Lander County - general

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Item 12

MATERIALS SURVEY

ANTIMONY

Compiled for the

MATERIALS OFFICE
NATIONAL SECURITY RESOURCES BOARD

by the

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with the cooperation of the

GEOLOGICAL SURVEY

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Small quantities of antimony have been produced from the Snowdrift mine, Juniper Hills district, near Sulphur. The Pansy Lee or Case-Prout mine in the Barrett Springs district 10 miles northwest of Winnemucca contains appreciable antimony in ores that are mined primarily for lead, zinc, and copper. Concentrates produced in 1941 contained 160 tons of antimony, but the mine was closed in 1942. Total production and reserves are not known. Stibnite was abundant in a gold shoot in the old National mine, National district. Stibnite was the most abundant sulfide, but the ore also contained pyrite, chalcopyrite, arsenopyrite, sphalerite, and galena; cinnabar was found in one vein. A little antimony was found on the Bell claims near the Buckskin quicksilver mine southeast of McDermitt.

Lander County: The Cottonwood Canyon or Antimony King mine is about 8 miles southwest of Battle Mountain on the southeast slope of Antler Peak. Stibnite and antimony oxides occur in quartz veins and as stringers and irregular masses in a shear zone in chert and siliceous shale. Past production has been about 300 or 400 tons of antimony. Some of the ore can be sorted to a high-grade product, but much of the antimony has been discarded on the dumps. Several hundred tons of antimony remain as reserves, in small part as high-grade ore but mostly in material containing 3 to 5 percent antimony.

The Apex mine is in Galena Canyon, about 2 miles southwest of the Cottonwood Canyon mine. Antimony occurs in a quartz vein that is generally about 3 inches wide but locally swells to form orebodies up to 2 feet wide, 50 feet long, and 50 feet deep. Total production has been about 100 tons of antimony. Reserves are small.

The Blue Dick mine is in the Hilltop district, about 20 miles southeast of Battle Mountain. Two narrow veins of quartz, stibnite, and antimony oxides are in quartzite and chert and in sediments and volcanic agglomerates that overlie the older rocks. Production and reserves are small.

The Antimony King (Bray) mine is on the south branch of Big Creek, south of Austin. The mine produced perhaps as much as 1,000 tons of antimony between the time of its discovery in 1864 through World War I. Only a small quantity of ore has been produced from it since. The vein is more than 100 feet long and has been worked through a vertical distance of about 100 feet. The maximum width is about 3 feet, and the average is about 2 feet. Small stringers have also been found in the country rock, which is calcareous shale. In addition to quartz and antimony, the ore also contains silver and selenium; the latter element is particularly objectionable in the making of antimony oxide.

The Pine (Dry Canyon) mine is north of the Antimony King mine. Small quantities of stibnite are distributed unevenly in a silicified zone up to 30 feet wide, several hundred feet long, and at least

250 feet deep. It is reported to have produced over 1,000 tons of antimony about 1890. The main ore shoots were reported to be 2 to 4 feet wide and 60 feet long, averaging about 20 percent antimony and including bodies of nearly pure stibnite up to 3½ feet wide.

Other antimony deposits of the same type in addition to the above, occur near Battle Mountain and south of Austin. Antimony-containing ores of the complex type in which antimony is minor and commonly objectionable, occur in the Bullion and Cortez districts. The copper deposits of the Battle Mountain district contain a little antimony; the principal valuable mineral of the Austin district is tetrahedrite, containing silver as well as antimony.

Mineral County: The Lucky Boy mine near Hawthorne is primarily a gold mine, but the vein contains some high-grade concentrations of antimony.

The Hartwick property is 3 miles southwest of Luning. Antimony occurs in limestone near a granite contact. The ore also contains gold, silver, and lead.

The Smith prospects are 5 miles east of Luning. The ore is in limestone; the width of the vein ranges up to 4 feet. The Mary E. mine is between Hawthorne and Mina near the Pamlico road. The ore is in sedimentary rocks associated with intrusive andesite. Lead accompanies the antimony; the grade is low.

The Happy Return mine is 3½ miles northeast of Rawhide. The vein is 90 feet long and up to 1 foot wide and is in granite. Production and reserves are small. The Bismark claims are 8 miles southwest of Hawthorne in the Willow Creek region. The antimony ore contains some silver. One of the principal minerals of the Candelaria district is jamesonite, containing lead and antimony. Past production was considerable but recent attempts to revive mining in the district were not successful.

Nye County: The Silver Divide mine is on the east flank of Toiyabo Range about 60 miles north of Tonopah. Brecciated and partly silicified zones of thin-bedded limestone contain stringers and pods of high-grade stibnite. The over-all grade of the zones probably does not exceed 5 percent, but a large part of the antimony can be recovered in a high-grade, hand-sorted product. The total output has been about 200 tons of antimony, all produced since 1935. Reserves are small to moderate.

The White Capps mine in the Manhattan district is in the south part of the Toquema Range, 35 miles north of Tonopah. Stibnite is a constituent of ores mined primarily for gold; arsenic minerals are also abundant. Stibnite is found in many parts of the mine, but in