

Gross Oil Production Monitoring Optimizes Production

BENEFITS

- Wireless solution enables gross oil production monitoring at production headers
- Traditional wired instruments would have been too expensive and difficult to maintain
- Troubleshooting is easier and results in higher production and more efficient worker utilization



CHALLENGE

The customer has several oil fields they would like to monitor more closely to optimize production. Oil and gas companies compete for the same underground reservoirs, so it is a race to get the oil out first. Good field monitoring is important to quickly identify anomalies in production; however, wired solutions are expensive and hard to maintain due to the physical layout of the oil fields. Traditionally, gross production monitoring at production headers was not made due to the cost of running wires. As a result, it sometimes takes several days to determine what sections of the field are experiencing production losses. This troubleshooting period is very costly, resulting in lower production and less efficient worker utilization.

SOLUTION

The customer purchased ten Rosemount 3051S Wireless Pressure Transmitters as well as a Smart Wireless Gateway. The 3051S pressure transmitters are installed across orifice meters placed on gross production headers (trunk lines). These gross production headers have 15 to 25 wells flowing into them. The 3051S pressure transmitters are also used to monitor gauge pressure on these same headers. The devices connect to a PC through the gateway that is integrated into a historian used to capture the production information and send it to site operators and corporate management facilities.

RESULTS

Production trends are developed for these headers and a quick check of the header production in the morning can identify major production shortfalls. Operators can be sent out to determine the cause of these shortfalls immediately. With wireless monitoring of gross production headers, the customer has rapid detection of production loss, allowing operators to accurately understand how to take corrective action and restore production much sooner than had previously been possible.