

Onshore Producer Decreases Safety and Environmental Risks with Flexible Guided Wave Radar

RESULTS

- Decreased safety risks
- Reduced operations and maintenance costs
- Minimized environmental risks



APPLICATION

Condensate & Water Production Tank Level Control

CUSTOMER

Independent Oil and Gas Producer

CHALLENGE

This onshore natural gas producer had challenges managing the inventory of their condensate and water production tanks. Hundreds of tanks are being installed on new well sites in remote and environmentally sensitive areas. Tank inventory management is important for this producer to optimize the schedule of hauling trucks and to prevent spills.

A point level switch for high level alarm was previously used for spill protection. This measurement notified them when the tank was full but did not provide level measurement for use in inventory control. The customer wanted a continuous level measurement to replace the level switch in the side process connection leaving the top connections open for vapor recovery and other applications.

The lack of level control impacted the business of this customer by not allowing them to efficiently schedule hauling trucks. Sub-optimized pumper schedules increased labor costs and increased safety risks from climbing the tank and exposure to tank vapors. The hauling trucks had to make extra trips to remote locations, thereby increasing the environmental impact on lease roads. Lastly, the customer risked environmental harm from tanks spills by not having a real-time tank level measurement.

The strong signal of the Rosemount 5300 enabled a reliable and continuous measurement for the production tanks.



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SOLUTION

Optimizing the level and control of their condensate and water production tanks was solved with the Rosemount 5300 Guided Wave Radar Level Transmitter. The Rosemount 5300 with Flexible Single Lead probe and Long Stud option allowed for the transmitter to be side mounted in the tank. The rigid Long Stud portion extended the probe into the tank so that it does not touch the wall and the flexible portion allowed it to bend down vertically to measure a range of 24-ft. (7.5 m) (See Figure 1). The strong signal of the Rosemount 5300 enabled a reliable and continuous measurement for the production tanks. Information from the transmitter was sent to the customer's Fisher Remote Operations Controller (ROC) for remote monitoring of the tank levels.

The Guided Wave Radar technology and side mount installation for this application led to many positive business outcomes. Safety risks were minimized by reducing pumpers exposure to tank vapors and by eliminating tank climbing for visual level measurements. Operations costs were reduced by optimizing the production tank pumping schedules. Lastly, the Rosemount 5300 reduced the environmental impact by minimizing risk of tank spills and reducing traffic of hauler trucks on remote roads.

RESOURCES

Rosemount 5300

<http://www.emersonprocess.com/rosemount/products/level/m5300b.html>

Rosemount 5300 Technical Note

<http://www.emersonprocess.com/rosemount/document/tds/00840-2600-4811.pdf>

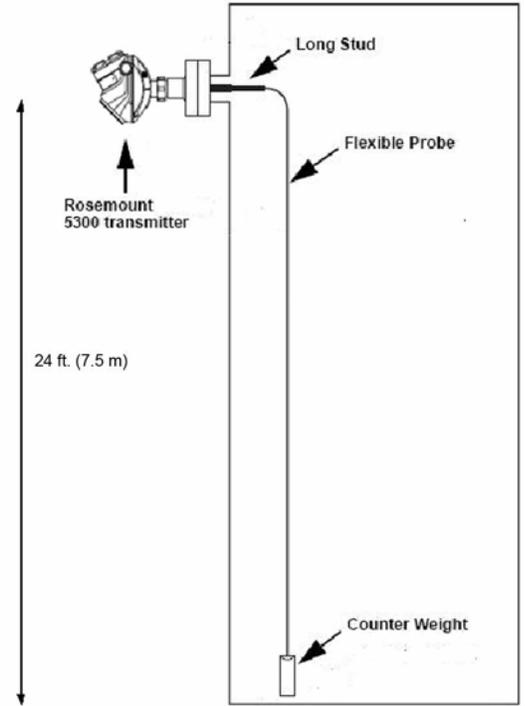


Figure 1. The Rosemount 5300 and probe is mounted with the Long Stud option so that there is adequate clearance to the tank wall.

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