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WHITE PINE (Hamilton)

Silver, Lead, Copper, Gold, (Oil Shale)

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Item 106

Location. The White Pine District is located at Hamilton in the White Pine Range. Ely on the N. N. R. R. is 36 m. E, and Eureka on the E. N. R. R. is 40 m. N.W. Hamilton is 8,003 ft. above sea-level. Treasure Hill to the S. of the town rises to an elevation of 9,239 ft., and White Pine Mt. at the W. border of the district is the highest point with an altitude of 10,792 ft.

History. Ore was discovered on the W. slope of White Pine Mt. by A. J. Leathers, Thomas Murphy, and other prospectors from Austin, in 1865. The Monte Cristo M. Co. was formed with Edward Marchand as superintendent and a mill was built and put in operation in 1867. An Indian gave Leathers a piece of rich silver chloride ore and was persuaded to show where he found it. Guided by this Indian, Leathers, Murphy, and Marchand located the rich Hidden Treasure Mine on Treasure Hill on January 4, 1868. Shortly afterwards, T. E. Eberhardt discovered the remarkable silver chloride deposit known as the Eberhardt Mine on Treasure Hill. Other rich properties were located and the great White Pine rush began. This sensational stampede continued and increased throughout the year, culminating in the spring of 1869. At that time Hamilton had a population of 10,000 people and 15,000 more were living in smaller cities and towns in the district. There were 195 White Pine mining companies incorporated, and over 13,000 mining claims were recorded in the district in 2 years' time. The rich surface ores of Treasure Hill were soon exhausted, but silver ore continued to be mined from that section up to 1887, since which time most of the mining has been conducted in the lead-silver belt between Treasure Hill and Monte Cristo. In 1885, a disastrous fire destroyed the county buildings and most of the town of Hamilton and the county seat was moved to Ely.

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Production. The mines of Treasure Hill produced $22,000,000 in silver up to 1887. The production of the lead-silver belt to the W. of Treasure Hill up to 1909, is said by Larsh to have been 145,000 tons averaging 65% lead and 20 ounces of silver and having a gross value of nearly $6,000,000. From 1902 to 1921, the district produced 17,638 tons, containing $6,122 in gold, 285,872 ozs. silver, 176,572 lbs. copper, 15,730,887 lbs. lead, and 14,400 lbs. zinc, valued in all at $1,003,747, according to Mineral Resources of the U. S. Geol. Survey.

Geology. The country rock of the White Pine District consists of Paleozoic sediments which have been cut by quartz-monzonite and granodiorite. The geologic section, adapted from Larsh, is as follows:

System	Formation	Thickness in Feet
Carboniferous	Limestone	4,000
"	Sandstone	200
"	White Pine shale	1,200
Devonian	Nevada limestone	2,000
Ordovician	Lone Mt. dolomite	2,000
"	Eureka quartzite	1,500
"	Pogonip limestone	3,500
Cambrian	Limestones and slates	1,000 feet exposed

At Monte Cristo on the W. base of White Pine Mt. at the W. end of the district a batholith of quartz-monzonite has been intruded into the Cambrian limestones and slates metamorphosing them for a distance of from 2,000 to 6,000 ft. into garnet rock. E. of this but still on the W. slope of White Pine Mt. is a large intrusion of granodiorite. Three mineral belts with N-S. trends may be distinguished in the district, a copper belt, a lead belt, and a silver belt.

Silver Belt. The silver belt is located at Treasurer Hill and runs to the N. and S. of it. The ore deposits are saddle reefs in the upper part of the Devonian Nevada limestone beneath the Carboniferous White Pine shale. The ore is mainly chloride of silver with bromide of silver and occasional sulphides. It was extremely rich at the surface. From a space 70 ft. wide and nowhere over 28 ft. deep on the Eberhardt Mine, were taken 3,200 tons of ore which milled $1,000 per ton, a net value of $3,200,000. One boulder of silver chloride found in this mine weighed 6 tons, and many others were taken out which while smaller in size were still worth fortunes.

Copper Belt. The copper belt lies at the W. base of White Pine Mt. Between the intrusive quartz-monzonite and the garnetized Cambrian limestone, there is a brown porphyritic gossan from 50 to 300 feet in width; and at and near the contact of this gossan with the garnet rock occur veins and stringers containing native copper, chalcopyrite, bornite, and copper carbonates.

Lead Belt. The lead belt lies between the silver and copper betls both geographically and geologically. It stretches along th E. base of White Pine Mt. between two mineralized faults of considerable displacement. The ore occurs both in beds and veins and is confined almost entirely to the Ordovician Lone Mt. dolomite. It is a high-grade lead ore carrying silver.

Oil Shale. Oil shale occurs near Hamilton and may underlie an area of over 6 sq. m.

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