

ForeSite® Edge Mitigates Oil Production Decline 3.7%, Reduces Failure 11%, Saves Approximately \$344,000 Per Year for 10 Project Wells

Objectives

- Improve well productivity through continuous optimization on 10 project reciprocating rod-lift (RRL) wells in an unconventional field with dynamic well behavior.
- Improve personnel efficiency and reduce safety and environmental risks by leveraging remote, real-time data surveillance and high-frequency data.

Our Approach

- Retrofit ForeSite Edge to the existing automation equipment to enable real-time surveillance and control while leveraging the ForeSite production optimization platform.
- Once deployed, ForeSite Edge used high-frequency data collection to provide key measurements such as strokes per minute (SPM), pump fillage, effective runtime, strokes per day, and more.
- Autonomous control logics (ACL) developed by Weatherford were implemented to optimize key performance metrics on surface and subsurface to further production optimization opportunities.

Value to Customer

- ForeSite Edge delivered end-to-end digital capabilities on 10 RRL wells, correcting production on both the liquid production decline rate by 2.55% and the oil production decline rate by 3.7% during the project period, equating to a potential 45 bbl/d of liquid and 31 bbl/d (using an average 70% oil cut).
- Autonomous control allowed well production stabilization, increasing value to approximately \$45,000/month (using an oil price of \$80/bbl and assuming 60% of this total is realized net revenue) for the project.
- Autonomous control reduced failure 11% with a saving cost of \$50,000/year.
- The commercial value to the customer equated to approximately \$344,000 in potential annual savings for the project.



ForeSite Edge mitigates oil production decline rate 3.7% and reduces failure 11% for 10 rod-lift wells over 60 days.

LOCATION

Brazos Valley

WELL TYPE

Reciprocating rod lift

PRODUCTS/SERVICES

- ForeSite Edge
- ForeSite Enterprise Production Optimization Platform

