

## LONG LEASE MINE

Other names ----- Long, Chalmers and Bedford, After  
Location ----- S33,T26N,R32E  
U.T.M. 4,437,400N, 381,400E  
Lat. 40°05'N, Long. 118°23'15"W  
Base map ----- Lovelock 15' quadrangle (1956)  
Tungsten Production --- 6,260 units WO<sub>3</sub> (1952-43, 1956, 1972-73, 1978-79)

The Long Lease Mine is on the west flank of the West Humboldt Range, about 8 miles southeast of Lovelock, at an altitude of about 4,400 feet. The deposit was prospected by William Chambers and J. S. Bedford during 1917-1918 but no ore was shipped. It was relocated in 1938 by Wayne Stocker and in 1941 by E. T. Long and W. E. Meissner. In 1942 it was leased to the Rare Metals Corp. of Lovelock and was operated by this company during 1942 and 1943. It was operated again for short periods in 1956, 1972-73, and in 1978-79. The last operator of record was Aaron Mining Co. Inc., who mined about 5,000 tons of ore and treated it in the old Toulon Mill southwest of Lovelock. Mine workings consist of an inclined shaft, several adits, and numerous open cuts and pits.

The rocks exposed in the mine area are limestone, hornfels, argillite, and slate. These rocks strike north and are folded into an asymmetric syncline that plunges gently northeast. The west limb dips steeply east and is intruded by quartz monzonite. The east limb dips 20°-40° NW. Numerous faults, with displacements of only a few feet, cut across the contacts and appear to have been the channelways from which the tungsten mineralization spread.

Scheelite occurs in tactite along the limestone and quartz monzonite contact and also along the limestone and hornfels contact about 25 to 130 feet from the quartz monzonite. Most of the ore mined came from two ore bodies along the hornfels contact. The ore bodies along the quartz monzonite contact were small pods that only yielded a few hundred tons of ore. The tactite



contains garnet, quartz, epidote, pyroxene, magnetite, and scheelite.

The 2 major ore bodies mined were about 130 to 200 feet long, 6 to 7 feet wide, and were mined to a depth of 35 to 55 feet. Most of the ore mined averaged about 0.6 percent  $WO_3$ .