

Production and Intervention Solutions



ADVANCED REJUVENATION FOR AGING ASSETS

Maximizing a field's optimal production rate is now the fastest path to asset profitability – especially for today's declining wells. By adjusting operating philosophies toward an increased focus on production optimization in the later phases of a well's productive life, operators can take advantage of relatively low capital investments with significantly higher returns.

Weatherford Production and Intervention Solutions employs a more holistic approach that takes full advantage of advances in data harvesting and analysis, featuring an enhanced understanding of the economics of late-life wells. Digitalized machine learning and data analytics create newfound potential for old, diminishing assets. This all-inclusive approach restores production through a combination of digitalized, best-in-class intervention, well services, and artificial-lift solutions – elevating aging fields to the most economically viable investment opportunity in the industry.

The Weatherford strategy collaborates with existing production specialists to fully rejuvenate and reoptimize an aging field through a three-step process for maximized results. These steps are: Restore well productivity, extend asset life, and produce sustainably through streamlined operations. By abbreviating interventions of a declining well, operators will quickly gain from reduced maintenance costs, less deferred production, reduced carbon emissions, and enhanced bottom-line results.

FIELD-PROVEN TECHNOLOGY

SAVED \$14 Million Workovers
Renaissance® Safety Valve System
Restores 2K bbl/day Production
- United Arab Emirates -

INCREASED Production 4X
Raptor® Cased-Hole Evaluation
Detects Gas Reserves Behind Casing
- Adriatic Basin -

SAVED \$20 Million Workovers
WidePak™ Straddle Packer System
Restores 4 Corroded Wells
- North Sea -

INCREASED Production 2%
ForeSite® Production Optimization Platform
Reduces NPT 30%, Made ROI in 2 Months
- Indonesia -

ALL-INCLUSIVE HOLISTIC APPROACH

Transform Declining Assets Into Viable Profits



**Digitalized
Machine Learning**



**Advanced
Data Analysis**



**Reliable
Production Optimization**

COST-EFFECTIVE, REJUVENATION PROCESS

RESTORE PRODUCTION

Weatherford optimization experts analyze assets using existing data while identifying surveillance gaps and rectifying all with comprehensive diagnostics to isolate areas of higher returns and savings.

- **Identify Underperforming Wells**
Evaluate current conditions, and remove obstructions with select intervention solutions and specialized artificial-lift technologies to achieve production targets at minimal cost.
- **Extend Productive Life**
Determine optimal solutions that address productivity challenges structured on predicted outcomes, shared risk, well economics for extended viability.
- **Perform Remote Adjustments**
Reduce OPEX costs with digitized controls from a central location – saving on personnel and equipment through remote monitoring and modifications.
- **Minimize Expenditures**
Achieve higher ROIs by leveraging cross-trained experts for reduced costs, enhanced safety, and maximized operational efficiency.

EXTEND ASSET LIFE

Maximize reservoir recovery, extend equipment life, and protect the reservoir's natural potential with production-solution tools that overcome complex well challenges including formation treatments, stimulations, HPHT, and migrations.

- **Forecast Performance Issues**
Recognize changes in well behavior, identify integrity or equipment issues, and schedule proactive remediation services with predictive analytics and instant alerts that eliminate last-minute responses to problems and shut-ins.
- **Execute Effective Repairs**
Optimize production fast using a single point of contact that simplifies all processes with solutions that work harmoniously – superseding common one-size-fits-all solutions with multiple contingency measures.

PRODUCE SUSTAINBLY

Streamline operations with integrated resources featuring collaborated uplift potential, greater equipment efficiency, and reduced bottlenecks that directly support Environmental, Social, and Governance (ESG) initiatives with reduced emissions and environmental impact.

- **Improve Subsurface Characterization**
Evaluate reservoir behavior, analyze well placements, and create rejuvenation plans via artificial intelligence and automated machine learning.
- **Maximize Recoverable Production**
Enhance certainty and with populated models that help strategize reservoir contact including interval isolation, reperforating zones, formation stimulation, and water injection.
- **Advance ESG Initiatives**
Emerge environmental priorities with economical rejuvenation efforts featuring less carbon emissions from fewer wells drilled, less maintenance, and consolidated operations.

FIELD-PROVEN TECHNOLOGY

- ForeSite[®] Production Optimization Platform
- ForeSite Sense Reservoir Monitoring
- SecureView[®] Evaluation
- Thru-Tubing Fishing and Milling
- Production Logging Services
- Renaissance[®] Inverse Gas-Lift System
- WidePak[®] Straddle Packer
- Renaissance[®] Thru-Tubing Well Renovation Solutions
- CygNet[®] IoT/SCADA Platform
- Production Logging
- ForeSite Flow Multiphase Metering
- Red Eye[®] Water-Cut Meter
- Perforating Services
- Re-Entry Services
- Memory Raptor[®] Cased-hole Evaluation
- ForeSite Edge Controller