

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.

DIRECTORS OFFICERS ARIZONA CHAPTER G. BECKETT F. W. MACLENNAN W. S. BOYD GOVERNOR H. A. CLARK THE AMERICAN MINING CONGRESS G. M. COLVOCORESSES M. CURLEY W. S. BOYD J. S. DOUGLAS 1ST VICE GOVERNOR J. P. HODGSON WM. KOERNER 419 HEARD BUILDING H. A. CLARK J. KRUTTSCHNITT 2ND VICE GOVERNOR PHOENIX, ARIZONA F. W. MACLENNAN W. G. MCBRIDE T, O. MCGRATH T. H. O'BRIEN W. B. GOHRING G. W. PRINCE R. E. TALLY SECRETARY F. A. WOODWARD ADDRESS ALL COMMUNICATIONS February 24, 1926 Mr. G. M. Colvocoresses, Gen. Mgr., Southwest Metals Company, Humboldt. Arizona. Dear Colvo: I have been over the operating records of the Haley-Soufferin Mine during its last period of operation, and know a good deal about it at second hand. I have never been on the ground. They shipped a lot of fine lead and silver ore on a lease, but it was merely a case of takking what ore was in sight and, as a result, there was no intelligent development,

They shipped a lot of fine lead and silver ore on a lease, but it was merely a case of taking what ore was in sight and, as a result, there was no intelligent development, and there is not a great deal in sight today. I believe, from my own investigation of the matter about a year ago, that the development possibilities are excellent, and it would be well worth while developing the property with a good likelihood of finding more ore. Several engineers of my acquaintance, who have examined it, checked this up.

However, the involved condition of the company's affairs make it difficult to deal, as there is a bonded indebtedness which would pretty nearly have to be eliminated on a pure prospect, as this is. I cannot give you the exact figures on this, but John Page's office in Phoenix has the facts. As your office in Los Angeles doubtless has full information on this, I will not go into the matter farther, unless you request it.

With kindest regards,

Yours very truly,

A. A. Forting

July, 1917.

Mr O. Rystanton,

hast of May, Arizona, and I consider it a promising property. The oxide lead ore forms along the intersection of nearly vertical fractures with some of the lower beas of limestone, seventy feet or less above the bedding contact of quartiits. In the werkings the ore in the steep fractures has a vertical extent of never over 20°. From these fractures are goes off on the flat limestone bedding. So far it has not been shown how far from the fractures the flat one will extend. The value of the property depends on this question.

Thus far there is very little one actually in eight, but I think that a few months work along the fractures and an the flat bedded deresits every from the fractures, ought to put 15,000 tons or so, of 25% lead ore in sight, or at least make this amount of one reasonably cortain. I think the shoring varrants this proliminary work. Then the 15,000 tons are developed it will be worth while to pay the necessary \$125,000.00 and ship the rich ore as fast as possible with the 15,000 tons in wight it should be possible to more than pay back the money invested, at the same time further development work could be carried on, and consone developed. This I can see no observe on the Falley and Soufferin property for a great mine worth remy million dollars. I think it will be a good small mine. The expenditure of a few thousand dellars is likely to prove the possibility of making a large profit on the investment. As soon as possible I will send you a more complete report with suggestions for development work.

Yours very truly, Ire 5. Joraldmon.

RAY SILVER-LEAD MINE

Copy of letter:

July, 1917.

Mr. O. B. Stanton

Dear Sir:

I have looked over the Haley and Soufferin lead property two miles East of Ray, Arizona, and I consider it a promising property. The oxide lead ore forms along the intersection of nearly vertical fractures with some of the lower beds of limestone, seventy feet or less above the bedding contact of quartzite. In the workings the ore in the steep fractures has a vertical extent of never over 20°. From these fractures ore goes off on the flat limestone bedding. So far it has not been shown how far from the fractures the flat ore will extend. The value of the property depends on this question.

I think that a few months work along the fractures and on the flat bedded deposits away from the fractures, ought to put 15,000 tons or so of 25% lead ore in sight, or at least make this amount of ore reasonably certain. I think the showing warrents this preliminary work. When the 15,000 tons are developed it will be worth while to pay the necessary \$125,000.00 and ship the rich ore as fast as possible. With the 15,000 tons in sight it should be possible to more than pay back the money invested, at the same time further development work could be carried on, and more ore developed. While I can see no chance on the Haley and Soufferin property for a great mine worth many million dollars, I think it will be a good small mine. The expenditure of a few thousand dollars is likely to prove the possibility of making a large profit on the investment. As soon as possible I will send you a more complete report with suggestions for development work.

(signed)

Yours very truly, IRA B. JERALEMON.

REPORT ON THE HALLY- SOUFFREIN MINE. RAY, ARIZONA. MALTER HARVEY WELD. 1916.

HOLDINGS:

This property consists of sixteen unpatented claims, viz, the Crown Point, Wedge, Central. Cincinnati, Gladstone, Ben Butler, Buckeeye, Charleston, Globe and Franklin, forming a continuous string of claims 9,000' long and the Maryland, San Francisco, Parnell, Hidden Treasure and Haley Claims, a number of new locations recently made connect the two groups.

BOCATION:

The Claims are situated in the Mineral Creek Mining District, Final County, Arizona: The property lies 25 miles 3 of the town of May and 2500 above it. It extends from the base of the topmost cliff of the mountain last of Ray, across the mountain top, covering the open basin at the head of a drainage way, with good campsite, scrub timber for firewood and a good spring a mile from the camp. The nearest water for concentrating plant is seven miles away.

CHARACTER OF ORE:

The property contains deposits of high grade lead carbonate ore, carrying small but persistent values in gold and silver. This ore occurs as a replacement of limestone in and adjacent to small fissure veins of considerable persistence. The ore bodies, though not large, will average 20' vertically, 3' in width, with expansions to 20' or more and extend along the veins for distances of 135 to 200'.

