

FAYWOOD HOT SPRINGS

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Faywood Hot Springs is a lush oasis in the high desert of southwestern New Mexico about halfway between Silver City and Deming. For centuries, the hot springs have lured prehistoric and native American peoples, such as the Mimbres Culture and Apaches, Spanish explorers, stage coach travelers, “buffalo soldiers,” health seekers, miners, and even a professional baseball team near the beginning of the last century. Many circular “mortar” holes in the spring tufa mound attest to early use by prehistoric peoples. Today, the hot springs are commercially developed as a year round natural hot spring resort on a 1,200-acre ranch with activities that include bathing, massage, camping, horseback riding, bird watching, and star gazing (<http://www.faywood.com/>). About three road miles distance is the popular City of Rocks New Mexico State Park. The City of Rocks are rows of large rock spires and towers that are shaped by chemical weathering and mechanical erosion from a welded ash flow tuff unit or ignimbrite that was erupted during Oligocene volcanism in the region. The hot springs water, report at 125 to 130°F, has sodium bicarbonate chemistry with a total dissolved solids (TDS) of about 500 mg/L and are associated with a calcium carbonate tuffa mound that is more than 30 ft in height and more than 600 ft in circumference. The spring temperature and natural flow rate has apparently declined since the 1899 when natural flow rates of 100 gpm and temperatures of 142°F were recorded (Summers, 1976). By 1957, the flow had decreased to 50 gpm and the temperature was measured at 128°F (Summers, 1976). It recently increased to 137°F due to cleaning of the spring. The decrease in flow may be related to water development in the region during the last century. Other historic thermal springs, located northwest of Faywood Hot Springs, such as Apache Tejo Warm Springs and Warm Springs, no longer flow. Geologically, Faywood Hot Springs is located on a

horst block that is separated from the San Vicente half graben to the southwest by a large normal fault (Elston, 1957; Seager, 1995). About one mile east of the hot springs, a large felsic intrusion or dome is exposed in highway cuts along the highway to City of Rocks State Park. The margins of the intrusive body may act as a “discharge hydrogeologic window” to allow hot water to flow vertically across the Rubio Peak Formation, a regional aquitard that caps a thermal Pennsylvanian carbonate aquifer in the area (Witcher, 1988). Heat for the springs comes from background, but elevated, crustal heat flow for the region and results from deeply circulating (3,500 to 4,500 ft depth) water flowing relatively fast back to the surface and retaining higher temperatures.

REFERENCES

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