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Sustainable Energy in New Zealand

Dispatch – Afternoon, Wednesday, March 8th

The afternoon of March 8th was spent at the GNS Wairakei Research Center located just 5 minutes from Taupō. At the center, we listened to Mark Simpson give his presentation, Geothermal Systems of the Taupō Volcanic Zone: Intro, Uses, and Science.

GNS's mission is to perform analysis and consultation on potential geothermal sites, and research critical fluids. At their Wairakei location, GNS has state of the art laboratories stationed around the base with specialized equipment which allows them to conduct a wide variety of experiments.

One thing I found interesting was when Mark discussed the experimentations, they can do on the surface to predict whether there would be an adequate spot for geothermal development. In particular, he said they used hydrothermal mineral significance, and looked at temperature indication, inferred permeability, pH/fluid indicators.



Halfway through his presentation we got a chance to get some tea and cookies, play some games, and explore the patio area which had a beautiful look at the mountains and sheep farm behind the center.

As a geoscience major, this trip was particularly interesting to me because Mark touched on a lot of the geology of the area, and the geologic analysis that went in to determining the viability of a potential geothermal sites. It definitely aided my understanding of the geothermal process and what is required for a site to take place.

After our return to Taupō, Medi, Austin, Erika, and I went to visit the lake in the center of the caldera and find nice pieces of pumice around the beach. A large group of us then went to dinner at The Steak House Taupō and finished off the night with some group karaoke.

