

Expro Excellence

Non-intrusive solution for in-line ultrasonic meter verification

Well Flow Management | Flow Surveillance



Objectives and background

- General Petroleum Company (GPC) had concerns about their actual fuel gas consumption from the natural gas supply line provided by the distributor to their oil plant. They believed the in-line ultrasonic meter for custody transfer was reading higher and as a result, they were paying an estimated \$40K per month for gas they do not consume
- GPC needed to measure the gas flow rate within a reliable accuracy range without stopping or diverting the gas flow.
- A replacement in-line ultrasonic meter for custody transfer was believed to be required to assure the reliability of the distributor flow rates and the customer wanted to verify the functionality before any additional CAPEX investment
- An intrusive measurement device would require stopping or diverting the gas flow which could result in the partial shutdown of the facility
- Expro were approached to provide an optimal and robust non-intrusive measurement solution to verify the gas flow rates

Expro Excellence

- Expro supplied a 4-inch and 6-inch clamp-on ActiveSONAR supported by a metering technician to measure multiple branches on the natural gas supply line from the distributor to GPC's plant
- The flowlines were insulated with a thick layer of polyethylene (PE) which could not be removed and therefore Expro provided a specifically designed adaptor to ensure a robust meter installation
- Data was provided over an 8-hour test period simultaneously on both branches
- The operation was performed with a very small footprint and required a minimal crew to operate and no power generators were used

Value to the client

- GPC received a non-intrusive solution with no disruption to supply
- The customer was also able to verify the distributor rates provided by the in-line ultrasonic meter and was able to precisely spot check the gas consumption without any shutdown or disruption
- Expro's non-intrusive solution proved that the in-line ultrasonic meter was functioning properly and saved GPC the cost of purchasing a replacement custody transfer meter or calibration of the existing one



Thank you for this interesting & fantastic cooperation to solve our technical problems."

General Petroleum Company (GPC)

Insight

