REPORT 25.3

CHAOTIC GAS INTERFERENCE IS NO HEADACHE

BLACK MAMBA PROVIDES AN 89% MTF IMPROVEMENT ACROSS 4.5 YEARS

In January of 2021, a Bakken operator was ready to throw in the towel on a 12,500 ft well with a MTF of 0.25 (3 month run times before intervention). The root - chaotic gas interference causing sucker rod instability. Black Mamba deployed a Complete Rod Control approach in 2021. By controlling the rod string during unpredictable moments of compression, bending moments and stresses are eliminated which reduces the issue of pre-mature sucker rod fatigue (rod parts).

The well ran for 18 months with zero interventions. At that time, the operator upgraded to the new and improved polyketone variant and the same 7-per steel rod guide configuration. 36 months later, finally, a failure and an inspection opportunity.

CHALLENGE

6 straight failures at approximately 90 days run-time led an engineer and manager to reach out to Black Mamba. Chaotic gas interference causes compression and buckling driven from the pump upward through the rod string. This leads to pre-mature rod failures. The operator had already thrown everything at this well - various BHA's, tried continuous sucker rod, conventional pumping unit moved to a long-stroke style. **Nothing seemed to drive the well to reasonable uptimes.**

SOLUTION

2021 - Black Mamba deploys fully guided 7/8" and 3/4" sucker rods (1" was not available in the early Black Mamba days). Optimizing the well and design to the best of our ability, this trouble-child ran for 18 months! 6x prior average run times.

2022 - A new and improved material allows Black Mamba to run Complete Rod Control with a lower coefficient of friction, leading to less up-stroke drag, and less down-stroke drag. This means more plunger travel, less rod stress, and less side-load.

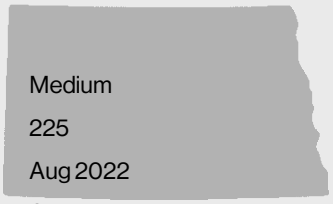
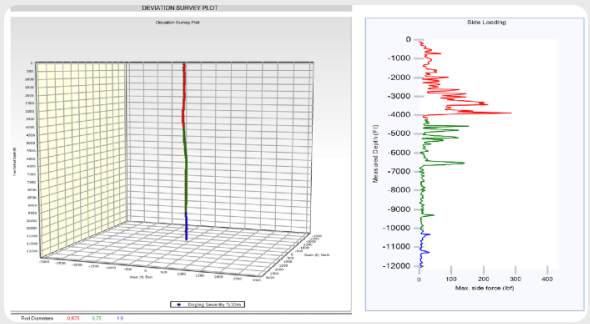
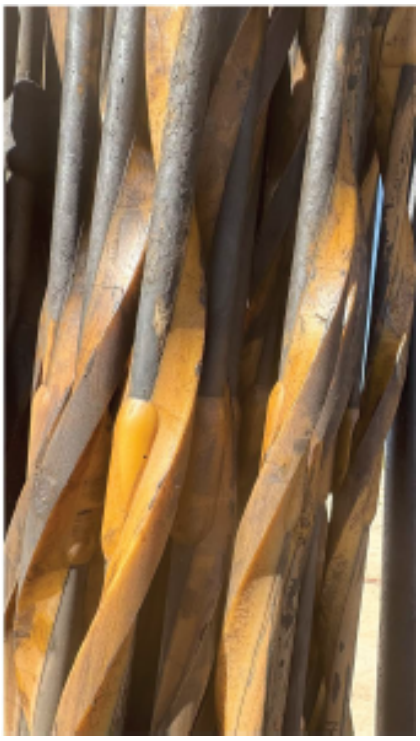
RESULTS

The Black Mamba CRC design combined with Hyosung's Polyketone material created new records for the operator. Black Mamba's products and design optimized a problem well from 3-months to 36-months between interventions. With 54 months of rod pumping, the operator would have typically serviced the well 18 times. With Black Mamba, 2 interventions, the first after 18 months, the next with the improved polyketone resin at 36 months. At the time of service in August of 2025... **only 3 rods needed replacement**.

***THIS* is the story**. This is **Black Mamba - Where Innovation Drives Reliability.**

PROJECT DESCRIPTION

LOCATION:
Bakken



CUSTOMER TYPE:	Medium
PRODUCTION:	225
INSTALL DATE:	Aug 2022
CURRENT DATE:	Aug 2025
RUN TIME:	36 Months