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A. B. Burnett

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MINING REPORT

upon the

KRAMER HILL MINE

property of

THE GOLCONDA GOLD LEDGE MINING COMPANY

Humboldt County,

Nevada.

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(COPY)

SUMMARY

Property: Golconda Gold Ledge Mining Company, Humboldt County, Nevada. Ore averages 0.17 and 0.25 ounces in gold, with estimated tonnages partially developed of 26,700 tons of $5.00 grade and 72,000 tons of $3.40 grade: gold is free--partly as coarse gold and partly as fine gold.

Deposit is a "fault-contact" deposit. Widths from 10 to 55 feet.

Main haulage tunnel 220 feet below surface: winzes from this tunnel 50 feet: total depth below surface of 270 feet. Ground stands well and no heavy timbering needed.

Property has recorded production of more than $96,000.00.

Property equipped with steam plant and stamp mill - about 65 ton capacity; assay office, bunk houses and so forth: 14,000 foot pipe line to continuous water supply.

Exposure of best grade ore mined to bring "mill heads" up leaving the property in condition of lower grade ore exposures than is the general average of the mine.

Careful study and development of the systems of cross-faulting or cross-fracturing offers excellant opportunities.

Recommend the development of this with depth upon the cross-faultings already partially developed and also laterally to develop similar areas having surface exposures.

Property certainly justifies the expenditure of $25,000.00 for this development work; with the reasonable probability that this work will carry 80% of its cost.

cross-faulting (N, 65 E) and this faulting has a decide relation to some of the ore - shoots. One of these cross-faulting has an open-cut in it just 70 feet from shaft No. 4: another shows in the lower level at a point 60 feet south of the main shaft: and another 20 feet north of Winze No. 2.

The sequence of events was the rhyolite intruding and contacting with the andesite. Subsequent adjustment faulting and cross-faulting. This open contact was then mineralized by ascending solutions, portions of which were colloid silica and the gold was thus transported from depths to it's present position in the colloid state. These rising solutions and vapors were undoubtedly under conditions of pressure and temperature. When this condition was partially released these solutions deposited their mineral burden. Gold, under such conditions could have readily been deposited by electrolytes, such as pyrites; however the occurence of pyrite in this area is so limited and so erratic that it is very doubtful if they played a prominent part in this deposit. Pyrites and aresnopyrites are occasional found in speciments but they do not constitute even a fraction of one per cent of the mineralization.

When faulting took place and previous to the period of mineralization the andesite dropped slightly (normal fault) away from the rhyolite: in doing so a portion if it or what might be termed a section of it which parralleled the fault-plane remained. It is this andesite section which is locally called the "porphry dike" between the contact. When the mineralizing solutions encountered this section of andesite, upon both walls of which there were relatively open spaces, it permeated such open spaces. Where the section was cross-fractured it mineralized it. These statements are conclusively proven by the samples taken in the study of the possible various phases of physical condition and mineralization.

The gold is free: with an occasional incrustation of limonite. The gold is found not only upon fracture faces, but within the silicious rock itseld. Several rounded nodules were found, the perimeter of which had free gold and also fracture thru them had specks of gold. Several tests were made to determine as to whether the gold would easily amalgamate and also cynade and every test was successful. The rock, however, is very hard and the problem will be crushed one rather than a metallurigical one.

In the development of this property one very important ph se of [illegible] has been overlooked. There are four distanct cross-fracture or systems of cross-fracturing. One of these has been opened upon surface only; this is at a point of 70 feet north from shaft No. 4. one 60 feet south of the main shaft: another 90 feet north of the main shaft: and a fourth 20 feet north on winze No. 2. These fractures were spoken of at the top of this page, but a repetition will perhaps help to keep them in mind. From the study of the old stopes it seems certain that these cross-faults or fractures had a direct bearing upon the gold content of those areas. From conditions as found upon the lower level it seems certain that development below this level will open ore horizons similar to those already found provided these cross-fractures are followed. Wherever these areas were encountered there was an appreciable increase in the gold content. This is shown by the assay map.

The type of this deposit is such that there is no reason why it should not be cl ssified as a deep mine and systematic development work at depth will prove this fact.

There still remains the possibility of additional cross-faulting laterally. The surface was carefullt studied for such conditions and had there been tools and sufficient time some trenching would have been done. Eighty feet south from Shaft No. 4 and in a side canyon there is some proof that another cross-fault exists, but surface conditions precluded the possiblity of obtaining definite proof without some work.

Winze No. 2. and No, 3 are shown in plan and section so that the relation between the sheet of andesite and the true phyolite wall can can be studied. The general dip of the contact is west 82 degrees. In winze No. 2 the cross-faulting asserts itself: at this point the winze takes the dip of the andesite sheet which is east 84 defrees. The east cross-cut from the bottom shows the dip of the rhyolite as 82 degrees west. A small amount of arsenopyrites were found in this winze and they were concentrated and the concentrates assayed for gold: they carry a very samll amount of gold. Similar pyrites were found on one of the west cross-cuts from the main tunnel and similar results were obtained. The sulphides are practically barren. The last 8 feet of this winze (bottom -east side) the work is in the andesite and values very low.

Winze No. 3, is practically as good a location for ore as is No. 2 with the exception that no cross-faulting is found and values are therefore low.

Winze No. 4, is simply a cut in the bottom of the tunnel, but it is within the area of cross-faulting and some values are found.

RECOMMENDATIONS-

That the south drift, main haulage tunnel be advanced south to the point where it encounters the cross-fracturing to the north of shaft No. 4. This will be approximately 250 feet.

That Winzes No. 2 and 3 be sunk an additional 100 feet. From Winze No. 2 drift north and south, as this winze is in one of the cross-faulted area. From Winze No. 3 drift south towards that area of Cross-faulting. This work from the winzes will require about 240 feet of work. The cost of this work should not exceed $8,000.00 and should be done under a reliable man who can not only study but map the formation.

Some surface trenching should be done south of Shaft No. 4 to determine if another system of cross-faulting is there, and if found then the south tunnel should be advanced to that point. This would require an additional $2000.00.

Should this work be successful in developing an ore of $6.50 grade then your property will be in a position to demand attention from those companies who are well financed and who understand the development and operation of a large, low, grade gold property.

The writer considers that after the above work has been done that this property will have an excellecnt possibility of becoming a large gold producer; and a profitable producer when labor and supplies get back to normal.

Respectfully submitted,

C. A. PEIRCE.

ASSAY SHEET

Location.

	Width.	Gold.	Silver	Iron
Surface, Shaft No. 4, dump		0.07		
" Fault 72" No. of shaft No.4	4'	0.18		
" Outcrop 15' N of fault	3'	0.16		
" " 30" " " "	3'	0.04		
" " 30' S " "	3'	0.11		
" " 15' " " "	3'	0.15		
Shaft No. 4, 50' level (bottom Level)				
10' N. of shaft (north face)	4'	0.21		
" " 4,50' S. of shaft	4'	0.09		
125 foot tunnel level;				
North bottom Tom Welsh Stope	8'	0.22		
Center bottom " " "	10'	0.19		
shaft side of Talc Stope	9'	0.20		
N., end 125' level " "	6'	0.29		
north bottom Fyke Stope	4'	0.31		
Bottom of tunnel under Tyke Stope	4'	0.22		
Broken ore in Old Stope				
bottom of tunnel 160' S. of shaft	4'	0.06		
Cross-faulting near S. end Tyke Stope	6'	0.64	0.90	0.30
Composite of best gold sample entire mine,		0.25	0.42	Tr
" " next best grade" " "		0.17	0.20	Tr
" " " " " " "		0.15	0.16	none
" " five samples showing sulphides		0.22	0.31	0.70

Note:-

Sample results are reported in ounces oer ton of 2000 pounds for gold and silver and in percentages for lead and iron. Several samples were run for lead but negative results in each case.

