

1190 0052

(181)  
Item 12

THIS INDENTURE made the 19th day of June, 1935, between INTERSTATE MINING & DEVELOPMENT CO., a corporation organized and existing under and by virtue of the laws of the State of Nevada, the party of the first part, and L. S. REYNOLDS, of the City of Reno, County of Washoe, State of Nevada, the party of the second part;

W I T N E S S E T H :

That the said party of the first part, for and in consideration of the sum of Ten (\$10.00) Dollars, lawful money of the United States, to it in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, does by these presents remise, release and forever quitclaim unto the said party of the second part, and to ~~her~~ heirs and assigns, all the right, title, interest, estate, claim and demand of the party of the first part of, in and to all those certain mines and mining claims situate, lying and being in what is commonly known as the also known as Palmyra and Indian Springs Mining District, <sup>SAR</sup> Como or Indian Springs Mining District <sup>HP</sup> in the County of Lyon, <sup>SAR</sup> State of Nevada, and particularly described as follows, to-wit:

SAN JOAQUIN, SAN JOAQUIN #1; SAN JOAQUIN #2; SAN JOAQUIN #3 and SAN JOAQUIN #4, commencing at a point known as the South West corner of the Surprise Mining Claim as described in Book 'P' of Locations, upon pages 275 and 1050 of the County Records of Lyon County, Nevada; thence running easterly 600 feet to the Southeast corner of the said Surprise Mining Claim; thence Southerly 1500 feet; thence Westerly 600 feet; thence Northerly 750 feet; thence Westerly 600 feet; thence Northerly 4500 feet; thence Easterly 600 feet; thence Southerly 750 feet; thence Easterly 600 feet; thence Southerly 1500 feet to the Northeast corner of the said Surprise Mining Claim; thence Westerly 600 feet to the Northwest corner of the said Surprise Mining Claim; thence Southerly along the Westerly boundary of the said Surprise Mining Claim 1500 feet to the point of beginning.

SURPRISE MINING CLAIM commencing at a Shaft once known as Congress; thence running 300 feet in an easterly direction; thence at right angles 1000 linear feet in a Northeasternly direction; thence at right angles 600 linear feet in a Westerly direction; thence at right angles 1500 linear feet in a Southwesternly direction; thence at right



angles 600 linear feet in an Easternly Direction; thence at right angles 500 linear feet in a North-easternly direction; which mining claim is more particularly described in Book 'P' of Locations, upon pages 275 and 1050 of the County Records of Lyon County, Nevada.

PINION BIRD LODE beginning at Corner No. 1, whence the Northwest corner Section 14, T.15 N., R.22 E., M.D.B. & M., bears North  $68^{\circ}14'$  East, 2360 feet; thence N.  $48^{\circ}34'$  E. 357 feet; thence S.  $38^{\circ}32'$  E. 600 feet; thence S.  $58^{\circ}56'$  W., 744 feet to South Side Corner, 1494 feet to the Southeast corner whence the loc. dis. bears N.  $56^{\circ}$  E., 189 feet; thence N.  $38^{\circ}32'$  W. 354 feet; thence N.  $78^{\circ}57'$  E. 202 feet; thence N.  $46^{\circ}$  E. 938 feet to the place of beginning.

SURPRISE No. 1 LODE beginning at Corner No. 1, whence the N.W. Cor. Sec. 14, T.15 N., R.22 E., M.D.B. & M., bears S.  $81^{\circ}53'$  E., 2393 feet; thence N.  $51^{\circ}30'$  W. 300 feet to a point whence the Loc. Dis. Bears N.  $38^{\circ}30'$  East 231 feet, 600 feet to the S.W. Corner; thence N.  $38^{\circ}30'$  E. 750 feet to the West Side Cor., 1500 feet to the N.W. Cor.; thence S.  $51^{\circ}30'$  E. 600 feet; thence S.  $38^{\circ}30'$  W. 750 feet to the East Side Cor., 1500 feet to the place of beginning.

MOCKING BIRD MINING CLAIM embraces Fifteen Hundred (1500) feet along the course of this lode or vein, and Three Hundred (300) feet on each side of said lode or vein, running Nine Hundred (900) feet in a Southwesterly direction from point of discovery, and Six Hundred (600) feet in a North-easterly direction, from point of discovery, which claim is situated in the Palmyra and Indian Springs Mining District, County of Lyon, State of Nevada, and lies about a half mile North West of Mount Lyon, and about One Thousand feet north of the Dayton and Coma Road.

NORTHERN LODE beginning at the corner No. 1, whence the N.W. cor. Sec. 14, T.15 N., R.22 E., M.D.B. & M., bears S.  $81^{\circ}53'$  E. 2393 feet; thence N.  $51^{\circ}30'$  W., 300 feet to a point whence the Loc. dis. bears S.  $48^{\circ}30'$  W. 600 feet to the N.W. corner; thence S.  $48^{\circ}30'$  W. 750 feet; thence S.  $52^{\circ}15'$  W., 750 feet; thence S.  $51^{\circ}30'$  E. 600 feet; thence N.  $52^{\circ}15'$  E., 750 feet; thence N.  $48^{\circ}30'$  E., 750 feet to the place of beginning.

Together with all the dips, spurs and angles, and all the metals, ores, gold and silver bearing quartz, rock and earth therein, and all the rights, privileges and franchises thereto incident, appendant and appurtenant or therewith usually had and enjoyed.

Together with all and singular the tenements, hereditaments and appurtenances thereunto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof.



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H.P.

TO HAVE AND TO HOLD, all and singular the said property, together with the appurtenances, unto the said party of the second part, ~~his~~ heirs and assigns, forever.

IN WITNESS WHEREOF, the said party of the first part by and through its officers thereunto duly authorized has caused these presents to be executed and its corporate name and seal hereunto affixed the day and year first above written.

INTERSTATE MINING & DEVELOPMENT CO.,

By Iula M. Carpenter  
Its Vice President,

And Roy F. Pearce  
Its Secretary.

STATE OF NEVADA,

County of Washoe } ss.

On this June day of June A. D. one thousand nine hundred and thirty-five

personally appeared before me S. H. Rosenthal, a Notary Public in and for said County of Washoe, Nevada, Roy F. PEARCE

Secretary

known to me to be the of the corporation that executed the foregoing instrument, and upon oath, did depose that he is the officer of said corporation as above designated; that he is acquainted with the seal of said corporation and that the seal affixed to said instrument is the corporate seal of said corporation; that the signatures to said instrument were made by officers of said corporation as indicated after said signatures; and that the said corporation executed the said instrument freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at my office in the County of Washoe, Nevada, the day and year in this certificate first above written.

Notary Public in and for the County of Washoe, State of Nevada.

My commission expires April 6th, 1939.

CORPORATION—Reno Printing Co., Reno, Nev.



(181)  
Item

DECLARATION OF TRUST

1 WHEREAS, under and by virtue of a certain Agreement made  
2 the 19th day of June, 1935, by and between INTERSTATE MINING &  
3 DEVELOPMENT CO., a corporation organized and existing under and by  
4 virtue of the laws of the State of Nevada, the party of the first  
5 part, and the undersigned, L. S. REYNOLDS, of the City of Reno,  
6 County of Washoe, State of Nevada, the party of the second part,  
7 involving the sale of certain mining claims, hereinafter set forth,  
8 sold by said company to me or to my assigns; and

9 WHEREAS, a Deed conveying said referred to property is  
10 to be deposited in escrow, when the title thereto shall be assured,  
11 by the Washoe County Title Guaranty Company; said escrow to be  
12 deposited in the First National Bank in Reno, First and Virginia  
13 Street Branch, to be delivered by said bank to me or to my assigns,  
14 upon final payment, provided for in said agreement, and

15 WHEREAS, the purchase money for said property is to be  
16 provided and paid by NATIONAL EXPLORATION & DEVELOPMENT CO. a Nevada  
17 corporation, and the conveyance above referred to is made to me as  
18 Trustee for said corporation, the purchaser;

19 KNOW ALL MEN BY THESE PRESENTS; That I, the said L. S. REY-  
20 NOLDS, the undersigned, do hereby declare that in the event that  
21 the above transaction is completed as contemplated under the said  
22 agreement, that I shall stand seized of said mining claims herein-  
23 after described, in trust for said NATIONAL EXPLORATION & DEVELOP-  
24 MENT CO., its successors and assigns, and I do hereby agree to con-  
25 vey the same at its request, and at its cost, to said corporation,  
26 in such manner and at such times as the said corporation shall di-  
27 rect or approve.

