I expressly and clearly stated that I had never personally inspected the 200 foot level of the Orizaba Mine and that this had not been unwatered by the Consolidated Arizona Smelting Company nor measured and sampled by my engineers during the time that we held an option on the property in 1919. I told him very plainly that my information in respect to the 200 foot level came from a verbal statement of one of my engineers who had been down the mine in 1918 but had not taken any samples and also from statements made to us in 1918 and 1919 by J. W. Bennie who managed the operations of the Amster Company and by their Mine Superintendent, John D. Wanvig.

Mr. Ross said that he fully understood this situation and would merely expect me to repeat my verbal statements in reference to the 200 foot level when making up the report for which he agreed to pay me \$250.00.



A portion of this conversation was overheard by my secretary, Mrs. Margery Fountain, who can confirm the above statement should it be necessary for her to do so.

You will have noted that the report specifically repeats the above mentioned statements regarding the 200 foot level, giving record of the visit of my engineer, Mr. E. S. Smith and the substance of the essential representations made to us by Bennie and Wanvig as well as by Truman, the owner of the property.

I call your attention to the fact that the agreement specified that a \$50.00 payment to cover the estimated out-of-pocket cost of the examination was to have been made in cash but when I requested this at the time the agreement was signed Ross said that he did not have the money in his pocket but would deliver it in cash on the following day to Mrs. Fountain during my absence at the mine;- a promise which he entirely failed to keep.

The agreement of July 26th was <sup>on the following day</sup> dictated in presence of Mr. Ross and signed by him in duplicate in presence of Mrs. Fountain and me and Ross took one of the original duplicate copies at that time.

I might also mention that after taking copies of my report at the time that the promissory note was given me, Messrs. Ross and Mollohan, while still sitting in my office, read over portions of this report and expressed their satis-

faction at the manner in which I had covered the showings on the 70 foot and 100 foot levels without making any comment whatever concerning the statements in regard to the 200 foot level. I might also state that Mr. Ross in personal conversation and by telephone repeatedly assured me on several occasions that he would pay the note in full and never brought up the question of the 200 foot level at all until the Amended Answer was filed as above.

GMC:MF  
January 23rd, 1939.

*Copy*

IN THE SUPERIOR COURT OF THE STATE OF ARIZONA  
IN AND FOR THE COUNTY OF MARICOPA

G. M. COLVOCORESSES,

Plaintiff,

vs.

J. BEN ROSS,

Defendant.

No. 46567

AMENDED ANSWER

Comes now the defendant above named, and for his amended answer to plaintiff's complaint, denies and alleges as follows:

I

Defendant admits the execution of the promissory note described in plaintiff's complaint, but denies that there was ever any valuable or any other consideration for the execution of said note, but, on the contrary, alleges that there was a total want of consideration, and that the circumstances attending the execution and delivery of said promissory note are as follows:

The plaintiff, prior to the execution of said note, stated and represented to defendant that he had caused an examination to be made by at least two competent mining engineers of the 200-foot level of the Orizaba Mine, located in Moore's Gulch, Maricopa County, Arizona, and that he had such reports available and in his possession; also representing that they had been made at his instance sometime about the year 1919;



that when the representations aforesaid were made, sometime prior to July 29, 1938, the main shaft in the Orizaba Mine was filled with water nearly to the 100-foot level, so that, without going to a great deal of work and expense, it was impossible for the defendant to reach or explore the 200-foot level; that the plaintiff thereupon agreed that he would render to the defendant a report on said 200-foot level which

*Actually he  
fell to near  
top.*

would embody and set forth in full the reports made by said two mining engineers about the year 1919; that defendant at that time did not desire and had no use for a report as to the upper levels, as information was already accessible to him and to his employees, as defendant had been in possession for the preceding year and was then doing considerable work on said upper levels.

*See ~~and~~  
agreement.*

*lie. no book  
at all.*

## II

That after plaintiff had prepared the report so promised and agreed to be made as aforesaid, he advised the defendant thereof, but with the intention of deceiving and defrauding the defendant, and in order to obtain money from him without rendering the agreed consideration therefor, he refused to deliver said report to defendant or even permit him to see it, except upon the immediate payment to him of Two Hundred Fifty Dollars (\$250.00), either in cash or by the delivery of a promissory note for that sum; that at that time the plaintiff again represented to the defendant that said report contained the reports of the two mining engineers above referred to.

*See agreement.*

*- yes but  
no money*

### III

That the defendant needed said report so that he might determine therefrom whether he would be justified in going to the expense of unwatering the mine down to and including the 200-foot level; and believing the representations of plaintiff that said report contained the reports of said engineers, and relying thereon, and that they were favorable, he delivered to plaintiff the promissory note mentioned in his complaint.

? Why favorable

### IV

That during all of the negotiations it was expressly agreed and understood between plaintiff and defendant that the defendant did not require or desire any report whatsoever on the workings above the 200-foot level.

See agreement

### V

That after delivering said note to plaintiff, the defendant examined said report and discovered that the aforesaid representations of plaintiff were false; that it did not include the reports of the two mining engineers aforesaid, and did not include any report whatsoever of the 200-foot level, and did not in any respect afford to the defendant the information that had been promised by the plaintiff, and the so-called report therefore contained nothing of value to the defendant and did not comply in any respect with the agreement of plaintiff, and was, and is, utterly worthless as a report on the 200-foot level of the Orizaba Mine;

not true

not supposed to be a report

Wherefore, defendant prays that plaintiff take nothing by his said action, and that defendant recover his costs herein.

JOHN M. LEVY  
Attorney for Defendant.

STATE OF ARIZONA    ))  
                          ) ss  
COUNTY OF MARICOPA )

J. BEN ROSS, first having been duly sworn, deposes and says:

That he is the defendant in the above-entitled action;

That he has read the foregoing amended answer and knows the contents thereof, and that the allegations and denials thereof are true of his own knowledge, and that the matters and things in plaintiff's complaint which are herein denied under oath are untrue.

*Perjury*

J. BEN ROSS

Subscribed and sworn to before me, this 21st day of January, 1939.

ELLEN WATSON  
Notary Public.

My commission expires June 14, 1940.

(Seal)



*Cy, Captain Jim Shinnel*

July 26th, 1938

Mr. J. Ben Ross  
Phoenix,  
Arizona

Dear Mr. Ross:

Confirming our conversation of today, I will undertake for your account an examination of the Orizaba Mine located near the Black Canyon Highway and furnish you with a report on same in the course of a few days.

I understand that you will facilitate this work by turning over to me copies of certain maps of the underground workings and in preparing my report, I will use all of the data from my file giving the opinions of other engineers as well as the result of my own investigation of the surface which I expect to make very promptly. It is understood that the mine workings are full of water and cannot be sampled so that the present examination will be confined largely to the surface and description of the underground workings will be based upon the reports and investigations of others which will include the examination made by me and engineers in my employ in 1919.

For services and report as above, my fee will be the sum of \$250.00 of which I shall ask for \$50.00 as advance payment and the balance upon delivery of report.

Kindly indicate your acceptance of this arrangement by signing one of the duplicate copies of this letter.

Yours very truly,

*S h - c*

GMC:MF

Accepted:

*J. Ben Ross*

CLASS OF SERVICE DESIRED	
DOMESTIC	CABLE
TELEGRAM <input checked="" type="checkbox"/>	FULL RATE
DAY LETTER	DEFERRED
NIGHT MESSAGE	NIGHT LETTER
NIGHT LETTER	SHIP RADIOGRAM

Patrons should check class of service desired; otherwise message will be transmitted as a full-rate communication.

