

CASE STUDY

MICROGUIDE ELIMINATES PREMATURE FAILURES, SAVING OPERATOR MORE THAN \$200,000 IN FIRST YEAR

▶ TECHNOLOGY

- MicroGuide™ wellbore tortuosity logs

▶ APPLICATION

- Artificial lift
- Rod guide placement

▶ LOCATION

- Bakken Shale

INDUSTRY CHALLENGE + OBJECTIVE

A major operator was experiencing excessive tubing failure rates, leading to an average of three workovers per year. The operator exhausted all efforts to remedy the problem using conventional technology without any improvement. Conservative estimated annual workover charges were \$200,000, not including the additional loss of revenue due to shut-in production of approximately 50 BOPD. The operator requested that Gyrodata use wellbore tortuosity logging to identify problem areas in the well and propose an optimized placement for the rod guides.

TECHNOLOGY + SERVICE SOLUTION

- Utilizing Gyrodata's MicroGuide solution, high-resolution and higher accuracy downhole data was collected and processed. We then provided an analysis of micro tortuosity, contact points, sideload, maximum diameter of a straight device, and normalized displacement in 1-ft increments. This provided the operator with greater insight into the wellbore's actual condition.
- Following this, MicroGuide was used to provide an obstruction analysis and identify the optimal location for the new rod guide placement.

RESULTS + VALUE DELIVERED

- The higher resolution data and obstruction analysis ultimately enabled the operator to accurately position the rod guides where sideloading forces against the tubing would not cause premature failure.
- This resulted in a reduction of the workover rate from an average three times a year to more than a year without failure, delivering more than \$200,000 in associated costs in just the first year of operation. The operator also realized an additional benefit by eliminating the need to shut-in production when equipment failed.

