3800 0002

(191)
Item 2

Report on the

NEVADA RAND MINE

SILVER-GOLD

By S. E. MONTGOMERY
U. S. Mineral Surveyor and Engineer

Nevada Rand Mines Company
10-11 Fordonia Building, Reno, Nevada.
P. O. Box 152.

November 1st, 1919.

Dear Sirs: As the result of a second examination of your property located in the Rand Mining District, Mineral County, Nevada, I submit the following report:

Developments, improvements and shipments made since my last report and survey in August, 1917, furnish additional working data. The new work performed on the various levels enables a more definite conclusion as to the extent of the ore chute shown by present workings. New timbers and ladders give free access to all parts of the mine. The new assay office on the ground makes prompt and accurate checking of values possible. To the holdings of the Company have been added a 40-50 ton mill, now located 13 miles north of the property; and 40 acres of new ground, comprising two full claims, adjoining the Extension No. 1 claim on the west. Your records show the shipment of 8 cars of ore extracted in development work, the average value of this 185.24 tons shipped being $57.92 per ton or a gross value of $10,729.23. The lowest car average was $34.80 per ton and the highest $105.44 per ton, at prices of Silver then prevailing. In addition about 200 tons of good milling ore has been mined and placed on the dump. The results of this work substantiates my former advices as to the value and merit of this ground. It is now very clear that operations can be carried on successfully at a profit with a proper milling system. Local treatment will permit the reduction of a large tonnage of lower grade ores that cannot stand transportation charges.

PRODUCTION AND PRESENT TONNAGE

There is about 2500 feet of underground workings, including shaft, crosscuts, drifts and raises. These present workings alone have produced approximately $40,000 in shipping ores at then prevailing prices for Silver. There is now a sufficient tonnage of millable ore blocked out to warrant the operation of a mill, and in this manner further development can be carried on more economically. An exact estimate of the tonnage cannot be made until laterals are run from the 250-foot level, but measurements indicate that from 30,000 to 40,000 tons of good grade milling ore can be mined from the present workings alone. There is already mined approximately 1400 tons of dump ore that on surface sampling assayed from $15 to $20 a ton.

Late work shows good ore in the new stope on the 150 level south of the former drift and indicates a trend in that direction. In the new 200 level stope 6 inches of ore assayed $229.40 an average for a distance of 20 feet. High grade samples can be obtained from this new find. The disclosure of ore on the south side of the workings in the 250 level east of the crosscut also indicates that the trend of the ore body extends into south ground, and it is important that laterals be driven at this point.

DISTRICT

The Mine is located in the Rand Mining District, Mineral County, Nevada, about 90 miles southeast of Reno. It is reached either by the Rawhide-Luning road or by the Tonopah-Goldfield branch of the Southern Pacific R. R. from Nolan Station (Rand Post Office) on the east shore of Walker Lake. There is a good road from Nolan Station 17 miles northeast to the Camp. The District is open throughout the year for mining operations. On the same mineralized zone two miles southeast is the Gold Pen Mine, with an accredited production of over $100,000 in shipping ore. The Company now operating this property is installing its own reduction plant. Adjoining the Rand on the southeast is the Mims mine, now in further stage of development and with an accredited production of over $20,000 in shipping ores. With the installation of local milling plants I look for continued activity in this District, which has produced extremely rich ores.

PROPERTY

The present group consists of 7 claims approximating 110 acres as follows: Last Hope, L. H. Fraction, Thomas Fraction, L. H. Extension, L. H. Extension No. 1, Hope Extension No. 1 and No. 2. The claims are held under possessory title by the Company — the first five having been filed for by the Company since 1916 and the latter two located for the Company in April of this year.

GEOLOGY-MINERALOGY

The pronounced rock type is a Hornblende Andesite. From developments at a depth of 550 feet in the adjoining property it is quite probable that a Rhyolite formation underlies this Andesite. The Andesite occurs in different stages of alteration, from a fresh greenish rock to a softer, porous, more fractured and leached material. The workings are in an altered mineralized zone which varies in width up to 100 feet and can be traced on the surface nearly the length of the Claims.