# COPY OF WESTERN UNION TELEGRAM

August 1st, 1938

Mr. H. D. Mollohan  
4101 Chestnut Avenue  
Long Beach, ~~Avenue~~ *California*

BEN ROSS SUDDENLY CALLED OUT OF TOWN STOP KINDLY TELEGRAPH  
ME \$250.00 AS PER AGREEMENT WITH HIM AND WILL AIR-MAIL ORIZABA  
REPORTS TODAY.

G. M. Colvocoresses  
1102 Luhrs Tower

Charge to:

1102 Luhrs Tower

file  
1/30/39

MEMO FOR MR. SHIMMEL RE COLVOCORESSES VS. ROSS

Mr. Walter Larsen was in my office this morning. He is a mining engineer who is at present superintendent of the operation of the Santa Maria Mining Company but he was associated with Mr. J. Ben Ross for several months and had personal charge of all of the work that was done for Ross at the Orizaba Mine prior to August of this year.

Larsen advises me very positively that neither Ross nor any of his associates or employees had ever unwatered the Orizaba shaft at any time prior to August and that the water had stood for a long time just as we found it, 18 to 20 feet below the collar of the shaft. This confirms my statement in respect to the conditions at the mine and absolutely refutes the affidavit of Ross' in his Amended Answer where in the last paragraph of Article I he claims that information regarding the upper levels (located 70' and 100' from the collar of the shaft) was already accessible to him and his employees since he was then doing considerable work on the said upper levels.

Larsen agrees with me in believing that the water had never been lowered in the Orizaba shaft at any time since Gohring and McIver unwatered the mine to the 100' level in 1929.

If it should ever be necessary to submit proof of these points, I am sure that Larsen would testify as above although I would not want to have him brought down from the Santa Maria Mine as a witness unless it was necessary to do so.

GMC:MF

Walter Larsen /o Santa Maria Mining Co., - Congress, Ariz.



1/27/39

MEMO FOR MR. SHIMMEL  
RE COLVOCORESSES VS. ROSS

In view of Mr. Clark's statement regarding the testimony of Mr. Mollohan, the following facts are submitted for your information:

I never heard of Mr. Mollohan until I visited the Orizaba Mine on July 28th, 1938 when Walter Larsen, who accompanied me, mentioned that such a man was an associate of J. Ben Ross and that he, Mollohan, had visited the Orizaba property in company with Larsen at some previous time.

I next heard of Mollohan through Mrs. Ross when she wished me to send my report and draw on Mollohan for the fee and when I refused to do this, suggested that I telegraph him, as I did in accordance with copy of telegram attached to this memo.

Mollohan was never in my office until August 18th, 1938 nor had I ever met him in the meantime. He took no part whatever in the negotiations leading up to the execution of the letter-agreement dated July 26th, 1938.

On August 18th, 1938, Mr. Ross telephoned in the morning and said that he and Mr. Mollohan would come to my office that afternoon and take delivery of the report and make payment. They did come in late that afternoon after my secretary, Mrs. Fountain, had left for the day but they again said that they had no money available to pay for the report nor even the \$50.00 advance payment which had been repeatedly

promised and they wished me to deliver the report against their agreement to make the payment after the report had been submitted to some of their associates in Los Angeles who were supposed to release the money as soon as the report was in their possession.

It was on this occasion that Mr. Ross executed the Promissory Note dated August 18th, 1938.

I do not recall that the 200' level of the Orizaba Mine was even mentioned in any conversation prior to my delivering the report to Ross and his execution of the note. The discussion at that time was confined to the time and manner in which the payment would be made since I was entirely disgusted because of the many lies which Ross had previously told me and positively refused to deliver the report until the note was signed and given to me. *in Aug 18th*

After copies of the report were turned over to Ross and Mollohan, they read portions of it in my office and I distinctly remember that Mollohan expressed his pleasure at having some information regarding the assay value of the ore on the 70' and 100' levels but I am quite sure that neither he nor Ross ever mentioned the 200' level on this occasion nor at any other time during our previous negotiations and it is very evident that Ross' Amended Answer and statement in regard to his interest in the 200' level was merely an afterthought invented on the chance that this would enable him to avoid the payment of his obligation. *expressed as follows in their memo. in 2*



I call your attention to the text of the Amended Answer as compared to the text of the Agreement of July 26th, 1938 which clearly set forth the scope of the services and report that I was to furnish in consideration for the fee of \$250.00 and it appears to me that a careful comparison of these would indicate that Ross has very definitely committed perjury in swearing to the text of the Amended Answer.

GMC:MF  
January 27th, 1939

*J h c*



King's College  
12/4.35

DEPARTMENT OF JUSTICE

UNITED STATES DISTRICT COURT

OFFICE OF THE CLERK  
NORTHERN DISTRICT OF TEXAS

Dallas, Texas  
Sept. 28, 1938

*A* 10/17/38

Mr. George M. Colvocoresses  
1102 Luhrs Tower  
Phoenix, Arizona

Dear Sir:

Replying to your letter of September 26th beg to  
advise that the sentences which were passed in  
this court in 1936 on the defendants convicted  
of using the mails to defraud in selling stock of  
the El Oro Mining Company will cost you \$7.25.  
Upon receipt of a certified check or money order  
for the amount will be glad to forward you the  
copies.

Yours very truly

George W. Parker, Clerk

By Jessie B. Mordock  
Deputy

MEMO FOR MR. SHIMMEL RE COLVOCORESSES VS. ROSS

1/24/39

If any verbal testimony should be required in this case I can swear to the following:-

(1) That the only conversations in this matter prior to the making of my last examination and report on the said property took place in my office on July 26th, 1938 at which time the agreement of that date was dictated to Mrs. Fountain in the presence of Mr. Ross and on July 27th when Mr. Ross called again to accept and sign the two original duplicate copies of the letter of agreement.

(2) That a part of my obligation as set forth in the said agreement was to visit and examine the surface workings and present condition of the property, which visit was duly made with my car and at my expense in company with Mr. Walter Larsen on July 28th, 1938. Mr. Larsen was then or had previously been in the employ of Mr. Ross and accompanied me at his request. Such a visit could obviously have had no possible use or value if the defendant's only desire had been to secure information concerning the 200' level of the mine, as stated in Article IV of the defendant's Amended Answer, since this level, to the best of my knowledge and belief had never been accessible since some time prior to 1919 and in July 1938, as stated in the agreement, all of the underground workings of the mine were under water. The inspection of the property on July 28th, 1938 showed that water stood in the shaft only a few feet



below the collar and from information given me by Ross, Larsen and others the shaft had not been unwatered even down to the 70' level for a long time previous and no work had been done underground in the mine during the past year as <sup>is</sup> ~~is~~ stated in the last paragraph of Article I of the Amended Answer.

(3) That all of my representations in reference to my knowledge of conditions on the 200' level of this mine were exactly as set forth in the note prepared for you on January 23rd, 1939 and that these are fully covered in my report dated July 29th, 1938 on pages 2, 6, 7 & 8 & 12 which report fully complied with all of the terms and conditions agreed upon in verbal conference with Mr. Ross on July 26th, 1938 and fully set forth in the written letter-agreement of that date to which reference is made in the promissory note on which this suit is based. In the said agreement there was no specific reference whatever to the 200' level of the mine excepting as this was understood to be included in the term "underground workings".

Mrs. Fountain can testify if required:-

(1) That she heard a portion of the conversation between Ross and me on July 26th, 1938 including my statement that neither I nor my engineers had measured or sampled the workings on the 200' level of the mine.

Also that she wrote the letter of agreement at my dictation with original duplicate which is in your possession.

Also that she saw Mr. Ross examine and sign his acceptance of the said agreement on July 27th and heard him promise to pay the advance fee of \$50.00 which he agreed to leave with her at my office on the following day when I was to be out with Larsen on the examination of the mine and promise to pay the balance of the fee as soon as the report was prepared and delivered to him.

