



# Operator Drills Curve Section in One Run, Reduces Well Time

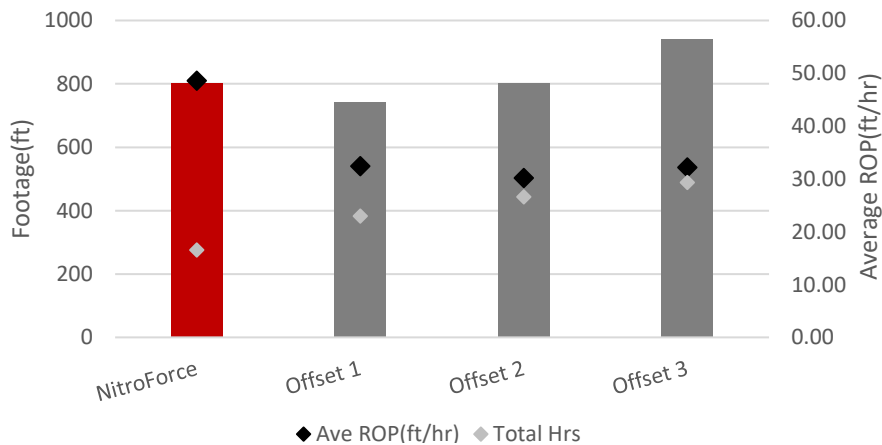
## NITROFORCE™ HIGH-FLOW, HIGH-TORQUE MOTOR DRILLS CURVE 37% FASTER

WILLIAMS COUNTY, BAKKEN, NORTH DAKOTA

An operator challenged the Halliburton Sperry Drilling team to deliver a one-run curve section of an unconventional well in 12 hours or less. By collaborating with the operator on the bottomhole assembly design, the Sperry Drilling team engineered a drilling solution utilizing the NitroForce™ high-flow, high-torque motor with 0.40 revolutions-per-gallon and a 2.25-degree fixed bend housing specifications. This design achieved consistently high horsepower while maintaining high differential pressure. The curve was drilled successfully in 7.5 hours at an average 15.85-degrees /100 ft. dogleg severity. It is 37% faster than originally planned. The entire section was drilled in 16-1/2 hours, significantly reducing well time and maximizing the value of the asset.



### Comparison to Offsets Wells



The NitroForce™ motor helps reduce well time with its high-flow and high-horsepower capabilities.

The NitroForce™ motor improved total hours for the section by an average of 9.7 hours, improving the average rate of penetration by 54%.

© 2019 Halliburton. All rights reserved. Because the conditions of use of this product are beyond the seller's control, the product is sold without warranty either express or implied and upon condition that purchaser make its own test to determine the suitability for purchaser's application. Purchaser assumes all risk of use and handling of this product. This product will be replaced if defective in manufacture or packaging or if damaged. Except for such replacement, seller is not liable for any damages caused by this product or its use. The statements and recommendations made herein are believed to be accurate. No guarantee of their accuracy is made, however.