

Expro Excellence

Non-intrusive measurement of volumetric flow rate and phase fraction (CGR/WGR) in remote gas wells

Well Flow Management | Flow Surveillance



Customer challenges

- The client required measurement on remote wells, where production and flow regime had changed from dry gas to wet gas and their PVT models were outdated
- A mobile, compact solution was preferred due to the remote well site and accessibility to it
- The operator had utilized traditional MPFMs to measure the wells in the past, however was not confident with the results, and didn't trust the existing inline meters
- Existing inline meters were over-reporting gas rates and under-reporting liquid rates

Expro Excellence

- Expro deployed a combination of ActiveSONAR™ and MultiTrace tracer techniques to provide accurate data points, removing uncertainty and allowing for the calibration of existing instrumentation and updating of reservoir models
- Sonar meter deployed at wellhead to measure wellstream velocity
- MultiTrace was deployed at the wellhead to measure the liquid ratios of the wellstream
- Both services are non-intrusive and were deployed without requiring to break containment or shut-in the wellstream

Value to the client

- The client's initial estimate of the liquid ratio was 10bbls/MMscf, however the tracer provided a LGR repeatable result of 2bbls/MMscf, with no water present
- Technique used to correct gas rates and determine liquid content, allowing the client to update PVT and calibrate existing inline metering for ongoing surveillance and production optimization
- Non-intrusive technology to minimize cost with no production losses

Cost effective

