

Well type	Horizontal
Maximum circulating temperature	283 degF [139 degC]
Mud type	Oil-base mud
Hole size	8% in
Circulating hours	186 h
Section length	4,220 ft [1,286 m]
TD	14,450 ft [4,404 m]

### Background

In a well where temperatures commonly exceeded 280 degF [138 degC], an operator in the Middle East needed to drill a section shoe to shoe in a single run while using an aggressive oil-base mud. In previous runs, motor failures due to the elastomer were common, causing multiple trips and excessive NPT. Schlumberger suggested using the PowerDrive vorteX\* powered rotary steerable system with the Powerlast\* life-extending motor elastomer from Dyna-Drill.

### Technology

- PowerDrive vorteX powered rotary steerable system
- Powerlast life-extending motor elastomer

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## PowerDrive vorteX RSS and Motor with Powerlast Elastomer Drills to TD in a Single Trip, Increases ROP 20%

Power section showed zero damage after drilling in temperatures greater than 280 degF with aggressive oil-base mud, Middle East



*The PowerDrive vorteX RSS and the Powerlast elastomer sustained ROP and performance for 186 circulating hours at temperatures greater than 280 degF [138 degC], successfully drilling to TD in a single trip. During drilling, the ROP averaged 26.7 ft/h [8.1 m/h], which is a 20% improvement compared with offset wells. The PowerDrive vorteX RSS with the Powerlast elastomer showed zero damage during the postrun check.*