28 Said corporation being also hereby declared to be en-  
29  
30



1 titled to exercise all rights and privileges of every kind and  
2 character under said agreement, including the actual occupancy and  
3 operation of said mines in accordance with the terms and conditions  
4 of said agreement.

5 Said mining property referred to in the said Deed, which  
6 said instrument bears even date with said Agreement, is described  
7 as follows, to-wit:

8 SAN JOAQUIN, SAN JOAQUIN #1, SAN JOAQUIN #2,  
9 SAN JOAQUIN #3, SAN JOAQUIN #4, SURPRISE  
10 MINING CLAIM, PINION BIRD LODGE, SURPRISE NO.  
11 1 LODGE, MOCKING BIRD MINING CLAIM and NORTHERN  
12 LODGE.

13 All of said mines and mining claims situate,  
14 lying and being in what is commonly known as  
15 the Como, or Indian Springs Mining District,  
16 also known as Palmyra and Indian Springs  
17 Mining District, in the County of Lyon, State  
18 of Nevada; said mining claims being all re-  
19 corded in the office of the County Recorder  
20 in said Lyon County, Nevada.

21 IN WITNESS WHEREOF, I have hereunto set my hand, this  
22 27<sup>th</sup> day of June, 1935.

*L. S. Reynolds*

23 STATE OF NEVADA, )  
24 : SS:  
25 COUNTY OF WASHOE. )

26 On this 27<sup>th</sup> day of June, 1935, personally appeared  
27 before me, a Notary Public, in and for the County of Washoe, State  
28 of Nevada, L. S. REYNOLDS, known to me to be the person described  
29 in and who executed the foregoing instrument, who acknowledged to  
30 me that she executed the same freely and voluntarily and for the  
uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and  
affixed my official seal, the day and year in this certificate first  
above written.

*E. W. Stacey*  
Notary Public  
In and for said County & State.



INTERSTATE MINING & DEVELOPMENT CO

-- TO --

L. S. REYNOLDS.

QUITCLAIM DEED.

42497

Recorded at Request of

H. J. Scott

Mar. 25, 1935

at 3 Min. past 9 A. M.

in Book 11 Page 438

of Mining Records

Lyon County Nevada Records

Wm. J. Burton

County Recorder.

By J. E. Leonard

Deputy.

Fees

Folios

INDEXED COMPARED



1190 0052

Mr. C. J. Carpenter  
Manager  
Western Nevada Mines Co.

In compliance with your request, I have prepared a map which is being handed you under separate cover, showing the amount, position and character of work done to date on the east fourth level of the Surprise shaft at Como. This map also shows the position and direction of several quartz ledges on the surface, and their possible and probable projected positions at the horizon of the fourth level.

#### SURPRISE VEIN

If the Surprise vein maintains approximately the same direction in strike that it shows between the shaft and the first two north cross cuts on the fourth level, its probable continuation, then, is as shown by the dotted line marked "probable position of Surprise vein". By then extending the third north cross cut (which starts from Sta. II2A) an additional distance of from 50 to 65 feet, the Surprise vein should be cut. I strongly urge this work as being first in order of importance.

#### BIG BOY LEDGE

This ledge as far as surface appearances indicate, is by far the largest and best defined ledge in the vicinity. As the map shows, it strikes northerly-southerly, and at the surface ranges from ten to thirty feet in width, showing a heavy broken cropping of a very live looking quartz. I am of the opinion that this ledge at the 400 level, will be encountered by extending the main "foot wall drift" an additional distance of from 50 to 100 feet. This work I also consider as being very desirable, and place it as being of equal importance with the cross cut to the Surprise vein.

#### LITTLE BOY LEDGE and INTERSECTING LEDGE

The Intersecting ledge shows at the surface a northerly dip. Assuming that it will maintain the same general dip as the Surprise and Sundstrom ledges, this ledge should then be found by cross cutting southerly from station II3 for a distance of from 25 to 50 feet. By continuing this cross cut on through and past the "intersecting ledge" and then turning to the east, the Little Boy ledge should be picked up.

#### CONCLUSIONS

The circle labeled "center of chimney on surface" is a zone somewhat circular in shape and roughly 200 feet in diameter. This zone has been much altered and silicified by mineralized solutions, and has been made, I think, by the junction and crossing of several ledges and veins. That for one, it is the apex of the Surprise vein I am positive. Over a hundred feet easterly of the Little Boy ledge, another ledge, the Tunnel Ledge, (not shown on the map) has been uncovered by trenching as far as the south rim of the "chimney" area. This ledge strikes north by west, apparently has a steep dip to the north-east, and where trenched shows a width of from two to seven feet. This ledge runs



directly into the chimney area. I am of the opinion that the Little Boy ledge also heads into the chimney. This makes an intersection of at least three ledges in this area, and the probability is strong that one or more, at present unknown fissures, also intersect here.

The history of the Pine Nut Range, in which your property is situated, is that, in the districts mined to date, the ore shoots have almost invariably been found, either immediately at, or close to, the intersection point where another ledge or vein joins or crosses. Not infrequently the junction or crossing has caused ore to form in both or more of the intersecting veins. I might add that this, to a lesser extent, has been the history of ledge, vein and fissure mining the world over.

Drifting on the Surprise vein easterly towards and past the junction of the Big Boy ledge; drifting on the Intersecting ledge in the same direction and manner; and drifting on the Big Boy ledge both ways, towards and past the Surprise and Intersecting ledges, will prove this end of the property, and will I think, be productive of good results.

From a consideration of all conditions, I think you are just about to enter into the most interesting and favorable area, known of as yet on your property.

Respectfully Submitted

R. H. F. Rosen

Mining Engineer

208 Nevada State Life Bldg.  
Reno Nevada  
January 14, 1930.



1190 0052

Hawaii report

181

Item 12

Reno, Nevada June 11, 1927

Mr. E.C. Short  
Western Nevada Mines Co.  
315 Nevada State Life Bldg.  
Reno, Nevada

Dear Sir:

Pursuant to your instructions with Mr. Hamilton, on the evening of June 8th, 1927, I visited the property of the Western Nevada Mines Company, at Como, in Lyon County, Nevada, and spent the greater part of the following day in examining and sampling the San Joaquin group of claims, and the Dayton and Tunnel claims also belonging to the company.

I gathered from our conversation you wished my investigation to center on the ore values at the workings, you being in possession of other details ordinarily included in reports, like location, accessibility, etc., and so our whole attention while there was devoted to the Congress shaft, the surface of the Surprise and adjoining claims of the San Joaquin group; and in the workings of the Tunnel claim and on the surface of it and the adjoining Dayton claim.

#### PRIOR ACQUAINTANCE WITH VICINITY

A few years back I spent several months in the Como District on the grounds of the Como Consolidated property, having at that time negotiations on with the Receiver and the Court, for a bond and lease on their holdings. Failure to agree with them on amounts of royalties prevented action on our part, but the time spent on the ground there and the surrounding locality, including your property, had given me a fair idea of the vein systems, the ore formations, and the nature of the ores of the district and the working tests conducted at that time, a knowledge of the required treatment methods for recovery of values.

#### COMO GEOLOGY

The formations carrying the veins of Como have been pronounced by several well known geologists to be the older andesites, that is, andesites older than those of Tertiary flows, to just which earlier age they belong I have never seen stated. Also that the Tertiary andesite and rhyolite flows are present in the district and lie on top of these flows in which occur the ore veins. This statement applies I believe particularly to the Como Consolidated property, but your properties are so near to it, the same would also apply to yours.

They have said too, the formations carrying the values are deep-seated, and that the veins will continue to great depth.

On the Como Consolidated the main and principal Como-Eureka ore-shoot, values have persisted to 300 feet of depth, the greatest obtained by the shaft workings, the ore-shoot is 275 feet long, four to seven feet wide, and the average of the ore has been \$11.00 to \$14.00 per ton, the silver fluctuations causing some variations in values. It has not been developed below the 300 foot level but the assay maps show the ore to be as high in value on that level as above.

#### SURPRISE GEOLOGY

The vein at the shaft of the Surprise claim of the company's San Joaquin group, (formerly known as the Congress shaft) is a vein of silicified andesite, with quartz and gouge filling, in an andesite if not identical with the andesite carrying the Como-Eureka vein, closely related to it: it strikes north-east-south-west, at the shaft N-57° - 30' East, dips northwest 65-75 degrees, estimated, and is approximately parallel to the strike of the Como Eureka vein and is perhaps 3/4 of a mile northerly from it.