The ore zone lies between two flows of harder Andesite, and as opened, stands practically vertical with a dip to the southwest and a general trend about north 30 degrees west. Throughout this zone the enrichment occurs in fissures varying in width from one and a half to fourteen feet. Seams of kaolin and softer material often protect the veins. Some Manganese is present in the deposit, this being particularly favorable to the deposition of ores in Nevada.

The values occur in the form of Hornsilver (Cerargyrite) and Native Gold. The deposit is oxidized and highly silicious.

The proportion of Silver to Gold values in the last 6 shipments averaged about 70 per cent in Silver values. Twenty dollar dump ore ran 90 per cent in Silver values. Samples of very high grade ores ran about equal in Silver-Gold values.

An average analysis of shipping and milling ore gave the following in addition to Silver-Gold: Silica 82 per cent, Iron 3 per cent, Lime 2 per cent, Alumina 6.3 per cent.

WORKINGS AND DEVELOPMENT

The Nevada Rand is worked by a perpendicular double compartment shaft. The ore is hoisted by an 18 H. P. Western distillate or gasoline engine. The shaft has reached a depth of 450 feet and is well timbered. Crosscuts and drifts are run from the 50, 150, 250 and 450 foot levels. All are in the direction of the foot wall side of the lode. There is an intermediate level at a depth of 180 feet. This level is reached from the winze on the 150 and the raise on the 250 level. A narrow winze now extends from the 250 level to the surface, giving good air circulation to the workings. The mine is free from water and requires very little timbering, saving two expensive items of operations.

Few of the faces as shown on the 1917 survey map have been disturbed and where so, they have been replaced with new ore showings. Late sampling shows much good ore in the new stopes. These faces are added to the new map and will be mentioned herewith.

On the 50 foot level the ground shows considerable leaching and alteration and as its character is similar to material in the cuts in the large areas of altered andesite on the Extension Claims to the north and west, it is quite probable that good deposits may be found there at like depth as in present workings. On the 150 level a new stope has been opened in ground farther south than the former drift and two cars of ore were shipped from there. Since the shipments were made the following faces of ore were sampled: 2 feet, $14; 10 inches, $33; 12 inches, $12; 10 inches, $33.90; 12 inches, $109.80; 12 inches, $4.70; 18 inches, $22.40; 18 inches, $8.20; 2 feet, $3.00; 4 feet, $5.00; 4 feet, $9.00; 4 feet, $5.60; 12 inches, $34.60; 4 feet, $5.60; 6 feet, $17.40; 4 feet, $5.40. Samples approximately 5 feet apart.

The 180 level shows good ore in the face of both ends of the drift and the ore chute 120 feet in length on this level. Newly sampled faces gave the following values: 24 inches, $5.80; 12 inches, $8.60; 16 inches, $137.00; 18 inches, $41.00; 24 inches, $27.60; 12 inches, $130.40; 12 inches, $38.20; 16 inches, $30.30; 12 inches, $74.10; 12 inches, $29.40; 16 inches, $62.80; 12 inches, $40.00. The east face sampling 3 feet 6 inches, $23.30.

Another new stope has been opened at a depth of 200 feet and is reached from the winze on the 180 level. Working records show that samples as high as $2740 a ton were obtained and ore sacked for shipment running over $200 a ton. Late samplings show the following values: 8 inches, $40.60; 12 inches, $51.10; 16 inches, $8.90; 12 inches, $3.20; 18 inches, $150.40; 12 inches, $18.60; 6 inches taken at intervals on vein for 20 feet, $229.40. The best ore is in the roof on the south side and laterals should be driven there as indications point to extended ore in that direction.

In the stope west of the crosscut on the 250 level good shipping ore was extracted. My former sampling here was 30 inches of $52 ore. After shipment the following were sampled: 2 feet 8 inches, $8.40; 2 feet, $33.60; 16 inches, $28.40; 22 inches, $9.10; 20 inches, $30.40; 8 inches, $18.40; 1 foot 4 inches, $41.30; 1 foot 8 inches, $7.60; 1 foot 6 inches, $5.20; 2 feet, $30.60; 20 inches, $39.60.

