

Barnes Butte Quicksilver Mine - Prineville Mine

Cinnabar

NAME

OLD NAMES

PRINCIPAL ORE

MINOR MINERALS

14 S

16 E

S $\frac{1}{2}$ 28

T

R

S

PUBLISHED REFERENCES

Dogami quicksilver map by Frederick in 1945

Crook

COUNTY

Ochoco

AREA

ELEVATION

ROAD OR HIGHWAY

DISTANCE TO
SHIPPING POINT

MISCELLANEOUS RECORDS

Shut down in 1942 when price of quicksilver dropped

PRESENT LEGAL OWNER (S) Elmer Chapin

John McKenzie

Ralph Cunningham

Address 821 E. Jackson, Monmouth, Oregon

Prineville, Oregon

Terrebonne, Oregon

OPERATOR

Name of claims Area Pat. Unpat.

Name of claims Area Pat. Unpat.

EQUIPMENT ON PROPERTY Champion rotary batch furnace

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

Barnes Butte

Cook

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Considering that neither of the owners and operators have ever done any mining, they are doing a pretty good job of it. They have hired "an old-time miner" to work for them, but luckily the ground stands very well, in spite of the fact that there has been no timbering to speak of.

I should imagine that the little furnace they have is very inefficient and probably quite wasteful. In fact they have admitted as much when they told me that they had had to lengthen the stack. Wood scrap from the mill is quite cheap, when they haul it themselves.

The extremely low dip (10-15°) of the ore shoots, and the fact that the ore is faulted means that large scale operation will probably never be possible, and they dare not drive a regular shaft to depth.

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State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

Replacing Report of March 26, 1940

BARNES BUTTE QUICKSILVER MINE (Prineville Mine)

OCHOCO AREA
~~DESCHUTES COUNTY~~
Creek

Owners: John McKenzie and Elmer Chapin.

Location: Near the center of the S $\frac{1}{2}$ sec. 28, T. 14 S., R. 16 E., W.M., about 2 miles northeast of the center of the town of Prineville, Oregon.

Area: Unpatented claims, located 1940, also patented land in SE $\frac{1}{4}$ of SW $\frac{1}{4}$ of sec. 28, purchased 1941.

History: The property was discovered in 1940 by McKenzie. Several flasks were retorted at the Whiting furnace, and early in 1941 a small three-tube furnace was brought from the Oronogo Mine and installed.

Equipment: Three-tube furnace (two 16 inch and one 12 inch tubes) truck, tools, etc.

Geology: A steep ridge rises abruptly for over 300 feet from the level upland plain, which lies north and east of Prineville. A saddle from 50 to 150 feet deep divides this north-south ridge and the quicksilver prospect lies in the crest of and across this saddle. The quicksilver zone strikes N. 50° E. on the west side of the saddle and N. 70° W. on the east side of the saddle.

The quicksilver is in hydrothermally altered rhyolite which stands up in cliffs and in bedded tuff. In the zone, both have been reduced to a white chalky material. At the crest of the saddle, a pit 20' long, about 10 feet wide and 6 feet deep exposes a lens from one to two feet in width, containing medium and high-grade cinnabar ore. A shaft 30 feet deep continues down on the south edge of the pit in decomposed rhyolite which shows colors. Apparently this body pinches rapidly in both directions. It strikes N. 70° W. and appears to dip 50° to the south at the surface and steepens downward.

Three hundred feet to the S. 50° W. of the shaft the new tunnel has been driven into bedded tuff dipping 10° south and in altered rhyolite. Ore occurs up to 8" thick (averaging perhaps 3") along the bedding planes of the tuff in shoots raking 25° west of south. Faults striking about N. 60-70° W. and dipping from 25° to vertical (most of them between 60 and 75°) offset these ore-shoots with the south side to the west. The offsets cause the apparent N. 50° E. trend of the ore-zone.

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Development: One thirty foot shaft; 150 feet of open cut and tunnel on the lower (western) level; and numerous trenches and small open-cuts. See accompanying map.

A major fault has been reached at two points in the end of the tunnel, with red gouge and grey andesite occurring on the south side of a nearly vertical east-west trending fracture.

