



CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
3550 N. Central Ave, 2nd floor
Phoenix, AZ, 85012
602-771-1601
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

The following file is part of the G. M. Colvocoresses Mining Collection

ACCESS STATEMENT

These digitized collections are accessible for purposes of education and research. We have indicated what we know about copyright and rights of privacy, publicity, or trademark. Due to the nature of archival collections, we are not always able to identify this information. We are eager to hear from any rights owners, so that we may obtain accurate information. Upon request, we will remove material from public view while we address a rights issue.

CONSTRAINTS STATEMENT

The Arizona Geological Survey does not claim to control all rights for all materials in its collection. These rights include, but are not limited to: copyright, privacy rights, and cultural protection rights. The User hereby assumes all responsibility for obtaining any rights to use the material in excess of "fair use."

The Survey makes no intellectual property claims to the products created by individual authors in the manuscript collections, except when the author deeded those rights to the Survey or when those authors were employed by the State of Arizona and created intellectual products as a function of their official duties. The Survey does maintain property rights to the physical and digital representations of the works.

QUALITY STATEMENT

The Arizona Geological Survey is not responsible for the accuracy of the records, information, or opinions that may be contained in the files. The Survey collects, catalogs, and archives data on mineral properties regardless of its views of the veracity or accuracy of those data.

August 5, 1930.

Olin, Clark & Phelps,
149 Broadway,
New York, N. Y. Attention: Mr. Murphy.

Gentlemen:

PAY ROLL MINE

In sending my report on the Pay Roll Mine, I have in mind that you will very probably wish to show this to other parties and I have tried to cover the essential features as thoroughly as possible but think well to write this letter as a confidential supplement to the report.

The conditions at the Mine are peculiar and it is really very difficult to form a definite opinion regarding its real value. A great deal of money has been spent and much of it appears to have been wasted in more or less useless development since conditions indicate that the values in the vein will only improve with depth, if at all, and most of the work done on the first and second levels was of no real advantage.

I am honestly of the opinion that the property justifies additional development and gives promise of becoming a mine which can operate profitably under normal market conditions even though it is never likely to be a bonanza. I realize that in all probability the Thomas B.

August 5, 1930.

Scott Estate would not be interested in taking the chance involved in spending considerably more money to prove or disprove this opinion and for the moment I doubt very much if any responsible mining company or operator would be disposed to undertake the development of this property, considering the fact that the greatest value is in zinc which metal has been greatly over-produced in the recent past so that every effort is now being made to keep down production in order to use up the stocks of zinc already accumulated or being made largely as a by-product by operating companies.

It is my judgment that it will be to your best advantage to eventually purchase the liens on the concentrating mills if necessary, (since you are hardly likely to lose anything by making this investment) and to maintain and protect the property in its present condition by continuing to employ Dr. Blackwell, who seems to be a competent and reliable man. I believe that the cost of baling out the water is probably justified, although this could be omitted without any great detriment, for, even should the water rise to above the third level, the main shaft and the showings of principal importance on the third and fourth levels would not be likely to suffer any serious injury and a few days would serve to unwater the mine at any time that this might be desired.

It is possible that during the next few months reliable lessees might be found who would work in the upper

August 5, 1930.

and mine the small shoots of fairly high grade ore, and I suggest that an effort to obtain such lessees should be made since any royalty that they might pay would reduce the net cost of upkeep and I cannot see that their operations could possibly be injurious to the mine.

Whenever mining conditions improve and the market price of zinc in particular tends to rise, I suggest that a very serious effort should be made to interest mining companies or investors in taking over this property on bond and lease with option to purchase.

As to the purchase price, you will appreciate that it is difficult to make suggestions since there is no real basis for figuring the value of the property. If metal prices remain depressed it may never have any real value beyond that of the equipment and the same would be true in the event that further development failed to discover any substantial bodies of higher grade ore than at present exist. On the other hand if development is favorable and metal prices improve it is quite probable that a substantial profit might be realized by the mine operators. On the basis of a lease with option to purchase I think that you will be fully justified in setting the price, including the concentrator, at approximately \$100,000. Obviously the development work which may be done by the lessee will tend to determine the real value of the property and should this exceed the figure mentioned, the optionee will be entitled to the extra profit on account

Olin, Clark & Phelps - 4

August 5, 1930.

of the risk originally taken in carrying out the development, whereas, if conditions call for a lower price he will always have the opportunity of refusing to exercise the original option and making you an offer on a different basis which you can then accept or decline as may seem expedient.

Needless to say, I shall be glad to give you any further information in my power and also insofar as possible to assist you, if you so desire, in endeavoring to find a responsible prospective purchaser, although I really do not believe that such a party is likely to be found until metal market conditions begin to show a substantial improvement.

Very truly yours,

GMC:BBH.

Pay Roll Manager

Chloride, Arizona.
December 12th. 1946.

Mr. G. M. Colvocoresses,
Phoenix, Arizona.

Dear Mr. Colvocoresses:

Many thanks for the copy of
your letter to Mr. Scott. You told him what I have
tried to tell him and with negative results. Let us
hope he will listen to you.

With best wishes, especially
for good health, I am

Sincerely yours

J. G. Blackwell.

GEORGE M. COLVOCORESSES
MINING AND METALLURGICAL ENGINEER
HUMBOLDT, ARIZONA

1108 Luhrs Tower
Phoenix, Arizona

*sub figure on
page 12*

August 5, 1930.

Con
Olin, Clark & Phelps,
149 Broadway,
New York, N. Y. Attn: Mr. Murphy.

Gentlemen:

REPORT ON PAY ROLL MINE

Pursuant to your letter of instructions, dated New York, June 25th, 1930, I have examined and sampled the PAY ROLL MINE, near Chloride, Mohave County, Arizona, property of the Thomas B. Scott Estate, and herewith beg to submit my report in duplicate, together with blue-print of assay map and tabulated analysis of samples.

PROCEDURE

The field work on which this report is based was conducted from July 17th to 24th, inclusive, when I was assisted by George J. Harbauer, a Mining Engineer of long experience, and by two miners who cut, cobbled and quartered the samples under our direction. The analysis of samples was made by H. C. Smoot, Custom Assayer, of Prescott, Arizona, whose work is accurate and reliable.

Every assistance and courtesy was extended us by your representative, Dr. Blackwell, to whom I am indebted for much information regarding the history of the mine and surrounding properties.

On the fourth level (600' level) we ran a survey with a Brunton Transit. The map of the other levels was traced from a blue-print furnished us by Dr. Blackwell and said to have been taken from a mining survey. In some details this print did not appear to be altogether accurate but the discrep-

ancies would not be sufficient to change any essential results or conclusions.

All underground samples were chipped with moils representing roughly a 2" groove across the width of ore. In the better portions of the vein these grooves were made at 10' intervals, elsewhere at 20' intervals. No samples were taken in material which appeared to be waste or almost barren of commercial minerals, and some portions of the mine were inaccessible due to caving of the old workings. Also it should be noted that the vein or stringers of ore at times appeared to run off into the walls of the drifts, so that sampling ore at these points was not feasible, but I believe that our sampling was sufficiently thorough and complete for all practical purposes.

PROPERTY AND LOCATION

There are two patented mining claims, namely, Pay Roll and Black Prince, aggregating forty acres. These are located on the southwest slope of Rainbow Mountain, in the Cerbat Range, Mohave County, Arizona, and near the head of Pay Roll Gulch. They are one and one-half miles northeast from the town of Chloride, and 1.9 mile by auto road, which is in fair condition. The elevation of the collar of the shaft is about 4400' above sea level, that is, 400' above the town of Chloride. Chloride is twenty miles from Kingman by road, and is served by a branch of the Santa Fe Railway on which a train runs once a week, the main line passes through Kingman.

The climate is very dry with average annual rainfall about 6", and it is hot in summer but pleasant during the balance of the year and surface work can be carried

on continuously. The country is rough, rocky and barren with little vegetation, so that it might be classed as "near desert".

GEOLOGY

The formation of this district is pre-Cambrian granite and hornblende schist with intrusive dikes of pegmatite, diorite and aplite. The veins may be classed as intrusive vein-dikes of granite porphyry or pegmatite, and since the original surface has been eroded for a great distance, it is assumed that the minerals were deposited from gases or highly heated waters at considerable depth below the original surface, and that they probably extend to horizons much below those which have been worked to date.

The Pay Roll is one of three large parallel veins striking NW and SE and lying to the east of the town of Chloride. It can be traced on the surface for over two miles and has been made the basis of mining operations at various points, as will be noted later.

The vein is nearly vertical, dipping slightly to the NE, the strike averaging N-38°-W. The footwall country shows considerable schist mixed with the granite. The hanging-wall is practically all granite. Along the footwall of the vein there is a gouge of talcose material which seems to separate the ore from the wall rock. On the hangingwall of the ore there is a band of dike rock which has been classed as aplite or alaskite, and beyond this is found shattered and largely barren quartz with narrow seams of ore gradually shading into the granite proper.

Oxidation has taken place in the vein to a considerable distance below the surface, extending in parts of the mine down to the 400' level. The valuable minerals in

the oxidized portion are principally lead carbonate, zinc carbonate and iron oxide. In spots they are substantially enriched by gold and silver, residual no doubt from the eroded upper portions of the original vein. In the lower and unoxidized portions the minerals are principally zinc blende (sulphide), galena (lead sulphide), chalcopyrite (copper iron sulphide) associated with iron sulphide. Along the second and third levels substantial quantities of the gouge material along the footwall have slipped down into the drifts and in places have made it difficult to pass thru into the workings beyond.

HISTORY

Discoveries of ore in this district date from the early 1860's when prospectors and miners, working east from California, found high grade surface gold ores near Oatman. In the 1870's mining was quite active, silver ores also received attention, and the base metals came into prominence after the main line of railroad was constructed thru this country in 1882.

The Pay Roll Claim was located in 1887 and some high grade ore was mined and shipped from points near the surface. It is said that much of this material had a gold value of \$80, or thereabouts, per ton, but no reliable records appear to have been kept, nor is it now possible to determine from exactly what points the ore was taken, although apparently most of it came from small pockets in the oxidized portion of the main Pay Roll vein where gold and silver would have had an opportunity to concentrate.

The main shaft at the Pay Roll was sunk to a depth of over 200' prior to 1908, and two other shafts had been put down in the vein as noted on the map. It does not

appear that any large quantity of ore had then been taken from these shafts or from any workings excepting those near the surface.

After Mr. Scott acquired this property, in about 1910, he deepened the main shaft, which is in the footwall of the vein, to 400', crosscut to the vein and extended the drifts on this level.

About 1916 the mine was leased to a man named Martin, who shipped some ore from the 200' and 400' levels, but apparently this proved too low grade to warrant continued operations.

In 1924 the Pay Roll Consolidated Company took a lease on the property and sunk the shaft to the 600' level, after which Mr. Scott resumed control and ran the crosscut on the 600' to the intersection of the vein. The last work done (1927-29) was by the Pay Roll Mines, Inc., operating under a lease and bond, and consisted principally in extending the 600' drift along the vein to its present limits as shown on the map. A little ore was mined from the stopes on the 400' and 600' and from the drifts, raises and winzes, and some was shipped crude, the balance sent to the concentrating mill which was built in 1929.

OTHER WORKINGS ON PAY ROLL VEIN

Aside from the shafts mentioned, there are several trenches and shallow pits along the surface of the Pay Roll Claim developing the outcrop of the vein and showing in places oxidized ore. Apparently several other pits were sunk but have now been covered by waste dumps. The Black Prince Claim, which lies to the northwest, does not show any promising outcrops and has not been developed to any substantial extent.

To the southeast of the Pay Roll Claim is located the Mary Belle, owned by Dr. Blackwell, who has also worked near to the north end of the Pay Roll where some lead ore was found near the surface, but apparently did not extend to any depth.

On the Mary Belle Claim there are two tunnels driven in opposite converging directions from the slopes of a ridge which runs at right angles to the Pay Roll vein. The tunnels are in the vein but quite close to the surface, and from both of them a little high grade ore has been taken. Here the vein is fairly strong but either narrow or split up into several stringers. The values are higher in lead than on the Pay Roll Claim, and also said to be richer in gold and silver.

X The Rankin Tunnel starts on the Mary Belle mill-site and runs due ^{east} ~~west~~ 775' from the portal to a point where it cuts the Pay Roll vein with a back of 210'. From this point a drift was run along the vein for about 100', but this is now caved and could not be visited. Where the vein was originally cut by the Rankin Tunnel it shows stringers of lead and zinc ore scattered through quartz and does not appear to be commercial.

All of these workings are within a comparatively short distance of the surface and the ore shows considerable oxidization. They give some encouragement toward further development at depth provided that similar development in the Pay Roll Mine itself should give satisfactory results.

About a mile southeast from the Mary Belle are the workings of the Mayflower Mine from which some good ore has been taken from pockets but where no continuous pay ore

bodies have yet been found. I did not visit this property which has been idle for some time and where I understand that most of the workings are inaccessible.

At a short distance northwest of the main Pay Roll shaft the vein intersects Pay Roll Gulch which appears to be a line of faulting and to cut off the vein altogether. Surface indications lead one to assume that the vein has been thrown a considerable distance to the southwest and the outcrop of a similar vein on the North Georgia property is very probably a continuation of the Pay Roll, although this could not be positively determined from data now available.

It is my opinion that, while the entire Pay Roll vein may be classed as an ore-bearing zone, commercial values are confined to comparatively short and nearly vertical shoots or lenses such as the one developed near the main shaft and the more important shoot at the southeast end of the 600' level. A similar shoot is developed on the Mary Belle and undoubtedly there are many others along the strike of the vein, but their exact location is not indicated by the outcrop and they could only be proved by systematic drifting at a deep level where the oxidization would have disappeared. This would obviously involve a very heavy expenditure which at the present time does not seem justified.

MINE LAYOUT AND EQUIPMENT

The mine is developed by one vertical two-compartment shaft, each compartment being 4' 6" inside timbers with sets of 8 x 10s, spaced 6' apart, and generally lagged solid. There are four levels located respectively at 50', 200', 400' and 600' below the collar of the shaft. The sump extends 25'

below the fourth level.

Two other shafts were sunk in the vein many years ago; one is about 100' east of the main shaft and connects with this through an intermediate level and a raise from the 50' level. This connection is now impassable, although it serves to some extent for ventilation. The second shaft, at a considerably higher elevation, is about 300' to the SE and cannot be descended at the present time. It is not connected with any of the other underground workings. All the above can be best understood by reference to the Blue-print attached.

The equipment in the main shaft consists of a good headframe with sheave-wheel and cable, to which is attached a 14 cu. ft. mining bucket which can be replaced as desired by a 200 gallon baling bucket. At one time a cage was provided but it is said that the hoist was not sufficiently powerful to lift this, together with a loaded ore car, from the fourth level. The mine makes some 3500 to 4000 gallons of water per day, which is baled out to below the fourth level by daily operation of the hoist and baler for about two hours.

The power-house is built of frame timber covered with corrugated iron. There is one 40 H.P. Fairbanks-Morse oil hoisting engine, one 60 H.P. Fairbanks-Morse engine driving a Chicago-Pneumatic 12 x 10 compressor. At the collar of the shaft there is a 4 H.P. Novo oil engine driving a blower for ventilation underground and a centrifugal pump to put water into the tanks. South of the shaft is located a framing shed and blacksmith shop equipped with a forge, hand-driven blower, and Waugh drill sharpener. There is on hand a #5 Cameron sinking pump, also several drills and a considerable quantity of drill steel and fittings.

Other buildings comprise a change-room with shower bath, two small store houses, and across Pay Roll Gulch a combined office building and dwelling house with four comfortable rooms and porch. Buildings and equipment are in good shape excepting the power house which needs some repair. The hoisting engine is of an old type and said to be wasteful of fuel, and, if operations were to be resumed, the engines would probably need a thorough overhauling, re-babbiting of bearings and some other repair work.

CONCENTRATING MILL

X ^{are} The mill, built in 1929 by the Pay Roll Mines, Inc., has a capacity of 50 tons of ore per day. It is located 200' south of the main shaft to which it is connected by a narrow gauge mine track. The crude ore bin and coarse-crushing-plant is on the Pay Roll Claim, the line of which cuts across the belt conveyor which is an offset from the coarse-crushing plant to the main-building. The main-building is on the Millsite Claim belonging to the Pay Roll Mines, Inc., but now encumbered, together with all its equipment, by various liens filed by creditors of the Pay Roll Mines, Inc.

The mill buildings are of frame timber covered with corrugated iron and are well constructed and in excellent shape. The mechanical design of the mill is good and the flow-sheet and treatment of the ore are correct from the metallurgical standpoint involving the separate production of a lead and a zinc concentrate through the application of selective-flotation. In a larger mill it might prove advantageous to make a third product, namely, a copper-iron concentrate, but this would not be economical in such a small plant and, judging from the assays of the concentrates, the copper and gold values in the ore are principally contained in the lead concentrate, which is advantageous from a financial standpoint.

The machinery in the mill was mostly purchased new and is in good condition. Some of it was not skillfully erected but adjustments could be made without difficulty or great expense. The principal items of equipment are as follows:

(A) - In Coarse-Crushing Plant

- 1 - crude ore bin with capacity of 50 tons, covered by a grizzly.
- 1 - 7" x 10" Hendrie & Bolthoff jaw crusher
- 1 - 5" x 9" Joshua Hendy jaw crusher
- 1 - 25 H.P. motor

The conveyor from the coarse-crushing-plant to the main building is housed in a substantial shed and consists of a conveying belt 20" wide and 120' long, equipped with runners and idlers and driven by a 5 H.P. motor.

(B) - In Main Mill Building

Storage bin for fine ore
(crushed to pass 1" ring)
Capacity 50 tons.

Automatic feeder and ball mill 5' x 4'
(no name plate)(Above driven by belt from
50 H.P. Motor)

X Dorr Duplex Classifier 16' x 5' *the same*
The above driven by a belt from a 50 H.P. Motor.

