

NeoSteer CL System Drills Curve and Lateral Sections in a Single Run Over 2 Days, Maintaining 100% in Zone

Curve and lateral at-bit steerable system reaches over 700-ft/h instantaneous ROP without compromising trajectory control or hole quality

CNX Resources used the NeoSteer CL* curve and lateral at-bit steerable system to drill both the curve and lateral sections 100% in zone in only 2 days with an average ROP of 308 ft/h and negligible tortuosity.

The operator's concerns

CNX Resources wanted to save time and cut costs by attaining a single-run solution for curves and laterals in their Northeast Basin well program. They also needed to maintain a high ROP throughout the curve and the lateral.

What they tried first

CNX Resources had been tripping out of hole to change BHAs after completing the curve sections with an alternative directional

drilling service provider. This was done to improve azimuthal control and consistency while drilling long lateral wells and to ensure a smooth wellbore for running casing and wireline operations during frac jobs.

What Schlumberger recommended

The NeoSteer CL system can drill both high-DLS curves and straight laterals, removing the need for separate trips and equipment for each section.

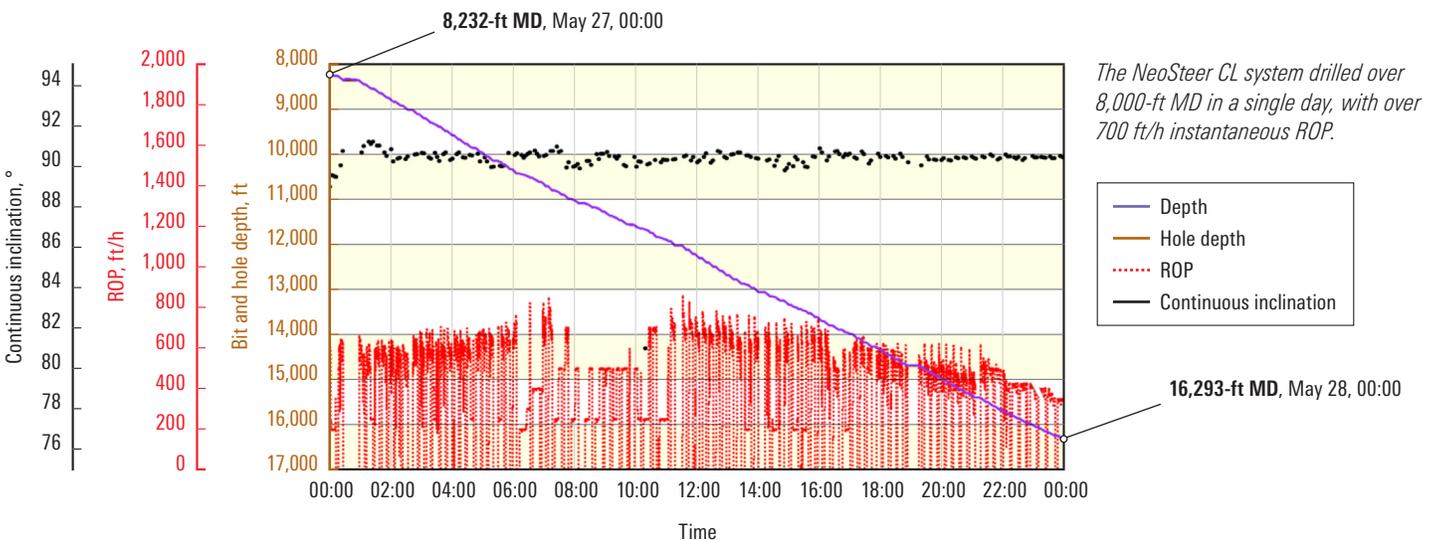
To increase ROP in this soft formation, Schlumberger also recommended using a HyperBlade* hyperbolic diamond element bit. The 3D geometry of each Hyper* hyperbolic diamond cutting element is specifically designed to be effective in soft and plastic formations where balling is common.

What happened

Both the curve and lateral sections were drilled 100% in zone in a single run with an average ROP of 308 ft/h: 126 ft/h in the curve and 460 ft/h in the lateral. The instantaneous ROP reached up to 700 ft/h in some instances.

The technology helped drill over 8,114-ft MD in a single day and reached TD in 2 days.

Furthermore, the NeoSteer CL system delivered a tortuosity average of 0.55°/100 ft.



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