Monday, 6 May 2024
11 am
A2 Lecture Theatre

Deep Geothermal Well Drilling – The Black Arts Of The Green Revolution

Ralph Winmill
Lead Drilling Engineer, Contact Energy
BE Mech from Canterbury

Abstract: New Zealand holds a pioneering position in the development of geothermal energy, and we continue to innovate to the present day. Geothermal power production holds an important place in decarbonising the planet – it is the only base-load renewable that is independent of weather and climate. The geothermal production cycle starts and ends with the wells. The technology and methods required to drill deep wells is little known to most people and is a fascinating application of engineering principles. The added challenges of building long-lasting underground structures into high-temperature environments makes the engineering aspects both critical and arcane. From a philosophical perspective, it is using the large steel machines and the works of mankind, coupled with thousands of horsepower to wrest rewards from mother nature if you are willing and smart enough to play the game.

I promise that this will not be a dull lecture (though it might be 'boring'!).

Bio Sketch : Ralph Winmill graduated from the University of Canterbury in 1994 with a Mechanical Engineering degree, and started working in the geothermal industry at Wairakei the same year. Over his career, he has had a wide set of roles revolving around geothermal wells, from working as a Contractor, Consultant and now as the Operator responsible for hundreds of geothermal wells. His experience also extends to oil and gas wells and operations. He specialises in geothermal well design, drilling and management and had a significant input into the current NZ Code of Practice for Deep Geothermal Drilling. His work has taken him all over the world, and he is sought out internationally for his knowledge, skills and expertise. He lives in Taupo

All are welcome!