Mineral Separation Company Flotation Machine
(sub-aeration type)
12 cells, each 30" x 44"
Equipped with Link Belt silent chain drive
also Roots blower
This machine built by Joshua Hendy Iron Wks.

40 H.P. Motor to drive flotation machine

- 1 - 20' diameter thickener tank with Dorr mechanism and small motor
- 1 - 10' thickener tank with Dorr mechanism and small motor.
- 1 - Wilfley Table used as a pilot.
- 2 - Dorrco pumps for the thickened pulp feeding the filters

1 - Oliver filter 50" x 36" for zinc concentrates.

1 - Filter (no name plate)
28" x 24" for lead concentrates.

2 - concentrate bins, respectively for lead and zinc concentrates.
Each with capacity of about 30 tons.

NOTE:- (In the zinc concentrate bin there are approximately twenty tons which may be fairly represented by my sample, showing Gold - .12 ozs. per ton; silver - 5.6 ozs.; copper - 1%; lead - 2.5%; zinc 35%.

In the lead concentrate bin there was only a small amount of material which according to my sample contains: Gold - 1.41 ozs. per ton; silver - 63 ozs. per ton; copper - 11.6%; lead - 30.2%; zinc - 5.2%.

Should the concentrating mill be acquired by your clients it is recommended that both lead and zinc concentrates be sold and also any pay material that could be cleaned up in the thickener tanks and other portions of the mill.)

All motors in the mill are A.C., 60 cycle,
3-phase, 440 volts.

About 100' west of the mill is located a transformer house with transformers for reducing the primary current, which comes in at 44,000 volts, to that of the mill circuit, i.e. 440 volts. I was told that these transformers are the property of the Pay Roll Mines, Inc., but am not certain on this point.

The power line of the Desert Power and Light Company terminates in the transformer house mentioned and I understand that power was sold to the Mining Company at 2.75¢ per KW Hour. Undoubtedly this rate could be improved upon if regular operations were undertaken and a good load factor maintained. Under such conditions it might be advantageous to consider scrapping the gas engines in the power-house at the mine and utilizing electric current for the operation of all the mining machinery as this would result in a substantial operating economy.

RELATION OF MILL TO MINE

It is obvious that the mine in its present partially developed condition does not and never has justified the erection of a concentrator since steady operations of the mill could not be forecast until say 30,000 tons of ore were definitely assured and the mine workings properly advanced to permit the economical production of 50 tons per day.

Since, however, the mill has been erected and is actually on the property, the instant question is to decide whether this is worth acquiring at a comparatively low price on the chance of its proving of much greater value to any parties who might operate the mine in the future, or whether the owners of the mine should merely stand on their rights and allow the holders of the liens to remove and sell the building and equipment. I am informed that the total of the liens ^{other than you own} now filed against the Pay Roll Mines, Inc., and the property on their Millsite Claim amounts to ² 6447.76. These liens could probably be purchased for cash with a discount of about 25%, and there seems to be little chance that the Pay Roll Mines, Inc., will be in a position to redeem this property, and to do so they would have to pay the full amount of the liens, plus accrued interest and costs. I should judge that the mill building and machinery actually cost over \$30,000, and it should be worth from \$12,000 to \$15,000 to any company in need of a similar mill, but in the event that no such purchaser could be found and that operations are not resumed at the Pay Roll, it might have to be sold to secondhand machinery houses, in which case the net price that might be realized would probably not exceed \$6,000 or \$7,000, considering the great surplus of secondhand machinery which is now on the market.

QUANTITY AND QUALITY OF ORE

The blue-print attached shows the plan and section of the Pay Roll Mine and also the location by number of the samples taken in the course of my examination. The tabulation of assays gives the respective width and analysis of each of these samples. No analysis for copper was made on samples taken in the upper levels where this metal was noted only in negligible quantity, and the percentage of both lead and copper in the samples from the lower level is disappointing. The character and width of the vein varies to a considerable extent in different parts of the mine and in sampling we aimed to cover only the width of pay ore which should be mined as clean as possible in order to keep up the grade. In places where the ore is wide - for example in the southeast end of the fourth level - a certain amount of sorting could be advantageously done, decreasing the tonnage by probably 25% and increasing the average grade of the material mined by from 15% to 20%.

I have not placed any value upon the various samples for the reason that the prices of all the metals contained (excepting gold) have varied so widely during the last few months and are now at such an abnormally low level that any such valuation might become wholly meaningless within the course of the next few months. As an example, consider the ore developed along the southeast section of the 4th level, represented by samples #7 to #35, inclusive. This ore-shoot has a length of 360' and an average width of about 5', the maximum width being in excess of 10' at the winze, but decreasing to the northwest. The grade of this ore is:

Gold	-	.1 oz. per ton	= 3.50
Silver	-	3.0 ozs. " "	2.10
Copper	-	.4%	
Lead	-	.84%	
Zinc	-	7.6% <i>by 100% Cu.</i>	<i>15.00</i> <i>20.00</i>

For comparison with this average I took a sample of the ore in the mine bin which was said to have been taken largely from this section of the mine, the analysis of which was as follows:

Gold	-	.08 oz. per ton
Silver	-	3.40 ozs. " "
Copper	-	.7%
Lead	-	2.3%
Zinc	-	6.1%

The metal contents being slightly above the average of the mine samples above quoted.

Now the gross value of the ore which might be mined from this section of the fourth level without sorting is \$11.00 per ton, based on present metal prices, whereas it would have been \$16.45 per ton in July, 1929. These figures are merely quoted for purposes of comparison since the gross value of any ore means but little to the producer and real importance attaches only to the net value which must be figured out by very complicated calculations.

Considering that the Pay Roll ore, (except in a few scattered pockets), is not sufficiently rich to be shipped crude to a smelter, calculations must be made on the basis of concentrating the ore and shipping the two classes of concentrates produced with due allowance for tailing and other losses in concentration, for the fact that some of the precious metals will be contained in the zinc concentrates where they have little or no value, that some of the zinc will be contained in the lead concentrates, and some of the lead in the zinc concentrates, and that the concentrates must stand the cost of trucking, railroad freight, treatment, refining and marketing charges, and smelter deductions and penalties. Considering then the character of the concentrates produced in the Pay Roll mill, as indicated roughly by the samples taken and making due allowance as above, it is apparent that the net value of the

ore of the east end of the fourth level is about \$6.40 per ton on the basis of present metal prices and would have been about \$9.50 on the basis of the prices which prevailed a year ago.

400'
The best grade of ore in the mine was found on the third level and in the stope above it (samples #36 to #45, inclusive), but the width of this ore was only about 2', the length of the shoot being figured at 150'. The net value of this material is at present \$15.00 per ton, and would have been \$22.50 per ton a year ago.

To figure the operating costs I estimate the expense of normal development and mining, considering the average width and character of the vein, at \$4.50 per ton, and the cost of milling at \$2.50, with general expense, overhead and supervision estimated at \$1.00, aggregating a total operating cost of \$8.00 per ton of ore, which figure should be increased to about \$9.00 per ton, if sorting were carried out as suggested. It therefore appears that under present conditions, or even under those which prevailed a year ago, only the ore in the vicinity of the stope on the 3rd level could be mined and milled with profit, but, since the tonnage available at this point is extremely problematic and the width of the vein so narrow as to increase the average mining cost, it would not be advisable to make any optimistic forecast regarding the possibility of handling even this ore with advantage.

Considering then the actual present condition of the mine, I should say that on the two upper levels there is no pay ore developed except at one or two points where small pockets or chimneys occur and where the gold or lead values are sufficiently good, as at the location of sample #43 and #38, to make it possible for small operations to be conducted with advantage, preferably by lessees.

On the third level there is a small shoot of ore which justifies some further development particularly the upward extension of the raise which was inaccessible for sampling, and it is possible that some ore might be profitably taken from this point provided sufficient additional ore could be developed in other sections of the mine to permit the operation of the concentrator.

The south end of the third level is too low grade to be commercial but a further extension of the drift is justified on the chance of developing a somewhat better grade of material and for the purpose of extending at least to the point where the raise from the fourth level would intersect the third level drift.

The showing on the fourth level is the most interesting in the mine, for, while the grade is not sufficiently good to permit profitable mining, there are indications that the ore is both widening and improving in grade with depth and the values in copper and zinc appear to be increasing. This showing justifies development, preferably the sinking of the winze for an additional 100' and farther if the expected improvement is then apparent. It is my opinion that the future value of the property will depend almost entirely upon the results of this development and no definite estimate regarding this value can be made at the present time. It will be noted that this ore-shoot is fairly continuous for a length of 360', having an average width of 5' and being 10' wide in the vicinity of the winze, ~~so~~, therefore, the winze itself could be sunk entirely in ore. The quantity of ore which might be developed in this shoot figures at 200 tons per vertical foot, so that there is a probability of proving up 20,000 tons by deepening the winze 100' and running a drift for the length of the ore at this level, or double this tonnage by going down 200' and repeating the drifting, always assuming that conditions do not change adversely while such work is in progress. Obviously it would be of no advantage to develop a large tonnage of

non-commercial ore, but I am strongly of the opinion that the mine workings are just beginning to enter the pay zone and that during the next 100' the ore value will substantially improve. Should this prove not to be the case, the work could be stopped at any time that such action appeared justified.

DEVELOPMENT WORK RECOMMENDED AND ESTIMATED COST

Should the owners of the property or other parties decide to proceed with operations at the Pay Roll Mine, the following work is recommended both for the purpose of complying with the State Mining Laws in reference to escapement ways and with the object of developing additional ore reserves:

Overhauling mine plant and building, and minor repairs. Estimated cost.....	\$ 675.00
Extending 400' level about 50' south- east and cleaning out drift. Estimated cost.....	1,000.00
Completing raise from 600' to 400' level. Distance 105'. Estimated cost.....	1,575.00
Completing raise from 400' to 200' level. Distance 100'. Estimated cost.....	1,500.00
Driving raise from 200' to 50' level Distance 150'. Estimated cost...	2,250.00
Cleaning raise from 50' level to intermediate level and inter- mediate level to old shaft. Retimbering the above and pro- viding same with proper ladders. Estimated cost.....	1,000.00
Deepening winze at east end of 600' level for 100'. Estimated cost.....	5,000.00

Crosscuts on 600' level.....	\$ 500.00
Crosscuts and drifts from winze 100' below 600' level.....	2,000.00
Deepening winze an additional 100' and crosscuts and drifts at bottom.....	8,000.00
Overhead, engineering and inciden- tals.....	1,500.00
TOTAL.....	<u>\$25,000.00</u>

This development work might reasonably be expected to bring the positive and probable ore reserves of the mine to from 40,000 to 50,000 tons in which event, assuming that the grade of the newly developed ore improves as expected, stoping and milling operations would be justified with a resultant profit dependent on the average grade of material produced and the market prices of the metals, - neither of which factors can be forecast at present.

CONCLUSION

The Pay Roll Mine in its present condition must be considered as only a partially developed property with practically no reserve of commercial ore that can be classed as either positive or highly probable. The general conditions indicate that the upper workings of the mine are in a portion of the vein which was never highly mineralized or where oxidation and leaching have robbed the vein of its original values, excepting those in gold and silver which have been increased by concentration at certain specific points. The geology of the deposit and the showings in the lower levels of the mine indicate that the true ore zone is being approached and encourage the belief that a more substantial mineralization

and higher values, particularly in copper and zinc, will be found at greater depth. The showings at the southeast end of the fourth level should be made the basis of additional development in depth and this development appears justified and is recommended subject to an improvement in the metal markets and particularly the price of zinc which constitutes the principal content of the ore and is likely to increase as greater depth is gained.

S. L. Colverson

GEORGE M. COLVOCORESSES
MINING AND METALLURGICAL ENGINEER
HUMBOLDT, ARIZONA

1108 Luhrs Tower
Phoenix, Arizona.

March 24, 1930.

Mr. Martin LeBoutillier,
Ellinwood & Ross,
Luhrs Tower,
Phoenix, Arizona.

Dear Mr. LeBoutillier:

REPORT ON VISIT TO PAY ROLL MINE AT CHOLRIDE, ARIZ.

Pursuant to arrangement made between us, I visited the Pay Roll Mine on March 15th, and beg to submit the following:

This property is under lease to the Pay Roll Mines, Inc., as per agreement dated September 6, 1929, and is at present in charge of Frank Herbelt, employed as watchman and caretaker by the Pay Roll Mines, Inc. Dr. Blackwell, of Chloride, also appears to assist in protecting the property, but whether or not he is employed by the Pay Roll Mines, Inc., I did not ascertain. At the time of my visit both of these men were working on the road leading to the mine which had been quite severely damaged by recent rains.

The mining plant is all on the Pay Roll Claim and consists principally of a good galleys frame and hoist house in which is located a 40 H. P. Fairbanks-Morse type MB Oil Hoisting Engine, and a 60 H. P. type N Fairbanks-Morse Oil Engine driving a 10 x 12 Chicago Pneumatic Compressor.

A blacksmith shop with Waugh Drill Sharpener and usual equipment is located near the shaft, also a store room in which were found drills, steel and various small items of equipment. There is a change room with provision for lockers and baths.

All the above I understand to be the property of the Owner and installed prior to the present lease, but, since the Pay Roll Mines, Inc., took over the property, they have installed a small engine and a Buffalo Blower for ventilating the shaft, and have also erected a short distance from the mine a sizable dwelling house which was used by the Manager of the Leasing Company and his guests on the occasion of their visits to the property.

The buildings are in fair condition, although some leaks were noted in the hoist house and change room and a certain amount of minor repairs would be in order. The machinery seemed to be in good condition and the hoist, which operated during a portion of my visit, ran very nicely. This hoist is used almost daily to bale the water from the shaft which is accomplished through the use of a large bucket.

The last mining work was done on October 5th, 1929, and since then only the watchman and possibly Dr. Blackwell have been regularly employed. I have known both of these men previously and believe them to be thoroughly reliable, and their duties have been principally the baling of the mine so as to keep the water down below the 600' level. This has been done, at least every second day. The mine makes about 4,000 gallons of water per day and, should the water be allowed to rise, it would eventually come up to about the 300' level.

In accordance with the terms of the lease, Non-Liability Notices had been posted by the Lessee at the collar of the shaft and in the change room. At each location there were two notices, one dated in 1926, referring to a lease given to Martin Thorniley and since expired, and the second dated in September, 1929, referring to the present lease. The notice of the present lease posted near the shaft had become almost entirely illegible and a new notice should be posted at this point prior to resuming any active operations. I suggest

also that similar notices should be placed in the hoist house and on the door of the large dwelling which, I understand, was used more or less as an office.

In respect to the financial condition of the lessee, I was advised by the watchman that he had recently received encouraging letters and expected that the company would soon be sufficiently financed to resume operations. This expectation was not altogether confirmed by discussion with parties in Kingman, nor by consultation of the County Records, which indicate that the following liens have been filed and recorded against the Pay Roll Mines, Inc.:

H. C. Keys (Filed 1/4/30)	Material Lien	\$1758.80
S. S. Jones (Filed 1/31/30)	Labor Lien	1100.00
Fred Frenninger (Filed 9/22/29)	Labor Lien	551.00
Thompson-Dudley Machinery Co. (Filed 12/13/29)	Material Lien	309.95
Tarr, McComb & Ware (Filed 12/30/29)	Material Lien	1019.22
The total of the above liens amounts to.....		<u>\$4738.97</u>

*It is in
Calyf. Sup.*

The said liens are filed against the Pay Roll Mines, Inc., a Corporation, but do not mention the State by virtue of whose laws it exists. The liens also cite Lee Campbell, the local manager, who was not in the vicinity at the time of my visit and specific reference is made to the property of the debtor, i.e. the Millsite Claim with improvements thereon, but no mention is made of the leased property, i.e. the Pay Roll and Black Prince Claims, nor of improvements located on them. My attorney in Kingman assured me verbally that none of the property of the parties whom you represent could be held responsible for payment of the liens.

Insofar as I was able to learn from the County Records, no attachments have yet been issued against any of the property of the Pay Roll Mines, Inc., nor are there any actions pending against this company. From the above I assume that the creditors believe that in all probability the Pay Roll Mines, Inc., will eventually be able to re-finance themselves and meet their obligations.

I walked over portions of the Pay Roll Claim, but, as a heavy snow storm was in progress, did not attempt to visit the Black Prince on which I understand there are no improvements. I noted the dump in the vicinity of the Pay Roll shaft but a considerable part of the ore which formerly formed the dump was sent to the mill during the operations of the lessee in 1929 and apparently the remaining ore is largely oxidized and of lower grade.

I visited the concentrating mill which is located on the Millsite Claim a short distance south of the shaft and connected with it by a narrow gauge track. The mill itself is a fairly substantial building and contains complete equipment consisting essentially of a crude ore bin, two small jaw crushers, belt conveyor to storage bin in the main building, 4 x 5 ball mill with secondhand Dorr Classifier and 12 cell Mineral Separation flotation machine, from which both lead and zinc concentrates were produced. There are separate Dorr Thickeners and Filters for lead and zinc concentrates and one table used principally as a pilot. The water for the mill was obtained from the Mayflower and Minnesota Mining Properties adjacent and was said to be ample for this purpose.

A considerable quantity of zinc concentrates (about 15 tons) remain in the bin and a very small quantity of lead concentrates. I noted on the crushing floor some very nice pieces of ore which the watchman informed me had been taken from a winze started from the 600' level just before the property shut down and which was said to run better than \$9 in gold and silver values, as

well as to contain a substantial percentage of both lead and zinc.

I desired to inspect all of the underground workings of the mine, but, although the blower had been running for some hours, the air was still foul in the lower levels and the watchman did not consider it safe to make this trip, which, however could easily be made if the blower was started a day or so in advance of any expected visit.

