NBMG OFR 83-11
See also 83-12 for geochemical results.

(97)
Item 7

MONTEZUMA DISTRICT

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The Montezuma mining district is situated on and around Montezuma Peak in the northern half of the Montezuma Range in T2S, R41 and 42E, in Esmeralda County, Nevada. The district is located about 7 miles west of Goldfield, Nevada, and is accessible by way of good dirt roads east from U.S. Highway 95. The range forms the eastern limb of the Silver Peak-Palmetto-Montezuma oroflex structure (Albers, 1967).

The Montezuma district was discovered by Nagle, Carlyle, and Plunket in 1867 and organized shortly afterwards. A 10 stamp mill was brought from Yankee Blade in 1870, but operated for only 4 month; however, the district continued until 1887 to produce and ship ore 65 miles to Belmont, for processing (Ball, 1907). During this time the district produced approximately $500,000 in silver with minor amounts of gold. The district was inactive until around 1905, when the Tonopah boom caused the outlying districts to be explored once again. The district made intermittent ore shipments until 1923, and reported production until 1931 (Lincoln, 1923; Hewett, 1936). The quicksilver deposit in the southern part of the district were discovered in 1923 by Sweeney and McMillion, however, there has been no recorded production from the site.

During the recent examination, many of the more working recent observed appeared to be exploratory and many of the older mine workings have been obliterated by the recent surface exploration. Some of the dumps have been removed, apparently to extract residual values. Water has been found in many of the mines which probably hampered early activity. Ongoing activity in the district is confined to assessment work and there are currently year round residents living near the townsite of Montezuma. A placer claim block covering several thousand acres and several patent claims, covers much of the southern slope of Montezuma Peak, extending from

the forested areas south to the main access road.

Montezuma Peak is a mass of Tertiary rhyolitic air fall tuff and tuff breccia overlain unconformably with patches of Tertiary agglutinate, primarily dark rhyolite or rhyo-dacite; Quaternary-Tertiary basalt flows; and interbedded with Tertiary fresh water lake deposits (Esmeralda Formation?) (Albers, Stewart, 1972). The ash tuff breccia was observed to be locally silicified and carry very fine grained pyrite. Beneath the tuff along the west and north side of the mountain outcropping blocks of Cambrian and Precambrian clastic and carbonaceous sediments are in thrust contact. Albers and Stewart (1972) suggests that the presence of numerous small granite, quartz monzonite, and diorite plutons and dikes intruding the sediments indicates plutonic rocks at shallow depth underlie the north end of the Montezuma Range.

The mineralization in the Montezuma district is primarily found in the quartz and calcite veins cutting the Precambrian and Cambrian limestone and shale; in replacement bodies in the marbleized limestone in the Cambrian Poleto Formation along the contact with a quartz monzonite intrusive body; and to a lesser extent, in the stratigraphic units above and below the Poleto. After the quartz and calcite veins were emplaced, they were crushed and surface waters altered the primary sulfides to supergene minerals. On the surface, the ore minerals include cerussite, malachite, and azurite, altered from galena, chalcocite, pyrite, and chalcopyrite which are found at depth. Minor jarosite and psilomelane were noted along fracture surfaces. Values derived from silver are in the form of chlorides at the surface and argentite at depth (Lincoln, 1923).

The quicksilver deposit in the southern part of the district occurs in altered Miocene lake beds and tuffs faulted against the Precambrian Deep Springs Formation, the Miocene units forming the hanging wall. Along the fault, the beds

are extensively altered to form an opalite rib. Cinnabar is mostly concentrated in the opalite rib minor amounts of cinnabar was observed coating the open spacing in the fault breccia and disseminated in the unsilicified tuff beds. It was noted the fault breccia fragments appeared milled and were coated with drusy quartz and minor pyrite.

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