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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: LEADVILLE GROUP

ALTERNATE NAMES:

KING SOLOMON
TURQUOISE KING
WESTERN BELLE
COPPER BUG
GREY MULE

COCHISE COUNTY MILS NUMBER: 236

LOCATION: TOWNSHIP 19 S RANGE 25 E SECTION 17 QUARTER SW
LATITUDE: N 31DEG 46MIN 26SEC LONGITUDE: W 109DEG 49MIN 21SEC
TOPO MAP NAME: PEARCE - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

COPPER SULFIDE
SILVER
GOLD LODE

BIBLIOGRAPHY:

KEITH, S.B., 1973, AZBM BULL. 187, P. 83
ADMMR LEADVILLE GROUP FILE
CLAIMS EXTEND INTO SEC 20 NE
USBM 1949 MINERALS YEARBOOK

LEADVILLE GROUP

COCHISE COUNTY

WR MG 1/16/80: Visited the mine. There was no activity.

NJN WR 12/31/82: Dave Riley, mineral specimen dealer, was in and donated a fine specimen of cyanotrichite to the museum's collection from the Maid of Sunshine Mine, Cochise County. He reported he is trying to produce a green gemmy sphalerite material associated with quartz and galena from the Lady Smith mine.

LEADVILLE GROUP

COCHISE COUNTY

ABM Bull. 123 p. 58 ABM Bull. 187, p. 30

See: ~~Eagle Picher "L" Confidential files~~
in *file*

MAPS - Upstairs in the ABM rolled file boxes listed under Leadville Mine (1 map showing part of underground another sketch showing Armstrong shaft and workings)
Also listed under Courtland-Gleeson Region (maps showing workings of the following - Armstrong, McLenden, Maid of Sunshine, Germania No. 1, Silver Bill and Mystern workings))

REPORT OF THE LEADVILLE GROUP OF MINES,
COURTLAND, ARIZONA,
MARCH, 1913.

LOCATION

The mining claims dealt with in this report are adjacent to the town of Courtland, Turquoise Mining District, Cochise County, Arizona, 36 miles northwest of the city of Douglas and 24 miles north of the city of Bisbee. They lie in a small group of low hills detached from but near to the extreme southeast end of the Dragoon Mountains.

AREA

The claims are divided into two groups with areas as follows:

Maid of Sunshine	Patented	18.11 acres	
King Solomon	"	20.66	38.77
Leadville	"		
Turquoise King	"		
Copper Bug	"		
Western Belle	"		
Northern Light	"		
Gray Mule	"		
Headlight	"		128.25
Winchester, surveyed for patent, area estimated		2.00	
West side, patent pending, area estimated		18.00	20.00
			<hr/>
Total acres			187.02

These claims, as well as the surrounding ones, are shown on the plan of the mining claims of the district and which plan accompanies this report.

TITLES

The titles to these properties are held by the Leadville Mining Company, an Arizona Corporation. Abstracts showing clear title to all but the last two mentioned claims have been presented to me.

HISTORY

The district gets its name from the Turquoise mines which were discovered on the west side of the camp about 30 years ago, and for the prospecting for which gem some of the claims of the district are still held.

An important body of commercial copper ore was discovered in the Humboldt claim about 1900, and the high price of copper late in 1905 and 1906 caused a great amount of activity in the camp.

Phelps Dodge & Co., the Calumet & Arizona Mining Company and others did a large amount of prospecting. Some of the claims were held under bond at fabulous prices and the subsequent drop in the price of copper in 1907 is given as the reason for the relinquishment of nearly all the options held by them. The production of the Mary, Germania and Mamie mines since that time, as shown under head "Production" hardly give value to this reason.

GENERAL

The rock formations covered by the claims of the Leadville Mine Co. as well as those of the nearby producing mines, are five in number, three of these sedimentary and two igneous. The lowest member of the sedimentary group is a hard quartzite which is the rock which caps most of the highest hills of the district. Overlying the quartzite is a formation of thin shaly limestone. This limestone as well as the underlying quartzite have been identified by the U.S.G.S. as being of Cambrian Age. The other sedimentary rock of the district is a blue gray thick-bedded limestone of Carboniferous Age.

The igneous rocks of the district are both monzonite porphyries very similar lithologically and distinguishable mainly by the great amount of decomposition which the more acid of the two has undergone. This latter was probably intruded before the deposition of the Carboniferous limestone as the only contacts observed between the two were fault contacts. In the area studied the acid monzonite occurs only in the form of sills and laccoliths in the Cambrian limestone, one very persistent sill about 25 feet thick lying between the quartzite and this limestone. The intrusion of this porphyry has had a very marked effect on the adjacent shaly limestone which has been largely changed to garnet and other contact minerals, accompanied by sulphides, chiefly pyrite, carrying small percentages of copper. Subsequent oxidation of the sulphides and the action of sulphuric acid this former on both limestone and porphyry has so altered these rocks in places that their original character can only be determined with difficulty.

The basic monzonite porphyry occurs in much larger bodies than the acid monzonite, usually in the form of stocks and dikes intruding all the above mentioned formations. It is of a darker color and coarser texture. It has had no decided metamorphic action on the limestone except in a few places where it occurs in a more silicic phase.

The district has been extensively faulted, both compression or overthrust faults and tension or normal faults occurring. The overthrust faults are perhaps economically the more important as long as their faulty dipping planes greater opportunity was afforded for the replacement of copper bearing solutions.

The ore deposits are of two types.

First: Pyritic impregnations in the shaly limestone near the contact with the porphyry.

Second: Oxidized deposits resulting from the replacement of shattered limestone by copper bearing solutions.

Both forms of occurrence undoubtedly have their origin in the acid monzonite porphyry.

The first step in their formation was the introduction of sulphides into the limestone while these were undergoing contact metamorphic changes due to the intrusion of the porphyries. Local concentration of these sulphides, which are principally pyrite with a small percentage of chalcopyrite, may form commercial ore bodies of the first class. Some of the oxidized ore bodies of the camp are the result of the direct oxidation of these pyritic ore bodies in place, but the more important are probably due to the collecting agency of surface waters which in percolating through formations of metamorphosed limestone and porphyry carrying disseminated sulphides, have taken up copper sulphate in solution, transporting the same until some favorable medium for redeposition by replacement, such as the shattered limestone of the thrust fault breccia, is encountered.

THE MAID OF SUNSHINE MINE

The principal ore body lies along the plane of the Sunshine Fault, an overthrust fault by which Cambrina Quartzite and limestone have been thrust over, relatively younger, carboniferous limestone. The ore is a mixture of carbonates, silicates and oxides of copper irregularly distributed in a gangue of limonite and clayey residual matter resulting from the decomposition of the fault breccia. Smaller branches of the main body will often lead away from the fault and make along a bedding plane of the underlying limestone or along some minor fault wherever the limestone has been shattered.

The ore follows approximately the contour of the limestone footwall, between which and the unaltered hanging wall is a belt of oxidized residual material varying in thickness from a few feet to fifty feet or more. The ore itself varies from a rich streak of six inches to lenses of commercial ore forty to fifty feet thick.

The main ore body was first encountered about 100 feet down an incline shaft which was sunk approximately along the fault plane though not following the footwall closely. From this point ore was developed downward, but no further work was done along the footwall upward. It is probable that more ore will be found if this be done, for a number of shallow prospect pits sunk on the fault have shown good ore very near the surface. On the 122' level the orebody has been more fully developed than at any other plane in the mine and what little stoping has been done is from this level. The footwall is shown to be very uneven - partly due to original irregularity of the fault plane and partly to subsequent normal faulting.

The development on this level was probably done before the relation of the fault to the orebody was fully realized.

Drift 4xC along the footwall exposed some ore but no cross-cut was driven towards drift 2xC which is still in the ore zone nearer to the hanging wall. Such a crosscut would probably have cut through the main orebody.