#### SURPRISE SHAFT

In the early days of the camp's history, when the property was known as the Congress Mine, a shaft was sunk on the vein to a depth of 150'; from the 50' level to the surface, and next to the shaft on its east side, a stope of ore was taken out. This stope is 3 feet in width and 25 to 30 feet in length. The ore is reported to have netted \$25 to \$30 per ton, having been hauled to Silver City, Nev., for treatment.



Between the 50' level and the 75' level, in this Congress shaft, there appears to be a horse of material lower in values than the operators of that period could handle with the milling facilities available, and the block between those levels was not stoped; but between the 100' level and the 75' level more stoping was done, the size of the opening not being ascertained by me, because the drift at the bottom in that direction and the stope itself are filled full with broken material. Were these workings open a tonnage of commercial ore might be computed in the block of ground between these levels already developed.

Below the 100' level 50 feet of shaft is also choked with debris, the miners not yet having completed the hoist installation and commenced hoisting.

*Stoping* No stoping was done to the west of the shaft, assays indicate there is a block of pay ore in that direction, its size and extent remaining to be determined by drifts and raises.

#### ASSAYS FROM CONGRESS SHAFT

Sample	Gold value	Total value
15 to 18 feet along surface trench to west of collar of shaft-	\$6.40	\$6.79
2-1/2 ft. east side shaft collar-	30.40	32.36
3 feet, west side shaft collar-	6.80	7.41
Congress shaft, 15 ft. deep, west side 18"	8.80	9.92
" " 25 ft. deep, left drift,		
<i>drift</i> 0 plus 10', 2-1/2 width-	6.00	7.40
Congress shaft 30' deep, west side, 3 ft. of width-	6.00	6.39
Do depth 40', west side, 3 ft	4.00	4.78
" " 65' west side, 4 ft.	12.80	15.37
" " 75' west side 4 ft	2.40	2.79
" " 75' east side 14 ft.	11.20	12.37
" " 80' face right dft. 4'	8.00	8.90
" " 85' west side, 4 ft.	3.20	3.82
" " 90' east side, 3 ft.	16.80	18.37
<i>drift</i> " " 75' right dft., x cut in ft. wall, 3 ft.-	2.00	2.39
Do. 3 ft. next fit, wall sple.,	17.60	19.84
Do. 4 ft. hanging wall of last two	9.60	10.88
Do. depth 100 ft. east side, 3 ft.	2.00	2.39

#### TUNNEL AND DAYTON CLAIM

These lie close in and adjoining claims of the Como Consolidated on which is their main working shaft, easterly therefrom. A north and south vein traverses both throughout their length and the tunnel claim is located crosswise of the two principal veins which make the Como-Eureka Mine, the Como-Eureka vein and the North vein. These veins must be intersected by the north and south vein of the Tunnel and Dayton claims, on the Tunnel ground; and in view of this circumstance, the 600 feet of length of Como-Eureka and North veins on this tunnel claim is perhaps the choicest and most promising piece of undeveloped ground in the Como District. I would so regard it because they are the proven ore channels and there too is an intersection.

(Note: The Rapidan lode, intersecting with the Como-Eureka and the North lodes, are believed to have produced ore-shoots of the adjoining property. This north and south lode of the Tunnel-Dayton claims is on the same magnificent scale of vein as is the Rapidan).

The production of the Como-Eureka is large, I haven't the exact figures but know them to be several hundred thousand dollars and the total may run much higher. \$165,000 was produced in the last year of the mill's operation, this fact I obtained when investigating their records of production. Prior to the installation of the new cyanide plant the old amalgamating and concentrating plant is credited with \$350,000.

No systematic sampling of the veins of these claims was attempted this trip; there has been production from this ground with a small amount of work. Mr. Rea, a



former owner shipped some twenty tons which returned about \$75.00 per ton and he has some tonnage of \$8.00 mill ore stored on the dumps.

#### ASSAYS ON SAMPLES FROM TUNNEL CLAIM

##### Sample

Tunnel claim NE-SW vein, Como-Eureka ore channel, near portal of tunnel, 2-1/2 ft of width	gold value \$22.40	total val. \$22.40
Tunnel claim, N and S vein, trench in vein croppings, 10 feet deep, 18 feet of trench sampled	75.20	75.20

#### MINERALS IN THE ORES

Gold occurs free and in the iron sulphides. 60 to 75 percent of the values contained is usually amalgamatable; a high percentage of the balance is recoverable with cyanide process; or the ore can be ground fine and cyanided direct, dispensing with the amalgamating process.

In some ore-shoots of the district a small amount of copper sulphides are present but none of them appear in the Surprise or Tunnel ores.

One sample of Surprise ore showed no colors, in the pan, but was heavy with sulphides and assayed in gold \$4.80; another sample treated in an amalgamating pan to free the sulphides or any free gold present, the sulphides separated from the gangue, gave an assay of the sulphides in gold \$25.83.

The presence of gold with the sulphides, in them is generally regarded with favor by Engineers because the sulphides will continue in depth and if mineralized in the upper levels with precious metal will most likely continue to be mineralized on lower levels.

#### CONCLUSIONS

The amount of work performed on the ore shoots of either group is very limited. Many excellent and profitable properties have been developed from no greater showings of ore near the surface than are to be found here. The metallurgy presents no difficulties; bullion can be made on the ground.

I can undestitately recommend the properties of the Western Nevada Mines Company for development, with the expectation of ample returns to the investor for the money expended. Both groups are excellent potentials.

B.P. HOWELL



1190 0052

(181)  
Item 12

Mr. E. C. Short

President, Western Nevada Mines Co.

Dear Sir:

You requested along the first part of December, that I make you a report regarding the progress in development at your property, at Como, Nevada, since the visit and report made by Mr. B. F. Howell on February eleventh of this year. You requested also, that I sample the new workings, and give you my opinion as to the condition of the mines, and the value of same, both present and potential. In compliance with your request I visited the mine and was there from December tenth to fourteenth inclusive. I report as follows:

Since Feb. 11, 1928New DevelopmentShaftFootage

The shaft has been sunk from the 270 foot point on the incline to the 405 foot point -----135  
The shaft now measures 405 feet on the incline, which averages 67 degrees in dip, and is 371 feet deep vertically. See map sheets 3 & 4.

100 Foot North Level

A drift has been run on the vein from a point 14 feet past station 3 to the face, a distance of -----158  
A raise 16 feet high has been put up at station 2 of this level----- 16

300 Foot North Level

A drift on the vein from the shaft to the face, has been run. Distance-----273  
Cross cut at station 5----- 30

300 Foot South Level

A pump station 10 x 14 x 8 feet, adjoining the shaft has been cut----- 28



#### 400 Foot North Level

A drift has been run on the vein from the shaft to the face. Distance-----144

#### 400 Foot South Level

Drifting and swing cross cut----- 35

#### Bottom of Shaft

A pump station 10 x 14 x 8 feet has been cut----- 28

Total feet of new development. 847

#### New Buildings

A timber framing shed 24 x 15 feet in size has been erected near the collar of the shaft.

#### New Machinery and Equipment

A power, circular, cut-off saw with belt and motor has been installed in the timber shed.

A geared, duplex, plunger pump (capacity 200 G.P.M.) belted to a 30 H. P. motor has been installed in the pump station at the bottom of the shaft. From the pump to the surface some 480 ft. of 3" standard pipe complete with fittings, for water column has been laid.

A geared, triplex, plunger pump (capacity 80 G.P.M.) connected to a 10 H.P. motor has been installed in the pump station on the 300 level. From the pump to the surface a 2 inch water column with fittings has been laid. An extra 10 H.P. motor for the above pump is kept in the store room.

#### Timbering

The shaft has been closely timbered and lagged to the bottom. The 100 and 300 levels have been timbered where necessary. The 400 foot north level, due to the nature of the ground, has been timbered most of the length of the drift. The timbering in all openings examined was in good to fair state of preservation.



### Condition and Position of Workings

The ground is dry to a point above the 300. From this point to the bottom more water was encountered as depth was reached. The pumps installed have been working twenty minutes out of each two hours, so are therefore capable of handling five to six times more water in an emergency, in a twenty four hour period, than they have been.

