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LITTLE MARY.

Note by G. M. Colvocoresses,
October, 1937.

I do not consider this property
attractive except for very small
scale operations.

PHELPS DODGE CORPORATION

New Cornelia Branch

Ajo, Arizona

May 29, 1935.

Mr. George M. Colvocoresses
1108 Luhrs Tower
Phoenix, Arizona

Dear Mr. Colvocoresses:

Answering your letter of May 24th with reference to the Little Mary Mine located near Sells. Some years ago we made an examination of this property and did not feel that we should become interested in it. The metal showing developed at the time was fair in a small way. I do not know how profitable the operations were prior to 1926. I know that some shipments were made from the property but did not see the returns. It was true that a man named Erickson did considerable development work at the property. If you should personally wish to see the property, it is located some 60 or 70 miles from here and right within a quarter of a mile from the main highway to Tucson. The trip could be made quickly and would give you an opportunity to spend a few hours going over our operations here.

With kindest regards, I am

Sincerely yours,

(SIGNED) M. Curley,
Manager.

MC JS

AMERICAN SMELTING & REFINING CO.

El Paso Smelting Works

Brent N. Rickard, Manager

El Paso, Texas

June 3, 1935.

Mr. G. M. Colvocoresses,

1108 Luhrs Tower,

Phoenix, Arizona.

Dear Mr. Colvocoresses:

In further reference to your recent letter concerning the Little Mary Mine near Sells, Arizona, I am sending you a copy of Mr. Hatcher's letter of May 29th and a copy of a report made by one of our engineers under date of October 4th, 1918.

We cannot find any record of correspondence with W. H. Stepp or the man named Akers. Shipments may have been made to Hayden and if I knew the names of the shippers I could undoubtedly locate copies of the settlements.

If I can be of further service please call upon me.

Yours very truly,

(SIGNED) BRENT N. RICKARD.

Enc.

P.S. In July 1929 we received one shipment of concentrates from a man named Carl E. Erikson shipped in the name of Como Pima Mining Co., 30 tons assaying as follows:

<u>Au</u>	<u>Ag</u>	<u>Pb</u>	<u>Cu</u>	<u>Ins.</u>	<u>Fe</u>	<u>Zn</u>	<u>S.</u>
0.42	22.5	16.3	5.47	47.8	5.3	4.5	2.4
oz.	oz.	%					

This was shipped from Tucson and was said to come from the Cababi Mining District, Pima County.

B.N.R.

AMERICAN SMELTING & REFINING CO.

Tucson, Arizona

May 29, 1935.

Mr. Brent N. Rickard
El Paso Smelting Works,
El Paso, Texas.

Dear Sir:

LITTLE MARY MINE, NEAR SELLS
PIMA COUNTY, ARIZONA

In reply to your letter of May 28th with reference to the Little Mary Mine, near Sells, Pima County Arizona:

I find that this property was examined by Mr. Stockder on October 4, 1918, and I am enclosing herewith copy of his preliminary report and maps for your files. I am more or less familiar with the property, having visited it in 1922 with Mr. Kruttschnitt, but find no notes or report of Kruttschnitt's examination. However, a letter in the file from Mr. Kruttschnitt to Mr. W. H. Stepp, owner of the property, contains the following paragraph:

"The results of the samples are disappointingly low and in view of the fact that there is very little surface alteration and oxidation in this part of the quartz vein I do not see how one could expect any materially better values by digging in deeper. The proposition is therefore of too low grade to be of any further interest to us."

I am sure you will find in El Paso or Hayden files smelter returns for the shipments made from the property under the name of W. H. Stepp. However, I recall that it was at one time leased to a man by the name of Akers. I also know that since Stockder's examination and our subsequent visit considerable more work has been done on the property than is indicated by the enclosed maps, but would still be inclined to think that the property is rather small for any sizable operation, though it might do for an individual, or leaser, etc.

Trusting that the enclosed will be of service to you,

I remain,

Very truly yours,

B. R. HATCHER.

N O T E S
on
Preliminary Examination
of
LITTLE MARY GROUP
Indian Oasis, Pima County
Arizona.

General Description:

This group of fifteen unpatented, adjoining claims is located in the southwest foothills of Comobabi Range, at an elevation of about 2800 feet, about 10 miles northwest, by fair wagon road, from Indian Oasis, which is a central supply point in that part of the Papago Reservation, on Ajo road, 61 miles southwest of Tucson.

The property was brought to our attention by W. H. Stepp, owner, who in February 1917 bought all of the older, prospected claims (four in number) and located the others in addition thereto. The Little Mary M&M Co. was then incorporated with a capital stock of \$100,000.00 at \$1.00 a share. Stepp holds all but two shares, these having been turned over to Judge Campbell, who is his attorney and at whose office in Tucson the business of the company is transacted. At time of purchase, the two principal veins were but slightly prospected, the north vein by a 35 ft. and a 100 ft. shaft, and the south vein by several holes from 10 ft. to 30 ft. deep. On this latter vein, now known as the "Chicago", Stepp decided to do some work, with a crew of a few men, Indians. Up to the present, he has sunk two inclines on vein, 42 ft. and 66 ft. deep, respectively, and has extended a drift on vein 75 ft. long from bottom of 66 ft. incline. The ore extracted and shipped from these workings, including some stoping ground at bottom of 42 ft. incline, to Selby and El Paso Plants, amounts to 75 tons. The average value of this ore, according to smelter returns on about 45 tons, available, contains \$7100 Au, 25 oz. Ag., 35% lead and 7.5% copper.

The mine at present is shut down. Stepp was obliged to register for military service, and now offers the property to your company under bond and lease on most favorable terms. He did not

commit himself as to purchase price or percentage of royalty.

The examination was made in company with Mr. Anderson, Geologist of the Imperial Mine. We have come to the conclusion that the prospect has some merit, but that the present showing does not warrant development on a larger scale.

The country rock of dark gray-greenish color, is an andesite which is cut by several large, irregular rhyolite dikes. The andesite, along several broad zones is sheeted in northwest-southeast direction, dipping vertical, or steeply to northeast. These zones contain the outcrop of two principal quartz veins, running about parallel and from 800 to 1000 ft. apart of each other. The intervening area is traversed by several fissures and cross-veins.

The south, or Chicago vein, which was selected by Stepp for prospecting, is traceable for 700 ft. in length, striking northwest-southeast, and dipping 70 deg. northeast. The outcrop is fairly regular from two to four ft. in width, principally white quartz, and locally shows some iron-copper-leadstain, as well as a sprinkling of the respective sulphides.

The underground workings, as platted on attached sheets 1 and 2 in plan and sections, show the quartz vein to be from 12" to 24" with a paystreak of about one-half that width next to the hanging wall. The ore consists of sulphides of lead and copper, intimately associated, fine-grained galena with chalcopyrite, the latter showing considerable enrichment by chalcocite, and bornite, with their oxidation products. The gangue is quartz and a little barite.

Both walls are well defined and regular, the parallel sheeting of the country rock on footwall side and some alteration thereof, is also noticeable. A calculation of the vein area mined would indicate a solid regular ore-streak or at least 6" in width yielding above tonnage shipped.

At bottom of 66 ft. incline the vein is cut off by a fault, striking obliquely across the course of vein and dipping 44 deg. to the north. It is a sharp, well defined plane, not accompanied by gouge or breccia. The line of intersection between

fault-hanging and vein is shown on attached sections, indicating approximately correct the depths to which the vein extends and to which it can be mined northwest of fault.

On the surface the vein shows but little displacement, and it can be traced, south of fault, along bold quartz outcrop for about 400 ft. in length. The outcrop, locally, shows slight copper stain, and a sprinkling of lead-copper-sulphides. It has not been prospected.

The workings are dry and require no timbering. The collar of 66 ft. incline is connected by short track with an ore bin, on which a 5 x 7 Blake Crusher is placed, driven by a small oil engine.

The north Vein is almost exact counterpart to the South, or Chicago Vein. It is from four to six feet in width, fairly regular along considerable lengths of outcrop, which locally swells to large, lenticular dimensions. On one of these, the old 100 ft. shaft, now inaccessible and partly filled with water was sunk. The old dumps, as well as recent prospected holes all show some little indications of copper-lead mineralization.

The Little Mary mineral belt extends northwesterly for about three miles, and several attempts at deep mining were made in that section, one of them at the Picacho Mine, from a depth of 300 ft. below surface. It is said that several hundred thousand dollars were expended at the latter property without encouraging results and the mine has now been shut down for eight years.

Respectfully submitted,

M. Stockder.

Tucson, Arizona

October 4th, 1918.

REPORT ON LITTLE MARY MINE.

July 24th, 1935.

In accordance with our arrangement, I have made a partial examination of your Little Mary Mine near Sells, and submit the following report. I use the term "a partial examination" because as you know, the owner of the property would not permit me to take any samples, but nevertheless I feel confident that any sampling which might have been done in the accessible portions of the mine would not have changed my general opinion nor the conclusions of this report.

CONCLUSIONS:

The Little Mary is a partially developed mine presenting some interesting features, but so far lacking the essentials which are required for profitable operation. In my judgment further development is not likely to prove up any body of either shipping or milling ore which would change this situation.

The Chicago Vein from which some production was made in the past, has been cut off by a fault and although it is stated that a continuation of this vein was found below the fault, this statement could not be verified, and may be regarded with some suspicion.

The Big Vein could only be examined on the surface and open cut and in part from the 100 foot level in the shaft. The occurrence of ore in this vein appears to be spotty and confined to short and narrow shoots, and the great bulk of the vein material is of very low grade, so that considerable sorting would be necessary for the production of even milling ore, and work on such a basis is rarely if ever profitable.

All in all, I do not feel that the chance of developing a profitable mine justifies the very substantial expenditure which would have to be made to render the shaft on the Big Vein safe for inspection, to unwater this and develop it on the 200 foot level and to explore the Chicago vein below the fault. I therefore advise that you decline to exercise your option on this property.

LOCATION:

I understand that the Little Mary property, optioned to you by the owner, W. H. Stepp, consists of 15 unpatented mining claims lying 7 miles by road N. W. from the post office and Indian agency at Sells, Pima County, Arizona. Sells is the center of the Papago Indian reservation, and is 64 miles west from Tucson, on the road leading to Ajo, which passes within a mile of the Little Mary Mine. The claims cover low foothills and gulches on the edge of the South Comobabi Mountains, and the surface is typical of the desert country, with very little vegetation. The elevation is about 2700 feet. I am told that these claims are in good standing with assessment work kept up to date.

