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H. G. Walker
CONSULTING MINING ENGINEER
233 EAST PLAZA
RENO, NEVADA

REPORT

ON

PROPERTY OF GALENA MINING COMPANY.

AT

GALENA, - WASHOE COUNTY, - NEVADA.

The property is situated fifteen miles southerly from Reno and sixteen miles northerly from Carson City and one-half mile westerly from the paved highway joining Reno and Carson City.

THE PROPERTY.

The property consists of one patented mining claim, the Union, patent No. 37 granted in 1874, and eight claims, the Protector, Protector No. 2, Why Not, Galena, Franklin, Furnace, and Fulton, held by location, - and a mill-site of about ten acres.

TRANSPORTATION.

Galena Creek Station, on the Virginia & Truckee R.R., is situated about 55 feet westerly from the east side line of the mill-site, and a good wagon road about one-half mile long connects the mine with Reno - Carson City highway.

WATER & POWER.

Galena Creek, with a minimum flow of three hundred (300) miner's inches of water during the low season, passes through the Union and Protector claims of the property. This water can be utilized, under a 250-ft. head, to generate 200 H/P by the construction of a pipe line one-and-a-half to two miles long.

The transmission line of the Sierra Light & Power Co. from its Truckee River power plant to Virginia City passes within four miles of the property.

TIMBER.

Good mine timber and lagging can be obtained in the foothills of the Sierra mountains about three miles westerly from the property, and delivered at the mine at reasonable cost.

The lumber companies of Reno also sell mine timbers.

GEOLOGY.

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GEOLOGY.

The mine lies in the foothills between the Sierra Nevada Mountains and the Virgina Range, (a northeasterly off-shoot from the Sierra Nevadas)- and about eight miles in an air line from Virginia City and the Comstook Lode, which is located just over the summit of the Virginia Range on its eastern slope.

The early slates were crushed and shattered by an intruding eruptive hornblende andesite, the contact of which with the slate strikes about South 50 degrees West.

The ore body lies in the slate and parallels the andesite slate contact, at no great distance, and is conformable with the stratification of the slate except insofar as it has been slightly displaced horizontally by a series of North-South faults which cross the ore zone at right angles at intervals fifty to seventy-five feet apart. These North-South faults parallel the main North-South faulting zone of the eastern side of the Sierra Nevada Mountains, and probably occurred during the same period, and are closely related to it. These faults are also responsible for the ore deposition, because at the intersections the richest ore is found. The Mineral-bearing solutions, ascending along these North-South fault planes, penetrated the slate and deposited their mineral-bearing content along the slates strata, -- the deposition being heaviest close to the contact and graduadly decreasing at greater distances from it.

DEVELOPMENT.

The main tunnel starts at a point about two hundred feet westerly from the spur track of the Virginia & Truckee Railroad, and about thirty feet above it in elevation, continues in a southwesterly direction for 700 ft., at which point it cuts the ore body at a depth of 300 ft.

Then, turning slightly to the south, it continues on the vein for 700 ft., showing pay ore to be continuous for the entire distance and with the face of the drift still in good ore.

Various cross-cuts show the ore body on the tunnel level to be from 8 to 35 ft. wide. The lead-silver-zinc ore shoots predominate on the footwall side, and the zinc ore bodies with a small lead-and-silver content are found on the hanging wall side of the vein.

Eight separate stopes showing faces of ore from 6 to 35 ft. wide, with ore chutes in and in good shape, are ready to start prosuction from this level, - as soon as the compressor and air drills are installed.

Two winzes, one vertical and the other an incline, have been sunk below the tunnel level, showing good ore

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100 ft. deeper than the level, with the vein increasing in size as depth is gained.

The No. 1 raise continues on the vein from the tunnel level to the 60-ft. level, a distance of 220 ft., and cuts through pay ore for the entire distance. From the top of the raise a drift extends southwesterly on the vein for 200 ft., showing a continuous ore shoot of good grade from 4 to 15 feet wide.

