

Endless Rod®

Extend Runtimes in High Production Deep Deviated Wells



CHALLENGE



Lifting Solutions' client faced several challenges in their deep deviated shale well. They had a production target of 350 barrels (56m³)/day (or more) in a well landed at 10,000' (3048m), side loads up to 350 lb/ft (520 kg/m) and doglegs up to 3.3 degrees.

The conventional sucker rod string was proving to be problematic—within the first year they had six (6) rod body failures, an average runtime of only 80 days with the shortest running for only six days before failing again.

Faced with the challenge at hand, they came to Lifting Solutions for a solution to extend runtime and increase production.

SOLUTION



Working with our client, we focused on finding a solution to eliminate frequent rod body failures, minimize downtime, and lower intervention costs—saving OPEX.

Our technical application specialists presented a Lifting Solutions' **NS High Strength Endless Rod®** tapered string custom tailored to this wellbore to deliver a reliable solution to exceed runtime and decrease operating costs.

We designed the tapered string with a top 1-1/8" section, followed by a 1" section with 7/8" Endless Rod®, and conventional 1.5" sinker bars on the bottom above the pump.

PERFORMANCE

Runtime
of
>1350 days

The NS High Strength Endless Rod® string delivered exceptional performance since installation. On the 689th day, the well was pulled for a pump change. Upon inspection, the Endless Rod® string remained in good condition and was rerun in the well.

The well then ran for an additional 205 days (894 days total) when it was pulled for a parted polish rod and a second pump change. Again, the Endless Rod® string was inspected, and was still in good condition and was rerun.

The well has surpassed the TRT of over 1350* days.

METRICS

Well Location: Bakken North Dakota	
Endless Rod Taper Sizes	1-1/8" x 7/8"
Tubing O.D.	2-7/8 /73 (inches/mm)
Well Depth	10,000/3048 (feet/meter)
Production Target	350/55.65 (bbls/m ³)
Max Dogleg	2.4 (Degrees/100')
Max Inclination	13 (Degrees)
Max Side Load	300 (lb/f 25')
Average Prior Runtime	80 Days
Endless Rod Runtime	1350+ Days

The client, with the help of Endless Rod®, increased production and reduced costs on a historically underperforming wellbore. Installing NS High Strength Endless Rod® eliminated the repeated rod body failures and increased runtime well beyond expectation and demonstrating the performance capabilities and operational efficiency Endless Rod® has in deep deviated shale wells.

*As of publication date July 2025