Ore was stoped on the Mary claim of the Great Western Copper

Company not far from the line on the continuation of the Sunshine fault. The Maid of Sunshine shaft cuts the fault plane about 26' below the 122' level going through a little ore but no exploration was done on the level NE of the shaft along the fault plane. The stope on this level cuts through about thirty feet of ore vertically, the body dipping nearly 30 degrees.

In drift 28xC, which lies in the ore body about 80 feet horizontally from the footwall a later fault has brought the footwall forward to intersect the drift.

The incline from the 122' to the 229' level, nearly horizontal in its upper part, begins in the footwall, and cuts through the ore and leached zone into the unaltered quartzite hanging wall. It then passes through a normal fault which has thrown the footwall back up to the level of the drift. As is shown in Section A - A the effect of the later faults has been to partially repeat the ore-body within the limits of the Maid of Sunshine Claim. The incline then follows the footwall rather closely along its changing dip until the 229' level is reached.

Drifts driven north from the sub-level incline along the footwall pass through a relatively barren zone. The richest part of the ore shoot developed by the sub-level lies south of it. Another incline raise (21SR) from the 229' level and approximately parallel to the sub-level passes through a wide shoot of very rich ore. This incline follows the footwall, but a drift from it, (9SR) wanders around in the ore zone without effectively blocking it out.

On the 229' level drift 24xC runs through barren leached material about 75' from the footwall. In crosscut 35xC the footwall was again found with a narrow but high grade streak of ore along it. At the east end of this crosscut a raise developed commercial ore which seems to have made along a limestone bedding plane leading away from the fault plane.

The part of the Sunshine fault is in practically virgin ground as no other work has been done here either above or below the

229' level. Going west on this level the ore body which makes along the Germania fault is encountered in the drifts 34xC and 15xC. This fault is also a thrust fault with Carboniferous limestone in the footwall. It has been traced in a northwesterly direction nearly a mile from the Germania mine. It dips northeast or in an opposite direction to the Sunshine fault. In the lower levels of the Germania Mine the orebody along this fault has been stoped up to the Maid of Sunshine line. Recently ore has been developed on this fault above the level of the Germania shaft collar.

Near the north end of drift 15xC on the 229' level is the only sulphide ore so far discovered in the Maid of Sunshine Mine. The body apparently belongs to the first class of ore deposits of this camp, that is, pyritic impregnations in the Cambrian limestone, enriched by secondary chalcocite. Very little work has been done on it and there are no workings above or below it. It is a very promising prospect and should be explored further, although a small stope could be started on it at once.

The work on the 190' level was done wholly from the Mary shaft of the Great Western Copper Company. It lies entirely in the limestone footwall below the Sunshine fault, and was intended primarily for a working level in solid ground from which the orebody could be tapped by a system of raises. The orebody slopes from a height of 55' above the level at chute 15 to 18' above the level at chute 19. The probable fault shown on the map has not been cut on this level but has been cut on the sub-level above. Drift 191 extended turning to the left about 30 degrees would probably cut the Sunshine ore body on the near side of the probable fault and again some distance further on up the up-faulted far side. The Great Western Copper Company has stoped up to the line on the down-faulted portion.

The 275' level was undoubtedly intended for a working level by the former option holders. The drifts and crosscuts are all laid out in straight lines and right angles. The Germania and Sunshine faults approach within 75 feet of each other on this level, the zone between the two being entirely composed of decomposed fault mater-

ial. The only prospecting done on this level was about 100 feet of drifting in this zone. Some ore was developed but the work on the 229' level and the sub-level show that this portion of the fault plane was relatively barren.

One hundred and ninety feet below the 275' level is another level which was driven from the April Fool shaft of the Calumet and Arizona Mining Company. Unfortunately this level is now under water but its location was obtained from an old map. It was to have been the main working level through which the various members of the proposed consolidation scheme were to be worked, using the April Fool as a central shaft. Such information as could be obtained by questioning former workmen is to the effect that "sulphide" was struck in a drift going into the King Solomon claim and an "oxidized zone", probably decomposed fault breccia in one of the long crosscuts to the east. If the latter statement is true it would seem to show that the Germania fault is later than the Sunshine fault and consequently carries through. The character of the secondary faults and breaks tend to confirm this view, but this cannot be positively determined without an examination of the lower level. If on the other hand, the Sunshine fault is the later it will dip out of the Maid of Sunshine ground about 400' below the 275' level at the point through which the section is taken, and to successfully increasing depths as its strike is followed northerly.

RESUME OF GEOLOGY

The development work done by the option holders presents many puzzling features looked at from the view point of the operator. While ore has been encountered in many of the workings it has not been effectively blocked out. The best idea of the dimensions of the orebody may be obtained from the stoping operations in the Mary and Germania Mines, on that part of the Sunshine fault which dips into their ground. This also holds true for the Germania fault which dips from the Germania into the Maid of Sunshine ground. In both cases their stopes extend to the Maid of Sunshine line. The experience

in these mines has been that much new ore is developed in the process of stoping, and it is said that they have as much ore in sight now as when production commenced.

The expense of keeping open workings in the ore zone was probably one of the main reasons for not more fully blocking out ore already discovered, and that there was ample warrant for this is shown by the badly caved condition of some of the workings, some altogether inaccessible, which have only been abandoned about three years. It is also apparent that the relation that the orebodies bore to the Sunshine and Germania faults was not understood, otherwise exploration could have been more efficiently directed and much aimless drifting avoided. In justice to the former management it should be said however, that subsequent work in the Mary and Germania mines has done much to clarify some of the obscure points in the structural relations of the faults.

During the boom days when the large companies held options on most of the promising claims of the district with the probable ultimate purpose of consolidation, the camp was a hotbed of intrigue and manipulation, and it is frequently contended by persons on the ground that the character of the mine development was often influenced more by the status of some particular mining deal than by the actual conditions of the mine.

The conclusions arrived at as a result of the geological examinations are:

1. That the ore actually in sight is but a small part of what could have been developed by proper exploration.
2. That work up from the 122' level will probably show the continuation of the ore shoot far above that level.
3. That more work done along the Sunshine fault plane from all the levels will discover new ore shoots. This is especially to be recommended in the upper levels since a correspondingly greater portion of the fault plane lies in the Maid of Sunshine ground.

4. That drifts in the ore zone on the 275' level are one portion of the fault plane which was comparatively barren on the upper levels and that if the south drift were extended 50 feet the rich ore shoot in 21SR would be found, while the same distance added to the north drift would reach the undeveloped shoot in 35xC on the 229' level.

5. That the sulphide orebody on the 229' level is a body distinct from either the Germania or Sunshine orebodies and will show some connection with the two sills of acid monzonite porphyry in the Cambrian limestone shown on the map.

6. That the extension of the Germania fault dips into the King Solomon Claim.

ORE IN SIGHT

The development of the ore in the Maid of Sunshine mine has been of such a nature as to preclude the possibility of making an accurate estimate of the tons of ore in sight, based on the generally accepted idea that ore in sight is ore blocked on four sides.

I estimate that there are fifty thousand tons of ore in sight carrying six per cent copper and that an additional fifty thousand tons should be considered probable ore carrying a similar amount of copper. It is quite probable however, that judiciously projected work will show a greater tonnage to be in the mine than that mentioned in the estimates.

ASSAYS

The assay results of all samples taken are shown on five assay sheets which accompany, and are a part of this report. The description of each sample is written against each assay number and correspondingly recorded on the assay plans of each level which also accompany this report.

COSTS

The freight rates per ton from Courtland to the smelters at Douglas and El Paso are respectively 45 cents and \$1.55.

Coal f.o.b. cars at Courtland \$7.20 per ton.

Fuel, oil f.o.b. cars at Courtland 4 cents per gallon.
 Mining timber v.o.b. cars at Courtland \$27. per thousand.
 Water, as supplied by the Courtland Improvement Co., 75¢,
 per 1000 gallons when 100,000 gallons or more are used.
Labor, Hoisting engineers \$4.50 per day for 8 hours.
 Top men 3.50
 Machine drill men 4.00
 Hand drill men 3.75
 Timbermen 4.00
 Muckers \$2.25 to 3.50
 Trammers 2.25 to 3.50
 Mexican Labor 2.00 - 3.00

TRANSPORTATION

The El Paso & Southwestern Railroad has a branch from Douglas, 36 miles, which crosses the Maid of Sunshine claim and ends on the claim Tin Horn. See plan of mining claims of the district and photographs, both of which accompany this report.