I went down with the watchman on ladders to the first level and went through workings at this point and was quite favorably impressed with the general condition of the mine and the ore occurrence as it could be noted at this point. In some places the ore shoot was oxidized and values leached but the vein is exceptionally strong and I am told that it can be traced for a considerable distance on the surface and appears to be persistent and well mineralized in all of the levels of the mine.

The present Lessee took over the property when the shaft had just been sunk to the 600' level and the station cut at that point. The Lessee crosscut to the vein which is about 100' away from the shaft and drifted on the 600' level a distance of about 540' to the South, and started a winze 450' south of the crosscut. I am told that the ore in this drift varied from 3' to 11' in width and was of good milling grade, particularly near the winze where the width was 11' and gold and silver values exceptionally high. Information obtained from local engineers and my limited inspection of the upper workings tended to confirm these statements except that I did not note any place along the first level where the vein appeared to be more than 6 or 7' in width and it is stated that both width and grade tend to increase as depth is gained, which statement, if true, would indicate that the property might have a promising future.

The timbers in the shaft appeared to be in good condition and some new ladders had been put in by the present lessee. I do not think that any substantial damage would result

if the water were allowed to rise to its normal level since timbers which are constantly under water only rot to a slight extent and the dampness in the upper part of the shaft which causes speedy rotting would not be much greater than at present.

As a general suggestion, I believe that it will be in the interest of the owners of the property to allow the present lessee to remain in possession for a time, even though it is in default on certain provisions of the lease, which default it should remedy before resuming active operations. By this plan you are at least assured of the presence of a competent caretaker and operating the hoist at frequent intervals for the purpose of baling water is better than leaving it idle.

The present market conditions, especially in respect to silver and zinc, make it extremely difficult to finance any operations similar to those conducted on the Pay Roll Mine, or to operate with a reasonable margin of profit. I have no reliable information as to the grade of ore developed in the mine nor the grade of material sent to the concentrating mill, although I presume that the owners have the mill records in their possession and also such mine maps as have been made *but* I am inclined to believe that it would be to the interest of all parties concerned to keep the property in good shape and condition but not to attempt active operations until there is a substantial improvement in the prices of lead, zinc and silver, after which it is to be hoped that the Pay Roll Mines, Inc., may be able to resume active work and pay up local accounts and their obligations to the Owners, as per terms of the lease.

Should the Pay Roll Mines, Inc., be unable to resume operations, I feel that the owners should make every effort to see that the concentrating mill now located on the Millsite Claim remains intact, as this is a valuable and essential adjunct to the Pay Roll Mine, and, under normal conditions, I think that mine and

mill could be operated with reasonable profit, assuming that statements made to me in regard to the quantity and grade of the ore in the mine are substantially correct.

This last point could be readily verified by proper examination and sampling.

Very truly yours,

L. H. Colburn

GMC:EBH.

GEORGE M. COLVOCORESSES
MINING AND METALLURGICAL ENGINEER

~~HUMBOLDT ARIZONA~~
1108 Luhrs Tower
Phoenix, Arizona

May 1, 1930.

Mr. Martin LeBoutillier,
Ellinwood & Ross,
Luhrs Tower,
Phoenix, Arizona.

PAY ROLL MINE

Dear LeBoutillier:

Referring to conversation of yesterday in reference to the Pay Roll Mine, I regretted to learn that since my visit to Kingman at least one of the liens filed against the Pay Roll Mines, Inc., had been made the basis of a suit against that company.

I certainly feel that the mill constructed by the Pay Roll Mines, Inc., is a very important adjunct to the property of your clients and that every effort should be made to keep this in tact. The value of the mill building and equipment which it contains is unquestionably much greater than the total amount of the liens filed against the Pay Roll Mines, Inc., as listed in my report of March 24th, and, even if this equipment should be sold to secondhand machinery men, it would certainly bring close to \$10,000. I would suggest that it might be possible to purchase the liens against the Pay Roll Mines, Inc., perhaps at a lower figure than their face value and to hold these as a first and prior claim against the Millsite Mining Claim and all improvements thereon, including the concentrating mill and equipment.

In reference to the assessment work for the past year, I am quite certain that the work done by the Lessee subsequent to July 1, 1929, would be far more than sufficient to cover the assessment on the Pay Roll and Black Prince Claims, and I think steps should be taken to have the affidavits covering the performance of such assessment work recorded by the proper parties between now and July first.

In reference to the possibility of operating the Pay Roll Mine, I pointed out that present market conditions are unfavorable in respect to the prices of silver and zinc, and it would be impossible to make any accurate forecast of operating results until one had obtained reliable information concerning quantity and average grade of ore developed in the mine. No such information was given me by local parties and does not seem to be in existence, unless in the records of the leasing company or, perhaps, in records in the possession of the owners.

According to verbal statements made by the caretaker and others, and checked to some extent in conversation with local engineers, who had visited the property but none of whom had made a thorough sampling, the mine contains a very substantial quantity of ore which will average better than \$5.00 per ton in gold and silver, 5% lead and 10% zinc, and the mine could be speedily brought to a state of production at the rate of fifty tons or more per day. On such a basis I do not think that the cost of mining and normal development should exceed \$4.00 per ton, and the cost of milling would be approximately \$2.50, with general expense, overhead, etc., running to about \$1.50, bringing the total working costs to approximately \$8.00 per ton. This figure could be substantially improved upon if a larger daily tonnage could be mined and milled.

The mill recoveries should represent 90% of the gold silver and lead values and about 80% of the zinc, and due allowance must be made for truck haulage and railway freight, treatment and refining charges, smelter deductions, etc. It is, therefore impossible to estimate the net return per ton without knowing accurately the average percentages of the various metals contained in the ore, the percentage of oxidized material, if any, and the ratio of concentration; but, very roughly, I think that returns might run about \$11.00 per ton of ore if grade is as stated and if present prices of metals are maintained. These prices are, as you know, very low - 42¢ per oz. for silver, 5.40¢ per lb. for lead, and 4.90¢ per lb. for zinc, but, even so, the profits figures at

\$3.00 per ton.

It would also be impossible for me to give you, on the basis of present information, any accurate estimate of the amount of initial expenditure necessary before the mine and mill could be put on a basis of steady operation, but I do not think that this should exceed \$20,000, excluding any payments that might be made to cover the indebtedness of the Pay Roll Mines, Inc.

In an old report of the U. S. Geological Survey, I find reference to the Pay Roll Mines, then owned by Mrs. Murphey of Kingman and Judge Hawkins of Prescott, and a statement to the effect that considerable high grade ore, some of which averaged \$30.00 per ton in gold values, had been shipped from the upper workings. I doubt if any such material remains on the property, but, in going through the first level, I was impressed with the possibilities of opening up additional ore at this point and developing the ore which was indicated on the level, and I also noted on the surface several samples of very excellent ore which I was told came from the 600' level and a winze that had just been started below that point and which certainly contained a much higher percentage of both lead and zinc than the average grade mentioned above.

I repeat that I believe that this mine has substantial value and it is my impression that the failure of the Pay Roll Mines, Inc., to operate profitably was due to lack of finances and mismanagement, since I understand that the men in charge of recent operations at the mine were neither technically trained nor experienced in mining matters.

Even should the owners of the property feel that it is inadvisable to attempt any mining and milling operations, I strongly advise that they should take such steps as will keep the property in good condition and prevent the mill from being dismantled or removed from the Millsite Claim. I also feel that it is extremely important that a thorough sampling of the lower levels of the mine should be made while the property is being kept

unwatered, which I gather, may not be the case much longer, because, if the owners have any expectation of selling or leasing this mine to other parties, a complete and accurate assay map and underground survey is generally absolutely essential to putting through any deal of this kind with responsible people, and, if the water is allowed to rise, such work could only be done subsequently at very much greater expense than at present.

I shall be very glad indeed to cooperate and assist you, if you care to have me do so, in carrying out any plan of procedure that the owners may believe expedient.

Very truly yours,

GMC:B EH.

1929

MINING PROGRESS REPORT

PAYROLL MINE

CHLORIDE, ARIZONA

-MINING PROGRESS REPORT

PAYROLL MINE CHLORIDE, ARIZONA

Herein is that pertinent data gathered during a hasty reconnaissance of the Chloride mining district; with the Pay Roll vein and surface workings studied with additional detail.

With accurate information regarding underground measurements, all estimates are considered close approximations, figured on the basis of the approximate estimates of an average major property, run on an efficient scale.

An early reconnaissance map was kindly furnished the writer by Mr. Robt. West, of the Tennessee Mine at Chloride. The geologic setting obtained from a brief perusal of this was priceless during the brief investigation.

GEOLOGY

The wall rocks are granite, intruded into gneissic granite and dark schist. The vein ranging in width from 1' to 6' is nearly vertical, strikes nearly north-south, about parallel to the fractured and fissure zones in the granite. The principal surface indications of the vein are several bands of white quartz, and heavily limonitic stained cavities, vein, and granite fractures.

The ores associated with these rocks and zones are zinc blende, galena and chalcopryrite; in the main all are of primary ori-

igin and have a common white quartz gangue.

LEVELS

50' level - consists of 320' of drifting on the vein, east. An ore shoot of galena, (lead sulphide) width 3' appears from 270' to the face of the drift. The grade of ore was not disclosed. Samples look attractive. The vein stands nearly vertical with clear cut walls.

400' level - consists of 270' of drifting on the vein, east. This shoot developed for 100' is composed of galena, black-jack (zinc sulphide) and chalcopryrite (copper-iron sulphide). Gold appears to be associated with the zinc and chalcopryrite. The vein is from 3 to 5' wide, good milling ore with zinc predominating, galena second, and a lesser amount of chalcopryrite. The gold is said to have run \$4.00 - zinc looked to be about 10% (\$12.00) - copper not over 1% (\$4.00) - lead about 4% (\$5.00).

Ten dollar ore makes milling worth while - \$25.00 ore looks exceptionally good.

600' level - on this level a 6' vein of good milling ore has been developed from 230' East to 320' East, of the shaft, 90'. The ore consisting of black jack, galena and chalcopryrite with black jack predominating, looks very promising. The percentage estimates are, zinc 12%, lead 4% and copper 3%. All these occur in the same clear cut vein, with quartz gangue and nearly vertical walls. A representative sample taken from the face of this drift gave \$17.00 gold. The gold no doubt is associated with the chalcopryrite, the latest mineral

formed, and is most certainly increasing in quantity, with depth. This drift still has 500 feet to go east to the east limit of the claim.

TONNAGE

With 100' backs over 400' level, with at least 3-1/2' width and 100' length, 12 cubic-~~yards~~- feet of ore to the ton, in place:

$$\frac{100 \times 100 \times 3.5}{12} = 3000 \text{ tons.}$$

With 200' backs (600' to 400' level) over 600' level, 4' width and 90' length at 12 cubic feet of ore per ton, in place:

$$\frac{200 \times 90 \times 4}{12} = 6000 \text{ tons.}$$

Total ore in sight 9000 tons. Mill capacity, 50 tons per day.

$$\frac{9000}{50} = 180 \text{ days}$$

A 6 months run is an extremely small tonnage to justify the building of a 50 ton mill. However, future developments may prove up ample ore for many years, for, the depth of the ore below the 600' level should be at least the length of the ore shoot, on that lower level.

MILL

The 50 ton all-flotation mill consists of the following:

- 1 - 12" x 8" jaw crusher from mine run to 2"
- 1 - 12" x 8" jaw crusher from 2" to 1/2", or ball mill feed.
- 1 - 8' ball mill in closed circuit Dorr Classifier - the return from the Dorr back to the ball mill - the discharge to the flotation cells. Flotation machines make a zinc concentrate, and a lead-copper

concentrate.

1 - 20 ft. Dorr thickener for zinc concentrate.

1 - smaller thickener (not yet installed) for lead-copper concentrate.

2 - Oliver continuous filters for dewatering concentrate going into the shipping bins (not yet installed).

1 Wilfly pilot table.

This mill is absolutely modern and well constructed, on good concrete foundations, and should handle 50 tons per day easily. The efficiency of operation depends on the talent secured. Everything is electrically run with power from the city of Kingman 18 miles south. The cost of the mill should not exceed \$25,000.00.

The water supply available is that from melting snows; this water is perfect for milling but the supply is extremely small and uncertain. The mine makes 3 gallons per minute, pure enough for floatation use, but attendant with forming of mineral sulphates, may fail at any time. A water problem would then ensue.

MINE EQUIPMENT

1 - gasoline hoist 100 HP in shaft house, with sturdy head frame, good to 1000' level. Capable of hoisting 50 tons per day of 8 hours.

1 - 40 Hp gas engine on a 10 x 12 Ingersoll-Rand compressor, good for 3 jack hammers or 4 stopers. 3 stopers working 8 hours should break 50 tons of rock per day. 2 jack hammers could be used on another

8 hour shift to drill faces and develop further blocks of ore.

The mine has been closed to any ore production for about a year (this appears unreasonable) but now since the mill is about completed, operations should start not later than April 1st, 1929.

(Signed) Wm. T. Foran
Geologist.

September 14, 1916

Report on The
"Pay Roll Mine"
Hualpai Mining District
Mojave County, Arizona

By
Waldo C. Twitchell.

LOCATION AND DESCRIPTION

To quote from Schrader, Bulletin #397, U. S. Geological Survey:-

"The Pay Roll Mine is about one and half miles east of Chloride, Arizona, near the middle of the west slope of the Cerbat range. It is situated on Pay Roll gulch near its head, at an elevation of about 4,400 feet, whence the surface rises steeply to about 5,200 feet in Rainbow Mountain on the northeast.

The property, aggregating 40 acres, consists of two claims, known as the "Pay Roll" and "Black Prince".

The country rock consists of the usual pre-Cambrian crystalline schists, with granitoid rock predominating in the hanging wall and schist on the foot wall side.

The mine is situated on the Pay Roll vein or lode, which strikes about N 30 degrees W and dips steeply to the northeast; the structure is adjacent rocks tends about N 40 degrees W with the dip approximately vertical. The Pay Roll is one of the largest veins in the Chloride region and as shown by its persistent croppings, has a horizontal extent of about a mile. It varies from 6 to 100 feet in thickness; ten feet being a fair average. The gangue is mainly quartz and the vein in places is separated from the wall rock by a thick sheet of argillaceous or talcose gouge".

THE DISTRICT

Generally speaking, the ores of the Chloride District consists of the sulphides of lead, zinc and iron containing varying amounts of gold, silver and copper. The surface ores show the effects of atmospheric oxidation, with the removal of sulphur, but retaining gold, silver and lead. Many of these surface ores have proven highly profitable, even under excessive transportation charges which formerly prevailed, on account of their gold values. In the "Pay Roll" mine many carloads of shipping ore, reported at \$80.00 a ton, were extracted from the old stopes on the North Drift of the 50 foot level. (See attached map.)

Most of the veins of ore which have been opened to any considerable depth are large and persistent as well as being very regular. The Tennessee Mine, owned by the United States Smelting and Refining Company, is half a mile west of the Pay Roll. This famous mine has reached a depth of over 1400 feet. It has an average annual production of about \$8,500,000.00 and the records for 1915 was a little over \$10,000,000.00. The Minnesota-Conners is south of the Pay Roll about half a mile. It has a record of a million dollars. The Golconda Mine, owned by the Amster Interests of Boston, lies a few miles farther south and in 1915 paid two dividends of \$85,000.00 each. The Rainbow Mine, which has a large body of fine ore, is located near the summit of Rainbow Mountain which rises abruptly east of the Pay Roll.

In general, there are many mining properties in this immediate vicinity which former commercial conditions have kept in obedience but today, with proper equipment and management will pay handsomely. For many years the Chloride District was slept with only one mine, which was properly equipped and financed and in full operation, but today all is bustle and activity in this camp. Conditions are very favorable for working as the Santa Fe railroad enters Chloride. There is sufficient water for mining and milling operations, while mine timber and all supplies are easily gotten.

THE PAY ROLL.

The present condition of the property, as to underground development work is shown by the attached map of the workings. The main working shaft, double compartment excellently timbered, is sunk to a depth of 425 feet. There are two other prospect shafts on the claims. Shaft #2 is sunk to 100 feet and #3 is down to a depth of 60 feet. There are numerous open cuts and the test pits on the two claims which give excellent surface showings.

As shown on the sketch map, three levels have been opened up; #1 South Drift on the 50 foot level is 400 feet in length with approximately 138 feet of cross cuts through the vein matter into the hanging wall. There is one raise in this drift. I did not explore it, but from appearances I would say that it extended almost to the surface and had followed the ore shoot all the way.

Development work north on the 50 foot level consists of a main tunnel from the surface, 80 feet in length, two cross cuts one winze sunk to a depth of 50 feet, and several old stopes, from which high grade ore has been extracted. I would roughly estimate that about 1000 tons of this ore had been removed from the stopes on this level. This ore evidently contained mostly gold and silver and as the lead and zinc veins are untouched. This ore is said to have averaged about \$80.00 per ton. This would agree with the reputed production from this level which was given me as being in the neighborhood of \$75,000.00. The 50 foot level of the Pay Roll was mined at least 25 years ago, practically no work having been done since that time.

The development work on the 200 foot level consists of a South Drift about 200 feet in length. Three cross cuts through the vein matter to the hanging wall, aggregating 70 feet. One stope 6 x 30 x 15 has been opened up. About 200 tons of rock has been taken from this stope. The North Drift is about 150 feet in length with two feet, wall cross cuts of 25 and 24 feet respectively and three small hanging wall cross cuts of 12, 13, and 10 feet respectively. This level has been prospected at various times during the last 15 years.

When the present owner obtained control of the property, he immediately sunk the main shaft to a depth of 425 feet. At the 400 foot level he cross cut east 71 feet and found the rich foot wall vein. Development work on this level is being actively pressed today. The South Drift is about 112 feet in length and the North Drift about the same distance. These drifts follow the rich foot wall vein and are in ore the entire distance. Progress is being made at the rate of about 5 feet per day. The full width of the vein on this level has not yet been determined, however, two cross cuts to the hanging and foot walls are to be started in the immediate future.

