6/46

Miller Mountain Mine		Gold	
NAME	OLD NAMES	PRINCIPAL ORE	MINOR MINERALS

14 S ~~T.4S~~	R31E	SE¼ Sec.22
T	R	S

PUBLISHED REFERENCES

Oregon Metal Mines Handbook 14B:30

Grant .... COUNTY

Canyon .... AREA

5380 .... ELEVATION

5 mi. hwy. .... ROAD OR HIGHWAY

5 mi. Hwy. at Canyon City DISTANCE TO SHIPPING POINT

MISCELLANEOUS RECORDS

PRESENT LEGAL OWNER (S) Neil Nivin — Address Canyon City, Ore.

Q.L.Patterson — " "

OPERATOR ....

Name of claims	Area	Pat.	Unpat.
~~5 lode claims~~ Pettsburg #1			✓
" #2			✓
Guernsey #1			✓
Last Chance			✓

Name of claims	Area	Pat.	Unpat.
Fraction			✓

EQUIPMENT ON PROPERTY

Robie Brothers have secured an option on the **Miller Mountain** mine six miles south of Canyon City, Oregon. The 10-stamp mill has been overhauled and repaired and will treat ore from the upper levels of the mine. The property has been worked intermittently for 40 years, during which considerable ore has been mined and milled. The main drift is about 800 feet long and from this drift there are seven raises. The mine is owned by Neil Niven and Orin L. Patterson, both of Canyon City. It was operated during 1937 by the Pittsburgh Mining Company.

7/38 ONC July 1938

MILLER MOUNTAIN WORKING

Six miles south of Canyon City the Miller Mountain mine has been taken under option by the Robie Brothers. There is a 10-stamp mill on the property which has been overhauled and repaired. The mill will treat ore from the upper levels of the property.

The Miller Mountain mine has been worked intermittently for 40 years, in which time several thousand feet of development work has been completed and considerable ore mined and milled. The main drift is about 800 feet long. From this drift there are seven raises. The longest of these is 185 feet, which connects with a drift on that level. The Miller Mountain mine is owned by Neil Niven and Orin Patterson, both of Canyon City.

MILLER MOUNTAIN MINE (Gold) Canyon District Canyon Area

Owners: Neil Nivin and Orin L. Patterson, both of Canyon City, Oregon.

Location: SE¼ of sec. 22, T. 14 S., R. 31 W., 5½ miles from Canyon City and 1½ miles from the highway. The elevation of the Miller Mountain property varies from 4675 feet at the camp to 5380 feet above sea level (aneroid) at uppermost workings. It is located on the east slope of Miller Mountain, which is the partial watershed of Canyon Creek and is sparsely timbered with white pine, fir and scrub mahogany. Ample timber is on the property for all immediate needs.

Area: 5 unpatented lode claims; Pittsburg #1 and #2; Guernsey; Last Chance; and Fraction.

Geology: There are several distinct veins of true fissure type on the Miller Mountain property. The significant development to date has been on a steep pitching vein having an approximate strike of N.45° to 65° W. with a dip of 75° to 85° NE, and a vein having approximate strike of N.65° W. and dip of 45° to 50° NE. The country rock is a gabbro or diabase porphyry in which well defined veins of quartz (frequently barren) accompanied by a complicated system of seams occurs. The gold (mostly free) occurs in these seams (frequently in pockets) in quartz or calcite. A ribbon structure (bluish quartz mostly on the hanging wall side of the vein), due to shearing, is very pronounced throughout most of the length of the veins. There has been only slight movement during mineralization, as is evidenced by the infrequent occurrence of slickensides. Post mineralization faulting has taken place to some extent as shown by the sugary condition of the quartz (in places) which is the chief gangue material. Numerous small irregular veinlets cut the argillite of the hanging wall. The main vein quartz shows considerable comminution with many minor slickensides. High grade ore chutes rise from the vein into the hanging wall and widen as they go up to form pod-like lenses. The gold is said to accompany chalcopyrite (green stain is an indicator of high grade ore).

Development: There are several upper tunnels. The main tunnel, or Powell tunnel, is 800 ft. long. The Fraction tunnel is 400 feet long, and the Last Chance tunnel 1800 feet long. Stoping on the steep vein extends for well over 500 feet in many places. Altogether, there are about 4000 feet of workings. The extent of the development on the property consists of discovery cuts on each of the claims, surface cuts, or trenches tracing the different veins; two incline shafts 40 feet and 90 feet in depth respectively on the steep vein; a vertical shaft 105 feet in depth connecting the top of the #6 raise (which is on the flat vein) with the surface of the Last Chance, the Fraction, the Pittsburg, and Mill Site tunnels; also 3 tunnels on the Pershing claim; a 30 foot raise off the Last Chance tunnel, nine raises, the aggregate footage of which is approximately 850 feet and two winzes, 34 feet and 5 feet in depth respectively, off the Pittsburg tunnel, besides other minor development which does not materially enhance the present value of the property.

The Last Chance tunnel, approximate elevation of portal 5275 feet (aneroid) has been driven through the diabase porphyry dike a distance of 310 feet. Several veins were encountered, the flat vein being 215 feet from the portal of the tunnel which is the vein the Pittsburg tunnel has been driven on. 150 feet from the portal of the tunnel the steep vein was encountered. This vein, which strikes N.45° to 65° W. and dips 75° to 85° N.E. was drifted upon for 270 feet. In the first 120 feet the vein showed persistency, but was insignificant from this point to the face, a distance of 150 feet.

The portal of the Fraction tunnel, the approximate elevation of which is 5250 feet (aneroid) is 410 feet east of where the steep vein was encountered in the Last Chance tunnel, and has been driven a distance of 930 feet. This vein which is an easterly extension of the vein discussed in the Last Chance tunnel, is a well-defined fissure vein in a fracture of the diabase porphyry having an approximate strike of N 45° to 65° W. with a dip of 75° to 85° NE. The two incline shafts 40 and 90 feet respectively on the steep vein could not be inspected because of caved ground.

The portal of the Pittsburg tunnel, the approximate elevation of which is 5000 feet above sea level (aneroid) is 490 ft.E. and 150 ft.N. of the portal of the Fraction tunnel and is 250 ft. lower in elevation than the Fraction tunnel level. The Pittsburg tunnel was driven on a strong wide flat-dipping quartz vein in a fracture in the diabase porphyry having an approximate strike of N.65° W. with a dip of 45° to 50° NE for a distance of 280 feet, at which point the vein has been split by a tongue of the dike and the hanging wall quartz stringers have been followed from this point to the face of the tunnel, a distance of 570 feet. These stringers are rather insignificant in places being not more than 0.5 ft. to 1 ft. wide for 150 ft., then widening out to as much as 10 ft. of practically barren white quartz, then pinching out again to almost nothing. The Mill Site tunnel has been driven 83 feet in the diabase porphyry dike.

Two of the tunnels on the Pershing claim are caved and could not be inspected. The middle Pershing tunnel has been driven on a flat vein a distance of 15 ft. No samples were taken.

Equipment: Outside: cars, tracks, and 250 ft. wire rope tramway, blacksmith shop, boarding houses, etc. Mill: Schramm gas compressor, 1 cylinder diesel (can run only 5 stamps), 1 inch grizzly hand fed to crusher, 12 inch Dodge type crusher run by Ford Model A engine, 45 ton bin, two 5-stamp batteries,

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two 5x12 ft. amalgamation plates. Water from a spring is collected in two 10.ft. tanks, and is sufficient for only 5 stamps. Copper clogs the amalgamation plates in spite of use of metallic sodium and cyanide solutions.