An instrument survey of the workings was made by me while at the property. Maps will be found in the back of this report. These maps are substantially correct. A survey connecting some surface points to underground points, was also made by me. Map sheet number one attached, covers this work.

### Quality of Work

All openings driven, timbering put in, and machinery installed has been done in a workman-like manner. The incline shaft however, following the irregular twisting of the vein on its descent, is somewhat "twisty" and "turny" its-self. For the purpose of exploration, however, a shaft that follows the vein as yours does, is correct procedure.

~~In the center of the shaft, about 100 feet from the bottom, there is a small opening in the rock, which is a good indication of the position of the vein. A shaft located here would serve for developing and mining both the Sundstrom and Success veins.~~

### Management

From my observations while at the property I would say, the money being expended, is being spent to good advantage. Nothing of an extravagant nature was noticed by me, either in living, housing or operating conditions. Everything observed, indicated the management was keeping a close check on expenses, and was getting good value for the money spent.



### Ground Examined

I did not visit the tunnel or Dayton claims, as Mr. Carpenter stated no work, with the exception of assessment work, had been done on these claims this year. My examination was confined mostly to the underground conditions at the Success shaft. Mr. Carpenter informed that in addition to the new work noted above, the assessment work for the year had been performed and recorded.

### Geology and Ore Occurrence at Surprise Shaft

The ore occurs as a contact deposit in an andesite of undetermined age. This andesite has been intruded by a dark, hard, glassy, diorite, in the form of a dike. As snow was on the ground, I was unable to determine from the surface, the width of the dike. The width of the dike shown on map sheet 3 therefore, may, or may not be correct. The mineralized zone, or vein, is contained within a fissure, which fissure ranges from six to twenty feet or more, in width. This fissure is parallel to the strike of the dike, which forms the hanging wall of the fissure. The foot wall is andesite. The fissure filling, or vein matter, is an altered, silicified andesite. The best values so far, occur in a ledge of hard quartz within the fissure. This quartz ledge where observed, ranges in width, from two to four feet. The quartz in the upper levels favors the foot wall side of the fissure, but on the 400 lays closer to the diorite hanging wall.

The dip of the vein or fissure is controlled by the dip of the dike. As depth has been gained in the shaft, there has been a steady steepening of the vein, the lowest portion exposed by the shaft dipping at an inclination of 66 to 68 degrees.

By referring to map-sheet 2, you will note the vein in the north drifts of the 100, 300 and 400 levels, has been cut by a block fault, which strikes northerly, and dips, as shown on sheet 4, easterly. The throw of the fault block has been towards the north--a small displacement. While I have not noted this faulted condition on the 50 level, it however, probably exists there the same as on the lower levels, and is no doubt the reason for the non-continuation of ore past the east edge of the old stope. A short corss cut into the hanging wall, towards the end of this 50 level, would be good prospecting, as this work might pick up the easterly extension of the ore beyond the fault.



The northward throw of the fault block on the 100 level, has been exaggerated by me on map-sheet 2. A portion of the faulted segment of the vein shows in the drift between stations 1 and 3. The raise at station 2 of the level, though, is off the ledge proper, being in the footwall side of the fissure.

#### Character--Appearance and Values of Ore

Due to the fact that the shaft below the 100 level is tightly timbered and logged, I was unable to examine or sample the vein in the shaft below this point. The drift on the 100 and 300, are some what irregular, not following the vein as closely as they might have. This condition, together with the timbering, especially on the 300 & north 400 levels, made examination and sampling a difficult matter. The few samples taken by me therefore, do not represent by any means, a true cross section, of the values of the mine, as they were taken of widely spaced points, and but few across the full width of the ledge on account of the difficulty of getting at the vein.

The vein matter from the 100 level to the surface is much oxidized and crushed. From the 100 to a point a little above the 300, the vein shows evidence of having been thoroughly leached. I would not anticipate values in this block to be as high as either above or below. At a point shortly above the 200, the vein matter is of a mixed character, partly oxidized and partly sulphidized. A short distance below the 300, the vein as shown at a couple of places in the manway, is of a sulphide character, and looks like a primary ore, with no evidence of any secondary enrichment showing. At the 400 there is a distinct change. At this level the vein matter is a straight sulphide, and begins to show signs of secondary enrichment. At this point, the appearance of the vein matter, the condition of the fissure, the character of the quartz (it being of a ribbon--banded structure) appeals to me very much. From all appearance, this horizon is at about the top of the zone of secondary enrichment. Silver values as indicated by the few samples taken by me on this level, show a great increase over the values of the upper levels. This zone in your formation, should continue to a depth of several hundred feet or more before the straight primary ore is again encountered. I was more particularly impressed with the showing in the south drift of the 400 and believe continued work in this drift will open up a shoot of a good grade commercial ore.



### Results of Incomplete and Erratic Sampling

#### 100 North Level

101R across 5 feet in top of raise----- 2.97  
102R across 4½ feet at stations 5----- 2.74

#### 300 North Level

301R Vein west of east edge of fault a short way before  
station 4 taken across 3 feet----- 3.29  
302R Vein other side of fault a little past station 4  
a across 3 feet-----2.72  
303R Across 30 inches 30 feet beyond sample 302R-----1.06

#### 400 North Drift

401R Across 18 inches 17½ feet  
from shaft ----- 1.18  
403R Across 12 inches 13½ feet from shaft-----6.30  
402R across 12 inches 25 feet from shaft -----8.79  
404R across 26 inches 34 feet from shaft-----1.12  
406R across 10 inches 34 feet from shaft-----5.99  
407R across 1r inches 71 feet from shaft-----4.67  
408R across 20 inches 65 feet from shaft-----6.54  
409R 8" of vein beyond east ledge of fault-----22.82

#### 400 South drift

401L across 24 inches 20 feet from shaft-----5.35  
402L across 42 inches 25 feet from shaft-----20.44.

### Conclusions & Recommendations

The appearance of the fissure and veins at the bottom would indicate permanence to considerable depth. I do not fear that your vein will pinch, but on the contrary with further depth it is more apt to be more regular and better defined than above. The fissure its self going down along the dike will go to a great depth, as the diorite is of deep seated origin. The ore values as stated above, should increase with the next several hundred feet in depth. Beyond that point when the primary ore again shows values will drop. On the Comstock lode however, some 12 miles distant the, bonanza ore bodies were not encountered until a depth of some 1600 feet was reached. Wix

The samples taken by Mr. Howell indicate good values in short stretches in the shaft and levels above. The few samples taken by me



in the lowest level show very good possibilities.

I would recommend that the #00 south drift be driven ahead and sampled thoroughly every five feet across the full width of the vein before timbering.

After drifting here to the edge of the ore shoot, if the values continue good, one or more raises should be put up from this level to determine how high the commercial values extend.

I would also recommend that a thorough sampling of the entire mine from the 100 down be started in order to determine the ~~ake~~ <sup>value</sup> of the ore cut above. This is necessary for the development of said ore.

Respectfully Submitted

*R. H. F. Rosen*

MINING ENGINEER

Dated at  
208 Nevada Life Bldg.  
Reno, Nev.  
Dec. 19, 1928



1190 0052

(181)

Item 12

Reno, Nev., June 11, 1927.

Mr. E. C. Short,  
Western Nevada Mines Co.,  
315 Nevada State Life Bldg.,  
Reno, Nev.

Dear Sir:-

Pursuant to your instructions, with Mr. Hamilton, on the evening of June 8th., 1927, I visited the property of the Western Nevada Mines Company, at Como, in Lyon County, Nevada, and spent the greater part of the following day in examining and sampling the San Joaquin group of claims, and the Dayton and Tunne claims also belonging to the company.

I gathered from our conversation you wished my investigation to center on the ore values at the workings, you being in possession of other details ordinarily included in reports, like location, accessibility, etc., and so our whole attention while there was devoted to the Congress shaft, the surface of the Surprise and adjoining claims of the San Joaquin group; and in the workings of the Tunnel claim and on the surface of it and the adjoining Dayton claim.

#### PRIOR ACQUAINTANCE WITH VICINITY

A few years back I spent several months in the Como District on the grounds of the Como Consolidated property, having at that time negotiations on with the Receiver and the Court, for a bond and lease on their holdings. Failure to agree with them on amounts of royalties prevented action on our part, but the time spent on the ground there and the surrounding locality, including your property, had given me a fair idea of the vein systems, the ore formations, and the nature of the ores of the district, and the working tests conducted at that time, a knowledge of the required treatment methods for recovery of values.