At a distance of 600 ft. from No. 1 raise, another raise showing on the map continues up along the footwall of the vein for a distance of 200 ft. This raise continues through good ore for the entire distance. At a point 120 ft. above the main level from this raise, a drift extends northwesterly for 400 ft., showing good ore the entire distance. A new raise recently started at a point 60 ft. in this drift and now up about 12 ft. above this level, with about 180 ft. of backs above, shows 5 ft. of shipping ore with good mill ore still in the hanging wall side. The ore indicated by development above the main tunnel will supply a mill of 100 tons daily capacity with a sufficient tonnage for continuous operation for five years.

By developing and opening up new levels below, great reserves of ore can be blocked out.

HISTORY OF THE PROPERTY.

The mine was prospected by early-day miners in search of silver ore of high grade, but the result of their work was to develop a large ore body containing lead, zinc and silver, which at that time was not a desirable ore because of the low price of lead and zinc and of the difficult metallurgical problems in the separation of the lead, zinc and silver.

When shipments of this ore were made to the smelters, heavy deductions were made because of the presence of zinc. The development during recent years of the Froth Differential and Selective Flotation Process has disclosed that a high-grade lead-silver concentrate and a high-grade zinc concentrate can be separated out from this class of ore. This development has been responsible for the great revival in mining in the West during the last two years, especially in Utah and Colorado, where many ore bodies of this character are found. Aspin, Leadville, and Rico in Colorado have again become very active mining camps, and the mines at Park City, Bingham, and Eureka, in Utah, have paid larger dividends than ever before.

The great industrial development in the United States and Europe since the close of the World Was has resulted in such an increased demand for lead and zinc that the prices of both metals have greatly increased.

(Signed) H. L. Parker.

Examination for Treadwell Yukon Co

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ASSAYS

GALENA MINING COMPANY.

In the following assays, Lead is figured at the present market price of eight cents (8¢) per pound; Zinc at seven cents (7¢) per pound, and Silver at Sixty-five cents (65¢) per ounce.

Pb.	Zn.	Ag.	Gross Value per ton
6.0 %	8.0 %	4 Oz.	$ 23.44
42.0	10.5	32 "	102.70
35.0	8.0	29 "	86.05
1.5	32.0	2 "	48.50
3.0	4.0	3 "	10.95
4.5	26.0	4 "	42.00
1.5	12.0	1.5 "	20.17
2.5	6.6	2 "	14.50
25.0	8.0	20 "	64.24
7.0	6.0	4 "	22.20
6.0	6.0	3.5 "	20.25
4.0	2.0	3.0 "	11.15
2.5	17.0	2 "	31.10
17.0	10.0	12 "	49.00
38.0	10.5	30 "	95.00
8.0	11.0	6 "	32.10
2.0	8.0	2 "	15.70
6.0	3.0	9 "	19.65
1.5	10.0	1 "	17.05
5.0	21.5	4 "	40.70
2.0	6.0	2 "	12.90
1.5	13.0	1 "	21.25
1.0	5.0	1 "	9.25
9.0	9.0	6 "	39.90
3.0	16.0	3 "	29.15
3.0	12.0	2 "	22.90
25.0	8.0	17 "	62.25
2.0	9.0	1 "	26.45
1.0	13.0	1 "	20.45

April 15, 1926.

SUMMATION by Walker

The Parker report covers all essentials in connection with the status of this property, except that the main tunnel has five or six caves, which will have to be removed and timbers caught up before it can be utilized for any important operation. While accesible yet for preliminary inspection, it would not be wise to place a sampling crew in the mine prior to rehabilitating this tunnel.

The potential value of this property is predicated upon the reliability of the Parker report, especially as to values. While the sample values reported therein are based upon prices in excess of present market, it is possible to break them down to current prices, which results in the conclusion that values at present prices would average about 50% of the figures quoted by Parker. Type and zone samples taken from the 300 level, (main tunnel) within the last two weeks, indicate values on the average in accordance with those of Parker. Recent shipments by leasors indicate that there is no reason to discredit his sampling.

