

JEAN DISTRICT

(Silica Sand, Radium, Limestone)

Silica sand, radium (carnotite), and limestone occur in the vicinity of Jean, a station on the Union Pacific R.R. 30 miles by road a little west of south of Las Vegas, Nev.

The only production from the district has been small amounts of silica sand and limestone. The carnotite occurrences have been of more mineralogical than commercial interest.

Nevada Pacific Minerals Co.

A large deposit of silica sand occurs in T. 24 S., R. 60 E., M.D.M., 2.7 miles northwesterly from Sutor Siding. Sutor Siding is on the main line of the Union Pacific R.R. about 4 1/2 miles north of Jean, Nev.

In August 1936 the Nevada Pacific Minerals Co. of Los Angeles, Calif., E. S. McCurdy, president, started to work the deposit, and up to January 1937 had shipped 25 cars of silica sand for molding purposes. Due to lack of water in the vicinity of the deposit no silica sand has been produced for the better grades of glassware. An average of three men is employed.

The sand occurs in a sandstone formation exposed in a well-rounded hill. The sandstone bed mined consists largely of white quartz grains stained with iron oxide on the bedding planes and in the seams. At the surface the sandstone is cemented with lime.

Mining is done by open-cut method. The sandstone is fairly well consolidated, and jackhammers with detachable Carr bits and 7/8-inch hollow hexagonal steel are used for drilling. Blasting is done with 40-percent gelatin-dynamite No. 6 detonators and tape fuse. Compressed air is furnished by a portable Ingersoll-Rand compressor. Water for mining and domestic purposes is hauled from Las Vegas in railroad cars to Sutor Siding and then trucked to the camp.

The broken sandstone is shoveled by hand into wheelbarrows equipped with rubber tires and transported a short distance to a bin. From the bin it is fed to a Blake type crusher (8 by 15 inches) set to crush to 1/4-inch size. The crusher discharges into a boot of a belt and bucket elevator that discharges into a trommel equipped with 1/4-inch and 16-mesh screens. The plus 1/4-inch and minus 16-mesh products, which constitute about 10 percent of the material mined, is rejected as waste. The minus 1/4-inch and plus 16-mesh products drop into a bin, from whence they are loaded into trucks and hauled to the railroad. The sandstone is crushed and sized dry. Power for the plant is furnished by a 30-horsepower Waukesha semi-Diesel engine.

Radium Deposits

Carnotite was discovered several miles west of Sutor Siding in 1931 by J. Isachsen, formerly of Jean, Nev. Following Isachsen's discovery, other deposits were located in the vicinity.

The carnotite, associated with manganese oxide, occurs as a coating in fractures in sandstone and limestone. Although prospecting has been carried on by a number of shallow shafts, trenches, and open-cuts, the amount of carnotite found was too small to be of commercial importance.

Limestone Deposit

A limestone quarry about 1 mile southeast of Jean, Nev., on Sheep Mountain, was opened by the Blue Diamond Gypsum Co. about 10 years ago. After 850 tons of lime rock had been shipped, the quarry was abandoned.

LAS VEGAS DISTRICT(Manganese)

The Las Vegas district is 16 miles southeast of Las Vegas, Nev. Manganese was discovered here in September 1917 by R. M. Edwards, B. R. Jefferson, and J. F. Marrs of Las Vegas, who located the Three Kids group of claims. Shortly after, a local group formed the Manganese Association, and production was begun in November 1917. In 1918 the Three Kids mine and the adjoining Las Vegas group were purchased by Thomas Thorkildson of Los Angeles, Calif., but the name of the company was retained. The Manganese Association worked the property until March 1919. The property remained idle until 1936, when it was acquired by Los Angeles interests, who formed the Boulder Dam Manganese Co. Production during the war was about 16,000 tons of shipping ore that averaged 40 percent manganese.

Interest in these manganese deposits was revived in 1936 because of the research work carried on by the U. S. Bureau of Mines on the electro-deposition of metallic manganese from an electrolyte obtained by leaching manganese ore^{19/}.

Boulder Dam Manganese Co.

The Boulder Dam Manganese Co., H. R. Golenor of Los Angeles, president, and G. R. Boggs, of Los Angeles, vice president and consulting engineer, controls the principal properties in the Las Vegas manganese district, comprising 11 claims, two of which are patented.

Development work comprises a number of shallow shafts and inclines, none over 100 feet deep, and several short tunnels. There is no equipment on the property. In February 1937 the property was idle.

^{19/} Koster, J., and Shelton, S. M., Electrolytic Manganese: Eng. and Min. Jour., vol. 137, October 1936, pp. 510-513.