HISTORY:

Mining has been carried on in this district for many years, and since 1917 the property has been held by Mr. Stepp, or parties holding contracts from him. Stepp and associates operated from 1917 to 1922, and later optioned the mine to a company which was managed by a Mr. Erickson, who continued the development work with some shipments of sorted ore, and finally installed a very worthless mill at the Chicago shaft. These operations were discontinued about 1930, and I have found no record of Erickson shipments except of one car of concentrates produced in July of 1929, which carried gold 9.42 oz. per ton, silver 22.5 oz. per ton, lead 16.3 per cent, and copper 5.47 per cent. I do not know what ratio of concentration this represented.

A record of the shipments of sorted ore made by Stepp prior to 1922 covers approximately 180 tons, average gold .40 ozs., silver 25.97 oz., lead 31.3 per cent, and copper 7.44 per cent. From the report of an engineer who examined this mine while production was in progress, I am lead to believe that all of this ore came from the best part of the ore shoot in the Chicago vein, and that about 4 tons of ore were mined, for each ton that was shipped.

From the Big Vein a carload of sorted ore was mined in the open cut near the surface, and is said to have averaged about \$25.00 per ton, but here the condition of the vein and the amount of waste piled up, make it appear likely that at least 8 or 10 tons

of broken material were sorted into one ton of shipping product.

While the operations of Stepp are reported to have been profitable, yet I believe that this must have been due to the fact that he was merely mining ore already developed by others, and it is apparent that up to date the development and working of the Little Mary Mine must have been carried on with substantial loss.

The property has been examined by several engineers including three representatives of the American Smelting & Refining Co., one of the Calumet & Arizona Co. (now Phelps Dodge), and W. W. Merriam, an independent engineer. I have had an opportunity to examine the reports made by these men, and only the last mentioned is entirely favorable; although the others agreed that the property held out some promise and recommended additional development, practically all of which has since been carried out by Erickson, with very discouraging results.

GEOLOGY AND ORE OCCURENCE:

The country rock is a basic porphyritic green-stone, generally classed as an andesite, but by some as a diorite. This is intruded by numerous dikes of rhyolite, which appear to be likely to have some connection with the deposition of the ore.

The veins are fissures in the andesite, and strike generally N.W.-S.E. Some are nearly vertical, others dip at an angle to the N.E. The filling is almost entirely quartz, mineralized in places with gold and silver, and also with copper and lead, both as oxides and sulphides. There is much oxide of iron, with which the gold and silver are probably associated.

Several of these fissure veins traverse the property, and are more or less parallel in strike, and while considerable shallow exploration has been done on and near the surface, only two veins have been developed to any substantial extent, as will be noted below.

EQUIPMENT:

At the Chicago shaft there was a 12 H.P. Fairbanks Morse gas engine hoist which had been moved over to the Big Vein

shaft to permit baling. Also a blower and a small engine which appeared to be in poor condition. The remaining machinery in the mill is of no value. The head frame and timbering in the shaft are in good shape down to the 70' level and could be repaired below at small expense.

At the Big vein shaft the collar set was badly rotted and the head frame had been temporarily supported to permit the dewatering. Conditions here were very dangerous, and a bad cave at the collar or below was likely to occur at any time and could only have been prevented by expensive and lengthy repairs and retimbering, which would only have been justified in the event that additional development appeared desirable.

CHICAGO VEIN:

This has a dip of about 68 degrees to the N.E. and was opened up by a shaft following down the vein to a depth of about 70 feet, where the vein was cut by a reverse fault with a dip of 45 degrees also to the N.E. Above the fault one ore shoot was opened up, and proved to have a length of slightly 100 feet, and an average width of 3 feet. At both ends of this shoot the values became poor so that mining was discontinued, and from the shoot itself the bulk of the ore has been stoped out and apparently had an average value in excess of \$15.00 per ton, from which there was sorted for shipment, a product which had a value of about \$50.00 per ton. The value of this ore at present metal prices would be somewhat lower, for although the price of gold has improved, the value of copper and lead have greatly decreased. Since nearly all of the ore above the fault has been worked out, the future of this portion of the mine depends entirely upon the downward extension of the ore shoot, below the fault. Stepp followed down along the fault with a winze in the hanging wall for a distance of some 30 feet or more, where it is said that the vein was encountered, but no further sinking was done, which appears somewhat strange. The winze was partly filled with muck and water at the time of my visit, so that it was impossible to investigate down to the point where the ore is said to have been encountered.

With expectation of finding the downward extension of the vein, Erickson continued sinking the shaft to a depth of over 300 feet on the incline, and ran cross-cuts in the hanging wall on the 165 and 300 feet levels, but in neither of these was the vein located. It therefore appears that it may either have pinched out entirely or been thrown further into the hanging wall by additional faults. In this latter case, mining would be difficult and expensive and there is a strong chance that the values would be much lower than above the first faulting.

While no definite conclusions regarding the future of this vein can be drawn without further development, I feel that the reported failure of Erickson's efforts to find the vein leaves a very unfavorable impression, and that the probabilities are against the discovery of any substantial shoot of pay ore below the fault.

BIG VEIN:

This lies nearly parallel to the Chicago Vein, but some 1000 feet further to the East. The shaft is located about 1400 feet S.E. from the Chicago shaft, and is vertical and said to have been sunk to a depth of over 200 feet along the west wall of the vein.

The Big Vein is exceptionally strong, and can be traced for several thousand feet along the surface, but the rilling appears to be largely a compact barren quartz which does not show nearly so high a degree of mineralization as in the Chicago vein, nor appear so favorable for the occurrence of ore bodies.

One shoot of ore was noted for a length of about 40 feet and beginning some 60 feet South of the shaft, but for the most part the mineralization did not extend throughout the full width of the vein, but was confined to only 2 or 3 feet adjacent to the east wall. None of the samples taken by other engineers showed pay ore in this vein, although by careful sorting, say 8 or 10 to 1, the product might well have been raised to a value of \$20.00 or better per ton as indicated by the shipment.

At the time of my visit the water had been lowered to a point over 120 feet below the collar and the first or 100 feet level was open for inspection, but it was in such a very dangerous

condition that no thorough examination could have been made without taking a great risk. It was, however, apparent that the ore shoot shown in the open cut did not extend down to this point in the vicinity of the shaft, and altogether the showing on the level was extremely disappointing, as far as it could be inspected.

The condition of the shaft itself was also extremely dangerous, as several large sections of the vein had fallen in against the timbers, and others were loose and threatened to come down at any moment, and crush or block the hoisting compartment and man-way. In my judgment it would probably be impossible to unwater the shaft to the 200 foot level without first going to a heavy expense for catching up the ground, and retimbering in many places.

I was not at all impressed with the possibility of developing any substantial body of good ore in this vein, even of a milling grade such as had been reported. The ore is not only low in value and confined to shoots and lenses, but it is complex in character, and would require selective flotation to separate the lead and copper, while a good recovery of either of these metals would be difficult due to the mixture of oxides and sulphides contained. Moreover, the character of the oxidized portions of the vein which could be inspected, did not promise either a zone of secondary enrichment or any substantial body of primary sulphides below. This statement is of course merely an opinion, but I believe it is well justified by the geology and general appearance of such ore showings as have been opened up to date.

The chance of developing a sufficient quantity of ore to justify the construction of a mill seems therefore to be extremely remote, and any comprehensive effort to do so is quite certain to involve a minimum expenditure of \$10,000.00 and probably double that figure. In addition there is the question of providing an adequate water supply, which apparently would have to be obtained from a well nearly four miles away, thus involving the construction of a pumping plant and pipe line, while the operating conditions of this property, even if the ore supply were satisfactory, would always be handicapped by the difficulties and expense of road transportation for a distance of 70 miles to and from the railroad at Tucson or Ajo.

The Little Mary may perhaps be operated profitably in the future on a very small scale, by closely following the ore shoots as these are discovered, and carefully sorting out the higher grade material for shipment to a smelter, but the chance of developing a mine of sufficient size and value to warrant the construction of a mill or to permit steady operations on any sizable scale seems to me negligible and decidedly unworthy of the risk which would be involved in attempting such development.

Yours very truly,

(Signed)

G. M. Colvocoresses.

GMC:MW

Lays

"LITTLE MARY" GROUP OF MINES
Sells, Pima County, Arizona.

LOCATION:

The Little Mary group of mines is located in the Papago Indian Reservation, Pima County, Arizona, about seventy miles southwest of Tucson and two miles off the main highway between Tucson and Ajo. Sells, or Indian Oasis, is a small town or Government station nine miles from the mine where stores, mail, telephone and telegraphic service are available.

The property is approximately 2,700 feet above sea level and climatic conditions are particularly favorable for operating the entire year.

LEGAL DESCRIPTION OF PROPERTY:

There are 21 full claims and a fraction in the entire group, or roughly 425 acres. (For legal description of property see accompanying map and copy of abstract of deed.)

FUEL AND WATER:

There is an abundance of mesquite and iron wood on the property for all domestic use, which can be had at a cost of \$5.00 per cord, cut and delivered. Gasoline, tops and crude oil are used for power as they can be delivered on the property at a very low cost on the back haul from the railroad.

The mines will have developed sufficient water for all milling purposes by the time the proposed development work has been completed. Water level in the Little Mary No. 4 is at the 100 foot level and in the Big Vein 70 feet below the surface.

GEOLOGY AND VEIN SYSTEMS:

The Country rock of the district is a basic porphyritic andesite, which later has been intruded with numerous irregular bodies of rhyolite. The Comababi range of mountains--capped by an enormous rhyolitic flow and volcanic tuffs, have their long axis running in a northwesterly and southeasterly direction for some 15 miles and rising from 500 to 1000 feet above the surrounding country. To the west the range gradually breaks into paral-

1st ranges of low lying hills with a gradual slope to the valley some 10 miles below. The vein system lies close to the base of the range and parallel to it, with dips varying from 68 degrees to 85 degrees to the northeast, or into the range. The vein system of which four well defined veins have been developed sufficiently to determine their permanency and commercial value can be traced on the surface for over 5,000 feet on the Little Mary No. 4 (formerly known as the Chicago), to as much as four miles on the Big vein.

THEY ARE ALL TRUE FISSURE VEINS, WITH PERFECT HANGING AND FOOT WALLS, AVERAGING FROM THREE TO FIVE FEET IN WIDTH ON THE SURFACE AND GRADUALLY INCREASING WITH DEPTH.

Several small step-faults are noticeable near the surface with displacements from 10 to 25 feet. Step-faulting is characteristic of this district as the Picacio Mine four miles northwest on the same vein system has been mined to the 400' level and encountered three step-faults showing throws from ten to thirty feet.