J. H. C.

GMC:MF

Note was dated & delivered Aug 15  
(Thurs) & was payable Aug 25th

In fine

Orizaba mine  
6/6.40

Smelting cost \$12.00 p. ton ore

Charge ran 4% ore in ore.

One slag sample 5.5% ore.

Waste 16-22% ore.

Looking slugs  
d.b.  
G

d.b.

slugs

Quartz

Coke & lime being expensive, increased  
this up to 130 t. a day.

Heldrette  
& Mack. v.g. here

All drill holes  
Work 7 p.m. on  
to date.

A  
60  
70E  
50  
C. 44

cutting

mine?



IN THE SUPERIOR COURT OF THE STATE OF ARIZONA  
IN AND FOR THE COUNTY OF MARICOPA

---

G. M. COLVOCORESSES,

Plaintiff,

vs.

J. BEN ROSS,

Defendant.

No. 46567

PLAINTIFF'S REPLY BRIEF

The failure of consideration pleaded by defendant consists of plaintiff's alleged failure to perform an oral agreement "that he would render to the defendant a report on said 200-foot level which would embody and set forth in full the reports made by said two mining engineers about the year 1919." (Top of page 2, Amended Answer.) Fortunately, this "agreement" was reduced to writing, a fact of which defendant's counsel was not aware until the writing was produced at the trial. It contains no such agreement as the verified amended answer alleges.

Confronted with his writing, the only position left to defendant was misconstruction of it. After quoting from the agreement, defendant's brief says (page 2):

"The question, therefore, \* \* \* is whether or not the plaintiff fulfilled his contract by including in his report those reports made by engineers under his direction in 1919."

Not only does the agreement contain no such covenant; it affirmatively states that the "description of the underground workings will be based upon the report and investigations of others \* \* \*." These "others" are identified as "engineers in my employ in 1919." The report in evidence does contain a "description of the underground workings"



based upon the personal inspection in 1919 "of all accessible workings" (not the 200-foot level) by plaintiff and J. L. White, "our chief engineer." Respecting the 200-foot level, then and ever since under water, it relates a previous inspection by E. S. Smith, "one of my engineers," and the information given to him by three officials of the previous optionee. In strict accordance with his written agreement, plaintiff reported on his personal examination "confined largely to the surface," and described "the underground workings," "based upon the reports and investigations of others," including the examination by engineers in his employ in 1919.

If, as defendant now feebly asserts, plaintiff's report was "unsatisfactory," it must be because it contained too much of information and too little of prognostication for the purposes of the promoter. Manifestly, the "failure" was not of consideration, but rather of any intention whatsoever on the part of defendant to pay for the services he engaged.

Respectfully submitted,

BLAINE B. SHIMMEL  
Attorney for Plaintiff.



IN THE SUPERIOR COURT OF THE STATE OF ARIZONA  
IN AND FOR THE COUNTY OF MARICOPA

G. M. COLVOCORESSES,

Plaintiff,

vs.

J. BEN ROSS,

Defendant.

No. 46567

JUDGMENT

This cause having come on regularly for trial before the Court without a jury, plaintiff and defendant being present and represented by counsel, evidence was adduced, the cause submitted, and briefs filed; whereupon, it was by the Court ordered that judgment be for plaintiff for the sum of \$250.00 with interest and costs.

And it appearing to the Court that Allied Mining & Smelting Corporation, a corporation, was regularly served in Maricopa County, Arizona, with a writ of garnishment duly issued out of the above-entitled Court in this cause; that said garnishee failed to answer said writ of garnishment within the time provided by law and said writ, and that the default of said garnishee has heretofore been regularly entered by this Court;

NOW, THEREFORE, IT IS ORDERED AND ADJUDGED that plaintiff recover of defendant J. Ben Ross, and Allied Mining & Smelting Corporation, a corporation, the sum of \$250.00, together with interest thereon at 6% per annum from August 25, 1938, until paid, and plaintiff's costs taxed in the sum of \$\_\_\_\_\_.

Dated this 17 day of February, 1939.

Approved as to form this \_\_\_\_\_  
day of February, 1939.

\_\_\_\_\_  
Attorney for Defendant.

Speckman  
Judge.

Farlane



Charles H. Dunning  
Mining Engineer

817 West Madison St.  
1635 W. Earll Dr.  
Phoenix, Arizona  
Dec. 11th, 1952

Mr. W. L. Allison, Sr.  
Allison Steel Co.,  
Phoenix, Arizona.

Dear Bill:-

In regard to the Orizaba Mine I have some knowledge but not in great detail. I visited the mine twice when I was in the Department and when it was being operated by Brock. I have also talked about it a great deal with Jerry Elliott, who made an unsuccessful attempt to operate it during the war.

While I do not recall the details on which my opinion was based I do retain the impression that a moderate diamond drilling program up the gulch to the east of the old workings should be a worth while but very speculative venture. This opinion was shared by other engineers.

The old workings and vicinity have never been successful and have very doubtful potentialities. One is caught in a trap between having a marginal ore that required a mill, and not having enough to justify a mill. There is no reason why development at further depth there should show an increase in values, or in size of the ore lenses.

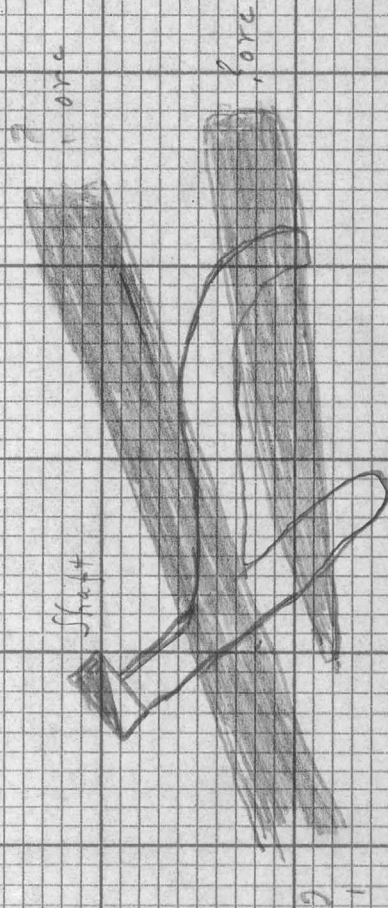
However, I do retain the impression, that a much more favorable territory exists up the creek - that is for orebodies of larger size and more continuity. Any drilling program there must be considered as highly speculative. I think it is a good gamble if you can obtain a deal without pre-payment on any purchase price. But I cannot advise that any cash be paid for this privilege. If the present ownership concurs in this opinion they should be willing to string along, provided you assure them of a moderate amount of drill exploration. If they do not concur - and certainly they have nothing commercially tangible in the present workings - they then should get rid of the thing for a nominal few dollars.

