Lucida advanced rotary steerable service drills lateral to plan, reducing number of drilling days and trips downhole

CHALLENGES

- Hard formation creates high-frequency tangential vibrations and stick-slip conditions that reduce reliability and require multiple trips
- High-quality formation evaluation data requirements increased drilling costs and rig time in offset wells
- Poor trajectory control increases wellbore tortuosity and number of drilling days to reach target depth

SOLUTION

Deployed 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 dogleg severity
- Faster and less frequent downlinking for increased ROP in challenging formations



- HE on JHW72-33 had the second highest ROP, longest run footage, shortest TD days, and fewest LDK counts in lateral section to hold azimuth compared to the offset wells in the same layer.
- JHW60-32 had the highest ROP in the same layer.
- Compared to 72-13, 72-33 with HE saved 2.3 drilling days, and 33 DLK counts in lateral section
- Average DLK counts to hold azimuth in 1840m lateral section is 43, correlates to 52 DLK counts in 2235m lateral meterage.

2500 80 2235 2234 68 70 2000 1834 1830 1830 1830 1835 60 50 1500 42 41 39 40 1000 30 18.8 20.47 7.92 15.9 13.29 5.6 20 14.9 500 10.1 9.7 10.8 9.9 10 12.1 2 0 Λ SDI516 MDI516 MDI516 SDI516 TK56 TK56 TK56 JHW60-310 JHW60-32 JHW60-39 JHW61-31 JHW61-34 JHW72-13 JHW72-33 ----- AVG ROP (m/h) Lateral section meterage(m) -Runs to TD - TD davs WF DLK counts in lateral section

RESULTS

2.3 days of drilling saved compared to previous lateral

2,234 m of lateral drilled in 317 hours

33 fewer

50%

reduction in average number of runs to target depth



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