

MIDLAND BASIN

MARTIN COUNTY, TEXAS

BHA	Steerable positive displacement motor (PDM)
Power section	8 $\frac{1}{8}$ -in lobes 5.9 stages
Well type	Vertical
Mud type	Water-based mud
Interval	12 $\frac{1}{4}$ in
Section length	5,589 ft [1,704 m]
TD	7,439 ft [2,267 m]
Circulating hours	33 h

Background

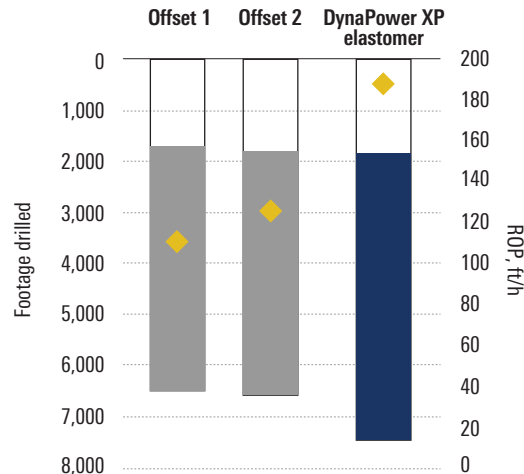
An operator wanted to drill the 12 $\frac{1}{4}$ -in interval of a vertical well in the Midland Basin as fast as possible. In previous runs, the operator averaged 4,762-ft [1,451-m] drilled with 119-ft/h [36-m/h] ROP, limited by the bit and downhole tool performance.

Technologies

- DynaPower XP* extreme-power motor elastomer

Motor with DynaPower XP Elastomer Increases Footage Drilled 17% and ROP 58%

Extreme-power motor elastomer improves motor performance to deliver record ROP of 188 ft/h, Midland Basin



To improve motor performance, footage drilled, and ROP, Dyna-Drill, a Schlumberger company, recommended using the DynaPower XP extreme-power motor elastomer. The power section that used the DynaPower XP elastomer achieved 17% more footage than the average of the next two longest offset runs in the county and 58% increase in ROP. This was the fastest ROP achieved in the county using a power section with 8 $\frac{1}{8}$ -in lobes and 5.9 stages, and the postrun wear only measured 0.005 in.