

Pegasus Series Drill Bits

Pegasus™ Series Drill Bit delivers outstanding, all-around bit performance in New Zealand geothermal application



Challenge

In recent years, hybrid and PDC bits have replaced roller cones in this New Zealand 16" geothermal application. When drilling this tough interval, hybrid and roller cone bit limitations are bearing life and maximum ROP, while standard PDC bits are associated with high torque and gauge durability.

Solution

With the goal to drill the section in one run, improve ROP, and produce a re-runnable bit dull grade, the Pegasus 16" P66 was selected. Designed to dominate the most challenging drilling applications, including geothermal, the bit is a shankless [MaxSteer™](#) design with enhanced gauge length, [Struts™](#) high-density impreg elements, the latest [ION+™](#) PDC cutter technologies, and a patented dual-diameter cutting structure.

Results

This premium bit design delivered a shoe to TD run on the field's second longest section in this geothermal field. The bit achieved a new ROP benchmark of 23m/h (74ft/h), improving on the previous best ROP by 13.75%, and was pulled in excellent re-runnable condition.

The 16" P66:

- Drilled a total interval of 854m (2,802ft) in a single run from casing shoe to TD.
- Achieved all bit run objectives.
- Had lower torque signature than standard PDC designs with no torque issues.
- Pulled in gauge after the performance PDM run on a 1.15° bent housing setting.
- Produced an outstanding re-runnable dull condition of 1-1-CT-C-X-I-NO-TD.



Combining industry-leading technologies, the Pegasus 16" P66 achieved a new field ROP record and outstanding footage performance.

