

Welcome to Earth Matters – field notes on the geology of New Mexico’s Enchanting Landscapes.

Celebrating Earth Science Week, I’m Geoffrey Rawling.

I have noticed two things over the years when I introduce myself as a geologist – most folks ask what is it exactly that I do and how did I get to be one?

The second question is easier – I took a geology class in high school and had the greatest teacher ever! Mr. Harrison’s passion and enthusiasm for geology made my choice of major in college easy. I went on to get a masters degree and finally a Phd. at New Mexico Tech, and then began working at the Bureau of Geology.

As a field geologist at the Bureau I have made geologic maps around Ruidoso, Cloudcroft, Capitan, and Grants. The maps show the distribution of rocks types on the earth’s surface and are the primary tool used to understand and locate aquifers, energy resources, and mineral deposits. This work involves long hard hours walking alone across the rugged and beautiful terrain of New Mexico – I love it!

I also work with Bureau’s Aquifer Mapping Program. We use geology, hydrology, geophysics and geochemistry to understand New Mexico’s groundwater supplies. I have measured water levels, sampled

spring and well waters for chemical analysis, and made maps and written reports showing geologic and hydrologic data and conclusions.

Perhaps the best part of my job is communicating science to the public. I give many public presentations around the state describing the results of Bureau research, often to audiences with no background in geology and hydrology. It is a thrill to explain complex concepts and see understanding on faces in the audience. I get to talk to people across the state, from urban residents to rural ranchers, and help them to understand the resources they depend on and how research at the Bureau of Geology benefits them. I hope Mr. Harrison would be proud!

Celebrating Earth Science Week, I'm Geoffrey Rawling of the Bureau of Geology at New Mexico Tech.