The survey will show that the 250 level drift opens the ore chute for a distance of 240 feet with practically no laterals driven on this level to determine the extent of the ore. As originally run, this drift is entirely along the foot wall side of the lode and in close proximity to it; in fact, the east drift crosses this hard Andesite intrusion to the north. Values were obtained for some distance along the south wall west of the crosscut and new work has now disclosed ore on the same wall of the east drift. Without first extending these important laterals to determine the ore fully on this 250 level, the former management sunk the shaft a further distance of 200 feet and crosscut only towards the foot wall side of the lode. No values of importance were disclosed excepting at a point about 40 feet out from the shaft, where they should be followed in a southeasterly direction. After the ore is more fully determined from the 250 and 350 foot levels, the lower workings can then be opened with greater confidence as to the trend of the ore above, and present developments warrant work in this southerly direction.

RECOMMENDATIONS

In addition to the laterals suggested on the 250 level, I recommend that the west face of this drift be extended some 200 feet into the territory northwest of the shaft. From appearances of Manganese stained quartz and values in cuts on surface work at this point, another deposit of ore similar to that already developed in present workings is quite probable. The areas of altered andesite on your Extension Claims to the northwest should also be prospected at further depth to get under the leached condition present there.

MILL-WATER TREATMENT

This year the Company acquired title to a Mill located 13 miles north of the mine on the Rawhide road. This equipment is practically new and in good condition. To replace it

now it would cost about $15,000. It consists of the following: A substantial frame structure covered with corrugated iron. One 10 foot slow speed Lane Clilean Mill of 40-50 tons capacity. This mill is operated by a 32 horsepower Fairbanks-Morse distillate or gasoline engine, 75 ton ore bin, ore sampler, Challenge feeder, Blake Crusher, bucket elevator, belting, shafting, amalgamation plates, 2 inch centrifugal sand pump. One 5000 gallon Redwood water tank connected with a deep well pump, with water at a depth of 160 feet, and operated by a 12 horsepower Fairbanks-Morse engine. This mill constitutes a complete grinding plant for your ores which are easily crushed. It is necessary to add to this Mill a Cyanide Leaching System, which can be installed at a moderate cost.

In addition to your ore tests by metallurgists, experience shows that a cyanide mill near Rawhide formerly reduced these ores and based settlement on a 90 per cent extraction. As there are no deleterious elements present in the ores to consume an appreciable amount of cyanide or other chemicals, it is an easy product to handle.

If the Mill is operated in its present location, the hauling charges on the ores there would be approximately $3.50 to $4.00 a ton under contract. There is an abundance of water to be had at all times in the flat in which the mill is now located. Some 4 miles closer to the Mine at Dead Horse Wells, it is had in quantity at a depth of only 35 feet. At another point about 6 miles from the mine, where the Electric Power line crosses the country near the Nugent Wash, the sinking of a well should meet with success. You might prospect for water by sinking a well in the Nugent Wash about a mile distant from the mine and if this proves successful, reset the mill on the property and pipe the water that distance. This would be the ideal arrangement as it eliminates all hauling of ores. This feature, however, must be left to the judgment of the management in the light of funds provided for the operation. Efforts should be made to place the mill as near the mine as water developments will permit and water prospecting will not require any great sum to determine just how close to the mine it can be had.

With the mill on the property the total mining and milling costs should not exceed $5 a ton. Up to $20 a ton may be saved on your high grade ores with your own reduction plant in operation, as compared to shipping methods. Lower grade ores that cannot stand transportation charges can then be handled at a profit.

CONCLUSION

The mine production and its present showing warrant operations on a larger scale, advancing Silver prices add to the attraction of the situation. The property is one of merit and with its own reduction plant should be placed on a profitable basis.

S. E. MONTGOMERY,
U. S. Mineral Surveyor and Engineer,
Sierra City, California.

NEVADA RAND MINES CO.

