

# Drilling Consistency Results in 35% ROP Increase

Eddy County, New Mexico

## Mechanical Thruster



The Mechanical Thruster keeps the bit engaged with formation at all times, especially during transition zones. It balances pump open force and WOB, maximizing weight transfer and increasing ROP.

## Background and Solution

A Delaware Basin operator was seeking to increase bit and BHA life in their intermediate sections to be able to drill longer and faster. After performing a detailed pre run analysis, the MT6 Dual Acting Mechanical Thruster was introduced on the 3rd well of the pad. The improved drilling consistency allowed for a 35% increase in average ROP and 20% increase in footage drilled.

## Results

### Consistent Drilling Outputs

ROP, Torque and Diff Pressure

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### Average ROP of 137 ft/hr

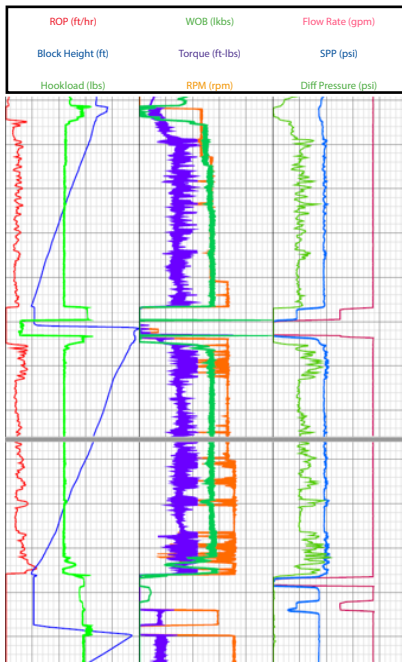
~35% increase

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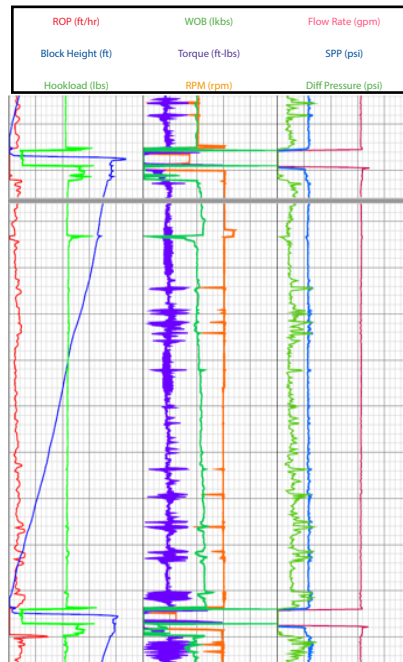
### Increased 1st Bit Footage

~20% increase

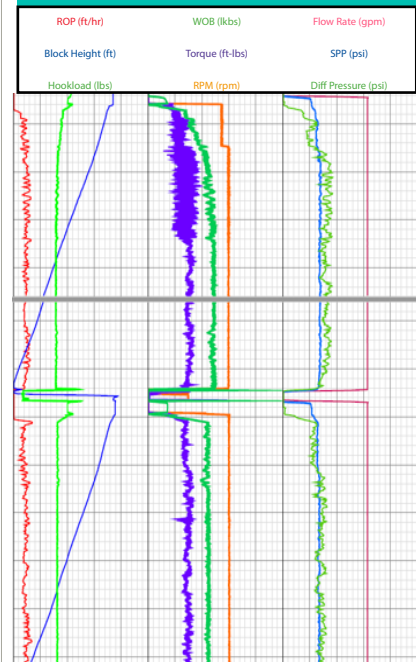
Well 1



Well 2



Well 3 - Mechanical Thruster



### Notes

- ⦿ WOB = 40 - 50 klbs | RPM = 60 | Flow Rate = 730 gpm
- ⦿ Same conventional BHA for all wells. Shock tool used in Wells 1 and 2
- ⦿ MT6 Dual Acting Mechanical Thruster placed above NMDCs in Well 3

