# U. S. GEOLOGICAL SURVEY

REPORT ON A BRIEF EXAMINATION FOR MOLYBDENITE, SWEETWATER MINING

COMPANY, DOUGLAS COUNTY, NEVADA

By Charles A. Anderson

December 1942.

### INTRODUCTION

Mr. Evland of the U. S. Bureau of Mines, Reno, Nevada, reported that molybdenite occurred in one tunnel belonging to the Sweetwater Mining Company so a brief examination was made on December 8 while enroute from Reno to Tonopah, Nevada. The prospecting has been done chiefly for scheelite and the mine has been visited by Mr. Paul Bateman of the U. S. Geological Survey and a more detailed report on the scheelite may be available.

## LOCATION

The property is located in Douglas County, Nevada, about 3 miles from the Nevada-California boundary. It is reached from highway 395 by driving to Topaz Junction, near the state boundary. The road to the mine is at Winemillers Service Station, and is followed to the east and then north for 5 miles to a sign pointing to Risue Canyon; turn right at this point. At 2.8 miles from the sign post, keep to the might and the mine is reached

at 4 miles; it is located on the south bank of the canyon.

Mr. Edward Arnds, Todaz, California, is managing the property, and Mr. Peter Fox, 113 Mount Rose Street, Rend, Nevada, also has an interest.

PEVELOPMENT FOX

Two tunnels have been driven prospecting for scheelite, but it is only in the western tunnel that molybdenite occurs. About 500 feet of adit and crosscuts have been driven in the western workings. There has been no production.

#### GEOLOGY AND MINERALIZATION

The rocks are metamorphosed limestones with garnet rock several feet wide appearing 90 feet from the portal in the western tunnel. The molybdenite is finely divided in lenses and seams in this garnet rock. However it is present in such small quantities that sampling for assaying was not justified. The grade of the ore is unquestionably less than 0.10 % MoSo with only 10 to 15 tons in sight. The ore is lenticular for barren garnet is also present and the inferred tonnage is no greater than the measured ore.

#### RECOMMENDATIONS

Additional studies of the molybdenite by the U. S. Geological Survey or U. S. Bureau of Mines is not warranted by the exposed low grade of molybdenite ore and small tonnage.

December 18, 1942 Tucson, Arizona

Respectfully submitted,

Charles A. Anderson sgd/

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Tungsten Mineralization on properties of the Sweetwater Mining Co. and W. G. Lawyer, Douglas Co., Nevada and Mono Co., California

Paul C. Bateman

July 1942

On July 18 I visited the property of the Sweetwater Mining Co. and the adjoining holdings of W. F. Lawyer. These properties are in Nevada, about 5 miles due east from Topaz, California, and can be reached by driving about 13 miles over a good graded road from Topaz toward Sweetwater. The Sweetwater property is said to consist of 31 claims, although a plat of a survey made by the company shows only 12 claims. The claims are said to lie in secs. 22, 23, 26, 27, and possibly sec. 35, T. 9.N., R. 23 E. The Lawyer property of 12 claims probably lies in sec. 22, but may extend into adjoining sections.

## Sweetwater Mining Co.

The Sweetwater Mining Co. is controlled by Mr. Arends and Mr. Litzell, both of Los Angeles. Mr. Arends directs the operations at the mine. At present 3 men are working. For the past 3 years, the company, in exploring for gold, dug the Arrowhead shaft and 3 tunnels. The shaft workings, including drifts and crosscuts, amount to about 1,000 feet. One tunnel is about 350 feet long, the other about 150 feet. A third tunnel exposes a body of molybdenite which the company hopes to develop. In addition numerous pits and open cuts have been made. The tungsten mineralization is exposed in one of these cuts.

Both granitic and metamorphic rocks occur in the area. The metamorphic rocks lie in north-south trending belts corresponding to the strike of the beds. The usual dips are about 50° W. Much garnet and epidote occur in the metamorphic sequence. Sills and dikes of granite are not uncommon. The gold and molybdenum as well as the tungsten mineralization is parallel to bedding planes.

The scheelite discovery is very recent, and only 2 days' work by 2 men had been put in on the cut exposing ore at the time of my visit. This cut is about 6 feet wide and extends 15 feet along the strike of the beds. The dip of the beds is about 60° E., an exception to the usually observed dip.

Mr. Arends stated that the ore had been fraced by ultraviolet light for several hundred feet in the surface mantle.

The company intends to uncover the ore by trenching along the strike.

W. F. Lawyer Property Vera 100

The Lawyer claims are in the same metamorphic belt about 1 mile west of the Sweetwater mine. Scheelite occurs in a garnet-epidote rock exposed for 4 feet in a cut in the bottom of the canyon. The zone is vertical and is bounded on the east by a granite sill. The extent or grade of the ore is unknown because of insufficient work. Samples selected by Mr. Lawyer suggest that a good part of the scheelite lies along fracture planes and is of low grade.

On a ridge about 200 feet south of the open cut, an exposure of garnetepidote rock lies along a granite sill in similar relation to the exposures in the
cut. This probably represents the same zone as the one exposed in the cut, but the
intervening area is covered.