COTTONWOOD DISTRICT

LOCATION

The Cottonwood district includes all of the mines and prospects situated in the Fox Range. The Fox Range lies immediately north of Pyramid Lake and separates the Smoke Creek Desert on the west from the San Emidio Desert on the east.

HISTORY

According to Bonham (Bonham, 1969, p. 53) there has been intermittent production from this district since the 1870's. The only recorded production Bonham (op. cit.) could find was 1,500 lbs of lead produced in 1929. He judged, from the extent of workings, that production may have been around $100,000, mainly from lead, copper, zinc, gold, and silver.

GEOLOGIC SETTING

The oldest rocks in the Fox Range are Mesozoic metasedimentary rocks, chiefly slate, phyllite, impure quartzite, and marble. These rocks were intruded by Mesozoic granodiorite stocks. The largest stock is exposed in the northern part of the range. It is a coarse-grained foliated granodiorite containing moderately abundant hornblende and biotite. The granodiorite stocks exposed in the southern part of the range are medium grained, unfoliated, and contain less hornblende and biotite than the northern stock. Summary taken from Bonham (op. cit., p. 56).

"Overlying the Mesozoic rocks unconformably is a moderately thick sequence of Tertiary volcanic and sedimentary rocks of probable Miocene age. The volcanic rocks range from rhyolite to basalt, with basalt and andesite flows, mud flow breccia and tuffs greatly predominating. Intercalated with the basaltic and andesitic rocks, particularly in the southern part of the range are diatomites, sandstone and conglomerate, and siliceous vitric tuffs" (Bonham, op. cit.).

ORE DEPOSITS

Cottonwood Creek Area: Three sets of workings are found in this area. All are located on the Smith Canyon 7 1/2 minute topographic map and are found near the center, east edge of the map. Access to these workings is via a road up Cottonwood Creek, on the east side of the range.

The most northerly workings consists of an inclined shaft (at about-35°) which trends S20°E. According to Bonham (op. cit., p. 57) this is the Silver Fox prospect. At the time of the current visit the shaft was somewhat open and judging from the size of the dump, workings here may be 200-400 feet in extent. This shaft was sunk on a white quartz vein in which iron and copper oxides can be seen. The quartz vein is associated with a granitic dike and the county rock here is a phyllite. Sample 2404 was collected here. Bonham identified (op. cit.) jamesonite, tetrahedrite, and sphalerite in the vein material.

Something less than 1/2 mile south-southeast of the above workings is another set of workings. According to the sign nailed to a timber at the mouth of an adit this is the Modoc Mines property. The location and description also fits Bonham's (op. cit., p. 56) description of this property.

At the time of the current visit only one adit and a small open cut were observed. This adit trends N30°W and there appeared to be several hundred feet of workings. Bonham (sp. cit) states that these workings consist of three levels. The uppermost workings being several shallow pits and a caved inclined shaft; the middle workings being a 60-foot long adit with approximately 200 feet of drifts along the vein structure, an inclined raise and a winze connecting to the lower level; the lower most workings is a 180 foot adit, with 140 feet of drifting along a vein and an inclined winze. It is thought that the current observations were at the lower most workings of Bonham's description. Mineralization is associated with a white quartz vein which in turn, is associated with a granitic dike. Where observed by the writer these were enclosed in a medium gray colored limestone. Bonham observed that the quartz vein and granitic dike, in places, were hosted by a schistose argillite and a phyllite. The quartz vein contains sphalerite, tetrahedrite, and pyrite. Bonham also noted that the quartz had been emplaced along a fault zone which generally marks the contact between the granitic dike and the metasediments. The strike of the vein varies from east-west to N45°E and the dip varies between 40° and 70°SE (Bonham, op. cit.).

There has been no known production from any of these properties in Cottonwood Canyon.

The topo map shows a third set of workings approximately a mile down canyon from the above two sets of workings. Map symbols indicate two adits but none could be found. There was one place along the north side of the road where an adit may have been. If so then it is caved. Bonham mentions no such workings here in his paper.

Rodeo Canyon: On the Fox Range 15 minute topographic map there are some prospects shown up towards the head of what the writer would call the south fork of Rodeo Creek. They lie on or close to the section line between S5 & 8, T29N,R22E. These prospects were not visited as there was a locked gate at the mouth of Rodeo Canyon and this would have necessitated a walk of 3-4 miles to reach the prospects. Considering the time involved and extent (or lack of) of the workings it was decided not to take the time to visit these prospects. However, Bonham (op. cit.) has a write-up on this area. He states that workings consisting of several trenches, shallow pits, and a 30 foot deep inclined shaft, all located along a contact between a granodiorite and metasediments. Bonham observed a small amount of tactite and a very minor amount of scheelite. All the scheelite observed was in the tactite and by visual estimate did not exceed 0.5% WO_3.

Bonham also mentions an occurrence of lead and silver that was originally mentioned by Hill (Hill, 1915, p. 193). According to Hill the occurrence consisted of a 14 inch quartz vein. Bonham could not find this occurrence.

Wild Horse Canyon: The Wild Horse Mine is located on the Fox Range 15 minute topographic quadrangle map. It is near the head of Wild Horse Canyon in the south central portion of S2,T29N,R21E. At the time of the writer's visit there was a locked gate approximately 2 1/2 to 3 miles down the road from the mine.

Bonham (Bonham and Papke, 1969, p. 58-59) has an excellent description of the workings and geology of the mine area. "Workings consist of six adits, several shallow shafts and pits, and an open stope 20 to 30 feet deep, 2 to 4 feet wide and approximately 100 feet long. The accessible adits are short, not exceeding 150 feet in length. The entrance to the main adit level is located to the immediate east and in back of a new cabin/house that is in the process of being built and is about 20 feet above the elevation of the canyon floor. This adit is several hundred feet in length..." The mouth was totally caved at the time of the current visit. There has been no mining activity here for some time, although there is a late model house trailer setting at the mine site as well as new construction - mentioned above. There are also numerous white PVC claim posts in the mine area but no "paper" could be found. The workings as described by Bonham were the same as observed during the current visit.

A summary of previous activity, dating back to 1912, is given by Overton, p. 60-61.

Continuing with Bonham's description of the area, "The workings explore two sets of mineralized faults, which cut a granodiorite stock intruding Mesozoic metasedimentary rocks and hornblende gabbro. One set of mineralized faults trends about N60°W and dips 15° to 30° SW. The other set trends N60°E to N80°E and dips vary from vertical to 60°NE. The mineralized fault zones consist of fractures, sheared, and sericitized granodiorite and range in thickness from 2 to 20 feet. Quartz veins and stringers up to 2 feet thick occur in the fault zones. Pyrite and small amounts of arsenopyrite occur as disseminations and pods in both the altered granodiorite of the mineralized zones and in the vein quartz..."

Sample #2443 collected here. Around mouth of main adit and from "high-grade" pile. Pictures #3 through 5 taken here.

SELECTED REFERENCES

Bonham, H. F., Jr., and Papke, K. G. (1969) Geology and mineral deposits of Washoe and Storey Counties, Nevada: Nevada Bureau of Mines and Geology Bulletin 70, 140 p.

Hill, J. M. (1915) Some mining districts in northeastern California and northwestern Nevada: U.S. Geological Survey Bulletin 594.

Lincoln, F. C. (1923) Mining districts and mineral resources of Nevada: Reprint Ed. 1970, Douglas McDonald Pub., p. 233-234.

Overton, T. D. (1947) Mineral resources of Douglas, Ormsby and Washoe Counties, Nevada: Nevada Bureau of Mines and Geology Bulletin 46, p. 60-61.