

The prevailing rock is gabbro cut by dikes of aplite. The copper deposits are closely associated with aplite dikes. The copper minerals are generally oxidized and associated with iron oxides and a little barite. The deposits have never been developed beyond the prospect stage.

Several miles southeast of Red Butte, two unpatented antimony claims are owned by W. W. Wells of Winnemucca. The antimony occurs in a quartz vein as oxides on the surface and as stibnite at depth. Formation is diorite and andesite.

SAWTOOTH DISTRICT

Sawtooth district is on the Pershing-Humboldt county boundary line about 20 miles a little south of west from Jungo, a station on the Western Pacific Railroad. Intermittent prospecting for lode deposits has been done for a number of years, but the results have been discouraging.

Placer gold was discovered in this area in 1931 by Rufus Stevens as a result of prospecting stimulated by the discovery of gold veins in the Scossa district, 12 miles to the southeast. Shortly after this discovery a number of claims were located, and before the end of the summer of 1931 as many as 35 men were dry-washing in this area with variable results.

Several of the more fortunate individual placer miners recovered as much as \$35 per day for short periods. In 1932, the Oregon Nevada Mining Co. acquired about 300 acres and attempted to work the gravels on a large scale, but this venture was unsuccessful and the ground was taken over by A. A. Goshring of Sawtooth, and associates. According to John C. Huntington of Sawtooth, the production of placer gold has been about \$12,000. In recent years the ground has been leased to individuals on a rental basis of 25 cents per day for each hand-driven dry washer and 50 cents per day for each power dry washer employed. Very little water is available in the immediate vicinity.

Placer gold has been found over a fairly level area of about 6 square miles. An unusual feature of the placer is that the best values are found at shallow depths. Much of the gold has been found above a false clay bedrock at depths of 8 inches to 2 feet. No shafts have been sunk in the district to prospect the true bedrock. The gravel is rough and angular, with a small percentage of boulders. A considerable amount of clay is present in places, and the clayey material has to be dried and pulverized before a satisfactory saving of gold can be made with dry washers. The gold is coarse and rough and averages about 880 fine. Small nuggets worth up to \$4.50 have been found.

SHERMAN DISTRICT

The Sherman district is on the east side of the Bloody Run Range, 23 miles north of Winnemucca, the nearest shipping point. Gold was discovered here in 1922 by Jack Castacao, a shepherd. The principal production from this area has been made by the Basque Mining and Milling Co.

Basque Mining and Milling Co.

The Basque Mining and Milling Co., a Utah corporation organized in 1927, owns 12 unpatented claims and 1-1/2 sections of patented land purchased from the Southern Pacific Railroad. Capitalization of the company is 2,000,000 shares, of which about 1,000,000 shares have been issued. Par value is 10 cents per share. Control of the stock is held by T. Honma, and G. O. Koriyama, Japanese, of Winnemucca, Nev. In 1930 the company erected a 25-ton-daily-capacity amalgamation concentration mill, which operated intermittently until 1934. From the tailings pile below the mill, it is estimated that about 800 tons of ore were treated. In addition several carloads of ore were shipped to smelters. In 1937 the property was leased to James Taylor and Edwin S. McNeil, of Salt Lake City, Utah; in June 1937 the lessees employed eight men on the property.

Development consists of six adits, the longest of which is 700 feet, and other workings, totaling about 5,000 feet.

Mining equipment includes two compressors, one a Gardner-Denver (10 by 12 inches) and the other a Gardner with a capacity of 160 cubic feet, a Sullivan drill sharpener, rock drills, and other mining tools.

Mill equipment consists of a small Straub crusher, Joshua Hendy ball mill (3 by 5 feet), amalgamation plate (4 by 10 feet), and two Butchard concentrating tables. Power for mining and milling is furnished by a 75-horsepower, Fairbanks-Morse, Y-type, 2-cylinder, Diesel engine connected to a 50-kv-a generator. There is also an assay office, blacksmith shop, and camp accommodations for 12 men. Water for milling and domestic use is obtained from several springs in the vicinity.

In June 1937 the lessees had erected a small Straub mill on the property. This mill had a capacity of 3 1/2 tons per 8 hours; recovery was made by amalgamation.

The formation is slate cut by several nearly parallel diorite dikes. The ore occurs in a vein system that strikes north and south and dips about 65° to the west. The width of the vein material ranges from 4 to 12 feet. The values are all in gold, which occurs in a free state in a quartz gangue. The average grade of the ore mined at the time of the writer's visit was \$12 per ton.

Jupiter Group

The Jupiter group of two unpatented claims owned by Rudolph Winkler of Winnemucca, Nev., is on the west side of the Bloody Run Range, 28 miles by road northwest of Winnemucca. This property was located in the early days, but there is no record of any production.

Development consists of an inclined shaft 30 feet deep, two adits, and several open cuts, totaling about 150 feet of workings. There is no equipment on the property. Small amounts of molybdenite and scheelite are present in two quartz veins that strike north and south and dip about 35° to the east in a granite formation. The average width of the veins is about 5 feet.