G.OLOGY:

The cre deposits occur with definitely recognizable geologic relations, which may be briefly summarized as follows: The Ray district is best known for its great blanket deposit of disseminated or perphyry copper ore. I of this area the slopes rise steelpy to the summit of the Ray Mountain. This mountain mass, or ridge, is formed of quartzite, capped on the higher summits by limestone. The beds dip gently to the S E to M. The entire mountain mass is crossed by numerous faults, in the footslopes near Ray these faults have broken the country into great blocks, which often form isolated hills. On the mountain summits the fractures have less effect on the relief, but are recognizable in the displacement of the limestone-quartzite contact.

In the Haley-Scuffrein claims there are many faults crossing the limestones, and several of these faults contain dynes of altered diabasic rock. So far as known there are but three of these fissures which are commercially mineralized, one, which may be called the Crown Point Vein, euns N A across 5 claims, and is opened by workings on the Crown Point, Silver Cloud and Cincinnati claims. A second vein, running more nearly N & V, extends 5000

Claims. A third - vein is developed on the San Francisco Claim. The ore in all three veins is similar in character and mode of occurrence. It is a lead carbonate (Cerussite) with small amounts of Lead Sulphate (Anglesite), with loose oxidized gangue of altered limestone and silica. This ore occurses lenticular deposits along the fissures, more particularly along the bedding planes of the limestone, immediately above the quartzite. Be far as known this is practically the only definitely proven ore horizon.

THE VAINS:

Three veins are known on the property, all ore bearing, and these ore-bearing fissures are faults with marked but small displacement. Ore is found in both the small fissures veins and as replacements along the beddings planes of the limestone near the fissures. Forphyry is said to be recognizable in the San Francisco Vein, and the presence of porphyry along the fissures is considered a favorable feature. The veins outcrop in rather obscure silicified and somewhat iron stained zones of fractturing tracable across the limestone.

The orebodies are lenticular in form and vary from a few inches to ten feet or so wide, 20' high and extend out along bedding planes, replacing congenial beds of limestone for a distance of 20' or more beyond the fissures. The ore lenses taper out into his narrow seams and in one place the vein pinches to a mere crack, but expands beyond again. Owing to displacement on the fault plane limestone often forms one vein wall with quartzite opposite it, but the ore continues down a few feet where both walls are of quartzite. This quartzite is less readily replaced and is far less favorable for chamber deposits, it is not an unfavorable rock for ore deposition and the possibility of finding dre at greater depths, when both walls of the fissure are of quartzite, is an asset of value. It large body of lead carbonate ore in quartzite is now being mined at the Hudson Bey Mine, B.C.

DEVALORMENT:

The property is developed by about a thousand feet of work, most of it in ore. The two parallel Crown Point tunnels, 20' apart, show veins varying from a few inches to several feet in width. The Northernmost vein is tight and not especially promising; the Southernmost is developed by a 240' tunnel and by two shafts, the one nearest the long tunnel being 127' deep.

Following the trail Mastward from the Grown Point workings over the 2500' divide to the Maley Camp, low grade ore is seen at a short tunnel below the trail, but the workings on the summit discloses merely ledge matter. It is probable that ore will be found in these lighter colored beds as well as in the darket carbonace cus limestone at the base on this formation. The filver Cloud workings comprise a long cross cut tunnel in barren limestone. This cuts a strong fault fissure of rather barren aspearance, but showing ore in the bottom of a 75' shaft sunk on the vein and along a drift rum on it at the bottom of the shaft. It should make an important ore body along the quartzite contact.

The workings next Sasterly are on the Gladstone Vein, they disclose an ore body 135% long, 20' wide and 20' high, which has neen developed along the fissure and on the quartzite contact. Beyond the gladstone the Buckeye Tunnel has been driven along the same vein, but has not yet developed high grade ore. The Cincinnati workings on the vein of this name, are developed by 245' tunnel-work showing an ore body 3' thick.

SUMLARY:

All the mine workings show ore; the total amount actually proven is probably about 7,000 tons of 20% ore, but actual mining will materially increase the amount. I consider that there is approximately 10,000 tons that can be mined and shipped, and the chances for finding more ore are excellent if the veins are further developed by following the fissures in each working and exploring the limestone bds lying immediately above the quartite.

In view of all the facts observed, of the favorable geological conditions, not only in existing workings but on unprespected parts of the property. I recommend its purchase. The ore now developed is probably worth the purchase trice and the property is likely to develop not only other small ore bodies of similar character, but enough ore to become a large mine.

Signed --- Walter Harvey Weed.

COPY.

REPORT ON THE HALEY-SOUFFERIN MINE. RAY, ARIZONA. WALTER HARVEY WEED.

1916.

HOLDINGS:

This property consists of sixteen unpatented claims, viz, the Crown Point, Wedge, Central, Cincinnati, Gladstone, Ben Butler, Buckeye, Charleston, Globe and Franklin, forming a continuous string of claims 9,000° long and the Maryland, San Francisco, Parnell, Hidden Treasure and Haley Claims, a number of new locations recently made connect the two groups.

LOCATION:

The Claims are situated in the Mineral Creek Mining District, Pinal County, Arizona: The property lies 2½ miles E of the town of Ray and 2300' above it. It extends from the base of the topmost cliff of the mountain East of Ray, across the mountain top, covering the open basin at the head of a drainage way, with good campsite, scrub timber for firewood and a good spring a mile from the camp. The nearest water for concentrating plant is seven miles away.

CHARACTER OF ORE:

The ore deposits occur with definitely recognizable geologic relations, which may be briefly summarized as follows: The Ray district is best known for its great blanket deposit of disseminated or porphyry copper ore. E of this area the slopes rise steeply to the summit of the Ray Mountain. This mountain mass, or ridge, if formed of quartzite, capped on the higher summits by limestone. The beds dip gently to the S E to E. The entire mountain mass is crossed by numerous faults, in the footslopes near Pay these faults have broken the country into great blocks, which often form isolated hills. On the mountain summits the fractures have less effect on the relief, but are recognizable in the displacement of the limestone-quartzite contact.

