

# Production Optimization Software Platform

## Optimizes 1,700 ESP-Lifted Wells, Reduces Downtime by 30%, Boosts Production by 2,000 B/D

### Objectives

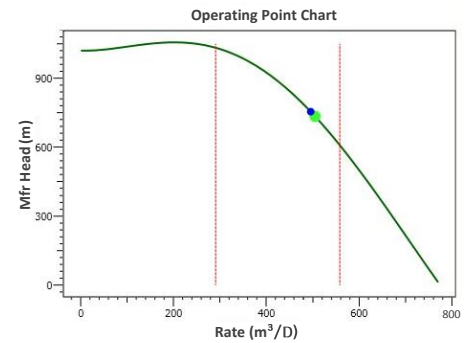
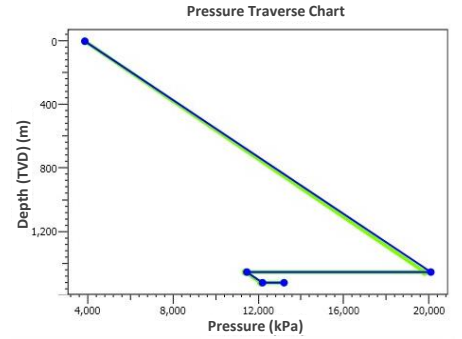
- Automate production monitoring, analyses, and optimization asset-wide for 1,700 ESP- (electric submersible pump-) lifted wells. The solution must be expandable to accommodate other forms of lift.
- Implement pattern recognition to enable predictive failure management.
- Integrate data from six disparate systems and dozens of customized models, 90% of which have underlying data-quality issues.

### Our Approach

- The customer selected the Weatherford production optimization software platform as the sole system able to manage all forms of lift. A Weatherford software team mapped and identified the data requirements needed to build and sustain an automated ESP well model. Once the software team integrated all databases and installed the platform, they instituted automated data gathering, model tuning, and data-quality validation.
- The solution provided real-time inferred-production calculations based on pump curve and Inflow performance. The Weatherford team also implemented advanced diagnostics that provides 12 real-time failure and opportunity alerts based on pattern recognition.
- The new models indicated optimization opportunities in 40% of all ESP wells. Within 6 months of implementation, the recommended optimization solutions were applied to 10% of these wells and yielded 2,000 B/D in gains. To date, the net growth is sustained by daily automated capture of new optimization opportunities.

### Value to Customer

- The Weatherford production optimization software platform automated production monitoring, analyses, and optimization for 1,700 ESP wells. Expandable to more wells and all forms of lift, the software platform enabled real-time and proactive failure and opportunity management.
- The CAPEX-free solution identified opportunities that improved production by 2,000-B/D.
- The platform reduced downtime by 30% through proactive failure management and pattern-recognition models. The automated models optimized ESP efficiency in more than 150 wells, which reduced power consumption by 2% and extended ESP run life.
- The software platform integrated all data into a single system and eliminated data-quality issues, which led to a 95% increase in data-quality KPI compliance. This enabled the customer to begin implementing predictive-failure analytics for ESP wells.



The Weatherford production optimization software platform enabled the customer to proactively manage failures and opportunities in real time.

#### LOCATION

Oman

#### WELL TYPE

Onshore, ESP lift

#### TOTAL WELLS

1,700

#### AVERAGE WELL DEPTH

4,100 ft (1,250 m)

#### AVERAGE PRODUCTION PER WELL

140 B/D (22 m<sup>3</sup>)

#### PRODUCTS/SERVICES

- Production optimization software platform
- Production Advisor services

