ForeSite[®] Production Optimization Platform

Boosts Production by 5% During Phase-1 Rollout, Realizes \$3.25 Million Per Year in Incremental Revenue

Objectives

- Enact a major operator's enterprise-wide digitalization strategy by deploying, supporting, and training personnel on the ForeSite platform. The multiphase rollout for ForeSite will be installed on nearly 3,000 wells, and will accommodate electrical-submersible pumps (ESPs), reciprocating rod lift, progressing cavity pumping (PCP), injector wells and all surface facilities.
- Deliver quick and profitable wins from Phase 1 of the migration, which consists of more than 600 wells.

Our Approach

- A Weatherford production-optimization team consisting of technical support, production engineers, and IT engineers relocated to the customer's facilities. The customer's engineering team and Weatherford team collaborated to deploy the ForeSite platform and create new methodologies for production optimization analysis.
- For Phase 1, an initial ForeSite production overview for the 600+ wells identified a subset of producing ESP wells for further analysis. Using the well trend layout, a Weatherford production engineer analyzed each well's production history and operating conditions to identify uplift potential. This process yielded recommendations for minor modifications to the lift strategy in several wells, which would increase production CAPEX-free.
- The operator selected a sample of those wells to test the strategy, and then modified each well's ESP motor frequency to match ForeSite recommendations. In the first weeks of executing the strategy, the operator realized and certified an incremental production increase of 5%. Additional production gains are in process.

Value to Customer

- The ForeSite platform enabled an operator to roll out their enterprisewide digitalization strategy. Weatherford delivered installation, support, and training services to optimize all forms of lift in addition to surface facilities and pipelines.
- In the early stages of Phase-1 rollout, the ForeSite platform identified a subset of ESP wells for quick and profitable production gains. The operator tested the strategy on a group of wells, which led to an operator-certified 5% increase in production.
- ForeSite production uplift recommendations increased incremental revenue CAPEX free by US \$3.25 million per year. Continuing work has increased production to an uncertified increase of 8%, and total uplift recommendations for the asset are expected to yield a production increase of 25% overall.

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An initial ForeSite production overview identified a subset of producing ESP wells for further analysis. This process yielded recommendations for minor, CAPEX-free modifications to the lift strategy to yield \$3.25 million per year in incremental revenue.

LOCATION

Colombia

RESERVOIR Conventional

TOTAL WELLS 600+ scaling to $\leq 3,000$

ARTIFICIAL LIFT TYPES

- ESP lift
- Rod lift
- PCP lift
- Injector wells

AVERAGE DEPTH

6,600 ft (2,438 to 2,072 m)

PRODUCTS/SERVICES

- ForeSite platform
- ForeSite services
- Production optimization consulting



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