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Item 2

DIAMOND DISTRICT

The Diamond (Phillipsburg) mining district is located 21 miles north of Eureka on the west facing slopes of the Diamond Range in T22N,R54E Eureka County. Access to the district is north of U.S. Highway 50 by way of Nevada Highway 46, which is partially paved, and by good dirt roads along the range front. There are numerous new roads which are not shown on the current topographic maps.

The district was organized in 1864 when silver was discovered by a man named Phillips (Vandenberg, 1938). Development in the district was slow due to metallurgical problems but the district boomed in 1869, aided by the completion of the Central Pacific (now Southern Pacific) Railroad. A small amount of bullion was produced in 1873, but by 1887 the bonanza ore was exhausted and production was thereafter sporadic. In 1922, the Eureka Silver Mining Co. undertook the development of the area (Lincoln, 1923) but no production was noted. Total production for the district is about $250,000 from gold, silver, lead, and zinc, with the biggest production in lead (Roberts, et al., 1967). Recent activity, probably generated by the huge jump in gold and silver prices, has prompted extensive exploration work in and around the old workings. The entire west side of Diamond Range, including areas well outside the district, has many miles of new roads with extensive drilling and trenching obliterating many of the older workings.

The Diamond mining district is along the west facing slope of the Diamond Range, a north trending graben-horst structure which resulted from basin and range faulting. The Paleozoic limestones and dolomites, predominantly Silurian and Devonian eastern and Carbonaceous-Permian transitional sequences with several nappé of the allochthonous Vinini Formation, dip steeply west and are overturned (Roberts, et al., 1967). The Paleozoic carbonates crop out in steeply dipping northwest trending belts. The overlap sequence formations parallel the range and are folded into a syncline with its fold axis along the ridge crest (Roberts, et al., 1967). Cutting the carbonates are fault and breccia zones, cemented with

J. Tingley + P. Smith (1982) Mineral Inventory of Eureka - Shoshone Resource Area: NBMG ~~82-10~~ 83-3 / 83-4

sulfide bearing hydrothermal quartz veins. Silicification of the carbonates is associated with these fault zones. Ore minerals include argentiferous galena, pyrite, sphalerite, and antimony, forming pods and stringers in the vein quartz. Also occurring are anglesite, cerrusite, malachite, and azurite. Gangue minerals are quartz and calcite. The Diamond district is aligned along the Eureka-Battle Mountain mineral belt.

The principle working in the district is the Phillipsburg Mine, located in a north trending shear zone with argentiferous galena-bearing quartz veins cutting the silicified carbonates. There are several thousand feet of underground workings and tailings cover several acres. Extensive trenching and surface cuts surround the site. North of the district are the remains of the Steel-Galena Mine, located on a contact between an erosional remnant of the Vinini Formation, the upper plate of the Roberts Mountain Thrust Fault, and the lower plate of the Paleozoic carbonates. The remnant is made up of quartzite, shales, and phyllites and is cut with galena bearing quartz veins that are coated with secondary copper minerals. The workings consist of several hundred feet of vertical and inclined shafts. Between the two workings are recent exploration sites connected by new drill and light use roads.

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