The character of the ore is the same in all four veins, i. e. a clean quartzose ore, highly mineralized--the predominating minerals being argentiferous copper and lead sulphides, together with an appreciable amount of free gold. The principal primary copper minerals are Bornite, Chalcocite, and Chalcopyrite, together with secondary minerals such as Malaconite, Cuprite, Azurite, and Malachite. Lead occurs almost entirely as Galena. Silver generally occurs in combination with the various copper and lead minerals whereas the gold may be combined or in a free state. Very rich placer gold is found in the washes leading up to both the Little Mary No. 4 and the Big Vein outcrops.

Smelter analysis on 500 tons of roughly hand-sorted ore gave as an average content of the various metals as follows:

<u>Oz. per ton</u>		<u>Percentage</u>	
Au. 0.4	Ag. 30	Pb. 30(?)	Cu..10 SiO ₂ 30 (?) CaO 4 Fe 6%

and only traces of zinc, arsenic, antimony and bismuth.

The gangue is almost pure quartz with a small amount of lime.

DEVELOPMENT:

.. LITTLE MARY NO. I

Work consists of various open cuts and trenches along the strike,--the principal one being approximately 30 feet long by 10 feet deep. The vein at this point was badly shattered due to a reverse fault close to the surface. However, several tons of sorted ore from this cut netted over 4,000 ounces of silver and fully warrants extensive development.

LITTLE MARY NO. 4

An inclined shaft has been sunk 70 feet on the vein and from the 70 foot level a drift driven 150 feet to the northwest. This has developed a block of ore 60 feet high by 120 feet long, by 3 feet inwidth, which has been stoped out for shipment. At the bottom of the 70 foot shaft a small step-fault cut the vein off. The fault has a dip of 45 degrees to the northeast, and a rake of 20 degrees to the northwest. This fault was followed down 50' where the vein was again picked up, showing a width of 4 feet and carrying better values than above. The fault has had no effect on the mineralization of the vein, as the faulting is of small displacement and occurred after the vein was mineralized. At a point 120 feet northwest of the shaft on the 70 foot level a winze has been sunk 40 feet deep and two 8 foot drifts driven each way on the vein. This work is the deepest in the mine and the richest ore showing considerable free gold and native silver was taken from this level.

RED ROCK:

This is a strong, well defined vein from 3 to 4 feet wide on the surface and traceable for over a mile. Whether this is a separate vein or the continuation of what is known as the Big Vein has not been fully determined.

BIG VEIN:

While this vein has ^{not} the rich surface showing that the Little Mary No. 4 has, yet I believe this will eventually be the big producer of the group. The vein is traceable throughout the entire property for a distance of 7,500 feet, and adjoining property

for over four miles. It strikes northwest and dips slightly to the east. It is one of the best examples of a true fissure vein I have ever encountered. Walls are hard and smooth and perfectly defined. The width on the surface is from 4 to 5 feet and widens rapidly with depth. A double compartment shaft 127 feet deep sunk by the Mexicans in the early days, who worked the property at that time for the free gold, has widened to 8 feet at the 100 foot present water level. The vein is highly mineralized in gold, silver, lead and copper and is identical in character to that of the Little Mary No. 4 which has been fully described, and while not as high grade has averaged over \$15.00 per ton in sorted ore across the entire width. The lower grade ore left on the dump would safely bring the total average value of the entire vein to \$25.00 per ton.

DISEMINATED COPPER DEPOSIT:

Lying adjacent and to the east of the Big Vein is apparently an enormous disseminated copper deposit varying from 300 to 500 feet in width and traceable for over 5,000 feet in length. It would necessitate drilling this ground in order to determine the actual extent of the deposit as it is covered in places by the rhyolitic flow from above. Average surface sampling shows a copper content of 2.4%, or roughly a gross value of \$5.75 per ton. With copper at 12¢ assuming an extraction of 80% and a cost of \$1.25 per ton for mining and milling, it should net better than \$3.00 per ton. This deposit is so extensive and the cost of drilling and equipping so enormous that it cannot be considered at the present moment, but it is of vital importance not only to the genetic origin of the mineralization of the vein system, but to the future intrinsic value of the property.

ORE SHIPMENTS

Between 400 and 500 tons of hand-sorted ore worth \$40,000 has been shipped from the Little Mary No. 4 vein. (See map of underground works, Little Mary No. 4)

The smelter returns show this class of ore gave values ranging from \$68.00 to \$117.00 per ton in carload lots with a general average of \$80.00 per ton for the entire shipment. Prac-

tically all this ore came from the small stope 120 feet long by 60 feet high, as only a few tons of ore were shipped from the Little Mary No. I and the Big Vein while doing development work. The ore remaining in the stopes from which the high grade ore has been sorted out will average \$25.00 per ton, or a general average of \$40.00 per ton for the entire vein.

ORE RESERVES

The actual amount of ore blocked out is relatively small, inasmuch as the property is practically in a virgin state today. However, a few figures on the positive ore actually blocked out, in the stopes and on the dump, may be of interest.

LITTLE MARY NO. 4 POSITIVE ORE

<u>Location</u>	<u>Tons</u>	<u>Value per ton</u>	<u>Gross value</u>
Block "A"	550	\$40.00	\$22,000
Upper drift to surface	300	40.00	12,000
Ore in stopes	1200	25.00	30,000
Ore on dump	<u>500</u>	25.00	<u>12,500</u>
	2550		\$76,500

PROBABLE ORE--BLOCKED THREE SIDES

Above 25' drift north	140	\$40.00	\$ 5,600
Below " " to fault	260	40.00	10,400
Above 30' drift south	400	40.00	16,000
Below " south to winze	<u>200</u>	40.00	<u>8,000</u>
	1000		\$40,000

BIG VEIN PROBABLE ORE BLOCKED TWO SIDES

Ore developed by 127' shaft and surface work	6,000	\$20.00	\$120,000.
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Total positive ore	\$76,500
Total probable ore	<u>160,000</u>
TOTAL	\$ 236,500

MACHINERY AND EQUIPMENT

The property is equipped with a good substantial head-frame and ore bins. One 50 H. P. gasoline hoist, with a speed of 400 feet per minute, with one ton load. A two drill air compressor, two stoping drills, one Cochise jack hammer, plenty of steel for the drills and everything in shape to start mining immediately.

The buildings include blacksmith shops, compressor house, bunk houses, etc.

LABOR AND GENERAL CONDITIONS

Wages are very reasonable in this district, to-wit-- machine miners \$4.50 to \$5.00 per day; engineers \$5.00; blacksmiths \$6.00; trammers and top men \$2.00 to \$2.50 per day. This labor is done by Indians living in the district who make very good workers. Climatic conditions at the mine are ideal for development and operation the entire year.

HAULING, FREIGHT, AND SMELTER CHARGES:

Hauling from the mine to Tucson by wagons/^{has} cost as much as \$10.00 per ton for small lots. This price can be reduced to \$3.00 per ton having our own equipment. Railroad freight to El Paso for \$100.00 ore or concentrates will not exceed \$8.00 per ton, and smelter charges on such ore approximately \$6.00, or a total freight and smelter charge not to exceed \$17.00 per ton.

METALLURGICAL TREATMENT

The treatment of this ore is extremely simple and a very high extraction of the values can be made by simple table concentration. Should it be found advisable to separate the copper from the lead in order to ship a clean concentrate of each metal, the addition of a small flotation plant would be necessary. (See accompanying flow sheet of proposed mill)

MINING AND MILLING COSTS:

Owing to the fact that the veins have averaged better than 3 feet in width on the Little Mary No. 4 and over 4 feet on the Big Vein, with well defined walls within which the ore is confined, makes it possible to mine the ore very cheaply by a shrinkage system. Practically no waste has to be handled and no timbering is required except a small amount in the main working shaft and in the drifts. The total mining cost including development work will not exceed \$2.50 per ton.

Milling, concentration and flotation will cost from \$1.00 to \$1.25 per ton, or a total mining and milling cost not to exceed \$4.00 per ton.

RECOMMENDATIONS:

1. I would recommend that the incline shaft on the Little Mary No. 4 vein be deepened 100 feet below the 70 foot level, and a crosscut driven 25 feet to cut the vein. From this point a drift 200 feet along the vein would block out sufficient ore at a very small expense to further justify the erection of a mill.

2.0 To sink the present shaft on the Big Vein from the present 127 foot level to the 200 and drift 200 feet south on same.

I estimate that \$50,000 would be sufficient to put the two mines on a substantial operating and paying basis, provided the money be expended as follows:

To sink shaft 100 feet	\$1,500
To drive cross cut 25'	200
To drive 200'	1,200
Sinking 70'	1,400
Drifting 200'	2,000
Holisting equipment	1,600
Necessary additional buildings.	1,200
one 50ton mill complete	25,300

\$40,000.

This would leave a balance of approximately \$10,000 for incidental expense and cash to operate on until such time as the mill was in operation.

That such an expenditure is thoroughly warranted is perhaps best demonstrated by seeing what profit can reasonably be expected from mining and milling the tonnage of ore which we have definitely blocked out at the present moment, assuming a \$20.00 ore, which is lower than actually determined.

9,500 tons @ \$20 per ton.	\$190,000
10% concentration & smelter loss	19,000
Net value at smelter-----	<u>\$171,000</u>

Cost of mining and milling @ \$4.00 per ton	\$38,000
Concentration 5:1 equals 950 tons concentrates 950 x \$17.00 freight and smelter charge.	16,150
	<u>54,150</u>

Net Profit \$116,850

Royalty to apply on purchase price 25%	\$42,750
Cost of mill and equipment	<u>40,000</u>
	<u>82,750</u>

NET PROFIT TO OPERATOR. \$ 34,000.

Similarly operating a mill of this capacity on \$10.00 ore per day the net operating profit is \$2,700 per month after all royalties, costs, etc. have been deducted. On \$40.00 ore the net operating profit in excess of royalty paid to owners would amount to approximately \$21,000 per month.

CONCLUSION

This property has paid for itself from the start and has produced exceptionally high grade ore, but it is essentially a concentrating proposition and should be worked accordingly.

The property thoroughly warrants intensive development work and a mill commensurate with such development. A 50-ton unit has been suggested in view of the fact that it can be operated not only at a profit that will soon pay for the property, but it will obviate a high initial investment.

It is my belief that this property is not only destined to be an enormous producer but a big dividend payer for years to come, if operated along the lines suggested in this report.

(signed) W. W. Merriam, E. M.