Sorry I cannot give you more details,

Yours sincerely,

(Signed) Charles H. Dunning

(COPY)

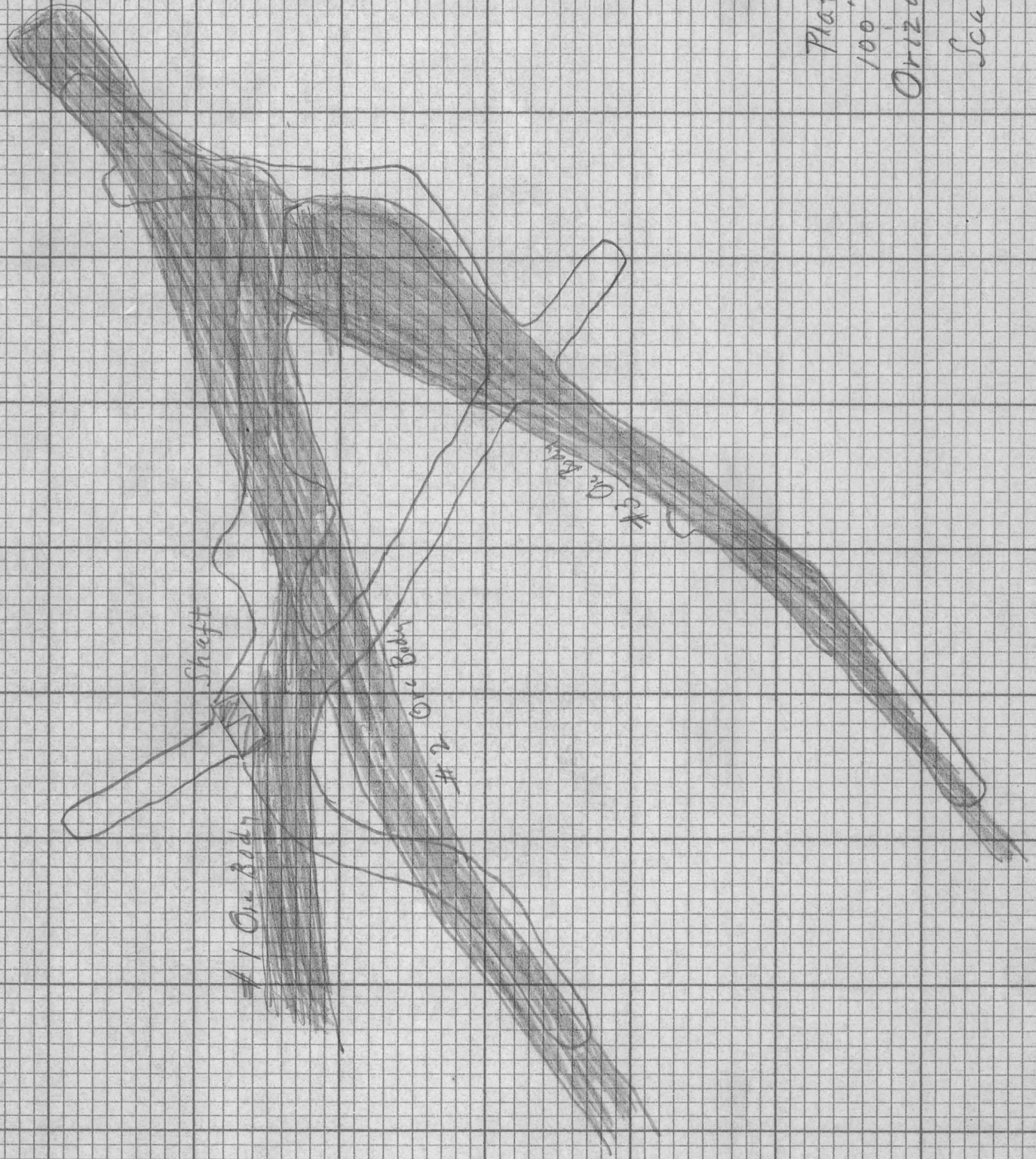


ORIZABA.

70 level.  
Plan

Scale 1" = 20'

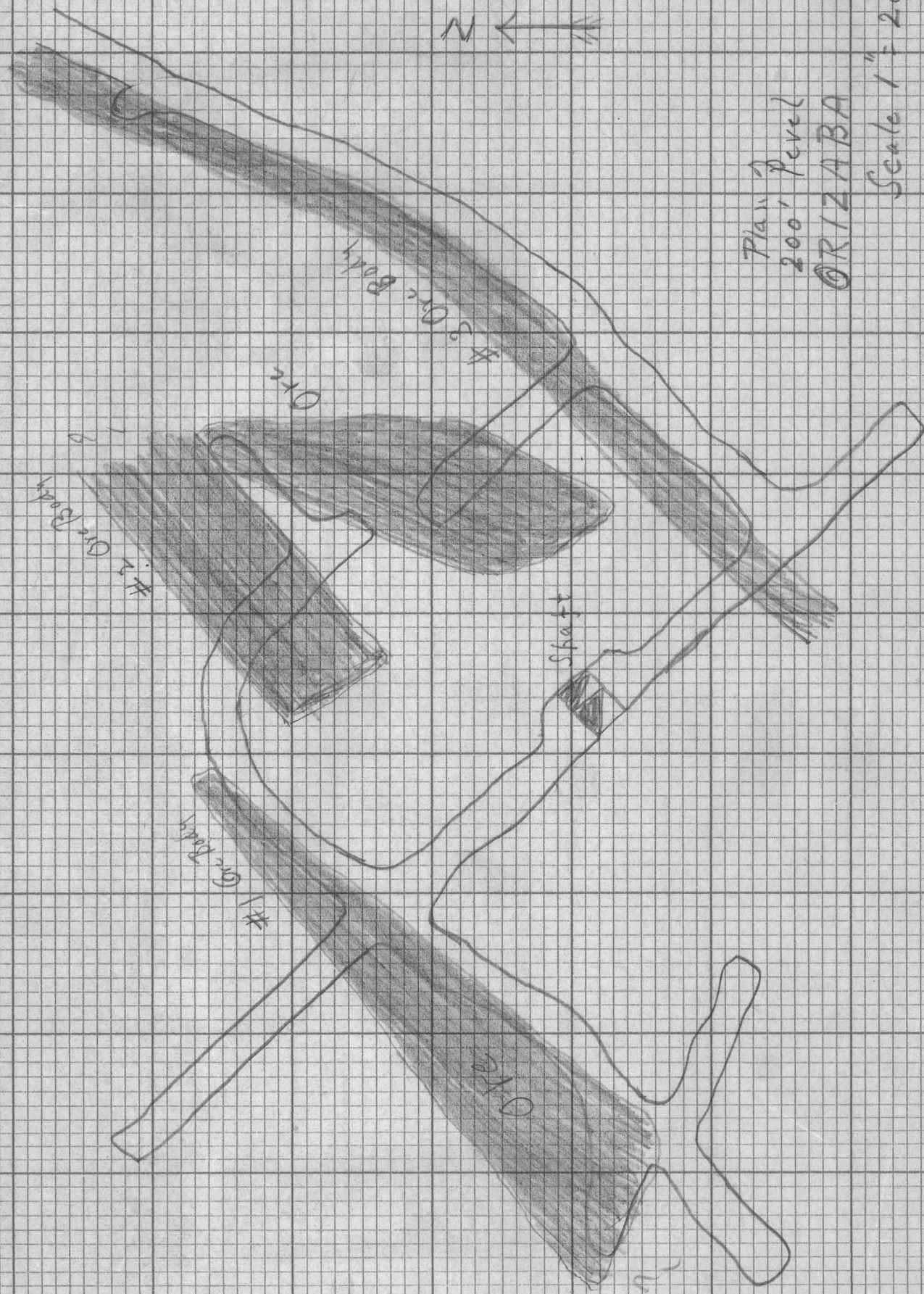




Plan of  
100' level  
Orizaba

Scale 1" = 20'





Plan Perel  
200' PERIZABA

Scale 1" = 20'

(Sketching from...)

C O P Y

DUNN & BRADSTREET, INC.

*Orizaba Mine  
File*

ALLIED MINING & SMELTING CO.

PHOENIX, Arizona  
Maricopa County  
726 Heard Building

David Feuer, Pres. & Treas.  
J. Ben Ross, Vice-Pres.  
Nathan Negal, Secty.  
H. D. Mollohan, General Mgr.

OR 4 242 October 12, 1938

An Arizona corporation chartered Sept. 29, 1928, capitalized as \$1,000,000, shares \$1.

Feuer is a resident of Long Beach, Calif. where reported identified with the banking business.