10-11 Fordonia Building

RENO - - - NEVADA

Capital $150,000 **1,500,000 Shares**

600,000 Shares in Treasury

To Stockholders:

At the special meeting of stockholders held in Reno on August 16, 1920, 768,850 shares gave written assent to and voted in favor of (no shares voting against) the resolution amending the Articles of Incorporation, increasing the authorized capital stock of the Company to $150,000 divided into 1,500,000 shares.

The amendment having been adopted by the stockholders and made effective in full compliance with the law, the increase of 500,000 shares has been placed in the Treasury of the Company, thereby providing the Company with a Treasury of 600,000 shares. It is not required that any of the outstanding certificates be changed.

WM. V. RUDDEROW, Secretary,
Nevada Rand Mines Company.

Reno, Nevada, August 22, 1920.

Ideal 774

ORIGINAL

Lot No. 393

Test 5

3800 0002

The General Engineering Co.

ORE TESTING REPORT

to

J. E. Spurr, M. E.

Cyanide

Date December, 1914.

3800 0002

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER

SALT LAKE CITY, UTAH

LOT 393

DATE December 14th, 1914

TEST 5

ORE TESTING DEPARTMENT

ASSAYS AND CALCULATIONS

OF Cyanide TEST ON Ore FROM J. E. Spurr, M. E. ~~MINE~~

SAMPLE NO.	SAMPLES	WEIGHTS LBS. GRAMS	WEIGHTS PER CENT	ASSAYS PER TON OF 2,000 POUNDS Gold	ASSAYS PER TON OF 2,000 POUNDS Silver	CONTENTS = ASSAY X PER CENT OF WEIGHT Gold	CONTENTS = ASSAY X PER CENT OF WEIGHT Silver	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Gold	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Silver
				An average sample of the ore as received was dry crushed to pass 16 mesh, mixed with 0.40% lime, saturated for 6 hours with a 6 lb. cyanide solution, leached for 6 hours with the same strength solution. After the 6 hours leaching a fresh 3 lb. solution was added and leaching continued for an additional 6 hours. The charge was then washed for 3 hours with 50% of it's weight of water.					
				Cyanide consumption 1st solution = 0.2 lbs. per ton ore					
				" " 2md " = 0.6 " " " "					
				Total = 0.8 " " " "					
	TABLE I			Total time saturating, leaching and washing = 21 hours.					
1	Heads	100.00		0.31	0.35	31.00	35.00	100.00	100.00
3	Cyanide Tails	100.00		0.06	0.14	6.00	14.00	19.35	40.00
2	Cyanide Extraction	100.00		0.25	0.21	25.00	21.00	80.65	60.00
				Showing an extraction of 80.65% of the gold and 60% of the silver.					
				Same as above except the first solution was 4 lbs. and the second 2 lbd.					
				Cyanide consumption 1st solution = 0.2 lbs. per ton					
				" " 2nd " = 0.3 " " "					
				Total " = 0.5 " " "					
	TABLE II			Total time saturating, leaching and washing = 21 hours					
1	Heads	100.00		0.31	0.35	31.00	35.00	100.00	100.00
5	Cyanide Tails	100.00		0.065	0.22	6.50	22.00	20.97	62.86
4	Cyanide Extraction	100.00		0.245	0.13	24.50	13.00	79.03	37.14
				Showing an extraction of 79.03% of the gold and 37.14% of the silver.					
				An average sample of the ore as received was dry crushed to pass 12 mesh, mixed with 0.40% lime, saturated for 6 hours with a 6 lb. solution, leached for 6 hours with the same solution. After the 6 hours leaching a fresh 3 lb. solution was added and leaching continued for an additional 6 hours. The charge was then washed for 3 hours with 50% of it's weight of water.					
				Cyanide consumption 1st solution = 0.2 lbs. per ton					
				" " 2nd " = 0.7 " " "					
				Total " = 0.9 " " "					
	TABLE III			Total time saturating, leaching and washing = 21 hours.					
1	Heads	100.00		0.31	0.35	31.00	35.00	100.00	100.00
7	Cyanide Tails	100.00		0.07	0.17	7.00	17.00	22.58	48.57
6	Cyanide Extraction	100.00		0.24	0.18	24.00	18.00	77.42	51.43
				Showing an extraction of 77.42% of the gold and 51.43% of the silver.					
	TABLE IV			Same as above except 1st solution was 4 lbs. and second solution was 2 lbs.					
1	Heads	100.00		0.31	0.35	31.00	35.00	100.00	100.00
9	Cyanide Tails	100.00		0.075	0.23	7.50	23.00	24.19	65.71
8	Cyanide Extraction	100.00		0.235	0.12	23.50	12.00	75.81	34.29
				Showing an Extraction of 75.81% of the gold and 34.29% of the silver.					
				Total cyanide consumption = 6 lbs. per ton.					

