

# Digital twin of your pipeline system

with OIS Pipe



Pipeline network is an essential upstream facility. Its reliability and availability are crucial for delivery of oil and gas to downstream processing, and one should also ensure safety and environmental regulations compliance.

To optimize and increase pipeline network efficiency, pipeline system should be constantly monitored and necessary maintenance actions planned and executed. For this detailed accurate information regarding pipeline technical and usage conditions is needed – and in real time.

OIS PIPE is an intelligent digital solution for field pipeline management that will help you to:

- evaluate the state of the pipeline network
- build an action plan leading to predefined financial targets while increasing safety, minimizing costs and optimizing energy consumption
- monitor action plan execution and evaluate its impact and effectiveness



## ANALYSIS

- investigation of operating conditions at the moment of pipeline failures
- analysis of pipelines service life under similar conditions and prediction of remaining lifetime

## MONITORING

- detection of points of failure and predictive calculation of potential efficiency losses
- prediction of corrosion rates
- handling of inhibitor protection process
- calculation of rejection levels for pipeline wall thickness
- preparation of reaction plans for the cases of pipeline failure including selection of wells that need to be shut down to minimize production loss
- calculation of oil residue in pipelines
- monitoring of pipeline efficiency improvement action plan execution and calculation of efficiency and impact

## PLANNING

- selection of pipe diameters for bottlenecks elimination
- simulation of operating conditions for changing production and transportation rates
- calculation of pipeline capacity
- preparation of pipeline operation program based on set performance and budget targets
- development of short-term, mid-term and long-term programs for pipeline repair and reconstruction, diagnostics, inhibitor protection, pigging, corrosion monitoring, ECP, discharging, and dismantling



## DIGITAL TWIN

OIS PIPE operates a digital twin of your pipeline network based on:

- initial engineering data
- usage parameters updated in real time
- well and infrastructure usage data
- lab test results
- pipeline monitoring and corrosion built-up process results

This comprehensive set of information makes it possible to manage the whole cycle of pipeline operations.

## KEY BENEFITS:

**10-15%**

reduction in pipeline operating expenses

**10-30%**

accident rate reduction

## VALUE ACHIEVED BY:

- Minimizing human factor in pipeline operation monitoring and planning
- Eliminating actions with low cost-benefit factor from pipeline operation process
- Continuous performance monitoring of actions taken

## CUSTOMERS:



IRKUTSK OIL COMPANY