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Douglas County

Pine Nut Range

Gardnerville Tungsten mine

The Gardnerville Tungsten mine is in the foothills of the Pine Nut Range 12 miles southeast of Gardnerville. It is reached by a dirt road that turns east from U. S. Highway 395 at a junction 2.5 miles southeast of Gardnerville. The mine was opened in 1937 by Nevada Tungsten Corporation, a gravity mill was built, and an output of 725 units of WO<sub>3</sub> was made. The property was later sold to Rare Metals Corporation, and in 1940, additional development work was done in an unsuccessful search for ore.

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The mine is opened by a 450-foot shaft inclined 37° SW. Four levels were turned from this shaft ~~at intervals of 100 feet on the~~ <sup>and</sup> incline, approximately 1,800 feet of drifts and crosscuts were dug (fig. 100).

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Fig. 100. Geologic map and section of the Gardnerville mine, Douglas County, Nevada.

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The scheelite is in tactite that partly replaces a bed of dolomite 6 feet wide. The bed strikes northwest and dips  $45^{\circ}$  -  $75^{\circ}$  SW. The footwall consists of at least 20 feet of spotted schist. Crosscuts into the hanging wall expose 10 feet of schist followed by 40 feet of dolomite, 10 feet of hornfels, 4 feet of dolomite, and 8 feet of spotted schist (stratigraphic thicknesses). Some silicate mineralization is present in the hanging wall dolomite, but scheelite is absent. Only a part of the mineralized bed is changed to tactite, and only part of the tactite contains scheelite. The best ore, reported to assay 1.5 percent of  $WO_3$ , was 2 or 3 feet wide. No ore was found below the 200 level, where a strike length of 120 feet was exposed south of the shaft. The beds are cut by several faults with small displacement. The outlines of the ore shoot and the geologic controls for its position are not known.

#### Walker-Maus (Tungsten Hills group)

The Walker-Maus property (11 claims known as the Tungsten

Hills group) is 1.5 miles north of the Gardnerville Tungsten mine and 10.5 miles southeast from Gardnerville. It was worked for a brief interval in 1943-44 by Carson Valley Tungsten Operations, Ltd., who shipped 95 tons containing 65 units of WO<sub>3</sub> to Metals Reserve Co.

Scheelite is found in thin beds of tactite replacing impure limestone interbedded with hornfels. The rocks are poorly exposed. At the Badger prospect a single mineralized bed, folded into an anticline plunging north, is explored by 2 shallow shafts on opposite limbs of the fold, 240 feet apart (fig. 101). At the west shaft,

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✓ Fig. 101. Geologic map and section of the Walker-Maus property, Douglas County, Nevada.

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the tactite bed is about 3 feet thick and contains less than 0.5 percent of WO<sub>3</sub>. The east shaft is 80 feet deep on the incline, and follows a bed of ore 3 to 5 feet thick containing 0.5 to 1.0 percent of WO<sub>3</sub>. A small stope borders the shaft, and drifts extend 50 feet north on 2 levels.

At the Tungsten Hill and Mayflower prospects, scheelite mineralisation across narrow widths is exposed in shallow trenches. No sizeable bodies are known.

In 1944, the B and C Tungsten Mining Co. shipped ore and concentrate containing 694 units of  $WO_3$  to Metals Reserve Co. The material was reportedly mined from the Last Laugh claim.

Sweetwater Mining Co.

W. F. Lawyer

See California, Mono County, Colville<sup>e</sup> area.

Bishop, California  
July 21, 1941

Memorandum for T. B. Nolan

TUNGSTEN PROSPECTS NEAR CARSON CITY, NEVADA

On July 20 I accompanied Ralph Roberts, at his request, on a reconnaissance of tungsten deposits east of Carson City, Nevada in the Carson quadrangle. John Heizer had mentioned them favorable to Art Granger, who had made an attempt to visit the area last spring but could not reach the prospects because of snow.

The tungsten-bearing area lies in the southern extension of the Virginia Range in the ridge east of the Carson River and south of the bend near the State Prison. This ridge is composed of schist, hornfels, tactite, and limestone intruded by granodiorite and partially covered by andesitic flows. Exposures are poor.

The tactite is abundant on different contacts for a distance of 10 miles north and south, but only a small part of the tactite contains scheelite. Accompanied by Mr. Al Este (address Carson City, Nevada), we examined just the southernmost claims, which are owned by Este and Munn (sp?). These claims appear to be representative of the district. Este showed us 2 orebodies. One, located at a granodiorite-limestone contact, was opened by several pits for a width of 6 to 8 feet, and is reported to show ore for 150 feet along the strike. Several coarse pieces of scheelite could be seen on the dump. I expect that the average grade is about  $\frac{1}{2}$  percent. If these dimensions be correct, this body may contain 9,000 tons of  $\frac{1}{2}$  percent ore to a depth of 100 feet. The other body appeared to be much smaller. We used a lamp under a dark cloth to look at specimens in ultra-violet light, but did not stay until nightfall to trace out the orebodies.

Nevada-Massachusetts Co. has some claims (now idle) about  $\frac{1}{2}$  mile north of the Este claims. We were told that a shallow shaft had been sunk. All of the tungsten prospects in the district are now idle.

A sufficient number of these lenses might be found to make a single

profitable operation. The district has not been adequately prospected. Geologic mapping will be time consuming because of the overburden, and not particularly profitable at present when other districts need the work more. If some one were free to spend a week in the area, it might be a good idea to prospect large areas with a lamp, but at present I feel that to be outside the duties of the Survey. I have recommended that no aerial photos be taken this year, for it is doubtful if any Survey work will be justified for several years. If aerial photos ever are taken, they will have to be on a large scale, preferably 1:12000, to be useful.

Dwight M. Lemmon