



CLOCKWISE FROM LEFT: Jeff Pepin sets up the MT system outside of T or C, NM; Dr. Laura Crossey makes a presentation about the Valles Caldera; Dr. Crossey records a video about the geology of Soda Dam with Marisa Respach

GEOTHERMAL ENERGY

The Geothermal Energy Resources team continued to search for and map known and blind geothermal systems around the state using EPSCoR-funded magnetotelluric (MT) surveys and traits and characteristics of the change (flux) in the release of CO₂ from under the ground. The team has discovered extensions of the Valles Caldera (a supervolcano akin to Yellowstone) geothermal system in both northeastern and southwestern directions using geochemical tracers and characterization of CO₂ flux. The team also continues

its work with the Osmotic Power team and their partnership with Masson Greenhouse to provide geothermal power and water.

MT survey work has led to the discovery of a new hydrogeothermal application for MT research around the world: MT survey results can detect permeability variations within deep hydrothermal systems. Under certain conditions, MT models can predict salinity, temperature, and resistivity patterns for different types of permeable rock.