

JUNIPER RANGE DISTRICT

LOCATION

The Juniper Range district is in the southern end of the Juniper Range, or Shawave Mountains, in southwestern Pershing County. Several routes from U.S. Interstate Highway #80 offer access from the east, one from Brady Hot Springs 15 miles north of Fernley and another from Toulon.

HISTORY

Copper mineralization was being prospected in the district in the early 1900's. The main activity was along the southern boundary of the Juniper Range at the Star Mine. Several shafts, a 350 foot tunnel, an open pit and numerous prospects and trenches were used to explore a copper-bearing vein system. According to Johnson (1977) the percentage of copper in the ore was too low to be economical and mining was halted in 1912.

Tungsten was discovered in the vicinity of the Star Mine in 1917 and was expanded with the development of the Blue Wing Mine 3 miles to the east. Tungsten mining in the district was a natural extension of the activity at the Nightingale Mine which was part of a larger tungsten operation 6 miles to the west. Ownership in the mines passed through a series of operators starting with the Gold Silver Tungsten Co., to the Rare Metals Corp. in 1944, and to the Wolfram Co. in 1952. Tungsten mining in the district has been idle since 1962 (Stager, in prep).

Total production from the district is not known but an unofficial estimate has been placed at 16,000 tons of 0.5 percent WO_3 , with the greatest production coming from the Star Mine.

GEOLOGIC SETTING

Rocks within the district consist almost entirely of granodiorite of Cretaceous age with several square miles of metasediments cropping out along both southern flanks of the range. According to Johnson (1977) the metasediments consist of schists, hornfels, and calc-silicate hornfels of Triassic and Jurassic age. The tungsten mineralization at the Star Mine is on the southern edge of a roof pendant of steeply-dipping calc silicates. The Blue Wing Mine is located in a narrow tactite zone within parallel limestone ribs that have been converted to calc-silicates. Most of the tactites consist of brownish garnet and epidote with some quartz and calcite. The tungsten minerals are scheelite, that ranges in size from disseminated particles to crystals of an inch or more, and some powellite.

ORE DEPOSITS

At the Star deposit, copper minerals are exposed at the surface in northwest trending, quartz fissure veins that are hosted in granodiorite. The veins consist of copper oxides, bornite, chalcocite, tetrahedrite and minor gold and silver in a white quartz matrix.

Tungsten mining at the Star properties was from open-workings consisting of shallow pits, trenches, shafts along two tactite ore bodies on the southern edge of the pendent. The ore was reported to be uneven in grade but of higher value than the Blue Wing Mine. The workings at the Blue Wing are located along the contact zone of tactite and the granodiorite and consist of trenches, shallow pits, a shallow shaft, and several adits. One of the older shafts was nearly obliterated by an open pit that exposed a 5 foot tactite zone.

Three radioactive samples were collected from calcareous sediments at the Star Mine during the National Uranium Resource Evaluation of the Lovelock quadrangle. The samples assayed between 144 and 334 ppm uranium.

SELECTED REFERENCES

Johnson, M. G. (1977) Geology and Mineral Deposits of Pershing County, Nevada: NBMG Bull. 89.

Stager, H. K. (in prep) Tungsten Deposits of Nevada: NBMG Bull.