Distance by rail from Courtland to El Paso is 217 miles.

The Southern Pacific Railroad has a branch line from Cochise, through the mining camps of Pearce and Gleeson, which ends about two miles south of the Maid of Sunshine Mine. Daily trains are operated by both the lines mentioned.

PRODUCTION

That of the camp of Courtland has been as follows:

Great Western Copper Company:

Humboldt Mine	-	Estimated	\$ 300,000.00	Gross
Mary and Mamie Mines,				
1909	455,219 lbs. Copper		59,096.53	"
1910	17,489 tons Ore		287,492.00	"
1911	20,702 " "		323,408.54	"
1912	33,112 " "		558,812.00	"
1913		Estimated	65,475.00	"

Forward \$1,594,284.07

Calumet & Arizona Mining Co.

1910	17,624 tons Ore		192,491.13	"
1912		Estimated	247,500.00	"
1913		"	110,025.00	"

Leadville Mining Company.

1905	60 tons Ore		1,294.82	Net
1906	78 " "		1,593.82	"
1912	692 " "		10,205.22	Gross

Total \$2,157,394.06

When the word "estimated" is used the total tons produced, as based on the best information procurable and believed by the writer to be correct, has been multiplied by \$15.00. The sixteen shipments made from the Maid of Sunshine mine had the following analysis, as

shown by the smelter returns:

Weight in lbs.	Percent Moisture.	Percent Copper	Ozs. Silver	Percent Iron	Percent Lime	Percent Silica	Percent Alumina
102080	12.5	6.16	Trace	2	2	50.2	15.5
88520	12.6	5.74	"	2	2.2	50.4	16.4
118980	18.5	6.15	"	1.6	Trace	48.0	20.4
99560	17.0	4.71	"	2.3	2	56.2	17.2
106960	18.0	5.44	"	1.8	Trace	52.4	17.3
130280	15.3	5.50	"	2.5	0	49.6	20.8
111900	17.1	5.70	"	2.6	2.1	52.2	17.2
101640	16.3	4.53	"	2.5	2.1	57.8	15.2
130600	14.1	5.28	"	2.5	Trace	54.4	15.5
99830	17.0	4.80	0	2.7	0	58.0	22.1
97080	16.5	5.7	0	2.4	0	58.2	17.0
87300	16.0	4.2	0	2.3	0	27.8	18.5
99360	16.5	5.98	0	2.5	0	55.8	18.5
94860	18.0	6.6	0	2.4	0	55.7	18.7
79580	14.0	4.31	0	2.7	0	47.2	23.1
99340	16.5	5.50	0	2.9	0	53.2	19.0

Report on the Leadville Group and such items as Equipment and Mining, not covered in this report will be complete by 28th inst.

Respectfully submitted,

(Signed) S.M.Greenidge.

Douglas, Arizona,
March 24, 1913.

GEOLOGY OF THE LEADVILLE GROUP

Douglas, Arizona.
March 28, 1913.

This group is developed by two main working shafts and a number of smaller prospect shafts. The greatest amount of work was done from shaft No. 1, located on the Copper Bug claim. It is about three hundred feet deep and has two main levels and some intermediate workings. But little could be learned of the character of this work as the shaft was allowed to fill with water when the property reverted to the Leadville Mining Company, and the present management had not had time to unwater it before this examination was made. No stoping was done by the former option holders. The dump which resulted from the exploration work was recently sold to the Pioneer Smelting Company, Sahuarito, Arizona, who shipped about two thousand tons of low grade copper-sulphide ore from it. Previous to the granting of the first options some work was done by the Leadville Mining Company in an incline shaft which was sunk on a bedding plane of the Cambrian limestone near the contact of one of the acid monzonite porphyry sills. Pyritic ore, somewhat oxidized and secondarily enriched, was found and a small amount of stoping was done about fifty feet below the surface. Samples 195 to 197 are taken from this stope and their locations are shown on the map of the Leadville Group which accompanies this report. This incline was continued to about 200 feet below the surface and about 100 feet of drifting was done from the bottom. This drift is said to be in good grade of sulphide ore. As the drift is under water it could not be sampled and the only record obtainable is a smelter liquidation on a car of ore which was taken out in development and which assayed 6.8% copper, 0.29 ounce Gold, 1.75 ounces Silver, 38.1% Sulphur, and 17.4 Insoluble.

Shaft No. 2 is the other working shaft and is not about 360 feet deep. On the first level a crosscut runs east in the basis monzonite. On the second level a crosscut cuts the contact of the basis monzonite and the Cambrian limestone, but has not yet cut an ore-bearing bed in the limestone.

Shaft No. 3 is a prospect shaft on the contact of Cambrian limestone and basic monzonite. A little work has been done from this shaft on two levels and commercial ore was found.

Samples 181 to 192 refer to this.

Shaft No. 4 is a prospect shaft in Cambrian limestone near the contact with an acid monzonite sill. Low grade ore was encountered apparently on the edge of a lense, but no work was done to prove this.

An open cut on the contact of basic monzonite and Cambrian limestone developed a good grade of oxidized copper ore which may be very cheaply mined. Samples 165 to 170 were taken in this open cut.

It may be said that the exploration done by the Great Western Copper Company during the last few years, on the claim Mamie, has given definite assurance of the existence of a body of commercial copper ore on the Leadville ground south of shaft No. 2. The great Western Copper Company began stoping operations some months ago along the line between the claims Mamie and Leadville and a very good grade of ore is still being produced from this place.

The ore bodies in this group of claims are clearly those of the first class, i.e. pyritic impregnations in Cambrian limestones. They are lenticular in shape and have no sharp boundaries being that portion of the bed where the pyrite is more thickly disseminated. From these concentrated portions the pyrite gradually thins out in all directions, the final limit to which a stope may be carried being directly dependent on the market value of copper at that time.

The pyrite owes its value as an ore of copper to finely distributed chalcopyrite, probably primary. Some of the stopes of the Mamie mine of the Great Western Copper Company are in this primary ore, but it is also true that some secondarily enriched copper ore is at present being mined in two of their stopes.

That the primary ores have been formed by the action of magnetic waters emanating from the intrusive acid monzonite sills on the beds of Cambrian limestone may be considered as fairly well established, but these beds have not shown equal susceptibility to replacement by

cupriferous pyrite. In order that future exploration be most economically conducted, the criteria for the recognition of the beds must be determined.

The geological conditions of the Leadville Mines are similar to those of the Mamie mines, i.e. Cambrian limestone with interplaced sills of acid monzonite porphyry. The surface showing of the Leadville is very much more favorable than that of the Mamie as the limestone is more heavily iron-stained, due to the decomposition of the sulphides. The Leadville has also been faulted and shattered more extensively than the Mamie, which affording channels for circulation surface waters produces a condition favorable to secondary enrichment processes.

In this connection attention should be called to the great turquoise overthrust fault shown on this map. This fault longitudinally cuts the formations in which it has been shown that primary ore is most likely to occur, and it is not improbable that along this fault plane replacement ores may be formed as in the case of the Sunshine and Germania faults. Some ore has been found in an incline shaft sunk on a bedding plane of the limestone near the south end of the fault but the greater portion of the fault traced is covered by deep surface wash. A crosscut west from Shaft No. 1 to the fault place is recommended, since this will also cut several acid monzonite and Cambrian limestone contacts.

MINING

That heretofore done in the camp has been entirely by the square set system and although this is particularly applicable to the kind of rock mined the writer is nevertheless of the opinion that a modification of the caving system may be to some extent applied and a reduction of costs made thereby.