Los Angeles, California

April 18th, 1925

ORE SHIPMENTS FROM LITTLE MARY MINE
(COMA PINA MINE COMPANY)

Date	#1 2/4 '26	#2 2/4 '26	#3 2/4 '26	#4
Location	Big Vein	Big Vein	Chicago	No mark
Tons, dry weight	24.6	2.9	5.00	6.61
Oz. au per ton.	0.32	0.10	0.28	0.38
Oz. ag per ton	8.00	13.7	20.40	27.4
% Pb.	6.11	16.2	26.0	24.1
% Cu.	1.84	3.98	5.54	3.05
% S	--	2.9	3.9	3.6
% Insol.	76.2	53.8	37.0	46.8
Treatment Charge per ton.	\$7.31	\$7.52	\$7.93	\$7.86
Freight, switching, etc per ton.	\$2.65	\$2.65	\$2.50	\$3.00
Approximate gross value per ton (present price)	\$23.20	\$30.40	\$57.00	\$50.40
Approximate net value to shippers per ton.	\$9.00	\$16.30	\$38.00	\$33.00

Au @ \$35.00 per oz.
Ag. @ 0.775 per oz.
Pb. @ 4.00 per pound
Cu @ 9.00 per pound.

June 20, 1935

Mr. Seth Brady
Phoenix
Arizona

RE: LITTLE MARY MINE

Dear Mr. Brady:

In reference to the "Little Mary Mine" which we visited yesterday. It is my opinion that this property has attractive possibilities and that you should promptly proceed to repair the collar and catch up the gallows frame ~~in~~ the shaft on the Big Vein and then to unwater this shaft to the bottom, repair the ladders, etc., so as to make it possible to thoroughly examine and sample the ore exposures. The water appears to stand at between 50 and 60 feet below the collar of the shaft and the timbers, except near the top, seem to be in good condition.

It is my opinion that you should also repair the ladders at the Chicago Shaft and the raise so as to make it possible to inspect these workings in a similar manner down to the present water level, which we were informed is between 80 and 100 feet below the collar of the incline shaft.

I think that the examination and sampling of all of the promising ore showings in both the Chicago vein and the Big vein could be carried on simultaneously, but I would not advise you to attempt to unwater the Chicago workings until the results of such an examination are known.

2- S. B.

We have been informed that there is very little flow of water into the shaft on the Big Vein and I believe that all of the work recommended above can probably be completed for approximately \$200.00 and that the assaying and sampling conducted by an engineer and including his fee will cost approximately \$500.00 and should be quite sufficient to give you a logical basis for deciding on your future policy in respect to this property.

I base my present opinion upon the result of our brief examination which indicated favorable geological conditions and some bodies of ore exposed in the upper workings and also upon three Engineers' reports which I have had the opportunity to examine; namely; the reports of Mr. M. Stockder, of the American Smelting & Refining Company, dated October 4th, 1918; report of G. F. Coope of the Calumet & Arizona Co. (now Phelps-Dodge) dated May 18th, 1922; and report of W. W. Merriam, dated April 18th, 1925. The first two of these reports were made by engineers of high standing, with whom I am personally acquainted and these were both moderately favorable and recommended additional development work, which the facts seem to justify. I do not know anything of Mr. Merriam and his report appears to me entirely too enthusiastic.

Unfortunately none of these reports has been brought up to date or describes the results of the development and operations conducted in 1928 and 1929 under the direction of a Mr. Erickson, who appears to have been extremely incompetent from both a mining and metallurgical standpoint. However, Erickson extended the development work on both the Chicago and Big Vein and mined out some of the ore described by the other engineers and it is extremely

3- S. B.

important that the present showings should be measured and sampled and probabilities as to future development reconsidered. It will also be in order to investigate to some extent the possible value of the other veins on the property, which so far have only been explored at intervals on or near the surface.

After the extent and grade of the positive and probable ore has been determined it will be most essential to refigure the value of this and future possibilities on the basis of the present values of the metals contained and the treatment charges, etc. which exist under present conditions and with this work completed it should be possible to definitely advise in respect to the future policy which might involve either (A) Abandoning the claim entirely or (B) Developing and shipping such high grade ore only, as was done by the Stepps and previous operators or (C) Attempting to develop a large body of low grade ore sufficient in quantity and quality to justify some efficient treatment plant for the concentration of these values. It is also possible that a combination of B and C may appear advisable.

Under present conditions and lacking all definite information as to the average value of the ore recently developed in the workings on both the Chicago and the Big Vein it is obviously impossible to recommend any of these plans of procedure, but I do definitely feel that the reports, records and existing showings at the mine amply justify the thorough investigation recommended above.

Yours very truly,

G. M. C.
G. M. COLVOCORRESSES

GMC:DF

AMERICAN SMELTING & REFINING CO.
Tucson, Arizona.

May 29, 1935.

Mr. Brent N. Rickard
El Paso Smelting Works,
El Paso, Texas.

Dear Sir:-

LITTLE MARY MINE, NEAR SELLS
PIMA COUNTY, ARIZ.

In reply to your letter of May 28th with rereerence to the Little Mary Mine, near Sells, Pima County, Arizona:

I find that this property was examined by Mr. Stockder on October 4, 1918, and I am enclosing herewith copy of his preliminary report and maps for your files. I am more or less familiar with the property, having visited it in 1922 with Mr. Kruttschnitt, but find no notes or report of Kruttschnitt's examination. However, a letter in the file from Mr. Kruttschnitt to Mr. W. H. Stepp, owner of the property, contains the following paragraph:

"The results of the samples are disappointingly low and in view of the fact that there is very little surface alteration and oxidation in this part of the quartz vein I do not see how one could expect any materially better values by digging in deeper. The proposition is therefore of too low grade to be of any further interest to us."

I am sure you will find in El Paso or Hayden files smelter returns for the shipments made from the property under the name of W. H. Stepp. However, I recall that it was at one time leased to a man by the name of Akers. I also know that since Stockder's examination and our subsequent visit considerable more work has been done on the property than is indicated by the enclosed maps, but would still be inclined to think that the property is rather small for any sizable operation, though it might do for an individual, or leaser, etc.

Trusting that the enclosed will be of service to you
I remain,

Very truly yours,

B. R. HATCHER.

N O T E S
on
Preliminary Examination
of
LITTLE MARY GROUP
Indian Oasis, Pimo County
Arizona.

General Description:

This group of fifteen unpatented, adjoining claims is located in the southwest foothills of Comobabi Range, at an elevation of about 2800 feet, about 10 miles northwest, by fair wagon road, from Indian Oasis, which is a central supply point in that part of the Papago Reservation, on Ajo road, 61 miles southwest of Tucson.

The property was brought to our attention by W. H. Stepp, owner, who in February 1917 bought all of the older, prospected claims (four in number) and located the others in addition thereto. The Little Mary M&M Co. was then incorporated with a capital stock of \$100,000.00 at \$1.00 a share. Stepp holds all but two shares, these having been turned over to Judge Campbell, who is his attorney and at whose office in Tucson the business of the company is transacted. At time of purchase, the two principal veins were but slightly prospected, the north vein by a 35 ft. and a 100 ft. shaft, and the south vein by several holes from 10 ft to 30 ft. deep. On this latter vein, now known as the "Chicago", Stepp decided to do some work, with a crew of a few men, Indians. Up to the present, he has sunk two inclines on vein, 42 ft. and 66 ft. deep, respectively, and has extended a drift on vein 75 ft. long from bottom of 66 ft. incline. The ore extracted and shipped from these workings, including some stoping ground at bottom of 42 ft. incline, to Selby and El Paso Plants, amounts to 75 tons. The average value of this ore, according to smelter returns on about 45 tons, available, contains \$7.00 Au, 25 oz. Ag., 35% lead and 7.5% copper.

The mine at present is shut down. Stepp was obliged to register for military service, and now offers the property to your company under bond and lease on most favorable terms. He did not commit himself as to purchase price or percentage of royalty.

The examination was made in company with Mr. Anderson, Geologist of the Imperial Mine. We have come to the conclusion that the prospect has some merit, but that the present showing does not warrant development on a larger scale.

The country rock of dark gray-greenish color, is an andesite which is cut by several large, irregular rhyolite dikes. The andesite, along several broad zones is sheeted in northwest-southeast direction, dipping vertical, or steeply to northeast. These zones contain the outcrop of two principal quartz veins, running about parallel and from 800 to 1000 ft. apart of each other. The intervening area is traversed by several fissures and cross-veins.

The south, or Chicago vein, which was selected by Stepp for prospecting, is traceable for 700 ft. in length, striking northwest-southeast, and dipping 70 deg. northeast. The outcrop is fairly regular from two to four ft. in width, principally white quartz, and locally shows some iron-copper-leadstain, as well as a sprinkling of the respective sulphides.

The underground workings, as platted on attached sheets 1 and 2 in plan and sections, show the quartz vein to be from 12" to 24" with a paystreak of about one-half that width next to the hanging wall. The ore consists of sulphides of lead and copper, intimately associated, fine-grained galena with chalcopyrite, the latter showing considerable enrichment by chalcocite, and bornite, with their oxidation products. The gangue is quartz and a little barite.

Both walls are well defined and regular, the parallel sheeting of the country rock on footwall side and some alteration thereof, is also noticeable. A calculation of the vein area mined would indicate a solid regular ore-streak of at least 6" in width yielding above tonnage shipped.

At bottom of 66 ft. incline, the vein is cut off by a fault, striking obliquely across the course of vein and dipping 44 deg. to the north. It is a sharp, well defined plane, not accompanied by gouge or breccia. The line of intersection between fault-hanging and vein is shown on attached sections, indicating approximately correct the depths to which the vein extends and to which it can be mined northwest of fault.

On the surface the vein shows but little displacement, and it can be traced, south of fault, along bold quartz outcrop for about 400 ft. in length. The outcrop, locally, shows slight copper stain, and a sprinkling of lead-copper-sulphides. It has not been prospected.

The workings are dry and require no timbering. The collar of 66 ft. incline is connected by short track with an ore bin, on which a 5 x 7 Blake Crusher is placed, driven by a small oil engine.

The north Vein is almost exact counterpart to the South, or Chicago Vein. It is from four to six feet in width, fairly regular along considerable lengths of outcrop, which locally swells to large, lenticular dimensions. On one of these, the old 100 ft. shaft, now inaccessible and partly filled with water was sunk. The old dumps, as well as recent prospected holes all show some little indications of copper-lead mineralization.

The Little Mary mineral belt extends northwesterly for about three miles, and several attempts at deep mining were made in that section, one of them at the Picacho Mine, from a depth of 300 ft. below surface. It is said that several hundred thousand dollars were expended at the latter property without encouraging results and the mine has now been shut down for eight years.

Respectfully submitted.

M. Stockder.

Tucson, Ariz.
October 4th, 1918.