Ross is 60, married, of English descent and a former resident of Texas. He is generally recognized as a mining engineer and promoter and was so identified in Dallas and Fort Worth, at latter point was also in the insurance line. In 1932 he organized the Black Bear Mine Co. under Arizona laws but the ultimate outcome of that venture is not known to local authorities. In 1934 he assisted in the formation of the Mogollon Consolidated Mines Co., also an Arizona corporation capitalized at \$2,500,000 but operations directed from Dallas. Ross was mentioned as Vice-President of the company until July, 1935 when control passed to A. P. Barrett of Ft. Worth. Records of the District Clerk at Dallas, Texas, discloses that on Feb. 7, 1936, J. Ben Ross et al were indicted for violations of the Securities Act of 1933, and for mail fraud. Ross was fined \$5,000 which he paid. Just prior to Ross' coming to Phoenix he was at Mogollon, New Mexico in charge of transferring ore from the Mogollon mine to the mill.

On Jan. 3, 1938, Ross with others incorporated the Santa Maria Mining Corporation under Arizona Laws with authorized capital of \$100,000, shares \$1. He holds the office of Vice-President of that company.

Negal likewise resides in Long Beach, Calif. where he is reported a practicing attorney.

Mollohan is an engineer and said to have been with the American Smelting Refining & Mining Co. in Old Mexico approximately 18 years.

On Oct. 11, 1938, Ross claimed inability to submit detailed statement due to the company having just started, however stated machinery and equipment would value at \$100,000 after the smelter is erected. Further stated the company owed no bills and has a cash working account of \$25,000 on deposit in a Long Beach bank. Only a small operating account is retained in a Phoenix depository. Further stated that the company had no indebtedness and that present cash working capital is sufficient for operations.

The company has acquired the Belmont Mine at Hassayampa and the Orizaba Mine in Black Canyon. The former mine consists of ten claims of gold, silver, lead and copper. The Orizaba, the company owns 16 claims and has a bond and lease on two. Operations thus far have shown copper and gold.

The company is now shipping ore from the Belmont and is erecting a smelter at Orizaba, Ariz. The smelter which has a capacity of 225 tons was purchased from another mining concern and is being moved to the Belmont location.

(CONTINUED)



ALLIED MINING & SMELTING CO.

PHOENIX, Arizona  
Maricopa County  
(Page #2)

OR 4 242 October 12, 1938

Affairs have been given close attention, the management is experienced and apparently the corporation has at its command sufficient working capital. It has made some outside purchases to date and such obligations have been taken care of satisfactorily.

10-12-38 (2)

N Q



*mine file*

NOTES RE ORIZABA from talk with Rickard, 10/12/39/

The mine is now unwatered to the 200' level and Rickard noted the decreased size of the ore body.

Some mining is in progress and much waste has been broken with the ore which goes to the blast furnace along with ore from the dump, thus making the charge low grade and silicious.

The Allied Management claim, 90,000 tons of 6% ore blocked out in the mine and 10,000 tons of 6% ore on the dump (Hooey)

Furnace started a few days ago and burned out settling hearth two days later.

Supposed to put thru 400 tons of ore per day but now admit that tonnage is nearer 150/

Matte so far made about 13% copper and have closed contract to ship it to the International Smelter at Miami.

Company finance by Feurer who was cleaned out and got help from Berg (L. A. junk dealer) and his son-in-law Simon, who now seems to be directing affairs. Very short of funds and must be losing money every day. Tried to borrow \$10,000 from A. S. & R which Rickard refused, International also refused.

Believe they will be washed up by end of this month.

Lead for power line

Line is at 200'

---

Walter Lauer.

208, h. 12th Ave  
—

Interview with Bill Gohring - 9/20/30

Int. G. S. L.C.

ORIZABA MINE - Now owned by Gohring and McIvor. Considers that over 40,000 tons of 5% copper ore can be considered as highly probable. Gohring's sampling of upper levels showed copper 4.7% where Ferguson's samples only gave a little better than 3%. It will cost about \$50,000 to complete the shaft which Gohring has sunk 50' down to the 300' level and to cross-cut the orebody and develop same on this level, also to connect with the power line of the Arizona Power Company, put in a sub-station and proper transformers. Gohring and McIvor would be prepared to give a large control to parties who would complete the development work and operate the property. See special reports.



## THE ORIZABA MINE

J. L. McIver and W. B. Gohring own, outright, the above copper mine.

J. L. McIver is a director of the United Eastern Mining Company and is the original discoverer of that mine, in Oatman. He is a veteran mining man.

W. B. Gohring is a well known engineer who has been, for twenty years and more, connected in various capacities with the copper industry of Arizona.

### THE MINE:

The property consists of two patented and six unpatented claims, forty-five miles North of Phoenix, on the Humboldt road, and is thirty-five miles from the Santa Fe Railroad. The property is located on a heavily mineralized shear-zone in schist, dipping about  $70^{\circ}$ . This is strongly marked by a prominent quartz outcrop sticking out boldly on the surface and in places this is accompanied by a heavy copper stain. The owner, Mr. J. K. Truman, who is also the original locator, sunk some shallow holes on this and showed up high grade oxidized copper ore to a depth of thirty feet, at which point massive copper sulphides appeared. In 1919, or thereabouts, Mr. N. L. Amster, of the Shannon Copper Company, took an option on the property and sunk a shaft 200 feet deep and developed ore on the seventy, one hundred, and two hundred foot levels. Mr. Amster ran against a payment on the property during the post war slump, and at this time a flood came down the gulch and drowned out the mine. Mr. Truman's statement is that he was reluctant to waive the payment so when the flood came Mr. Amster dropped the option.

In October, 1928, Mr. McIver and Mr. Gohring attempted to unwater the property, with old equipment on the ground and succeeded in getting to the one hundred foot level but no deeper.

### 70-FOOT LEVEL:

We found about 50 ft. along the vein opened up on the 70-foot level in continuous high grade sulphide ore. The ore here

and on the 100-ft. level is a very uniform pyrite, copper and iron, intergrained with quartz. On the 70-foot level it runs better than six per cent copper.

#### 100-FOOT LEVEL:

On the 100-ft. level we found the same ore opened up for about 125 feet along the vein. The formation here is well shown up by cross-cutting. It shows a zone of fifty feet in width containing nothing but quartz and the above ore. The ore is very clean and distinct from the quartz, occurring in bands, the widest being 10 feet. There are three, possibly four, other bands of three to four feet in width and altogether there is a mineable width of at least 20 feet. The ore is opened up for a length of 120 feet with the faces both ways still in ore.

#### THE ORE:

We took numerous samples and think this ore will average better than 5% copper. Samples taken by Mr. Amster's superintendent, shown on his blueprints and supposed to be shovel samples as the drifts were run, average 6.8% on the 100-ft. level. They shipped six carloads of ore to three different smelters, this being ore broken only in drifting on the 100-ft. level. The owner tells us that only one of these ran under 6%. We were able to obtain the original smelter settlement sheets on two of these cars, from the Hayden Smelter. One ran 5.93% copper and the other 6.23%, with about 60¢ in gold and silver. This is the most authentic guage of the value of the ore and, checking up with our own sampling, we feel we are safe in figuring 5% as the average of the ore, and we use this in all our estimates.

#### 200-FOOT LEVEL:

The Two Hundred foot level we have never seen and neither has the owner who was away when the work was done. Heresay from the miners is that they cut three ore bodies; that there was more quartz than ore on this level; and that the richest ore in the mine came from the 200-foot. They did considerable work but apparently did not drift on the ore as they did on the 100-foot level.



