4100 0004

(121)

Item 4

Metal quotations:	Gold	$34.9125 per ounce
	Silver	.64125 " "
		Ounce per ton
Settlement assay:	Gold	0.035
	Silver	52.0
		Percent
	Insoluble	82.8
	Iron	1.2
	Zinc	0.6
		Pounds
Wet weight		21,540
Moisture 0.5 percent		108
Dry weight		21,432 or 10.716 tons

Metal payment:	Gold, 100 percent at $31.8183 per ounce	$1.11	
	Silver, 95 percent at $0.64125 per ounce	31.68	
		32.79	
	Treatment charge	4.98	
	Net value per ton	27.81	
	10.716 tons at $27.81		$298.01
Deductions:	Freight, $6.50 per ton		70.00
	Net proceeds		228.01

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PALISADE DISTRICT

Palisade is a station on the Southern Pacific and Western Pacific Railroads at the north end of the Cortez Range. It is also on the Humboldt River, which cuts across the Cortez Range through a narrow, steep-walled canyon known as the Palisades.

Deposits of ashphaltite, pumice and diatomaceous earth occur in this area, but there has been no production of these minerals.

Asphaltite

Asphaltite occurs in the Pinon Range, 15 miles south of Palisade, about 4 miles east of the Yates ranch. It was discovered about 1900, and shortly after this the deposits were prospected by a number of trenches and open cuts, but no production was made. The best showings are covered by six unpatented claims owned by Stanley Fine and associates of Eureka, Nev.

According to Anderson,[28/] the asphaltite is of the impsonite variety, resembling coal, except that it is very light, having a specific gravity of

28/ Anderson, R., An Occurrence of Asphaltite in Northeastern Nevada: Geol. Surv. Bull. 380, 1909, pp. 283-285.

less than 2. It occurs in a number of small fissures, striking S 75° E and dipping northerly 50° to 60° within steeply dipping sedimentary strata composed of alternating beds of shale and sandstone. The fissures are in a shear zone about 3 feet wide, and the asphaltite varies from nearly pure to that mixed with sand and clay in which asphaltite is the cementing medium. The largest fissure is 16 inches wide. Asphaltite is also present in the bedding planes of the country rock adjacent the shear zone. Occurrences are also reported 3 miles north and 7 miles south of the foregoing locality.

A test of the asphaltite was made by Prof. Walter S. Palmer at the Mackay School of Mines laboratory, Reno, Nev.; it was found that the material carried a small percentage of vanadium. The sample was crushed to 1/4-inch size and, after burning, the resultant ash comprised 2.5 percent of the weight of the original sample. The ash was separated from the impurities, chiefly rock fragments and iron oxides, by screening through a 20-mesh screen; it constituted only 0.64 percent of the weight of the original sample, but it contained virtually all of the vanadium. The assay results of the several products were as follows:

Product	Vanadium pentoxide (V_2O_5)
	percent
Original sample	0.16
Ash and impurities	6.4
Minus 20-mesh ash	24.8

Three samples of asphaltite were tested by the Union Assay office at Salt Lake City, Utah, with the following results:

Sample 1

Gold	Trace.
Silver	None.
Vanadium pentoxide (V_2O_5)	0.918 percent
Uranium oxide (U_3O_8)	.097 "

Sample 2

Lead	None.
Molybdenum	None.
Vanadium pentoxide (V_2O_5)	None.
Uranium oxide (U_3O_8)	None.

Sample 3

Vanadium pentoxide (V_2O_5)	0.305 percent
Uranium oxide (U_3O_8)	Trace.

Diatomaceous Earth

Diatomaceous earth occurs in the hills several miles north and northwest of Palisade. Two deposits are covered by five unpatented claims owned by Judge Edgar Eather and associates of Eureka, Nev. Very little work has been done, and no tests have been made to determine the value of the material for specific purposes. Judging from the surface showings, the deposits are extensive.

Pumicite

Beds of pumicite occur about 1 mile east of Palisade, between mileposts 527 and 528 on the main line of the Southern Pacific Railroad. The principal deposits, covered by three unpatented claims, are owned jointly by Leo Lucey of Palisade and S. T. Edwards of Winnemucca, Nev., who discovered them several years ago.

The pumicite occurs in stratified beds ranging from 8 to 30 feet in thickness and dipping, on an average, 10° to the northwest. For the most part, the beds are overlain either with detritus or volcanic ash, the latter, in places, tightly cemented. Where the pumicite is exposed, it is composed almost entirely of fine grains of silica that are slightly coherent and uniform in size and texture. Analyses made by Abbott A. Hanks, Inc., of San Francisco, indicate that the material contains 92.4 to 93.6 percent silica.

The pumicite is probably suitable for the manufacture of household cleansers, mechanics soap, or other uses where a mild abrasive is desired. The beds can be mined cheaply, and the transportation facilities are unusually favorable, since the main line of the Southern Pacific runs within a few hundred feet of the principal bed.

Iron Ore

A deposit of iron ore occurs in the east side of the Cortez Range, about 20 miles south of Palisade and 4 miles east of the Goodfellow Ranch. The deposit was discovered by Amos Plummer about 1903 and shortly after it was acquired by M. L. Requa of San Francisco, who held the ground until several years ago under the name of the Amarillo Iron Co. Property consists of seven patented claims now owned by Eureka County for delinquent taxes. Development includes an adit that is caved near the portal. Iron ore has never been produced commercially.

MOUNT HOPE DISTRICT

The Mount Hope district is on the southeast slope of Mount Hope at the south end of the Roberts Range, 23 miles by automobile road northwest of Eureka. Mount Hope station, on the Eureka-Nevada Railroad, is less than 1 mile east of the principal property in this area. Zinc ore was discovered here by charcoal burners in the '70s, but very little prospecting was done until the early '90s, when Thomas Wren, a prominent figure in early-day mining at Austin and Eureka, did considerable development work. The zinc ores could not be exploited profitably at that time, and there is no record of any production. About 4 years ago, the principal claims were prospected and purchased by the Universal Exploration Co. There was no activity in the district in 1937.