In the Haley-Soufferin claims there are many faults crossing the limestones, and several of these faults contain dykes of altered

diabasic rock. So far as known there are but three of these fissures which are commercially mineralized, one, which may be called the Crown Point Vein, runs N E across 5 claims, and is opened by workings on the Crown Point, Silver Cloud and Cincinnati claims. A second vein, running more nearly E & W, extends 3000° Eastward for the Silver Cloud Tunnel through the Gladstone and Buckeye claims. A third E-W vein is developed on the San Francisco Claim. The ore in all three veins is similar in character and mode of occurrence. It is a lead carbonate (Cerussite) with small amounts of Lead Sulphate (Anglesite), with loose oxidized gangue of altered limestone and silica. This ore occurs as lenticular deposits along the fissures, more particularly along the bedding planes of the limestone, immediately above the quartzite. So far as known this is practically the only definitely proven ore horizon.

THE VEINS:

Three veins are known on the property, all ore bearing, and these ore-bearing fissures are faults with marked but small displacement. Ore is found in both the small fissure veins and as replacements along the bedding planes of the limestone near the fissures. Porphyry is said to be recognizable in the San Francisco Vein, and the presence of porphyry along the fissures is considered a favorable feature. The veins outcrop in rather obscure silicified and somewhat iron stained zones of fracturing tracable across the limestone.

The orebodies are lenticular in form and vary from a few inches to ten feet or so wide, 20° high and extend out along bedding planes, replacing congenial beds of limestone for a distance of 20° or more beyond the fissures. The ore lenses taper out into narrow seams and in one place the vein pinches to a mere crack, but expands beyond again. Owing to displacement on the fault plane limestone often forms one vein wall with quartzite opposite it, but the ore continues down a few feet where both walls are of quartzite. While quartzite is less readily replaced and is far less favorable for chamber deposits, it is not an unfavorable rock for ore deposition and the possibility of finding ore at greater depths, when both walls of the fissure are of quartzite, is an asset of value. A large body of lead carbonate ore in quartzite is now being mined at the Hudson Bay Mine, B. D.

DEVELOPMENT:

The property is developed by about a thousand feet of work, most of it in ore. The two parallel Crown Point tunnels, 20° apart, show veins varying from a few inches to several feet in width. The Northern-most vein is tight and not especially promising; the Southern-most is developed by a 240° tunnel and by two shafts, the one nearest the long tunnel being 127° deep.

Following the trail Eastward from the Crown Point workings over the 2500' divide to the Haley Camp, low grade ore is seen at a short tunnel below the tail, but the workings on the summit discloses merely ledge matter. It is probable that ore will be found in these lighter colored beds as well as in the darkest carbonaceous limestone at the base on this formation. The Silver Cloud workings comprise a long cross cut tunnel in barren limestone. This cuts a strong fault fissure of rather barren appearance, but showing ore in the bottom of a 75' shaft sunk on the vein and along a drift run on it at the bottom of the shaft. It should make an important ore body along the quartzite contact.

The workings next Easterly are on the Gladstone Vein, they disclose an ore body 135' long, 20' wide and 20' high, which has been developed along the fissure and on the quartzite contact. Beyond the Gladstone the Buckeye Tunnel has been driven along the same vein, but has not yet defeloped high grade ore. The Cincinnatiaworkings on the vein of this name, are developed by 245' tunnel-work showing an ore body 3' thick.

SUMMARY:

All the mine workings show ore; the total amount actually proven is probably about 7,000 tons of 20% ore, but actual mining will materially increase the amount. I consider that there is approximately 10,000 tons that can be mined and shipped, and the chances for finding more ore are excellent if the veins are further developed by following the fissures in each working and exploring the limestone beds lying immediately above the quartzite.

In view of all the facts observed, of the favorable geological conditions, not only in existing workings but on upprospected parts

Mollenbeck Hotel, Los Angeles, Calif. July 31, 1925.

Mr I.A.Jackson, 725 So.Bixel Street, Los Angeles, California.

Dear Sir:

Heplying to your enquiry requesting information in regard to my lease operations of the Ray Silver-Lead Company, would say that I operated the mine from July 2nd, 1924 to April 24, 1925, during which time I shipped 479.91 dry tons, with a gross value of 14,000.64, as follows;

Shipments July 2, 1924 to April 24, 1925.

Cunces of Gold, 33.191
" " Silver, 1,793.41
Pounds of Lead, 201,052.00
" " Copper, 537.74

(The copper was from the last two carloads of about 90 tons)

Returns from the amelter:

Gold 652.92
Silver 1,027.82
Lead 12,155.19
Copper 154.80

Gross Returns.

14.000.64

Less Deductions: Smelting Charges, Freight,

2.112.96

4,987.21

Cash Returns.

\$9,013.43

11 Carloads,

501.76 wet tons, 479.91 Dry tons.

This ore was stoped from both ends of the ground, 4 cars coming from the opening on the Grown Loint, and the balance from the Gladstone, which is approximately 3600° A on the strike of the vein, and this ore was all packed to the Railroad at Ray on Burres.

I operated the lease under the most unfavorable conditions, but still, after all charges, laborate was paid, I made better than wages. The distance from camp by packtrail to the railroad was 35 miles, and all ore, as well as supplies, had to be packed in this way. Water for domestic purposes was packed mile and a half in same way.

The packing charge on ore was \$5.00 from Grown Point and \$5.50 from Gladstone, to the railroad. Railroad freight charges from Ray to II Paso \$5.50, Smelter charges \$5.00, no penalty for zinc less than 9%, Switching Charges at Emelter \$1.50 per car.

By reason for shutting down was that my health was bad, and after ten months under conditions such as they were, I wanted a lay-off, and as the terms of my lease required continuous operation, and I had no one to leave in charge I had to shut the property down.