#### COMO GEOLOGY

The formations carrying the veins of Como have been pronounced by several well known geologists to be the older andesites, that is, andesites older than those of Tertiary flows, to just which earlier age they belong I have never seen stated. Also that the Tertiary andesite and rhyolite flows are present in the district and lie on top of these flows in which occur the ore veins. This statement applies I believe particularly to the Como Consolidated property, but your properties are so near to it, the same would also apply to yours.

They have said too, the formations carrying the values are deep-seated, and that the veins will continue to great depth.

On the Como Consolidated the main and principal Como-Eureka ore-shoot, values have persisted to 300 feet of depth, the greatest obtained by the shaft workings, the ore-shoot is 275 feet long, four to seven feet wide, and the average of the ore has been \$11. to \$14. per ton, the silver fluctuations causing some variations in values. It has not been developed below the 300 foot level but the assay maps show the ore to be as high in value on that level as above.

#### SURPRISE GEOLOGY

The vein at the shaft of the Surprise claim of the company's San Joaquin group, (formerly known as the Congress shaft) is a vein of silicified andesite, with quartz and gouge filling, in an andesite if not identical with the andesite carrying the Como-Eureka vein, closely related to it: it strikes north-east-south-west, at the shaft N-57° -30' East, dips northwest 65-75 degrees, estimated, and is approximately parallel to the strike of the Como-Eureka vein and is perhaps 3/4 of a mile northerly from it.

#### Surprise Shaft

In the early days of the camp's history, when the property



was known as the Congress Mine, a shaft was sunk on the vein to a depth of 150'; from the 50' level to the surface, and next to the shaft on its east side, a stope of ore was taken out. This stope is 3 feet in width and 25 to 30 feet in length. The ore is reported to have netted \$25 to \$30 per ton, having been hauled to Silver City, Nev., for treatment.

Between the 50' level and the 75' level, in this Congress shaft, there appears to be a horse of material lower in values than the operators of that period could handle with the milling facilities available, and the block between those levels was not stoped; but between the 100' level and the 75' level more stoping was done, the size of the opening not being ascertained by me, because the drift at the bottom in that direction and the stope itself are filled full with broken material. Were these workings open a tonnage of commercial ore might be computed in the block of ground between these levels already developed.

Below the 100' level 50 feet of shaft is also choked with debris, the miners not yet having completed the hoist installation and commenced hoisting.

No stoping was done to the west of the shaft, assays indicate there is a block of pay ore in that direction, its size and extent remaining to be determined by drifts and raises.

#### ASSAYS FROM CONGRESS SHAFT

Sample	gold val.	total val.
15 to 18 feet along surface trench to west of collar of shaft,	\$6.40	\$6.79
2-1/2 ft. east side shaft collar,	30.40	32.36
3 feet, west side shaft collar,	6.80	7.41
Congress shaft, 15 ft. deep, west side, 18"	8.80	9.92
" " 25 ft. deep, left drift,		
0 plus 10', 2-1/2 width,	6.00	7.40
Congress shaft 30' deep, west side, 3 ft. of width,	6.00	6.39
Do depth 40', west side, 3 ft.	4.00	4.78
" " 65' west side, 4' ft.	12.80	15.37
" " 75; west side, 4' ft.	2/40	2.79
" " 75; east side, 14" ft.	11.20	12.37
" " 80' face right dft. 4',	8.00	8.90
" " 85' west side, 4 ft.,	3.20	3.82
" " 90' east side, 3 ft.,	16.80	18.37
" " 75' right dft., x cut in ft. wall, 3 ft.,	2.00	2.39
Do, 3 ft. next fit, wall sple.,	17.60	19.84
Do, 4 ft. hanging wall of last two	9.60	10.88
Do, depth 100 ft., east side, 3 ft.,	2.00	2.39

#### TUNNEL AND DAYTON CLAIM

These lie close in and adjoining claims of the Como Consolidated on which is their main working shaft, easterly therefrom. A north and south vein traverses both throughout their length and the tunnel claim is located acrosswise of the two principal veins which make the Como-Eureka Mine, the Como-Eureka vein and the North vein. These veins must be intersected by the north and south vein of the Tunnel and Dayton claims, on the Tunnel ground; and in view of this circumstance, the 600 feet of length of Como-Eureka and North veins on this tunnel claim is perhaps the choicest and most promising piece of undeveloped ground in the Como District. I would so regard it because they are the proven ore channels and there too is an intersection.

(Note. The Rapidan lode, intersecting with the Como-Eureka and the North lodes, are believed to have produced the ore-shoots of the adjoining property. This north and south lode of the Tunnel-Dayton claims is on the same magnificent scale of vein as is the Rapidan.)

The production of the Como-Eureka is large, I haven't the exact figures but known them to be several hundred thousand dollars and the total may run much higher. \$165,000 was produced in the last year of the mill's operation, this fact I obtained when investigating their records of production. Prior to the installation of the new



cyanide plant the old amalgamating and concentrating plant is credited with \$350,000.

No systematic sampling of the veins of these claims was attempted this trip; there has been production from this ground with a small amount of work. Mr. Rae, a former owner shipped some 20 tons which returned about \$75.00 per ton and he has some tonnage of \$8.00 mill ore stored on the dumps.

#### ASSAYS ON SAMPLES FROM TUNNEL CLAIM

Sample	gold val.	total val.
Tunnel claim NE-SW vein, Como-Eureka ore channel, near portal of tunnel, 2-1/2 ft. of width.	\$22.40	\$22.40
Tunnel claim, N and S vein, trench in vein croppings, 10 feet deep, 18 feet of trench sampled.	75.20	75.20

#### MINERALS IN THE ORES

Gold occurs free and in the iron sulphides. 60 to 75 percent of the values contained is usually amalgamatable; a high percentage of the balance is recoverable with cyanide process; or the ore can be ground fine and cyanided direct, dispensing with the amalgamating process.

In some ore-shoots of the district a small amount of copper sulphides are present but none of them appear in the Surprise or Tunnel ores.

One sample of Surprise ore showed no colors, in the pan, but was heavy with sulphides and assayed in gold \$4.80; another sample treated in an amalgamating pan to free the sulphides of any free gold present, the sulphides separated from the gangue, gave an assay of the sulphides in gold \$25.83.

The presence of gold with the sulphides, in them is generally regarded with favor by Engineers because the sulphides will continue in depth and if mineralized in the upper levels with precious metal will most likely continue to be mineralized on lower levels.

#### CONSLUCIONS

The amount of work performed on the ore-shoots of either group is very limited. Many excellent and profitable properties have been developed from no greater showings of ore near the surface than are to be found here. The metallurgy presents no difficulties; bullion can be made on the ground.

I can unhesitatingly recommend the properties of the Western Nevada Mines Company for development, with the expectation of ample returns to the investor for the money expended. Both groups are excellent potentials.

B. P. Howell.



*Guild attached*

*1190 0052*

*Oster*

*181*  
*Item 12*

April 2, 1957

Haas. Oster,  
Room 918  
405 Lexington Ave.,  
New York City

Dear Mr. Oster:

This is to report progress on Como examination and report.

I am sorry for delay which has been caused by adverse weather conditions. Leranger and I went to the mine March 18th. but it was too windy to use the transit and since then we have had few good days. I have spent 8-days at Dayton office checking and correlating Como maps, Sections, Assay plans etc. into the maps I am preparing for the report.

Another delay which I had anticipated and so informed you was necessity of bulldoze supervision at Castle Peak mercury mine where, I am pleased to say, the work has born out my geology and during the past week opened up another extensive ore deposit which might provide equivalent to the old open stope mine whose production @ present mercury prices would have been close to \$1,000,000. The sampling of new showing will be supervised by another engineer and thus will not interfere with my other work.

Bohanon is to phone me this week when we can arrange to go over Rochester equipment. Joe. Grismer spent the morning here with me, March 24th. and we went over map and sections prepared by me and I gave him all available information re the Como shaft, etc. He is to get in touch with you.

I enclose copy of my letter to Judge Guild who wrote that you had advised him to get in touch with me to visit a silver-copper and a barite property 16-miles from Mina, Nevada and also a placer property 5-miles NW from Yerington.

I expect to have all data and report ready by April 8th.

With best regards,

Yours sincerely,

(Arthur Lakes)



April 2. 1957

Clark J. Guild,  
340 Minnesota Street,  
Carson City, Nevada

Dear Mr. Guild:

Answering yours of March 29th.

