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USBM unpublished rept. Washoe Co.,

Crosby

Sec. 21, T24N, R24E Owned by Southern Pacific

Land Co.

The Crosby property consists of 80 acres of deeded land situated on the west

(286)

slope of the Nightingale Range about 10 miles northeast of Nixon and about 54 miles northeast of Reno, the supply center.

The 80 acres comprising the property are owned by the Southern Pacific Railroad Land Co. The acreage was leased to Fred Crosby and Carl Stoddard in 1942 for a period of 23 years. During the summer of 1942, a sub-lease was obtained by the Gold Hill Dredging Co. A few trenches were excavated along the mineralized sections of the tactite zone, but no ore was produced. In 1952, the Adaven Mining Co. sub-leased the property. Three scheelite-bearing tactite bodies were explored by open cuts and it is reported 1 shipment was made.

Dr. W.N. Makroff, a partner in the Cal-Alta Co., acquired a sub-lease in October 1953. The lower adit was extended and crosscuts were driven to explore the South ore zone. A raise was extended to a surface pit. Ore from this work was stockpiled.

A crosscut adit was driven into the North ore zone and from the face a drift was extended along the granite-tactite contact. A raise was driven to connect with a surface pit. From the top of this raise a small body of ore was mined.

It is reported 150 tons of sorted ore containing 1.25 percent WO₃ was shipped to the Catches mill at Red House.

Early in 1954, work was started on the construction of a dry mill. This was not a successful venture and no concentrates were shipped.

Rocks exposed in the southern part of the property consist of marbleized limestone, hornfels and argillite that strike northwest and dip steeply northeast or southwest. Granodiorite underlies the northern part. A crescent-shaped body of tactite 750 feet long and about 150 feet wide has been formed along the contact between intrusive granodiorite and a calcareous sedimentary formation. To the west the tactite pinches out and to the east it is limited by a wedge of silicified aplite and a circular barren quartz plug about 750 feet in diameter.

The contact between tactite and the sedimentary rocks that are only slightly metamorphosed is faulted along most of its length. In the central part, the shear zone is about 50 feet wide, but only a few feet wide on the west end. Breccia fragments of mineralized tactite occur in the fault zone.

Small lenses containing scattered crystals of scheelite occur sporadically along the limestone-tactite and the granodiorite-tactite contacts. The largest lens mined occurred along the north tactite-granodiorite contact. Originally opened in a surface pit, it was later explored underground by crosscutting, drifting and raising. From the drift, a raise was extended 32 feet to the bottom of the ore body. The ore body was stoped for a length of 30 feet, a height of 30 feet and a 10-foot width. The scheelite mineralization occurred in narrow bands and close sorting was necessary to produce ore of shipping grade. The estimated

grade of the ore body was 0.4 percent WO₃, from which shipments averaging 1.23 percent WO₃ were made.

The south ore zone occurred along a tactite-limestone contact. From this zone, a lens 30 feet in length, 3 feet wide was mined by open cut to a depth of 50 feet. Underground workings failed to find a downward extension of this ore body.

In the central part of the tactite body only scattered small low-grade sections occur along the contact.

Development openings on the property consist of a number of shaft/pits and trenches, a 115-foot crosscut adit in the north area from which a 95-foot drift was driven southeasterly along the granodiorite contact. Exploratory crosscuts were extended from the drift, also a 32-foot raise to the ore zone. About 75 feet of sub-level drifting was done and the ore mined to surface.

Underground workings in the south ore zone consisted of a 94-foot crosscut adit, from which a 100-foot drift was extended along a weakly mineralized stringer 2 crosscuts 50 and 80 feet in length extending northeasterly from the drift into the tactite, and a 40-foot raise from the drift to the bottom of the surface pit.

The material mined in the stoped areas contained 0.4 percent WO₃.