The ore I shipped was not sorted, and in order to keep it up to a point that would show the lease a profit. I had to reject any shoot that would not run better than 18% plus the usual value in silver.

In the Crown Point opening, on the West end of the vein, there are now stopes that show 12 to 15% lead, and there is one face now of that grade of ore 18' high and 5' wide. There is also ore showing in the bottom of the 120' winze.

On the Gladstone, about 2500' I of the Grown Point, there is an incline 400' deep showing continuous ore to the bottom, which was will sample better than 10% lead. The width of this body of ore is from 5 to 15' but it could not be handled under present conditions of operation and transportation.

As to the amount of ore in sight, I estimate the tonnage at 200,000 tons, including ore on dumps. I believe this will average not less than 7% lead, and 3.73 ozs. silver per ton.

The distance between the Crown Point and Gladstone openings is close to 3600. The vein outcrops the entire distance, and the continuity of the ore is proven beyond a doubt by numerous open pits and shallow workings along the strike of the outcrop. When the present Crown Point adit is drifted through to the Gladstone opening, which is about 3600 on the vein, it will make the entire area above this level available for stoping and in my judgments the backs will average from 300 upeards to 600.

Referring to the Jan Francisco vein, it has some ore on the dumps and in the workings, but I did not ship any as it was 2500' further to pack. I did no work on that claim. I have no doubt that it will justify further development when the property has reasonable transportation facilities.

To operate the property successfully required more outlay of capital than was at my disposal, or than was justified by my lease, but the packing by Burros should be done away with and a gravity aerial tram installed, the additional profits from which would soon pay for the construction of a mill at the railroad and close to the creek, and after that is done the mine will no doubt pay for its own development.

Yours very truly.

N. J. Mathewson.

RAY SILVER-LEAD MINE

Copy of letter:

Hollenbeck Hotel, Los Angeles, Calif. July 31, 1925.

Mr. E. A. Jackson 725 So. Bixel Streel Los Angeles, California

Dear Sir:

Replying to your enquiry requesting information in regard to my lease operations of the Ray Silver-Lead Company, would say that I operated the mine from July 2nd, 1924 to April 24, 1925, during which time I shipped 479.91 dry tons, with a gross value of \$14,000.64, as follows:

Shipments July 2, 1924 to April 24, 1925

Ounces	of	Gold,	33.191
21	17	Silver,	1,793.41
Pounds	of	Lead,	201,052.00
11	11	Copper,	537.74

(The copper was from the last two carloads of about 90 tons)

Returns from the Smelter:

Gold	662.92
Silver	1,027.82
Lead	12,155.19
Copper	154.80

Gross Returns.

14,000.64

Less Deductions:
Smelting Charges, \$2,112.96
Freight, 2,874.25

4,987.21

Cash Returns.

\$ 9,013.43

11 Carloads 501.76 wet tons, 479.91 dry tons.

This ore was stoped from both ends of the ground, 4 cars coming from the opening on the Crown Point, and the balance from the Gladstone, which is approximately 3600° E on the strike of the vein, and this ore

was all packed to the Railroad at Ray on burros.

I operated the lease under the most unfavorable conditions, but still, after all charges, labor etc. was paid, I made better than wages. The distance from camp by pack trail to the railroad was $3\frac{1}{8}$

shoot that would not run better than 18% plus the usual value in silver.

In the Crown Point opening, on the West end of the vein; there are now stopes that show 12 to 15% lead, and there is one face now of that grade of ore 18' high and 5' wide. There is also ore showing in the bottom of the 120' winze.

On the Gladstone, about 2500° E of the Crown Point, there is an incline 400' deep showing continuous ore to the bottom, which will sample better than 10% lead. The width of this body of ore is from 5 to 15' but it could not be handled under present conditions of operation and transportation.

As to the amount of ore in sight, I estimate the tonnage at 200,000 tons, including ore on dumps. I believe this will average not less than 7% lead, and 3.73 ozs. silver per ton.

The distance between the Crown Point and Gladstone openings is close to 3600°. The vein outcrops the entire distance, and the continuity of the ore is proven beyond a doubt by numerous open pits and shallow workings along the strike of the outcrop. When the present Crown Point adit is drifted through to the Gladstone opening, which is about 3600' on the vein, it will make the entire erea above this level available for stoping and in my judgment the backs will average from 300 upwards to 600'.

Referring to the San Francisco vein, it has some ore on the dumps and in the workings, but I did not ship any as it was 2500° further to pack. I did no work on that claim. I have no doubt that it will justify further development when the property has reasonable transportation facilities.

of capital than was at my disposal, or than was justified by my lease, but the packing by burros should be done away with and a gravity aerial tram installed, the additional profits from which would soon pay for the construction of a mill at the railroad and close to the creek, and after that is done the mine will no doubt pay for its own development.

Yours very truly,

(signed) N. J. Mathewson.

RAY SILVER LEAD MINE

Copy of letter dated February 24, 1926

To Mr. G. M. Colvocoresses, Gen. Mgr. Southwest Metals Company Humboldt, Arizona

From Mr. W. B. Gorhing, Secy. Arizona Chapter The American Mining Congress 419 Heard Building Phoenix, Arizona

Dear Colvo:

I have been over the operating records of the Haley-Soufferin Mine during its last period of operation, and know a good deal about it at second hand. I have never been on the ground.

They shipped a lot of fine lead and silver ore on a lease, but it was merely a case of taking what ore was in sight and, as a result, there was no intelligent development, and there is not a great deal in sight today. I believe, from my own investigation of the matter about a year ago, that the development possibilities are excellent, and it would be well worth while developing the property with a good likelihood of finding more ore. Several engineers of my acquaintance, who have examined it, checked this up.

However, they involved condition of the company's affairs make it difficult to deal, as there is a bonded indebtedness which would pretty nearly have to be eliminated on a pure prospect, as this is.

