

See also 83-12 for
geochemical results.

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Item 3

CHARLESTON DISTRICT

The Charleston mining district is located on the eastern flank of the northwest trending Spring Mountains, approximately 35 miles northeast of Las Vegas, Clark County, Nevada. Access to the district is along well marked and used roads west from U.S. Highway 95. The district lies within the boundaries of the Toiyabe National Forest. Limitation of time and field money did not allow us to do on-site examination of this district.

The district's early history is unknown. Hewett (1936) reports that oxidized lead-zinc ore valued at less than \$5,000 was mined and shipped from the district between 1926 and 1929. In 1953 and 1954, the Ada and Edith claims produced 11 ounces of silver and 18,300 lbs of lead valued at approximately \$2,500. Other properties in the district also produced minor lead and zinc (Longwell, et al, 1965). During the period that field work was conducted in Clark County, the Charleston district was under an estimated 12 feet of snow, therefore, the district was not examined. There is no known activity enquiry in the district.

The Spring Mountains are a block of Precambrian metamorphic basement rocks overlain by Paleozoic carbonaceous and clastic sediments ranging from Early Cambrian through the Middle Permian. Mesozoic rocks outcrop only on the eastern flanks of the range. The district is centered on the Post-Jurassic Keystone Thrust Plate and Lee Canyon Thrust Plate, where the structurally higher Lee Canyon thrust overrides the Keystone thrust from the west placing Cambrian carbonates over Penn-Permian carbonates. The Lee Canyon Thrust Place is the middle plate of three major NNW dipping, NNE trending, easterly directed thrust plates exposed in the Spring Mountains (Laramide Orogeny ?). The major thrust plates are further complicated by local folds, high-angle normal faults, and smaller imbricated thrust faults within the plates. (Burchfiel, 1974).

The few workings in the district are located along thrust and normal faults in the Keystone plate near Lee and Kyle Canyons. The ore occurs as small, oxidized, lead-zinc-silver replacement bodies in the dolomitized carbonates along thrust and offsetting normal faults. The deposits near Lee Canyon are in the Late Cambrian Nopah Formation (dolomites) and the deposits near Kyle Canyon are within the Penn-Permian Bird Springs Formation (Longwell, et. al, 1965).

Mineralization in the district appears to be extremely minor and of no economic importance (Bohannon, 1980) with the primary mineralization of the Spring Mountains confined to the Goodsprings district in the south. Evidence suggests that the ascending ore-bearing solutions associated with the late Mesozoic Tertiary igneous activity that produced the Goodsprings deposits did not migrate northward along the Keystone Thrust to the Charleston district (Bohannon, 1980).

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