Forty-six of the samples represent original weights of from 40 to 120 pounds, the balance represent smaller weights. A complete sampling of this property would require a large amount of time and the expenditure of considerable funds, and such was not justified at this time. Within their limits the samples reflect the condition of this property at the present time. For a complete sampling the mill should be placed in operation and tonnage samples mined and milled.

All rejects from samples and pulps are held for 90 days.

The record of samples shown upon the "Assay Chart" are not listed here as such a repetition is unnecessary - widths and weights showing plainly upon the chart, as 6' - 0.23 meaning a width of 6 feet and a gold content of 0.23 ounces per ton, at $20.00 per ounce would give a value of $4.60.

C. A. Pierce.

Property of
THE GOLCONDA GOLD LEDGE MINING COMPANY
Humboldt, County,
Nevada.

LOCATION-

The property is located about two miles from the town of Golconda. Golconda is situated on two trans-continental railroads, the Southern Pacific and the Western Pacific. San Francisco is 435 miles West and Salt Lake is 350 miles east.

The property is reached by a good auto road of easy grades, which is open the entire year.

The property comprises eight claims, two of which are patented and upon these two most of the equipment and work has been done. Three of the un-patented claims the titles are perfect upon, while the other three un-patented claims the company did not do the assessment work upon and did not therefore make "proof of labor". Sufficient ground is held by the company for all their requirements.

A telephone line to another property passes close to the property and for a nominal cost connection could be made to this line and thence to Golconda.

There is neither timber nor water upon the property. There is however a long-pipe-line to a point up the main canyon where a dam has been erected and this line furnishes sufficient water for camp purposes and for the mill. The writer did not inspect this dam nor pipe line.

Climatic conditions are typical of north-central Nevada: with hot, dry summers, and cold winters with some snow.

General operating conditions are excellent.

The equipment consists of 20 stamp mill blacksmiths shop, assay office, bunk and cook houses, and mill building. Construction is of wood with heavy tar-paper covering. All buildings are in fair repair but should have windows and doors boarded up and paper nailed on in places where wind has torn it loose. The mill building is of heavy construction - it is about 35 feet deep by 75 feet long and with excellent head-room. This building contains two boilers, a steam engine, and three stamp batteries. No exacting inspection was made of any of this equipment. There is one large red-wood tank just outside the mill. All small tools, such as picks, shovels, hammers, forege and anvil have either been stored in town or have been taken.

The main tunnel is tracked with heavy rails and has two large ore cars.

Only a portion of the main lower tunnel 95 feet from-125 foot level, tunnel to 220 foot level and bottom of shaft, is open and ready for trenming. All portions however, are open for inspection. The three winzes, 50 feet each can be inspected by moving the windlass to them. Winze Nos. 2 and 3, are open for work while No.1, is partly caved and some see-page water is found.

The upper workings 125 foot tunnel, level No1-and Level No2-220 ft bottom main shaft, can only be sampled and inspected in part- as some portions are caved and other portions are wide, open stopes, with no way of getting at their perimeters or backs."

HISTORY -

The property was discovered in 1907 by L. K. Kramer; although many years previous rich gold had floated had been found upon the hill. The original location was done under a "prospecting contract" and the property has remained in the original owners hands largely.

Leases were soon let upon the property and three shafts were sunk, one reaching a depth of 220 feet. After shipping the richer lenses they found that some milling or concentration scheme was necessary and they entered into an agreement with a mill then operating at Golconda. Later the company put up a small mill upon the property; this was a Lane Mill and erected largely to derive sufficient funds from development work to keep such crews going. At a still later date a bonding company erected stamps and plates. The property has b en idle for a number of years.

TUNNEL No. 1.

DEVELOPMENT -

The property has been developed by four shafts, two main haulage tunnels, and three winzes below the lowest tunnel level.

Approximately 1800 feet of work (cross-cuts and drifts) have been opened from the north and main haulage tunnel level. From the tunnel level 220 feet three winzes were sunk to depths of 50 feet. From winze No1. 35 feet of lateral work has been done; front winze #2, 120 feet of lateral work; and from winze No. 3.,48 feet of work. A fourth winze was started but reached a depth of 8 feet only. This tunnel connects with the 220 foot shaft, thru which ore from levels above are handled and provides excellent ventilation. This level is therfore named the 220 foot level or the main haulage level. Tramming from this level is direct to the head of the mill, where a small storage bin is located. It would require but ten days time and $500.00 to place this level in excellent operating condition at this time.

