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Item 5

WARD DISTRICT

The Ward mining district is located in the Egan Range about eleven miles south of Ely. The district occupies the entire width of the range, but most of the development is on the northern slope of Ward Gulch on the range's east flank. The historic Ward charcoal ovens, once used to produce fuel for smelting furnaces, are located two miles south of Ward Gulch.

The district was organized in 1872 with the discovery of rich lead-silver veins and replacement pods along fissures and intrusive dikes. Since then, mining and exploration have continued intermittently up to the present time. Currently, exploration work at the main Ward mine is being conducted by the joint owners, Silver King Mines, Inc. and Gulf Minerals.

The mineralization in the east part of the district is localized in east-dipping Paleozoic rocks north of the Ward Gulch fault, a high-angle normal fault which follows the easterly-directed Gulch drainage. Deep drilling has revealed that the Paleozoic section here is intruded at depth (approximately 2,000' below the surface) by a 35 m.y. old quartz monzonite stock. The stock intrudes up to the Guilmette formation, but vertical feeder dikes extend up through the Ely limestone and are exposed at the surface of the main workings.

The outcropping dikes consistently trend northwest and define a belt of mineralization in the adjacent limestones. This belt is characterized by rich lead-silver-zinc-copper vein and replacement (tactite)deposits consisting almost entirely of sulfide minerals. Especially notable is the occurrence of massive

See also 83-2 for geochemical results.

J. Tingley + J. Bentz (1982) Mineral Res. of Egan Resource Area: NBMG OFR-~~82-9~~ 83-1

sphalerite and chalcopyrite ores in tactite and marble horizons of Guilmette and Joana limestones directly above the main igneous body. Less intense mineralization occurs in the dikes which are often propylitically altered and contain galena in addition to copper and zinc sulfides. The main porphyry body is relatively unmineralized and shows only minor molybdenum mineralization in its thin endoskarn margin.

Mining of the narrow, high-grade vein deposits is difficult and further complicated by local disturbances from folding and high-angle faulting. At the time of our visit, we were unable to visit or sample the main properties because of ongoing drilling activity.

The west flank of the range directly opposite Ward Gulch contains the Old Quaker mine and several drill roads. At the Quaker mine, some gold and silver mineralization is associated with lens-shaped jasperoid bodies which have replaced Joana limestones along north-northwest faults and bedding planes. The structure of the area is complicated by thrusting and overturned bedding and, so far, no significant mineralization has been discovered. Samples of jasperoid from this area were found to contain only trace amounts of silver.

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