Stoping and all other costs necessary to the extraction and placing of ore on the cars should not exceed an average of \$2.25 per ton.

Exploration work, above water level, should cost from \$4.00 to \$5.50 per foot and below water level an additional amount depending upon the amount of water encountered.

EQUIPMENT

At the Maid of Sunshine shaft this consists of a 9 H.P. gasoline hoist, a whim, and a new head frame. The shaft has been re-timbered to the 275' level and is in first class shape.

At shaft No. 1 of the Leadville group:

1 25 H.P. steam hoist	1 30 H.P. Boiler
1 Station pump	1 40 H.P. "
3 Boilers and the pump need repairs.	

At shaft No. 2 of the Leadville group:

- 1 8½ x 10 Ottumwa Steam Hoist
- 1 Ingersoll Rand Compressor new 385 ft. x compounded and belt driven by
- 1 Russel 12x12 automatic governed steam engine.
- 1 140 H.P. fire tube boiler.
- 2 2½" Cochise air drills
- 1 Ingersoll Rand Stoper
- 3 Ingersoll Rand Sluggers
- 1 No. 7 Cameron Station Pump
- 1 Water bucket
- 1 Steel cage
- 4 Sinking buckets
- 9 Mine cars
- 1 Blacksmith shop, fully equipped

Necessary tools for the use of about sixty (60) men.

Respectfully submitted,

(Signed) S. M. Greenidge.

3/28/13.

REPORT ON LEADVILLE GROUP OF MINES
COURTLAND, ARIZONA.
December 22, 1917

* * * * *

AREA

Since my report of March 1913, the area of the Maid of Sunshine group has been increased by the three claims, as follows:

FRACTION)		
SILVERTON)	Patented	11.429 acres
ROCK HILL	Unpatented	4 acres
Making a total acreage of		202,449 acres

These claims are included in the area colored as that of the Leadville Mining Company on the blueprint of the Courtland District.

TITLES

The titles to these additional claims are in the name of the Leadville Mining Company.

HISTORY

In May 1916, the Needles Mining and Smelting Company took a bond on the holdings of the Leadville Mining Company, making a payment of \$10,000 and doing the development work shown as the difference between the blueprints which accompany this report and those which accompany my report of 1913.

The Needles Mining and Smelting Company did not exercise their option for purchase and ceased work in March 1917.

The Great Western Copper Company ceased operations of their mines, under their own direct management, shortly after my last report but have continued to produce from practically all their mines by leasing them.

The same may be said of the Calumet and Arizona Mining Company's operations in this camp. Some idea of the number of leasers in active operation in the North end of the camp may be gotten from the photos which accompany this report (See Plates 4 & 5). These leasers are still in very active operation in the camp and are producing approximately 40 cars of ore per month.

GEOLOGY THE MAID OF SUNSHINE

The development done by the last option holder does not furnish reason for any particular change in the geology of this orebody as written in my previous report. It is to be noted, however, that raise 253-R on the 122' level (See samples 1-2-3) reaches the Maid of Sunshine fault and shows the crevices in the shattered limestone to be filled with copper ore of a good commercial quality. Samples 1, 2, and 3 taken in this raise include the limestone which of course would not be shipped when the ore is being extracted commercially.

On the Fraction claim a shaft has been put down 100' near the railroad track. At 60' down a short drift has been run north, one east and one south. These drifts all show identically the same condition to exist on this claim, east of the Maid of Sunshine fault, as in raise 253-~~4~~ (See Samples 61 and 62).

A sufficient amount of work has not been done on this small shaft on the Fraction claim nor in the proper direction west, to show if ore in commercial quantity is to be expected at the point of contact between the basic monzonite porphyry and the carboniferous limestone on the east side of the former. See Geological Section. Drifts 90 Dr. and 95 Dr. are both caved and inaccessible for examination but a small amount of stoping has been done in drift 90 Dr. and several cars of good grade ore shipped therefrom.

The work done on the 175' level exposes the orebody on both the Maid of Sunshine fault and the Germania fault, and was apparently done to check the assay results in the 229' and sub-levels of my previous report. The reason for the peculiar branch-like work done on this level is not apparent to the writer.

The development work done by the last option holders has furnished contributing evidence showing the continuance of the Maid of Sunshine fault and Germania fault in a northwesterly direction, and has shown that the amount of ore estimated as being in sight in the former report was not only conservative but very low.

The operation of the leasers on the holdings of the Calumet and Arizona Company on the Germania claim has shown commercial ore of high grade to exist on the west slope of the quartzite outcrop shown in the Geological Section of the Maid of Sunshine Mine, and the development in this particular area should be carefully watched, measured and mapped. It may furnish information necessary for the proper exploration of the west side of the King Solomon and the Rock Hill claims, since a similar quartzite outcrop continues almost the entire length of these two claims. It may also be shown in this connection that the Silverton claim acquired by the Leadville Mining Company is also of great value for this if for no other reason.

The work done by the last option holders on the 378' level of the Maid of Sunshine claim is now under water and since maps showing the geological conditions there have not been obtainable, I am unable to state which of the faults, Germania or Maid of Sunshine carry through. The incline shaft shown on the maps near the west corner of the Maid of Sunshine claim is driven on a contact. The drift from this to the North east enters the limestone. The drift south enters the basic monzonite porphyry and at point of contact ore shown by samples 63 and 64 is exposed. Indications of ore also occur in a number of places in the incline. Further exploration at this point is to be recommended. The existence of commercial ore at this point, taken in connection with the ore exposed along Germania fault to the Germania claim line leads one to believe that this ore body is very much larger than it was considered to be when the last report was made.

ORE IN SIGHT

From what additional work has been done since my last report, and which is now accessible, I estimate that 75,000 tons of ore containing six percent copper may be mined from the Maid of Sunshine ore-body.

ASSAYS

The assay results from all the samples are shown on the sheets which accompany this report. The description of each sample is written against each assay and the assay number is recorded on the assay plan of each level. Each sample of less than 5' contains 10% of the barren material on each side of the ore. Samples 11, 12, 13, 14, 58, 59 and 60 are of sulphide ore.

COSTS

Freight rate from Courtland to the smelter at Douglas is cts. per ton on six percent copper ore. Coal at Courtland now costs \$9.00 per ton, Timber \$30.00 per thousand. Costs of labor has increased since my last report to as shown:

Hoisting engineers	\$5.00
Top men	3.50
Machine drill men	5.00
Hand drill men	3.75
Timbermen	5.00
Muckers	3.50
Trammers	3.50
Mexican Labor	\$2.50 to 3.50

Cost of production of ore from this mine and placing it on cars should not exceed \$4.75 per ton when the average daily production is 200 tons.

WATER

The pumping plant, pipes and all equipment of the Courtland Water Company has been purchased by the Leadville Mining Company and consists of:

Two mining claims known as the Lulu and Homestake.

- (1) (12) H.P. Weber gasoline Engine, belt connected to either one Deming 3 cylinder pump 4" diameter, 6" stroke, or one Mastfoos single Cylinder 5" x 20" pump.

- (1) Weber gasoline gas engine, 11 H.P. belt connected to one three cylinder Deming pump.

19000' 4" water pipe, a number of meters and all other necessary equipment. (See Plate 3).

PRODUCTION

It has been found almost impossible to get at the exact production of the camp since my last report, but from information obtained the production has been much greater than that estimated in my last

report for the year 1913 and almost equal for the succeeding years.
From the development done by the last option holders in the Maid of
Sunshine claim, for a few leasers, and from the small amount of stoping
done in drifts 90 Dr. and 15xC, sixty-eight carloads of ore have been
shipped giving the following results:

Total tons	2830
Average percent copper	6.6
Total net smelter returns	\$53,961.28
Net value of ore per ton	\$ 18.71

Respectfully submitted,

Signed - S. M. Greenidge.

Douglas, Arizona.

December 22, 1917.

LEADVILLE GROUP

At shaft No. 1 some additional work was done by the last option holders but as all the lower workings of this shaft and of shaft #2 are under water they could not be examined.