In accordance with Mr. Oster's advice to you I shall be glad to arrange inspection of the silver-copper and barite deposits near Mina and the placer near Mason Pass as soon as I can complete present commitments which I hope will be around April 12th.

I shall get in phone touch with you at least 2-days in advance to give you time to make arrangements.

With best regards,

Sincerely yours,

(Arthur Lakes)

cc- Chas. Oster



**GUILD, BUSEY & GUILD**

ATTORNEYS AND COUNSELORS AT LAW

CLARK J. GUILD  
DOUGLAS A. BUSEY  
CLARK J. GUILD, JR.  
HOWARD L. CUNNINGHAM

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FAIRVIEW 2-8689

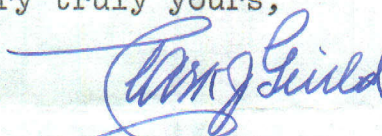
March 29, 1957

Mr. Arthur Lakes  
700 Forest Street  
Casson Apartments  
Reno, Nevada

Dear Mr. Lakes:

In conversation with my good friend Charles Oster last week he advised me to get in touch with you that you may go with me, at your convenience, to visit a silver-copper property and a barite property in the Palmico District approximately sixteen miles in from Mina, Nevada, and also a placer property in Mason Pass approximately five miles northwest of Yerington. I shall be glad to accompany you to these properties at your convenience if you will give me two or three days' notice by either writing me at my address, 340 Minnesota Street, Carson City, or telephoning me, Granite 2-3143.

Very truly yours,



CLARK J. GUILD

CJG:lg



181

Item 12

Reno, Nevada  
March 15, 1957

Chas. Oster,  
Fairmont Hotel,  
San Francisco, Calif.

Dear Mr. Oster:

Re Como Examination

Confirming our agreement March 14th.

After going over Como ground I concluded that the work requires instrument surveying. Because the time required for this work cannot be predetermined I consider that your interest would best be served by my contracting the work rather than proceeding on per diem basis.

It was mutually agreed that I contract the examination, mapping and report for \$1000.00 plus out of pocket expense inclusive of my car travel @ 7¢ per mile, prints of maps, and any assay expense I may incur. It was agreed that I be paid \$500.00 down and on receipt of report by you I am to receive the \$500.00 balance plus such increased expenses.

I acknowledge receipt of \$500.00 paid to me March 14th.

With best regards,

Yours truly,

(Arthur Lakes)



Reno, Nevada  
May 3, 1957

Clark J. Guild,  
340 Minnesota Street,  
Carson City, Nevada

Dear Mr. Guild:

Re my letter to you April 2nd.

My recent report for Mr. Oster required much more exhaustive research and examination than we had expected which delayed final report to April 22nd. In the meantime other commitments have held me back to this date.

I expect to be in Carson City early next week and will phone you from here so that we can make a date to meet at your convenience.

I am sorry if the delay caused you any inconvenience.

With best regards,

Yours sincerely,

(Arthur Lakes)



1190 0052

(81)

Item 12

December 13, 1958

Chas. Oster,  
c/o Lewis L. Clarke,  
135 Broadway,  
New York City

Dear Mr. Oster:

Re your phone call last night.

Herewith are: (1) Claim Map of Amco & Como Mines properties. I also enclose a print with color to differentiate the claim groups, show the essential 300 and Boyle tunnels. (2) Plan and Longitudinal Section Como mine. (3) Plan of Gold Shoot. I hope these will serve your purpose.

If you have not already sent the check will you please enclose in the envelope addressed to me as included herein. I shall leave here early morning of the 18th. which would be too late for mail to reach me otherwise.

I sincerely hope you will meet early success. With best regards,

Sincerely yours,

(Arthur Lakes)



1190 0052

(181)  
Item 12

SUMMARY REPORT  
ON THE  
COMO MINES COMPANY PROPERTY

Lyon County, Nevada

Como Mines Company's 38-mineral claims cover the entire mineral zone of the large crossing Como and Rapidan Lode systems in geologic setting similar to Nevada's best gold-silver mines inclusive of the famous Comstock Lode with its \$800,000,000 production 11-miles distant.

The mine workings are reached by a 10-mile mountain road from company office at Dayton which is on paved highway leading 42 miles to supply and railroad center at Reno. High tension electric power lines cross the property within a few hundred feet of Como operating shaft and serve this mine area.

The property contains a network of strong veins partly opened to about 500-feet below surface by Como and Rapidan mine workings. They are enclosed in andesitic phase of volcanics that cover most of western Nevada and which constitute host rocks for the state's better gold-silver mines. The veins were formed by stresses set up by uplift of Sierra Mountains at same period and under similar conditions that formed Comstock Lode, Bodie and Aurora camps and others and Como and Rapidan vein structures may be expected to continue thousands of feet deeper than present mine bottoms.



The lode systems comprise (1) the most extensive Como-Mont Como system in a belt about 1300-feet wide including Como and other strong veins for more than 1-mile in easterly direction and (2) the crossing Rapidan lode system with Rapidan, Star of West and other strong veins in a belt about 1000-feet wide striking northerly for over 1/2-mile.

The commercial ores occur in zones of premineral crushing at vertical and horizontal vein bends, vein branchines or "Vs" and vein intersections that occur in ore shoots plunging down at low angle to the east so that the veins of Como Lode system will attain longer and progressively deeper ore as work extends easterly along them, a condition illustrated on accompanying Section and highly important to Como Mine's development program.

The ores are essentially gold-silver with approximately 1% copper in the primary ore, mostly in form of tetrahedrite which contains high silver values. In the oxidized zone above Como's 250-foot horizon the depletion of tetrahedrite by solution has also reduced much of the silver value in the ore as is reflected by change of ratio of silver to gold at 50-oz. silver to 1-oz. gold in the upper part of oxidized ore versus around 105-oz. silver to 1-oz. gold in the deeper ore which shows strong silver associate with the tetrahedrite and is indicative of high silver to gold in the stabilized primary ore zone.

The above conditions will require a combination flotation and cyanide mill to make adequate saving of (1) copper-silver in primary



ore together with gold and silver values locked up in the sulphides and (2) to extract by cyanidation the free gold-silver formed in the oxidized ore.

Como's Assay Maps, recording about 1000-samples, show \$10.50 gold-silver from 5 to 20-feet width in oxidized zone from surface down about 250-feet. About 250-feet length of primary ore opened at the beginning of the downward extension of ore-shoot at east end of the 500-Level averaged \$16.50 gold-silver per ton with reported 1% copper probably contained in the silver bearing tetrahedrite. At present 25¢ per copper pound about \$5 would be added to the primary ore's gross value to \$21.50 per ton. Arithmetical mean of the \$10.50 oxidized ore with the indicated \$21.50 primary ore is \$16 indicated average per mine ton which, at probable 90% recovery by modern flotation-cyanide milling would return about \$14.40 per ton. Estimated mining and milling costs @ 100-tons per diem are \$7.40 per ton leaving an indicated \$7 per ton operating profit before taxes and overhead.

Geologic evidence and underground ore showings strongly indicate that Como veins' better ore possibilities occur in the presently unexplored area between Como mine's east working faces and Star of West vein, in ore shoots with low angled down rake to the east as shown on accompany Section. This potential ore zone includes wholly unexplored ore possibilities of Como veins and ore probabilities at their respective intersections by the strong crossing veins of Rapidan Lode system.



### Exploration Program

Accessibility of mine workings, present ore showings and extension indications, plus mining conditions make resumption of underground operations of primary concern in Como mine with Rapidan underground operations secondary for the present, whereby Rapidan veins' showings disclosed at intersection with veins of Como system will be followed by drift development off from Como workings.

The present exploration program is confined to Como mine's 300-Level and above it by the following procedure: (1) Rehabilitate Como shaft to the 300-Level and also rehabilitate 300-Level to its eastern face. Estimated cost \$20,000 which will be greater or lesser according to presently unknown conditions to be disclosed by safe inspection. (2) Extend 300-Level and about 350-feet easterly along ore favorable extension of Como Gold vein to its abutment with Star of West vein estimated cost \$10,000. (3) Frequent crosscuts to Como vein and drifts out in its better ore showings, estimated 650-feet @ about \$20,000 cost. (4) Exploratory drifts in orebearing cross veins and branches that may be found, footage unknown but allowance 300 to 400-feet @ \$12,000 estimated cost. (5) Probably three 100-foot upraises to start ore extraction in each Como Gold and Como veins, total six upraises, 600-feet @ \$9,000. (6) Underground drilling to determine downward ore conditions and/or vein intersections as warranted by conditions found in exploration-development work @ \$15,000 allowance. (7) Preliminary exploration of the ore between Como shaft and Star of



West vein down to 300 feet may be accomplished by surface drilling  
@ about \$20,000.