REMARKS

THE GENERAL ENGINEERING CO.

PER Ernest Taylor

3800 0002

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER

SALT LAKE CITY, UTAH

LOT 393

DATE December 14th, 1914.

TEST 5

ORE TESTING DEPARTMENT

ASSAYS AND CALCULATIONS

OF Cyanide TEST ON Ore FROM J. E. Spurr, M. E. ~~XXXXX~~

COMPARISON OF RESULTS OBTAINED IN TEST V.

Method Employed	Cyanide Consumption Per Ton	Extraction % Au	Extraction % Ag	Final Tails Au	Final Tails Ag	$ Extracted per ton Gold @ $20.00, Silver @ 50¢
Crushing to 16 mesh, leaching with a 6 lb and 3 lb. solution for 18 hours, washing for 3 hours	0.8 lbs.	80.65	60.00	0.06	0.14	$5.105 = 80.08% Ext. of Au & Ag
Same as above except using a 4 lb. and 2 lb. solution	0.5 lbs.	79.03	37.14	0.065	0.22	$4.965 = 77.89% " " "
Crushing to 12 mesh, leaching with a 6 lb. and 3 lb. solution for 18 hours, washing for 3 hours	0.9 lbs.	77.42	51.43	0.07	0.17	$4.89 = 76.71% " " "
Same as above except using a 4 lb. and 2 lb. solution	0.6 lbs.	75.81	34.29	0.075	0.23	$4.76 = 74.67% " " "

HEADS

Gold oz.	Silver oz.	Copper%	Insol.%	Iron%
0.31	0.35	Trace	93.20	2.20

Sample furnished by J. E. Spurr, M. E.

REMARKS Assaying by Union Assay Office.

THE GENERAL ENGINEERING CO.

PER Ernest Gayford

(191) Item 2

NEVADA RAND MINE

JULY 3, 1920

C. G. H. MacBride, President,
Nevada Rand Mines Company.

Dear Sir:

Having just made a personal visit to, and examination of, the Nevada Rand Mine and District, I herewith note some observations which may be of value in conjunction with the more detailed report by S. E. Montgomery dated November 1, 1919.

The Rand District is located about 17 miles northeast of Nolan railroad station on Walker Lake, Mineral County, Nevada, and a correct description of its accessibility is given in the above mentioned report.

Rhyolites and andesites of the middle and late Tertiary period appear to make up the principal rock types. So far as opened in the Rand Mine, the deposit is a series of silver-gold replacement veins in andesite. No great amount of work at depth has as yet been done in the District, but in the property adjoining the Rand on the East, primary ore in the form of chalcopyrite and argentite has been disclosed, encased in quartz boulders in the oxidized zone, at a depth of 175 feet.

The secondary ores in the Rand are composed of quartz, silica, carbonates of lime, alumina, iron and manganese oxide, with cerargyrite, argentite, native gold and occasional occurrences of argentiferous cerusite, wulfenite; and in rare instances slight stains of silicate and carbonate of copper.

To the South and East of the Rand is a series of rhyolite hills. This rhyolite appears to slope gently under the andesite overflow in which the present workings are located. I look for the present shaft to cut this contact between the rhyolite and andesite at a depth of between 500 and 600 feet, as the rhyolite hills rise again about a mile to the North and West of the shaft. At the present shaft I should judge the water level will be found at a depth of at least 1000 feet, as Walker Lake is about 1500 feet lower than the mouth of the shaft.

