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W.G. Vandenberg

1940.

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① Item 2

Small amounts of nickel, antimony, and tungsten ores also have been produced. In the industrial-mineral group considerable quantities of salt, probably about 500,000 tons, have been mined, chiefly for metallurgical use. Between 1870 and 1873 borax was produced from the salines in Sand Springs Marsh, Dixie Marsh, and Soda Lakes. Although no statistics are available as to the amount produced, it has probably been less than 1,000 tons. The production of sodium carbonate from Soda Lakes between 1868 and 1893 averaged about 400 tons annually, making a production of about 10,000 tons for the period. In addition, small amounts of diatomaceous earth and shell limestone have been mined in the county in former years.

Current mining activity is confined mainly to leasing, and the production of shipping ore for the past 2 years has averaged about 300 tons per month.

ALPINE DISTRICT

The Alpine district is in eastern Churchill County on the east side of the Alpine Range, about 13 miles northwest of Eastgate. It can be reached by automobile from Eastgate over a fair desert road through Edwards Creek Valley. The district was originally organized as the Clan Alpine district in January 1864 but is now generally known as Alpine. In 1864 a number of claims were located for silver in the vicinity of Florence Canyon, and considerable work was done on them. In 1866 the Silver Lode Mining Co. erected a 10-stamp mill at the mouth of Cherry Creek, where the camp of Alpine was laid out. A number of stone buildings, now in ruins, attest this early activity. The veins proved to be narrow and low-grade, so that the district was abandoned after several years. Except for sporadic prospecting, there has been little mining since the early days. In all probability not more than a few thousand dollars has been produced. In April 1939 the only mining in this area was on the Nevada Gold group of claims.

Nevada Gold Group

The Nevada Gold group, comprising three unpatented claims owned by Sam Spring of Fallon, is at the head of Stone Canyon, 33 miles by road north of Eastgate. This property was prospected in the early days, but there is no record of any production. From the size of several small stopes, however, production probably has been several hundred tons of shipping ore. Early in 1939, Spring, working single-handed, mined about 50 tons of shipping ore.

Development consists of a crosscut adit 500 feet long that is filled with detrital material washed in by cloudbursts. A second adit has been driven on the vein for about 100 feet. These workings, with several scattered open-cuts and a shaft 130 feet deep, total approximately 800 feet. The only equipment on the property consists of tools for hand-mining and several camp buildings. There is a small perennial stream in Stone Canyon that probably could furnish enough water for a small mill.

The formation is slate intruded by monzonite. The ore occurs in two nearly parallel fissure veins traversing both the slate and monzonite. The vein on which most of the work has been done strikes N. 10° E. and dips 50° westerly. The economic minerals are silver, gold tetrahedrite, galena, and sphalerite and their oxidation products in a gangue composed chiefly of quartz with a little pyrite. Width of veins ranges from a few inches to 5 feet, and where the ore has been stoped the veins average about 2 feet in width.

BERNICE DISTRICT

The Bernice district is on the west slope of Clark Alpine Range in east Churchill County, 90 miles by road, a little south of west from Fallon and 70 miles southeast of Lovelock, both towns being on the Southern Pacific R. R. From Fallon the district can be reached by automobile over the Lincoln Highway to Dixie Valley turn off, a distance of about 40 miles, and thence up Dixie Valley to the mines situated in Bernice and Hoyt Canyons. The last 25 miles of road is in poor condition, but with careful driving is passable.

Silver and antimony ores were discovered in the district in the late eighties. The principal ore mined has been silver ore from the Williams mine; probably about 500 tons of antimony ore has been shipped. In 1939 the only activity in this area was by lessees on the Bluebird group of claims.

Silver Deposits

The Williams mine at the head of Bernice Canyon comprises two patented and three unpatented claims owned by the Warren W. Williams estate. This property was discovered by James Wardell in the late seventies and was sold to Williams, who operated it from 1880 to 1890. A 10-stamp mill was erected below the mine in Bernice Canyon; silver produced is said to have amounted to \$300,000. The ores contained considerable arsenic in the form of arsenopyrite, and the mill was equipped with two White-Howell roasters. The ore is in a series of narrow veins in shale. The outcrops carried considerable antimony, which decreased at depth. The mine has been inactive for many years.

The tailings pile below the old mill site, containing about 6,000 tons, is owned by C. M. Beeghly and L. T. Ellis, according to a location notice dated March 18, 1939.

The Bluebird group, comprising six unpatented claims owned by Albert Lofthouse, of Fallon, is in the northern part of the district. In 1939 the property was under lease to D. G. Brunner, A. J. Cooley, and associates, who, up to April 1939, had made one small shipment of ore to the McGill smelter. Here the ore occurs in a narrow vein in limestone.

Antimony Deposits

Antimony was first discovered in the district in the eighties by H. Hoyt. W. W. van Reed shipped several cars of hand-sorted ore containing 62 percent antimony to the Star and Matthews smelter in San Francisco. A small quantity