STATE OF NEVADA

Bureau of Mines

JAY A. CARPENTER, DIRECTOR

BOX C, UNIVERSITY STATION

MACKAY SCHOOL OF MINES

RENO, NEVADA

A REPORT ON

THE VICTORY GROUP OF CLAIMS, A SCHEELITE PROSPECT, NEAR GABBS, NEVADA.

The Victory group of mining claims near Gabbs, Nevada was inspected by the writer on March 28-29, 1945, at the request of the Director of the Nevada State Bureau of Mines.

This scheelite prospect, of 6 claims, lies about 6 miles north of Gabbs, and 2 miles southwest of the Illinois mine, in the south end of the Desotoya Mountains. It is reached by leaving the paved Gabbs to Westgate highway, about 5 miles north of Gabbs, and following a dirt road for 5 miles to the claims.

The six claims have been jointly located, as a group, (see accompanying sketch) by Wm. Covey, Albert Brown, and Jack Sutherland, all of Gabbs, Nevada. The location work was about completed at the time of this examination. A portable compressor had been obtained, and a program of trenching was being contemplated to attempt to outline possible ore zones.

A small granite stock, about 4 miles long by 2 miles wide, forms the south end of the range. The granite has intruded Mesozoic calcareous sediments which have been considerably metamorphosed near the contact. It is of interest to note, however, that for over 1,000 feet along the west contact of the granite, on the Victory No. 1 claim, there is about 100 feet of unaltered dolomite between the intrusive and the metamorphics.

This relationship is not clear but may be the result of north-south faulting, evidence of which can be found along the granite contact.

There are several lamprophyre dikes cutting both the intrusive and the sediments. These are similar, both in appearance and irregular attitude to lamprophyre dikes in the Brucite area of the Paradise Range.

Quartz veins are very common in the granite, and usually strike to the north or northwest which is in accordance with the dominant system of joints and fractures. The individual veins are seldom continuous for more than 100 to 200 feet, but combine to form more extended vein systems. They vary in width from a fraction of an inch to 4 or 5 feet and form zones sometimes 20 or 30 feet wide, all trending in the same general northerly or northwesterly direction. The quartz is usually white in color and massive in character, with black tourmaline (schorlite) as a common accessory mineral. The character of the quartz veins and the presence of the tourmaline implies a comparatively high-temperature deposition of the hypothermal vein type. A few thin aplite dikes were seen to be associated with the quarts veins, and it is quite possible that the quartz might grade into a pegmatite at depth.

A study of the relative ages of the lamprophyre dikes and the quartz veins might reveal interesting information as to the relationship between the acid intrusive and the comparatively basic dike rock, which is generally thought to be an end stage emanation from solidifying acid magmas.

STATE OF NEVADA

JAY A. CARPENTER, DIRECTOR

Bureau of Mines

BOX C, UNIVERSITY STATION

MACKAY SCHOOL OF MINES

RENO, NEVADA

At least two pronounced east-west faults were observed in the area, having offset the formations along the west granite contact. (see the accompanying sketch). The more northerly, and greater apparent offset may be partly due to the irregular shape of the intrusive, as no attempt was made to correlate the sediments on either side of the fault. There is evidence of considerable north-south faulting, as was previously mentioned, and where slicken sides were noticed the faults dipped to the west. North-south fracturing is very pronounced, complimentary to the major joint system in the intrusive, and there may be minor movement on many of these fractures.

The strike of the sediments is roughly north-south, with the dip varying from 20 to 45 degrees to the west. This is in accord with the bedding attitudes in the Brucite area in the southern portion of the Paradise Range. The sediments in the northern part of the Paradise Range, about five miles east of this area, dip to the east showing that a regional structural break probably exists under the floor of Lodi Valley separating the two areas.

The scheelite is erratically distributed in the granite, within an area roughly 1,000 feet wide and 1,500 feet long. So far as was determined very little scheelite is present in the metamorphosed sediments, although silicate contact minerals such as garnet and epidote are plentiful.