OTHER VEINS:

In addition to this big main vein, there are two other smaller veins, one on either side and within a few hundred feet and parallel to the Orizaba vein and our program calls for crosscutting to these, eventually. One of them shows good copper mineralization on the surface and the other, which is cut by a shallow tunnel, is a heavily leached zone full of manganese.

SUMMARY:

There is enough ore in this mine now to pay, on any copper price above 15¢, for extensive development.

The heavily copper stained outcrop exists for at least a thousand feet and the only hole sunk on it shows continuously good ore. There is not the slightest reason why this same ore should not exist throughout the whole 1000 feet. There is every reason to expect it will continue to great depth, for the surface outcrop is strong and big and continuous and developments in the Bluebell Mine, a very similar mine in the same formation some miles further North, prove their best values on the 1600-foot level. We believe we have a reasonable certainty of developing ore which will show a net profit of four or five times the cost of development; that there is strong probability of proving up many times more than that; and that there is a reasonable possibility that it will develop into a really big copper mine. We know we have now 20,000 to 40,000 tons of ore which can be mined and shipped at once, with copper at present high prices, at a profit of four or five dollars a ton, with a very moderate equipment expense, but we have so much faith in the ultimate development that we are glad to waive present profits and await the proper development of the mine.

The above is all based on the 1000 feet along the Orizaba vein where copper shows. The strong, wide quartz outcrop is continuous with this for several thousand feet further and whether the copper ore is continuous under this is one of the interesting possibilities of the property. Also, ultimately, there are interesting possibilities in the other two veins.



DEVELOPMENT PLAN:

We propose to confine ourselves at present to the development of the Orizaba vein. It will be necessary to sink a new shaft. Our estimate is as follows:

Power line; new equipment and preparation .....	\$ 47,850.
600 ft. two-compartment shaft @ \$70. ....	42,000.
2500 ft. Drifts, Cross-cuts and Raises @ \$16 on 300 and 600 ft. levels.....	40,000.
Diamond Drilling .....	<u>7,000.</u>
Total.....	\$ 136,850.

We believe we can do the above for much less.

ALTERNATIVE DEVELOPMENT PLAN:

By stopping the shaft at 300 feet, drifting on the vein at that depth, and then at once starting a 100-ton plant, and mining ore, our estimate of cost is as follows:

Power line etc. ....	\$ 47,850.
300-foot shaft .....	21,000.
1200-foot drifts etc. ....	19,000.
Mill or Smelter .....	<u>40,000.</u>
Total .....	\$ 128,850.

We favor this last plan because if we can get on the present copper market, or any market above 15¢, we can make the mine pay development expense below the 300-foot level.

This ore can be treated by flotation, or concentrated into matte in a simple shaft furnace. Mace, of Denver, a manufacturer of small furnaces, was, a few years ago, in search of a pyrite copper deposit on which he could operate one of his own furnaces. He investigated the Orizaba and found it an ideal ore for pyritic smelting. We have a copy of his estimate, showing twenty-five thousand dollars as the cost of a 100-ton furnace, installed, and eight dollars per ton of ore net profit over all expense.

We are having flotation tests made now and have no figures yet, beyond the mere assurance that the ore is amenable to that process.

Whichever type of plant is picked will be a matter of later decision. We should be able in either case to earn six dollars per ton on 15¢ copper, with a 100-ton plant.

FINANCING:

We propose to turn in a clean title to this mine and take a half interest in a company to be formed, the other half to go to the contributors of One Hundred and Fifty Thousand Dollars into the Company treasury. On advice, we propose a 500,000 share, no par, company, we to take 150,000 shares and the men who put up the \$150,000.00 to take 150,000 shares, or one share for each dollar.

We are willing to allow the directors of the proposed company to decide on which of the above plans shall be carried out, and in case the alternative plan is adopted it is extremely unlikely that it will be necessary to raise the entire \$150,000.00. In that event we are willing that the men who have already subscribed to the 150,000 Dollar fund be entitled to subscribe to the balance.

(signed) W. B. COHRING

J. L. McIVER

Phoenix, Arizona  
March 25, 1929



Consolidated Arizona Smelting Co.

Mine Department

Blue Bell Mine,  
Mayer, Arizona  
July 8th, 1919.

Orizaba Mine

District: Moores Gulch, Maricopa County, Arizona  
Property: Orizaba Mine  
Location: 45 miles from Phoenix, 5 miles East of the Black Canon-  
Prescott Road.  
Owner: J. K. Trueman of Phoenix, Arizona  
Date  
Visited: June 15, 16, and 17 by Mr. J. L. White

-- NOTES --

The country rock is schist dipping west about  $70^{\circ}$  from the horizontal and having a  $N 57^{\circ} E$  strike. The schist belt according to reports is quite narrow being inclosed to the East and west by porphyry.

Two very prominate outcroppings are readily traced for the full length of the claims and beyond. There is very little copper showing on these outcrops which are simply bands of schist showing heavy iron staining and some quartz.

The outcrops are parallel and about 300 feet apart. All work of any importance has been done on the hangingwall band which has the better indication of the two.

At the point where the main shaft has been sunk more copper shows than at any other point on the property. In fact the only other place where copper was seen was in the footwall outcrop about 500 feet from the shaft.

Near the shaft, the outcrop is certainly more promising than at any other point observed and very good judgement was used in doing all the work here although the shaft itself is very badly located in the center of a gulch having a large drainage basin and subject to floods.

The outcrops as a general thing are not particularly



promising and where it looks the best it does not seem to justify the hope for a very large body of ore beneath.

The group of claims (7 in number) lie along the strike of the formation being 4 full claims long and 3 claims wide in the center. The 3 center claims are patented.

To the north are located the Hualapai patented claims. There have been two shafts sunk here. In one of them a crosscut at 180 feet passed through a band of iron sulphide. Sample No 1 4371 Au 0, Ag trace, Cu .12%. The other shaft apparently uncovered nothing at all and as far as can be seen on the surface, there was no good reason for expecting anything more.

The Hualapai claims appear to be worthless. *V. B.*

Northwest are located the Palo verde, patented claims, 4 in number. On these claims there are several open cuts and shafts upwards of 100 feet deep. They were all sunk on stringers of white quartz which carried small bunches of copper sulphides.

Mr. Trueman states that altogether two carloads of ore were extracted and shipped by him years ago. The ore was sorted and ran very well. The gold values being as high as \$80.00 per ton. There is nothing of the kind in sight at the present.

The Bret Hart claims lie to the west of the Orizaba and are laid out at right angles to the strike of the formation. They are supposed to have values all in gold. These claims were not visited, neither were the Santa Anna claims adjoining to the south.

The Cabinet group of claims owned by Mr. David Kyle of Phoenix are the south extension of the Orizaba. One short tunnel was visited. This tunnel was driven to crosscut a copper bearing outcrop showing on the surface. The mineralized section of the outcrop were two stringers about one foot wide. Where the tunnel intersected the formation, at 20 feet of depth, sulphides 18" wide were found in the floor of the crosscut and a winze of 5 feet was sunk on them. Samples of the best of this assayed

*to C  
in South Extension*

Au	.07,	Ag 1.53,	Cu 10.56,	Insol 31.18,	Fe 25.9
	.04	.46	5.61	26.6	25.6

This ore appeared to be a streak in the schist and there is no reason, judging by the surface to expect it to enlarge or develop into anything of commercial importance.

The Orizaba Camp has accommodations in the way of tent houses and boarding house, sufficient to take care of 25 or 30 men, in addition there is an assay office and a mine office in tent houses and 2 small 3 room bungalows.

Water for domestic purposes can be obtained from the 100 foot level where it is unwatered. While that work is being done there is a limited amount of water to be had near by.

There is a two compartment shaft sunk in the bed of Moores Creek and it has workings on the 75 foot, 100 foot and 200 foot levels. The shaft is concreted to just below the 100 foot level. The workings are said to make considerable water in the wet seasons.