The Nugent Wash, which drains a large area between the Camp and the Lake, crosses the District about a mile West of the shaft. I believe that an abundance of water can be had here at reasonable depth. Where this Wash enters the flat or dry lake bed on the North side of the Gabbs Valley Range, in which the mine is located, and at a distance of about nine miles from the Camp, water is had in abundance at a depth of only 35 feet, in what is known as Dead Horse Wells. The Topographical Map of the U. S. Geological Survey shows the surface of Walker Lake at an altitude of 4083 feet; Dead Horse Wells, 4182 feet; Nugent Wash, where it crosses the Rand Camp, 5100 feet; and the Rand shaft, 5650 feet. The Gold Pen Mine, which lies about a mile and a half Southeast from the Rand, has developed water in abundance at a depth of 112 feet, within three and a half miles from their Camp in the direction of the dry lake.

The ground covering the Rand Claims lies between two hills, capped by a fresh, hard, andesite flow, and between these hills of andesite and extending almost the entire length of the Claims, is a zone of very highly altered and leached andesite. This zone is capped in spots by portions of the harder andesite overflow, especially in the vicinity of the shaft. The area of leached and altered material appears to be over 300 feet wide at the shaft, and on the Extension No. 1 claim, where it is more exposed, it is fully 500 feet wide.

This wide zone of alteration is probably an older formation than the fresher, green andesite, capping the hill, which in places extends down over the leached and altered material. The leached area is traversed by well defined and easily traced seams of mineral bearing quartz and quartz breccia. At one point on the Extension No. 1 claim, near the Northeast center stake, I took samples of this quartz breccia which assayed as follows: .24 oz Au. 2.40 oz Ag. or $7.20 per ton. This sample was taken from the surface. The zone can be traced from this point to the cabins on the L. H. Fraction Claim, or for a distance of at least 2000 feet. It is undoubtedly a belt of mineralization parallel to the one higher up the hillside in which the shaft is sunk, and the present workings opened.

My observations lead me to believe that the main source of ore will be found down the hill from the present workings, and underlying the vein system which traverses this leached area. With the exception of the surface cuts, this leached area has been almost entirely neglected in the past, but I believe it will be found of more importance when explored than the ground that has been opened up, in spite of the known value of the present workings. In fact, I believe that the present workings are but an indication of a much larger ore body lying beneath surfaces, which as yet have scarcely been prospected.

The drifts in the present workings are poorly adapted to give any correct idea of the tonnage which may be expected from the ground opened. Most of the work was performed by early prospectors, with but limited mining knowledge and entirely without surveys.

They followed their own knowledge as to where the ore should be and in consequence they did a large amount of dead work. In spite of this the 2500 feet of ground opened, which includes shaft and this dead work, has produced about $20 worth of high grade ore for each foot of work, in addition to the good ore developed and now showing in the present workings, and in my opinion the best of the ground is not yet opened.

Such work as has been done by the present management has been almost entirely in good ore; this work being principally the 150 stope, the 250 stope and the 200-foot level.

While shipments were made from the first two mentioned sections, not a great deal was shipped from the new 200 level and the samplings on this level give a good idea of the way the new ground opens up. However, in places this 200 level is as yet but two feet wide, and when it is squared and opened to proper width I look for a large, good grade, milling tonnage to be developed in this section. In the East face of this level, trending into virgin ground, I personally sampled the entire face. The face, including the gangue, gave an assay of .48 oz. Au.; 48.40 oz. Ag.; or $58 per ton. As the sample was carefully taken I consider it representative of what the drift, , which at this end is 3 feet 4 inches wide, will break for milling.

The present assay map does not represent a thorough sampling of the mine for tonnage. It merely gives an idea of some of the ore in place. An estimate of the tonnage under these conditions is mere conjecture, based upon previous experience, but from my observations I should say that Montgomery is not far wrong, provided the laterals he recommends are run.

Unfortunately the fifty-foot level and the section in the winze to the 150-foot level have not as yet been sampled. While the 50-foot level zone is mainly in leached material through which the ore has probably passed, I believe a considerable tonnage will be developed above the 150-foot level, as the presence of high grade ore in the stope above the 150-foot would well indicate.

