

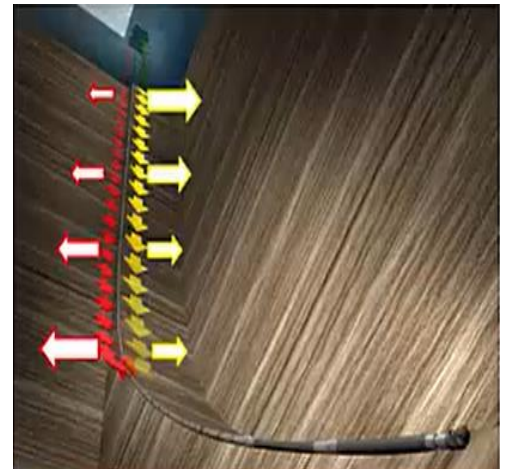
Operator Maintains High ROP & Drills Entire Section of Mono-bore Well

6-3/4" iCRUISE® INTELLIGENT ROTARY STEERABLE SYSTEM & ELECTROMAGNETIC TELEMETRY (EMT) SYSTEM DELIVERS HIGH ROP

COLORADO – DJ BASIN

An operator wanted to drill an 8-1/2" mono-bore well while needing to address the drilling challenges of holding inclination in the intermediate section, drilling an 8° curve, and continue into the horizontal section. This needed to be accomplished while maintaining high rate of penetration (ROP) and utilizing a mono-bore design. Halliburton Sperry Drilling and Drill Bits Services team collaborated with the operator to provide an engineered drilling solution, and designed the bottom-hole assembly (BHA) specific to the needs of the wellbore. The design exceeded ROP KPIs of 850'/hr and reached as high as 1200'/hr in the intermediate section. It continued to deliver the required DLS to complete the curve and drill into the horizontal.

Implementing recent advancements in electromagnetic (EM) technology, coupled with the iCruise® intelligent rotary steerable system (RSS), allowed two way communication and downlinking while drilling at high rate of penetration above 1000'/hr. This technology also provided surveys while making connections which aided in reducing overall downhole hours. The motor assisted RSS by the NitroForce™ high-torque, high-flow motor paired with the GTi55MBO drill bit design. This solution reduced well time by beating the expected KPI of the tangent section, reaching the production liner casing point, for a total of 19,830' drilled at a final depth of 21,431' MD. Reduced tortuosity and friction allowed installation of the production casing with no issues, helping the operator maximize asset value.



Electromagnetic telemetry (EMT) system.



iCruise® intelligent rotary steerable system.

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