The surface equipment of the Pay Roll is modern and of the very best. A 40 H.P. Fairbanks-Morse gas engine supplies the power for the hoist and a small compressor. The head frame is heavy, new and well constructed. The blacksmith's shop is small but well equipped. A new compressor, 265 Cu. ft. capacity was ordered sometime ago. This will enable from 3 to 4 machine crews to work underground. The present compressor handles one jack hammer drill.

Water is removed from the pump at the bottom of the shaft by baling. Over 15,500 gallons being hoisted every 24 hours. This is ample supply for a 50 ton mill. The Pay Roll mine also owns a large spring on the west face of Rainbow Mountain and a larger flow of water is expected with depth in the mine.

CHARACTER OF ORES.

The description given by Schrader will hardly fit the present case as the ore on the lower working is altogether different; consisting entirely of unaltered sulphides, largely of zinc and carrying gold and silver. Referring again to the attached sketch map for the location from which the following samples were cut:

CHARACTER OF ORES (Con't.)

		<u>Zinc %</u>
#1	400 level.	10.79
2		15.70
3		13.63
4		7.42
5		12.54
6		9.70
7		9.92
8		16.02
9		3.27
10		18.31
11		34.99
12		<u>20.60</u>
Average		14.74%

A composite sample from the above twelve samples assayed as follows:

Gold	.36 oz.
Silver	3.00 "
Lead	None
Zinc	14.74 %

Value:	Gold	\$7.20	
	Silver	1.80	¢
	Zinc	<u>17.69</u>	(Zn at 6%) per ton
	Total	26.69	per ton.

Value:	Gold	\$7.20	
	Silver	<u>1.80</u>	¢
	Zinc	23.58	(Zn at 8
	Total	\$32.58	

Three samples cut across the vein on the 200 level assayed as follows:

		<u>Zinc %</u>
#13	200 level	5.67
14		11.66
15		<u>9.37</u>
Average		8.90%

A composite assay for gold and silver gave:

Gold, Trace
Silver, 3.00 oz.

Value	Silver	\$1.80	
	Zinc	<u>10.68</u>	(Zn at 6¢)
	Total	\$12.48	

Value:	Silver	1.80	
	Zinc	<u>14.24</u>	(Zn at 8 ¢)
	Total	\$ 16.04	

Five samples taken across the vein in the 50 foot level assayed and averaged as follows:

Gold	0.13 oz.
Silver	2.77 "
Lead	3.40 %
Zinc	11.00

Value:	Gold	2.60	
	Silver	1.66	
	Lead	2.72	
	Zinc	17.60	(Zn at 8 ¢)

Total	\$24.58
-------	---------

Gold	2.60	
Silver	1.66	
Lead	2.72	
Zinc	13.20	(Zn at 6¢)

Total	\$20.18
-------	---------

ESTIMATED TONNAGE:

Referring to the diagram, the following areas and volumes are determined:

	<u>AREA</u>	<u>VOLUME</u>
Section	"A" 40,000 Sq. ft.	200,000 cu. ft.
"	"B" 30,000	165,000
"	"C" 13,000	82,500
"	"D" 10,000	65,000
"	"E" 20,000	130,000
"	"F" 10,000	65,000
	TOTAL	707,500 cu. ft.

Assuming 13 cu. ft. equal to one ton of rock, then there are approximately 54,400 tons of rock blocked out in the Pay Roll Mine at the present time. There is approximately 5,600 tons of ore on the dump. This gives a grand total of approximately 60,000 tons of ore that is ready to be mined and milled.

It should be noted carefully that this estimate is based upon the contents of a single ore shoot and as developed in its greatest length on the 50 foot level is only 400 feet long, or not quite a third of the length of the claim. The general appearances and the assays in the faces of the south drifts on the lower level gives every indication that the end of the ore shoot has not been reached and evidently will increase with richness in depth and continue to the south.

TREATMENT

Such great advances have recently been made in the metallurgy of zinc ores that no attempt will be made to definitely outline the process of treatment of these particular ores. It is a subject for close study which will entail some little time in order to reach the apex of recent achievement. It is not intended to infer that the concentration of these ores is difficult to any extent, but I do not wish, at present, to commit myself to any conventional process, other than to say that the Pay Roll ores, carrying relatively little galena and pyrite, but a high percentage of blend can be readily concentrated into a very high percentage product. For the sake of comparison, I quote some examples of the results being obtained in the Needles, California, mill, operating on low grade ore and old dumps from the Tennessee Mine. The following data is taken from the mill-sheet of May 19, 1916.

	<u>Wet Lead</u>	<u>Zinc</u>	<u>Silica</u>	<u>Iron</u>
Heads Assay	6.80 %	12.40%	49.40%	9.40
Coarse Jigs	43.70	5.80	5.80	15.20
Pine Jigs	49.00	4.60	2.00	13.30
Upper Wilfleys	38.60	8.30	2.60	17.80
Zinc Concentrates 3rd	1.50	38.20	8.40	14.20
Zinc Concentrates 1st	1.60	38.00	8.60	15.30
Zinc Concentrates 2nd	1.70	36.40	7.80	16.30

The above represents the concentrates obtained from the milling of 122 tons of ore in twenty-four hours. Of this 122 tons the following products were made:

Tailings	38 tons
Lead Conc.	26 tons
Zinc Conc.	43 tons

The total cost of operating the Needles mill for the day was:

Unloading	3.94
Loading Belt	18.81
Crushing	4.25
Crushing Operations	32.25
Handling Lead Concentrates,	6.59
Handling Zinc Concentrates,	11.25
Handling Floation	5.50
Handling Tailings	5.20
Miscellaneous	19.50
General Expense	30.81
Floation	15.36
Repairs and Labor	26.87
Supplies	18.03
Fuel Oil	57.30
Total	\$255.36

Disregarding the Gold and Silver values which would very materially increase the returns we may determine very closely the value of the lead and zinc in the mill run of 122 tons at prices quoted on May 19, 1916.

As a very large excess of the lead and zinc is taken out in the Jig product we may safely average them as follows:

Lead Concentrates	Average 45% Lead
Zinc Concentrates	Average 37% Zinc

This gives us as follows:

23,400 pounds of lead worth	\$1,803.50
31,820 pounds of zinc worth	5,409.40
Total	\$ 7,212.90

Taking the cost of mining, milling, general expense and freight on 122 tons we have as follows:

Total value of Lead and Zinc concentrates	\$7,212.90
Less total cost of production	621.36
	\$6,591.54

Allowing 26 days per month, the net monthly yield from the mill product of low grade ores and old dumps of the Tennessee Mine would give \$171,380.04, without considering the values of the gold and silver.

VERY IMPORTANT

This fact must not be over-looked in that the above profits from lead and zinc are based upon the market values of these metals on May 19, 1916. It is among the possibilities, and even probable, that lead and zinc will depreciate in price with the close of the great war. Supposing this to be the case, I have taken the average of the yearly values of both

metals for a period of fifteen years preceeding the European war and used this as a basis for new calculations of profits so as to eliminate any depressing affects arising from fluctations in price.

Average value of Lead 1900-1914 inclusive	4.48¢ per pound
Average value of Zinc 1902-1914 inclusive	5.57¢ per pound

At those values:

23,500 pounds of lead is worth	\$1,049.49
31,820 pounds of zinc is worth	1,772.37
	<u>\$2,821.86</u>
Less cost of production	621.36
Net profit, days run	<u>\$2,200.50</u>

A composite sample from the three levels of the Pay Roll Mine gives this assay value.

Gold	0.16 oz.
Silver	2.92 oz.
Lead	4.00 %
Zinc	11.51 %

Values:

Gold	3.20		
Silver	1.75		
Lead	3.60	at 4.5 ¢	per pound
Zinc	<u>12.66</u>	at 5.5 ¢	per pound.

Total value per ton \$21.21

Gold at the Needles smelter is paid for at the rate of \$19.00 per ounce if it is over 3/1000 oz. Silver at 95% of the New York quotation. 30% lead has no treatment charge with a debit or credit of 10 ¢ per unit up or down. Silica is penalized at 20 ¢ per unit for all over 5%. A maximum of 12 units of sulphur is allowed all above being penalized at 20 cents per unit. Considering freight on the concentrates, mining, milling, royalty and general expense, the ores from the Pay Roll would show a net return of about \$4.00 per ton. This result is based upon the average price of base metals for fifteen years prior to the great war. Many engineers and business men are strongly of the opinion that this low figure will never reach again. A great many believe that higher prices will prevail but of course, not the boom price of 1915.

GENERAL CONSIDERATIONS

I am very enthusiastic over the Pay Roll Mine and it has been with difficulty that I curb my estimates to the lowest possible figure and even then the results are most gratifying. The development work to-day in the Pay Roll mine shows approximately 60,000 tons of ore in sight. This can be mined at a profit of at least \$4.00 per ton which will give a sum of \$240,000.00. The only equipment necessary on the property is the erection of at least a 50 ton mill which can be built for about \$25,000.00 and also set aside \$15,000.00 as a working capital. This leaves \$200,000.00 to be set aside for dividends. This would be 40% on the capital invested. It would take about four years to mine and mill this immense body of ore so that the stock would yield 100% per annum. Good mining stock should pay about 20%. I confidently believe that my estimates are very low and that the net returns will be nearer \$350,000 than the above figure. With four years ore blocked out this gives the development work an opportunity to be pushed forward and I feel certain that great bodies of rich ore will be opened upon the South Drift and with depth.

The Pay Roll Mine is almost an ideal proposition. It is owned outright and free from all debt by one man who has a sterling business reputation. This is an important factor as it eliminates all bickerings and uncertainties in dealing with a half dozen owners who never seem to know just what they want and generally their wants are all out of proportion to the value of the property. The terms are most reasonable and all he requires outside of his royalty of \$2.00 per ton for all ore milled, is that his mine be operated by men with sufficient capital and excellent reputation. He does not want the reputation of his property ruined by wild exploitation methods. He also insists that the ore be mined and milled in a proper and business like manner and that development work be carried on.

The location of the mine is almost ideal being about 500 feet up on the side of Rainbow Mountain which gives an excellent site for a mill of unlimited size. The mine is about half a mile from the end of the Chloride branch of the Santa Fe Railway. A recent survey for an extension of this tract brings the rail up the Pay Roll side line. I dare say that with a mill operating on this property that the railroad would soon follow. At the present time one five ton motor truck could handle all the hauling at a very low cost.

The Pay Roll surface equipment is the best, and outside of building bunk, office and boarding houses, little expense need be encountered for surface equipment. The road can be put into shape for heavy motor hauling for about \$500.00. By November 1st electric power will be available at Chloride and this will eliminate gas engines and their attendant expense, trouble and worry.

The water problem is solved, the mine supplies over 15,000 gallons a day and greater flow will be encountered with depth. The Pay Roll also owns a large spring whose waters are pure and can be used for domestic and mining purposes as well. Climatic conditions in Chloride are very good and the district is healthful to live and work in. The days in summer are very hot but due to the altitude the nights are cold. The winter climate is quite mild with light snows occasionally. The cost of living is about the same as in Los Angeles.

In general, the Pay Roll is not a prospect, but a virgin mine having a large tonnage ready to mill; practically no mistakes have been made in the underground work and a profit should be shown from the very start. Everything is in an orderly and business like condition.

CONCLUSION

The Chloride district is an old one, where the old miners subsisted upon returns from high grade gold and silver ores, in most cases being obliged to throw away all lead and zinc ores by reason of the smelter penalty on zinc. Recent advance in the separation of zinc and lead sulphides have made both of these metals very valuable and have brought Chloride very strongly into the lime light. As one able newspaper article explains it, comparing Chloride with other and more spectacular camps and giving a reason for the continued healthy growth of the camp and the increasing investment of capital therein says "Chloride has the goods".

Two great mines are in active and very profitable operation, the Tennessee and the Golconda, a half dozen old mines of similar magnitude such as the Elkhart, Schylkill, Empire, etc., etc., are resuming active work and seeking deeper level where the richest ore bodies are found, while hundreds of good prospects are being quietly and actively developed. Without exaggeration, I can say that the Pay Roll is one of the best, if not the best, in the entire district and has the makings of a real mine.

NOTES ON PAYROLL MINE

Location: Chloride, Mohave County, Arizona.
1 mile from Santa Fe Railway.

Owners: Payroll Mining Company - Campbell, Manager.

Date Visited: Sept. 4, 1929, by G. J. Harbauer.

Development: Vertical shaft to 600' level. Has only one opening to surface from 600' level.

Equipment: Mine equipped with hoist and compressor and 50 ton flotation mill.

Production: Several cars of lead and zinc concentrates have been shipped. Mill has been down for lack of water. Pipe line being laid to Minnesota mine for water.

Assay of Mill heads:

<u>Au.</u>	<u>Ag.</u>	<u>Cu.</u>	<u>Pb.</u>	<u>Zn.</u>
\$6.40	7.0 oz.	.5	1.2	10.5

Assay of Pb concts:

<u>Au.</u>	<u>Ag.</u>	<u>Cu.</u>	<u>Pb.</u>	<u>Zn.</u>
1.56 oz.	58.8 oz.	12.3	22.9	15.6

Assay of Zn. conct:

<u>Au.</u>	<u>Ag.</u>	<u>Cu.</u>	<u>Pb.</u>	<u>Zn.</u>
.24	5.2	1.0	.50	48.8

Output 2 tons Pb concts. and 10 tons Zn. concts per day.

Remarks: Property not strongly financed. Must put through raise to surface before stoping on 600' level is allowed by mine inspector. Water supply for mill doubtful. Might ship crude ore to a milling plant within 150 miles.

G. J. Harbauer.

*See Special report by S.H.C.
1930.*

NOTE RE PAYROLL MINE

September 25, 1942

Positive ore

very small

Probable ore

20,000 tons

Average ~~ore~~ grade:

Au.	0.1 oz
Ag.	3.0 oz
Cu.	0.5%
Pb.	2.0%
Zn.	7.0%

Assumed payments by Tennessee Mill on basis of A. S. & R. terms at Trench Mill for similar ores.

Au.	\$2.00
Ag.	1.50
Cu.	-
40 # Pb. @ 4.37	1.75
140# Zn. 3.90	5.45

3.50
2.10
3.70
15.40
<u>24.70</u>
\$10.70

6.50 ceiling
8.25 ceiling

Total pay \$10.70 less treatment charge of \$3.00 is \$7.70

less royalty

net to shipper

\$7.70	} 10.00
.77	
<u>\$6.93</u>	10.00
\$3.23	} 5.00
.23	
.50	
<u>\$3.93</u>	5.00

Estimated mining cost

Hauling ^{to} and Mill

Overhead

TOTAL

Net profit to shipper is \$3.00 per ton

Cost to unwater and reopen mine to 4th level probably \$5,000.

Some ore with higher values in gold and silver could probably be mined near the surface.

Print no profit 1, ceiling price

300
600
500

Highly

9.25
6.50

11.00

4.25

Los Angeles California
January 15th, 1943.

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

Re Payroll Mine.

Dear Mr. Colvocoresses;

Your letter of the 13th and one
from Mr. Murphy came this evening.

Apparently I was mistaken about the Government not making
a loan on a three year lease. I did not suppose such a loan
could be obtained. However, there would be very little object
to me in borrowing the money to open up and develop a property
and then give it up in three years.

The Payroll shaft is caved at the collar. How far down it is
caved I do not know. I will look into it carefully soon as I
get over there and let you know. It is the opinion of the
Doctor in Chloride who looked after the property that the
shaft is caved to considerable depth and that the workings
may be caved--but I doubt if he knows any more about it than
you or I do. However I will talk with him this coming week
and get his ideas personally.

The milling situation in the district is bad. The Tennessee
is the only mill operating. Some time ago its management said
they would take in some outside ore but recently they have
told others that they were increasing their own ore production,
having gotten a zero rating on premium price zinc, and would
not take in outside ore. No other mill in the entire district
is operating and is not likely to do so. They are all badly
involved financially and I expect will all be tied up by
creditors soon. My little mill at Cerbat is not involved but
it is some distance from the Payroll lease. However I contemplate
installing enough additional cells for selective flotation
and improving the power plant so that I could mill lead-zinc
ore in nominal quantities. Then if the developments justify
a mill might be put up at the Payroll.

For your information, regarding a mill, since the RFC is
making a number of loans in the district, Mr. Gohring is
beginning to wonder where the borrowers could mill whatever
ore they develop and has suggested to me that I try to set
up and get Government financing for, a central custom mill
which will serve the entire district for the first year or
so and then perhaps become a private mill for such ore bodies as
I may develop. I am doing considerable work along that line--
but am not sure it can be accomplished.

In the inclosed copy you will note what I am writing Mr Murphy
about terms and conditions of a bond and lease. I do not want

to be too technical or arbitrary about the matter but I do want terms and conditions that are fairly customary and workable. I suppose that is all Mr. Murphy and Col. Scott want also.

I feel, as many others do, that a 10% royalty on a zinc property is pretty high. I think even a 7 year lease with an equitable option price is pretty short. If no option price then a much longer lease is really necessary. You know as much about these matters as I do and perhaps more. I am assuming that a New York law firm is at a disadvantage in that respect--and Col. Scott may be also. I want a lease of a permanent nature and on such terms as will induce a special effort on my part--which will justify such effort--as will assure the lessor that the lease will not be abandoned.

An attractive lease that would compare with others in the district would be for a ten year period on an 8% basis with an upset price of somewhere between \$15,000 and \$25,000.00 For comparison, my lease on the Golden Gem--including the mill--is on a basis of 50¢ per ton with an upset price of \$28,000.

The only lease I know of without an upset price is the one I am taking on the Alpha. It is for 30 years--and the Attorney for the owner is recommending an 8% royalty. I think it will be that way.

