NATIONAL DISTRICT

LOCATION

The National District is located on the western slope of the Santa Rosa Range in northeastern Humboldt County. The principal mines of the district are found in Sections 27, 28, 33, and 34, T46N, R39E about 15 miles southeast of the town of McDermitt. Also included in the National District are mines on the northeast slopes of Buckskin Mountain about 2 miles to the southeast of the National Mine.

HISTORY

The earliest work in this district was in the area just north of Buckskin Peak. Prospectors, presumably looking for gold and silver, staked claims there prior to the discovery of the main National District (Lindgren, 1915). The date of this activity and any production that may have resulted are, however, unknown. The deposits at National were discovered in 1907 and production began in 1908. Rich ore was discovered on the Stall property (National Mine) in 1909 and ore valued at up to $30 per pound was produced for a short period of time. The major period of activity at National ended in 1917 but production is recorded from the camp in 1918, 1924, and 1933 through 1940. Total production for the period 1909-1940 is $3,914,596 (Couch and Carpenter, 1943). Sometime between 1922 and 1928 mercury was discovered on Buckskin Peak adjacent to the old Buckskin National gold property. About 150 flasks of mercury were produced from the occurrence up through 1943 (Bailey and Phoenix, 1944), and the property was again mined in the last 1960's.

There has been intermittent, small-scale activity in the main National district over the years since 1940, but no production has been recorded. To the south, in the Buckskin National area, ASARCO has conducted extensive exploration in recent years but the results of this work are not known.

GEOLOGIC SETTING

The northern Santa Rosa range in the vicinity of National is built up of Tertiary lavas among which basalts in many superimposed flows predominate. According to Lindgren (1915) the oldest of these rocks are lake beds and tuffs. These, in turn, are overlain successively by latite and trachyte, basalt, and rhyolite. Lindgren (1915) correlated the basalt with the Miocene Columbia River basalt to the north, and the other volcanic rocks are possibly also of Miocene age. The upper rhyolite is associated with the mineralization at the National Mine. On the top of Buckskin Peak a cinnabar-bearing siliceous sinter forms a blanket that rests on the upper rhyolite. The age of the sinter is uncertain but Lindgren (1915) regarded it as a surficial deposit formed in late Tertiary time, soon after the extrusion of the rhyolite, and genetically related to the veins of the district.

ORE DEPOSITS

The mineral deposits at National are narrow fissure veins with a general northerly trend and steep east or west dip. The veins intersect latite, rhyolite, basalt, tuff, and trachyte and the country rock near the veins is altered by the development of pyrite, calcite, sericite, and adularia. The veins consist of sheared rock a few feet wide and have a well-marked footwall. Seams of quartz lie along foot, hanging, or intermediate walls. The quartz seams generally show symmetrical banding and are often vuggy. The most characteristic mineral present is stibnite for it occurs in almost every vein that has escaped oxidation. Pyrite, chalcopyrite, arsenopyrite, sphalerite, and galena occur in small grains in the vein material. Native gold was found chiefly in one rich ore shoot of the National vein where it occured as electrum containing about 50 percent silver (Lindgren, 1915).

The mineralization at Buckskin Peak (Buckskin National mine) consists of a complete mineralized system from surface mercury deposits in sinter to stibnite-rich upper portions of veins to deeper ruby silver and gold-bearing quartz veins. Most of the production of this part of the district probably came from one vein, the Bell, which consists of a strong iron-sulfide zone several meters wide with a crustified quartz vein in the center. Minerals present in the veins of this part of the district include native gold (as electrum), pyargyrite, tetrahedrite, galena, pyrite, chalcopyrite, sphalerite, bornite, and stibnite. Cinnabar is found in the sinter deposits on Buckskin Peak, and represent the surface expression of the underlying precious metal vein system.

GEOCHEMICAL RELATIONSHIPS

Geochemical data from this district showed metal relationships which could have been predicted from descriptions of the mineralogy of the deposits. Gold was detected in most samples, silver values were high and arsenic and antimony were present in anomalous amounts. Samples collected from the National mine were higher in lead, zinc and copper than were those samples collected from the Buckskin National mine. Values for all other elements were generally low.

SELECTED REFERENCES

Bailey, E.H., and Phoenix, D.A. (1944) Quicksilver Deposits in Nevada: NBMG Bull. 41.

Couch, B.F., and Carpenter, J.A. (1943) Nevada's Metal and Mineral Production: NBMG Bull. 38.

Lincoln, F.C. (1923) Mining Districts and Mineral Resources of Nevada: Nevada Newsletter Publishing Co.

Lindgren, W. (1915) Geology and Mineral Deposits of the National Mining District, Nevada: USGS Bull. 601.

Roberts, R.J. (1940) Quicksilver Deposits at Buckskin Peak, National Mining District, Humboldt County, Nevada: USGS Bull. 922-J.

Vanderburg, W.O. (1938) Reconnaissance of Mining Districts in Humboldt County, Nevada: USBM IC 6995.

Willden, R. (1964) Geology and Mineral Deposits of Humboldt County, Nevada: NBMG Bull. 59.