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of prospects and undeveloped mineral claims in the volcanic rocks of the area.

Nearly all the veins have long outcrops and are of the shear-zone, fault-contact type. The deposits consist of copper-silver and lead-vanadium ores. The copper-silver ores contain oxidized copper minerals, chalcocite, covellite, and a worthwhile amount of argentite. They occur in small pockety shoots and fill fissure and breccia openings. The lead-vanadium ores occur along fault fissures which locally follow basic dikes. Galena is the chief ore mineral, but vanadinite, descloizite, and copper minerals are locally present. In some veins the type of mineralization exposed seems to bear a decided relationship to the kind of wall rock or breccia in the vein. Some gold has been mined from similar veins in the district, but these contain only traces of the base metals. No production has come from this district in recent years.

Ojo Caliente District

The Ojo Caliente district is at the southwest edge of the San Mateo Mountains, about 2 miles from old Fort Ojo Caliente and about 16 miles north of the Chloride district. A small prospect, known as the Taylor prospect, shows most evidence of attempts at mining.

The ore is completely oxidized and occurs in a vein in an altered andesite. Cerussite is the chief ore mineral. Oxidized copper and zinc, together with manganese and iron oxides, accompany the cerussite. Copper minerals apparently increase in amount with depth. The ore contains about 13 ounces of silver and a small amount of gold per ton. No production has been reported from the district.

Rayo District

Rayo is about 12 miles south of Scholle, a station on the Belen-Clovis cutoff of the Atchison, Topeka & Santa Fe Railway. The ores of the district consist of copper carbonate and chalcocite, which occur in gray, loosely cemented Abo sandstone. Carbonaceous matter does not seem to be present.

The workings consist mostly of trenches and open cuts. A small amount of ore taken out in the course of prospecting seems to have been the only production from the district.

Rosedale District

The Rosedale district is on the east side of the San Mateo Mountains, about 25 miles southwest of Magdalena. Gold was discovered here in 1882, and mining operations were fairly continuous until 1916. Most of the ore mined during this period was treated by amalgamation and cyanidation in a 10-stamp mill.

In 1934 the Black Bear Mining Co. shipped 58 tons of ore to the El Paso smelter. Early in 1935 the property was sold to the Rosedale Mining Co. This company completed a mill and treated 2,972 tons of

ore that year. Production was increased to 16,200 tons the following year, and in 1937, 30,500 tons of ore was treated between March 15 and December 2, when the mine was closed down. The ore was treated by tables and cyanidation, the table concentrates being shipped to the El Paso smelter. The most recent production from the district came in 1941, when a small amount of gold (35 ounces) and silver (128 ounces) was recovered from the Rosedale mine.

The ore in the district occurs in well-marked brecciated and shear zones in rhyolite porphyry and contains free-milling gold. Much manganese oxide is present locally and is said to be associated with the higher grade ore. Silver is present in small quantities.

San Andres Mountains District

The San Andres Mountains in eastern Socorro County begin at San Augustin Pass, northeast of Las Cruces, in Dona Ana County, and extend nearly due north to Mockingbird Gap, in Socorro County, a distance of almost 75 miles. Numerous mineral deposits are scattered throughout the length of the range, but few have been developed beyond the prospect stage. The range contains five subdistricts: Goodfortune Creek, Grandview Canyon (San Andres), Mockingbird Gap, Salinas Peak, and Sulphur Canyon. With the exception of Mockingbird Gap (Socorro County), these subdistricts lie detached from Socorro County in territory annexed to Sierra County in 1951. The continued listing of the four "panhandle" districts under Socorro County is more convenient, however, for statistical purposes. The five subdistricts are described individually in discussing the San Andres Mountains district.

The range is structurally a westward dipping monocline consisting of a succession of Paleozoic rocks overlying the Precambrian complex, which is exposed on the steep east face. The strata are cut by faults and intruded by masses of monzonitic rock. Practically all the deposits occur along the eastern side of the range. For the most part they are fissure veins along small faults. Deposits of copper, lead, zinc, bismuth, and tungsten occur.

The whole region lies within the White Sands-Alamogordo military reservation and is not accessible for further prospecting or development.

Goodfortune Creek Subdistrict

The Goodfortune Creek district is about 45 miles west of Tularosa, on the steep east slope of the San Andres Mountains. The veins follow transverse faults and fissures. The ores consist chiefly of silver-bearing secondary chalcocite and copper oxidation products and are most abundant at the contact between the Precambrian granite and the Cambrian quartzite.

There are no records of the early production from the district. In 1934 a carload of copper-silver ore was shipped to the El Paso smelter, and again in 1937 and 1938 small shipments were made.