

Morning Mine ✓

Gold

NAME OLD NAMES PRINCIPAL ORE MINOR MINERALS

4/26

TLOS R34E Sec.13 S1/4
T R S

PUBLISHED REFERENCES

Oregon Metal Mines Handbook 14B:82
Swartley 14:183
Parks & Swartley 16:155

.....Grant..... COUNTY

.....Greenhorn..... AREA

.....6400..... ELEVATION

MISCELLANEOUS RECORDS

..... ROAD OR HIGHWAY

.....about.12.mi..Austin..... DISTANCE TO SHIPPING POINT

PRESENT LEGAL OWNER (S) Wm. W. Gardner.....

AddressWhitney,Ore.....

OPERATOR

Name of claims Area Pat. Unpat.

8 claims x

Name of claims Area Pat. Unpat.

EQUIPMENT ON PROPERTY

REPORTS

SHIPMENT AND ASSAY RECORDS

MAPS

Plan of Workings	(vaciny)			✓
Surface & Underground	by J. Sample 1936	(2 prints)		✓
Section of Workings	by RB Mc Ginnis	(1 print)		✓
Plan of Workings & some geology	by DEH '39	(1 print)		✓

ONE Aug 1937
Morning Mine—William Gardner, is working at the Morning mine in the Greenhorn district. Mr. Gardner has been interested in the Morning mine for many years and states he is arranging to put a small mill on the property with which he will be able to treat ore mined while continuing development work.

ONE Nov 1937
Morning Mine—Wm. Gardner has during the past summer and fall made several short runs with the mill installed early in the season at his Morning mine, in the Greenhorn district. The plant made a satisfactory recovery producing a good grade of concentrates. The ore treated has been taken from the dump and from the development he is doing in the mine.

MORNING MINE (Gold and silver) Greenhorn District Greenhorn Area

Owner: William W. Gardner, Whitney, Oregon.

Location: Located 9 miles north and slightly west of Bates and 4 miles southwest of Greenhorn in the SE $\frac{1}{4}$ sec.13, T.10 S., R.34 E.W.M., at an elevation of 6400 feet.

Area: 8 unpatented lode claims.

History: Located in 1893 at which time ore was hauled from the Morning Mine to the Psyche Mill. A mill was put in 1903, and operated intermittently until 1923. The mine was taken over by W. W. Gardner in 1937. In 1938 he built a 10-ton mill, remodeled the cabin on the property and built a blacksmith shop. During 1940, 80 tons of \$20 ore were milled and 126 tons of \$40 ore shipped to the Tacoma smelter.

Equipment: Track. cars, pipe, small mill consisting of 6-inch Dodge type jaw crusher; 3-foot Hardinge ball mill; 14-foot Overstrom concentrating table; amalgamation plates, line shafts and belts. The mill is powered by a Dodge engine.

Development: Upper tunnels are caved. The lower tunnel consists of about 500 feet of crosscut to vein, and about 700 feet of drift along the hanging and foot walls. Other drifts are caved. A vertical raise was driven to the old workings which are now inaccessible. Surface prospecting consists of numerous open cuts to the northeast.

Geology: The hanging wall is predominantly greenstone; the footwall consists of greenstone, schist and serpentine. Ore lies in a 50 to 100 foot dike of altered lava, probably andesitic in nature. The developed vein lies on or near the footwall, strikes N.50° E. and dips 50° to 60° to the northwest. Above the drift in the stope the vein dip flattens to 30 or 35 degrees. The vein varies in width from 14 to 30 inches. Shoots are lenticular; values are spotty, and vary from \$15 to \$50 to the ton. A hanging wall streak of gouge accompanies the vein, varies in width from 8 to 15 inches, and assays from \$4 to \$20. The developed ore shoot is about 200 feet long and averages 3 feet in width.

Informant: W. W. Gardner; J.E.A. (9/25/39); H.K.L.(10/23/40).

"The Morning Mine in sec.13, T.10 S., R.34 E., is on the south side of the main Greenhorn ridge a little over 2 miles south of the Morris and about 5 miles by wagon road from the town of Greenhorn. This property and its extensions are in a class by themselves in this region in that they are in a mineralized dike.

"The country rock is greenstone of igneous origin, although it is so much altered that its original character is scarcely determinable. Considerable masses of serpentine are in the immediate vicinity. The ore deposit is in an altered N-S steep dipping dike. In thin section it seen to be a confused mass of altered andesine feldspars, many of which are intergrown with quartz forming a micrographic structure.

"The alteration minerals present are sericite, secondary feldspar, and secondary quartz. This rock could be called a feldspar porphyry with aplitic tendencies. Its composition shows that it is closely related to the granodiorite. The dike rock is cut by minute, quartz veins, many of which show well-formed crystals. The pyrite, associated with the quartz, has been altered to limonite, as have also the minute grains of pyrite with which the dike rock was impregnated.

"Lenticular veins of massive pyrite, approximately parallel to the walls of the dike which in some places are several inches wide, are found on the lowest or working level of the mine and apparently near the upper limits of the sulphide zone. The dike at this point is 30 to 40 feet wide, and is reported by different persons to assay from \$2 to \$5 throughout. Near the surface a stope, several sets wide, called the 'ball room stope', was mined several years ago and undoubtedly was of good grade. Most of the enriched parts have been stoped down to the lowest or mill level.

"The leasers in 1914 were mining from various parts of the mine and treating the ore in a small Chilean mill and a home-made arrastre, the latter for regrinding purposes. Amalgamation recovered a few dollars per ton and concen-

tration on revolving canvas tables was being attempted. The massive sulphides are known to be worth from \$20 to \$30 per ton and clean concentrates approximate this value, but crude methods of milling and simple cyanidation will doubtless be unsuccessful in securing a reasonably high extraction.

"A complete engineer's examination of this property together with some well directed additional exploration, might demonstrate the presence of a considerable body of ore which although of low grade would nevertheless be profitable to work."

References: Swartley 14:183
Parks and Swartley 16:155 (quoted).