



Blue Force Motor Saved Operator \$53,000 in the Eagle Ford with One Run Lateral to TD

An operator drilling a horizontal well in the Eagle Ford shale play in Karnes County South Texas faced many challenges. Drilling through the sands in the Eagle Ford has proven to be a problem. The sands in the Wilcox and Olmos are known for dulling the drill bit therefore reducing ROP performance and causing the need to pull out of hole to change BHA assembly. The challenge for Ryan was to drill the entire well in one run—eliminating the need for trips.

Ryan Directional Services utilized our 6¾ in. short-bit-to-bend Blue Force motor line and drilling optimization techniques (using

decreased flows rates, RPM and weight on bit) to maintain performance through the Wilcox/Olmos sands and drill the entire well in one run.

The Blue Force motor and our drilling optimization techniques proved successful in this reservoir. We were able to drill to TD in 3.7 days in one run (avg. 103 ft. drilled per hour). The use of our 45 in. bit to bend enabled success through the curve. The elimination of trips and the strength and speed of our Blue Force motor resulted in a savings of \$53,000 and record drilling times in the Eagle Ford.

Challenge

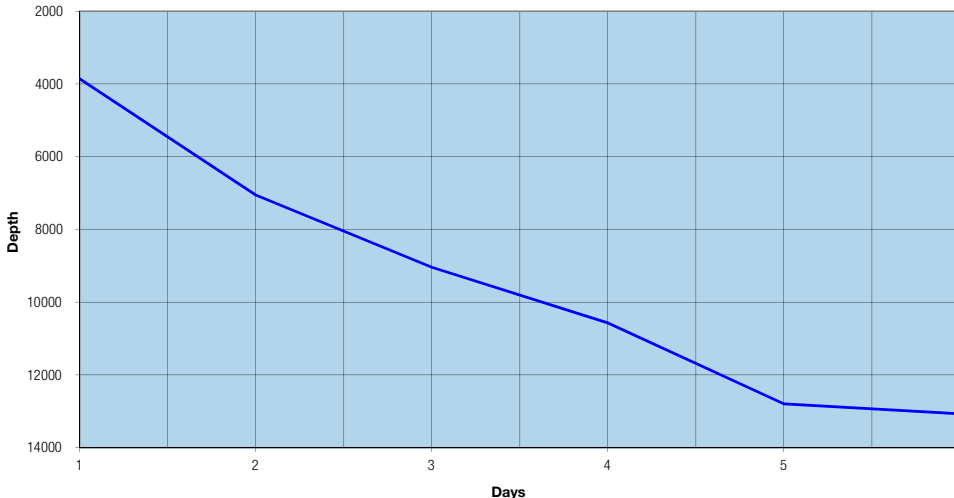
- Wilcox and Olmos sands are notorious for dulling the drill bit therefore reducing ROP
- Reduce time to complete by eliminating the need to pull out of hole to change BHA
- Goal—drill the entire well in one run—eliminating the need for trips.

Solution

- Deployed 6¾ in. short-bit-to-bend Blue Force motor line and drilling optimization techniques

Results

- Saved \$53,000 by drilling to TD in one run
- Eliminated a trip by completing the vertical and curve by using our 45 in. bit-to-bend
- Achieved record drilling times in the Eagle Ford



Time/depth plot shows drilling the lateral section in one run