Case Study

All Metal Motor

All Metal Motor Removes Scale from Geothermal Well
Case Study No. 4005

DETAILS:
Location: New Zealand
Casing Size: 7” - 29#
Conveyance: 2” Coiled Tubing
Operation Depth: 2,177’ (663.6m)
Well Orientation: Vertical
Fluid: Water
Operation Type: High Temp Milling
Tools Used: 2 7/8” OD All Metal Motor

HIGHLIGHTS
• No Temperature Limitations
• No Fluid Restriction
• Reliable Performance
• Exclusive Innovative Design

RESULTS:
A customer in New Zealand ran a trial of three different BHAs to clean out an unquenched geothermal well. Compressed air was comingled with the fluid to prevent cooling the 230°C (446°F) bottom hole temperature (BHT). TTS’ All Metal Motor was used in comparison to an air hammer as well as a competitor’s motor; all three trials consisted of milling 122m (400’) of scale. While the other trials resulted in multiple stalls and burning up bearing sections, TTS’ All Metal Motor successfully completed the millout with no failures. Due to the high BHT, the design of the All Metal Motor excelled having no elastomers or fluid limitations. The customer was very pleased with the performance of the All Metal Motor and has since awarded TTS additional wells to be completed.