From shaft No. 2, a new level, 366' was run towards shafts No. 1 with the intention of connecting, by a raise 803 R, with the 291' level of shaft No. 1. This connection was not completed. A crosscut 715 N.E. is said to cross in its last 80', a heavily mineralized zone.

The 261' level from this same shaft No. 2 also is said to have passed through two well mineralized zones, probably at contacts of the acid monzonite prophyry and Cambrian limestone.

The 20 Drift east from this shaft is also said to have passed through a well mineralized zone, probably the same as that on which shaft No. 3 is located.

Several tons, probably a carload of good commercial grade sulphide ore was taken from the development work done from this shaft. This ore is now on the dump.

No work was done from shaft No. 2 in a southerly direction towards the strongly mineralized surface outcrops, and the existence of ore under which has been proved by the stopes up to the Leadville lines from the Mamie shaft of the Great Western Copper Company.

Leasers have shipped several cars of good grade carbonate ore from shaft No. 3 and adjoining open cuts.

A number of open cuts and shafts have been opened along this contact south and these show an almost continuous zone of mineralization 700' to the south line of this Company's holdings. From surface indications the area south and west of shaft No. 3 promises as great production of ore as that of any other part of the camp.

EQUIPMENT

Since my last report the following equipment has been added:

At the Maid of Sunshine shaft.

- 1 - 60 H.P. Fire-tube boiler
- 1 - 30 H.P. " " "

- 1 - 8" x 10" Geared Hoist
- 1 - Buoy Compressor, single stage supplying air drills.
- 1 - 5 H.P. Upright engine belt connected to 1 No. 6 Buffalo blower.
- 1 - Sinking pump 1½" steam 4" water end.
- 12 - Mine cars
- 4 - Sullivan air drills
- 6 - Leyner " "
- 2 - Jackhammer " "
- 1 - Drill Press
- 1 - Supply house well equipped with all necessary small repair parts.

The 9 H.P. gasoline hoist has been moved to Leadville 2 and the two boilers from Leadville 2 have been moved to Maid of Sunshine and used as a feedwater heater, - the other as an air receiver.

At Leadville No. 2 Shaft.

- 1 - H.P. Upright steam engine, belt connected to 1 No. 6 Buffalo blower.
- 1 - No. 7 Cameron Sinking pump.
- 1 - Worthington 7½ x 4½ x 10.

An assay has been completely equipped with pulp, analytical and button balances, chemical crusher, buckboard and small gasoline engine.

After the last option holders ceased operations the Leadville Mining Company expended \$17,615.10 on the opening of caved drifts, re-timbering, purchasing of timber, etc., divided up as follows:

Labor in mine	\$10,729.32
Freight on ore to smelter	457.80
Mine supplies, insurance etc.	<u>6,427.98</u>
	\$17,615.10

(Signed) S. M. Greenidge.

Douglas, Arizona.
December 22, 1917.

No. Percent 122' Level

1	3.72	9.6'	Vertical	on W. side of R. 253
2	7.12	4.4'	"	in face of south drift at R.253.
3	4.36	2.6'	"	on east side of south drift 17½' from face.

275' Level

4	6.32	8.5	"	on N. Side in raise 53 R.
5	10.96	9.0	"	in raise in continuation, under sample 4.
6	9.40	5.0	"	in raise in continuation under sample 5.
7	10.16	6.7	"	on SE side in raise 53R under sample 6.
8	7.80	6.8	"	on S side in raise under sample 7.
9	17.84	5.8	"	on S side in raise under sample 8.
10	5.96	3.6	"	on SW side in raise under sample 9.
11	1.15	5.4	"	NW side of drift under #3R 40' from face.
12	1.52	5.5	"	NW & SE side of drift 30' from face.
13	2.32	5.9	"	NW side of drift 20' from face.
14	0.52	6.0	"	NW side of drift 10' from face. (The 4 preceding samples are of sulphide ore)
15	6.84	20.5	"	Horizontal along SE rib 350 xC.
16	4.04	15.	"	" " NW rib 350 xC.
17	2.32	18.7	"	" " NE rib 350 xC.
18	9.60	9.4	"	in 23 R 6' above level in 350 xC.

175' Level

19	2.80	6.0	Vertical	opp. Sta. 216 in 20 Dr.
20	4.00	13.1	"	in 93R above roof of drift.
21	0.68	5.1	"	10' west of sample 19.
22	5.28	5.2	"	26.5' " " " 19 in S. side.
23	12.68	3.0	"	10' north" " 19.
24	3.20	6.6	"	10' " " " 19.
25	4.56	4.4	"	On E side & 6.3' vert. on W side. 22' north of sample 19.
26	2.48	5.2	"	30' north of sample 19.
27	14.40	3.8	"	on W and 3.2' vert. on E side, 40' N of 19.
28	21.78	3.2	"	on E side 50' N. of 19.
29	8.72	3.6	"	on S side & 2.4' on N side on 145xC.
30	6.28	2.5	"	opp. Sta. 210 on W. side.
31	5.08	2.4	"	E side 10' N of 30.
32	3.84	6.1	"	E side 98' N of 19.
33	7.28	5.6	"	W side opposite 32.
34	3.52	1.7	"	E side 106' N of 19.
35	5.2	2.	"	N side 180xC just below raise.
36	8.32	4.6	"	in 23 R.
37	2.92	3.	"	on N side 2.5' vert, on S. side drift W from 183 R.
38	4.00	4.9	"	on N side 2.7' vert. on S side 10' from face.
39	5.40	1.7	"	on N & 1.8' on S side top of 183 R.
40	3.60	1.3	"	& 2.4' as shown.
41	6.08	5.5	"	on E side.
42	5.92	5.7	"	on W side & 6.2' on E side.

<u>Sample</u>		<u>Copper</u>		<u>Description</u>
<u>No.</u>	<u>Percent</u>	<u>175' Level</u>	<u>(Cont).</u>	
43	8.06	6.4'	Vertical	on W side.
44	3.72	2.5	"	on E & W side under raise.
45	2.48	4.2	"	on E & 3.8' on W. at 10' N of 44.
46	4.08	2.8	"	on both sides at 20' N. of 44.
47	3.36	3.4	"	on and 2.4' vert. on E at 30' N of 44.
48	4.92	5.2	"	on W 40' N of 44.
49	3.68	6.1	"	on S.
50	4.48	2.2	"	" N & 4.2' of S.
51	6.12	2.0	"	" S
52	6.48	6.8	"	" N & 4.1' on S.
53	6.04	4.2	"	" N side.
54	3.24	4.2	"	" W & 2.5' on E.
55	3.78	1.2	"	" W & 5.5' on E.
56	3.92	2.8	"	" W.
57	3.68	2.7	"	" each side.
58	2.72	1.7	"	" east rib.
59	0.92	3.2	"	" north rib.
60	0.76	3.0	"	" " "

PROSPECT SHAFT ON FRACTION CLAIM

61	1.64	3.2'	Vertical	on S side 4' from face of W. drift.
62	2.92	3.0	"	" N side 4' from face of W. drift.

INCLINE SHAFT NEAR WEST END-MAID OF SUNSHINE CLAIM

63	4.76	3.8'	Horizontal	on E rib 3' N from foot of incline.
64	7.02	6.8	"	on W rib 10' N of foot of incline.

STANDARD TIME INDICATED
RECEIVED AT 155T.
TELEPHONE YOUR TELEGRAMS TO POSTAL TELEGRAPH

Postal Telegraph

Mackay Radio
Commercial Cables



All America Cables
Canadian Pacific Telegraphs

THIS IS A FULL RATE TELEGRAM, CABLE-GRAM OR RADIOGRAM UNLESS OTHERWISE INDICATED BY SYMBOL IN THE PREAMBLE OR IN THE ADDRESS OF THE MESSAGE. SYMBOLS DESIGNATING SERVICE SELECTED ARE OUTLINED IN THE COMPANY'S TARIFFS ON HAND AT EACH OFFICE AND ON FILE WITH REGULATORY AUTHORITIES.

