



Operator Drills Back-to-Back Record-Setting Curves in the Delaware Basin

iCRUISE® INTELLIGENT ROTARY STEERABLE SYSTEM DRILLS CURVE SECTION IN 17 HOURS

EDDY COUNTY, TEXAS

OVERVIEW

An operator drilling in the Delaware Basin completed their fastest curve section in the area, having collaborated with the Halliburton Sperry Drilling team to optimize the drilling program. It was decided to drill this well section utilizing the 4.75-in. iCruise® intelligent rotary steerable system (RSS), matched with a 6.75-in. GeoTech® GTi64D drill bit.

Multiple technologies were combined to improve drilling performance over offset wells in the region:

- The equilibrium, force, and critical speed modules of DrillingXpert™ well engineering software were used for modeling bottomhole assembly (BHA) design to meet the steering objectives, while balancing side forces across the BHA and identifying the optimum operating window to minimize vibration.
- The custom drill bit was designed using our industry-unique Design at the Customer Interface (DatCISM) service, which helped improve bit design from well to well based on downhole data.
- The ADT® (Applied Drilling Technology) drilling optimization service provided real-time drilling performance optimization and vibration mitigation.

The engineered drilling solution maximized asset value by out drilling the competition's RSS and rate of penetration (ROP) performance, reducing drilling time by 7% and delivering 13.1° maximum dogleg severity (DLS) in the curve section. This record-setting solution successfully delivered a back-to-back curve section for the operator in approximately 17 hrs. at an average ROP of 82.32 ft/hr.



iCruise® RSS with GTi64D bit.

Interval-RSS	Depth In (ft.)	Depth Out (ft.)	Footage Drilled	Drilling Hours	Avg. ROP (ft/hr.)
Record Well	11,795'	12,983'	1188'	17.43	82.32
Well 2	10,812'	12,061'	1249'	25.40	49.17
Well 3	10,706'	12,025'	1319'	25.10	52.55

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