

// CASE STUDY

RESERVOIR ASSESSMENT AND DRILLING SUPPORT FOR NTGA

Delivering comprehensive drilling support and wireline services to optimise NTGA's geothermal well performance.

// CLIENT Ngāti Tūwharetoa Geothermal Assets Limited (NTGA)

// LOCATION Kawerau Geothermal Field, Bay of Plenty, New Zealand

PROJECT AT A GLANCE

// Objectives

To provide wrap-around drilling support services to NTGA, encompassing reservoir assessment, well targeting, well design, on-site drilling support, and advanced wireline services during drilling and completion testing.

// Challenges

NTGA required a comprehensive drilling support solution that included a thorough reservoir health check, precise well targeting and design, and on-the-ground support throughout their drilling programme. Accurate data acquisition during drilling and completion testing was essential, necessitating advanced wireline services.

// Results

Western Energy assembled a team of industry-leading experts who provided value-driven services. The collaboration ensured optimal drilling performance and accurate reservoir characterisation, contributing to the success of NTGA's geothermal drilling campaign.

KEY EQUIPMENT

// LeapFrog

A workflow-based 3D subsurface modelling software. LeapFrog brings together data from multiple sources—pressure, temperature, and spinner (PTS) surveys, open-hole XY logging data, and acoustic borehole imaging (ABI)—into a single, coherent visual model. This integrated platform supported well targeting, guided cement volume calculations, and provided a dynamic understanding of reservoir conditions.

NTGA faced the complex task of enhancing the performance and longevity of their geothermal wells. They needed a partner capable of delivering a full spectrum of drilling support services—from an initial reservoir assessment and health check to well targeting and design.

On-site support throughout the drilling programme was crucial, as was the need for sophisticated wireline services to obtain accurate real-time data during drilling and completion testing.

Western Energy, utilising the knowledge and experience of our colleagues in the Contact Energy drilling and reservoir teams, provided comprehensive drilling support services. We began with a thorough reservoir assessment and health check, which informed well targeting and design.

Our team offered on-the-ground drilling support throughout the drilling programme. We also provided a full suite of wireline services during drilling and completion testing, including:

- **Magnetic Multishot (MMT) Drop Tool Surveys**
- **Pressure, Temperature, Spinner (PTS) Surveys**
- **Open Hole XY Logging**
- **Acoustic Borehole Imaging (ABI) Surveys and Interpretation**

Our collaborative approach allowed us to assemble a team of industry-leading experts committed for the client, providing value for money and achieving the best possible results.

Through our comprehensive drilling support and advanced wireline services, NTGA benefited from optimal well performance and accurate subsurface data acquisition. The reservoir assessment and health check offered valuable insights that informed well targeting and design, while our on-site drilling support ensured efficient operations throughout the drilling programme.

The wireline services delivered precise measurements and interpretations essential for effective decision-making. Our team's expertise and commitment resulted in successful drilling outcomes, contributing to the overall efficiency and productivity of NTGA's geothermal operations.

// 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, optimised well targeting, and outstanding results.

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