

Future Oil Fields

Building Safe, Sustainable and Compliant Enterprises leveraging IoT, AI & Digital Twins

Managing Technology Shifts

- ☑ Adoption of advanced digital technologies
- ☑ Utilizing advanced knowledge, information management, & AI systems
- ☑ Agile & flexible enterprise capabilities & supply chains
- ☑ Innovation in products, services, & processes

Delivery Model

- ☑ Industry accelerators for faster go-live & productization
- ☑ On demand services partner - OPEX mode of technology transformation
- ☑ Lower TCO by adopting Cloud & Distributed Agile
- ☑ Act as customer's extended technical R&D labs
- ☑ Partnership with Microsoft

Designing Connected Plant Operations (IoT/IIoT)

- ☑ Utilize connected factory models to monitor the health, performance, & utilization of all applications, workloads, & infrastructure
- ☑ Tap insights from operations in real-time to make better, faster decisions using MT Connect, real-time OEE dashboards & remote visual inspections
- ☑ Leverage IoT services, edge computing, data lakes, & advanced analytics to capture, analyze, visualize, & execute on plant floor data



Developing Asset Performance Analytics (AI/ML)

- ☑ Integrate IT & OT systems to connect the asset to the person across the asset lifecycle
- ☑ Design a single integrated digital thread across the whole asset lifecycle, laying the groundwork for predictive alerts & prescriptive analytics
- ☑ Leverage equipment and process data to extend the life of assets & achieve optimum reliability



Deploying Predictive Models (Digital Twins/DT)

- ☑ Utilize predictive maintenance models to optimize maintenance, balance between corrective & preventative maintenance
- ☑ Design maintenance solutions powered by digital twins to precisely monitor equipment health & recognize potential anomalies & prevent future failure
- ☑ Take advantage of an execution playbook as well as a design thinking workshop to develop specific use cases based on an operational impact assessment with targeted ROI



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Building Agile Enterprises for Industry 4.0+

Target Business Outcomes

- ☑ Improves operational performance by comparing patterns across sites
- ☑ Enhances local reporting & decision making
- ☑ Enhances real-time analytics at the site level
- ☑ Provides a unified view of data from multiple sources - structured, semi-structured & unstructured
- ☑ Improves asset monitoring by analysis of incidents
- ☑ Monitors & predicts asset integrity across the energy value chain

KRV Consulting LLC

Sales & Marketing

US - Houston

Services & Solutions Delivery

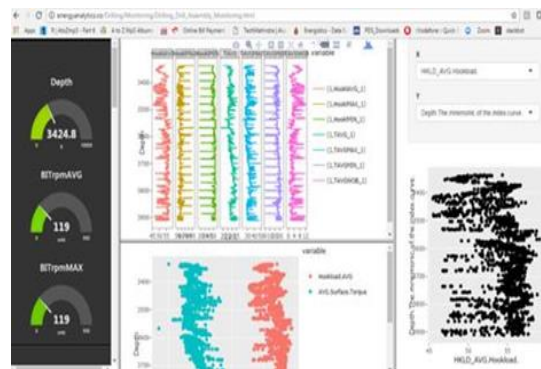
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Drilling Operations Monitor IOT/IIOT



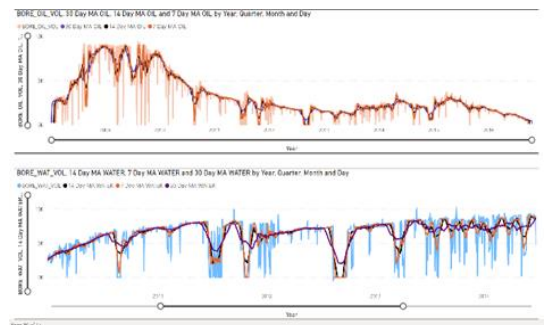
Solution addresses the need for real-time dashboards for drilling consoles for mud, pump, drill assembly, well integrity & pit/tank monitoring.

- ☑ Combined data-to-insights process managing WITS (level 0-ASCII), WITSML & LAS sources
- ☑ Allows for real-time, micro-batch as well batch wise visualization as well as analytics from a time + depth perspective
- ☑ Manages multiple monitoring dashboards providing visibility to drilling parameters, such as mud properties, pump, casing pressure & tank volumes

Forecasting Crude Oil Production AI/ML

Solution addresses the need for real-time dashboards for crude oil production forecasting using machine learning & deep learning models.

- ☑ Handles real-time production data for forecast modelling
- ☑ Enables visibility to asset performance, prediction of production declines & production optimization (flow rate forecasting)
- ☑ Includes open API based adapters, analytical views, automation scripts & dynamic dashboards



E&P Logs Analyzer What-If Models

Solution significantly reduces turnaround time for E&P data transformations jobs and enables Process Automation.

- ☑ Adapters built in for SEG Y, LAS, WITS, WITSML, PRODML, RESQML, etc.
- ☑ Automation Scripts for Routine tasks like Splicing, Merging, Data Transformation
- ☑ E&P Logs Visualization extensions for Enterprise Reporting Tools