I cannot give you the exact figures on this, but John Page's office in Phoenix has the facts. As your office in Los Angeles doubtless has full information on this, I will not go into the matter farther, unless you request it.

With kindest regards,

Yours very truly,

(signed) W. B. GOHRING.

REPORT.

HAY BILVER-LEAD MINING COMPANY, RAY, MRIZONA, SEPT., 1925.

L.A. JACKSON.

PROPERTY:

The property of the Ray Silver-Lead Mining Company is what was known some years ago as the Maley-Soufferin kine, together with a number of adjoining claims that have been acquired since that time. It consists of 9 patented and 40 unpatented claims located in a contiguous group, with the exception of the Haley Claim, located for its spring, which is about 7/8 of a mile N.J. from the Gladstone.

LOSATION.

The property is situated in the Mineral Creek Mining District, Final County, Arizona, 1 3/4 miles in an air-line, and 3/2 miles by pack trail from the town of Ray, which is located on a branch line of railread connectin with the Arizona & Eastern at Melvin, 7 miles from Ray.

The Town of Ray is at the foot of the Western slope of the Dripping Springs Range of mountains, which has an approximate N-S trend, the summits of the range being at least 2500' higher than Ray. The elevation of the property is about 2500' about the town. To the N of Ray, there is a break, or low gap, in the crest of the hills, caused by erosion along an N-W fault line crossing the mountains at Right angles, and it is here that the claims of the company are situated, the Grown Point being just below the brow of the hill and the balance of the claims lying a compact body to the N and S, where the apex of the range is somewhat flattened by erosion.

GEOLOGY:

The mountain mass is of quartzite, light to dark in color, over lain, where not eroded away, by a capping of dense, blue, limestone. There are a number of faults crossing the range in an A-V direction, one of which along its strike is occupied by a dyne of decomposed perpayry and a vertical fissure vein, the latter carrying important values in lead, with minor amounts of silver and gold, and it is upon this vein, known as No.1, that most of the work on the property has been done to date. There are at least two other known veins on the property, the vein next to the S being designated No.2, and from its outcrop shipments of high grade ore have been made. This vein, at points on both the Grown Poiny and the Gladstone, some 2600° apart, show indications of uniting at depth with No.1.

CHARACTER OF CR. :

The croppings are of the same general character and width of vein on No.1 for a distance of upwards of 7.000. They are composed principally of oxides of iron and silics, and are stated to carry some values in lead, silver and gold. The ore close to the surface, is a soft, leached, hematite stained carbonate, usually carrying 7% upwards in lead, accompanied by some silver and gold, the comparative ratio of which is indicated by the following figures furnished by the company, which represent the average values of all shipments to date.

Gold .09 ounces, Silver, 5.2 Lead 52.3 percent

In the lower workings further removed from the influence of surface waters the ore carries considerable corussite, and, in places, solid galena. It is safe to state that the values will still further improve with more depth.

DEVELOPMENT:

Thirty years or more ago the original owners of the property opened up vein No.1 by numerous small cuts, shafts and drifts. This work was done primarily to prove the continuity of the vein preliminary to driving a working tunnel below the ere from the West end of the Grown Point some 3600' to the Gladstone, and the soundness of this intention has since been well demonstrated by the work performed incidentally in extracting high grade shipping ore, of which some 10,000 tons were packed on burros and hauled to the railroad at Pay.

There are several shafts on the Grown Point, Cincinatti and Gladstone, all approximately 125' deep; all show ore. The workings on the silver Cloud, on the same vein, half way between the Grown Point and the Gladstone are stated to contain important ore bodies from which considerable high grade has been shipped, but on account of cantaining water, or ladders being unsafe, they were not entered. Good ore is on the dump.

The most important development work on the property is the inclined shaft on the Cincinnati-Gladstone claims which was sunk by leasers in mining shipping ore, i.E. 20% and upwards. The opening to the incline is on the Cincinnati, but in its lower levels it passes into the Gladstons. This incline shaft is stated to be 400° deep, and follows the strike of the vein in the formations. The dip of the formations average about 20%. The upper portion of the incline is in good ore, as shown by sampling report below, and its lower drifts and levels show large tonnages of ore of the dimensions and values indicated in sampling notes. The intermediate ground in the incline was either stoped and shipped or its walls obscured by piled waste and ore of a grade too low to stand shipment. The continuity of the ore is shown in the main level, adjoining, which occurres a parallel and slightly lower position just 8 of the incline.

About helf way down the inclined shaft, a short drift pitches steeply to the 3. to make a connection with the main level, which swings back to the 3. and in a general direction parallels the inclined Mhaft. This level is approximately 220' long. At its Bastern end, close to the foot of the "new shaft", is a 62' level, making off to the 5.E. All these workings are in ore, as indicated in sampling report.

SAMPLING

It will be noted below that all places in the mine at which samples were cut are shown by the particulars of sampling notes. Also it can be stated that in most every instance the position in the mine is also indicated by corresponding sample mapper being burned in planks or timbers. No cuts were taken of narrow bodies of high grade, the smallest cut being from a face 31 wide, which was the extreme Jestern breast of the 400 incline, and in this instance the measurements given indicate merely the width of ore stoped and not necessarily the width of the ore body, floor and roof also being in ore of same character. This particular sample is designated as "Gladstone No.1", which is particularly mentioned, for the reason that samples from Cincinnati-Gladstone inclined shaft were usually marked "Cincinnati" whether the same were on Cincinnati or Gladstone ground.

The objective in sampling was to have each cut representative of as large a body of ore as possible, but in a practical way, it was found that the extreme vertical dimension of the sample was limited to the height that could be reached with a "prospector's pick", many of the samples, therefore, have greater vertical measurements than figures indicate; however, whenever it was possible to use ladders or timbers, samples were cut as per dimensions shown below.

