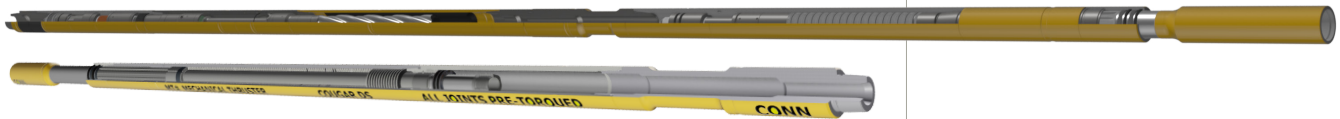


6.00" Curve and Lateral Section in One Run - Delaware Basin

Reeves County, Texas

Cougar LEX Tool & Mechanical Thruster



The Challenge

A major Delaware Basin operator needed to make multiple trips per lateral section due to premature bit wear, resulting in increased AFE costs. The operator aimed to drill a six-inch curve and lateral section with a single bottom hole assembly (BHA) run in the Bone Spring formation.

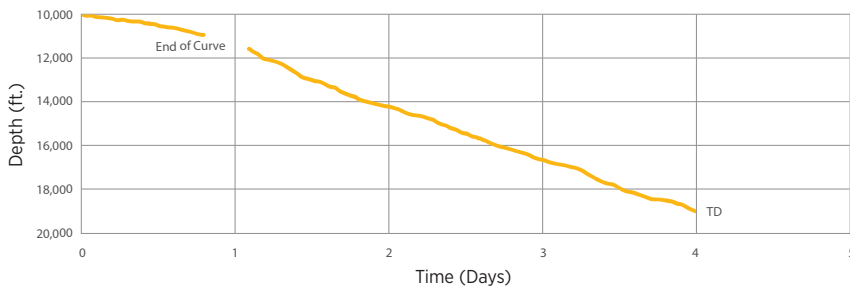
The Solution

We designed an optimized BHA for maximum axial motion and bit engagement, while minimizing the negative effects to the BHA components. We implemented the Cougar LEX Tool to increase the sliding rate of penetration and to maximize effective weight transfer. We also optimized its placement in the well, based on the well's specifics, for maximum effectiveness. Then, we added the Mechanical Thruster MT3X-500 in the BHA. This protects the BHA and motor and maintains constant drilling parameters and keeps the bit engaged.

Results

By using an optimized BHA with the LEX and the Mechanical Thruster running together, the operator achieved a one-run curve and lateral, with minimum drilling dysfunction. The project came in below AFE and saved the operator additional costs.

Days vs. Depth—6.00" Curve and Lateral



CougarDS.com

Single Run Footage

9,248'



Run Overview

Sliding Percent	11.54%
Average ROP	108.2 ft./hr.
Drilling Time	85.5 hours
Average Sliding ROP	39.11 ft./hr.
Average Sliding WOB	24.97 klbs.

