

JOHN A. FULTON, DIRECTOR

Bureau of Mines



Box C, UNIVERSITY STATION

MACKAY SCHOOL OF MINES
RENO, NEVADA

August 15, 1935

MINING LOG OF NORTHERN NEVADA TRIP,

OF

Jay A. Carpenter, Mining Engineer, and Wm. I. Smyth, Metallurgist,

Aug. 2-12 Incl., 1935

By

Jay A. Carpenter, E.M.

August 4. Buckskin National.

This mine is at 8000 ft. elevation, 3 miles south of National, and was formerly reached from Winnemucca via Paradise Valley, but connected last year to the graveled Winnemucca-McDermitt road by an 8-mile scenic road up Canyon Creek of a 10 percent grade with many switchbacks. Yet the contracted summer trucking rate for the 90 miles haul is but \$10.00 a ton! Any forced winter haulage includes wagons, sleighs, and even pack horses. Before the days of auto trucks and good roads, it was a 3-day round trip to Paradise Valley, 30 miles away, with wagons at a cost of \$27.00 a ton. In '23, auto trucking from Winnemucca over desert roads cost \$27.50 a ton.

Supt. in Charge, E. J. Stanley; Daniel E. Huffman, Mill supt; and Philip McGuire(U. of N.), assayer. The Lucky Tiger Co. is now operating the property on the basis of a division of profits with the owner, Mr. Bell. Milling and mining began last fall.

The gold quartz vein has a N-S strike, 70° dip to the west. It has a ribbon or platy structure and is from 2 ft. to 4 ft. wide, including much gouge waste. It is highly oxidized to the tunnel level with the gold occurring in a very fine free state. The walls of andesite and rhyolite are well defined. Mining is by cut and fill, using the gouge for fill and slabbing from the walls also for filling. All sorting is done in the stopes. Drilling is done with jackhammers in horizontal holes. Hand tramming in 16 cu. ft. cars

long distances is now the practice. There is about 3000 ft. of drifting on the vein with three ore shoots defined of a total length of 1000 ft. About 35 tons a day is mined of about $\frac{1}{2}$ oz. gold content. There is probably many months' supply of milling ore above the tunnel level.

An underground shaft has been sunk below the Hatch orebody to 400 ft. in depth, with considerable development work on the levels. These levels are now under water, but pumping water for milling use is lowering the water level. The ore below water levels carries pyrite and some stibnite.

Power for mine and mill is generated by Fairbanks-Morse diesels. A 100 HP unit drives a Sullivan angle compressor. The diesel and compressor sea level ratings are naturally greatly affected by the 8000' altitude. Pure spring water is used on the diesels, which is cooled in coils in the cyanide solution tanks, thus heating the Celotex lined mills.

Ample supplies are being accumulated for the winter's run, but otherwise financial expense is kept at a minimum. Miners are paid but \$4.00, muckers \$3.50 with board at \$1.00. The company gives out little information on costs, but figures given me by Forest Bell indicate a production of \$15,000 a month of which 25% is profits.

The mill has not made its expected 50 ton capacity due to the slime from the vein gouge. Crushing in mine water and rejecting this clay has given a marked increase in the filter capacity which has been the limiting factor. The designers use of line shafting and belting results in triple drives before reaching important units. For many interesting milling details see Mr. Smyth's report.

August 5. McCormick-Dermody Quicksilver Property.

This siliceous sinter or "opalite" deposit containing cinnabar caps Buckskin Mountain at 8800 ft. elevation. It is less than a mile from the Buckskin National mill and from the new road to that mine.

Chalmers McCormick and Jack Dermody are the owners. Donald McCormick and Mr. Dermody are working on the property.