

University of Nevada, Reno



and Geology



Site Description

Osgood Mountains

(updated 2010)

Geologic setting: A disseminated gold deposit (the Preble deposit) was discovered in 1972 in the southern Osgood Mountains, about 10 km northeast of the town of Golconda (Bonham et al., 1985).

"The Preble disseminated gold deposit, located in the southern Osgood Mountains, was discovered shortly after ore-grade gold mineralization was drilled at the present site of the Pinson Mine in the Potosi mining district 25 km to the north. Mineralization at Preble (which is named for the Preble railroad siding 1.5 km to the southwest) is similar to that at the Pinson Mine and the Getchell Mine. The deposit occurs in the Cambrian Comus Formation, a carbonate and shale unit. The mineralized unit is reported to be in the middle portion of the formation, a carbonate debris flow (Ed Kretschmer, oral communication, 1984). The economically viable portion of the deposit is reported to be at or near the surface, in rocks which have been affected by supergene oxidation. Carbonaceous, unoxidized ore at depth is reportedly not amenable to cyanidation without pretreatment. The gold is presumably free and of sub-micron size, as it is at other northern Nevada sediment-hosted, disseminated-gold deposits. Iron-oxide minerals, silica, and reportedly, rare oxide copper minerals are present in the altered rocks. The mineralization is associated with high-angle shear zones, has a high gold-silver ratio, and occurs in carbonate rocks with silicification (jasperoid) and pyrite. Arsenic, mercury, and antimony are important trace elements, and silica, kaolinite, and calcite are important gangue minerals (Kretschmer, 1984). Mineralization at the Preble property reportedly has a tabular form striking northeasterly and dipping southeastward. This mineralization occurs in a broad northeast-trending zone of shearing, brecciation, and silicification." (Bonham et al., 1985).

The northeastern Osgood Mountains have been prospected for base metals (copper, tungsten, and molybdenum) and gold, particularly within the Granite Creek drainage (Potosi mining district). Gold was discovered along the Getchell fault system, a northerly-striking, steeply-dipping zone between Granite Creek and Getchell Camp 3 km north.

Geothermal features:

Leasing information: