Item 2

Sacramento District

The Sacramento district is on the west flank of the Humboldt Range 5 miles east of Oreana, a station on the Southern Pacific Railroad. It extends from Limerick Canyon on the south to Pole Canyon on the north, a distance of 4 miles.

In the early days the Humboldt Queen mine was the principal property. Prior to 1900 this mine produced considerable lead-silver ore that was milled at Winnemucca and Mill City. According to John Ferretto of Lovelock, who owned the property prior to 1925, the last shipments of ore from the mine were two carloads averaging, respectively, $19 and $22 per ton shipped in 1919 by Laurence Zunini to a Utah smelter. In recent years this property has been idle.

According to Ransome,[14/] the country rock at the Humboldt Queen mine is limestone that is sharply and complexly folded. The vein follows the bedding of the limestone, and as it is near the surface the same vein outcrops several times as a result of erosion cutting across its folds. The vein filling is quartz and calcite, containing sulphides. The principal values are silver and some gold associated with pyrite, galena, and sphalerite.

In 1924 R. H. Rowland of Lovelock located a dumortierite deposit in Humboldt Queen Canyon. This deposit was sold to the Champion Sillimanite, Inc. The company's holdings comprise seven patented claims. Dumortierite has been mined intermittently since 1925, and the total production up to 1936 has been 2,800 tons. In March 1936 seven men were employed at the property.

Dumortierite is a rare aluminum silicate used with other silicates in the manufacture of spark plugs and refractories. The deposit in Pershing County is said to be the only known commercial source of this mineral in the world.

The dumortierite occurs in irregular lenses in a keratophyre formation. The largest lens found contained 600 tons. The mineral is readily distinguishable by its color, which ranges from light pink to deep purple, while the keratophyre is white. The deposit outcrops on the side of the canyon so that it is mined mainly by the open-cut method; however, some has been mined by open stopes from several tunnels. Development work totals about 1,400 feet.

Mining is done with jackhammers using 7/8- and 1-inch hexagonal steel. Compressed air is furnished by a two-drill portable compressor. Drill steel is sharpened by machine. The ore is blasted with 40-percent gelatin dynamite. In places the mineral is traversed with bands of country rock, and it is hand-cobbed and sorted into two grades. The sorted material is transported to a loading bin by a home-made gravity tram equipped with two buckets holding 500 pounds each. From the loading bin it is hauled to Oreana by truck for rail shipment east. Truck haul to Oreana, a distance of 6 miles, is done on contract at $2 per ton.

The detrital material covering the deposit in places contains angular fragments of dumortierite. The detritus is scraped down the hillside by a 78-hp. Sauerman dragline outfit. The dumortierite is so valuable that fragments the size of a hand specimen are cobbed and saved.

14/ Ransome, Frederick Leslie, Notes on Some Mining districts in Humboldt County, Nev.: U. S. Geol. Survey Bull. 414, 1909, pp. 34-35.