I am going over to the District the first of the week. I will get the terms and conditions of a number of leases recently made, will also examine the condition of the Payroll shaft quite carefully and will then submit what information I can develop to you and to Mr. Murphy together with my ideas of what the upset price should be on a 7 or ten year lease with option.

If Mr. Murphy accepts my suggestion that he rely upon your knowledge of what would be an equitable and usual deal, subject to his final approval, I think we can work the situation out quickly and equitably in personal conversation and can also prepare the application for the financing while I am in Phoenix.

I suggest that in writing me for the next few days you send one copy here and another to me at Kingman, Beale's Hotel.

Yours very truly,


Ralph R. Langley.

Kingman Arizona,
January 23 1943.

Clin, Clark & Murphy,
120 Broadway,
New York;

Gentlemen;

Your letter of the 18th received this morning.

I spent several hours yesterday on the Payroll property, also talked with Dr. Blackwell who worked for the late Mr. Scott in the mine during most of the development and operating stages. I had not visited the property personally nor talked with Dr. Blackwell before. It is going to take more time and money to put the property in condition to start any development than I expected.

Except an old delapidated blacksmith building, there is not a stick of timber or improvement on the property. The headframe is gone. The shaft collar and all timbers in the shaft at the surface are gone. It is said that the headframe burned down and that the shaft timbers also burned down to the water level which is said to be about 225 feet below the surface. It is not possible to see down more than about 20 feet now because surface water has come into the shaft so the water now stands at about 20 feet from surface.

If it is true that the shaft timbers are gone for 225 feet it will cost about \$2,000 for timber alone with which to erect a headframe and timber the shaft as water is lowered. If it should be necessary to timber to the bottom of the shaft rather than only 225 feet the timber bill will be considerable more. It is believed that the shaft is not caved since it is a vertical shaft in fairly hard country rock but Dr. Blackwell and two others who worked on the mine say that there is some "heavy ground" in the crosscuts from the shaft to the vein on the different levels and they expect that some caving will be found in those crosscuts. Of course we do not know what condition the underground workings are in but assume not too bad.

Fortunately for the owners, Mr. Colvocoresses who is a competent, responsible mining engineer, thoroughly examined and sampled the mine while it was still open and made up a good record, did a good job of mapping and made an assay map. Such evidence together with the fact that the values were mostly in lead and zinc when the property was operated, furnishes sufficient showing to make it possible, I think, to obtain Government financing for opening up the property and, if the nothing adverse shows up, for development and operation.

I am interested in going ahead with the undertaking if we agree on terms and conditions without delay. No short time lease will be interesting to me--and you will find to any responsible operator. I would not be willing to provide the funds, through Government financing or otherwise, and rebuild a property except under an arrangement which would be permanent. The location of the property is such that one should contemplate erecting a mill on it in due course. So it is not a matter to be taken up lightly.

I am going to Phoenix tomorrow and will talk the matter over with

Mr. Colvocoresses and see if he and I agree as to what would be a fair workable lease under existing conditions. Will communicate with you from there and will ask him to do also.

I do not want any advantage or unusually advantageous terms but do want an arrangement which will be consistent with the condition of the property and with the amount of time and money necessary to accomplish the objective.

For your information as a comparison, yesterday I signed a lease on a property which is very well regarded here in the district. The time is 30 years with no minimum payments for nine months. It is a tunnel operation and wide open. It is equipped with a large compressor and motor, a large ore bin, mine cars, track laid in the 1200 tunnel, road built to the property, and a small house in which workmen can temporarily live. I can start producing a nominal amount of ore after thirty days. It carries more gold silver values but less lead-zinc than the Payroll. It is more likely to prove to be primarily a gold deliver property with enough lead-zinc to qualify it for War Production Board needs whereas the Payroll holds out considerable promise of becoming a large lead-zinc mine.

I want to arrive at a definite agreement and arrangement while on this trip to Phoenix. Will remain there long enough for that. My reason for this is that I am putting through two other applications for financing on two other groups of leases and want to have all these loans come through at about the same time so that I can carry on the opening up and development work on all of them at the same time and thus save considerable time and money. Another reason is that the Governor has asked the Legislature to discontinue the Arizona Mineral Resources Department and turn the work over ~~to~~ the Bureau of Mines. While it is true that the money on these loans is furnished by the RFC the loans are made through and in cooperation with the Mineral Resources Department of the State. No one knows what attitude the Bureau of Mines may take--anyway a lot of time would be lost. I doubt if the Legislature will go along with the Governor on his request--but it may--it is a matter of politics.

As to references--time might be saved if you contact some of my acquaintances in New York City. You might call Mr. C. E. Fay who is with Clinton Gilbert & Co there in your building--also J. D. Gerahy at 50 Pine Street--telephone BG-9-8593 or at his residence--2294 University Ave, telephone Fordham 4-5366. Mr Fay lives in Scarsdale. Here in Kingman my reference would be Tarr, McComb & Ware Commercial Co and in Phoenix, Mr. Henry Courver, President of the First National Bank--also Mr. W. B. Gohring, Supervising Engineer of the RMC--but he is the party who approves these mining loans so I suppose I should not refer to him--however they do not grant loans to people they do not consider competent in the mining business so that might be worth considering. I expect to get approval and prompt approval on any applications I make for mining loans.

Will communicate with you from Phoenix--and meantime, just in case it may expedite matters some, I am sending a copy hereof to Mr. Leroux.

Sincerely,

Ralph R. Langley

CONDENSED DATA RE PAY ROLL MINE

MOHAVE COUNTY, ARIZONA.

The Pay roll Mine is about $1\frac{1}{2}$ miles northeast of Chloride, near the middle of the west slope of the Cerbat Range. It is situated near the head of Pay Roll Gulch, at an elevation of about 4,400 feet, whence the surface rises steeply to about 5,200 feet in Rainbow Mountain on the northeast. The mine is approached by a fair auto road of easy grade. There are two patented claims.

The country rock consists of pre-Cambrian crystalline schists, with granitoid rock predominating in the hanging wall and schist on the foot-wall side. A diabase dike is locally associated with the vein, which is cut off on the northwest by a raised fault block of black hornblende schist. In the gulch just below the mine the schists are cut by dikes of relatively young light-colored garnet bearing aplitic granite.

The principal development work, all on the Pay Roll Claim, consists of three shafts, aggregating about 1000 feet, over 600 feet of tunnels, about 1500 feet of drifts, and some crosscuts and stopes. Shaft No. 1, the main working shaft, sunk off the vein, is 600 feet deep, with the pay shoot in the vein developed on the 50, 200, 400 and 600 foot levels. On the 600 foot level the pay shoot has a length of 360 feet and average width of 5 feet and since this is the best showing in the mine there is every reason to expect that good ore will continue to greater depth.

Only a very small amount of stoping was done below the 50' level and my summary of ore reserves was as follows.

Positive Ore	Very small since raises have not been put thru between the levels.
Highly Probable Ore	20,000 - above 600' level with a similar tonnage of possible ore below that level and beyond the faces of the drifts.

Average Grade:

Au.	0.1 oz. @ 35 =	3.50	3.25
Ag.	3.0 oz. @ 90	2.70	2.40
Cu.	0.5% 10# less		0
Pb.	2.0% 40#@17		
Zn.	7.0% 140#		

~~Since this mine would be entitled to a zero quota, the lead would be paid for at 9.25¢ per lb. and the zinc at 11¢ per lb. There would be no pay for copper.~~

The gross value of this ore would therefore be ~~\$24.70~~ per ton and while I do not have any terms of purchase from custom mills in that locality I have figured roughly that the net payments to the miner after deducting the treatment charge should be about \$10.00 per ton.

Since all of the estimated ore is developed for stoping the mining costs should be comparatively low and I think that the total costs including royalty and overhead should not exceed \$5.00 per ton leaving a good margin for the operator.

There is no equipment on the property and the vertical shaft is nearly full of water but except near the collar it is reported to appear to be in good condition, the last work having been done in

1929.

The initial investment required to unwater and recondition the shaft and essential drifts is hard to estimate but unless the timbers are in much worse condition than I anticipate this work should be done for less than \$10,000. The usual mining equipment would also have to be acquired and installed.

25
17

3 h. C.

10/5, 43

Re free

December 9, 1946

Mr. Thomas B. Scott, Jr.
251-252 Korber Building
Albuquerque, New Mexico

Re: Payroll Mine, Etc. *file*

Dear Mr. Scott:

Replying to yours of December 6 on the above subject I enclose herewith a copy of a letter received from Dr. Blackwell and I have carefully noted the contents of your letter.

It is a very different ^{icvlt} matter to persuade any mining Company to undertake exploration and development unless it is possible for the orebody to be examined and sampled by their own engineers and the situation at the Payroll is not satisfactory in that respect.

I believe that your property and also the Mary Bell would be much more likely to interest new capital if they were opened up even to a comparatively small extent, and if Mr. Grannis is willing and able to carry out such a program through the Rankin Tunnel, I would suggest that it might be to your advantage to allow him to proceed with this work provided your contract stipulated that he would be willing to turn his equity over to other parties who would guarantee to carry out a more extensive program of development.

I know nothing personally concerning Mr. Grannis and until I received Dr. Blackwell's letter of December 5, I did not know that he had given any lease on the Mary Bell or arranged to have the tunnel reopened, but it seems to me that work of this nature might be advantageous both to you and to Dr. Blackwell and might serve to make the showing more attractive to other people in case they should desire to investigate.

I have not at the minute any reason to believe that clients of mine would be disposed to take over these properties, but I intend to mention them to two of the larger mining companies who are interested in the production of lead and zinc ore and for whom I have recently been doing some work along other lines.

I agree with you in believing that there should be a combination between the Payroll the Mary Bell and the Rankin Tunnel, and I will keep you advised of any progress which I may be able to make and will be pleased to hear from you again in case there are any developments in this regard.

Yours very truly,

GMC:IM
cc: Dr. J. G. Blackwell

Jim

THOMAS B. SCOTT, JR.

251-252 KORBER BUILDING

Albuquerque, New Mexico

TELEPHONE 7830 -- TWX AQ 16

December 6, 1946

A 12/9.46

Air Mail

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

Dear Mr. Colvocoresses:

Thank you very much for your letter of December 3 together with copy of your letter to Dr. Blackwell. I sincerely hope that we can get some activity on the Scott claims (Payroll and Black Prince) and on Dr. Blackwell's claims (one of which is the Mary Bell), in the near future; and I hope you can recommend the same to your clients.

Fortunately or unfortunately, a little while back I believe Dr. Blackwell leased his Mary Bell claim to a Mr. Frank Grannis who, it appears, started work on the Mary Bell mill site to open up the old so-called Rankin Tunnel. How much work has been done I don't know, but anyway, I have put Mr. Grannis on notice not to trespass on the Payroll. Unfortunately, he had started out to open up the old tunnel without any legal right to trespass on the Payroll and drift to the Mary Bell. I am still talking to him and Dr. Blackwell because I want to encourage work but I don't want to give any lease to anyone who may not have the capacity. Perhaps some client of yours could take over Grannis's small operation and Mary Bell lease if they would like to work through the Tunnel and work the Payroll.

Before I come to any conclusions with Grannis, I will drop you a line in case you have a client. I still believe that a combination of the Mary Bell and the Payroll and the Rankin Tunnel would be a good start for any serious, capable miner. I also, as a result of your past opinions, believe that the Payroll should be deepened.

With kindest regards, and wishing you a merry Christmas and a Happy New Year, I remain,

Sincerely yours,

Thomas B. Scott, Jr.

TBS:EGP

CC: Dr. J. G. Blackwell

Copy

Chloride, Arizona.
Dec. 5th. 1946.

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

Pay Roll Mine

Dear Mr. Colvocoresses:

Two days ago I had occasion to go up on the hill and part of the way was over the road to the Pay Roll. I had to walk because the road is impassable for any car.

There is water in the Pay Roll shaft and all timbers are gone to, or below, water.

A few shallow surface holes, together with a crosscut through the vein from the Rankin tunnel, are the only present accessible workings.

Your report and assay map will tell much more than any engineer can see on the property.

Local men have a lease on my ground and have asked Mr. Scott for a lease on Pay Roll with the idea of working the two together. So far he has refused it.

Many thanks for your good wishes and I want you to know they are reciprocated.

Sincerely yours

J. G. Blackwell.

J. G. Blackwell.

Memo: re Mary Bell Dec. 27, 48

Frank Hannis current lessee left the following shipment return from development work on the M. B.

1 20.09 dry tons, 10/21/48

Zn 26.02 %
Pb 10.8 %
Au 0.1925 oz
Ag 10.2 oz
Cu 0.91

Net \$1051.16

2 21.737 dry tons 12/4/48

Zn 25.67
Pb 7.85
Au 0.18
Ag 9.65
Cu 1.07

Net \$1133.64

are

CONDENSED DATA RE PAY ROLL MINE

MOHAVE COUNTY, ARIZONA.

The Pay roll Mine is about $1\frac{1}{2}$ miles northeast of Chloride, near the middle of the west slope of the Cerbat Range. It is situated near the head of Pay Roll Gulch, at an elevation of about 4,400 feet, whence the surface rises steeply to about 5,200 feet in Rainbow Mountain on the northeast. The mine is approached by a fair auto road of easy grade. There are two patented claims.

The country rock consists of pre-Cambrian crystalline schists, with granitoid rock predominating in the hanging wall and schist on the foot-wall side. A diabase dike is locally associated with the vein, which is cut off on the northwest by a raised fault block of black hornblende schist. In the gulch just below the mine the schists are cut by dikes of relatively young light-colored garnet bearing aplitic granite.

The principal development work, all on the Pay Roll Claim, consists of three shafts, aggregating about 1000 feet, over 600 feet on tunnels, about 1500 feet of drifts, and some crosscuts and stopes. Shaft No. 1, the main working shaft, sunk off the vein, is 600 feet deep, with the pay shoot in the vein developed on the 50, 200, 400 and 600 foot levels. On the 600 foot level the pay shoot has a length of 360 feet and average width of 5 feet and since this is the best showing in the mine there is every reason to expect that good ore will continue to greater depth.

Only a very small amount of stoping was done below the 50' level and my summary of ore reserves was as follows.

Positive Ore	Very small since raises have not been put thru between the levels.
Highly Probable Ore	20,000 - above 600' level with a similar tonnage of possible ore below that level and beyond the faces of the drifts.
Average Grade:	
Au.	0.1 oz.
Ag.	3.0 oz.
Cu.	0.5%
Pb.	2.0%
Zn.	7.0%.

Since this mine would be entitled to a zero quota, the lead would be paid for at 9.25¢ per lb. and the zinc at 11¢ per lb. There would be no pay for copper.

The gross value of this ore would therefore be \$24.70 per ton and while I do not have any terms of purchase from custom mills in that locality I have figured roughly that the net payments to the miner after deducting the treatment charge should be about \$10.00 per ton.

Since all of the estimated ore is developed for stoping the mining costs should be comparatively low and I think that the total costs including royalty and overhead should not exceed \$5.00 per ton leaving a good margin for the operator.

There is no equipment on the property and the vertical shaft is nearly full of water but except near the collar it is reported to appear to be in good condition, the last work having been done in

1929.

The initial investment required to unwater and recondition the shaft and essential drifts is hard to estimate but unless the timbers are in much worse condition than I anticipate this work should be done for less than \$10,000. The usual mining equipment would also have to be acquired and installed.

S. M. C. 40/5, 43

W G 11 34

Chloride, Arizona.
June 9th. 1934.

Mr. G. M. Colvocoresses,
Phoenix, Arizona.

Dear Mr. Colvocoresses:-

A letter from Mr. Thos. B. Scott, Jr. asks me to get what I can of the past production of the Pay Roll mine and to forward the information to you.

There are no written records that I have been able to find. Two men who have been here over forty years say the work on that gold ore was done before they came. One, whose memory seemed better than the others, said a man by the name of Morgan shipped a car load that ran about an ounce in gold and forty per cent lead.

I have been through the old stope from which that ore is supposed to have been taken. It is small and probably produced not more than the one car.

The ore in that winze seems to be a continuation downward of that in the stope and its gold content is interesting. From what I can find out it was never picked up on the 200 level but that gold value does show again on the 400. The 600 has not been driven far enough to get under it.

Wish I could give you more details of the old working, but you know how almost impossible it is, after the lapse of so many years, to get anything dependable.

With kindest personal regards, I am

Yours very truly

J. G. Blackwell.
J. G. Blackwell.

February 23, 1943

Mr. W. G. Murphy
Olin, Clark & Murphy
120 Broadway
New York, New York

Re: Pay Roll Mine *File*

Dear Mr. Murphy:

I acknowledge your letter of February 19th enclosing copy of proposed mining lease to Ralph R. Langley. Meantime I had another call from Langley who told me that he expected to take over your property in the near future.

Under the circumstances I think that you will probably be well advised to lease the Pay Roll to this man although I wish that it might be possible to put it in the hands of a more responsible party or mining concern. There is however a chance that Langley may be able to secure Government money to reopen the property, particularly now that the terms on which the Government loans are granted have been somewhat liberalized and I know of no other parties who are interested in following a similar procedure.

I have gone over the copy of the proposed mining lease which was enclosed with your letter and the terms and conditions seem to be fair and usual and to fully protect the lessor in respect to the payment of minimum rental and royalty and in respect to repossessing the property in the case of default by the lessee.

Obviously most of the conditions relating to the actual operation of the mine are of little or no importance unless the lessor takes proper steps to have the operations of the lessee inspected from time to time but that is a matter to which you can give some thought at a later date.

Our Arizona courts have held that no ^{*lease*} ~~lessor~~ or other agreement of such a nature is actually valid and enforceable unless a specific consideration is set forth in the agreement itself and although this would seem to be unnecessary in view of the terms of the contract I believe that it will be advisable for you to insert as Article I of the lease a paragraph similar to the following, which is copied from a lease which I recently made to the American Smelting & Refining Company and had the approval of my attorneys and the attorneys for that Company.

