

## RED BUTTE DISTRICT

## LOCATION

The Red Butte district lies about 17 air miles northwest of Jungo, a railroad siding on the Western Pacific Railroad, on the west flank of the southern part of the Jackson Mountains. All the mines and prospects in the district can be located on the King Lear 15 minute topographic map.

## HISTORY

According to Ransome and Vanderburg the area was first prospected for gold in 1907. Subsequent exploration was confined to copper and latter, post World War II, to antimony. One known cinnabar occurrence is located in the southwest corner of the district. Total production through the mid 1930's consisted of three carloads of copper-lead ore, one carload of lead-zinc-silver ore and about 20 tons of antimony ore. Most of these ores were shipped during World War I. In the very early 1940's a few flasks of quicksilver were produced. Since World War II activity in the district has been very minimal with the most interest probably shown in the early to mid 1960's when the price of antimony was at an all time high. Production from this activity is not known but judging from the workings it was very little to none. There is no current activity in the district although a large block of claims is being held by Terry and Howard Harris of Winnemucca.

## GEOLOGIC SETTING

Extending through the center of the district, or slightly east of center, Willden has mapped an un-named and undivided sequence of Tertiary volcanic rocks. Within the Red Butte district this unit is dominantly andesite. Lying along the west margin of the district, and to a lesser extent along the east margin is alternating sections of the Permian Happy Creek volcanic series and the Cretaceous King Lear Formation. The Happy Creek series is composed of massive aphanitic or porphyritic volcanic flows and flow breccias, agglomerates, tuffs, and, at a few localities, graywacke and volcanic-debris sandstone. The composition of the volcanic rocks ranges from andesite to basalt, but andesite is by far the most abundant. The detrital rocks, consisting mainly of volcanic fragments, occur in the southern Jackson Mountains east of the Jungo-Post Creek road.

The King Lear Formation everywhere rests on volcanic rocks assigned to the Happy Creek group, except on the south side of Rattlesnake Canyon at the west front of the Jackson Mountains. Here, the formation overlies gray thick-bedded limestone mapped, by Willden, as part of the undivided volcanic and sedimentary formation of Permian and Triassic age. The King Lear Formation is composed of about equal amounts of dark-green and greenish-brown pebble to boulder conglomerate and green to red siltstone, smaller amounts of green to greenish-gray or brown graywacke, and occasional beds of light to dark-gray dense finely crystalline limestone. The formation is thought to be middle Early Cretaceous age.

In the south-southwest portion of the district is a small wedge of Tertiary volcanic and sedimentary rocks undivided.

Tertiary-Cretaceous age granodiorites and diorites occur in the northeast and northwest portions of the district. Associated with these intrusives are a series of aplite dikes and in places the diorite grades into gabbro.

#### ORE DEPOSITS

Ore deposits in the district are copper-antimony and one known mercury occurrence. The copper deposits occur in association with aplitic dikes as veins and disseminations and, at one prospect, in a fissure zone in gabbro. Mineralization consists of cuprite, covellite, native copper, chalcocite, chrysocolla, azurite, and malachite. Gangue minerals include hematite, limonite, and minor barite. Antimony occurs in quartz veins associated with diorite and andesite. Ore minerals are antimony oxides at the surface and stibnite at depth. The cinnabar occurrence is associated with andesite, diorite and limestone, where it occurs as fillings in fractures, disseminated in shear zones and as rounded "strawberries" in open cracks. Associated minerals include pyrite, hematite, calcite, dolomite, various clays, and several copper minerals.

#### SELECTED REFERENCES

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