

FEATURES

- ▶ 3D wellbore physics engine
- ▶ Autonomous setpoint management
- ▶ Pump health index
- ▶ Runlife forecast
- ▶ Imminent failure prediction

BENEFITS

- ▶ Increase production by 3-5%
- ▶ Increase uptime by 20-30%
- ▶ Lower failure rates
- ▶ Improve Engineering & Operations efficiency
- ▶ Reduce electricity consumption & GHG emissions

Increase production, reduce operating costs, lower failure rates, and decrease GHG emissions with OptumESP

OptumESP is a leading-edge, customer-proven ESP optimization and failure prediction solution, powered by nybl, an Ambyint application partner. The application combines advanced physics and subject matter expertise with artificial intelligence to automate ESP surveillance, analysis, optimization, and failure prediction workflows. The results are increased production, improved equipment runtimes, reduced operating costs, and lower GHG emissions.



ASSET OPTIMIZATION

Maximize production output without sacrificing efficiency or run life

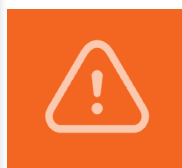
- ▶ **Well & Field Centric** - reservoir, production min/max, surface, & processing facility constraints
- ▶ Proprietary gas handling constraints maximize production at limit GVF
- ▶ VFD & Choke-based maximization
- ▶ Prediction of total maximized fluid production



SETPOINT MANAGEMENT

System-wide and component-based optimization including well, reservoir, mechanical, and inflow constraints

- ▶ Optimized operating point (BEP)
- ▶ VFD & Choke-based optimization (ESP)



PREDICTIVE MAINTENANCE

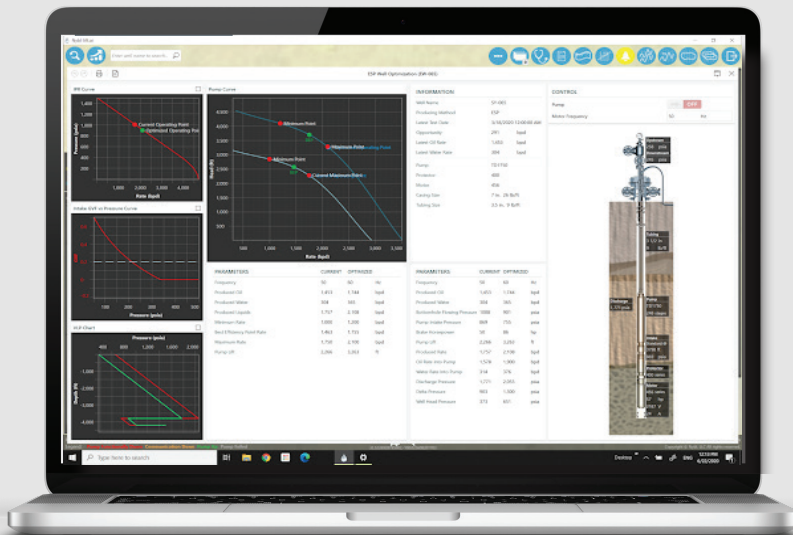
Predicting imminent and future non-trending failures in real-time with prescriptive actions

- ▶ **Remaining Run Life** prediction identifying future date of pump failure
- ▶ **Failure Prediction Index** predicts imminent, non-trending failure for immediate prevention and action
- ▶ Improved diagnostics for surface and downhole equipment anomalies

ASSET OPTIMIZATION



SETPOINT MANAGEMENT



PREDICTIVE MAINTENANCE