From 11
NI.SA133 S.NA161 N.WB285 HOME SVC ARC
SU26W (SEVEN) 38 COLLECT DL=SU WASHINGTON DC 3 255P=3 PM 1 33
:ARIZONA DEPARTMENT OF MINERAL RESOURCES==
=413 HOME BUILDERS BUILDING (PHOENIX ARIZONA):

=FINALLY=LOCATED RICCARDIS FILE. HE FAILED TO SUPPLY SUFFICIENT
INFORMATION TO SUPPORT HIS APPLICATION. SEVERAL LETTERS FROM WPB
HAVE GONE UNANSWERED AND FWIRE REQUEST CONTAINED NO FURTHER
INFORMATION. HAVE HIM ANSWER WPB LETTER JUNE 28 INDETAIL:
=W. C. BROADGATE.

=WPB JUNE 28.

W

July 2, 1943

Dear Sam,

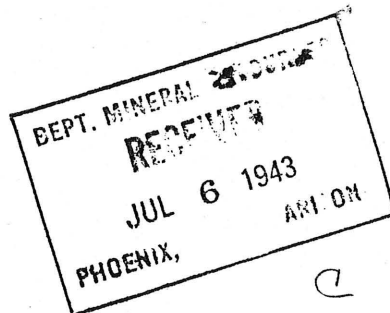
Apparently that Riccardi layout is like some others we have dealt with, and which plague the WPB so badly.

I understand they made application, giving practically no information or data as to why the priority should be issued. WPB wrote several letters asking for more information and did not even get replies until suddenly the telegram flew in.

They wrote again on the 28th for what dope they want.

These applicants will only delay their own cases by not responding with full information, especially now the Labor Division does not care if any mines operate except the largest.

Bill Broadgate



May 9, 1945

Mr. P. Domenico
Rome, New York

Dear Mr. Domenico:

In reply to your inquiry regarding the Leadville Western Mines please be advised that it is beyond the scope of this department to make recommendations or render advice concerning an investment in any mine or mining company.

We do know that the Leadville-Western group was a heavy producer some years ago and there is every reason to believe that there is ore left there.

Mr. C. V. Riccardi or his associates have done considerable work in rehabilitating the property and a car of copper ore assaying 4.5% copper was recently shipped to the smelter.

One drawback to the progress of the property in the past has been in regard to its title but we understand that Mr. Riccardi now has a 50 year lease from the U. S. Court.

Yours very truly,

Chas. H. Dunning
Director

CHD:LP

Leadville

May 6, 1944

Mr. C. Vincent Riccardi
Pearce,
Arizona

Dear Mr. Riccardi:

I am enclosing a copy of an invoice on a 200-ton flotation mill, complete with the exception of the mill building which must remain on the property. This is practically all new equipment installed about three years ago and not more than one thousand tons of ore was run through the mill.

It is very well suited in all respects for the treatment of the ores on your property at Courtland. I might add that the smelters situation has changed considerably in the last year and that there is now a very urgent demand by the smelter for a copper-bearing heavy iron sulphide ore such as occurs on your Leadville property.

This equipment cannot be held open for more than a week or ten days so, if you and your associates can determine whether or not you want it, please wire me or phone and I will immediately contact the owners.

Very truly yours,

J. S. Coupal,
Director

JSC:JES
enc.

Leadville

May 5, 1944

Mr. C. Vincent Riccardi
Pearce
Arizona

Dear Mr. Riccardi:

I am enclosing a copy of an invoice of a two-thousand ton flotation mill, complete with the exception of the mill building.

This is practically all new equipment, installed about three years ago and no more than one thousand tons was milled. It is suited for the treatment of your Courtland ores.

Very truly yours,

J. S. Coupal
Director

JSC:JES

March 24, 1944

Mr. Neil Stewart or
Mr. W. J. Forbach
Pearce, Arizona

Dear Neil or Bill:

I have talked with Mr. Riccardi and also with Rush Liggett regarding the changeover of the hoist at the Leadville shaft from air to electric drive.

It is necessary to remove the present pinion from the drive shaft and caliper the bearing for the pinion on the drive shaft to see whether or not it is a taper fit and if so, carefully measure and sketch the taper. In addition, when the pinion is removed, please make careful full sized drawing with carefully taken dimensions of the keyway in the shaft, the keyway on the pinion and the key that holds the pinion on the shaft. These should be accurately measured up and sketches made so that the proper keyways can be cut in the new shaft and key made to fit. After this is done you can reassemble the pinion on the shaft and leave the hoist in the condition it now is until changeover is made.

Please do this and forward sketches to me at your earliest.

Yours very truly,

J. S. Coupal, Director

JSC:LP

CC: C. Vincent Riccardi

January 6, 1944

Mr. C. Vincent Riccardi
Pearce
Arizona

Dear Vince:

Walter Riley, from Yuma, just called this morning and I had a chance to discuss with him the status of the milling equipment at the Pen Metal property in Yuma.

The equipment is still intact. The original rock bottom price was \$25,000. The actual mortgage money due is \$21,500. When discussing this price with Riley, it was agreed that if he could get the \$25,000 price reduced, he would be entitled to $\frac{1}{2}$ of the reduction. In this particular case the reduction is \$3,500 so that Riley would receive \$1,750, making the total price as it now stands \$21,500 plus \$1,750 or \$23,250.

Some California people have been trying to obtain the equipment and are willing to pay \$40,000 but it will not be cash and the owners will have to take some risk on getting their money.

I am still anxiously awaiting a phone call from you so as to know definitely what you plan to do and when. I want to know this as, unless you can get immediate action out, to surrender the lease back to Waters.

With best wishes for the New Year.

Very truly yours,

J. S. Coupal
Director

JSC:JES

January 4, 1944

Mr. C. Vincnet Riccardi
Pearce, Arizona

Dear Vince:

I tried to get you on the phone, but was
informed that your phone was disconnected.

You promised to get in touch with me shortly
before Christmas and again shortly after New Year's.
It is important that I hear from you at once and hope you
phone me as soon as you receive this note.

Very truly yours,

J. S. Coupal
Director

JSC:JES
c.c. to Pioneer Hotel
Tucson, Arizona

December 18, 1943

Mr. C. Vincent Riccardi
Pearce, Arizona

Dear Vince:

Your letter of December 16 just arrived and I realize that you must have met with certain delays.

My plans for the next two weeks are about as follows: I will be in the office from Monday until probably Thursday afternoon, December 27 to 30. Will leave Thursday afternoon late and probably go to Los Angeles where I will be at the Mayflower Hotel until Sunday noon, January 2, when I will return to the office and will be in the office all of the week of January 3. I expect to be out of the office January 10, 11 and 12 and return about noon Thursday, the 13th. I expect to drive over to Los Angeles in order to discuss some of the work on the tin examination in Mexico and incidentally spend New Year's there.

Miss Haskell plans to leave for Boston on a hurry up trip on either Monday or Tuesday, December 27 or 28, but expects to be back by February 1. Her company has definitely taken over the operations on the Yuma Copper Mine located just out of Quartzsite. In spite of what happened this property was called to my attention and I interested them in going ahead.

With best and kindest wishes to Mrs. Riccardi, Freddy and yourself for the holidays, and hoping that you will drop in on your way to the Coast, I am

Very truly yours;

J. S. Coupal, Director

JSC:LP

December 6, 1943

Mr. C. Vincent Riccardi
Pearce, Arizona

Dear Vince:

I have just returned to the office
at nine o'clock this morning and am leaving at
ten, but will be back in Phoenix by Thursday
noon, December 9, if possible.

Yours very truly,

J. S. Coupal, Director

JSC:LP

November 24, 1943

Mr. C. Vincent Riccardi
Pearce, Arizona

Dear Vince:

I am returning the Selective Service notice and the Department of the Interior questionnaire which you left with me.

Regarding the Selective Service advice, as no appeal was made by October 18, I believe there is nothing we can do toward keeping S. L. Luna out of class 1-A.