C O P Y

Ajo, Arizona, May 18, 1922.

Mr. Phil. H. Marquard
524 East McDowell
Phoenix, Arizona

Dear Sir:

On May 1st and 2nd I examined the W. N. Stepp property according to your request and herewith submit my report.

CONCLUSION:

I consider that the property is worthy of further development. Some qualifications must go with this statement. You have explained that you are unfamiliar with mining, and for this reason I shall try to make this report as free from technicalities as possible, and in particular avoid giving any false ideas of the possibilities of the property.

In the first place, it must be considered as a prospect rather than as a mine. Mr. Stepp has done a considerable amount of work, but the tonnage of ore blocked out is small, and the value of the property depends almost entirely upon its possibilities rather than upon assured reserves. This is especially true because of the faults which have cut the veins, and the difficulty of predicting whether it will be practicable to find the ore again. The fact that a property has a little tonnage of assured reserves does not necessarily make it less attractive to a prospective purchaser, provided that all concerned recognize the element of risk and the terms of sale are arranged accordingly.

In the second place, it should be realized at once, that altho there is a possibility that a fairly large mine will be developed, the probability is that the enterprise will always be a small scale one. While the length of the two main veins is considerable, the mineralization is not continuous and uniform. The concentration of valuable minerals lie in ore shoots, (local mineralized regions) only two of which have been partially prospected, so that some idea of their size may be formed. There are other openings which look promising, but which may amount to little upon further investigation.

For the reasons outlined above, any expenditure upon the property must be recognized as being a speculation rather than an investment; this is true of the early stages of all mining ventures. The outlay should be carefully controlled and limited to as small an amount as possible until such time as sufficient ore is developed or assured to warrant equipment, purchase, or on the other hand until it is certain that there is not enough ore to justify such purchases in which case the project would be abandoned with as little loss as possible. The problem is not one of economy of operation; it is rather

to gain the most information with the smallest total cost; having in view at all times the possibility that the attempt to develop a mine may be unsuccessful. Any terms of sale which did not give the buyer an opportunity to make his expenditures in the manner generally outlined above, would in my opinion make the purchase undesirable. In other words, the property is not of such a character as to justify purchase outright for a considerable lump sum, the chances of failure being too great to make such action anything more than a gamble.

LOCATION AND GENERAL DESCRIPTION

The property consists of 18 unpatented mining claims, lying about 6 miles southeast of San Salano Mission in the Comobabi Mountains, Pima County, Arizona. It is in the Papage Indian Reservation, which fact does not affect mineral rights. It is owned by the Little Mary Mining and Milling Company, a corporation of the State of Arizona, with 100,000 shares of stock, of which Mr. W. H. Stepp owns all but two shares. The country is desert, not very rugged, and has a considerable growth of small mesquite and palo verde trees upon it, which could probably be used as fuel if needed. Water is found at depths of from 30 to 75 feet, and seems to be in sufficient amount for small scale operations. The quality and quantity available would have to be determined in case further development is decided upon.

The location notices and deeds of mines are filed in the County Recorder's office, and title seems to be clear. Patent of these claims, which is fee simple title from the government should be obtained, should they prove worthy of it, but as this would cost about \$2,500.00 it would not be done until justified by developments.

HISTORY

According to local tradition, the property has been held continuously for about 60 years. Mr. Stepp has been in possession for about six years. He has made ore shipments every year, beginning April 3, 1917. The last shipment was made January 23, 1922, after which shipping was discontinued due to the very low metal prices prevailing, which were further reduced by the El Paso smelter, as it was not operating, and had to store the ore until operations were resumed. This smelter is now available again as market. The last shipment had a gross value at present metal prices of \$74.21 per ton, without reduction for freight and smelter losses and charges. The total gross value of the shipment of 5,924 tons, would have been \$439.82. After deductions of all charges, Mr. Stepp received \$181.37. The gross value figured above is based on gold at \$26.00 per ounce, silver at 99 5/8¢ per ounce, lead at 5.25¢ per pound, copper at 15¢ per lb. and iron at 8¢ per unit. It may be seen that the terms were not advantageous.

The summary of the smelter returns which I saw, and which were practically a complete record; is as follows:

Averages.

Gold 0.41 ounce per ton.
Silver 25.97 ounce per ton.
Lead 31.30 per cent.
Copper 7.44 per cent.

Total tons shipped	179.495
Total net returns.	\$10,483.16
Average per ton.	\$58.92

These returns do not include cost of mining, sorting, and trucking to Tucson.

GEOLOGY

The valuable minerals lie in quartz-filled fissures veins in diabase. The general shape of the deposits is like a sheet, standing very steeply upon its edge. There are two main veins, the Chicago and the Big Ledge. Their general direction or strike is a little west of north, they lie about 1090 ft. apart and are roughly parallel. They are very similar in their characteristics. Their thickness varies, the maximum being about 15 ft, and the minimum an inch or two where a vein pinches. The average width of the Chicago vein for about 400 feet is between 3 and 4 ft. Its width for the total length cannot be given, as it is not sufficiently exposed. The Big Ledge is larger, varying from 6 to 15 feet in width for about 500 feet, and averaging about 5 feet for at least 1000 feet along the outcrop. Both veins are well defined, persistent, and may be traced for some thousands of feet. There are evidences of movement on the hanging and foot walls, and also in the quartz of the veins to a small extent. The walls are somewhat altered and mineralized. There are numerous smaller veins and stringers paralleling the main vein.

The entire width of the veins is not uniformly enriched; the valuable minerals lie along either wall of the vein, in a thickness up to three ft. These ore shoots are also limited longitudinally; the shoot which has been worked on the Chicago vein being about 100 feet long.

There has been a good deal of faulting; both veins are cut off at a depth of about 70 feet in the shafts by well defined faults. and there is evidence of others on the property. It does not appear that the movement has been very great, although this is not certain. The value of the property depends largely upon the location and character of ore bodies beyond the faults. It also depends upon finding ore shoots other than the ones already shown, and the amount of water encountered in depth.

The veins contain lead, copper, iron and a small amount of zinc minerals. Above the water level the lead is very largely unaltered, being galena, the sulphide. The copper is partly oxidised to malachite; but there is considerable chalcopryite, the primary iron-copper sulphide. The iron is present in the chalcopryite, and as an oxide limonite. The zinc is difficult to determine, but appears to occur partly as sulphide and partly oxidised. Associated with these minerals are gold and silver and the former sometimes showing as free gold. There was no opportunity to examine the veins in place below the water level, as the workings

were flooded. The showing above water is encouraging, as it indicates that there is likely to be a considerable depth of ore below that level and that the value of the property does not depend upon a shallow zone of secondary enrichment.

SAMPLING

The scope of the examination did not allow of thorough sampling to determine definitely the grade and limits of the ore shoots. This work would have occupied some days by itself with extra help, and the information gained would not have justified the expense. The samples taken were largely as indications of the general character of the ore body and as a check on the smelter returns to determine the amount of sorting which was necessary to produce ore of the grade which has been shipped. From these samples I have arrived at the following conclusions:

First, that the length of the ore shoot which is being mined on the Chicago vein is about 100 feet. In other words, the workings have penetrated a rather lean area, and the ground at the north end of the drift cannot be considered ore. Second, that the ration of sorting is in the neighborhood of 1 out of 4; that is for every ton shipped, four tons have been mined, and the low grade sorted out. Third, that the outcrop of the Big Ledge vein exposed by ditching for about 100 feet is promising and should yield ore. A summary of the samples follows:

No.	% Cu.	%Lead	%Zinc	ounces silver	Ounces gold
1.	Trace	5.92	0.80	4.13	0.32
2.	1.74	6.80	1.41	0.20	Trace
3.	4.20	19.84	2.20	7.08	0.16
4.	Nil	9.44	2.12	0.20	Nil
5.	0.35	3.40	1.00	0.18	Trace

No. 1. Hanging wall rock, Chicago Vein. No. 2 North end of 70 ft. level, Chicago Vein--entire width of vein, about 4 feet, not sorted. No. 3 1 1/2 ft. width, high grade side of Big Ledge Vein outcrop. No. 4. Low grade side of vein at same point, 5 ft. width. No. 5 Entire width of Big Ledge Vein, about 4 feet wide, from shallow pit 100 ft. north of shaft, 200 ft. north of Sample No. 4. Not sorted

TREATMENT:

The property is not in condition to make discussion of ore treatment a vital question. Consideration of this problem should be governed by the general policy already outlined; namely that the project should not have any considerable outlay made upon it for some time. Treatment should largely be confined to sorting. It may prove profitable to concentrate some part of the production, and there is equipment on the job for experiment along these lines, which is also done by the Bureau of Mines and some private firms. Plans for treatment depend so entirely upon the tonnage and character

of the mineral which may be developed, that about the only thing of interest which can be said at this time, is, that if the need for concentrating arises, the ore should be easy to treat, and the only serious difficulty which can be anticipated at this time would be the loss in oxidised material from above the water level with some methods of treatment.

ASSURED MINERAL

As I have indicated previously, the amount of this is inconsiderable. You will note that Mr. Stepp, according to the returns shown me, has shipped only 179 tons of ore. I estimate that 150 to 200 tons of similar grade could be mined from the area blocked out on the Chicago Vein. On the Big Ledge there is no ore blocked out, but the outcrop is good, and there are perhaps 300 to 400 tons of possible ore above the fault, of a grade similar to that from the Chicago. Please note that this is possible, and not assured mineral. It will be seen from these figures that this tonnage does not justify any large outlay, and that the first thing to be done if the property is optioned, is to attempt to develop more ore.

PROSPECTS

The prospects for the development of ore are good. The faults are apparently not of large displacement, as the gouge or crushed zone is not heavy and there seem to be plain indications of the direction of movement of the fault in the Chicago vein. The faults are of later date than the veins. The mineral below water level should be richer than that above for a short distance, and the values should persist downward for a considerable depth, with gradual impoverishment. A complex system of faults would make mining difficult and expensive, if not impossible. The chance of encountering such a condition is one of the risks of the enterprise, but I do not consider that it is highly probable that such will be the case. A large amount of water would also hinder or stop operations; the work done by Mr. Stepp does not indicate that great volumes will be met with, as he was able to sink a winze almost 40 feet below water level by means of a hand pump. However, this should also be considered as one of the risks. There are other good indications of ore besides the two main sheets, and inexpensive surface work might develop more ore.

