

*Greenback West*  
*Joseph*

Porphyry Group quartz

Operators: Dr. Rex B. Rose, Graves Creek, and R. E. Reed, Meriin, Oregon

Location: Sec. 28, T. 33 S., R. 5 W. 6 miles to Wolf Creek, nearest rail-  
road. 5 miles from Laurel Camp on U.S. Highway 99.

Area: 8 claims total of 160 acres.

History: Annual assessment work done only.

Development: two crosscut tunnels were started, but the ground caved so  
badly that they have been abandoned. The last work to be  
done has been by a bulldozer making five open cuts across  
the Porphyry.

Description: No equipment. Claims are on the steep north side of St. Peter's  
Mountain at an elevation of 2000 ft. The country rock is  
andesite porphyry. Plenty timber on property and one-half  
second foot of water approved by State Water Commissioner on  
Coyote Creek. Snowfall maximum 2 ft. Work all year. No water  
power.

Geology: The andesite porphyry has general trend east and west and  
varies in dip, but generally very near vertical. There are  
many fractures in the porphyry and quartz veinlets have been  
formed in many of the fractures. The porphyry is greatly altered  
and apparently surface enrichment accounts for the values near  
the surface. There are no distinct walls and the ore can only  
be determined by testing. Pieces of porphyry which did not  
have any cracks in them were washed so that all excess material  
was off and the sample ran \$0.35. Another sample was taken  
of the quartz veinlets and run \$3.15 in gold and \$0.08 in silver.

Metallurgy: The porphyry is soft and the gold occurs free. There were no  
sulphides found. A cyanide test showed on 10 pounds ~~\$1.50~~ <sup>8.50</sup> per  
ton. The tailings run \$1.50.

Remarks: This mine has not been developed as yet, but there is sufficient  
tonnage indicated to warrant heap-leaching test.

Informant: J. E. Morrison  
9/9/37

September 9, 1937.

J. E. Morrison.

QUARTZ PROPERTY

*Greenback Dist*  
*Josephine County*

1. Name of property Porphyry Group  
Operating company (or individual) Dr. Rex B. Ross and R. E. Reed  
Address Graves Creek, Ore. Merlin, Oregon  
Location of property Sec. 28, T. 33 S., R. 5 W. 6 miles to Wolf Creek, nearest railroad.  
Acreage of holdings 5 mi. from Laurel Camp on U.S. Highway 99  
Eight claims total of 160 acres.
2. History of property, past and recent:  
Annual assessment work done only.
3. History of production: None.
4. Development: Number of levels, lengths of drifts and cross-cuts, raises, etc.:  
Two cross cut tunnels were started, but the ground caved so badly that they have been abandoned. The last work to be done has been by a bulldozer making five open cuts across the Porphyry.
5. General description and equipment on hand, topography, country rocks, elevation, timber, water, snow fall, climate, power, etc. No equipment. Claims are on the steep north side of St. Peter's Mountain at an elevation of 2,000 ft. The country rock is andesite porphyry. Plenty timber on property and one-half second foot of water approved by State Water Commissioner on Coyote Creek. Snowfall maximum 2 ft. A mild climate. Work all year. No water power available.
6. Geology - General and local. Ore geology - type of deposit, i.e., vein, mineralized zone, bed; contact relations, attitude and orientation, vein minerals, gangue, type of mineralization, alteration, enrichment, etc. The andesite porphyry has general trend east and west and varies in dip, but generally very near vertical. There are many fractures in the porphyry and quartz veinlets have been formed in many of the fractures. The porphyry is greatly altered and apparently surface enrichment accounts for the values near the surface. There are no distinct walls and the ore can only be determined by testing. Pieces of porphyry which did not have any cracks in them were washed so that all excess material was off and the sample run \$0.35. Another sample was taken of the quartz veinlets and run \$3.15 in gold and \$0.08 in silver.
7. Metallurgy - nature of ore, hard or soft, free-milling, base, direct shipping, etc. Kind of mill and equipment in use or planned, current daily tonnage of ore or concentrates, approximate value, freight rates to smelter, etc. The porphyry is soft and the gold occurs free. There were no sulphides found. A cyanide test was run on 10 pounds which assayed \$5.50 per ton, which was crushed to a minus one-quarter inch mesh and treated with a one-tenth per cent cyanide solution. The tailings run \$1.40.
8. Remarks - economics: High or low cost, principal drawbacks, reasons for success or failure, apparent life of operation based on apparent quantity of ore available. This mine has not been developed as yet, but there is sufficient tonnage indicated to warrant heap-leaching test such as being carried on at the Greenback tailings pile. The five open cuts have opened the ore body up for a distance of 750 ft. on the surface, and the difference between cut 1, which is the west cut, and cut 5 which is the east cut, is 410 feet. My sampling has been confined to cuts 1, 2 and 3.

The limits of the deposits have not been reached in any direction as far as known. The better portion which was sampled indicates a width of 30 to 50 feet. Mining with a bulldozer and treating the ore by a cyanide heap-leaching process should not cost over \$2.00 per ton. If it is necessary to develop water on Coyote Creek it will be necessary to pump it at a vertical distance of 550 ft.

The following are a list of the samples taken:

Cut No. 1, total width sampled 50 feet.

Sample No.	208	S. 12 $\frac{1}{2}$ feet	Au. \$ 3.50	Ag. -----
"	"	209 12 $\frac{1}{2}$ feet	" 9.10	" \$0.12
"	"	210 12 $\frac{1}{2}$ feet	" 1.05	" -----
"	"	211 N. 12 $\frac{1}{2}$ feet	" 6.65	" -----
" 209 was considered high and re-sampled as No. 410.				
"	"	410	Au. 3.15	Ag. \$0.08

Cut No. 2 approximately 70 feet east and 40 feet higher than Cut No. 1. Total width sampled 25 feet.

