TRICOR
Coriolis Technology

APPLICATION SPOTLIGHT

TRICOR Coriolis Flow Meter Eliminates Laborious Net Oil Calculations at Large Oil Tank Farm

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APPLICATION:

As part of a massive overhaul in upgrading the infrastructure and processes of its oil production operations that included more than 400 wells over 9,000 acres of land north of Casper, WY, an oil exploration and production company looked to automate its manual data collection methodologies to support on-demand, real-time data management and eliminate process steps associated with determining net oil calculations during pre-production stages.

PRODUCT SUPPLIED:

- TRICOR Coriolis Flow Meter
- SignalFire Remote Sensing System

CHALLENGE:

Oil-water separators are commonly used to determine potential oil values from wells. In addition to being expensive, the equipment requires that water is dumped into a separate tank and hauled away for treatment and disposal. The oil production company wanted a less laborious and cost-effective solution that could determine net oil volumes in different tank batches at early stages of production.

In addition, as instrumentation related to oil production processes were manually inspected, operators spent inordinate amounts of time driving throughout the tank farm to create status reports, delaying the tracking and trending of well operations that supported operational decisions. Manual monitoring of oil production operations also could not address the growing demand for real-time, online data for mobile data management by SCADA and automation operators at the oil production company.

SOLUTION:

TRICOR Coriolis Mass Flow Meters offered a more advanced and cost-effective solution in determining the net volume of oil in different tank tanks during early stages of production. Rather than needing to separate the oil/water for measurement, the mass flow meters can calculate the oil/water cut as crude oil flows from wells into storage tanks.

Using minute measurements, the TRICOR Coriolis Flow Meters offer precise calculations. Custom algorithms provide a higher level of reliability, accuracy, and sophistication in oilfield verification. By incorporating net oil calculations right into its software, the flow meters require no additional equipment.

With the mass flow meters integrated to a SignalFire Remote Monitoring System, data regarding oil content from different wells are available on demand. The SignalFire Sensing System (SRFSS) automates data collection from

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the registries of the TRICOR Coriolis Mass Flow Meter as well as other sensors used to monitor tank levels, line pressure, building temperature and pump control for wireless remote monitoring at a control center. SCADA and automation managers now can access real-time data on different operating states in their offices on-demand.

RESULTS

Based on the successful implementation of the TRICOR Coriolis Mass Flow Meter and SignalFire Remote Sensing System in optimizing operations, the oil production is commission both instruments in more buildings throughout its WY tank farm.