

3430 0004

OAK SPRING MINING DISTRICT

(243)
Item 4

Location and access. The Oak Spring mining district is in the vicinity of Oak Spring on the southeast flank of the Belted Range near the south end of the range in T. 8 S., R. 53 E. (see U. S. Geological Survey, Tippihah Spring 15-minute topographic quadrangle map), 115 miles northwest of Las Vegas. The district is in the Atomic Energy Commission's Nevada Proving Ground, and thus is ~~not open for examination or exploitation.~~

History and Production. Some work was done in the district as early as 1905. The early activity was for gold, silver, copper, and "turquoise"; production was small. The tungsten deposits apparently were discovered in 1937. Some \$6,000 worth of tungsten concentrates were shipped in 1940.

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work

Previous Work. Lincoln (1923), Kerr (1946), and Kral (1951) give brief descriptions of the geology of the district.

The Rocks. Two and a half miles ^south of Oak Spring, Pennsylvanian limestone is intruded by a stock of granite three-quarters of a mile in diameter. Numerous apophyses of granite extend from the stock out into the limestone. The limestone and granite are partly covered by Tertiary volcanic rocks.

Contact Metamorphism. The limestone has been extensively altered to garnet and other skarn minerals. Certain beds and the limestone along the granite-limestone contact have been affected.

Veins and Ore Bodies. A number of pegmatitic quartz veins occur along fracture or shear zones in the granite, limestone, and calcareous shale. These veins contain some calcite, pyrite, chalcopryite, galena, sphalerite, and gold and lesser silver values, as well as ~~the~~ secondary hematite, limonite, malachite, manganese oxide, chrysocolla, azurite, and cerussite.

The tungsten mineralization occurs as scheelite in the garnitized limestone and in some of the pegmatitic veins cutting both limestone and granite. Although the scheelite is found near the granite body, as a rule only minor amounts are

found directly along the contact. The tactite ~~---~~^{the} part of the limestone that has been altered almost completely to garnet ~~---~~ contains little scheelite, however the tungsten ore contains abundant garnet and other skarn minerals. The scheelite is present as euhedral crystals in the veins.

Molybdenum Minerals. Hess (1917, p. 48) states that: "Molybdenite and scheelite, the molybdenite largely altered to powellite, occur together at Oak Springs . . ."

Tamney Mine *Climax mine best name*

At the Tamney mine (Climax group), in the central part of the district, scheelite occurs replacing limestone along the granite-limestone contact and in the hanging wall of the garnitized zones. There are several potential ore bodies, however little tungsten has been produced.

Crystal Mine

At the Crystal mine, a mile southwest of the Tamney mine, scheelite occurs in pegmatitic quartz veins along shear zones in limestone. The tungsten is distributed sporadically in the veins, a few high-grade shoots being found. Several hundred tons of ore have been mined and milled.

Garnetyte Lode Mine

At the Garnetyte Lode mine, adjoining the Tamney mine on the southeast, scheelite occurs in a hard tactite bed. Some 2,500 tons of tungsten ore have been mined.

*from John Schilling's notes.
(1968)*

Hardhat visit — May 1965

molybdenite occurs ^{disseminated} as flakes and
aggregates ^{along joints} in quartz veins, pegmatite dikes, and in the wallrock adjacent to these "structures," commonly with pyrite. Pyrite ^{and quartz} is more common than molybdenite.

variety of
the
of monzonite
porphyry

only moly occurrences seen were within
100 feet of shaft in finer-grained, nonporphyritic
"granite" (porphyritic "granite" contact was to N.
in drift). Pyrite & quartz in both. W-rx is
fresh

Hardhat reports
shows contact
further to N. than
in drift I remembered

Geophysics, v. 27, n. 5, p. 599-610

Geophysical data on the Clinch Rock