

PORTLAND TUNNEL (Quicksilver)

Owner: Not known. Reported to be private land in the name of McKensey.

Location: Center of S $\frac{1}{2}$  sec. 30, T. 1 N., R. 1 E., about half a mile west of Montgomery Ward's store, Portland, Oregon.

Development and production: A tunnel located on the northeast side of the Portland hills at an elevation of 650 feet extends due west for 960 feet. There has been no production.

Geology: The tunnel is in nearly horizontal flows of vesicular lavas of the Columbia River basalt. The vesicles are frequently as large as one inch in diameter. Agglomeratic and bouldery interbeds are common and make up a large portion of the tunnel wall. These materials have been more or less altered to clay and hematite, and siliceous gel has been deposited in some of the openings. Limonite stalactites are not uncommon. Several areas 30 to 40 feet long appear to be largely hematite.

In the basalt, thin seams usually containing red hematite are common and are spaced an average of 40 feet apart. These seams strike a little east of north. The other main trend of fractures appears to be north 60° to 70° east, dipping steeply to the north.

Eleven samples were taken from the seams and the agglomeratic areas. These samples gave traces of quicksilver, in two cases as high as one pound per ton.

Report by: J.E.A., 1940

**PORTLAND TUNNEL (Quicksilver)**

**Location:** Elevation 650 ft. in the center of  $S\frac{1}{2}$  of Sec. 30, T. 1 N., R. 1 E., about one half mile west of Montgomery Ward's Store, Portland, Oregon.

**Owner:** Not yet known - said to be name of McKensey - private land.

**General Description:** A tunnel, running due west, is 960 ft. long to a clay cave-in in vesicular lava in horizontal flows.

The flows are nearly horizontal and the vesicles are frequently as large as 1" in diameter. Agglomeratic and bouldery interbeds are common and often make up a large portion of the tunnel wall. These previous materials have been more or less completely altered to clay and hematite, and siliceous gel has been deposited in some of the openings. Limonite stalactites are not uncommon. Several areas 30' to 40' long appear to be largely hematite.

In the basalt itself, thin seams form a knife blade thickness up to several inches usually containing red hematite. These are fairly common, being spaced perhaps at an average of 40' apart and striking a little east of north. The other main trend of the fractures appears to be north 60-70 degrees east, dipping steeply to the north.

Eleven samples were taken from the seams and from the agglomeratic areas, and were submitted to Mr. Williston for assay. These samples gave traces of quicksilver, in two cases as high as one pound per ton.

September, 1940

John Eliot Allen  
Geologist