PRESENT EQUIPMENT AND WORKINGS:

Equipment consists of a small headframe, a ten ton ore bin, a small crusher with gas engine, a single stamp feeding a little table, and a settling tank, all at the Chicago shaft. This plant would probably handle 1 to 2 tons a day. Hoisting has been done with an automobile, which I suppose should be considered as part of the equipment. Near the shaft is a concrete water tank of 15,000 gallons capacity. This is connected to a cornish pump at the Big Ledge, shaft, 1400 ft. away, by a 4 inch pipe line. The pump is worked by a Ford truck, which has hauled the ore, and will handle about 20 gallons a minute.

The workings consist of a 127 ft. vertical shaft on the Big Ledge, filled with water/70 ft, with some trenching along the outcrop
to

south of this shaft, and several small pits. On the Chicago there is a 70 ft. inclined shaft to water level, with a drift in the vein to a point 130 ft. north of the shaft. 90 ft. from the shaft there is a 40 foot winze (an underground shaft or pit) which was full of water at the time of my examination. Between this winze and the shaft, the ore which has been shipped was mined from above the drift. There are two small stopes (places from which ore is mined) and a raise to the surface.

LABOR AND SUPPLIES

There is a good supply of cheap labor of a fair grade from the Papago villages near by. All supplies except fuel and water would have to be hauled from Tucson.

RECOMMENDATIONS 1.00 Terms of Sale

I believe that the following would be a fair basis for negotiations should you decide to make an offer for the property.

You would take a six month's option with the privilege of renewal for an additional six months and proceed with development, which would include mining ore and shipping to the smelter, for the purposes of finding out what returns could be had, the best methods of handling ore, and cutting down the total expenditure. Mr. Stepp would receive 10% of the return on the ore, and would be placed in immediate charge of operations under the supervision of your representatives. He would be paid \$250.00 per month for his services, in addition to his share in the smelter returns. You would have the privilege of terminating the option at any time, if developments in your opinion did not justify further work. For every dollar, net, after deduction of profits from ore shipped, which you spent, you would receive one share of stock. At the expiration of six months the option would be renewed, or if results were satisfactory 50% of the remaining stock would be purchased from Mr. Stepp for \$25,000. If the results were not good, the option would of course not be exercised. Should the purchase of stock be made, it would then be necessary for the company to borrow money for financing, or sell stock for this purpose.

2-- Development

On the Chicago Vein, attempt should be made to pick up the vein below the fault. If this is done, the present shaft should be deepened to intercept 50 to 100 feet of the vein below water level, depending on conditions, a crosscut driven to the vein, and a drift in the vein extended to the limits of the oreshoot. In the meantime, the extent of the oreshoot on the outcrop of the Big Ledge Vein should be determined, the vein thoroughly sampled, and if the results were satisfactory a drift started at the water level to develop the ore underground. Before doing this it would be necessary to try to find the continuation of this vein below the fault; Mr. Stepp says that it can be seen in the shaft, and the displacement is slight a statement which I was unable to verify because of the water in the shaft. While this work was going on, the most promising portions of the outcrop at other points could be investigated at little cost, the most economical methods of mining and treatment determined,

and some ore shipped to help pay expenses. As much as possible of the development should be done in ore, because of the returns which can be had from the smelter.

3- Additional equipment

To begin with, as little of this should be purchased as possible. At first, the only need would be for some means of handling the water in the Chicago shaft while deepening it. If the flow should prove small it could be handled for some time by hoisting it in a bucket; but in all probability if sinking is continued, a pump will be necessary. The type and amount of equipment and power plant should be left to the future, when a more detailed study of the situation can be made if necessary.

So far as the expenditure necessary during the six months or year of development is concerned, it is difficult to estimate it. The option might continue for the full six months or a year, or it might be given up in a very short time. I think that for a reasonable length of time, the net expenditure would come between \$8,000 and \$15,000.00 this to include all items.

If the purchase of the property is made, further expenditures would be necessary for economical operation; the amount of this would depend on a character of mineral and tonnage developed, and no good estimate can be made. I should think that the upper limit would be \$50,000.00, unless a very unexpectedly large tonnage were developed.

The figures given, because of the nature of the problem, cannot be definite, and are merely to give you some idea of what the cost is likely to be.

ESTIMATED RETURNS

Here again, any figures given must be based on assumptions, as the future is uncertain, and there are many variables. Assume that sufficient ore is developed to justify production of 5 tons per day of sorted ore, of a grade equal to the ore shipped by Mr. Stepp. Assume metal prices as follows. Silver 75¢ per oz. part to be marketed under the Pittman Act, and when this is no longer in force, the rest in a free market. Lead 4.5¢ per lb. at New York. This is below the present market, but is about the average for 25 years before the war. Copper 14¢ per pound. This is above the present market, but is also a pre-war average. Gold is of course fixed.

The smelter returns would be about as follows:

Gold, 0.41 oz. @ \$20.00	\$8.20
Silver 25 oz. @ \$0.75	18.75
Lead 31.30%, less 4.% equals	
net 27.30% or 546#	
90% of 546 equals 491.4#	
491.4# @ 3.5¢ (1¢ below N. Y.)	17.20

Copper 7.44% less 1.0% equals 126.8# @ \$.14	\$18.03
	\$62.18
Total payments for metals	\$62.18
From this are subtracted	
Various deductions for treatment etc.,	12.00
Freight @ \$4.50 per ton. (L.CIL)	4.50
Sampling and miscellaneous	<u>1.50</u>
Total debits	\$18.00

Net Smelter returns, \$44.81 per ton.

I estimate that the cost of mining, sorting and hauling a ton to Tucson, under operating conditions would in no case exceed \$23.00 distributed as follows;

Mining and sorting, 4 tons @ \$4.00 per ton.	\$16.00
Hauling, one ton @ \$7.00	xxxx 7.00
Total	\$23.00

Net operating profit per ton \$44.18 less \$23.00
or \$21.00
Net operating profit per day on 5 tons. \$105.00
Net operating profit per year, 300 days \$31,500.00.

These figures do not include taxes, depreciation and depletion. The taxes, Federal, State and County would be about \$3500 per year. It is a question whether depreciation and depletion should be included in a cost statement to the operator, as he and the stockholders understand that the mine and plant are wasting assets, and it is customary not to amortize, but to pay out profits in dividends, the government permitting money shown as depreciation and depletion to be used in this way.

I do not consider this estimate of profits excessive, provided that 5,000 to 10,000 tons of ore of this grade can be developed. If we assume 6,000 tons developed, the life of the mine at 5 tons per day would be four years. Assuming that the total outlay for equipment etc. was \$35,000.00 this could be largely returned the first year. The smelter returns used are based on those for the last shipment made by Mr. Stepp, as these were the most unfavorable of all. Of course if a larger tonnage should be developed to justify greater production, a greater profits per ton could be made due to economics in operation, and a much greater total profit, with greater capital outlay. This is conjecture. Since no definite limits can be fixed, I have given as an example that I consider a reasonable possibility.

Yours very truly,

G. F. Coope

Box 151
Ajo, Arizona

AMERICAN SMELTING & REFINING CO.
EL PASO SMELTING WORKS

BRENT N. RICKARD, MANAGER

EL PASO, TEXAS

June 3, 1935.

6/7/35
C

Mr. G. M. Colvocoresses,
1108 Luhrs Tower,
Phoenix, Arizona.


Dear Mr. Colvocoresses:-

In further reference to your recent letter concerning the Little Mary Mine near Sells, Arizona, I am sending you a copy of Mr. Hatcher's letter of May 29th and a copy of a report made by one of our engineers under date of October 4th, 1918.

We cannot find any record of correspondence with W. H. Stepp or the man named Akers. Shipments may have been made to Hayden and if I knew the names of the shippers I could undoubtedly locate copies of the settlements.

If I can be of further service please call upon me.

Yours very truly,


BRENT N. RICKARD.

Enc.

P.S. In July 1929 we received one shipment of concentrates from a man named Carl E. Erikson shipped in the name of Como Pima Mining Co., 30 tons assaying as follows:-

<u>Au</u>	<u>Ag</u>	<u>Pb</u>	<u>Cu</u>	<u>Ins.</u>	<u>Fe</u>	<u>Zn</u>	<u>S.</u>
0.42	22.5	16.3	5.47	47.8	5.3	4.5	2.4
oz.	oz	%					

This was shipped from Tucson and was said to come from the Cababi Mining District, Pima County.

B.N.R.

July 24th, 1935.

Seth Brady

Phoenix

Arizona

Dear Sir:

Report on Little Mary Mine.

In accordance with our arrangement, I have made a partial examination of your Little Mary Mine near Sells, and submit the following report. I use the term "a partial examination" because as you know, the owner of the property would not permit me to take any samples, but nevertheless I feel confident that any sampling which might have been done in the accessible positions of the mine would not have changed my general opinion in the conclusions of this report.

CONCLUSIONS:

The Little Mary is a partially developed mine presenting some interesting features, but so far lacking the essentials which are required for profitable operation. In my judgment further development is not likely to prove up any body of either shipping or milling ore which would change this situation.

The Chicago Vein from which some production was made in the past, has been cut off by a fault and although it is stated that a continuation of this vein was found below the fault, this statement could not be verified, and may be regarded

#2--S.B.

with some suspicion.

The Big Vein could only be examined on the surface and open cut and in part from the 100 foot level in the shaft. The occurrence of ore in this vein appears to be spotty and confined to short and narrow shoots, and the great bulk of the vein material is of very low grade, so that considerable sorting would be necessary for the production of even milling ore, and work on such a basis is rarely if ever profitable.

All in all, I do not feel that the chance of developing a profitable mine justifies the very substantial expenditure which would have to be made to render the shaft on the Big Vein safe for inspection, to unwater this and develop ^{it} on the 200 foot level and to explore the Chicago Vein below the fault. I therefore advise that you decline to exercise your option on this property.

LOCATION:

I understand that the Little Mary property, optioned to you by the owner, W. H. Stepp, consists of 15 unpatented mining claims lying 7 miles by road N.W. from the post office and Indian agency at Sells, Pima County, Arizona. Sells is the center of the Papago Indian reservation, and is 64 miles West from Tucson, on the road leading to Ajo, which passes within a mile of the Little Mary Mine. The claims cover low foot-hills and gulches on the edge of the South Comobabi Mountains, and the surface is typical of the desert country, with very little vegetation. The elevation is about 2700 feet. I am told that these claims are in good standing with assessment work kept up to date.

#3--S.B.

HISTORY:

Mining has been carried on in this district for many years, and since 1917 the property has been held by Mr. Stepp, or parties holding contracts from him. Stepp and associates operated from 1917 to 1922, and later optioned the mine to a company which was managed by a Mr. Erickson, who continued the development work with some shipments of sorted ore, and finally installed a very worthless mill at the Chicago shaft. These operations were discontinued about 1930, and I have found no record of Erickson shipments except of one car of concentrates produced in July of 1929, which carried gold 0.42 oz. per ton, silver 22.5 oz. per ton, lead 16.3 per cent, and copper 5.47 per cent. I do not know what ratio of concentration this represented.

