

Item 3

the month of September last (1875) about 40 rockers were in use, and about 30 white men and 125 Chinese were at work. It is impossible to get from the Chinese any information as to the amount of gold extracted, but it is thought that they get about \$2 a day to the man. In several of the ravines making out of the east side of the range of mountains between the Eagle mine and Unionville good prospects of gold are found, but owing to the scarcity of water these placers are not worked.

In recent years a little placer prospecting has been done in this area.

Jersey District

The Jersey district is 43 miles southwest of Battle Mountain on the Pershing-Lander County boundary line. It was discovered by A. S. Trimbel in 1874, and the following year 500 tons of silver-lead ore were shipped to a smelter operating near Oreana. Later a small smelting furnace was erected in the district, but it was unsuccessful owing to lack of flux. The Jersey Valley mine produced considerable shipping ore from 1880 to 1910. From 1921 to 1929 small shipments of ore were made to the smelter from the Rex group of claims and the Jersey Valley mine. In recent years there has been little activity.

The formation is quartzite and porphyry, and the ore is argentiferous galena with lead carbonate.

Cinnabar has been found in Jersey Valley about 55 miles southwest of Battle Mountain. The discovery was made some years ago by prospectors who built a fire on the outcrop and noticed globules of quicksilver in the ashes. A retort was erected on the Ruby group of claims in 1918 by the Quicksilver Mines Co., and a little ore was produced from 1918 to 1921. The cinnabar occurs in sandstone, limestone, and conglomerate. The best ore is found near the sandstone-limestone contact.

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Kennedy District

The Kennedy district is on the east side of Granite Mountain in the East Range 57 miles south of Winnemucca by fair automobile road. The district was discovered in 1891 by Charles E. Kennedy, who located the Imperial mine. The Gold Note mine was located about the same time by the Lawler Bros. Shortly after the discovery of these two properties the rich ore shipped to Utah smelters attracted attention to the camp, and for several years the town of Kennedy had a population of approximately 500 people.

In the late nineties the Imperial 20-stamp amalgamation mill was built and operated for 1 year. In 1901 the Imperial mill was taken over by the Wynn Lasher Syndicate, which added a cyanide leaching plant and operated until 1905. In 1914 a plant was built to test an electrochemical process patented by L. St. D. Roylance. This process was unsuccessful in treating the complex ores of the district. Several smaller mills were also erected, one of which was a custom plant built by William Jenkins.

In 1934 Charles E. Kennedy shipped 1 carload of tailings from the Imperial mill dump which averaged a little over \$20 per ton. Trucking to Winnemucca costs \$4.50 per ton. About 200 tons of tailings remain, which Kennedy plans to ship in 1936.

The mineralized area is 5 miles long and $1\frac{1}{2}$ miles wide; development work totals nearly 5 miles. Water is available in Cinnabar Creek, which flows through the old Kennedy townsite.

For many years the small annual production has been made principally by leaches. According to C. E. Kennedy total production has been valued at approximately \$300,000. In March 1936 six men were mining in the district.

The principal rocks are granodiorite and rhyolite, the latter intruded rather irregularly by basalt. The veins range from 6 inches to 6 feet in width and dip about 45° . The vein filling is mainly quartz, with pyrite, galena, sphalerite, tetrahedrite, and a little chalcopryite. The oxidized zone extends 25 to 150 feet below the surface.

The Sunnyside group of two claims owned by Odin Roberts of Winnemucca is under lease to Ed Amonett and partner. Monthly rental is \$50 plus a 5-percent royalty on smelter returns. The ore is mined by hand methods. A portable compressor has been installed recently to facilitate operations. Two carloads of ore were shipped in 1935. The smelter returns on 1 carload shipped to the International Smelting & Refining Co., Salt Lake City, on December 30, 1935, furnished the following information:

Metal quotation:

Gold - per ounce.....	\$35.00
Silver - do.77
Copper - per lb.....	.09025

Settlement Assay:

Au - oz.....	1.0825
Ag - do.....	22.625
Insoluble - percent.....	48.1
Fe - - - - do.	19.7
S - - - - do.	14.4
Cu - - - - do.	2.65
Pb - - - - do.	1.
Zn - - - - do.5
Lime - - - do.8

Metal payment:

Cu less 15 lb. at \$0.06025 per lb.....	\$2,375
Ag, 95 percent at \$.77	16,550
Au, 91 percent at \$35.00	34,478
Total	53,403
Less treatment.....	5,550
	47,853

Treatment charge:

Base charge	\$4.00
Charge for metal.....	1.80
	5.80
Credit for sampling....	.25
Net treatment charge...	5.55

Wet weight - lb,\$79,160
 Less moisture, 4.2 percent - lb. 3,324
 Dry weight - lb. 75,836
 tons..... 37.918
 37.918 tons at \$47.653 \$1,814.49

Charges:

Utah Ore Sampling Co.	\$ 23.75	
Assaying.....	4.00	
Prepaid freight on sacks returned.....	3.33	
Advanced demurrage	4.00	
Freight 39.58 tons at \$4.95 railroad value \$45.14 per ton.....	<u>190.00</u>	
	\$225.08	225.08
Net proceeds		\$1,589.41

Other active properties are the Fourth of July group of three unpatented claims, under lease to S. J. Welter, and the Gold Note property, owned and worked by William Zuick and associates. The old Imperial group of six claims is owned by A. J. Langwith. This property was idle in March 1936.

Mill City (Central) District

The Mill City or Central district is in the Eugene Mountains in north Pershing County near the Humboldt County border.

Silver and copper ores were mined in the Eugene Mountains in the early days. The first discovery in the Central district was made by L. Vary in 1856, when the 56 Copper mine 7 miles west of Imlay was located. Copper ore was produced in this mine in 1917. The production of precious metals from the Eugene Mountains has been very small in recent years.

Tungsten ore was discovered in 1917 by Emil Stark on the southeast slope of the Eugene Mountains about 8 miles west of Mill City. Two concentrators were built in 1918 - one by the Nevada Humboldt Tungsten Mine Co. and the other by the Pacific Tungsten Co. The Nevada-Massachusetts Co. purchased the Pacific Tungsten Co. in 1924 and later acquired the Humboldt Tungsten mine. In May 1925 the Nevada-Massachusetts Co. began operations that have been continuous since then, except for a short period in 1932 when production was suspended because of no market. From 1925 to March 1, 1936, 510,000 tons of scheelite ore have been produced that averaged nearly 1 percent WO₃. Operations prior to the Nevada-Massachusetts Co. activity are estimated to have yielded 50,000 tons of scheelite ore. The property of the Nevada-Massachusetts Co. comprises 13 claims in one group. Production is about 240 tons of ore per day; 100 men work in the mine and mill. Mill City ranks among the important tungsten-producing areas of the world, and since 1925 it has been the largest producer in the United States.

The geology of the tungsten deposits has been described by Kerr.^{8/} Development consists of two inclined shafts with levels at 100-foot intervals. In 1936

^{8/} Kerr, Paul F., Geology of the Tungsten Deposits near Mill City, Nev., March 15, 1934; Univ. Nevada Bull., vol. 28, 1934.