4910 0002

(17) Item 2

TRUCKEE (FIREBALL) DISTRICT

LOCATION

The Truckee, or Fireball, district is located on Fireball Ridge, a northeast-trending mountain spur that extends from the Truckee Range in western Churchill County. The mines and prospects in the district are concentrated in sections 5, 6, 8, and 19, T23N,R26E, along the crest and upper eastern slopes of Fireball Ridge.

HISTORY

According to Lincoln (1923), the Nezelda Mine, near the south edge of Fireball Ridge, was worked for gold, silver, and lead in the 1880's but no record of this exists. Vanderburg (1940) states that the district was discovered in 1930. Prospecting results were reported to be discouraging and only about 20 tons of ore were produced up to the time of his report. Willden (1974) adds that production since Vanderburg's time has been minor. Prospecting activity continues in the area and there is evidence of recent exploration and drilling in the south end of the district in the area of the Nezelda property (the 1880-era discovery).

GEOLOGIC SETTING

Fireball Ridge is an area of pre-Tertiary rocks overlain at the north and south ends of Tertiary volcanic rocks and intruded by some rhyolite dikes near the south end. The pre-Tertiary rocks include a sequence of schistose and phyllitic metavolcanic rocks, probably initially pyroclastic rocks, that are overlain by a sequence of phyllite and slate. These rocks are intruded by a quartz diorite to gabbroic pluton that makes up much of the north part of Fireball Ridge.

ORE DEPOSITS

The old mine workings in section 19, probably the Nezelda workings, expose a northeast-trending fault zone in hornfels and slate. The zone parallels andesitic dikes and is composed of several en echelon segments. Vuggy, cockscomb quartz is present in places along the silicified zone and areas display malachite and azurite staining. East-west cross structures cut the north-south and are filled with brecciated quartz vein material.

To the north, in section 6, copper oxides, galena, and pyrite occur in a 4-foot wide quartz vein near a diorite-andesite contact.

GEOCHEMICAL RELATIONSHIPS

Samples from deposits in the Truckee district appear to fall into two general groupings based on their trace element geochemistry. Samples from

the southern part of the district, from prospects in section 19, were high in arsenic and boron, moderately high to high in copper, were low in silver and other base metals. One sample, 2879, reported 3 ppm gold. To the north, ore samples were very low in arsenic and boron but contained moderate values of lead and zinc. One sample contained anomalous cadmium and 150 ppm (about 4 oz) silver. The arsenic-boron-gold association samples were taken quartz-filled silicified shear zones associated with andesite dikes while the base metal, low arsenic association samples were from deposits associated with a diorite contact zone.

SELECTED REFERENCES

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

Vanderburg, W. O. (1940) Reconnaissance of Mining Districts in Churchill County, Nevada: USBM IC 7093.

Willden, R., and Speed, R. C. (1974) Geology and Mineral Resources of Churchill County, Nevada: NBMG Bull. 83.