The quartz veins are found to be closely related to the scheelite deposition, and the writer believes that they represent overlapping periods of hypothermal mineralization from the same magmatic source. While only a minor amount of scheelite is present in the quartz, most all the observed ore occurrences were found in contact with, or close to the quartz veins, and usually for only a few feet in width on one or both sides of the veins. Sufficient scheelite was noted in the quartz, usually as single crystals up to 1/4 inch in size, to demonstrate a common genesis and simultaneous deposition.

In traversing the prospect at night with a fluorescent light, it was quickly demonstrated that the scheelite is very erratically distributed, usually in small areas from one to eight feet wide and five to thirty feet long. The entire area covered by the six claims was not "lamped", but only the portion the owners seemed to consider the best. After ascertaining the irregular and intermittant character of the deposit, the best system for sampling seemed to be to outline, and mark the maximum widths of fair fluorescence. This was done and samples were then cut across them in the daylight when there could be no inclination to choose only the best looking pieces. Under this procedure it was shown that even the zones outlined were not consistently, or evenly, mineralized, as the assays usually ran less than 0.5 percent on rock from areas that were estimated by the light to run over one percent. It is probably a very human characteristic to concentrate

ones eyes on glittering objects and overlook, or ignore, less interesting material. As was demonstrated, one area was outlined about 50 feet square, and seemed to be fairly uniformly fluorescent; however, a large sample taken from across it proved to have many pieces of rock with no scheelite, and the sample averaged only 0.24 percent. The owners state that a 50 pound sample taken from a pit 4 feet deep and 8 feet in diameter, near the center of this area, assayed 1.03 percent WO_3.

A considerable amount of secondary silica, and some powellite, both of which fluoresce yellow, are present in the area, and should not be confused with the silvery white fluorescence of pure scheelite.

The writer noted no evidence to indicate that with exploration at greater depth there can be expected any change in either the character, or the grade of the ore zones.

The assays and widths of samples taken are given below, agreeing with the sample numbers as shown on the accompanying sketch. Wm. I. Smyth, Analyst, Nevada State Analytical Laboratory, made the determinations.

	Tungstic Oxide (WO_3) Content	Width Sampled
Sample A	0.36%	6 foot cut
" B	0.39%	6 foot cut
" C	0.20%	8 foot cut
" D	0.24%	50 foot cut
" G	0.75%	10 foot cut

STATE OF NEVADA

JAY A. CARPENTER, DIRECTOR

Bureau of Mines

BOX C, UNIVERSITY STATION

MACKAY SCHOOL OF MINES
RENO, NEVADA

In addition the writer estimated, from night lamp observation, that at localities E and F there are widths of 4 to 6 feet that will run one percent WO_3, but the cut samples did not show enough scheelite on panning to justify chemical determinations. Also at locality H, along a system of fractures 2 to 3 feet in width and 50 to 100 feet in length, the ore might by "lamping" be judged to average one percent, or better, immediately next to the fractures.

The area, in the writers opinion, is definitely worthy of a limited amount of exploration work. From the present outlook possibly a few hundred tons of ore could be extracted, from open cuts, that might average close to one percent. It is possible that such ore might be custom-milled at Rawhide, 30 miles to the west over dirt road.

The topography is advantageous for open-cut operation, and easy loading of the ore. A small air tugger and scraper should operate favorably and economically, and could be easily moved from one small area to another.

There are probably several thousand tons of rock that might run from 0.3 to 0.5 percent WO_3. This tungsten content is too low to be very encouraging, even for large-scale production. Yet with the abundance of water and the possible use of milling equipment at the B. M. I. plant at Gabbs, the owners should explore the surface area for wide widths of sufficient tungsten content to justify a large-scale operation.

Fred L. Humphrey
Mining Engineer,
Nevada State Bureau of Mines.

Reno, Nevada
April 18, 1945

NEVADA STATE BUREAU OF MINES