The equipment on the surface includes a hoist, gas engine driven, which was used in doing all of this work; and a pump belted to a separate engine which is sufficient to unwater the 100 foot level. There is also a blacksmith shop, a timber framing shop and an engine room with foundation for compressor and engine.

### Conclusion

The Orizaba Camp is 40 miles from Glendale, the natural outlet for it.

For any mine to be valuable in this location depends upon transportation. Either the product must be of high grade or possible of concentration on the spot. This apparently is not true of the Orizaba ores. Samples on the dump: Iron - Au .02, Ag N, Cu 1.34; Insol 34.6; Fe 28.2; Best ore - Au .04, Ag .56, Cu 8.30, Insol 30.8, Fe 27.6.

On the other hand developed ore in sufficient quantity to justify the construction of a railroad would also be a solution.

Unfortunately I do not believe that there are surface indications that justify the hope of any large ore deposits.



Reports of the 100 level however are so golwing that it would be advisable to unwater this level to permit of a thorough sampling and examination.

Very truly,

(signed) J. L. WHITE,  
Superintendent.



Black Canyon

DISTRICT Canyon, Arizona.  
PROPERTY Orizaba Mine.  
LOCATION 5 miles east of a point on the Prescott-Phoenix Auto road. v 8 miles south of Canyon.  
OWNERS & OPERATORS Chief Owner, N. L. Amster, Boston, Mass. John D. Wanvig, Jr. Superintendent.  
DATE VISITED September 27, 1918 by E. S. Smith.

NOTES Made a partial inspection of the surface and went underground with J. K. Truman, the original locator. Truman located the property about 30 years ago, and held it until it was optioned or sold to Amster about eight months ago. Stated he had spent \$20,000 in development work.

Main development is by shaft with short level at 80 feet depth, and lowest level at 120 feet. About 80 feet of drifting and cross cutting at 80 foot level indicates two ore bodies, each about 10 feet wide, separated by 15 feet of waste (schist). Ore is a heavy sulphide, and said to contain here 6 to 8% copper. The 80 foot level is Truman's old work.

The ore occurs as replacement lenses in schist. The strike of the formation (and ore bodies) is generally about 30° east of north. The 120 foot level, (work of the present operators) consists of two drifts reaching points about 70 feet south of the shaft and two drifts north of the shaft, the further north face being about 110 feet from the shaft. The two north drifts are connected by a cross cut the south side of which is largely in waste (a quartz chimney easily discernible in the outcrop), but the north side of the cross cut shows a width of 35 feet of ore. Both faces of the cross cut are in waste, but other ore bodies may be beyond. All drifts are either in ore or following ore on one wall to make better progress in the softer schist. The south drifts are apparently following two streaks of ore 6 to 10 feet wide, separated by a narrow band of barren schist. Truman states that the average grade of all ore encountered on this level would be around 5½ % copper. Development on the 120 foot level so far has, then, proved ore for a length of 180 feet with an average width of perhaps 20 feet. (combined width of 2 separate lenses. E.S.S.)

There is a strong gossan outcropping, showing in many places striking copper staining. Near the shaft the outcrop is more than 200 feet wide, but looking up the gulch it can be seen to split into three separate and narrower leads, each holding strong for some 2000 feet until they disappear over the top of the hill. Truman states there are good copper indications in these outcrops at various points throughout their length, and that a tunnel he had run (on the other side of the hill, I believe, and a couple of thousand feet from the shaft) showed a good width of good grade sulphide ore, but somewhat more siliceous than the ore near the shaft, which is self-fluxing. (X)

Initial shipments at the rate of 150 tons per month are going to Hayden. The ore is said to run about as follows:

Gold .02 oz.  
Silver 0.40 oz.  
Copper 6.4 %  
Insol. 28 %  
Iron 30 %  
Sulphur 25 %

Wanvig states (Oct. 1918) that I must have misunderstood Truman about work on the other side of the hill since as far as he knows he did not work on that side but shows nothing of importance. E.S.S.



Notes on the Orizaba Mine, Continued.

There is apparently no oxidized ore to speak of and no secondary ore. This holds at least near the shaft which is sunk in the bottom of the gulch. Apparently the underground flow has dissipated the copper as fast as leached.

The property is equipped with a small gasoline hoist and pump. Drilling is now by hand but a 4-drill compressor is being installed. When this is operating, a new shaft is to be sunk with its collar about 75 feet above the bottom of the gulch.

Ore is hauled to Glendale, about 42 miles distant, by 6½ ton trucks. Turkey station is some 8 miles nearer but steep grades out that way make the Glendale haul easier.

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May 6, 1919 - In April Ed Smith and later Gm. Colv-

(cont) courses, learned from J. W. Bennie that Amster had stopped work on the Orizaba and Notes by Mr. J. L. White, who visited the property June 15, 16 and 17, 1919. J. K. Truman had purchased the property 820 N. 2nd St. Phoenix. Said to be 450 ft of

The country rock is schist dipping west about 70° from the horizontal and having a N57°E strike. The schist belt according to reports is quite narrow, 30,000 ft level, being enclosed to the East and West by porphyry. but that work on 180 level very disappointing what Two very prominent outcroppings are readily traced for the full length of the claims and beyond. There is very little copper showing on these outcrops which are simply bands of schist showing heavy iron staining and some quartz.