On the form for the Department of the Interior, Leadville Mine, I believe you should fill this out as a matter of record and send it in. You will note that this form is marked second request.

I will keep you advised as to my return.

Yours very truly,

J. S. Coupal, Director

JSC:LP
Enc.

Leadville

November 13, 1943

Mr. C. Vincent Riccardi
Pearce, Arizona

Dear Vince:

I was able to get your application for a station wagon processed yesterday by working both with Nebeker and the O.D.T. and believe you will shortly be advised that permit to purchase is granted.

In order to let you know my whereabouts in the next few weeks will say that I will be in the office Monday, Tuesday and Wednesday, and Thursday until about noon. Will be away Thursday afternoon, Friday and not back until Saturday about 10 o'clock. Will not be in the office Monday and Tuesday, the 22nd and 23rd, and I am trying to make my plans to leave Phoenix around the 24th and probably will not be back until the 7th or 8th of December.

This leaves me only a few open dates on which I could make the trip to Yuma if you so contemplate. That would be on Tuesday, the 16th, or on Saturday afternoon and Sunday, the 20th and 21st.

As soon as Joe Biondo gets back from New York and you know what your plans are, I hope you will phone me.

Yours very truly,

J. S. Coupal, Director

JSC:LP

CC: c/o Jos. Biondo, Pioneer Hotel, Tucson, Arizona.

Leadville

November 12, 1943

Office of Defense Transportation
War Production Board
Security Building
Phoenix, Arizona

Gentlemen:

I am enclosing application for purchase of a station wagon by the Intermountain Mining and Engineering Company, Neil Stewart, Director and Secretary.

The Intermountain Mining and Engineering Company is operating the old Leadville property at Courtland which has had a good record as a copper producer and from records shows a substantial amount of ore available running five percent and over in copper. The property is fully equipped for mining, having electric power, transformers, hoist, compressor and complete mining equipment. The main shaft is being unwatered and the underground workings rehabilitated for immediate production.

The need of this station wagon is due to the fact the mine is located about nine miles from Pearce. Most of the mine operators live at Pearce where there is sufficient housing to take care of them. At the mine there are little or no accommodations for taking care of a mining crew and it is therefore necessary to transport the miners from Pearce to the mine operations.

I have been in close touch with this operation and know that Mr. A. C. Nebeker, Technical Advisor of the War Production Board, Mine Division, is also acquainted with the property. I can certify to the need of this equipment for this operation.

Yours very truly,

J. S. Coupal, Director

JSC:LP
Enc.

July 26, 1943

Mr. C. Vincent Riccardi
Pearce, Arizona

Dear Mr. Riccardi:

I had occasion to visit mines in the Courtland district on July 3 accompanied by another mining engineer named Henry Bollweg, Jr. of Ray, and looked over both the Great Western Mine and the Leadville property.

I was again in the district on July 25 and was pleased to note the progress made on your operations at the Leadville Mine. The work to date on this property seems of a very substantial nature and you are very well set up to start in the opening up of the old mine and preparing for shipping of ore.

With the electric power now installed and the collar of the shaft prepared with headframe, hoist equipment, compressed air and shop equipment and pumping equipment it seems as though you should be able to make short work of getting the property into production.

With the shaft retimbered to the water level and the guides installed you should make good progress at unwatering and, from my observation, I believe the ground to be firm and that the timbering below water should be in a good state of preservation so that your unwatering should proceed without any delays.

Your equipment all seems well installed and of a high grade and should permit of efficient operations from now on. Most of the new work in the state has been carried on with make-shift equipment and I am pleased to see that your installation is A-1 and I feel sure the results you obtain will justify the care and attention that has been given to the installation to date.

Leadville

July 8, 1943

Mr. Vincent C. Riccardi
Courtland, Arizona

Dear Mr. Riccardi:

On July 3rd and 4th I had occasion to visit the Courtland District, accompanied by another mining engineer named Henry Bollweg, Jr., of Roy. Our main object was to examine the Great Western Mine, but while in the vicinity we took the opportunity to look over the work on the adjoining property - the Leadville Mine - which I understand you are preparing to put into production.

I am pleased to be able to state that the work done to date on your property is of a very substantial nature, and shows good workmanship. With the repairs to the collar of the shaft, the high class of hoisting pressure and other equipment, and the bringing in of electric power over your own power line, I would say that the property is now equipped to go ahead effectively and efficiently with the rehabilitation of the old workings, and the unwatering of the mine and putting the property into immediate production.

Most of the new work being done in the state is carried out on a rather inefficient and inadequate basis, both on equipment and installation. It is a pleasure to see and be able to report on the fine workmanlike manner in which your work has been done.

With best wishes and kindest personal regards.

Very truly yours

J. S. Coupal, Director

JSC:ach

July 8, 1943

Mr. Vincent C. Riccardi
Courtland, Arizona

Dear Vincent

Many thanks for your letter of July 6th, with the portion of the application on the Great Western which was returned therewith.

I would like very much to know when and if you are able to obtain the additional maps and reports on the Great Western which we discussed. These maps undoubtedly will contain much valuable information on the Leadville, so it is for your interest also to have these on hand. The work on the Great Western will go ahead, in one direction or another, and I appreciate your offer to discuss carrying out this work. I will keep you posted as to our progress. We might be delayed ten days or two weeks in getting action, but we will get action - and get it very shortly.

With kindest personal regards

Very truly yours

J. S. Coupal, Director

JSC:ach

July 5, 1943.

Mr. Vincent C. Riccardi,
Pearce, Arizona.

Dear Vince:

I have just received the following telegram from W. C. Broadgate:

"Finally located Riccardis file. He failed to supply sufficient information to support his application. Several letters from WPB have gone unanswered and wire request contained no further information. Have him answer WPB letter June 28 in detail.

W. C. Broadgate."

It may be that you have answered in detail the information required. If not, I would suggest that you get an air-mail off to the W.P.B. You may have discussed this with Mr. Nebeker, and he may have it all in hand.

I hope to find the missing documents, part of the application for a loan by Waters, in my mail in the morning.

With best wishes and kindest personal regards, I am

Sincerely yours,

J. S. Coupal.

JSC:H.

June 30, 1943

Mr. Vincent C. Riccardi
C/o Intermountain Mining & Engineering Co.
Pearce, Arizona

Dear Mr. Riccardi:

After phoning you this morning I immediately called up Nebeker of the War Production Board and he states that he called you back and discussed the preference rating situation with you. He stated that he had suggested sending in the wire asking to expedite your order.

I am enclosing a copy of a telegram I immediately sent to W. C. Broadgate in Washington, and I do hope that you will not be delayed in getting the preference rating you require to get both the wire and the repairs to the compressor.

I expect to see you on Saturday.

Yours very truly,

J. S. Coupal, Director

JSC:LP
Enc.

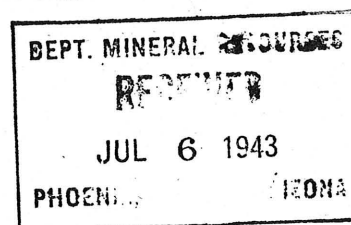
Washington, D.C.
July 2, 1943

SUBJECT: Emergency Preference Rating
Intermountain Mining & Engineering Co

Sorry that I cannot find this in the WPB Mining Equipment Division under any classification indicated in your telegram.

You will have to give me the number or some other detail such as the name actually filed under and the purpose, etc.

Bill Broadgate



DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT

Filing Information

File System.....

File No.....

This chart to be used for gallons of gasoline required per month.

Date..... 6/15/45

Name of Mine..... Lepidolite

Owner or Operator..... R. Thurman

Address..... Camden, N.J.

Mine Location..... Camden, N.J.

PRESENT OPERATIONS: (check X)

Production.....; Development. ☒; Financing.....; Sale of mine.....;

Experimental (sampling).....; Owner's occasional trip.....;

Other (specify).....

PRODUCTION: Past and Future.

