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WHITE PINE DISTRICT

The White Pine district is located in White Pine County in the northern portion of the White Pine Range. It includes Townships 15 and 16 North, Ranges 57 and 58 East. The main mines, as well as most of the smaller workings, are concentrated in the E/2 of T 16 N, R 57 E and in the W/2 of T 16 N, R 58 E. No attempt will here be made to describe the workings of the district nor the detail geology. Excellent descriptions are given by Humphrey and by Smith. For a detail update on the status or activity of the mines in the district, the reader is referred to individual property evaluations that are included in the White Pine district file. While the district is considered primarily a silver producer, being among the top nine major silver districts in Nevada, it has also produced fair amounts of lead, zinc, and copper, and, small quantities of gold and tungsten.

The White Pine district, that part of the White Pine Range referred to as Pogonip Ridge, Babylon Ridge, and the Mokomoke Mountains, is underlain by sedimentary rocks, predominantly limestone and dolomite totaling about 18,000 feet in thickness. These rocks are folded and domed along north-trending axes and are intruded by two igneous stocks, displaced by five sets of faults, mineralized along some of the faults, and overlain in places by basalt, fanglomerate, and alluvium. Rich silver ore was discovered on Treasure Hill in 1868 and during the following 10 years, 20 to 40 million dollars worth of silver was mined and recovered from deposits there. The ore occurred in a fracture zone at the top of the Nevada limestone near the apex of an anticline on Treasure Hill.

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

USBM unpublished rept. White Pine Co., Murphy Sec. 16, 21, 28, T16N, R56E Owned by J. R. Murphy

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The Murphy property consists of 36 unpatented lode claims known as the Murphy, Steel King, and Phippen groups, situated near the head of 4 steep walled canyons that dissect the deposit on the west slope of the White Pine Mountains. The deposit is about 6 miles south of the old camp of Hamilton, and 52 miles airline or 62 miles by road West of Ely, the supply and shipping point.

The area in which the deposit is located and the camp of Hamilton to the north were among the earliest producing areas in the state. The discovery of high-grade silver ore resulted in the development of a number of producing mines which had a gross production in silver, lead, and copper in excess of 29 million dollars, during the peiod 1865-1921. The discovery of tungsten in the area was made by the Murphy brothers in 1939.

The country rocks in the mine area consist of Paleozoic sediments which have been intruded by areas of quartz-monzonite and granodiorite.

The monzonite forms a dome-like area in the foothills on the northwestern part of the range. To the east, near the summit the range but still on the west slope is a much larger area of granodiorite.

Between the monzonite and granodiorite is a segment of limestone which has been complexly faulted and in larger part metamorphosed and altered to tactite. The tactite area, consisting of garnet, epidote, and quartz extends north-south for a distance of 9,000 feet, attaining a maximum with of 1,500 feet.

Scheelite occurs finely-disseminated in the tactite formation but is more concentrated in small irregular silicified and fissure zones that strike N.10°W. with nearly vertical dips.

Development openings on the property consist of location cuts and shallow pits along the tactite zone. Several holes were dug in the altered zone on the north slope of Camp Canyon for a distance of 350 feet and a width of 120 feet. Disseminated scheelite occurs over the entire width, with the better scheelite showings being confined to small quartz-filled fissures, that vary from a few inches to 4 or 5 feet in width. On the divide south of Camp Creek the mineralized sections are similar to the north side of the Creek, but more frequent scheelite-bearing zones are indicated. Samples taken from the exposed tactite zone in t he canyons of Hoppe, Little Fair, and Sawmill Creeks gave similar results. The average of the sample taken contained 0.27 percent WO_3, with the better sections containing 0.6 to 1.0 percent WO_3. No tungsten has been produced or shipped from the property.

Lead- zinc silver- ores occur in dolomitic rocks west of the silver zone and a small amount of chalcopyrite occurs close to the two intrusives. Tungsten and molybdenum occur in skarn zones around the two intrusives as well as in veins and stockworks within the intrusives.

Workings are dominantly shafts and adits with virtually all production coming from underground workings. There has been recent (within the past five years) surface work in the district which consists of a small open pit in the southwestern portion of the district and surface mining, mainly of old dumps, in the heart of the district, on top of Treasure Hill. Activity in the district at the time of examination was minimal and centered in the Monte Cristo area and the area to the immediate north of Monte Cristo, where Phillips Petroleum and Union Carbide are drilling a deep tungsten-moly target. Phillips has been working on their property for several years, and reportedly has drilled out an estimated 5.5 million tons of material averaging .3% WO_3 and .2% Mo (Forrest, Ely Section AIME, 1982). The ore is in skarn found in the Dunderberg formation and has formed in the contact area between the Monte Cristo and Seligman stocks. In addition to this activity, a few claims had recently been staked and a few properties looked as though they had had some recent drilling done on them. However, there was no current mining activity.

Several samples were collected which show the basic composition of the various mineralized areas. Geochemical results from samples within the White Pine district showed a segregation into two general groups. Samples taken from dumps in the Treasure Hill area, the heart of the old silver district, reported silver with associated lead, zinc, copper. Anomalous antimony and arsenic values were

with associated lead, zinc, copper. Anomalous antimony and arsenic values were reported from some of these samples also. The second area lies to the northwest of Treasure Hill generally north of the Seligman area. Samples from this area showed anomalous tin, some tungsten and molybdenum, and generally high arsenic, lead, and zinc. This area may be reflecting geochemical values related to its mineralized skarns associated with the Monte Cristo-Seligman stocks.

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