Attention is directed to the fact that the assay values stated below do not include silver and gold; explained as follows: It was considered advantageous in doing the work, to have the assaying following the sampling as the latter progressed, and the assay work was performed at Ray, by the principal chemist of one of the large copper companies, whose laboratory was equipped only for the "wet-process" and who therefore could not make a fire assay as required for gold and silver. The "rejects" are now in transit from Ray, and upon arrival at los angeles, will be run for gold and silver. The latter values are known to be quite consistent, hower, and for present purposes it is safe to accupt the ratio of values as shown by smelter returns quoted above.

SATELD NO.	PARTICULARS OF SAMPLING.
Gladstone 1	Average of face at extreme end of inclined shaft opening on Cincimpati 3.6" x 4"feet. The total dimensions of the breast at the lower end of the incline.
Cincimpati 1,	Surface croppings of Vein No. 2, at entrance to old drift near mouth of inclined shaft. Average of 5' of leached outcrop.
	Inclined shaft 30' from collar, average Of 9' overhead across the vein.
	Inclined shaft at a point 20' % from sample 22. Stope at this point 15' wide by kn 50' long showing ore in quantity, sample being taken across floor with exception of 2' in middle of footway, evidently of same character, sample 15' wide, full width ore 15'. Large tennage this grade.
	Cincinnati Main Level, halfeway down incline and estimated 150' from surface, also 25' from junction with incline. Average sample 4' roof and 9' wall, N side drift. Composte quartered and combined with 4-c-2 and 4-c-3. 4-c-2 Average 8' of wall 15' 2 of 4-c-1 4-c-3 " 6' of roof 15' 2 of 4-c-2.

Sample No.	A Pb.	PARTICULARS OF SAMPLING.
Cincinnati 5-c-l	18.1: : :	Cincimati Main Level. N. wall 25' B. of 4-c-3, Average of 9' from roof down, compos- ite of samples 5-c-1 and 5-c-2.
Cincinnati 5-c-2	18.8:	N wall of stope same level at a point 33 pa- ces 3 of 5-3-1, and about 40' from end of level. Average of 9' of hanging wall, N. side of drift, floor of which is 20' wide.
Cincirnati 5-1-A	21.1	33' E of 5-c-1, and between 5-c-1 and 5-c-2 and taken one day later. This sample represents the average of 17' face on s.side of stope, which at this place is 36' wide, being 7' into the lime on 5.side and 29' on N.side, and still in ere on N.side. There is little doubt that this ore shoot extends through to the showing in 5 wall in main incline, which is, possibly, 25' higher and 25' to the N(as estimated) large tonnage this ore, some carrying Cerussite and Galena.
Circimati6C-1 Cincinnati 6-c-2		
Cincinnati 5-c-5	17.4	commosite. 3 samples taken from cross out drift, 62' long, making to 3. from near foot of new shaft. 6-c-1 5' 6" S.wall 5' 6" 6-c-2 9' S.wall, 15' from 6-c-1, 6-c-3 6' on 3 wall, 18' from 6-c-2. Large tonnage this ore visible.
Crown Point No.1	6 . 8	7 Average cuts across 3' to 5' streak in tunnel, on Wend of Grown Point, extending from portal in 75' At this point, 75' in, the porphyry and ere pass overhead, while the tunnel continues level and passes out of ore. This is a general sample of 7 cuts 10'Apart. Ore appears to be well leached. Tunnel being 100' in length. Note: Did not sample 92' tunnel at this point, as the two are within a few feet of one another, strike in the dame direction, and values are stated to be similar.
Grown Foint No.2	7.5	Main Shaft on Wond Crown Point, 2nd stope from surface, M. side of shaft, ore showing in first and third stopes, latter being at bettom of sha This is one are shoot. General average sample of middle stope, 6 cuts, each 6' to 10' high. This stope upraises into stope No.1. 30' in to-

RECOMMENDATIONS:

A tunnel should be driven from the Word of the Crown Point to the Gladstone, as stated above. If desired, the work could be advanced simultaneously from either end, and as much of the proposed work will be in ore, the ultimate delivery of one to mill should be considered in handling it. Upon completion of tunnel, an aerial tramway to connect tunnel with mill should be installed, the logical place for latter is near may and adjoining to railroad and mill water.

A connection should be made between the Broken Hill read and company's property. A water line for domestic purposes should be led from the Haley Claim to campaite. The buildings at the latter, with minor repacts, will be sufficient for initial purposes.

The Western portal of the proposed working tunnel would be at a point not over 7900 on the slope from proposed millsite.

The amount of new road to construct will be about 5000'.

The slope of the hill from present workings to proposed millsite, averages about 32 degrees, and the lower the levation of the tunnel, the
more ground will be gained in backs and the shorter will be the tramway and
new road work. The backs will average 200' to 300' plus difference in el-

The work on the property in recent years has been performed principally on the Crown Point, Cincinnati and Gladstone claims in extracting shipping ore, in which operations the ore was followed on the strike of the vein and out into its lateral replacements in the limestone. This work demonstrated and left in the workings large tonnages of mill ore of values shown above. When the proposed tunnel is drived, this ore will be run by gravity into cars and trammed to the mill or railroad at a nominal cost.

The ground necessary to connect the property with the Broken

Hill road should be located without further delay.

Preight and tretment charge is stated to be 6.50, with no penalty on zinc and a premium allowed on lime and iron, the company's books showing that it has received from the smelter \$16,000.64 for lime and iron content. Labor will be Mexican, which is cheap and satisfactory. Little or no timber will be required.

If properly managed the operating cost of this property will be remarkably low, and the profit to its owners correspondingly great.

6 Afairson

3:4. Jackson. 725 S. Bixel St., Los Angeles, Cal.

REPORT.

RAY SILVER-LEAD MINING COMPANY, RAY, ARIZONA, SEPT., 1925.

E. A. JACKSON.

PROPERTY:

The property of the Ray Silver-Lead Mining Company is what was known some years ago as the Haley-Soufferin Mine, together with a number of adjoining claims that have been acquired since that time. It consists of 9 patented and 40 unpatented claims located in a continguous group, with the exception of the Haley Claim, located for its spring, which is about 7/8 of a mile N.E. from the Gladstone.