Tons

Approx. tons last 3 months.....

Approx. present rate per 3 months.....

Anticipated rate next 3 months.....

If in distant future check (X) here.....

EQUIPMENT OPERATED:

Type

Quantity or
Horse Power

Miles or Hours
Per Month

Gallons Required
Per Month

Personal Cars.....

Light or Service Trucks.....

Ore Hauling Trucks.....

Compressors.....

Other Mine or Mill Eqpt. 780

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

REMARKS:

September, 1950—Engineering and Mining Journal

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By.....

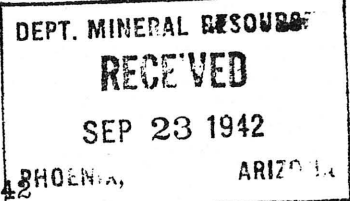
LEADVILLE (or Andes) COPPER, Doane Merrill, Receiver, 302 Valley Bank Building, Tucson, Arizona.

This group of 9 patented claims adjoins the Great Western Mine previously referred to. Ore deposition is somewhat similar except that pyritic ore has been encountered on the 300 foot level of the Leadville #2 Shaft. A large tonnage of this type of ore is said to be blocked there and shipping records include 12,000 tons of it as well as larger amounts of oxidized ore.

The title is clouded at the present time with suits filed in the Cochise County Superior Court. This is unfortunate as this property could produce an early and appreciable quantity of copper if an operating program was instigated by responsible parties.

from COPPER REPORT NO. 2, DECEMBER 23, 1942, by Earl F. Hastings, for
COPPER BRANCH, WAR PRODUCTION BOARD.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT



Mine Leadville or Andes Copper Group
District Turquoise Dist. Cochise Co.
Subject: PRODUCTION POSSIBILITY SURVEY

Date Sept. 22, 1942
Engineer George A. Ballam

The Leadville group of 9 patented claims is situated 4000 feet NW of Courtland. It has been operated by the Leadville Mining Co., organized in 1903, which in 1926 reorganized as the Andes Copper Co., and in 1928 further organization was attempted along rather vague and indefinite lines. In fact, litigation is now being filed against the organization in Cochise Co. Superior Court. Mr. Doane Merrill was receiver in 1941 but was removed recently and no legal definition has been made as to control and title. All records are in possession of one Riccardi who is attempting to raise money on the property.

The group consists of Leadville No. 1, No. 2, Muso, Armstrong, and McLenden mines. All of the workings are in Abrigo limestone intruded by monzonite-porphyry.

Leadville #1. Shaft sunk about 1900. Three levels with about 1000 ft. drifting. No production record available but copper ore carrying \$5.50 in Au said to have been shipped to Old Dominion smelter.

Leadville #2 300 ft shaft by C. & A. in 1907 and additional 100 ft. in 1912. Several thousand feet of development on main levels, 3 and 4. Large body of pyritic ore said to be on 300. 1300 tons shipped in 1912, but no production since 1916.

Muso Mine: 150 ft. shaft and 150 ft drifting with considerable stoping. 12,000 tons pyritic copper ore valued at \$100,000 reported shipped 1917.

Armstrong Mine: In 1924 these workings consisted of a shaft 150 ft deep with about 150 ft. drifting, 100 ft. raises and stoping from which bornite, chalcopyrite and chalcocite was taken. 3400 tons averaged 9.2% Cu and \$2.75 Ag.

McLenden Mine: 120 ft shaft and 600 ft development. Production of 1500 tons 5.75% Cu reported in 1925.

The Leadville group is under water at present. Several parties have been interested in opening the property, but feel that nothing should be done until title is cleared. Mr. Merrill states that any attempt by Riccardi to take control will be fought in court. He further stated that in the absence of records which have been in possession of Riccardi, a Mr. Berry of Duncan, former mine Supt. is the best authority on conditions underground, and should be contacted for information relative thereto.

Dear Sam.

July 29/43
DEPT. MINERAL INDUSTRIES
RECEIVED
JUN 30 1943
PHOENIX, ARIZONA

Received your letter and
Was glad to hear the good news.
I am sorry I missed you, -
I was in hopes before final
closing you and I could have
sit down and talked things
over a little. However. if you are
coming the 4th ~~th~~ We can go over
things then. The same room
will be at your disposal, they
will look forward seeing you on
the fourth or sooner just as
you wish - I shall keep everything
confidential - Simply send me
a note saying what day you
will be here — With kindest
Regards Sincerely Vincent

STATUS OF DORMANT MINES

MINE NAME: Highland & Leadville No's 1 & 2
 LOCATION: French Mining Dist. Cochise Co.
 OWNER AND/OR LEASEE: Hollis B. Gray & John Starbuck
 ADDRESS: 129 E 8th Tempe Arizona
 APPROXIMATE PRODUCTION (Year of 1945):

COPPER ? Lbs. LEAD Lbs.
 ZINC Lbs. (OTHER) gold ?

CHECK THE CHIEF CAUSE OF YOUR DISCONTINUED PRODUCTION:

- (A) Easily available ore worked out.
☒ (B) Increased costs, but have quantity similar to past grade of ore.
☒ (C) Too close a margin to develop more ore.
☒ (D) Litigation

If you have ore ready to mine please give your estimate of the amount of metal (name each metal) that you could produce in one year (after allowing 60 days to get started) if there were premiums above present market prices. Name amount with a low premium, and amount at a high premium; such as:

Copper at 22 $\frac{1}{2}$ ¢ plus 5¢ premium..... 1,000,000 Lbs.
 Copper at 22 $\frac{1}{2}$ ¢ plus 10¢ premium..... 1,500,000 Lbs.

Copper - Car a day to start off.
There is some gold in places.

If you do not have ore ready to mine please discuss the following:

- (A) Do you think a reasonable development program would produce a justified tonnage of commercial ore at above mine?

Yes, Large quantities

- (B) With a premium price (guaranteed for one year) could you carry out such a development program yourself? What premium?

Depends on grade of ores under
the water level. Both mines
need dewatering to determine that.
Premium not less than 5¢

- (C) If you could not do this yourself, would a quick drilling program by some government agency (at government expense) be sufficient?

Would be a great help.

- (D) Or would you prefer a loan plan similar to the arrangements during World War II?

A dewatering & production loan would about put this mine over¹ big.

How about a combination plan in two stages such as follows?

Stage 1: Government engineers review project and, if a little drilling appears to be justified and a preliminary key to the situation, such drilling program to be agreed upon by owner and government engineer, paid for by the government, but let by contract.

Stage 2: If results of drilling (or without drilling) justify underground development and/or production equipment, same to be obtainable via a mortgage loan on property.

Please discuss the above:

Plan (D) above would get present exposed Copper ore in drifts. (C) & (D) would make a big mine out of a large latent ore body. The drilling would find it. There's a multitude of drifts which can be extended or cross cut from to reach any enrichment located by the drilling. After that, if the ore was not of shipping grade, then a
SUGGESTIONS:
mill or smelter on the property might be justifiable. We have a power line to the property & considerable electric driven equipment.

DATE Oct 6 - 50

SIGNATURE

Hollis B. Gray.
129E 8th Denver

CHECK SERVICE DESIRED OTHERWISE MESSAGE WILL BE SENT AT FULL RATE	
DOMESTIC	FOREIGN
FULL RATE	FULL RATE
DAY LETTER	CDE RATE
NIGHT LETTER	URGENT
SERIAL	DEFERRED
RESERVATION	NIGHT LETTER
TOUR-RATE	SHIP RADIO



CHARGE ACCOUNT NUMBER	
CASH NO.	TOLLS
CHECK	
TIME FILED	(STANDARD TIME)

Form 1

Send the following message, subject to the Company's rules, regulations and rates set forth in its tariffs and on file with regulatory authorities

Phoenix, Arizona, July 2, 1943

Vincent C. Riccardi
Pearce, Arizona

Only engineer and myself will arrive Saturday probably around two.

J. S. Coupal

Chg: Department of Mineral Resources