1870 0001

I. C. 6941

197
Item 1

FITTING DISTRICT

The Fitting district comprises an area roughly 16 miles long and 6 miles wide in the southeast end of the Gillis Range in central Mineral County. No important mines have been found in this area, and in recent years the metal production has been small. The most recent mining development in this region is the production of andalusite rock from an unusual deposit on the southern flank of the Gillis Range. This is the only commercial occurrence of andalusite in Nevada.

Dover Group

The Dover group of three unpatented claims owned by B. H. Donnelly of Hawthorne is 5 miles east of Thorne, the nearest shipping point. The property is known as the Donnelly andalusite mine.

Andalusite rock was discovered by Donnelly in this area in 1929. In 1936, the property was leased to the Tillotson Clay Co. of Los Angeles for a 3-year period. Six men are employed at the property, and the production up to October 1936 was 450 tons of andalusite rock. The material is shipped to the Tillotson Clay Co. plant at Los Angeles for the manufacture of refractories.

Development work includes a 1 1/2-compartment vertical shaft 50 feet deep, two open-cuts, and a number of surface trenches. Workings comprise a total of 200 feet. The largest open-cut at the west end of the deposit is 30 feet long, 18 feet wide, and 15 feet deep. The shaft has been sunk near this cut, and a crosscut 56 feet long has been driven from the bottom of this shaft. Both shaft and crosscut are in andalusite rock. About 2,500 feet to the east of the shaft the second open-cut has exposed the andalusite for a width of 25 feet, a length of 20 feet, and a depth of 12 feet.

Equipment on the property includes an Ingersoll Rand Imperial Type 14 portable compressor, an Essex geared hoist driven by a gasoline engine, and a blacksmith shop. Hoisting is done with 1,000-pound capacity buckets.

The andalusite formation strikes approximately east and west. Near the shaft the andalusite rock is covered with a mantle of surface debris and clay up to 12 feet thick. The clay and surface debris are traversed with seams of gypsum.

In addition to andalusite, the rock contains corundum, quartz, sericite, and probably a little dumortierite. There is considerable variation of the mineral constitutents in the rock. Corundum predominates in some specimens, while in others andalusite is the most abundant mineral. After the material is mined it is hand-sorted into two grades, according to specific gravity and mineral constitutents.

Insufficient work has been done to block out tonnage, but in all probability this deposit contains large reserves.

Other Andalusite Claims

Five miles east of the Donnelly property is a group of claims located for andalusite. This group is owned by Joseph Maltesta of Hawthorne and associates.

Another group of 5 claims near the Donnelly property is owned by Peter Vuich and William Ray of Hawthorne. This group of claims is also under lease to the Tillotson Clay Co.

Only a small amount of development work has been done on either of the afore-mentioned properties, and no shipments have been made.

Chiatovich Group

A deposit of bentonite occurs about 9 1/2 miles north of Hawthorne in the foothills of the Gillis Range near the south end of Walker Lake. The nearest shipping point is Thorne, 3.3 miles south.

The deposit is covered by three unpatented claims owned by Martin M. Chiatovich, of Hawthorne. In 1936, the deposit was worked on a royalty basis by the Naval Ammunition Depot at Hawthorne. The bentonite is used to prevent water seepage in a reservoir constructed at the Depot.9/ Up to October 1936, the Navy had used approximately 1,500 tons for this purpose. The bentonite is mined by hand shoveling.

The bentonite outcrops in places over an area at least 2,000 feet long and several hundred feet wide. Portions of the deposit are covered with iron-stained soil to a depth of 3 feet or more. No attempt has been made to determine the extent of the deposit, but from surface indications a large tonnage is indicated.

Mica

On the north slope of the Gillis Range 22 miles northeast of Hawthorne via Ryan Canyon is an occurrence of mica. No production has ever been made.

Mica of the muscovite variety is exposed in a shallow shaft sunk 12 feet on the deposit. The mica is in three parallel veins that dip about 45°. The veins range in width from 12 to 20 inches. Country rock is granite. The mica is present in the veins as an intergrowth of crystals that average several inches in area, and in blocks up to 1 inch thick. Its color in thick plates is dark green, but in thin sheets it appears colorless and transparent. Most of the plates show checks and corrugations.

9/ Bentonite clay has the peculiar property of forming a colloid and absorbing several times its weight of water, swelling in the process to as much as 10 times its dry volume. Because of this property, it has been found suitable for sealing crevices in irrigating ditches, water reservoirs, and the like, where water is lost through seepage.

Hawaiian Group

The Hawaiian group of four unpatented claims owned by B. H. Donnelly, of Hawthorne, is in Ryan Canyon 5 1/2 miles northeast of Thorne, a station on the Hazen Mina branch of the Southern Pacific R.R. This property was discovered in 1906 by a man named Ryan, after whom the canyon was named.

No production has ever been made from the property. Prospecting work consists of a shaft 50 feet deep and some surface cuts, evidently made in search for shipping ore which was not found in commercial quantities. Property has been idle for many years.

The nearest water for milling is on the flat near Thorne, approximately 1,500 feet lower than the deposit.

The interesting feature of the property is a prominent outcrop ranging from 150 to 600 feet in width and traceable on the surface for nearly a thousand feet. This outcrop shows considerable silicification, and, according to Donnelly, samples taken at various places along the outcrop assayed $2.50 to $14 per ton. Values are in gold and silver associated with small amounts of copper, manganese, and iron oxides. Sampling done has been insufficient to determine the average value of the material.

GARFIELD DISTRICT

The Garfield district is at the northern end of an unnamed mountain range situated south and west of Soda Spring Valley. Acme, a siding on the Southern Pacific R. R., is 6 miles north. The district is accessible by automobile road either from Mina, 20 miles southeast, or Hawthorne, 24 miles northwest.

Silver-gold ore was first discovered in this area by Joshua Mass and Amos Everson in 1882. From 1882 to 1887, the Garfield mine (formerly known as the Blue Light) is said to have produced several million dollars in shipping ore. About 1890 an English company called the Hampton Plain Exploration Co. acquired the Garfield mine and erected a 10-stamp mill at Garfield Springs 9 miles south of the mine. To judge from the tailings at Garfield Springs, roughly 5,000 tons of ore were treated. In 1935, an unsuccessful attempt was made to treat these tailings by cyanidation.

About 1922 the Mabel mine, adjoining the Garfield, was acquired by the West End Consolidated Mining Co. Since 1922 this mine has been a small but consistent producer of high-grade shipping ore. From 1922 to 1929 the Mabel mine is reported to have yielded 4,310 tons of ore having a gross value of $421,627, an average of $97.83 per ton.

In recent years mining activity in the Garfield district has been confined to small leasing operations.