Pershing Co.
S25, 25N, 24E

3400 0006

Nightingale

(286)

Item 6

This district is in the southwest corner of Pershing County, about 65 miles by road southwest of Lovelock in T.29N., R.24E. The district has been a moderate producer of ores from the Nightingale, Alpine, M.G.L. and Star properties.

The Nightingale property consists of 160 acres of deeded land, 3 patented and 11 unpatented lodeclaims situated in the Sage Hen Valley and on the low foothills fronting the Nightingale Mountains on the east. The property is 60 miles southwest of Lovelock, the supply base and shipping point.

The property was purchased by the Rare Metal, Inc. in 1945 from James A. Adams who acquired the property on a default judgment from the Gold, Silver, and Tungsten Company of Colorado.

The property has been intermittently operated from 1929 to 1956. During the period 1929 to 1939, the only profitable operation was in 1932, when lessees reported a profit of $9,000 by treating the dumps and easily mined ores. In 1938 and 1939, the company treated about 3,500 tons of ore that yielded 18 tons of concentrates averaging about 60 percent WO_3. The company suspended operations in July 1939.

USBM Unpubl. Data, 1963

Production

Records from 1929 to 1939 are not available. However, the tailing pile is estimated to contain 40,000 tons and assuming the average grade of the ore mined contained 0.8 percent WO_3, of which 0.5 percent was recovered, the production would approximate 20,000 short ton units containing 60 percent WO_3.

During the early 1950's the Rare Metal, Inc. produced an undisclosed tonnage of ore from small surface pits. These surface ore blocks occurred in faulted segments at irregular intervals for a distance of 1,500 feet north of the shaft workings.

In the vicinity of the Nightingale mine at the foot of the eastern slope of the range, the sedimentary rocks, chiefly calcareous shales and limestones are in contact with monzonite for several thousand feet. The contact strikes north-south and is nearly vertical. North of the mine workings the contact has been considerably disturbed by faulting.

Adjacent to the granitic contact the host rock is limestone which has been altered to tactite. In places, the limestone has been altered to marble and the shales into slate and hornfels.

In the mine workings the monzonite has been intruded by aplite in the form of crisscrossing dikes and sills.

Ore deposition is largely confined to a stratum of limestone about 25 feet thick, which in part, has been altered to tactite. The limestone closely follows the granite contact. Near the shaft the contact strikes N.10°W. and the nearly vertical sediments strike N.20°W. The mineralized zone extends roughly from a point 200 feet south of the shaft to a point 1,700 feet north, making a continuous body of ore, 1,900 feet in length. The zone to the north has been

offset by faults, thus forming isolated small blocks that are well-mineralized near surface. In the mine, south of the shaft, the tactite has a maximum width of 20 feet, and a block of ore averaging 0.7 percent WO_3 was mined from a glory hole 15 feet wide, 80 feet long and 30 feet deep. Exploratory workings, 130 feet below the glory hole disclose the width of the tactite and mineralization decreases at depth. On surface the tactite is 8 feet wide.

Scheelite, the only economic ore mineral, occurs in thin plates and in crystals from pin head size to 2 inches in diameter. The gangue minerals are garnet, quartz, calcite, pyrite, iron, and manganese oxides, and malachite near the surface.

Underground openings on the property consist of vertical shaft 145 feet deep from which a drift has been extended on the 130 foot level. Workings on this level consist of 645 feet of drifting and crosscutting. In addition to these workings there are 3 adits, several shallow shafts, and a number of open cuts comprising in all about 1,300 feet of mine workings. The most recent work was confined to 5 pits of variable size.

Mine operations were suspended in 1956. The ore mined during the 1950 period was treated in the Rare Metals Inc. mill at Toulon, 12 mile south of Lovelock.

Star

The Star property was a part of the 160 acres of deeded land, 3 patented and 11 unpatented lode claims held by the Gold, Silver, and Tungsten Co. which later acquired by the Rare Metals, Inc. The deposit is about 6 miles east of the Nightingale and about 62 miles by road south and west of Lovelock, the supply and shipping.

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