HANNAPAH DISTRICT

LOCATION

The Hannapah district is located in low hills along the west flank of the southern Monitor Range about 20 miles east of Tonopah, Nye County. Most of the mines on the district are located near the old Hannapah townsite north of McKinney Tanks in Township 3 North, Range 45 East but the district also includes workings along the northeast side of Thunder Mountain in Township 4 North, Range 44 East.

HISTORY

The Hannapah district is credited with production of one ton of ore worth $146 for 1871 (Couch and Carpenter, 1943). This information must be dismissed as in error, however, as there is no reference to any mining activity in this part of Nye County prior to about 1900. The date of discovery at Hannapah is not known, but Spurr (1902) visited the area in the fall of 1902 and described the showings "...very young and so little developed that not much could be seen." By 1905 a small camp had formed, and a townsite was platted in 1906. In 1907, after only limited mining the district and townsite were abandoned (Hall, 1981). In 1915, a short boom followed silver discoveries in the southern part of the district. A settlement of Volcano started there, but the boom died the same year when a revival at the Hannapah again drew attention to that part of the district. Intermittent activity by the Mohawk Company, the Silverzone Company, and others occurred during 1919 and 1920 but, by 1921, the district was dead. The last record of activity in the district was in 1922-35 when $15,900 was shipped from the Richardson Mnie (Kral, 1951). Kleinhampl and Ziony (1984) credit the district with $329,837in production, 1871-1935 (including the presumedly incorrect $146 in 1871).

When this district was examined in 1986, evidence of recent exploration activity was seen in the western and southern parts of the district. New claims and drill sites were seen on the Sam Jack calims, east of Thunder Mountain, and in an area south of U.S. Highway 6, near the old building stone quarry.

GEOLOGIC SETTING

The Hannapah district is almost completely underlain by altered Tertiary volcanic rocks. These rocks are subdivided into two informal map units; the tuffs of Hannapah and a peripheral younger sequence, and the tuffs of McKinney Tanks. The tuffs of Hannapah include quartz latite and rhyolite welded tuffs; these rocks are believed to be the main host rock for the ore deposits at Hannapah. The tuffs of McKinney tanks are composed of air-fall and welded ash-flow tuffs and some tuffaceous sedimentary strata (Kleinhampl and Ziony, 1984). Basalt caps Thunder Mountain in the western part of the district. Large blocks of pre-Tertiary rocks crop out in several places in the district. These rocks are interpreted by Kleinhampl and Ziony (1984) to be exotic blocks of sedimentary rocks caught up in the ash-flow tuffs, or possibly meggabreccia blocks related to the caldera margin of the postulated Hannapah caldera. This feature, as shown by Ekren and others (1976) lies to the northeast of Hannapah and the inferred ring fracture zone of the caldera passes westerly through

Hannapah, then turns north to pass between Thunder Mountain and the main Monitor Range. Bonham and Garside (1979), however, believe the caldera margin to be much further to the east. Kleinhampl and Ziony (1984) map a major lineament, the Hannapah fault, passing through the center of the district. Most of the mines of the district are aligned along this northwest-striking shear zone.

ORE DEPOSITS

In the southern part of the district, in what is named the Quarry area, a large area of hydrothermal alteration has een recenmtly prospected by drilling and trenching. Rocks in the area are silicified and stained with iron oxides. Silica veinlets lace the rock but, other than iron oxides, no mineralization was seen.

To the north, at Hannapah, mines and prospects follow the major northwest-trending Hannapah shear zone. Large areas of bleached, argillized, and silicified rock occur along the structure. Silicified zones and quartz veins along the shear contain gold-silver mineralization. The main ore mineral was polybasite; the ores are brecciated and contain fine-grained pyrite. Drusy quartz and jasper are commonly seen on the dumps in the main part of the district.

In the Thunder Mountain area, mineralization at the Bannock Mine is exposed in a northwest-trending vein within a knob of silicified volcanic rock. Gold-silver values are reported to be present with pyrite in the vuggy quartz vein. Highly silicified breccia from dumps here contains fine-gray sulfides in the breccia matrix. North of the Bannock Mine, at the Sam Jack claims, workings follow a strong, N5^{O}W quartz vein which cuts silicified rhyolite. The vein is about 3 feet wide, is strongly iron stained, contains pyrite, jarosite, and yellow-green oxide minerals. Prospects in the Silver Ace area, immediately west of the Sam Jack, are located on silicified zones in rhyolite tuff. Numerous silicified fracture zones occur here, and the area is inferred to represent the upper part of the epithermal vein system; the mineralized fractures could develop into well-defined veins in flows and breccias that underlie the rhyolite tuffs exposed at surface (Bonham and Garside, 1979).

GEOTHERMAL RELATIONSHIPS

Every sample of ore taken in this district reported gold present. Gold values were low, ranging from just detectable (at 0.05 ppm) to 1.4 ppm, but definitely anomalous. Silver values were mainly high, ranging from 5 to 1500 ppm. Arsenic values ranged from moderate to high, antimony from low to moderate in all samples. Lead values were high in only three samples, zinc and copper were very low in all samples. Two molybdenum values were slightly anomalous at 50 and 100 ppm. Barium values, however, seem lower than usual for mineralized samples. Mos barium values were less than 1000 ppm.

SELECTED REFERENCES

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