



Stratigraphy of the Nacimiento nexus area. Calibration of the geologic timescale at left of each column is from local geochronology plus http:///stratigraphy.org/chart



Turonian

Cenomanian

94-

Mancos Shale (lower tongue)

Dakota Sandstone



Soda Dam is a travertine accumulation along the Jemez River in the Jemez Mountains just north of the town of Jemez Springs. Day 3 of the Fall Field Conference ends here. This iconic New Mexico location is an important geoheritage site both culturally and geologically. Its hot springs and pools have been used by Indigenous peoples and Euro-American settlers for over 2500 years (https://jemezsprings.org/about/history/). The pueblo of Guisewa, located in present-day Jemez Springs, was occupied until the late 1400s by ancestors of the present-day Jemez (Walatowa) people. Spanish missionaries arrived around 1541, and ruins of the early 1600s mission still stand at the Jemez Historic Site. Soda Dam is about 15 m (50 ft) high and 15 m (50 ft) wide. It stretches ~90 m (300 ft) across the Jemez River valley. This view shows where the river breaks through the dam at its southeast margin and creates a picturesque waterfall. The travertine (calcium carbonate) forms as carbon dioxide degasses from hot springs that vent along the Jemez fault system and are sourced from the Valles geothermal system. A central fissure ridge on top of Soda Dam has been active over the past 10,000 years, and older travertine deposits at this site show that this hot spring system has been active for more than 500,000 years (Jean et al., 2024, this volume). Please respect this site and leave no trace of our visit.

This is the 74th in a series of annual guidebooks produced by the New Mexico Geological Society. This and other guidebooks cover large regions of New Mexico and provide a comprehensive geologic resource and road trip education for a wide range of audiences.