Sample No.	252	N. 10 feet	Au. \$ 2.80	Ag. -----
"	"	253 S. 15 feet	" 13.65	" \$0.08
" 253 considered too high and re-sampled as No. 405.				
"	"	405	Au. 1.40	Ag. -----

Cut No. 3, 350 feet east of Cut No. 1 and approximately 75 feet above Cut No. 1, total width sampled 32 feet.

Sample No.	244	Center 9 feet	Au. \$ 4.90	Ag. \$0.06
"	"	245 South 10 feet	" 12.60	" 0.15
"	"	408 North 13 feet	" 2.10	" -----

Miscellaneous samples taken.

Sample No.	406	Width 6 feet	Au. \$ 4.20	Ag. \$1.08
" 406 was taken across road approximately 100 feet west of Cut No. 3.				
"	"	409 Porphyry Cut 1	Au. \$ .35	Ag. -----
"	"	407 Quartz veinlets	" 3.10	" \$0.08
Cut No. 1.				

Total widths sampled was 101 feet average value of \$3.16 exclusive of samples Nos. 209, 253 and 245.

assess to estimate underground ironing, also was to find treatment - assessed  
 - how far to transport through no head average to still recovery, similar to  
 1913.

January 6, 1938.

Dr. Rex B. Ross  
Graves Creek,  
Oregon

Dear Mr. Ross:

As per our conversation on December 29th, I am giving you what information I have on the Porphyry Group worked by yourself and Mr. R. E. Reed of Leland, Oregon.

The property consists of eight unpatented mining claims held by location, located on Scoley Gulch on Coyote Creek, a tributary to the Rogue River. Further described as being in Sec. 28, T. 33 S., R. 5 W. The property may be reached by going North from Grants Pass on U. S. Highway No. 99, twenty-two miles to Laurel Camp, thence five miles east up Coyote Creek to the property. The Porphyry Group is located on the steep North side of St. Peters Mountain at about 2,000 feet elevation with abundance of suitable mining timbers on the property, with an annual rainfall of  $33\frac{1}{2}$  inches. The climate is mild and work can be done all year with ease. There is not a great amount of water on the property, but more water can be developed. According to our information you have one-half second feet approved by the State Water Commissioner on Scoley Gulch and Coyote Creek.

The country rock may be described as andesite porphyry which has been greatly altered and has an east-west strike and almost vertical dip. The gold occurs free and no sulphides were found. As a rule it is hot hard and is very easily broken for mining. There are no distinct walls and the ore can only be determined by testing. Sample No. 409 was taken for the purpose of trying to determine if the values were in the porphyry or in the veinlets, cracks or crevices. Pieces of porphyry which did not have any cracks in them were washed so that all excess material was off and the sample run \$0.35 indicating the values were elsewhere. Another sample No. 407 was taken of the quartz veinlets having a value of \$3.15 in gold and \$0.08 in silver. The results of these two samples would indicate surface enrichment in which the gold has been deposited in the cracks and crevices and it will be necessary to determine just to what depth this continues.

Two cross cut tunnels were started but the ground caved so badly that they have been abandoned. The most recent development work has been done with a Bulldozer in which a road has been constructed and the pay portion of the porphyry has been cut in five places. These cuts have been numbered numerically from one to five going from west to east. Cut one, which is the west cut, is about 750 feet west of cut five and there is a difference of 410 feet in elevation. My samples have been confined to cuts 1, 2 and 3 as per attached rough sketch.

The following are a list of the samples taken:

Cut No. 1, total width sampled 50 feet.

Sample No.	208	S. 12 $\frac{1}{2}$ feet	Au. \$ 3.50	Ag. -----
"	"	209 12 $\frac{1}{2}$ feet	" 9.10	" \$0.12
"	"	210 12 $\frac{1}{2}$ feet	" 1.05	-----
"	"	211 N. 12 $\frac{1}{2}$ feet	" 6.65	-----
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Cut No. 3.	"	409 Porphyry Cut 1	Au. \$ .35	Ag. -----
"	"	407 Quartz veinlets		
		Cut No. 1.	" 3.10	" \$0.08

Total widths sampled was 101 feet average value of \$3.16 exclusive of samples nos. 209, 253 and 245.

Two cyanide tests have been run with the following results:

Ten pounds of ore from cut No. 1 which assayed \$5.50 was crushed to minus 1/4 mesh and put in a tube about six feet long and treated with ten pounds of water containing one-tenth of a per-cent cyanide solution. After this treatment the tailings assayed \$1.40. Cyanide test No. 2 was performed in the same way except the ore was ground to a minus twenty and it was found the cyanide solution would not percolate. The purpose of using this method of testing the ore was to determine if it was susceptible to heap leaching, such as is at present being carried on at the Greenback Mine. This process consists of piling the ore up about six feet deep on a large rubber mat and pumping cyanide solution on the pile. The solution percolates down through the ore and is re-collected by the rubber mat. The solution is then treated in the regular manner. Mining and Milling should not exceed \$2.00 per ton.



#3 1-6-38 Dr. R.B.Ross

More sampling should be done on this deposit as I have not reached the limits of the deposit in any direction. Fifty or sixty pounds should be taken in each sample and ground to minus quarter inch mesh before quartering if the results are expected to check. The ore is very susceptible to cyanide treatment and test will have to be run to determine what fineness necessary to give the best recovery. My work indicates that it will not be necessary to grind any finer than minus ten at most.

Yours very truly,

J. E. Morrison  
Mining Geologist

JEM:sem