Northern Nye County Report
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Item 30

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Tungsten written

Fourteen tungsten deposits are listed by Schilling (1964, p. 158-159) in northern Nye ~~County~~. One, the Victory mine, produced over 100,000 units of WO_3 (1 unit, 20 lb, WO_3). Most of the deposits lie in an area from Belmont (Toquima Range) west-northwestward to the Lodi Hills, and were mined chiefly during ~~the~~ World War II and the period 1950 to 1956, when the Federal stockpile program was in effect, and producers received a price exceeding $60/short tone unit of WO_3.

Scheelite ($CaWO_4$) in quartz veins and in contact metamorphic zone deposits was the major tungsten mineral mined, but wolframite and huebnerite occurrences have also been reported (Kral, 1951, p. 25, 103, 147, 154; Ferguson, 1924, p. 77; Lincoln, 1923, p. 174). Huebnerite-fluorite-quartz veins in granitic rocks east of Round Mountain, known since 1907, yielded a little ore in 1915. The veins contain sparse tetrahedrite close to the granite contact. Wolframite in quartz veins in granite just south of Belmont was prospected by trenching, but Kral (1951, p. 25) lists no production from here.

Scheelite in the contact-metamorphic zone deposits is commonly associated with secondary copper minerals and garnet in tactite. Considerable scheelite was produced from a granitic stock south of Paradise Peak in the Paradise Range, and numerous mines and exploratory workings can be seen today in contact-metamorphic rocks along the south flank of the range. A more unusual occurrence of scheelite with cinnabar in a white marble bed of the Luning Formation is present at the Scheebar mercury mine near Paradise Peak.

Another unusual deposit--a vein of scheelite with the chlorite mineral leuchtenbergite--is found east of Gabbs at the Betty O'Neil claims. Kerr and Callaghan (1935, p. 1957-1974) indicate that scheelite was deposited with quartz and, during hydrothermal alteration, much of the quartz was replaced by talc and leuchtenbergite.

Along the east flank of the Toyabe Range, deposits of scheelite are found in metamorphosed limestone (tactite) and quartz veinlets and pods associated with mica schist and granitic rocks. The deposits yielded several hundred thousand dollars worth of ore in the 1950's, but either gave out or were abandoned when the price support for tungsten was removed. The workings are small, so the ore must have been rich. In 1952(?) Newmont Mining Corp. explored one of these properties, the Warfield(?), commonly known as the Ophir tungsten mine today, on the north side of the mouth of Ophir Canyon by drifting along a quartz-veined calcareous schist and granodiorite(?) zone, but abandoned its efforts. Later, lessees recovered about $200,000 of tungsten ore (E. B. Parks, oral communication, Sept. 1964). The lower workings of the property, where there is a northwest-trending adit about 500 feet (152 m) long, was the probable source of this ore. W. P. Irwin (written communication, 1952) visited the property prior to exploitation of the ore body, and estimated that the main ore shoot was 250 feet (76 m) long, averaged about 1.2 percent WO_3 and locally contained as much as 5 percent WO_3. Another property, name unknown, just south of Timblin Creek and about 3 miles (5 km) north of Ophir Canyon, had a thin seam of 2-3 percent(?) ore removed from a 100x100-foot pocket. The ore occurred in a tactite zone at the base of a northwesterly dipping marble bed.

The Victory tungsten mine, on the Victory tungsten claims that were ~~located in 1945~~ (Kral, 1951, p. 97), has yielded the largest amount of tungsten ore in the county. Here scheelite occurs primarily as disseminations in the outer zone of a 47-m.y.-old ~~(radiometric age)~~, quartz-streaked, granitic pluton (Illinois stock) ~~that~~ intrudes the Luning Formation of Late Triassic age. Some scheelite also is present in contact-metamorphosed calcareous rocks adjacent to the granodiorite. Several other nearby properties, including the Kay Cooper group of claims, just east of the Victory (Kral, 1951, p. 90), were developed and explored during this period of interest in tungsten. The ~~tungsten, as scheelite,~~ is confined primarily to contact-metamorphic zones and margins of granitic bodies adjacent to it.

Some scheelite was also produced from eastern Nye County, particularly the Grant Range (Grant and Irwin Canyons) during the same period of high prices. The occurrence is similar to that in the western region, except that the inferred mineralizing Tertiary ~~(K-Ar method)~~ granitic plutons intrude host rocks of Cambrian age.

Additional production can be anticipated from all the major localities described above should the demand and price of tungsten increase ~~from the levels of 1970.~~ There are undoubtedly numerous rich small ore bodies in the subsurface of the districts, but locating them may prove difficult.