LOCATION:

The property is situated in the Mineral Creek Mining District, Pinal County, Arizona, 1 3/4 miles in an air-line, and 3½ miles by pack trail from the town of Ray, which is located on a branch line of rail-road connecting with the Arizona & Eastern at Kelvin, 7 miles from Ray.

The Town of Ray is at the foot of the Western slope of the Dripping Springs Range of mountains, which has an approximate N-S trend, the summits of the range being at least 2500° higher than Ray. The elevation of the property is about 2300° above the town. To the E of Ray, there is a break, or low gap, in the crest of the hills, caused by erosion along an E-W fault line crossing the mountains at right angles, and it is here that the claims of the company are situated, the Crown Point being just below the brow of the hill and the balance of the claims lying a compact body to the E and S, where the apex of the range is somewhat flattened by erosion.

GEOLOGY:

The mountain mass is of quartzite, light to dark in color, over lain, where not eroded away, by a capping of dense, blue, limestone. There are a number of faults crossing the range in an E-W direction, one of which along its strike is occupied by a dyke of decomposed porphyry and a vertical fissure vein, the latter carrying important values in lead, with minor amounts of silver and gold, and it is upon

this vein, known as No. 1, that most of the work on the property has been done to date. There are at least two other known veins on the property, the vein next to the S being designated No. 2, and from its outcrop shipments of high grade ore have been made. This vein, at points on both the Crown Point and the Gladstone, some 3600° apart, show indications of uniting at depth with No. 1.

CHARACTER OF ORE:

The croppings are of the same general character and width of vein on No. 1 for a distance of upwards of 7,000°. They are composed principally of oxides of iron and silica, and are stated to carry some values in lead, silver and gold. The ore close to the surface, is a soft, leached, hematite stained carbonate, usually carrying 7% upwards in lead, accompanied by some silver and gold, the comparative ratio of which is indicated by the following figures furnished by the company, which represent the average values of all shipments to date.

Gold .09 ounces Silver 3.2 " Lead 32.3 percent

In the lower workings further removed from the influence of surface waters the other carries considerable cerussite, and, in places, solid galena. It is safe to state that the values will still further improve with more depth.

DEVELOPMENT:

Thirty years or more ago the original owners of the property opened up vein No. 1 by numerous small cuts, shafts and drifts. This work was done primarily to prove the continuity of the vein preliminary to driving a working tunnel below the ore from the West end of the Crown Point some 3600° to the Gladstone, and the soundness of this intention has since been well demonstrated by the work performed incidentally in extracting high grade shipping ore, of which some 10,000 tons were packed on burros and hauled to the railroad at Ray.

There are several shafts on the Crown Point, Cincinnati and Gladstone, all approximately 125' deepl all show ore. The workings on the Silver Cloud, on the same vein, half way between the Crown Point and the Gladstone are stated to contain important ore bodies from which

considerable high grade has been shipped, but on account of containing water, or ladders being unsafe, they were not entered. Good ore is on the dump.

The most important development work on the property is the inclined shaft on the Cincinnati-Gladstone claims which was sunk by leasers in mining shipping ore, i.e., 20% and upwards. The opening to the incline is on the Cincinnati, but inits lower levels it passes into the Gladstone. This incline shaft is stated to be 400° deep, and follows the strike of the vein in the formations. The dip of the formations average about 20%. The upper portion of the incline is in good ore, as shown by sampling report below, and its lower drifts and levels show large tonnages of ore of the dimensions and values indicated in sampling notes. The intermediate ground in the incline was either stoped and shipped or its walls obscured by piled waste and ore of a grade too low to stand shipment. The continuity of the ore is shown in the main level, adjoining, which occupies a parallel and slightly lower position just S of the incline.

About half way down the inclined shaft, a short drift pitches steeply to the S. to make a connection with the main level, which swings back to the E. and in a general direction parallels the inclined shaft. This level is approximately 220' long. At its Eastern end, close to the foot of the "new shaft", is a 62' level, making off to the S.E. All these workings are in ore, as indicated in sampling report.

SAMPLING:

It will be noted below that all places in the mine at which samples were cut are shown by the particulars of sampling notes. Also it can be stated that in most every instance the position in the mine is also indicated by corresponding sample number being burned in planks or timbers. No cuts were taken of narrow bodies of high grade, the smallest cut bein from a face $3\frac{1}{8}$ wide, which was the extreme Western breast of the 400° incline, and in this instance the measurements given indicate merely the width of ore stoped and not necessarily the width of the ore body, floor and roof also being in ore of same character. This particular sample is designated as "Gladstone No. 1", which is

particularly mentioned, for the reason that samples from Cincinnati-Gladstone inclined shaft were usually marked "Cincinnati" whether the same were on Cincinnati or Gladstone ground.

The objective in sampling was to have each cut representative of as large a body of ore as possible, but in a practical way, it was found that the extreme vertical dimension of the sample was limited to the height that could be reached with a "prospector's pick", many of the samples, therefore, have greater vertical measurements than figures indicate; however, whenever it was possible to use ladders or timbers, samples were cut as per dimensions shown below.

Attention is directed to the fact that the assay values stated below do not include silver and gold; explained as follows: It was considered advantageous in doing the work, to have the assaying followithe sampling as the latter progressed, and the assay work was performed at Ray, by the principal chemist of one of the large copper companies, whose laboratory was equipped only for the "wet-process" and who therefore could not make a fire assay as required for gold and silver. The "rejects" are now in transit from Ray, and upon arrival at Los Angeles, will be run for gold and silver. The latter values are known to be quite consistent, however, and for present purposes it is safe to accept the ratio of values as shown by smelter returns quoted above.

