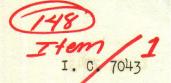
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The San Miguel Nevada Mines, Ltd., controlled by Detroit interests, owns the Iron Canyon group of five patented claims in Iron Canyon. The property has been developed by several adits and an inclined shaft about 30 feet deep. Gold is the principal economic mineral; it occurs in irregular deposits in silicified sediments. The property is regarded favorably by experienced leasers in the district, but the company has been averse to leasing any part of the mine.

The Modoc group of six unpatented claims of miles west of Copper Canyon is owned by Charles L. Caldwell and R. H. Raring, of Battle Mountain, Nev. A small makeshift amalgamation mill was erected on the property in 1928, but the tailings pile gives evidence that not more than 200 tons of ore were treated. Free gold occurs in narrow seams in diorite.

The Big Four Annex group of one claim and several fractions, unpatented, is about 2 miles southwest of Galena. The owner, Donald A. McDonald of Galena, has shipped several carloads of ore from the property in recent years. Development comprises an addit 100 feet long and a winze 30 feet deep. Irregular, narrow, silver- and gold-bearing quartz veins are found in shale and quartzite.

The Antimony King group of three patented claims, owned by Guy E. Mitchell of Battle Mountain, Nev., is on a narrow ridge between two forks of Cottonwood Canyon. The deposits were discovered in the seventies, and several hundred tons of high-grade antimony ore were shipped to Swansea, Wales. The antimony occurs chiefly as stibnite in a quartz vein in shale and quartzite. The strike of the vein is nearly north and south with a steep dip westerly, and it ranges from 2 to 6 feet in width.

BIG CREEK DISTRICT

The Big Creek district is in the vicinity of a small stream of the same name on the west slope of the Toiyabe Range about 10 miles south of Austin. It adjoins the Reese River district on the south and the Birch Creek district on the north. A number of antimony veins in this area originally were located for silver in 1863, and a short-lived boom ensued. Lander City, built in Reese River Valley at the mouth of Big Creek in 1863, had several hundred inhabitants and a telegraph line, but a short time after, the mines not proving successful, the town was abandoned.

• The Bray antimony mine was relocated in 1891 by Joseph Bray, and intermittent shipments of hand-cobbed ore containing 50 percent antimony were made. Operations were suspended in 1898. Stimulated by high prices, the antimony mines were reopened during the World War, and some hand-cobbed ore was shipped to the antimony smelter at Matawan, N. J., owned by the Magnolia Metal Co. of New York. Virtually no antimony ore has been produced since the World War.

The Bray mine, consisting of one patented claim, is owned by Mrs. Mary Bray. The Austin Silver Mining Co. owns one patented antimony claim and a patented mill site in Dry Canyon. A number of other unpatented claims are owned by various individuals.

According to Hill 2 at the Pine mine the antimony is present in a silicified fault breccia cemented by quartz intergrown with stibnite. The ledge strikes N. 55° W. and dips 50° SW., being about 40 feet wide and traceable along the strike for nearly 400 feet.

At the Bray mine the stibnite occurs in a network of quartz stringers and as tabular irregular lenses of quartz and stibnite with a little tetrahedrite.

At present prices, the mining of antimony ore is not profitable in Nevada unless the ore is associated with some other valuable metal. At 20 cents per pound, the Big Creek deposits could be expected to produce some antimony.

BIRCH CREEK DISTRICT

The Birch Creek district, also known as Smoky Valley, is in the vicinity of Geneva Peak (altitude 10,994 feet) on the east flank of the Toiyabe Bange, 12 miles south of Austin. It adjoins the Reese River district on the south, Big Creek on the east, and Kingston on the north. In 1863 silver-lead deposits were discovered in this area, and the Smoky Valley district was organized. A 20-stamp mill was erected at the mouth of Birch Creek to treat ore from the Big Smoky mine, but it operated only a short time. Although a number of properties were worked in the early days, production was small.

In 1916 John Cahill discovered high-grade gold ore, and the Nevada Birch Creek Mining Co. was organized in 1919 to carry on development work. Some gold ore was shipped from the property, but in recent years it has been inactive.

Nevada Birch Creek Mining Co.

The Nevada Birch Creek Mining Co., G. L. Belanger, secretary and treasurer, owns a group of eight unpatented claims.

Development includes two adits, the longest 475 feet in length and cutting the vein at a depth of 150 feet from the surface. Underground workings total about 2,000 feet. There is no mining or milling equipment on the property.

The prevailing rocks in the vicinity of the mine are andesite, rhyolite, and granodiorite. Gold ore occurs in bunches in a steeply dipping vein that strikes nearly north and south. Gold is in a free state in a gangue of quartz, fluorite, sericite, and crushed country rock stained with iron oxides.

At the mouth of the canyon below the mine several shafts have been sunk in the alluvium for placer gold. One shaft was sunk to a depth of 150 feet without finding bedrock. The material on the dump consists largely of granodicrite fragments. The results of this work were discouraging.

^{9/} Hill, James M., Some Mining Districts in Northeastern California and Northwestern Nevada: Geol. Survey Bull. 594, pp. 121-123.