

Silver, lead

NEVADA
MINERAL & NYE COUNTIES

192
245

Geographies

0730 0002

→ BROKEN HILLS AND QUARTZ MT.
DISTRICTS,

item 1

References:

- USGS 1 : 250,000 AMS series topographic map, Millet sheet -- shows Quartz. Mt. as a labeled townsite
- USGS 1 : 250,000 AMS series, Reno sheet -- shows Broken Hills as an unlabeled mine symbol, and also shows the districts of Eagleville and Rawhide farther west.
- USGS GQ 250, Geology of the Paradise Peak Quadrangle, Nevada, 1963. North edge of this map is four or five miles south of the districts.
- Nevada Bureau of Mines Bull 50, Mineral Resources of Nye County, 1951. Fairly complete brief description of Quartz Mt. district and other subdistricts of what is there lumped together as Lodi district.
- Nevada Bureau of Mines Bull. 58, Geology and Mineral Deposits of Mineral County, Nevada, 1961. Very brief description of Broken Hills district; district is shown on accompanying geologic map of the county.

History: The series of metal-occurrences maps recently brought out by the Nevada Bureau of Mines show no production for the Quartz Mt. district, but show small production of gold, silver, copper, lead and zinc from Broken Hills. Nevada B. of M. Bull 58 credits Broken Hills with "a small production of silver and lead". Nevada B. of M. Bull 50 credits Quartz Mt. with more than \$300,000 worth of lead-silver ore, with the greatest production in the few years following discovery of the district in 1920. The major production of the area was some \$6,000,000 worth of fluorite from the Kaiser (Baxter) Mine five miles west of Broken Hills.

At the time of my visit, on December 8, 1964, both districts were completely deserted, but at least two rotary drill holes had been drilled near the San Rafael Mine in the Quartz Mt. district within the past few months -- according to markers on the piles of cuttings, these holes reached to depths of about 400'.

Geology: The Broken Hills district, which is about three miles due west of Quartz Mt., is entirely in Tertiary volcanics, which are shown as being post-Esmeralda on the county geologic map, though the text indicates that this dating was entirely subjective. In the vicinity of the main ~~xxx~~ mine, the Broken Hills, the volcanics are highly altered and pyritized. I did not have time to inspect the rest of the district. The vein at this mine was stope to the surface for a length of about 150' on either side of the shaft, and according to the open stopes was not more than three feet wide. Ore material set aside on the dump consists of fine-grained silicified material containing fine-grained unidentifiable sulfides. The large dump indicates at least a couple of thousand feet of workings, and pyrite disseminated through most of the dump material indicates that oxidation does not extend very deep.

Other shafts and pits extend for a mile or so southeasterly from the Broken Hills Mine. These, too, are evidently in volcanics, and the road from Broken Hill to Quartz Mt. also is on volcanics all the way.

At Quartz Mt. the San Rafael Mine at the north end of the district is in sediments, predominately cherts but evidently with some limestone, as the ore is reportedly in limestone -- the main vein having an oreshoot 120' long, 3' to 14' wide and about 280' on the dip. Most of the ore is oxidized (the shaft is 450' deep on a 40° incline). A few hundred feet northwest of the San Rafael Shaft is another, vertical shaft probably 200' or 300' deep; this collars in volcanics, and most of the dump is volcanics, but there is also some chert and some quartz monzonite on it. There is very little sign of mineralization in this dump.

At the south end of the Quartz Mt. district, perhaps 1/2 miles south of the San Rafael, is the Hasbrouck Shaft, vertical, reportedly 320' deep. Bull. 50 and the dump indicate that it was mostly in granodiorite, although it collars in limestones and cherts. All outcrops surrounding the shaft are pre-Tertiary sediments or intrusives, as is all of the hill that is Quartz Mt. itself. GQ 250 covers the range of hills a few miles south of Quartz Mt. and shows these hills as being all pre-Tertiary rocks; I suspect that roughly everything south of the San Rafael Shaft for several miles is underlain by pre-Tertiary rocks, while everything north of it is underlain by Tertiaries, but the latter are probably not very thick.

The Hasbrouck Shaft is at the edge of outcrops, with only alluvium to the southwest, but a quarter of a mile southwest of the Hasbrouck is the fairly large dump of another shaft, which from a distance appears to have been in bedrock for most of its depth. This indicates that the alluvial cover on the pediment is not thick. The gentle transition from the low rolling hills of the Broken Hills - Quartz Mt. area to the adjacent uniform slopes down toward Gabbs Valley to the southwest suggests that there is no frontal fault along these hills -- that the pediment extends for a considerable distance out into the adjacent major valley.

A35
Arthur Baker III

Area scouted December 8, 1964