



ForeSite[®] SENSE

Equipment Monitoring



DETECT SURFACE-EQUIPMENT FAILURES

Servicing critical rod-lift components by calendar date alone opens the door to either unnecessary expenses or missed catastrophic failures that can damage the pumping unit, cause environmental spills, interrupt production, or worse.

As the first and only sensor system of its kind, our ForeSite Sense equipment monitoring brings real-time, condition-based surveillance to your surface pumping units. The patented sensor monitors the condition of the wrist-pin bearings, measures wear, and alerts you to failures before they happen.

As a result, you can plan and execute corrective maintenance in the regular course of field activities with minimal downtime and expense.

Installed over the wrist-pin cap of your surface-pumping unit, ForeSite Sense equipment monitoring detects and measures wear on the individual wrist-pin bearings and transmits the data to a central data collector. The intelligent sensor periodically performs a series of vibrational readings and produces a fast-Fourier transform (FFT) analysis.

**WORLD FIRST:
DETECT WRIST-PIN
FAILURES BEFORE
THEY HAPPEN**

**REDUCES
DOWNTIME AND
LOST PRODUCTION
BY 8 DAYS PER FAILURE**

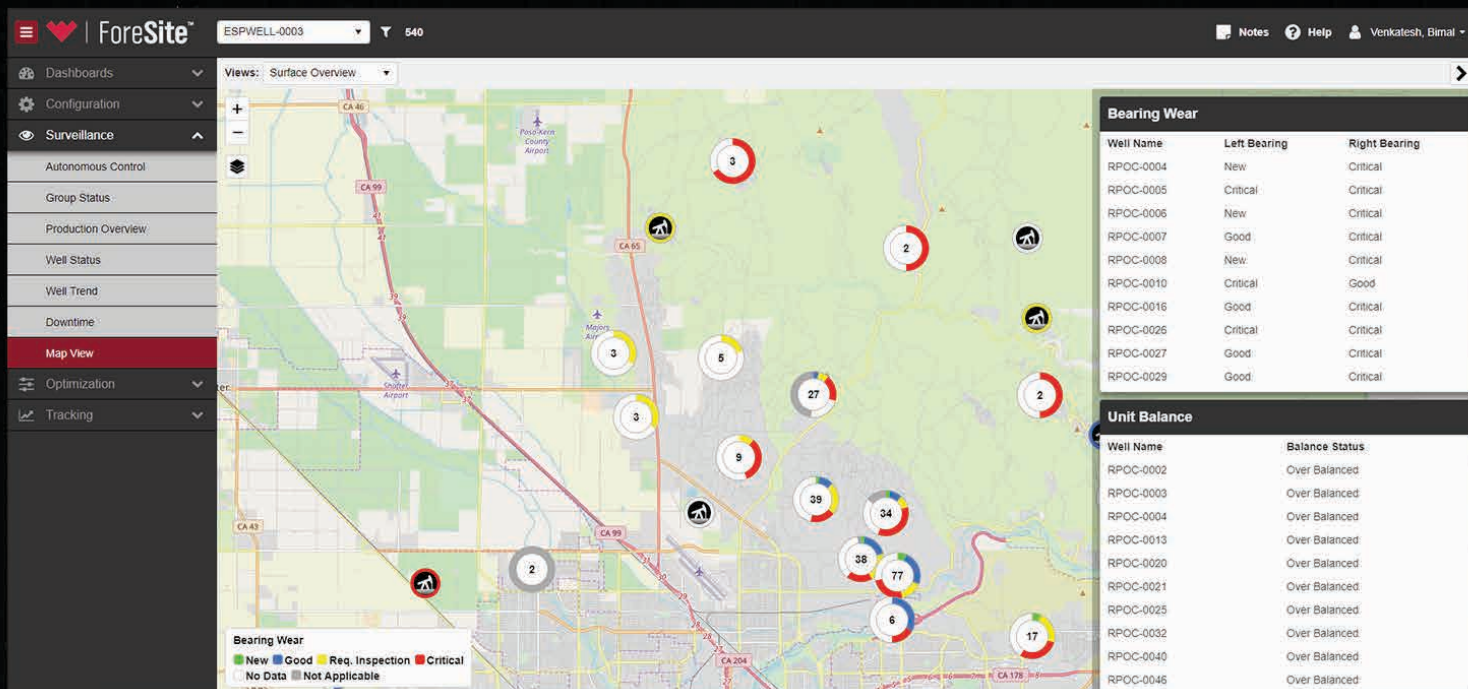
Enhance safety and service efficiency with intelligent systems

ALERTS
you to critical wear issues in advance of unexpected problems or catastrophic failures

MONITORS
individual wrist-pin bearings with intelligent sensors that perform periodic vibrational readings with comparative algorithms based on preset ranges

PROVIDES
autonomous well management when combined with the ForeSite suite of technologies

MAXIMIZE PUMPING-UNIT UPTIME WITH PREDICTIVE WEAR ANALYSIS



ALERTS YOU TO CRITICAL WEAR ISSUES

Deteriorating rod-pump components put your unit and your people at risk. When ForeSite® Sense equipment monitoring perceives changes in the wrist-pin bearings, it sends an alert through the SCADA system or ForeSite platform. Our team can then inspect and repair the worn wrist-pin bearings.

Provides proactive recommendations for service on the pumping unit

Maximizes efficiency of personnel, safety, and production by eliminating catastrophic failures

Integrates with existing rod pumping units through a simple, bolt-on retrofit

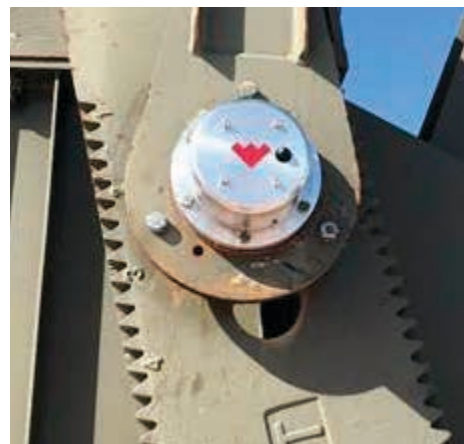
AUTOMATES WELL MANAGEMENT WITH PRODUCTION 4.0 CAPABILITIES

Our intelligent production systems—comprising ForeSite Sense equipment monitoring, ForeSite Edge, ForeSite Flow, ForeSite Sense reservoir monitoring solutions, ForeSite production optimization platform, and CygNet® IoT platform—create an autonomous production optimization ecosystem that combines real-time data, physics-based models, and machine-learning techniques. Using next-generation operational workflows, our systems proactively identify production opportunities asset wide, and reduce downtime by predicting failures before they occur.

Increases production through intelligent, asset-wide production optimization

Drives systemic efficiencies by connecting and integrating oilfield equipment

Links current and historical data to enable autonomous decision-making at a remote site



ForeSite Sense equipment monitoring installs over the wrist-pin cap of surface-pumping units of all major brands.