

// CASE STUDY

LOW-EMISSION GEOTHERMAL WELL TESTING IN TAUPŌ

Western Energy Implements Sustainable Testing with Real-Time Remote Monitoring.



// CLIENT Contact Energy

// LOCATION Wairakei Geothermal Field,
Taupō, New Zealand

PROJECT AT A GLANCE

// Objectives

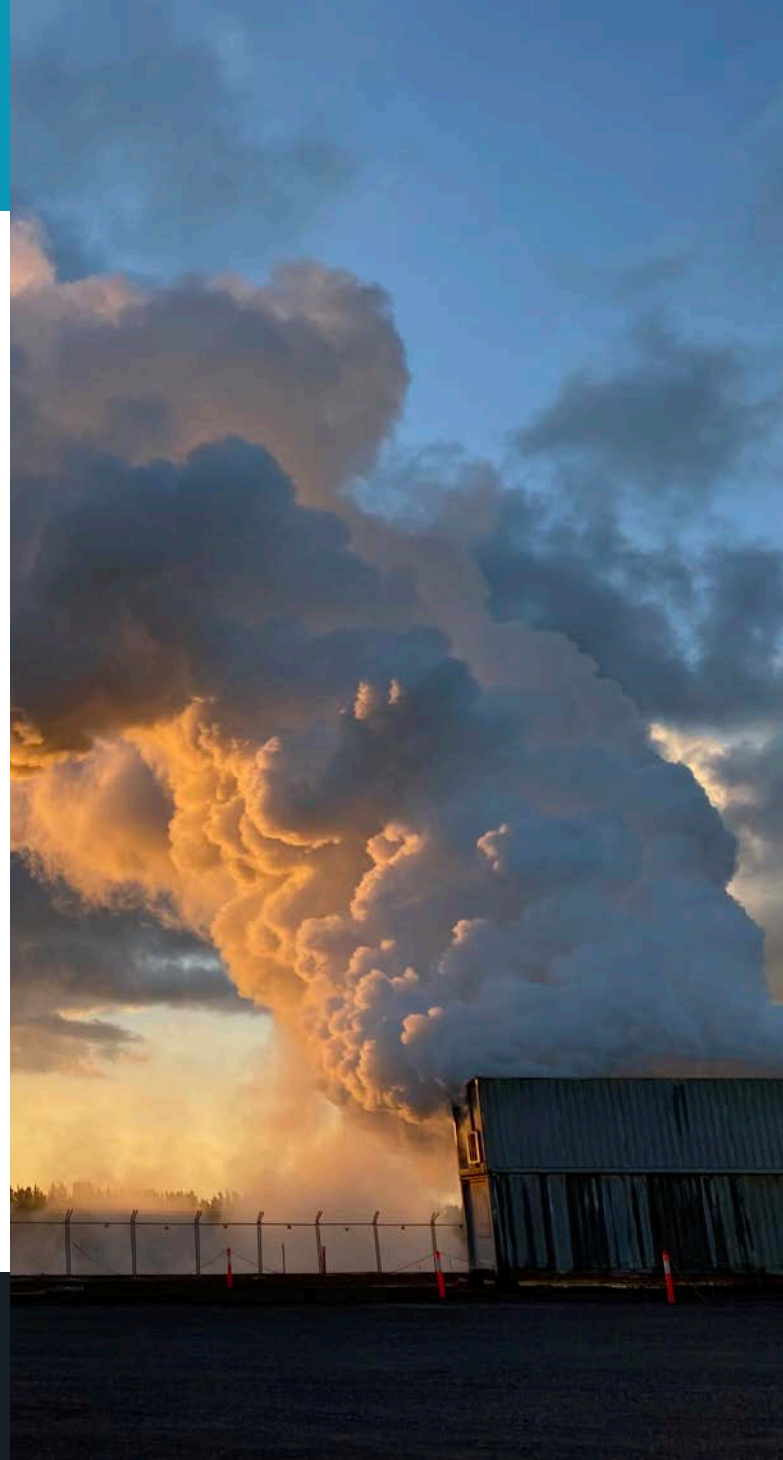
Western Energy conducted geothermal well testing campaign using Thermochem's Low-Emission Compact Muffler (LECM) for the initial discharge of three new wells. The LECM facilitated the testing process, while our advanced telemetry system provided remote, real-time monitoring.

// Challenges

To perform the first discharge and flow testing of three new geothermal wells with minimal environmental impact, while enabling stakeholders to access real-time data remotely without the need for onsite presence.

// Results

Over a four-week period, Western Energy successfully completed the well testing campaign, achieving low-impact testing through the use of the LECM and providing remote monitoring via advanced telemetry. This project demonstrates sustainable practices and stakeholder engagement, characterisation, contributing to the successful operation of our clients' geothermal wells.





KEY EQUIPMENT

// Thermochem's Low-Emission Compact Muffler (LECM)

The LECM played a pivotal role in ensuring an environmentally responsible approach to well testing. This innovative equipment effectively managed fluid carryover and emissions during the initial discharge, significantly minimising environmental impact. Its performance made it an essential tool for Western Energy's testing campaign.

Western Energy was tasked with conducting the initial discharge and flow testing of three newly drilled geothermal wells in Taupō. The primary challenge was to minimise the environmental impact typically associated with such operations.

Additionally, there was a need to allow stakeholders to monitor performance remotely, eliminating the logistical challenges and time constraints of onsite visits.

To address these challenges, Western Energy employed Thermochem's Low-Emission Compact Muffler (LECM), which significantly reduces emissions during well discharge and testing operations. The LECM managed fluid carryover and emissions effectively, providing an environmentally friendly solution.

Concurrently, Western Energy utilised its advanced telemetry system to capture real-time data on well parameters such as pressure, temperature, and flow rates. This data was made accessible to stakeholders remotely, enabling them to monitor the testing process in real time without being physically present at the site.

The well testing campaign was executed efficiently and yielded significant operational and environmental benefits. Key highlights include:

- **Efficient Completion:** Successfully conducted within a four-week timeframe, covering equipment setup, well clearing, and flow testing at various operational set points.
- **Reduced Environmental Footprint:** Leveraged the LECM to effectively control emissions, minimising environmental impact.
- **Advanced Telemetry System:** Enabled continuous updates to stakeholders on well performance, supporting timely and informed decision-making.

This successful operation highlights Western Energy's dedication to implementing innovative and sustainable solutions in geothermal energy development, while enhancing client collaboration through advanced technological integration.

// UNLOCK YOUR GEOTHERMAL POTENTIAL WITH WESTERN ENERGY

Ready to take your drilling operations to the next level? Let our expert team partner with your organisation to ensure efficient operations, accurate data acquisition, and outstanding results.

Contact us today to see how Western Energy can power your success.