

REAL RESULTS

COROD[®] Continuous-Rod Strings Replace Guided Conventional Rods, Increase Average Time Between Failures by Over 600%

Objectives

- Improve running time and overcome production losses stemming from recurrent failures in conventional guided sucker rods.
- Deviated well configurations in the field were responsible for 95 percent of failures occurring at the rod upset or at one of the connections, a result of bending and flexing that accelerates metal-fatigue failures.

Results

- Weatherford replaced the conventional sucker rods with COROD continuous rod strings in 14 of the 34 wells that experienced upset failures.
- The number of connections was reduced from 125 to 2 (one at the top of the rod string and one at the bottom), a significant improvement over conventional rod strings previously used.

Value to Client

- Using COROD continuous rod strings extended the average time between rod failures by over 600 percent, substantially reducing production losses and avoiding costly well interventions.
- COROD continuous rod strings substantially increased the run life of the well, providing the operator with an optimal solution for addressing deviated well configurations.
- Weatherford's *COROD* continuous rod string design provided the operator with increased averages in run time between rod failures from 70 days to over 510 days, reduced well servicing and rod repair/replacement costs, and minimized production losses.



The chart above illustrates the failure distribution by location in the centralized rod string before installing *COROD* continuous rod strings.



The graph above shows the average time between rod failures after replacing conventional sucker rods with *COROD* continuous rod strings. Following the installation of *COROD* continuous rod strings, the well continued to operate for over 975 consecutive days without failure. Previously, the well had experienced six failures over a period of 186 days.

Location Tolima, Colombia

Well Type

Onshore S-shaped, deviated oil producer

Average Depth: 2,600 to 3,400 ft (793 to 1,036 m)

Products/Services COROD continuous rod strings

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