The ore body is well oxidized as far down as it has been traced in the winze from and below the 250-foot level. I sampled ore running $188 in this winze. You will notice the course of the 50-foot level. This level appears to closely follow the course of the manganese stained quartz or the apparent trend of the ore. From the position of this level and the conditions revealed there, I believe that the West wing of the 250-foot level was opened too far West to cut the ledge traced by the 50-foot above.

An interesting feature is the presence of a two-foot streak of replacement quartz carrying values which are found at the shaft in the 50-foot level. This quartz is dipping across the shaft at about 75 degrees. No work has ever been done South of the shaft; and the 150-foot level should be extended in this direction to determine the significance of this formation.

In cutting what was first mistaken for a wall on the North 180-foot level, the present management encountered what appears to be a parallel ore body in this section, and the entire drift on the 180-foot level should be lateraled to the North, and the good faces in both ends of the drift extended.

The 450-foot level drifts were run without a survey and it is almost unnecessary to comment on why the ore was not encountered here. The map shows the position of the rich ore belt above this level, especially on the new 200-foot level, to be at least 30 feet from the vertical Southeast of the main cut on the 450-foot level. This does not take into consideration any rake or dip to the ore body. The dip of the formation is generally towards the shaft, with a slight rake to the Southeast. The ground on this level is still well oxidized, although some sulphides appear along the cross-cut. At a point 27 feet out from the shaft on the East side is a four-foot seam of oxidized material, which will probably make ore when driven far enough to get under the ore body above as shown by the survey.

I can see no reason why the rich ores should not persist well below the 450-foot level. The presence of an immense intrusion of fresh, hard, green andesite, blocking the ends of the East and West 450-foot drifts, and which is not present on the North 50-foot level, indicates to me that somewhere between the 350-foot depth and the 450-foot level the ore body has been forced in a Southerly direction from its original position; and while the survey shows that the rich ore on the new 200-foot level is farther South than the drifts on the 450-foot level, the ore body on the 450-foot, when disclosed, may really be found still farther South, owing to this intrusion.

I have failed to find any evidence of a well defined wall anywhere in the mine. This would indicate that the full width of the mineralized zone has not been explored.

The deposit is of the characteristic lode type common to Nevada territory and bears marked similarity to some of the big producers of this type. Considering the present stage of development it looks decidedly favorable and certainly warrants further development on a considerable scale. I doubt whether many of the big producers looked any more favorable at the same stage of development.

Respectfully submitted,

MARLE WOODSON, B. S.

DESERT POWER AND MILL COMPANY
TONOPAH MINING COMPANY OF NEVADA
TONOPAH, NEVADA

191
Item 2

June 30, 1920.

Mr. W. V. Rudderow,
10-11 Fordonia Bldg.,
Reno, Nevada.

Dear Sir:-

After discussion with Mr. Blackburn, it was decided that the property of the Nevada Rand Mines Company was not a suitable one for the Company.

Enclosed you will find the maps which you sent us. These proved very helpful during my visit.

Very truly yours,

COPY

191
Item 2

PRELIMINARY REPORT ON

Name and Owner. NEVADA RAND MINES CO., control owned by W.V.Rudderow, Reno, Nevada.

Location and Holdings. Seven lode mining claims, held by location only, in the Rand Mining District, Mineral Co., Nev.

Accessibility and Transportation. Fair auto roads. 17 mi. from Nolan siding on T. & G. 99 mi. from Tonopah, via Luning summit. Haul from Nolan $ 6.00 per ton.

Geology. Rocks entirely volcanic. As in the adjoining Lone Star property, all drifts and x-cuts [redacted]are in a lighter colored andesite. Here the 450 ft. vertical shaft on the F.W. side failed to strike the rhyolite found on the adjoining property.

Veins or Ore Bodies. " Vein " consists of shear zone in the andesite. Zone 20 to 40 ft. wide, often largely kaolinized, with quartz lenses carrying gold and silver. Zone apparently wedges out about 500 ft. north of shaft. Ores very similar to those on the Lone Star - oxidized, high in manganese and silica, with a total value in gold and silver of $ 50 to $ 75. Some small lenses of high grade.

