

Halliburton Deploys Geometrix® Razor™ Shaped Cutter Technology to Help Decrease Drilling Time for Operator

CONSISTENT ONE BIT TO TOTAL DEPTH PERFORMANCE WITH REDUCED DRILLING TIME

WILLISTON BASIN

CHALLENGE

- » Drill lateral intervals in one run in reduced time
- » Handle challenging formation with interbedded hard stringers of carbonate and occasional pyrite with a history of core outs and DBRs

SOLUTION

- » Deploy Geometrix Razor shaped cutter technology to help improve bit durability and keep the drill bit sharper longer, which helps decrease drilling time

RESULT

- » Consistently reached TD in one run
- » Reduced on-bottom drilling time by 28%
- » Helped operator reduce overall spud to TD time

OVERVIEW

An operator drilling in the Three Forks formation of the Williston Basin tasked Halliburton Drill Bits and Services with drilling lateral intervals in one run with reduced drilling time. The operator used a Halliburton drill bit with round cutter technology, as well as several competitor six blade designs. This design had proven effective at completing the interval in one run; however, the operator desired to improve drilling time even further.

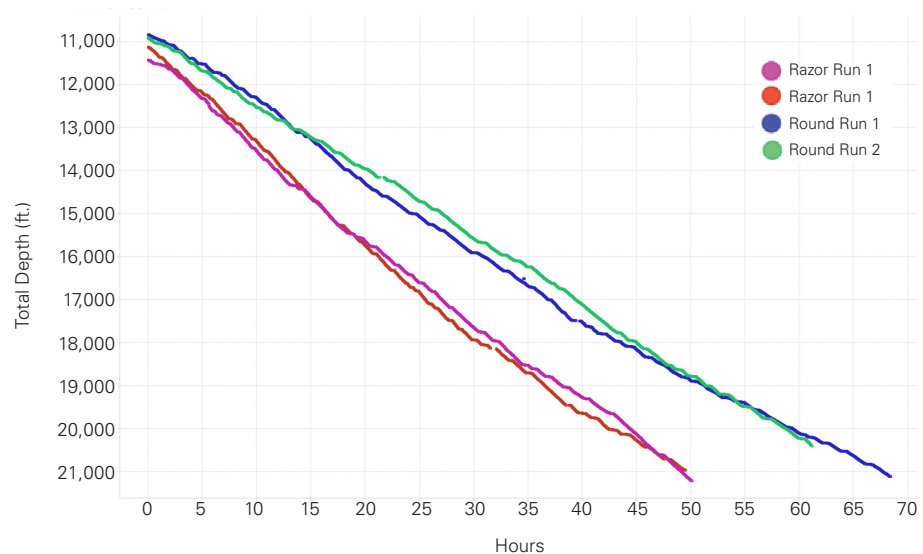
CHALLENGE

The operator wanted to drill the lateral interval to total depth (TD) in one run while reducing drilling time in a formation that can be challenging due to interbedded hard stringers of carbonate and occasional pyrite.

SOLUTION

Halliburton offered the Geometrix® Razor™ shaped cutters to improve bit durability and keep the drill bit sharper longer, which would decrease drilling time. These 4D-shaped cutters offer unique geometries to traditional cylinder cutters and produce more efficient drilling.

Total Depth (ft. vs Hours)



The Razor cutter is designed with higher contact stress along the cutter rock interface to fail rock more effectively. It's equipped with an enhanced edge profile for improved cuttings removal and evacuation and a domed center for increased durability.

RESULT

The Razor cutter technology effectively reduced on-bottom drilling time by 28%. The operator was pleased with consistently reaching TD in one run in addition to the decreased drilling time. This performance helped the operator achieve its goal of reducing overall spud to total depth time.

Additionally, these runs allowed Halliburton to secure additional work with operators drilling the Three Forks lateral. These runs highlighted the durability and productivity advantages Razor shaped cutter technology can provide to help improve overall drilling performance.



Razor shaped cutters are designed with higher contact stress along the cutter rock interface to fail rock more effectively.

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