If the average values as indicated in the Parker report can be substantiated by a re-sampling, then the results of flotation tests now under way indicate the following probable economy;-

Probable average values, -

Silver, 6.8 oz., Lead, 8.8%, Zinc, 9.0 %

Newly mined silver is being paid for at the rate of 77¢ per oz. Lead at 4.5¢ returns 3¢ net, (60¢ per unit) zinc, about 1½¢ net, (30¢ per unit). These figures are being used in present calculations. The above average ore would then show a per ton ore value as follows;-

Silver, $5.23, - Lead, $5.28, Zinc, $ 2.70, - $13.21,

If 20% is deducted for extraction losses and certain smelter deductions, the average would appear to be in excess of $10.00 anyway.

Concentration ration, about 8 - 1. This means that 100 tons daily would produce 12 tons daily of lead concentrate carrying the silver values with it. This concentrate would be worth about $65.00 and would cost not in excess of $35.00 to make, mining and milling included, a profit of $30.00 per ton of concentrate. 12 tons daily @ $30.00 per ton - $360.00 per day, or about $10,000 monthly operating profit. On tonnage said to be developed, this means about $500,000 operating profit over five years at 100 tons daily or at least $250,000 final net after retiring cost of equipment, purchase price of the property and all operating expense.

The location of this property is ideal, and selective flotation is the solution to recovery problems.

H. G. Walker,

Reno, Nev., March, 1936.

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The great industrial development in the United States and Europe since the close of the World War has resulted in such an increased demand for lead and zinc that the prices of both metals have greatly increased.

Dated April 10th, 1926.

(Signed) H.L.Parker

Note: The foregoing report is said to have been made for the Treadwell Yukon Company, who took an option on this property and held it for some time, finally losing the option through default in payments. The property has only recently been available again. Treadwell Yukon is operating a similar property 50 miles easterly from Tonopah).

Memorandum on

Commonwealth - Silver Lead

Mine

Location;- 15 miles south of Reno, ¾ mile from paved highway, 250 feet from V. & T. railway, with spur track to foot of dumps.

Facilities;- Water supply from Galena Creek, over 300 miners inches running year round, 150 feet from mine dumps. Timber available from Reno dealers, or native 3 miles away. All supplies from Reno.

Development;- Mine opened by 700 ft. crosscut tunnel to the vein, 300 feet below surface. Additional levels at 80 ft and 180 feet respectively. Total of over 2000 feet of levels, raises, etc., on the vein, in ore. Ore in vein from 5 ft. to 35 ft. wide. Estimated tonnage available above 300 tunnel level from 150,000 to 180,000 tons of milling grade.

8 raises with chutes in, in good condition, Track in on 300 level clear to face. Several minor caves require to be cleaned out, and timbering caught up in a number of places. Shaft below 300 full of water but timbering apparently in good condition. Said to be in solid ore, widening with depth.

Purpose of present operation;- To open workings throughout, retimber where necessary, sample thoroughly and block definite tonnages of ore, preparatory to installation of milling facilities, presumably baaed upon differential flotation to produce a high grade lead-silver and a zinc concentrate.

Values;- 30 assays from the report of H.L.Parker, of the Treadwell-Yukon Co., show an average of 9.0% lead, 10 % zinc, and 7.0 oz. silver, which would produce a concentrate at the ratio of about 8 - 1 for the lead, and about 6 - 1 for the zinc. The lead concentrate would have a lead-silver value of about $65.00 per ton at a cost of about $35.00 per ton. With a 100 ton plant about 12 tons of lead concentrate would be produced at a net operating profit of about $360.00 per day, or about $100,000 per annum. Deductions for royalties, depletion, and all contingencies would still leave in excess of $50,000 annual net profit.

Cost of property;- No payments, aside from royalty of 10 % are required to be paid for 4½ years, so that this operation is ready to start immediately and can be conducted as rapidly as finances and organization are available for the purpose.

H.G.Walker

Feb.1-1932