SAMPLE NO.	% Pb.	PARTICULARS OF SAMPLING.
Gladstone 1	9.8	Average of face at extreme end of inclined shaft opening on Cincinnati 3'6" x 4" feet, The total dimensions of the breast at the lower end of the incline.
Cincinnati 1	13.3	Surface croppings of Vein No. 2, at entrance to old drift near mouth of inclined shaft. Average of 5' of leached outcrop.
Cincinnati 2	23.8	Inclined shaft 30' from collar, average of 9' overhead across the vein.
Cincinnati 3	8.2	Inclined shaft at a point 20' W from sample #2. Stope at this point 15' wide by 50' long showing ore in quantity, sample being taken across floor with exception of 2' in middle of footway, evidently of same character, sample 13' wide, full width ore 15'. Large tonnage this grade.

SAMPLE NO.	% Pb.	PARTICULARS OF SAMPLING.
Cincinnati 4-c-l	20.0	Cincinnati Main Level, halfway down incline and estimated 150' from surface, also 25' from junction with incline. Average sample 4' roof and 9' wall, N side drift. Composite quartered and combined with 4-c-2 and 4-c-3. 4-c-3 Average 8' of wall 15' E of 4-c-1. 4-c-3 Average 6' of roof 15' E of 4-c-2.
Cincinnati 5-c-l	18.1:	Cincinnati Main Level. N. wall 25' E. of 4-c-3, Average of 9' from roof down, composite of samples 5-c-1 and 5-c-2.
	10 1	
Cincinnati 5-c-2	18.1:	N. wall of stope same level at a point 33 paces E of 5-c-l, and about 40' from end of level. Average of 9' of hanging wall, N. side of drift,
		floor of which is 20° wide.
Cincinnati 5-1-A	21.1	33' E of 5-c-1, and between 5-c-1 and 5-c-2 and taken one day later. This sample represents the average of 17' face on s. side of stope, which at this place is 36' wide, being 7' into the lime on S. side and 29' on N. side, and still in ore on N. side. There is little doubt that this ore shoot extends through to the showing in S wall in main incline, which is, possibly, 25' higher and 25' to the N (as esti-
		mated) Large tonnage this ore, some carrying Cerussite and Galena.
Cincinnati 6-c-l Cincinnati 6-c-2		
Cincinnati 6-c-3	17.4	Composite. 3 samples taken from crosscut drift, 62' long, making to S. from near foot of new shaft. 6-c-1 8' 6" S. wall 6-c-2 9' S. wall, 15' from 6-c-1 6-c-3 6' on S wall, 18' from 6-c-2. Large tonnage this ore visible.
Crown Point No.1	6.8	7 Average cuts across 3' to 5' streak in tunnel, on W end of Crown Point, extending from portal in 75'. At this point, 75' in, the porphyry and ore pass overhead, while the tunnel continues level and passes out of ore. This is a general sample of 7 cuts 10' apart. Ore appears to be well leached. Tunnel being 100' in length. Note: Did not sample 92' tunnel at this point, as the two are within a few feet of one another, strike in the same direction, and values are stated to be similar.
Crown Point No.2	7.5	Main Shaft on W and Crown Point, 2nd stope from surface, E. side of shaft, ore showing in first and third stopes, latter being at bottom of shaft. This is one ore shoot. General average sample of middle stope, 6 cuts, each 6' to 10' high. This stope upraises into stope No. 1, 30' in total height and shows same character of ore.

RECOMMENDATIONS:

A tunnel should be driven from the W end of the Crown Point to the Gladstone, as stated above. If desired, the work could be advanced simultaneously from either end, and as much of the proposed work will be in ore, the ultimate delivery of ore to mill should be considered

in handling it. Upon completion of tunnel, an aerial tramway to connect tunnel with mill should be installed, the logical place for latter is near Ray and adjoining to railroad and mill water.

A connection should be made between the Broken Hill road and company's property. A water line for domestic purposes should be led from the Haley Claim to campsite. The buildings at the latter, with minor repairs, will be sufficient for initial purposes.

The Western portal of the proposed working tunnel would be at a point not over 7900', on the slope, from proposed millsite.

The amount of new road to construct will be about 5000°.

The slope of the hill from present workings to proposed millsite, averages about 32 degrees, and the lower the elevation of the tunnel, the more ground will be gained in backs and the shorter will be the tramway and new road work. The backs will average 200° to 300° plus difference in elevation between present workings and elevation of tunnel.

The work on the property in recent years has been performed principally on the Crown Point, Cincinnati and Gladstone claims in extracting shipping ore, in which operations the ore was followed on the strike of the vein and out into its lateral replacements in the limestone. This work demonstrated and left in the workings large tonnages of mill ore of values shown above. When the proposed tunnel is driven, this ore will be run by gravity into cars and trammed to the mill or railroad at a nominal cost.

The ground necessary to connect the property with the Broken Hill road should be located without further delay.

Freight and treatment charge is stated to be \$6.50, with no penalty on zinc and a premium allowed on lime and iron, the company's books showing that it has received from the smelter \$16,000.64 for lime and iron content. Labor will be Mexican, which is cheap and satisfactory. Little or no timber will be required.

If properly managed the operating cost of this property will be remarkably low, and the profit to its owners correspondingly great.

(signed) E. A. JACKSON.

E. A. Jackson 725 S. Bixel St. Los Angeles, California

RAY SILVER LEAD MINE

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

This mine was not listed but I have found these reports in my files and am sending them along as I think that they may interest you.

W. B. Cohring tells me that the mine is idle at present and the location is obviously against it, but he thinks that the mine has real merit and might be obtained on favorable terms at the present time.

June 3 st. 1948. alfred Knight planed to get some (fee) infor. Said t hime h once belonged to John Jages In been open of late Bull addams of & hely lom h taken and a lod of The Mine how yper & prod h-9. 17 & a Syndrictly Hosening men incl ble Athnes propose to invest enough to put I larger eggrifst a brill a hvill, f x g h plent of hater. Knight hall find thep? Read him extent of report x a all old