A record of the shipments of sorted ore made by Stepp prior to 1922 covers approximately 180 tons, average gold .40 ozs., silver 25.97 oz., lead 31.3 per cent, and copper 7.44 per cent. From the report of an engineer who examined this mine while production was in progress, I am lead to believe that all of this ore came from the best part of the ore shoot in the Chicago vein, and that about 4 tons of ore were mined, for each ton that was shipped.

From the Big Vein a carload of sorted ore was mined in the open cut near the surface, and is said to have averaged about \$25.00 per ton, but here the condition of the vein and the amount of waste piled up, make it appear likely that at least 8 or 10 tons of broken material were sorted into one ton of shipping product.

#4--S.B.

While the operations of Stepp are reported to have been profitable, yet I believe that this must have been due to the fact that he was merely mining ore already developed by others, and it is apparent that up to date the development and working of the Little Mary Mine must have been carried on with substantial loss.

The property has been examined by several engineers including three representatives of the American Smelting & Refining Co., one of the Calumet & Arizona Co. (now Phelps Dodge), and W. W. Merriam, an independent engineer. I have had an opportunity to examine the reports made by these men, and only the last mentioned is entirely favorable; although the others agreed that the property held out some promise and recommended additional development, practically all of which has since been carried out by Erickson, with very discouraging results.

GEOLOGY AND ORE OCCURENCE:

The country rock is a basic porphyritic green-stone, generally classed as an andesite, but by some as a diorite. This is intruded by numerous dikes of rhyolite, which appear to be likely to have some connection with the deposition of the ore.

The veins are fissures in the andesite, and strike generally N.W.-S.E. Some are nearly vertical, others dip at an angle to the N.E. The filling is almost entirely quartz, mineralized in places with gold and silver, and also with

#5--S.B.

copper and lead, both as oxides and sulphides. There is much oxide of iron, with which the gold and silver are probably associated.

Several of these fissure veins traverse the property, and are more or less parallel in strike, and while considerable shallow exploration has been done on and near the surface, only two veins have been developed to any substantial extent, as will be noted below.

EQUIPMENT:

At the Chicago shaft there was a 12 H.P. Fairbanks Morse gas engine hoist which had been moved over to the Big Vein shaft to permit baling. Also a blower and a small engine which appeared to be in poor condition. The remaining machinery in the mill is of no value. The head frame and timbering in the shaft are in good shape down to the 70' level and could be repaired below at small expense.

At the Big Vein shaft the collar set was badly rotted and the head frame had been temporarily supported to permit the dewatering. Conditions here were very dangerous, and a bad cave at the collar or below was likely to occur at any time and could only have been prevented by expensive and lengthy repairs and retimbering, which would only have been justified in the event that additional development appeared disireable.

CHICAGO VEIN:

This has a dip of about 68 degrees to the N.E. and was opened up by a shaft following down the vein to a depth of

#6--S.B.

about 70 feet, where the vein was cut by a reverse fault with a dip of 45 degrees also to the N.E. Above the fault one ore shoot was opened up, and proved to have a length of slightly 100 feet, and an average width of ³/₄ feet. At both ends of this shoot the values became poor so that mining was discontinued, and from the shoot itself the bulk of the ore has been stoped out and apparently had an average value in excess of \$15.00 per ton, from which there was sorted for shipment, a product which had a value of about \$50.00 per ton. The value of this ore at present metal prices would be somewhat lower, for although the price of gold has improved, the value of copper and lead have greatly decreased. Since nearly all of the ore above the fault has been worked out, ~~therefore~~ the future of this portion of the mine depends entirely upon the downward extension of the ore shoot, below the fault. Stepp followed down along the fault with a winze in the hanging wall for a distance of some 30 feet or more, where it is said that the vein was encountered, but no further sinking was done, which appears somewhat strange. The winze was partly filled with muck and water at the time of my visit, so that it was impossible to investigate down to the point where the ore is said to have been encountered.

With the expectation of finding the downward extension of the vein, Erickson continued sinking the shaft to a depth of over 300 feet on the incline, and ran cross-cuts in the hanging wall on the 165 and 300 feet levels, but in neither of these

#7--S.B.

was the vein located. It therefore appears that it may either have pinched out entirely or been thrown further into the hanging wall by additional faults. In this latter case, mining would be difficult and expensive and there is a strong chance that the values would be much lower than above the first faulting.

While no definite conclusions regarding the future of this vein can be drawn without further development, I feel that the reported failure of Erickson's efforts to find the vein leaves a very unfavorable impression, and that the probabilities are against the discovery of any substantial shoot of pay ore below the fault.

BIG VEIN:

This lies nearly parallel to the Chicago Vein, but some 1000 feet further to the East. The shaft is located about 1400 feet S.E. from the Chicago shaft, and is vertical and said to have been sunk to a depth of over 200 feet along the west wall of the vein.

The Big Vein is exceptionally strong, and can be traced for several thousand feet along the surface, but the filling appears to be largely a compact barren quartz which does not show nearly so high a degree of mineralization as in the Chicago vein, nor appear so favorable for the occurrence of ore bodies.

One shoot of ore was noted for a length of about 40 feet and beginning some 60 feet South of the shaft, but for the most part the mineralization did not extend throughout the full width of the vein, but was confined to only 2 or 3 feet adjacent to the east wall. None of the samples taken

#8--S.B.

by other engineers showed pay ore in this vein, although by careful sorting, say 8 or 10 to 1, the product might well have been raised to a value of \$20.00 or better per ton as indicated by the shipment.

At the time of my visit the water had been lowered to a point over 120 feet below the collar and the first or 100 foot level was open for inspection, but it was in such a very dangerous condition that no thorough examination could have been made without taking a great risk. It was, however, apparent that the ore shoot shown in the open cut did not extend down to this point in the vicinity of the shaft, and altogether the showing on the level was extremely disappointing, as far as it could be inspected.

The condition of the shaft itself was also extremely dangerous, as several large sections of the vein had fallen in against the timbers, and others were loose and threatened to come down at any moment, and crush or block the hoisting compartment and man-way. In my judgment it would probably be impossible to unwater the shaft to the 200 foot level without first going to a heavy expense for catching up the ground, and retimbering in many places.

I was not at all impressed with the possibility of developing any substantial body of good ore in this vein, even of a milling grade such as had been reported. The ore is not only low in value and confined to shoots and lenses, but it is complex in character, and would require selective flotation to separate the lead and copper, while a good recovery of either of these metals would be difficult due

#9--S.B.

to the mixture of oxides and sulphides contained. Moreover, the character of the oxidized portions of the vein which could be inspected, did not promise either a zone of secondary enrichment or any substantial body of primary sulphides below. This statement is of course merely an opinion, but I believe it is well justified by the geology and general appearance of such ore showings as have been opened up to date.

The chance of developing a sufficient quantity of ore to justify the construction of a mill seems therefore to be extremely remote, and any comprehensive effort to do so is quite certain to involve a minimum expenditure of \$10,000 and probably double that figure. In addition there is the question of providing an adequate water supply, which apparently would have to be obtained from a well nearly four miles away, thus involving the construction of a pumping plant and pipe line, while the operating conditions of this property, even if the ore supply were satisfactory, would always be handicapped by the difficulties and expense of road transportation for a distance of 70 miles to and from the railroad at Tucson or Ajo.

The Little Mary may perhaps be operated profitably in the future on a very small scale, by closely following the ore shoots as these are discovered, and carefully sorting out the higher grade material for shipment to a smelter, but

#10--S.B.

the chance of developing a mine of sufficient size and value to warrant the construction of a mill or to permit steady operations on any sizable scale seems to me negligible and decidedly unworthy of the risk which would be involved in attempting such development.

Yours very truly,

J. M. C.

GMC:MW

December 4th, 1935

Mr. Charles E. Wade
347 Madison Avenue
New York City, N. Y.

SUBJECT: LITTLE MARY MINE

Dear Sir:

I am in receipt of your letter of November 30th and under the circumstances I feel that I should thank you for your courtesy in replying to mine of November 4th.

Your letter confirms my previous suspicions in respect to the unreliability of Seth Brady, and I presume I have only myself to thank for having taken him more or less at his face value.

Looking over my file I find that I made the preliminary inspection of the "Little Mary" on June 19th for which, as stated previously, he paid me \$50.00 and expenses of the trip and a few days later Brady advised me that the syndicate which he represented had definitely authorized the unwatering of the mine and a further examination and sampling to be made by me as soon as the unwatering was sufficiently advanced. I drew up a written agreement in respect to this second trip involving the payment of a fee of \$200.00 plus expenses and Brady duly signed this agreement.

The partial unwatering of the mine was done in an extremely inefficient and expensive manner, not at all in accordance with my advice, but Brady very definitely advised me that your syndicate had authorized the subsequent examination which was made soon after July 20th at Brady's specific request.

It was very evident from the difficulties in which Brady later found himself involved, due to his failure to pay the men who had done the unwatering, that he had no backing from any responsible people in carrying through this program, and I fully realize that I should not have made the second trip to the property without some written evidence to the effect that you and your associates would assume responsibility for the payment of my account.

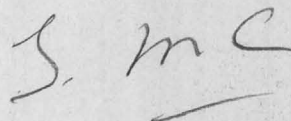
2- Charles E. Wade 12/4/35

I had no reason whatever for going to this trouble or expense on account of any personal relationship with Brady, whom I had only met a short time previous and of whom I knew nothing except that he had a pleasant personality and spoke with confidence of his association with you and others in New York.

I now fully appreciate that you are entirely correct in declining to assume any responsibility for my charges in this connection and shall simply write it off to experience unless I should be so fortunate as to collect later from Brady, which seems extremely unlikely as he has apparently disappeared entirely during the last few weeks.

Again thanking you for your letter and your explanation of the transaction, I remain

Yours very truly,



GMC:DF

P. S. I am reminded to mention that on several occasions Brady told me that he had quite a large cash balance on deposit with your firm amounting, I believe, to several thousand dollars, which was due him as a commission on some oil deals in South America. He stated that this money was at present tied up because of some complications in respect to other commissions, but that it would certainly be released in the near future when he would be in a position to pay my account in person.

If this is a fact I would appreciate your confirmation of the statement, for I believe that Brady would really like to pay my account if he were able to do so, and I would then be in a position to judge as to the probable time when he might meet this obligation.

CHARLES E. WADE & CO., INC.