Mr. W. G. Murphy - 2

"ARTICLE I.

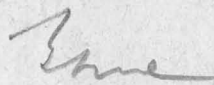
The lessor, for and in consideration of the sum of One Dollar (\$1.00) to it in hand paid by the lessee, the receipt of which is hereby acknowledged, and for and in consideration of the royalties to be paid by the lessee and of the covenants and agreements of the lessee hereinafter set forth, does hereby lease, let and demise unto the lessee, ^{its} successors and assigns, upon the terms and conditions hereinafter set forth, those two (2) patented mining claims known as the Pay Roll and Black Prince, Mineral Survey No. 4009, located in Section two (2), Township 23 North, Range 18 West G & S.R.M., Wallapai Mining District, Mohave County, Arizona, together with any equipment or improvements located thereon."

I presume that your clients are willing to allow Langley to hold this property without payment until December 1st of this year although that period seems to be rather lengthy but under the circumstances is probably the best that you can do. By that time Langley undoubtedly will have definitely determined whether or not he can secure a Government loan to reopen and operate the mines and in the event that this is not possible he will certainly relinquish his lease rather than to hold same at the cost of \$100.00 per month. I might suggest that it would be advisable to make it plain to him that under no circumstances would you be willing to postpone the date of this monthly minimum cash royalty for very often mining promoters find it advantageous to tie up the property for an indefinite period of time as long as such procedure does not involve any out-of-pocket expense on their part.

Trusting that the above comments will be helpful,

I remain

Yours very truly,



GMC:cg

Olin, Clark & Murphy

120 BROADWAY

NEW YORK

CABLE ADDRESS "NILOR"

W. G. MURPHY
T. F. REDMOND
F. P. WOODRUFF
G. T. MANUEL
G. S. MURPHY

JOHN C. CLARK
COUNSEL

19 February, 1943.

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

Dear Mr. Colvocoresses:

Our clients are inclined to give to Ralph Langley a lease of the Pay Roll and Black Prince Mines. They realize that this lease would be a very uncertain asset to them, but it does at least carry the possibility that Langley will somehow or other be able to secure Government funds which will be used in putting the mines in order. On the other hand, the mines if left in their present condition without development by the owners, are completely unprofitable. Do you think that that argument contains any flaws?

Langley has sent us for our consideration a form of lease of which a copy is enclosed herewith. Have you any suggestions to make with respect to it? We are without any experience concerning mining leases and do not know whether we are adequately protected

George M. Colvocoresses, Esq., -2-

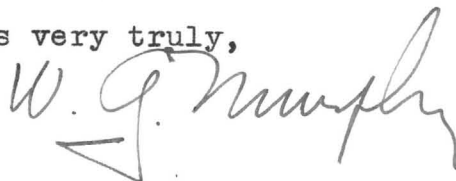
19 February, 1943.

by the form which Langley forwards.

With much appreciation of your kindness

we are,

Yours very truly,

A handwritten signature in cursive script, appearing to read "W. G. Murphy". The signature is written in dark ink and is positioned below the typed name "W. G. Murphy".

WGM/BP.
Enclosure.

MINING LEASE

Date: _____, 1943

Lessor:

to

Lessee: RALPH R. LANGLEY, of 1045 South Bedford Street,
Los Angeles, California, hereinafter called "lessee";

Lessor hereby leases to the lessee the mining claims
and property hereinafter described, for the term and upon the
covenants, conditions and provisions following:

1. PROPERTY: Two patented mining claims known as the
Payroll and Black Prince, Mineral Survey Number 4009,
located in Section two (2), Township 23 North, Range
18 West G & S.R.M., Wallapai Mining District, Mohave
County, Arizona, together with any equipment or
improvements thereon.
2. TERM: Seven (7) years, commencing March 1, 1943, and
ending seven years thereafter, unless sooner terminated
as hereinafter provided.
3. POSSESSION AND OPERATION: (a) Lessee shall immed-
iately enter upon said leased premises and work the
same in a minerlike fashion and in a manner necessary
to good and economical mining so as to take out the
greatest amount of ore possible, with due regard to
the development and preservation of same as a workable
mining property.

(b) Lessee shall well and sufficiently timber
the workings at all points where proper and neces-
sary in accordance with good mining, and in compli-
ance with the mining laws of the State and the rules
and regulations of the office of State Mine In-
spector, and shall repair all old timbering where
it may become necessary.

(c) Lessee may immediately extract and remove
ores from said premises and mill, ship or otherwise
treat the same, subject to the royalties hereinafter
provided.

(d) From and after April 1, 1943, lessee shall perform, in or upon said premises, not less than thirty (30) miner's shifts of work per month; from and after December 1, 1943, and during the remainder of the life of this lease, the lessee shall perform, in and upon said premises, not less than sixty (60) miner's shifts of work per month, unless the lessee is prevented by strikes, acts of God or Government regulations or other conditions over which lessee has no control.

4. ROYALTY: (a) All ores shipped, milled or otherwise disposed of shall be subject to the following royalty:

10% of net mill or smelter returns, and by "net mill or smelter returns" is meant the proceeds remaining after deducting treatment charges and railroad and trucking charges.

(b) All royalties are due and payable to the lessor within ten days from the date of receipt of mill or smelter returns by lessee, and shall be accompanied by duplicate settlement sheet.

(c) All payments of royalties shall be made to _____, at _____, or such other place as may be directed by Lessor in writing.

5. MINIMUM MONTHLY CASH ROYALTY: As a guaranteed monthly royalty for the use and occupation of said premises, the lessee shall pay the lessor a monthly cash royalty of not less than \$100.00 during the life of this lease, beginning December 1, 1943: PROVIDED, that the non-payment of monthly cash royalties between the date of this lease and December 1, 1943, shall not in anywise waive the payment of royalties required under the next preceding paragraph 4: PROVIDED FURTHER, that said monthly guaranteed cash royalty of \$100.00 is required only when royalty from ores shipped or treated during any month amounts to less than \$100.00.

6. INSPECTION OF PREMISES: Lessor reserves the right for himself and his agents to enter upon said mining property and the workings therein and thereon at all reasonable times for the purpose of inspection, surveys or taking samples therefrom, and in that behalf the lessee shall extend proper assistance, but the lessee shall be put to no expense by reason thereof.

7. STOPPING - STORING OF WASTE: Lessee shall do not underhand stopping, nor shall he stow any waste underground except with the consent and under the direction of the lessor, except in stopes.

8. TAXES: Lessee shall during the life of this lease promptly pay all State, County and Federal taxes levied or assessed against said premises or on any improvements and equipment thereon and for ores mined and treated under this lease, commencing with the first half of the tax year 1943.
9. MACHINERY - REMOVAL: All machinery, equipment and tools placed by lessee upon said premises during the life of this lease shall be subject to removal by him within sixty (60) days after the termination of this lease by default or otherwise: PROVIDED, that all buildings, headframes, underground timbering and rails in the mine shall not be so removable but shall remain on said premises as the property of the lessor: PROVIDED FURTHER, that no such machinery or tools shall be so removed, as aforesaid, while the lessee is in any manner indebted to the lessor under any obligation incurred under this lease.
10. NOTICE OF NON-LIABILITY: Lessee shall at all times during the life of this lease keep said premises free and clear of all liens, claims and debts of every kind and description, and he shall at his own cost and expense immediately record and post and keep posted during the life of this lease, in the name of the lessor, a Notice of Non-Liability in the manner and form by law provided.
11. COMPENSATION INSURANCE: Lessor shall in no event be held liable for any loss, injury or damage to lessee or his employees, or to his equipment and property used by him in connection with his operation under this lease, and lessee shall at all times during the life of this lease comply with the provisions of the Workmen's Compensation Law of the State of Arizona, and, insofar as it may apply, with the Federal Social Security and Non-Employment Insurance Acts of Congress.
12. REPRESENTATION: Lessee has entered into this lease relying on his own knowledge and judgment of said mining property and not upon any representation made by the lessor or his agents or representatives touching the merits, character or quality thereof.
13. ASSIGNMENT OF LEASE: This lease, or any renewal or reinstatement thereof, may be assigned, transferred or set over by the act of Lessee upon approval in writing of Lessor.

14. NOTICE: Whenever a notice is required pursuant to or in connection with this lease by lessor to lessee, such notice shall be sufficient if given by registered letter enclosed in a sealed envelope, postage prepaid thereon, and directed and addressed to the lessee at Kingman, Arizona, and deposited in the United States Postoffice, and the time specified in such notice shall run from the date of posting.
15. TERMINATION OF LEASE BY LESSEE: Lessee may at any time terminate this lease on thirty (30) days' written notice provided the lessee is in good standing and not in anywise indebted to the lessor at the time of such termination.
16. ESSENCE: Time is of the essence hereof, and all the terms and conditions herein contained shall extend to and be binding upon the heirs and assigns of the respective parties.
17. SURRENDER OF POSSESSION: The lessee shall delivery to the lessor quiet and peaceable possession of said premises in good order and condition, with all drifts, tunnels or other passages thoroughly drained and cleared of loose rock and rubbish, without demand or further notice, at noon on the last day of the seventh (7th) year from the date of this lease, or in the event of the sooner termination of this lease for any cause whatsoever, upon demand of the lessor, subject in each case to the provisions contained in Clause 9 hereinabove relating to the removal of machinery and tools, etc.
18. DEFAULT: If lessee makes default in the payment of the royalties at the times and in the amounts herein provided, or on any of the terms and conditions herein contained, then this lease shall terminate upon thirty (30) days notice from lessor to lessee of intention to declare this lease at an end, and if lessee fails within said thirty (30) days to make the payment with respect to which said lessee has defaulted, or correct and make good any other violation of the terms and conditions of this lease on account of which such notice of default has been given, then and thereupon this lease shall become, and thereby be, null and void, and of no further force and effect, and lessee shall thereupon delivery to lessor the peaceable possession of said premises.

EXECUTED in duplicate this _____ dya of _____, 1943.

Lessor

Lessee

STATE OF _____ }
COUNTY OF _____ } SS

The foregoing instrument was acknowledged before me
this _____ day of _____, 1943, by
_____.

My commission expires _____

Notary Public

STATE OF _____ }
COUNTY OF _____ } SS

1 The foregoing instrument was acknowledge before me
this _____ day of _____, 1943, by
_____.

My commission expires _____.

Notary Public

Los Angeles California.
January 8th, 1943

Olin, Clark & Murphy,
120 Broadway,
New York City,
N. Y.

Gentlemen;

Your letter of the 4th received. There must be some mistake as to Colonel Scott's ideas as to the terms of a lease. A lease for a period of three years would not be usual--in fact it would be very unusual. It would be almost as unusual as a three year leasehold on a corner lot on Broadway on which you would have in mind building an income building.

It would take one year of work and development before much if any ore could be produced and another year of development work along with nominal production to determine whether the property would justify a mill and if it does then a considerable investment must be made for a mill--and thereafter some profit should be made. These are just plain facts known by any experienced mining operator.

The above applies to a lease--not to a purchase. If Mr. Scott's idea was a sale then a three year lease with an option to purchase would be tolerable provided the sale or option price was quite attractive. If a normally equitable price then the time would normally be between five and ten years. These facts can be easily checked.

With respect to the Payroll property--it is primarily a zinc ore property. For that reason as well as others, it has been dormant for several years--and I predict will be dormant for many, many more years unless the owners take advantage of the present need of zinc and the effect of that need on zinc ore mining. That is the only reason why I or anyone else would be interested in the Payroll or any similar property at this time. The War Production Board is definitely in need of zinc. For that reason and no other, the Reconstruction Finance Company is providing some capital to open up and develop and perhaps operate properties which show good signs of zinc ore. There has been no profit in mining zinc and there is not likely to be after the present premium prices are taken off.

The upper part of the shaft has caved. The workings are full of water. No one can know whether the workings have caved or not until the shaft is cleaned out and repaired and the water pumped out. If the workings can be reclaimed and if the ore values and widths are as indicated by the underground maps, then it is likely that the Payroll can be developed into a mine. Capital for such reclaiming is not available from private individuals. It can be had, without liability against the mining claims, from the RFC

if the indications justify. I think such financing can be had for the Payroll. I have had financing approved for other properties in which I am interested.

Time is an important element. No one knows when such financing will no longer be available. Furthermore the War Board needs zinc and should have it now. It will be three years before any profit could be made on any such property as the Payroll but some of us are more interested in the war than in profit and that is the reason I am interested in opening up and developing the Payroll if it can be had on terms that are equitable and fairly ordinary in the mining business. I could not obtain Government financing on a three year lease any more than a leasehold holder could finance a building on such short terms.

If the owners wish to make a lease for such time as 7 years with an option to purchase the claims at the end of that time for what would seem a reasonable price, all royalties accruing meantime to apply thereon, I would be interested. A 10% royalty is high for a zinc property but I would not let a reasonable deal fail on that account. I would pay a minimum royalty payment of \$100.00 per month beginning after I get the property reclaimed to such degree that I could begin to produce even a nominal amount of ore.

Or, on a 20 or 30 year lease, without a purchase clause, I would be interested on a 10% net royalty with minimum payments of \$100.00 to begin as stated above.

I would be interested only on condition that an arrangement could be very promptly made however, this for the reason that I do not know how long Government financing will be available for such properties and because whatever I do I want to do almost immediately.

I have gone into considerable detail herein for the reason that your suggestion of a three year lease indicates that you may not have had experience in mining leases and also to expedite a decision either way.

I will appreciate it if you will immediately communicate with the owners or trustees and advise me, or have them advise me direct, what their reaction may be. If favorable it is possible that I may see them, and you, personally in case I carry out my present plan to go to Washington soon.

Yours very truly,

Ralph R. Langley.

October 9, 1942

Mr. Thomas B. Scott
711 Thompson Building
Tulsa, Oklahoma

Re: Pay Roll Mine

Dear Mr. Scott:

A letter from your secretary dated September 15th informed me that you are now in foreign service and therefore that you would be unable to attempt to secure a loan to recondition, equip or operate the Pay Roll Mine, but that you would be glad to lease the property on a ten percent royalty basis.

I have been giving considerable thought to your property during the last few weeks and have discussed it with two or three other parties who are interested in the operation of mines in various parts of the state and after carefully refiguring the value of the ore which I was able to sample and estimate I firmly believe that the property could be operated with a substantial margin of profit which should be adequate to repay the preliminary expenses of unwatering and equipment and leave some surplus to the operator. Also the War Production Board, with whom I have been in constant correspondence, are extremely anxious to increase the production of copper, lead and zinc and I have been doing all that I could to cooperate with them. However, it must be recognized that the present prices for metals may only maintain until August 1st, 1944, and after that there is almost certain to be a serious depression in the base metal industry and our present tax laws are such that almost no private capital is interested in taking over a mine unless the work can be financed through a Government loan. Such loans have recently been granted to the Phelps-Dodge Corporation for the extension of their work at Morenci and also to the Miami Copper Company, the American Smelting and Refining Company and to many smaller concerns including some of my own clients for whom I have examined and reported on their property and made the application for the Government loan.

From past experience, correspondence with authorities in Washington and conferences with local officials, I feel very confident that an R. F. C. loan could be secured to unwater the Pay Roll Mine and if the Government engineers could check the results of my investigation in 1930 I feel equally confident that they would approve a larger loan for the development and operation of the mine. These loans do not involve any liability to the owner of a property except that he may be required to give a chattel mortgage on such equipment as he purchases with the Government money and the Government does not require, as they formerly did, that the property itself should be mortgaged.

Such loans are granted only to the owner or to a lessee, provided the lease has been executed before the application is made, and since

Mr. Thomas B. Scott - 2

your situation is such that you do not feel able to take an active part in any such procedure or in the development and operation of the mine itself, I have thought that the problem might be solved by your giving a lease to me which I would propose to assign to some other party provided I have been able to secure the loans, since the distance between the Pay Roll Mine and Phoenix would make it rather difficult for me to personally supervise such an operation.

I am therefore enclosing herewith two copies of a lease agreement in which I figure as the lessee but where provision is made for such an assignment as above outlined and if you feel that the suggestions contained in this letter are worth following you could sign both copies of this lease as owner and return them to me or to your attorney in Phoenix, after which I will execute them as lessee and then proceed as outlined below to endeavor to secure the Government Loan which would be a pre-requisite to the assignment of the lease to other parties or to any operations on my own account. As a matter of fact I am very confident that I could effect such an assignment to responsible people but in any event I would guarantee that the property should be reopened and operated provided the Government will furnish the money even if I had to look over the work myself, for a certain period of time. After the lease had been assigned to others I should be willing to continue, if you so desire, to give the operation a certain amount of personal attention and make visits at intervals in order to be assured that your interests were properly protected.

Obviously such a procedure on my part would first require some time and expense, including a trip to Chloride for an examination of the present condition of the mine to enable me to estimate the cost of unwatering the shaft which I assume to be in good condition although you have advised me that the equipment has all been removed. Aside from this considerable work is involved in preparing the loan application, but if you or your attorneys can furnish me with such documents as may be required to establish your ownership of the property or if I can establish the same by reference to the records of Mohave County, I would be willing to undertake this engagement for a fee of \$350.00 which would include my expenses as well as services.

In transactions of this nature I always act merely as a professional engineer and representative of my client and I should plan to assign the lease to some other party without any commission whatever so that your obligation to me would be limited to the amount mentioned unless subsequent services were later required.

No option to purchase the property is contained in the enclosed lease agreement but obviously a lessee would be in a position to make you an offer to purchase at any time and, if the development work which I have previously recommended should be carried out and give favorable results, the value of your mine would be substantially improved and a sale on satisfactory terms would be much more likely to follow than under present conditions.

I well realize that such a proposition as this letter contains would probably not interest you under ordinary circumstances but the

Mr. Thomas B. Scott - 3

present circumstances are unusual in several respects, first because it is seemingly impossible to get anyone to open up and operate a mine without the assurance that they can secure a Government loan and secondly because it is impossible to secure such a loan until after either the owner or the lessee has made an application. Since I understand that you are now serving abroad a great deal of delay would be involved in carrying[^]the necessary correspondence, if the lease had not been previously[^]executed.

