ROSE CREEK DISTRICT

LOCATION

The Rose Creek mining district is located at the extreme northern end of the East Range. The mines and prospects of the district are located generally north of Rose Creek Mountain and Dun Glen Peak. Mines further south in the range are part of the Sierra (Dun Glen) mining district.

HISTORY

The Rose Creek district was probably prospected in the 1860's, at the time of the first mining in the Sierra district to the south. Although the Rose Creek Mine was first prospected for gold and copper, it was not extensively explored until tungsten was discovered in 1937 (Johnson, 1977, p. 83). Tungsten production, in 1943 and 1944, is reported to consist of 3170 tons of ore containing 2892 units of WO_3 (D. M. Lemmon, unpublished data, 1944). Tungsten was also produced from the district in 1952 and 1955 (Johnson, 1977).

The Victory manganese prospect was discovered in 1939. It also contains tungsten, probably chemically combined with the manganese oxides. The property has not been mined for manganese or tungsten because the ore is not amenable to production of high-grade manganese concentrates (Iverson and Holmes, 1954).

In 1983 Minerals Associates, Inc. operated an open-pit mine for gold in the eastern part of the district (Jones, 1984, p. 37). The open-pit gold operation was inactive in the fall of 1984, but gravel for road metal was being produced from a pit in alluvium near the mine buildings.

GEOLOGIC SETTING

The northern end of the East Range is underlain by a group of Triassic sedimentary rock units which have been intruded by Jurassic granodiorite. The sedimentary rocks consist of sandstone, shale, and limestone; these are converted to marble, hornfels, tactite, and quartzite near intrusive rocks.

ORE DEPOSITS

Skarn and quartz vein tungsten (scheelite) deposits occur in the Triassic rocks of the district. Gold is reported from quartz veins in granodiorite and manganese and tungsten occur in a calcite-chalcedony vein in Triassic argillite.

The tungsten deposits are located north of Rose Creek Mountain (Rose Creek Mine) and east of Rose Creek. At the Rose Creek Mine, a tactite band parallal to bedding in the enclosing argillite consists of pyroxenes and amphiboles with scheelite; garnet is reported to be absent (Roberts, 1944; Kerr, 1946). The ore body has reportedly been explored about 125 m along strike and 60 m down dip. Parts of the tactite bed contain abnormal amounts of beryllium, but the distribution is irregular (Warner and

others, 1959, p. 80-81). Pyrite is common in portions of the skarn, and minor amounts of chalcopyrite, sphalerite, arsenopyrite, and molybdenite are reported. The ore is said to contain as much as 1.5% copper and 0.14 oz gold per ton (Roberts, 1944). Quartz and quartz-feldspar veins in granodiorite east of the mine also contain scheelite; the veins are narrow and the amount of scheelite sparse (Johnson, 1977, p. 84).

The tungsten deposits east of Rose Creek (Rose Creek property) consist of minor amounts of scheelite in narrow tactite bands in a sequence of argillite and marble. Nearby, the metasedimentary rocks have been intruded by dikes and sills of granodiorite. The tactite consists chiefly of garnet, epidote, pyroxene, and quartz (Nevada Bureau of Mines and Geology records).

At the Victory manganese prospect (S5,T34N,R36E) black manganese oxide minerals occur with black calcite and chalcedonic silica in a north-south-trending vein up to 20 m wide. The vein is exposed along the mountain front; the wallrock is Triassic argillite. The vein appears to be high angle, and contains numerous textures suggesting chalcedony pseudomorphic after lamellar calcite. Iverson and Holmes (1954, p. 1, 5) report that psilomelane and pyrolusite are present, as well as barite. Samples contain 0.24% WO_3, but the tungsten is not easily separated from the manganese oxides.

The Minerals Associates Mine is located northwest of Rose Creek Mountain near the center of the boundary between S5 and S8,T34N,R37E. The property consists of an open pit and a nearby small cyanide heap-leach pad for gold extraction. In the pit, milky quartz veins (10-20 cm wide) with pyrite and sparse galena and sphalerite cut biotite granodiorite. The quartz veins parallel the nearby intrusive contact with Triassic argillite, trending due north, 60^{o} west.

SELECTED REFERENCES

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