When the development program has progressed sufficiently  
to prove adequate ore reserves consideration can then be given to con-  
struction of a combined flotation-cyanide mill. Plant of this type should  
be available at around \$75,000 from nearby mines when needed.

#### Capital Requirements

The Company has an option to purchase full mining equipment with which to start operations for	\$ 20,000
Requirements for underground rehabilitation	20,000
Requirements for underground tunnelling, raising, etc.	50,000
Requirements for underground drilling	15,000
Requirements for surface exploration and drilling	20,000
Supervision and miscellaneous	<u>15,000</u>
Indicated total to explore and develop the mines to probable 100-tons per diem production for subsequent milling and production	\$140,000

#### Conclusion

Como mines' past production is reported to exceed \$1,000,000.

The underground showings and geologic evidence strongly indicates that  
the better ore possibilities of Como veins are still undeveloped in  
unexplored gap between the Como mine's east faces and the Star of the  
West vein and, on basis of Capital expenditures recorded herein, should



SUMMARY REPORT  
ON THE  
AMCO MINES CORPORATION PROPERTIES

Lyon County, Nevada

Amco Mines Corporation owns a 35-year lease on 27 Como Mines claims that have the best ore potentialities described in accompanying Como Mines Report. Amco also has 10-mineral claims adjoining Como property. The claims are in same geologic setting as Como and are traversed southerly and southeasterly by strong members of Como's important Star of the West vein system. These veins are crossed by strong northeasterly veins which are southern members of the important Como-Monte Como vein system.

The Amco veins were opened in early days by shallow shaft workings which shipped ore to custom mills near Dayton and are also reported to have provided some of the richest ore of the entire district.

Amco claims are 11-miles over Lyon County road to Dayton, thence paved highways lead to supply centers at Carson City and Reno. High tension electric power line to Yerington passes along Amco's north boundary.

Amco's exploration plan essentially concerns the exploration-development program projected for Como Mines and described in accompanying report. However, Amco plan modifies the proposed Como procedure as follows: (1) Retimber and rehabilitate Como shaft to 100-Level. Rehabilitate eastern part of 100-Level, possibly drive a crosscut, and



establish a Drill station. (2) Drill from the station (a) holes to southwest to test extensions of Yerkes cross vein from its explored locality at 500-Level up to 300-Level. (b) Drill a series of holes down to the northeast and east to test holes both Gold and Como veins at and below 300-Level, especially in the gap between Como shaft and Star of the West vein giving special attention to the "Vs" formed by vein intersection. This drilling program is listed at \$25,000 under Capital requirements of Como Mines report.

Results from this drilling program will direct procedure in completing rehabilitation of Como shaft down to 300-Level and extending the 300-Level exploration as outlined in the Como report.

#### Amco Claims

Amco's 10-claims lie southeast of Como property and cover the strong Peak vein for 3000-feet southeasterly. They also include indicated southerly extension of Star of the West vein for approximately 2000-feet from where it passes out from Como ground.

The Peak vein is known to be crossed by four strong northeast striking veins and is also junctured by Lucky Fraction vein at north shaft. These occurrences and relationships are shown on accompanying map of Amco and Como properties.

Four shallow shaft workings of early days show conclusively that the Amco ore showings were best exposed at "Vs" formed by vein crossings and junctures of the strong Peak vein by northeast striking veins shown according to the map.



Shaft "A" is located at branching of Peak vein about 300-feet southeast from property's north endline. The shaft is caved but is surrounded by the largest of the property's dumps liberally stained by iron mineralization. Indications of fairly extensive workings around 100-feet depth and operational reports indicate that ore running from \$11 to \$20 per ton (gold @ \$20.67) was shipped for treatment at custom mills near Dayton. Some high grade ore is reported in the last monthly report of 1920 "with bottom persistently carrying higher values".

Shafts "B" & "C" are located 400 and 500-feet respectively to southeast from Shaft "A". They are on the same strong Peak vein and caved shaft "B" is located on Peak vein's intersection by a strong northeast striking vein and it is quite evident that the ore localization occurred in the intersectional "V". Shaft "C" is open and timbered down about 70-feet. It could be made accessible should occasion arise. Tunnel "F" 218-feet lower than collar of shaft "B" was projected about 100-feet to tap the downward extension of the "B-C" ore zone. X

Shaft "D" extends down 35-feet at a point 800-feet SE from Shaft "A" or 1100-feet south from the north endline. This was the Discovery shaft for this claim and is reported to have produced ? some of the richest gold-silver ore of the entire district. It is located at intersection of Peak vein by a strong northeast striking vein. At 750-feet NE and 220-feet lower elevation is Tunnel "E" driven 300-feet SW



towards shaft "D". This would encounter the encouraging intersection at the deepest depth of the property and would provide the cheapest and quickest exploration means to get into geologically significant locality.

CONCLUSIONS The Amco veins have produced good ore according to reports provided some of the camp's richest gold-silver values. Their geologic setting coincides with that of Como veins hence the indicated conditions of the latter can be applied to Amco. They encompass (1) Best ore expectancy at the "Vs" already indicated at Amco, (2) expectancy of higher grade silver-gold ores in zone of secondary sulphide enrichment at or about 400 to 500 feet below vein outcrops. (3) Ore localization along steeper dip flexures of the various veins and also along strike changes.

The Amco veins warrant further exploration. This can be cheaply performed. Their exploration should await the successful completion of Amco's exploration into Como veins. *HP*

*Arthur Lakes*  
Mining Engineer & Geologist

Reno, Nevada

July 15, 1958



SUMMARY REPORT  
ON THE  
COMO MINES COMPANY PROPERTY

Lyon County, Nevada

Como Mines Company's 38-mineral claims cover the entire mineral zone of the large crossing Como and Rapidan Lode systems in geologic setting similar to Nevada's best gold-silver mines inclusive of the famous Comstock Lode with its \$800,000,000 production 11-miles distant.

The mine workings are reached by 10-mile mountain road from company office at Dayton which is on paved highway leading 42-miles to supply and railroad center at Reno. High tension electric power lines cross the property within a few hundred feet of Como operating shaft and serve this mine area.

The property contains a network of strong veins partly opened to about 500-feet below surface by Como and Rapidan mine workings. They are enclosed in adesitic phase of volcanics that cover most of western Nevada and which constitute host rocks for the state's better gold-silver mines. The veins were formed by stresses set up by uplift of Sierra Mountains at same period and under similar conditions that formed Comstock Lode, Bodie and Aurora camps and others and Como and Rapidan vein structures may be expected to continue thousands of feet deeper than present mine bottoms.



The lode systems comprise (1) the most extensive Como-Mont-Como system in a belt about 1300-feet wide including Como and other strong veins for more than 1-mile in easterly direction and (2) the crossing Rapidan lode system with Rapidan, Star of West and other strong veins in a belt about 1000-feet wide striking northerly for over 1/2-mile.

The Commercial ores occur in zones of premineral crushing along steeper parts of vein dip flexures, along horizontal vein bends, and particularly in "Vs" formed by vein intersections, a condition that largely dominated ore localization of "the bonanzas" of the famous Comstock Lode and also location for better ore showings of other Nevada gold-silver camps.

Whilst the individual ore shoots extend steeply downward they form in a zone of low angled rake to the east hence work in that direction will penetrate progressively deeper into the ore zones as illustrated on accompanying Stope Map.

The ores are essentially gold-silver with approximately 1% copper in the primary ore, mostly in form of tetrahedrite which contains high silver values. There is a decided increase in the silver-gold ratio in all of the veins as depth is gained. At around 300-feet below the surface the ratios are in the order of 40-oz. to 60-oz. of silver to 1-oz. of gold while in the Gold ore shoot near the Boyle level the ratios range between 73-oz. to 137-oz. silver to 1-oz. gold. The downward migration of silver is proved and ratios are increasing as depth is gained giving



expectancy for higher silver values in a zone of secondary sulphide enrichment below the Boyle level as shown by high values on accompanying "Plat of Gold Shaft at east end of Boyle Tunnel."