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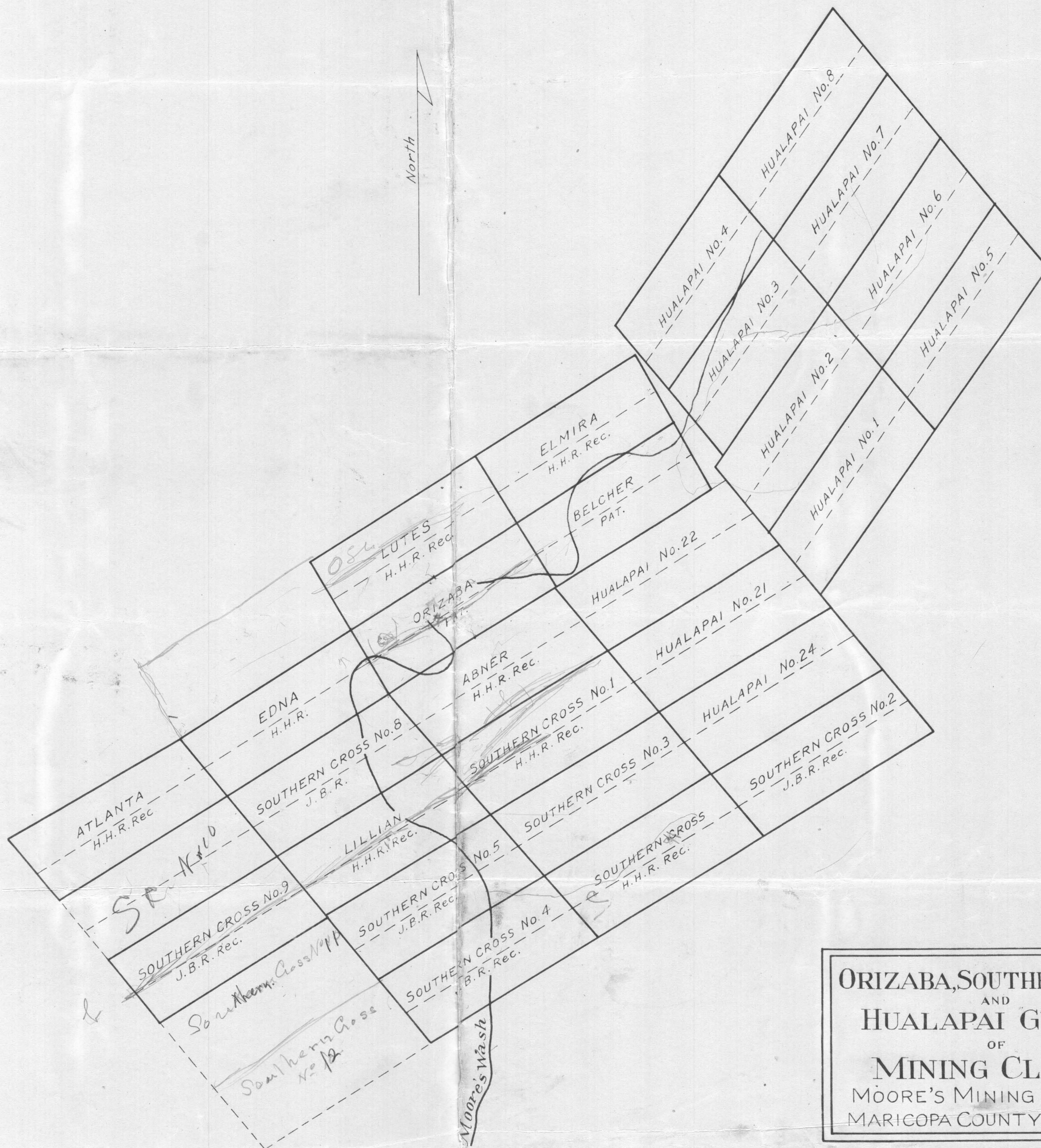
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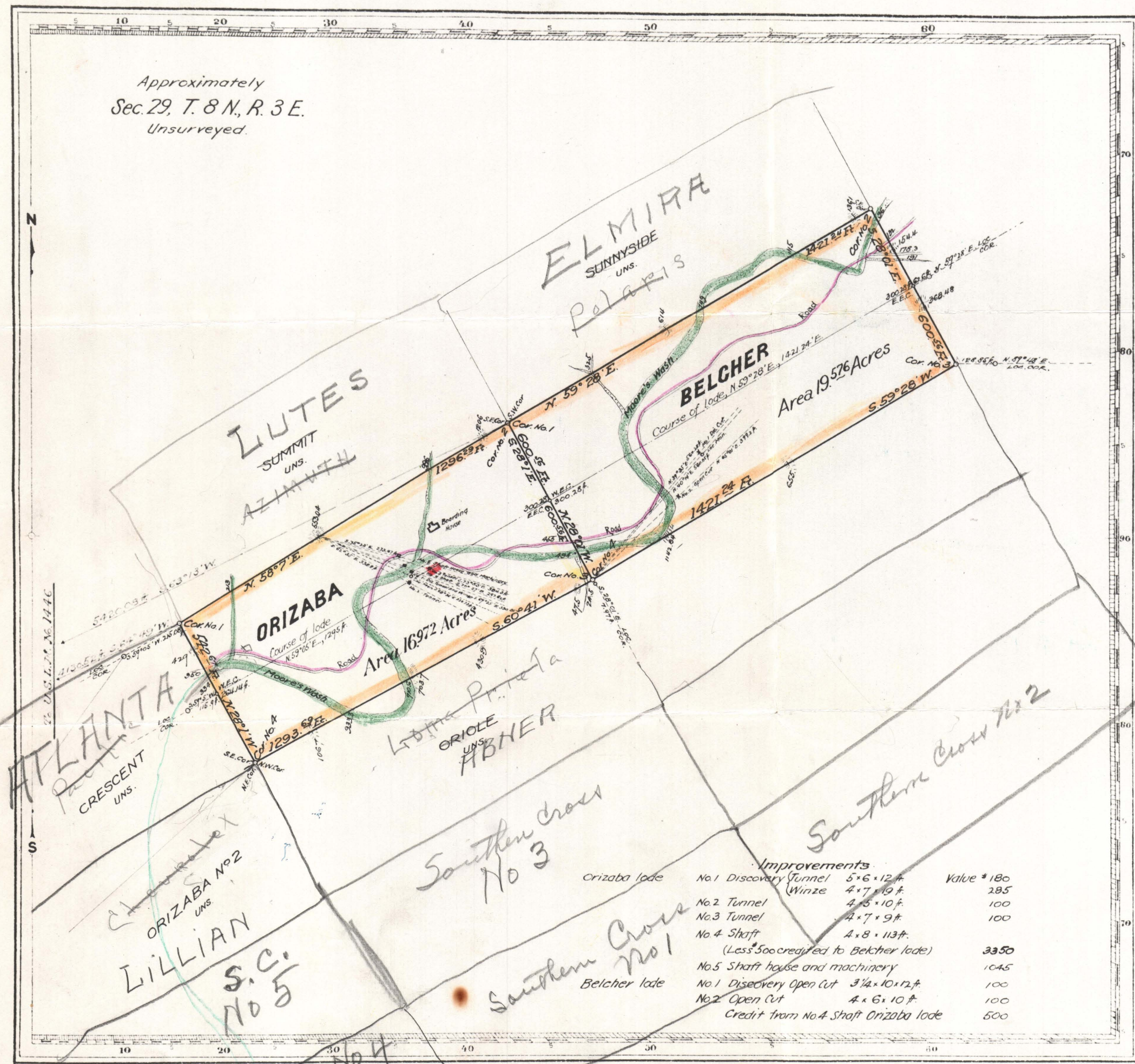
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ORIZABA, SOUTHERN CROSS  
AND  
HUALAPAI GROUP  
OF  
MINING CLAIMS  
MOORE'S MINING DISTRICT  
MARICOPA COUNTY - ARIZONA





Approximately  
Sec. 29, T. 8 N., R. 3 E.  
Unsurveyed.

Orizaba January 26 1898  
Claims Located Belcher April 15 1904

Mineral Survey No 2195

Lot No Arizona Land District.

**PLAT**  
OF THE CLAIM OF  
*J. K. Truman*  
KNOWN AS THE  
**ORIZABA & BELCHER**

In Moore's MINING DISTRICT,  
Maricopa COUNTY, Arizona  
Containing an Area of 36,548 Acres.  
Scale of 300 feet to the inch.  
Variation 14°13' to 14°49' E.

SURVEYED Apr. 24 to May 2 1906 BY  
*Gustavus A. Streitz* U.S. Deputy Mineral Surveyor.

The Original Field Notes of the Survey of the Mining Claim of  
*J. K. Truman*  
known as the

*Orizaba and Belcher*

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 fix the locus thereof.  
I further certify that Five Hundred Dollars worth of labor has been expended or improvements made upon said Mining Claim by claimant or his grantors, and that said improvements consist of

See Table

that the location of said improvements is correctly shown upon this plat, and that no portion of said labor or improvements has been included in the estimate of expenditures upon any other claim.  
And I further certify that this is a correct plat of said Mining Claim made in conformity with said original field notes of the survey thereof, and the same is hereby approved.

U.S. Surveyor General's Office, *Frank A. Magallon*  
Phoenix, Ariz., U.S. Surveyor General for  
June 6 1906 Arizona.

Improvements		
Orizaba lode	No 1 Discovery Tunnel	5x6x12 ft. Value \$ 180
	Winze	4x7x19 ft. 285
	No 2 Tunnel	4x5x10 ft. 100
	No 3 Tunnel	4x7x9 ft. 100
	No 4 Shaft	4x8x113 ft.
(Less \$500 credited to Belcher lode)		3350
Belcher lode	No 5 Shaft house and machinery	1045
	No 1 Discovery Open Cut	3 1/4 x 10 x 12 ft. 100
	No 2 Open Cut	4 x 6 x 10 ft. 100
	Credit from No 4 Shaft Orizaba lode	500