Therefore, I have been forced to "put the cart before the horse" and to ask you for a lease before I have obtained a lessee, except in so far as I am willing to perform that function myself, and in the event that I should not be able to carry out my obligations as stipulated in the contract, you will note that the same may be cancelled six months after date in accordance with ARTICLE VIII, Clause (d).

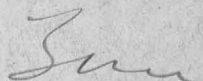
Unless you have some other plan in mind, my proposal herein contained gives you an opportunity to decide for yourself as to whether you care to advance \$350.00 on the chance, or I might say the probability, that your property can be reopened and put in operation while war conditions exist and the Government is granting financial assistance to such operations.

We must all anticipate that after the war there will be very little activity in mining for at least two or three years to come and those mines which have not operated during the war are going to be generally considered as entirely worthless whereas the mines which open up and produce during the next two years will be in far better shape to stand a shut-down, and, if the development work has been favorable, they will certainly be attractive to mining operators either for continued production or to be hld until the time when the slump is over.

Please understand that I am making this proposal merely in the line of a suggestion and that I shall not feel at all disappointed if you are not favorably impressed and decline to accept my offer; but I sincerely believe that this may afford you an opportunity to realize something from the Pay Roll which has been a liability rather than an asset for many years and otherwise may continue to remain in that category for an indefinite period.

With best personal regards and trusting that you are enjoying good health and interesting work, I remain

Yours very truly,



GHC:CG

SUMMIT KING MINES, LIMITED

BOX 632

FALLON, NEVADA

October 18th. 1943

*Payroll mine
file*

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

Dear Mr. Colvocoresses:-

Thank you very much for your
letter of October 5th and notes on the Payroll Mine.

Since writing you I have discussed our policy with our president and it has been decided that in view of the labor and equipment shortage and uncertainty as to the duration of the war we should only investigate properties that can be operated after the war.

I am afraid that under post-war conditions the Payrollmine would not be a proposition that would interest us.

Again thanking you for efforts.

Yours very truly,

Percy G. Dobson
Percy G. Dobson

July 29, 1946

Mr. Thomas B. Scott, Jr.
Room 251 Korber Building
Albuquerque, New Mexico

RE: Payroll Mine

Dear Mr. Scott:

Replying to yours of the 24th, Dr. Blackwell came to my office several weeks ago and furnished me with a copy of a report on his property also some maps.

I combined this information with that which I already have on the Payroll Mine and it may be that I shall be able to find someone who will be interested in jointly developing and operating these two properties.

I explained to Dr. Blackwell, as I thought I had explained to you some years ago, that I never attempt to put through any deal of this nature on a commission basis as very obviously my judgment as a mining engineer would almost certainly be affected by the hope of obtaining a commission.

There are certain mining companies and mining operators who come to me from time to time for unbiased information regarding the value of various mines and this I give them on a purely professional basis and charging for same in accordance with the amount of data which I am able to supply or making no charge in case I have nothing to offer which appears likely to be of interest.

About a month ago I approached one company regarding the Payroll-Blackwell claims as they had previously been in the market for something of that nature, but I learned that such a situation no longer existed.

The recent advance in the prices of silver and the base metals will undoubtedly tend to encourage the development of new mines and prospects, and I hope that some of the operating concerns will turn their attention to the Chloride district in which event I shall do my best to persuade them to thoroughly investigate the property mentioned above.

Yours very truly,

GMC: IM

PS I should have mentioned that in cases where I have examined a mine for the owners, I am always ready to cooperate with them or with any responsible promoter whom they may designate to the extent of furnishing copies of my reports or any other technical information in my possession provided this does not involve actual out-of-pocket expenses and if you think that it would be advantageous to present your mine to operating companies either directly or through a promoter, I will do what I can toward obtaining a favorable consideration for same.

Yours very truly,

GMC:IM

LS me

X
Room 251 Korber Building
TIJERAS AVE. ENTRANCE
Albuquerque, New Mexico
TELEPHONE 7830
TWX AQ 16

July 24, 1946

a 7/29, '46

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

Dear Mr. Colvocoresses:

When I called at your office in Phoenix last spring, you mentioned the possibility of activating Dr. Blackwell's and Scott claims in the Chloride area if the price of lead and zinc should increase.

I understand the price for lead and zinc and silver is decidedly on the increase and, therefore, the possibility of reviving a Chloride area might be getting nearer. This letter is merely to tell you that I am still of the same mind to communitize the Scott claims with Dr. Blackwell's and, possibly, any others that might be necessary to communitize in order to get a competent outfit with ample capital to work with.

For my part, it is well understood that we are willing to pay you a reasonable commission should plans are carried out. I am sending a copy of this letter to Dr. Blackwell and I hope that you will let me know if anything of promise occurs.

With kindest regards, I remain,

Sincerely,

Thomas B. Scott, Jr.
Thomas B. Scott, Jr.

TBS:EGP

CC: Dr. J. G. Blackwell

Room 251 Korber Building
TIJERAS AVE. ENTRANCE
Albuquerque, New Mexico
TELEPHONE 7830
TWX AQ 16

h. a.
April 11, 1946

Pay Roll mine file

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

Dear Mr. Colvocreases:

Thank you for your letter of April 8. I regret that I have not written you sooner, relative to the Santa Fe lands, but it was only a few days ago that I decided to reject their offers. It is for this reason that I have not written you before. Under these circumstances, there would not be any purpose in having work done as you suggested in Mohave County.

I am returning your statement of account because I don't believe you intended a cost of \$25 merely to ask you how you would go about doing something.

*larger or
doubt v. dy.*

I sincerely hope that you can work up something for the Payroll in the mining claims in combination with Dr. Blackwell's adjoining claims.

Please do not forget that the old Rankin Tunnel is still existent, although in bad condition, and that I believe I had some rights on the same.

With kindest regards, I remain,

Sincerely,

Thomas B. Scott Jr.
Thomas B. Scott, Jr.

TBS:EGP

Encl.

GEORGE M. COLVOCORESSSES
MINING AND METALLURGICAL ENGINEER
1102 LUHRS TOWER
PHOENIX, ARIZONA

April 8, 1946

STATEMENT OF ACCOUNT

Thomas B. Scott, 700 South Carlisle Avenue,
Albuquerque, New Mexico
to
G. M. Colvocoresses

To office consultation March 9
RE: exploration of Santa Fe Railway
Lands in Arizona

\$25.00

Received Payment

Cy Lind & Scott

December 3, 1946

Dr. J. G. Blackwell
Cloride, Arizona

RE: Payroll
Black Prince

*Payroll
file*

Dear Dr. Blackwell:

Referring to previous correspondence in reference to these properties, the recent advance in price of lead and zinc may make these mines seem more attractive to operating companies than has been the case for sometime past, and I have had some correspondence with Mr. Scott in regard to same.

Will you please advise me at your convenience as to the present condition of the road to the mines and in regard to the Payroll shaft and the tunnel which is located on your property adjoining.

In other words, if an engineer should visit these claims at present just what could he see and how much of the old workings would be accessible for examination and sampling?

I think it is important to obtain this information before attempting to discuss the property with any of my clients and I believe that you are in the best position to answer my questions as above.

I hope that everything is going well with you and that you are in good health and I take this opportunity to wish you all the compliments of the Christmas season and a happy and prosperous New Year.

Yours very truly,

GMC: IM

[Signature]

December 3, 1946

Mr. Thomas B. Scott
Room 251 Korber Building
Albuquerque, New Mexico

RE: Payroll *Wm file*

Dear Mr. Scott:

I have not previously replied to your letter of August 1 since I had nothing of any interest to communicate. I am enclosing herewith a copy of a letter that I am writing to Dr. Blackwell and while I have not at present any inquiries regarding a property such as the Payroll and his adjoining claims, I am hoping that the new year will bring about a general revival of mining activity and that there will be more interest in carrying on additional exploration and development work, and in that case it may be that some one of my clients will feel that they might wish to take an interest in the Payroll in which event I will do my best to encourage them.

Wishing you all the compliments of the approaching Christmas season and a happy and prosperous New Year, I remain,

Yours very truly,

GMC: IM

Enclosure



Room 251 Korber Building
TIJERAS AVE. ENTRANCE
Albuquerque, New Mexico
TELEPHONE 7830

TWX AQ 16

12
A 13 46

August 1, 1946

Re Pay Roll Mine

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

Dear Mr. Colvocoresses:

Thank you very much for your letter of July 29 and for stating your position in the matter of marketing properties. I appreciate this whole-heartedly.

In view of your position, I refer to the post script on your letter and will comment as follows:

If you have any out-of-pocket expenses relative to the presentation of our mine to operating companies, I am sure that my sister's Trust and I will pay any such nominal expenses.

As to promoters, there are so many of the cheap and inadequate kind (a lot of them coming from California) that I am really gun-shy of using them. Nevertheless, there are substantial promoters whom the substantial operating companies use--as brokers and scouts. This kind is generally paid by the operating company.

I am not afraid of paying up to 10% commission out of any funds received from a Lessee; nevertheless, I don't want to waste any time on bickering with people that do not have both the background and the funds to carry out a project. So therefore, I leave it to your judgment as to who, when, and how you present our project.

As a comment on my philosophy of leasing the mine, you realize, of course, that I have been in the oil business most of my life and I am therefore used to leasing properties for a royalty. The oil business does not have the bonded lease

Mr. George M. Colvocoresses

-2-

August 1, 1946

idea. Therefore, when we come to leasing the payroll mine, I will be very much inclined to be moderate in demanding a royalty, but at the same time, refuse to put a purchase price on the property which can be worked out through rentals and royalties. This, I believe, is the substance of the so-called bond and lease. On the other hand, I would sell for cash or lease for a royalty plus the usual work obligations, etc. I am willing to take a modest royalty. Being a gampler at heart, and even though the Payroll and ~~Black Panther~~ do not look too good, I really prefer the royalty basis. Later on, after the work is done and if things look favorable, the Lessee can always purchase the property at its then worth.

With kindest regards, I remain,

Cordially yours,

Thomas B. Scott, Jr.
Thomas B. Scott, Jr.

TBS:EGP

MINING LEASE

THIS AGREEMENT, made and entered into this _____ day of _____, 19____, by and between Thomas B. Scott, Jr. of Tulsa, Oklahoma, First Party, hereinafter referred to as OWNER, and G. M. Colvocoresses, of Phoenix, Arizona, Second Party, hereinafter referred to as LESSEE.

WITNESSETH:

THE FIRST PARTY is the legal OWNER of certain patented lode mining claims, situated in the Chloride Mining District, Mohave County, State of Arizona, to wit:

Pay Roll, patent survey #

Black Prince, patent survey #

and the Second Party is desirous of obtaining a lease to develop and operate these premises.

NOW THEREFORE, THIS AGREEMENT FURTHER WITNESSETH AS FOLLOWS:

That the OWNER, in consideration of One Dollar paid by the Lessee, (receipt of which is hereby acknowledged) and of the premises, covenants, and the conditions hereinafter set forth, agrees with the LESSEE as follows:

ARTICLE I

TERM OF LEASE

Subject to the terms and conditions herein set forth the OWNER does by these presents lease, demise and let unto the LESSEE and the LESSEE hereby hires all of the mining premises hereinabove described, together with any improvements belonging to the OWNER as are now situate on the said premises for a period of three (3) years commencing November 1st, 1942, and ending at midnight October 31, 1945, subject to the following terms and conditions.

ARTICLE II

Throughout the term of this lease SECOND PARTY shall have the right to enter upon and to mine, extract and remove ores from any or all and any part of the leased premises. On all shipments made to a smelter or mill or mint LESSEE will pay to the OWNER a royalty of TEN PERCENT (10%) of the net returns paid to the LESSEE after the purchaser has deducted the trucking and/or railway freight and switching charges, if any, and

the actual smelting and/or milling charges and deductions for slag and tailing loss and refining. This same rate of royalty shall apply on all premium metal payments actually received by the LESSEE from the Federal Government or any of its agents. The royalty shall be paid on or before the 25th day of the month next succeeding that in which the shipments are made and payment shall be accompanied by duplicate settlement sheets issued by the purchaser to the LESSEE. The LESSEE will use all due diligence to secure the best possible terms for all shipments made from the leased property.

ARTICLE III

TAXES

During the term of this lease, the LESSEE will pay the State, County and Local Taxes, assessed against the patented mining claims and upon any improvement thereon subsequent to January 1, 1943.

ARTICLE IV

OPERATION OF PROPERTY

(1) Mining

(A) Workings

All work upon said mining premises by the LESSEE shall be done in a good and workmanlike manner and after the manner of good mining. All tunnels, shafts, winzes, raises and other work by the LESSEE, where necessary or where directed by the State Mine Inspector, or his Deputy, shall be timbered properly and substantially, and all openings necessary for the operation of the mine shall be kept in a safe and workable condition, except such openings as are now caved or are not necessary for future operation.

(B) Requirements by Law

The Laws of Arizona and all requirements of the State Mine Inspector shall be complied with promptly by the LESSEE, particularly those with reference to fire protection devices, escapement ways, manways, outlets, ladders, signals, notices to employees and the care and storage of explosives.

(2) Reports and Maps

The LESSEE shall at intervals furnish to the OWNER copies of all progress, profile, contour, surface, assay, underground, and other maps or logs of drill holes and of geological and engineering reports which may relate to the said mining property, that may be made and/or revised by or at the direction of the LESSEE.

ARTICLE V

CLAIMS AND LIENS

Throughout the term of this lease, LESSEE shall comply with all the laws of the State of Arizona with respect to the designation of pay days and the prompt payment of employees, and shall conform to the Workmen's Compensation Law of the State, carrying such Workmen's Compensation as shall protect the OWNER from all claims for injury or damages arising out of the operation of the leased property. All miners, laborers, and other persons who may labor or furnish labor or material in or upon the said mining property and to whom any sum may be due from the LESSEE for labor or materials, shall be paid promptly by said LESSEE. Notices to the effect that the LESSEE and not the OWNER shall be responsible for the payment of all bills for labor, material, or other claims in connection with the operations under this lease shall be posted and kept posted on the property by LESSEE.

ARTICLE VI

It is mutually agreed between the parties hereto, that during the term of this lease, all mining operations and development work shall be under the exclusive direction and for the exclusive charge of the LESSEE but the OWNER through his authorized agent, shall have access at all reasonable times, to any or all of the records and workings necessary for the purpose of determining whether or not the terms of this lease and good mining practice are being conformed with.

ARTICLE VII

RIGHT OF REMOVAL

All ore broken and mined by the LESSEE, whether on the surface or

in underground stopes and also all machinery, equipment and personal property, together with all improvements belonging to the LESSEE, excluding houses and other permanent improvements attached to the property, may be removed by the LESSEE at any time during the term of this lease, or within sixty (60) days after its expiration. But such right of removal shall not extend to ladders, timbers, or ties in place on or beneath the surface of the property.

ARTICLE VIII

MISCELLANEOUS PROVISIONS

(a) Assignment and Subletting

It is mutually understood and agreed that the LESSEE herein named may assign all or any part of his rights hereunder to other parties or to a corporation who will carry out and perform all of his obligations as herein specified and that the LESSEE or his assign are hereby authorized to apply for and procure an R. F. C. Loan or loans in order to accomplish the purposes of this agreement provided, but only provided, that the real property of the OWNER is to be in no way pledged or involved as collateral for such a loan or loans.

(b) Surrender of Lease

The LESSEE may at any time quit and surrender the said mining property upon giving the OWNER sixty (60) days notice in writing of his desire to do so. This lease shall thereupon terminate, but the LESSEE shall not be discharged thereby from any obligation in favor of the OWNER that may theretofore have accrued under the terms hereof.

(c) Force Majeure

Acts of Nature and the public enemy, strikes, fires, floods, or any other causes beyond the control of the LESSEE preventing or delaying the fulfillment of the obligation undertaken in this agreement, shall during their continuance, excuse the failure of the LESSEE to carry out his obligations hereunder without penalty, excepting only as to the payment of the royalty and the taxes stipulated respectively in ARTICLES II and III hereof.

(d) Forfeiture

Time is the essence of this agreement. If the LESSEE shall fail to start the reconditioning and development of this property within six months from the date hereof and thereafter to continue to devote at least one hundred man shafts per month to its improvement and operation or if the LESSEE shall fail, neglect, or refuse to make any payment when due hereunder, or shall fail, neglect, or refuse to perform any of the acts and things agreed to be done and performed by him within the limited time herein specified and in the manner herein contemplated, or if the LESSEE shall make default in any of its promises and agreements herein, then and in that event, and if such default is not remedied within sixty (60) days after written notice of same has been given to the LESSEE, the OWNER may, at his election, declare a forfeiture of and an end to this agreement, and all payments heretofore made by the LESSEE to the OWNER shall be retained by the OWNER as rental for the use of said property and as liquidated damages for the breach of this agreement by the LESSEE AND THE LESSEE shall have no further interest of any kind in said property and shall immediately upon demand surrender possession thereof to the OWNER.

IN WITNESS THEREOF, the parties hereto have caused these presents to be executed, in duplicate, the day and year first above written.

WITNESS:

WITNESS:

MINING LEASE

THIS AGREEMENT, made and entered into this _____ day of _____, 19____, by and between Thomas B. Scott, Jr. of Tulsa, Oklahoma, First Party, hereinafter referred to as OWNER, and G. M. Colvocoresses, of Phoenix, Arizona, Second Party, hereinafter referred to as LESSEE.

WITNESSETH:

THE FIRST PARTY is the legal OWNER of certain patented lode mining claims, situated in the Chloride Mining District, Mohave County, State of Arizona, to wit:

Pay Roll, patent survey #

Black Prince, patent survey #

and the Second Party is desirous of obtaining a lease to develop and operate these premises.

