

Lucida advanced rotary steerable service maximizes ROP and minimizes doglegs in stringer-laden formation

CHALLENGES

- Shale formation interbedded with limestone stringers raises risk of damage to conventional rotary steerable systems
- Elevated lateral and tangential vibrations when transitioning between rock types requires directional changes via downlinking
- Lateral dogleg severity (DLS) increases tortuosity and creates challenges for casing, completion, and production operations

SOLUTION

Deployed 6 3/4-in. [Lucida™ advanced rotary steerable service](#) to improve drilling performance and rate of penetration (ROP) with features including:

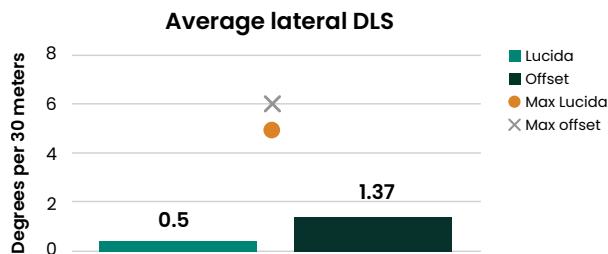
- Advanced sensors and hydraulic units that provide greater reliability and accurate measurements
- Full inclination and automated azimuthal hold steering modes for reduced DLS
- Faster and less frequent downlinking for increased ROP, even through interbedded stringers

RESULTS

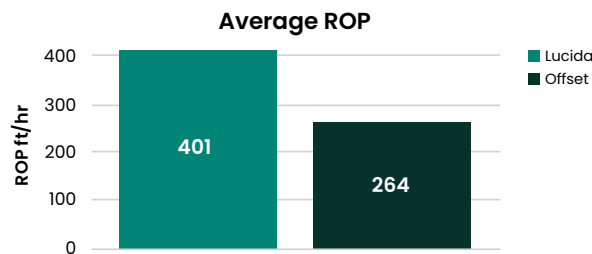
64% reduction
in average lateral dogleg severity

401 ft/hr
average ROP versus 264 ft/hr in lateral offset

100% reliability
in electronics and hydraulic units over 20+ runs



Compared to a similar offset section drilled with a conventional RSS, the Lucida advanced RSS significantly reduced the maximum and average DLS.



The Lucida advanced RSS drilled the lateral with a **52% higher** average ROP than a conventional RSS achieved in the offset well.