Samples and Assays. As we had a fairly complete assay plan made by the owner's engineer, the time was spent in an inspection of the workings. Two samples were taken on the 50 ft. level where the assay plan was blank.

#12	4.0 ft.	.05 oz.gold	1.65 oz.silver	N. face, 50 ft. level, Showed 2" quartz.
#13	5.0 ft.	.12 "	5.48 " "	quartz at bottom of air raise to surface.

Developement. 450 ft. vertical shaft, with levels at 50,150, 250 and 450 ft. and intermediate levels at 180 and 200 ft.
About 2000 ft. of drifts, x-cuts and raises.
All surface and underground work indicates the presence of but one ore-shoot.

Present Equipment. 18 H.P. Western hoist, 30 ft. head frame, blacksmith shop, assay office, ore bin to hold about 25 tons and camp to accomodate 10 men.

Metallurgy. No data, but probably will cyanide as indicated by tests on ore from the Lone Star.

Wood, Water and Power. No timber. Water hauled 10 miles from Dead Horse wells on Rawhide flat. Nevada-California Power Co. pole line one mile away, but wires being removed.

Price and Terms. No definite price set, but will not consider a bond.

Possibilities. Limited. All development indicates but one small ore shoot of oxidized ore.

Miscellaneous. Adjoins the Lone Star property on the north. Conditions on the two properties seem identical. The ore-shoots are only 1200 ft. apart.

Conclusions. Too small for this Company.
Owner can still make some profit by shipping the remainder of his ore.

Date. 6/25/20 Report for Tonopah Mining Co. By [signature]
Report 6/28/20 of Nevada.

NEVADA RAND MINES COMPANY

10-11 FORDONIA BUILDING
RENO, NEVADA

MINES IN RAND MINING DISTRICT
MINERAL COUNTY
NEVADA

ADDRESS ALL COMMUNICATIONS TO
P. O. BOX 152
RENO, NEVADA

June 7th 1920

Mr Blackburn
Tonopah Mining Company
Tonopah, Nevada.

P.S. My good friend Huber was just here and as he suggested I send you maps direct, I am doing so with understanding that they are to be returned after you are finished with them.

W.V.R.

Dear Mr Blackburn:

Mims at Rand has written me that you are coming to Rand to look over his property with the idea in mind to make a deal and wanted to know if we were open for one.

The Rand Mine is owned by this Company. There is 1,000,000 shares at 10 cts par. 100,000 shares in Treasury and no indebitedness. I own 600,000 shares of the issued stock which was boughtin after it was put out; could also deliver all but about 100,000 shares of the total issue for a reasonable cash price-no lease and bond will be considered. Several parties have asked for options-but the mine is open for inspection and proposition to the fellow who will act.

We have lately sampled the mine and the boys at Camp have an assay map which they can show you. These faces are checked in the mine and are easily placed.

There is anew level lately opened on the 200 that is showing some very rich ore-map enclosed- In addition to the data they have there I have complete surveys and further assays here which you can see at any time.

It is only lately that I have decided to make a deal on the property realizing that I personally have not the funds to properly handle it. The title to mine and mill is perfect as can be shown. Annual work for 1920 performed.

Considerable work was done by the former managment without a survey and they got off the track in several places-but our late work has shown ore in most every section we have gone after it-pay particular attention to the position of the 50 level if you examine. In my opinion the big 150 West wing is South of the ore body and the position of the bulk of the fine ore over the 450 shows clearly that it would not be in that section where they formerly run drifts there. South Easterly work from the crosscut might pick up the downward extendion there on that 450 level.

Enclosed is a report that contains some further data that may be helpful.

As regards the water situation. I think these fellows reporting have overlooked a good bet for water at a point about a mile West of the mine, that is now covered by a townsite located in the Nugent wash. Walker in Camp can show you the place and as you will heve your own ideas about this anyway, I merely mention it as a suggestion.

Sincerely,

Wm R. Rudderow

Box 152 Reno.