

Vicksburg  
WARM SPRINGS DISTRICT

The Warm Springs district is in northwest Humboldt County in the vicinity of Denio, Oreg., a small settlement on the Nevada-Oregon boundary. It was formerly divided into the Pueblo district on the north and the Vicksburg district on the south. The nearest shipping point is Winnemucca, 105 miles southeast of Denio. The first locations were made in the Pueblo area in the summer of 1863. In the early days, mining in this section was retarded considerably because of its extreme isolation and the hostility of the Bannock Indians. A small mill erected in the district in 1864 was burned by the Indians the following year and the settlers were driven out. Statistics on the production of metals from this area are not available. The principal property (the Ashdown mine) is said to have produced about \$400,000.

Ashdown Mine

The Ashdown mine comprises a group of 16 unpatented claims owned by Clarence C. Crow of Hamford, Calif., and is situated 14 miles south of Denio, Oreg. In 1937 the property was under lease and bond to George Mathewson of Denio, who employed three men. This property has been worked intermittently for many years and, judging from the tailings pile, estimated to contain about 50,000 tons, and the extent of the underground workings, a production of \$400,000 appears probable.

Development includes 10 adits, the longest of which is 1,500 feet, and other workings totaling about 2 miles.

Mining equipment includes a 1-drill-capacity Buhl air compressor driven by a gasoline engine, jack hammer, blacksmith shop, and nine cars. The mill on the property has a capacity of 1 1/4 tons per hour. Mill equipment includes a Blake-type crusher (9 by 12 inches), two Huntington mills (each 5 feet in diameter and equipped with 60-mesh screens), amalgamating pan (3 feet in diameter), and an amalgamation plate (4 feet wide and 10 feet long). A recovery of 85 percent is made by amalgamation on ore averaging from \$9 to \$14 per ton. Power for milling is furnished by a 50-horsepower McCormick-Deering gasoline engine. Water for milling is obtained from springs in the vicinity and is piped 2 1/4 miles to the mill by gravity.

The principal vein has a strike northwest-southeast and a dip of 35° to 40° to the northeast. The width of the vein varies from 2 to 16 feet, averaging about 5 feet. Formation is granite. Values are all in gold, which occurs free in a gangue of hard white quartz.

Cowden Mine

The Cowden property comprises a group of 7 unpatented claims on the west slope of the Pueblo Mountains, 3 miles southwest of Denio, Oreg., and about 2 miles south of the Nevada-Oregon boundary line. It is owned by



T. J. and D. W. Defenbaugh of Denio. The property was discovered in 1894 by Robert Denio and shortly after it was acquired by John Cowden and associates, who organized the Nevada King Mining Co. This company erected a small amalgamation mill, in which a small amount of ore was treated, and did considerable development work. In recent years the property has been inactive.

Development consists of 7 adits, the longest of which is 490 feet, and other workings totaling several thousand feet. There is no equipment on the property. Water for domestic and milling purposes is available near the property from springs at the head of Cowden Canyon. The flow is estimated to be about 75 gallons per minute.

The ore occurs in several veins having a strike north  $50^{\circ}$  east and a variable dip. The veins are from 2 to 6 feet wide. The vein filling is altered andesite and quartz. Veins have been disturbed by numerous faults.

#### Other Claims

In the vicinity of Denio, Oreg., in the Warm Springs district, there are a number of other groups of claims, all of which are in the prospect stage. Among these are the New Deal group of 7 unpatented claims owned by Harrison Grove and Frank P. Davis of Denio, and situated in the Pueblo Range 6 miles southwest. On the Hall claim, which is part of this group, there was a small production of ore in the early days.

Development consists of an adit 200 feet long and scattered surface workings. There is no equipment on the property. A large mass of quartz at least 50 feet wide outcrops on one of the claims, and in places it contains iron manganese and copper oxides carrying small values in gold and silver. The formation is chiefly schist and shale.

The Mohawk group of six unpatented claims is  $4\frac{1}{2}$  miles south of Denio owned by Joseph Erquiaga and associates of Denio. Development consists of four adits totaling about 800 feet. There is no equipment on the property. Free gold occurs in quartz stringers in schist cut by porphyry dikes. There has been no production.

The Grove group of three unpatented claims owned by Harrison Grove and B. W. Hamilton of Denio is 11 miles southeast of Denio. It was formerly known as the Howard property, and in the seventies several carloads of ore were shipped. When the writer visited the property in June 1937, two men were employed in prospecting a vein on the property. Development consists of a shaft 90 feet deep and scattered workings totaling about 300 feet. Mining is done by hand methods.

The vein strikes north and south and dips  $45^{\circ}$  west. It's width varies from 2 to 4 feet. Gangue is chiefly quartz containing oxidized copper minerals and low values in gold and silver. Formation is granite.



The Clipper group of five unpatented claims owned by C. H. Jackson of Denio is on the west slope of the Pueblo Range 5 miles southwest of Denio. In June 1937 this property was being prospected by three men employing hand methods of mining. No production has been made.

Development comprises two adits each about 110 feet long and a shaft 50 feet deep. Free gold occurs in quartz stringers in the highly altered formation, probably granodiorite.

#### WINNEMUCCA DISTRICT

The Winnemucca district is at the south end of the Bloody Run Range on Winnemucca Mountain 4 miles northwest of the town of Winnemucca on the Southern Pacific Railroad and Western Pacific Railroad. The Barrett Springs section, 12 miles northwest of Winnemucca, is generally considered a part of the Winnemucca district. The first discovery on Winnemucca Mountain was made in 1863 by an Indian named Winnemucca, after which prospecting was carried on for a number of years. In 1872 the Humboldt Reduction Works erected a 10-stamp mill and a roasting furnace at Winnemucca for the treatment of custom ores. Due to the base character of the ore, the treatment charges were unusually high; the company paid 80 percent of the assay values of gold and silver on ores assaying less than \$400 per ton and 82 percent on ores assaying over \$400 per ton. The treatment charge was \$25 per ton for lots of 10 or more tons, \$30 per ton for lots of more than 1 but less than 10 tons, and \$35 per ton for anything less than 1 ton. The process employed consisted of a chloridizing roast followed by pan amalgamation. No attempt was made to save either lead or copper. The most important mine in the district in the early days was the Fride of the West, which is credited with a production of about \$1,000,000.

The first locations in the vicinity of Barrett Springs were made in the spring of 1906, but there was very little activity until 1910, when C. E. Carpenter discovered high-grade gold ore in this area. This discovery created considerable excitement, and the camp soon had a population of several hundred people. In 1911 it was found that the principal claims were on patented railroad land and mining activity came to a standstill until the land was purchased from the railroad.

A number of small companies have been organized from time to time in the Winnemucca district, but the principal production has been made by lessees. According to incomplete statistics in the reports on the metal production of Nevada in annual volumes of Mineral Resources of the United States, the production of the district from 1910 to 1935 was 3,129 tons of ore having a value of \$132,433, an average of \$42.32 per ton. Values are chiefly in gold and silver, with small amounts of copper and lead.