

MINERAL HILL MINING DISTRICT

Item 5

Location. The Mineral Hill mining district is on the west flank of the Sulphur Springs (Pinyon) Range, mainly in Sec. 10, T. 26 N., R. 52 E. (see U. S. Geological Survey, Mineral Hill topographic quadrangle map) east-central Eureka County.

History and Production. The district was discovered in 1868. Over \$2,500,000 worth of ore has been produced. Mining was continuous from 1868 to 1897, much of the production being in the early 1870's. There was some additional production from 1912 to 1919. Values were mostly in silver with some gold, copper, lead, and zinc.

Developments. The workings are not extensive, reportedly totalling some 3,000 feet. They include principally open cuts, adits, and shallow stopes.

Previous Work. Emmons (1910, p. 96) described the geology; Vanderburg (1938, p. 51) adds information about the history of the district and metallurgical treatment of the ore.

The Rocks. In the Sulphur Springs Range, Paleozoic limestone rests on shale which in turn overlies Devonian quartzite. These rocks are folded into a syncline whose axis lies east of the ore deposits.

The ore deposits are in gray, crystalline, dolomitic limestone dipping 45°-75° E. Three narrow dikes, striking east and dipping steeply south, cut the limestone. The dikes are highly altered, the least-altered rock being composed of quartz, sericite, calcite, and limonite.

Ore Bodies. The ore occurs as irregular replacement bodies in a breccia zone cutting the bedding of the limestone. The breccia zone trends north, and is 1/4 mile long and several hundred feet wide. The ore bodies occur in the more intensely shattered parts of the zone. They commonly are 10 to 40 feet wide, extend from the surface to a depth of 120 feet, and commonly plunge 45° E. The underlying shale is cut by small barren quartz veins.

The mineralization occurs both as replacements and breccia-filling, and consists of quartz, silicified rock fragments, calcite, barite, silver chloride, argentite, tetrahedrite, galena, copper carbonates, sphalerite, pyromorphite, cerrussite, polybasite, steffanite, silver bromide, pyrite, and iron and manganese oxides.

The wall rock around the ore bodies has been highly silicified. Numerous faults, striking east and dipping about 60° N., cut both the ore mineralization and silicification.

Molybdenum Minerals. Kissler (1898) mentions that molybdenite occurs in the ore.

From John Schilling's notes (1968)