NOW THEREFORE, THIS AGREEMENT FURTHER WITNESSETH AS FOLLOWS:

That the OWNER, in consideration of One Dollar paid by the Lessee, (receipt of which is hereby acknowledged) and of the premises, covenants, and the conditions hereinafter set forth, agrees with the LESSEE as follows:

ARTICLE ITERM OF LEASE

Subject to the terms and conditions herein set forth the OWNER does by these presents lease, demise and let unto the LESSEE and the LESSEE hereby hires all of the mining premises hereinabove described, together with any improvements belonging to the OWNER as are now situate on the said premises for a period of three (3) years commencing November 1st, 1942, and ending at midnight October 31, 1945, subject to the following terms and conditions.

ARTICLE II

Throughout the term of this lease SECOND PARTY shall have the right to enter upon and to mine, extract and remove ores from any or all and any part of the leased premises. On all shipments made to a smelter or mill or mint LESSEE will pay to the OWNER a royalty of TEN PERCENT (10%) of the net returns paid to the LESSEE after the purchaser has deducted the trucking and/or railway freight and switching charges, if any, and

the actual smelting and/or milling charges and deductions for slag and tailing loss and refining. This same rate of royalty shall apply on all premium metal payments actually received by the LESSEE from the Federal Government or any of its agents. The royalty shall be paid on or before the 25th day of the month next succeeding that in which the shipments are made and payment shall be accompanied by duplicate settlement sheets issued by the purchaser to the LESSEE. The LESSEE will use all due diligence to secure the best possible terms for all shipments made from the leased property.

ARTICLE III

TAXES

During the term of this lease, the LESSEE will pay the State, County and Local Taxes, assessed against the patented mining claims and upon any improvement thereon subsequent to January 1, 1943.

ARTICLE IV

OPERATION OF PROPERTY

(1) Mining

(A) Workings

All work upon said mining premises by the LESSEE shall be done in a good and workmanlike manner and after the manner of good mining. All tunnels, shafts, winzes, raises and other work by the LESSEE, where necessary or where directed by the State Mine Inspector, or his Deputy, shall be timbered properly and substantially, and all openings necessary for the operation of the mine shall be kept in a safe and workable condition, except such openings as are now caved or are not necessary for future operation.

(B) Requirements by Law

The Laws of Arizona and all requirements of the State Mine Inspector shall be complied with promptly by the LESSEE, particularly those with reference to fire protection devices, escapement ways, manways, outlets, ladders, signals, notices to employees and the care and storage of explosives.

(2) Reports and Maps

The LESSEE shall at intervals furnish to the OWNER copies of all progress, profile, contour, surface, assay, underground, and other maps or logs of drill holes and of geological and engineering reports which may relate to the said mining property, that may be made and/or revised by or at the direction of the LESSEE.

ARTICLE V

CLAIMS AND LIENS

Throughout the term of this lease, LESSEE shall comply with all the laws of the State of Arizona with respect to the designation of pay days and the prompt payment of employees, and shall conform to the Workmen's Compensation Law of the State, carrying such Workmen's Compensation as shall protect the OWNER from all claims for injury or damages arising out of the operation of the leased property. All miners, laborers, and other persons who may labor or furnish labor or material in or upon the said mining property and to whom any sum may be due from the LESSEE for labor or materials, shall be paid promptly by said LESSEE. Notices to the effect that the LESSEE and not the OWNER shall be responsible for the payment of all bills for labor, material, or other claims in connection with the operations under this lease shall be posted and kept posted on the property by LESSEE.

ARTICLE VI

It is mutually agreed between the parties hereto, that during the term of this lease, all mining operations and development work shall be under the exclusive direction and for the exclusive charge of the LESSEE but the OWNER through his authorized agent, shall have access at all reasonable times, to any or all of the records and workings necessary for the purpose of determining whether or not the terms of this lease and good mining practice are being conformed with.

ARTICLE VII

RIGHT OF REMOVAL

All ore broken and mined by the LESSEE, whether on the surface or

in underground stopes and also all machinery, equipment and personal property, together with all improvements belonging to the LESSEE, excluding houses and other permanent improvements attached to the property, may be removed by the LESSEE at any time during the term of this lease, or within sixty (60) days after its expiration. But such right of removal shall not extend to ladders, timbers, or ties in place on or beneath the surface of the property.

ARTICLE VIII

MISCELLANEOUS PROVISIONS

(a) Assignment and Subletting

It is mutually understood and agreed that the LESSEE herein named may assign all or any part of his rights hereunder to other parties or to a corporation who will carry out and perform all of his obligations as herein specified and that the LESSEE or his assign are hereby authorized to apply for and procure an R. F. C. Loan or loans in order to accomplish the purposes of this agreement provided, but only provided, that the real property of the OWNER is to be in no way pledged or involved as collateral for such a loan or loans.

(b) Surrender of Lease

The LESSEE may at any time quit and surrender the said mining property upon giving the OWNER sixty (60) days notice in writing of his desire to do so. This lease shall thereupon terminate, but the LESSEE shall not be discharged thereby from any obligation in favor of the OWNER that may theretofore have accrued under the terms hereof.

(c) Force Majeure

Acts of Nature and the public enemy, strikes, fires, floods, or any other causes beyond the control of the LESSEE preventing or delaying the fulfillment of the obligation undertaken in this agreement, shall during their continuance, excuse the failure of the LESSEE to carry out his obligations hereunder without penalty, excepting only as to the payment of the royalty and the taxes stipulated respectively in ARTICLES II and III hereof.

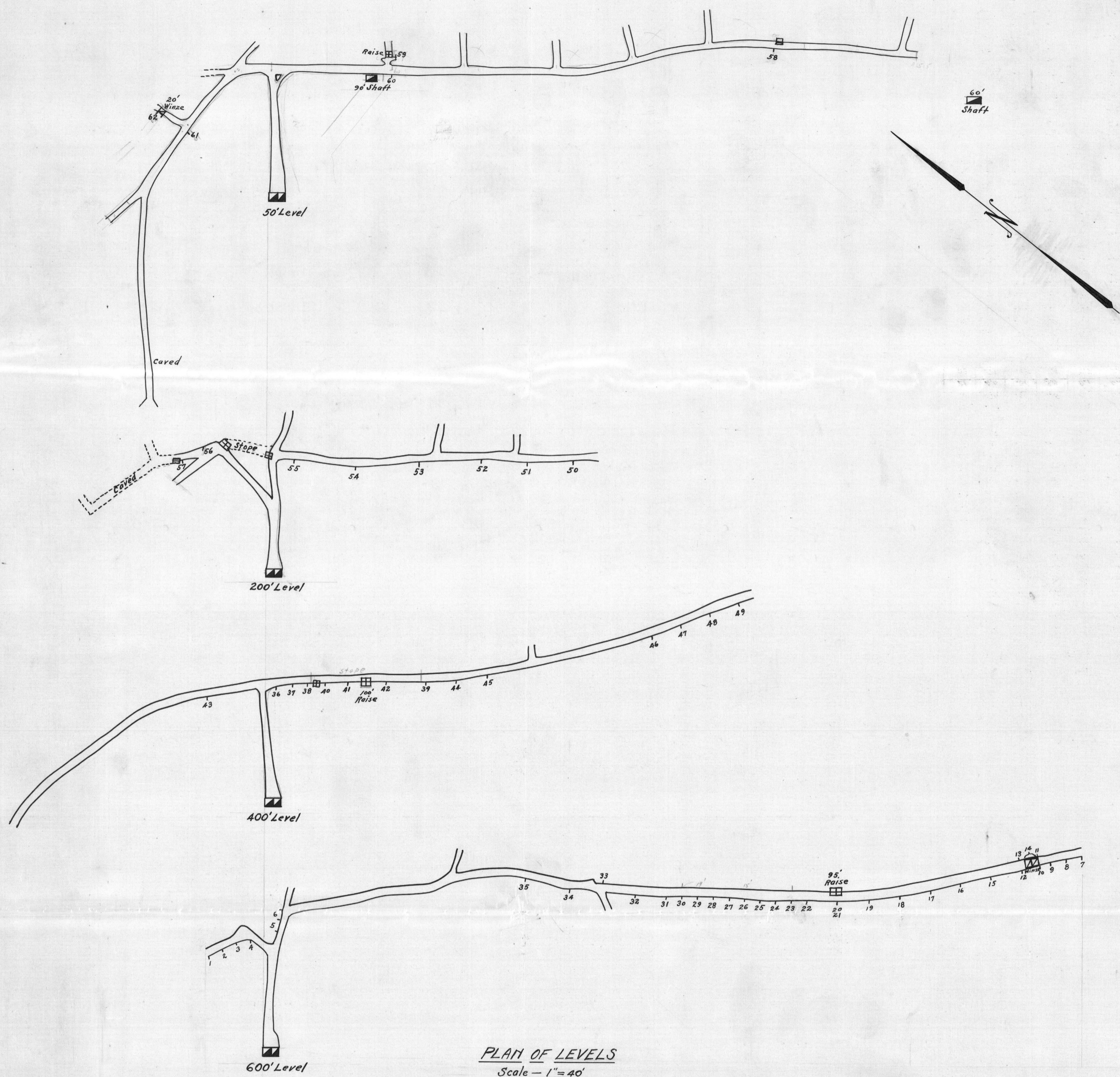
(d) Forfeiture

Time is the essence of this agreement. If the LESSEE shall fail to start the reconditioning and development of this property within six months from the date hereof and thereafter to continue to devote at least one hundred man shafts per month to its improvement and operation or if the LESSEE shall fail, neglect, or refuse to make any payment when due hereunder, or shall fail, neglect, or refuse to perform any of the acts and things agreed to be done and performed by him within the limited time herein specified and in the manner herein contemplated, or if the LESSEE shall make default in any of its promises and agreements herein, then and in that event, and if such default is not remedied within sixty (60) days after written notice of same has been given to the LESSEE, the OWNER may, at his election, declare a forfeiture of and an end to this agreement, and all payments heretofore made by the LESSEE to the OWNER shall be retained by the OWNER as rental for the use of said property and as liquidated damages for the breach of this agreement by the LESSEE AND THE LESSEE shall have no further interest of any kind in said property and shall immediately upon demand surrender possession thereof to the OWNER.

IN WITNESS THEREOF, the parties hereto have caused these presents to be executed, in duplicate, the day and year first above written.

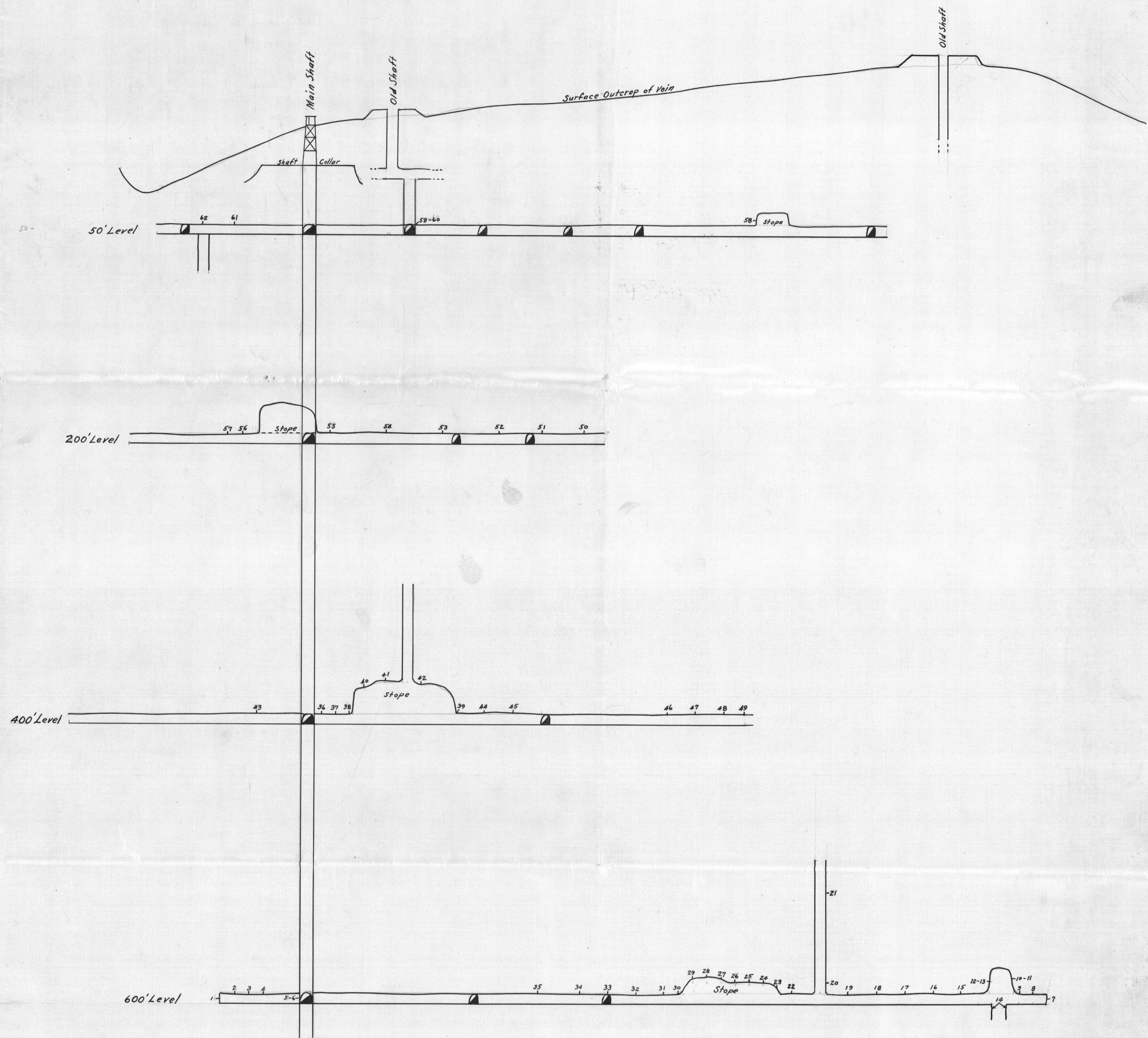
WITNESS:

WITNESS:



-ASSAYS-

Sample Number	Width Feet	Gold ozs.	Silver ozs.	Copper %	Lead %	Zinc %
1	4.0	.02	0.5	10.0	0.1	6.5
2	3.5	.05	3.5	0.2	1.0	5.1
3	3.7	.02	2.0	0.1	0.4	15.5
4	5.0	.02	2.3	0.2	1.1	7.3
5	6.5	.03	1.0	0.1	0.3	4.2
6	6.5	.03	0.2	Tr.	0.2	1.6
7	2.5	.02	1.8	0.4	0.2	8.8
8	1.4	.03	6.6	1.5	0.2	11.8
9	5.2	.06	1.3	Tr.	0.4	15.8
10	4.8	.06	1.6	Tr.	1.9	18.5
11	4.9	.03	1.6	0.1	0.3	8.3
12	4.6	.09	1.2	0.1	0.3	3.6
13	4.5	.06	2.8	0.3	0.8	7.1
14	10.0	.07	2.1	0.3	0.2	7.9
15	6.9	.09	2.1	0.3	0.3	13.4
16	5.0	.08	1.0	Tr.	1.2	12.2
17	6.5	.08	1.1	Tr.	0.3	5.6
18	5.6	.09	2.9	0.9	0.4	15.4
19	4.0	.03	0.8	Tr.	0.4	2.2
20	5.0	.06	1.5	0.1	0.5	2.4
21	4.0	.30	3.3	0.1	0.3	3.0
22	5.7	.05	2.4	0.5	0.3	3.0
23	3.8	.30	4.0	0.7	2.1	3.1
24	3.0	.03	2.2	0.3	1.8	3.3
25	4.3	.04	1.8	0.2	0.7	4.2
26	6.2	.08	8.8	1.8	1.7	3.2
27	3.8	.14	2.6	0.3	1.6	6.9
28	7.0	.04	2.3	0.3	0.6	2.8
29	3.5	.16	4.2	0.5	2.3	4.7
30	3.4	.26	4.6	0.9	0.7	7.6
31	3.2	.32	5.4	1.1	2.0	4.5
32	2.4	.05	3.6	0.6	0.7	4.8
33	2.0	.14	3.9	0.4	1.1	5.4
34	2.2	.14	4.5	0.8	0.5	8.1
35	5.0	.06	1.5	Tr.	0.5	4.9
36	2.5	.08	4.2		3.8	24.3
37	2.3	.09	3.2		0.6	11.8
38	2.9	.06	3.8		11.3	18.8
39	1.7	.09	3.0		5.9	15.8
40	3.0	.09	3.0		3.0	23.5
41	1.6	.13	2.4		2.6	31.3
42	1.7	.14	2.4		2.2	20.8
43	1.5	1.09	2.5		3.7	14.6
44	3.6	.26	1.8		2.7	12.6
45	4.0	.42	0.2		0.7	2.0
46	5.4	.04	1.0		0.2	2.5
47	4.6	.10	1.5		1.6	2.9
48	5.0	.08	0.8		0.6	3.8
49	3.5	.03	1.8		0.6	2.6
50	3.0	.24	0.7		0.3	4.1
51	4.0	.07	0.4		0.2	3.3
52	1.5	.06	1.3		1.9	14.2
53	3.5	.03	0.3		0.3	3.5
54	5.0	.05	0.4		0.2	3.5
55	4.7	.02	0.1		0.2	1.3
56	4.5	.20	2.7		0.8	3.4
57	5.7	.08	1.0		1.8	6.4
58	2.2	.22	3.5		2.2	11.3
59	2.2	.04	1.8		5.7	8.6
60	2.5	.04	0.7		0.4	5.9
61	2.1	.06	2.4		0.3	20.0
62	3.4	1.12	10.4		5.7	3.5



**ASSAY MAP
OF
PAY ROLL MINE**
Mohave Co., Arizona
August 1st 1930 — G.J.H.

625
715
-190
525