INVESTMENTS

347 MADISON AVENUE, NEW YORK

TELEPHONE MURRAY HILL 2-7846

CECIL M. COWAN
CONSULTING MINING ENGINEER
GEOFFREY JEFFREYS
CONSULTING PETROLEUM GEOLOGIST

November 30th, 1935

Mr. Geo. M. Calvocareses,
1108 Luhrs Tower,
Phoenix, Arizona.

My dear Mr. Calvocareses:

Your letter of November 4th was received during the writer's absence from New York and therefore held over for his personal attention. It has been read with full appreciation of the spirit in which it was written, and in response to which I shall endeavor to outline our negotiations with Mr. Brady in connection with the Little Mary mine, particularly as they apply to your services and reports.

Mr. Brady came to us with an option which he held on this property, and as a result it was agreed to form a small syndicate, largely within the personnel of our own organization and a few friends, with a view to determining the potentialities of the property for further development.

Our arrangement with Mr. Brady provided for doing this work for a stated amount, and, accordingly, only a sufficient sum of money was appropriated to embody this work.

The one and only function of Mr. Brady was to unwater the mine preparatory to having it sampled; and while we appreciate the services that you rendered to Mr. Brady in his attempt to execute his part of the agreement, he was not authorized to assume any obligations on behalf of the syndicate, or otherwise, for engineering services or reports, until his work had been accomplished, in view of the necessity for economy in this operation.

Reference to our records in the matter discloses that Mr. Brady was definitely advised against the employment of engineering services, and his employment of your services was therefore made on his own account.

In this connection, on July 11th, we addressed Mr. Brady by air mail letter, from which the following is quoted:

"You are not authorized to involve the syndicate in any obligations or to make any further disbursements of syndicate funds for the services of Mr. Calvocareses or other engineers until we have determined the advisability of further action and the availability of funds with which to proceed."

A 12/4
35

On July 12th we wrote:

"We have expended within a few dollars of the total amount subscribed and paid in by the syndicate. You will therefore please confine your efforts to unwatering the mine."

Following the rendering of your initial report, for which Mr. Brady advised having paid you the sum of \$50.00 and expenses, we were specific in our advice to him as to further expenditures, and it was entirely without our knowledge or authorization that any further service was rendered by you, and we therefore assumed that this was done as a matter of friendship for Mr. Brady, for which he had no authorization to expend syndicate funds.


Under the circumstances, you will realize that his action in employing you to visit the property on July 20th was definitely without authorization by us on behalf of the syndicate.

I therefore regret that we will be unable to assume any responsibility for services rendered to Mr. Brady, and trust you will understand the circumstances governing the position of the syndicate in this matter.

Yours very truly,

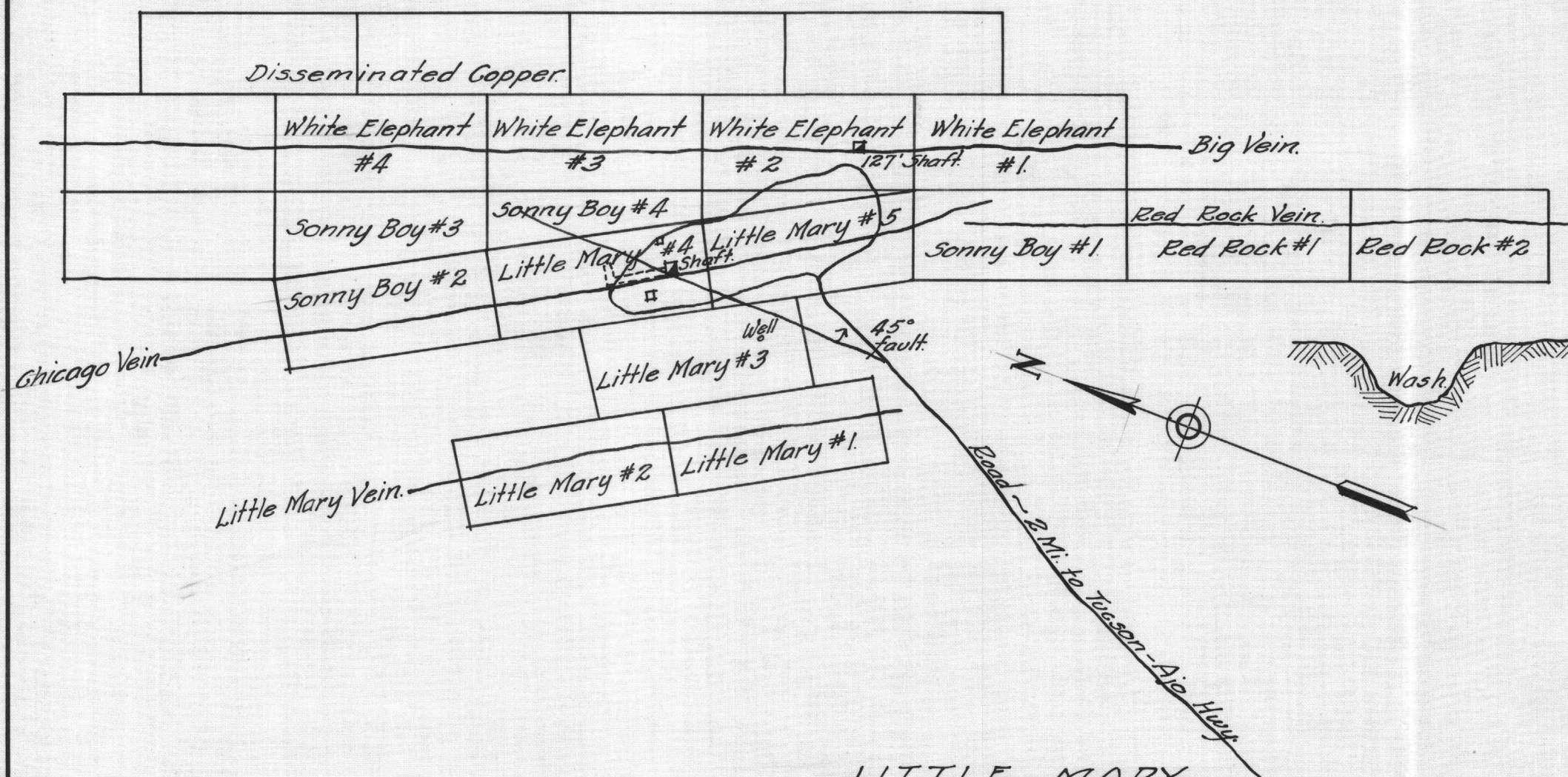
CHARLES E. WADE & CO. INC.

by

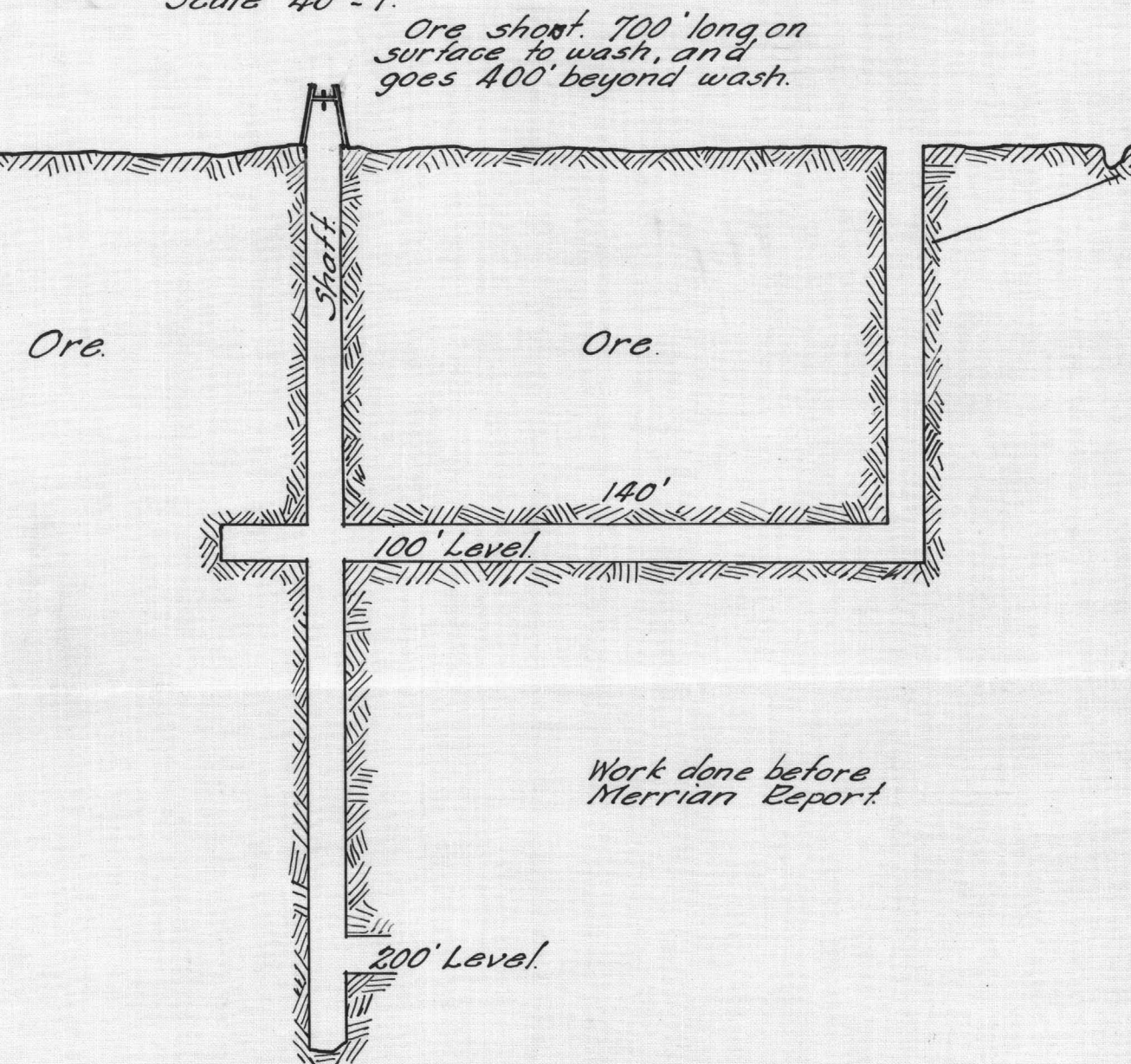

President

CEW GC

LITTLE MARY GROUP OF CLAIMS (Merrian)
Scale ~100'=1."



LITTLE MARY
BIG VEIN ~ Almost Vertical.
Scale 40'=1."



LITTLE MARY
CHICAGO VEIN
Scale ~40'=1."