The above ore conditions will require a combination flotation and cyanide mill to make adequate savings of (1) gold and silver values locked up in the sulphides and (2) to extract by cyanidation the free gold-silver formed in the oxidized ore.

Como's Assay Maps recording about 1000-samples, show \$10.50 gold-silver from 5 to 20 feet width in oxidized zone from surface down about 250-feet. About 250-feet length of sulphide ore opened at the beginning of the downward extension of ore-shoot at east end of the 500-Level averaged \$16.50 gold-silver per ton with reported 1% copper probably contained in the silver bearing tetrahedrite. At present 25¢ per copper pound about \$5 would be added to the primary ore's gross value to \$21.50 per ton. Arithmetical mean of the \$10.50 oxidized ore with the indicated \$21.50 primary ore is \$16 indicated average per mine ton which, at probable 90% recovery by modern flotation-cyanide milling would return about \$14.40 per ton. Estimated mining and milling costs @ 100-tons per diem are \$7.40 per ton leaving an indicated \$7 per ton operating profit before taxes and overhead.

Geologic evidence and underground ore showings strongly indicate that the veins will provide higher grade ore in a zone of Secondary sulphide enrichment-high in silver-below the Boyle Tunnel horizon and



that better ore possibilities occur in the presently unexplored area between Como mine's east working faces and Star of West vein, in ore shoots with low angled down rake to the east as shown on accompanying Stope Map. This potential ore zone includes wholly unexplored ore possibilities of Como veins and ore probabilities at their respective intersections by the strong crossing veins of Rapidan Lode system.

#### Exploration Program

Accessibility of mine workings, present ore showings and extension indications, plus mining conditions make resumption of underground operations of primary concern in Como mine with Rapidan underground operations secondary for the present, whereby Rapidan veins' showings disclosed at intersection with veins of Como system will be followed by drift development off from Como workings.

The present exploration program is confined to Como mine's 300-Level and above it by the following procedure: (1) Rehabilitate Como shaft to the 300-Level and also rehabilitate 300-Level to its eastern face. Estimated cost \$14,000 which will be greater or lesser according to conditions to be disclosed by safe inspection. (2) Extend 300-Level about 350-feet easterly along ore favorable extension of Como's Gold vein to its abutment with Star of the West vein, estimated cost \$10,000. (3) Cross-cuts to Como vein and drifts out in its better ore showings, estimated 650-feet @ about \$19,500. (4) Probably three 100-foot upraises to start ore extraction from each Como and Gold veins, total 6-upraises, 600-feet



@ \$9,000. (5) Underground drilling to determine downward ore conditions of ore found @ \$25,000.

When the development program has progressed sufficiently to provide adequate ore reserves consideration can then be given to construction of a combined flotation-cyanidation mill. Plants of this type should be available at around \$75,000 from nearby mines when needed.

Capital Requirements

The Company has an option to purchase full mining equipment with which to start operations for	\$20,000
Requirements for underground rehabilitation	14,000
Requirements for tunnelling, raising, etc.	38,500
Requirements for underground drilling	25,000
Supervision and overhead	<u>12,500</u>
Total	\$110,000

CONCLUSIONS Como Mines' past production is reported to exceed \$1,000,000. The reported underground showings and geologic evidence strongly indicate that Como's better ore possibilities are in horizons below Boyle Tunnel level and particularly in the unexplored gap between the mine's east faces and the Star of the West vein. The capital expenditures recorded herein should put the mines into condition for profitable production by mill installation.

I recommend proceeding with Como mine exploration as outlined.

Reno, Nevada  
October 23, 1957

Arthur Lakes.  
Mining Engineer & Geologist



COPY

Dayton, Nevada

October 4, 1938

Mr. Samuel H. Dolbear,  
Como Mines Company,  
Dayton, Nevada.

Dear Mr. Dolbear:

I shall list in this letter only the possible ore areas indicated within the areas explored by the Boyle Level and Como and Rapidan Mine workings. I have made no surface geology study and hence cannot safely speculate outside of the mapped areas.

GENERAL.

The work to date has shown that the favorable structures for ore are junction of vein structures or fault structures, curves in the strike or in the dip of the veins. The Como history suggests that the steeply dipping parts of the veins are more favorable than the flatter parts. The Copper Shoot stopes average about vertical in dip.

YERKES, BUCKEYE and COPPER SHOOT.

The Rapidan structure in the Como Mine appears, at the Boyle Level, to be the source or path of the mineralization in the Buckeye Mine. The Buckeye and Copper Shoots are probably due to junctions between the several members of the Como vein groups. These junctions rake down to the east at about 45° joining the Yerkes cross structure at or near the Boyle level. Below the Boyle level the Yerkes vein may be the main "west" oreshoot. The idea is strengthened by the fact that there



is very little mineralization for 300 feet in the hanging wall of the Yerkes vein and fault on the Boyle level. The best part of the Yerkes stope was at the north manway which may be the junction of the north vein and Yerkes fault. Diamond drilling from the east Boyle workings will test this paragraph.

#### "GOLD" SHOOT.

A study of the silver-gold ratio in the Gold Shoot shows that the Boyle level is enriched in silver, probably with some secondary content. The 425 level, about 130 feet above, shows a lower silver-gold ratio (35 : 1, the Boyle level is about 100: 1). The higher levels are probably still lower in the ratio because of the name "Gold Shoot" applied to the upper levels. This strongly urges looking below the Boyle level for a high grade concentration of secondary silver with primary ore, such enrichment might extend for 200 feet or more below the Boyle level. Core drilling to determine the dip of the vein and degree of mineralization is probably a good way to test the area. A similar test for dip change might be important under the 501-502 area.

#### COMO, STAR OF THE WEST JUNCTION.

The "Star of the West" vein east of the Como shaft strikes northerly and probably dips steeply east. The junction of the Como vein and Star of the West vein might be economically interesting. To explore the area on the Boyle level and the surface would be the cheapest. The 5542 drift on the Como vein just above the Boyle level is about 70 feet from directly under the croppings of the Star of the West vein. Adding



about 150 feet for the easterly dip of the vein, the junction of the Como and Star of the West veins can be reached by 220 feet of drifting by extending the 5542 drift. This will give about 400 feet of back. Such a piece of work perhaps should wait until the tests on the other veins and shoots bear fruit.

#### RAPIDAN MINE.

The history of the Rapidan stope is not very promising, showing borderline ore values. No promising continuous lengths of ore show up on the assay maps and stopes and the Boyle level seems particularly low in the areas explored. The main curve in the vein near where touched by the Boyle level drill hole (see my geological map dated 11/27/35) is the most attractive spot for a test by drifting. Oxidation is apparent at the Boyle level and is reported at the winze bottom (1936) which suggests a deeper search for primary and secondary silver enrichment. The winze is at a poor structure position with regard to ore values. It would have been better to put the winze nearer a more favorable structural feature such as a warped part of the vein. The Ag:As ratio averages near 55 : 1 as shown by several samples above the 300 level. This seems rather high for oxidized vein material but the primary shoot may have been much higher. I do not know what the ratio is for the lower level samples.

#### EGLIN MINE.

The Eglin Mine is at a bend in the strike of the Eglin vein. It is oxidized from the surface to the Boyle level, and probably deeper.



A wide quartz band is along the footwall section and much calcite in the hanging wall. Spots of ore have been found in both parts of the vein matter. There is an excellent possibility of finding primary and secondary silver enrichment below the oxidized portion of the vein. (Perhaps 200 feet or more below the Boyle level). This can probably be easily tested by drilling from the Boyle haulage adit east of the Eglin Mine.

5093 DRIFT (Frederick Vein).

This short drift is probably an inadequate test of a vein showing both good and poor values. The vein where exposed is quite oxidized and is low in silver, again suggesting that a rich primary-secondary silver shoot may be found below the Boyle level. The east extension of this part of the vein can be tested below the Boyle level by drilling from the Boyle adit between the Eglin and 5093 drift. This vein may be the same as the Eglin vein.

GENERAL.

Other tests by core drilling might well be worthwhile but the geologic observations at the surface should be used to plan or check whatever favorable structural features show up by projection of the known underground structures.

According to some writers, general propylitic alteration in silver-gold districts such as is seen at the Como properties, is an indication of fairly deep seated sources, indicating possible orebodies to depths



of 1000 to 3000 feet. The volcanic type gold-silver deposits, on the other hand, are not accompanied by prophyllitic action and are relatively shallow.

Yours truly,

Signed/ Francis Frederick.



181

Item 12

