

Expro Excellence

Non-intrusive solution to verify existing inline metering and provide process insight

Well Flow Management | Flow Surveillance



Objectives and background

- The customer is a major oil producing company which has multiple assets within the offshore shallow water region of Niger delta
- The customer had issues with production allocation across the various offshore assets
- They were experiencing process issues such as non-functioning pumps; gas carry under from the separation stream and produced solids from the wells were impacting the performance of existing inline export meters
- Previously industrial ultrasonic clamp-on meters were deployed with no measurement improvement
- The customer recognised that the existing inline metering solutions and instrumentation were not robust to meet the late life process conditions
- Expro were approached to provide an optimal and robust non-intrusive flow measurement solution for verification of the process conditions, improve functionality where possible of existing inline meters and provide process wide accurate and reliable production data

Expro Excellence

- Expro provided a range of Non-intrusive clamp-on SONAR Meters (Passive and Active) supported by dedicated metering technicians to simultaneously provide measurement across twelve production platforms in a range of pipe sizes from 6inch through to 12inch
- Passive and Active SONAR Meters deployed to cover the various flow regimes (single and dual phase)
- Small footprint to allow for easy transportation offshore and inter-field transfer between platforms

Value to the client

- The customer received a non-intrusive solution with no disruption to ongoing production
- Heliportable SONAR Meter equipment for quick deployment offshore
- Diagnostic data allowed the customer to identify locations with process issues and severity of those process issues. Typically, this involved observation of entrained free gas, flow transitioning from single to dual and multiphase on liquid export lines
- Meter diagnostics also identified conditions of low flow and no flow which were subsequently attributed to scale and/or produced solids
- Customer's commencement of utilising Expro's Clamp-on SONAR Meter as a permanent replacement for inline metering when operating in a pseudo four phase environment

Insight



Operational efficiency