April 19, 1941
John Eliot Allen
Geologist

BARNES BUTTE QUICKSILVER
Center $S\frac{1}{2}$ Sec. 28-T.12S.-R.43E.
Prineville - Oregon

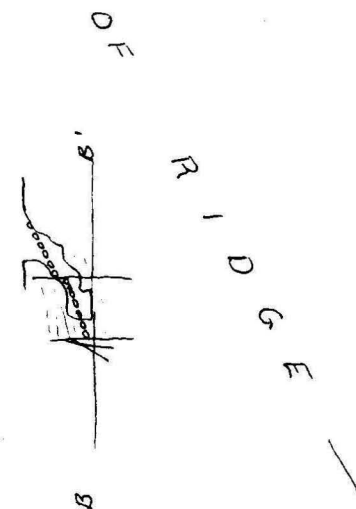
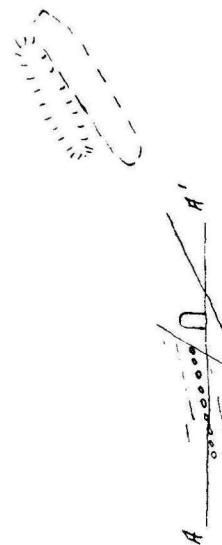
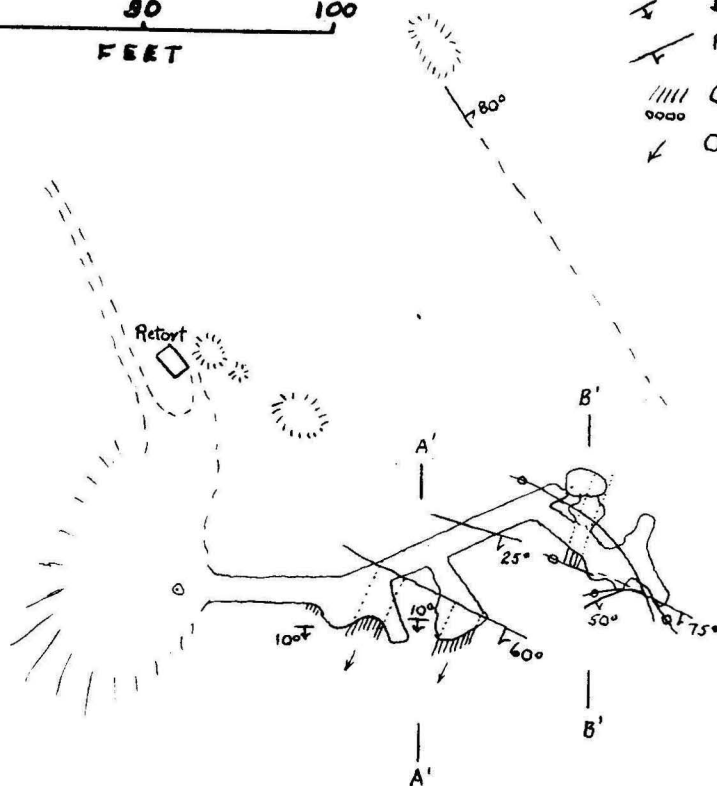
SCALE
0 50 100
FEET

↘ Dip of tuff
↘ Fault
||||| Ore
oooo Ore shoot course
↘ Ore shoot course



S
U
M
M
I
T

250' to $S\frac{1}{2}$
Sec. 28



JEH '41

Barnes Butte

retort

portal



retort

33
21
70

retort tunnel

portal

c
90

Lump
B

Lump

glacier

37°

OA

111' = 50'

30°

throw away after bull 54 published

from turn $58.5^\circ W$ measured 53 feet east 60 feet further to
caned completely - little stub runs beyond just to
220 feet at ~~25~~ feet is parallel slip dips to north
at about $35^\circ N$ - 2 feet of limonite stain
sheared material at 21 feet N? from intersect
at right angles to crosscut - 65 feet from
intersect to intersect of main x cut $N 7^\circ W$
at 60' is another shear = from intersect
 $570^\circ E$ for right to portal of tunnel
from ~~42~~ ^{onward face} 42' N wall breaks to slip parallel
x cut dip $45^\circ N$. then 50' toward portal
is fault dip $80^\circ S N 68^\circ E$ then 50' to first
cap. shear at portal strikes $562^\circ W$
(at angle to ~~cut~~ x cut) dip $64^\circ N$ shear
about $3\frac{1}{4}$ - 4' wide

Barnes Butte

tunnel N10°W shears or beds strike E-W
timbers begin at 44' ✓
sound blacky much clay breccia
eyond at 53' fault begins
in left wall N43°W also E-W dip 70°N both
at 58' volcanic agglomeration slick
in R wall drift turns
N40°W probably 30'
badly cased

sec 23 or 24 T13S R17E