TUNNEL No. 2.

From the 125 foot tunnel level (the south haulage tunnel) about 390 feet of work has been done. Portal of this tunnel is 740 feet south of portal of northtunnel. This tunnel connects with the open stopes from surface to the 125 foot level. There are neither track nor cars in this level and none are necessary except for possibly taking in timbers and steel, in case the backs and lateral extensions of the old stopes were to be worked.

Upon surface there are four shafts ; one is in the main or 220 foot shaft which connects with both tunnel levels; ore 125 feet in shaft-ore at 220 feet, the other three are 50 foot shafts and were sunk by early lessees to prove ore horizons.

The main shaft and the stopes adjacent to it are in bad condition and it is not possible to inspect a shaft either by going down from the surface or from the 125 foot level. At the 220 foot level bottom shaft it is filled with ore and undoubtedly when this is drawn good connection will be had between the two levels, 220 ft., up to the 125 foot level no doubt in good order, 95 ft., This condition was brought about by past operators mining ore bodies adjacent to the shaft without protecting same.

A rough estimate of the tonnages drawn from the various stopes shows,

that 248,00 cubic feet or about 19,000 tons have been minded. From the availabel records nearly 14,000 tons of ores are accounted for. Considering the lapse of time since the property was operated this is a close check upon the tonnage and shows that most of the rock mined was ore.

The width of the old stopes shows that they varies from 10 to 35 ft. The blocks of grouns sampled from the main haulage tunnel also show this condition of widths - that stopes can be carried which will vary in width from 10 to 35 feet.

The mine is in such a physical condition that the estimate of ore reserves is not only difficult but does not reflect the exact condition of ore horizons, when such estimates arebased upon actual findings. The reason for this follows:-

When the mine was last operated an endeavor was made to raise the assay value of the "heads" or of the ore to be milled. This meant that all possible faces and exposures where a better grade of ore was found were mined and milled. This naturally left the present faces in a condition where lower gold contents would be found than in an exact average of the mine. Still another condition mitigates against a careful estimate of ore reserves; winze No. 3 was sunk at a point between the lower extensions of the two main ore-shoots. From the bottom of this winze cross-cuts were driven but no drifts were run; drifts either way for distanced of 70 to 100 feet would have encountered the north and the south extensions of these ore horizons. These drifts not having been run one cannot estimate values which are not exposed. However, values are obtained upon the floor of the tunnel where the lower extensions of these shoots should come. Still another condition mitigates against an accurate estimate of ores developed and that is that the bottom of the upper stopes are partly filled with ore, and only occasional samples can be obtained - the shaft being filled with ore, one cannot sample the sides and ends of it and consequently his estimates are materially recued from what a careful analysis would indicate the reserves should be.

The approximate estimates of present ore reserves above and below the main tunnel level follow:-

Above tunnel level -	20,000	tons of five dollar gold content,		$100,000.00
" " "	30,000	" " three "	" "	90,000.00
Below " "	6,700	" " five "	" "	33,500.00
" " "	42,000	" " three "	& 40 cts "	142,800.00

Or a total of $366,300.00 worth of ores partially developed; of this total $133,500.00 is of five dollar grade and $232,800.00 is of $3.00 to $3.40 grade.

An endeavor was made to sample narrowe widths in order to determine a tonnage of lower grade ores that could be worked upon a smaller scale; this attempt however, was not successful as the gold content is fairly regular for wide widths wherever the shoots are encountered.

The assay map herewith attached shows the locations and values of the various samples.

GEOLOGY:

This deposit can be classified as a "fault-contace deposit". There is a contact between the rhyolite upon the east and andesite upon the west. The faulting was not extensive nor severe. The average strike of this fault plane is N. 10 E., and this is approximately the line of the four surface shafts. There has also been a definite system of minor