REAL RESULTS

Compact™ Red Eye® Multiphase Metering System Provides Reliable Oil Field Monitoring, Outperforms Previous Metering Systems

Objectives

- Provide a reliable, accurate, and non-nuclear production-well test system for use in remote locations within Ecuador where previous multiphase meters have failed.
- Eliminate the need for frequent recalibrations common in conventional multiphase-metering systems.

Results

- Weatherford installed a Compact Red Eye Multiphase Metering System (REMMS-C) on the output of the well header.
- The Compact cyclone separator separates the gas and liquid streams for a wide range of flow rates. A coriolis meter measures the bulk liquid flow rate, and a vortex meter measures the gas rate.
- The Red Eye meter uses near-infrared light spectroscopy to measure the difference in the absorption of oil and water. Water-cut measurements in high-rate wells that use power to lift fluids is critical for efficient operations.
- Weatherford’s technical team calibrated the system and tested each well successfully. The commissioning exercise include customer operational and troubleshooting training.

Value to Client

- Using Weatherford’s Compact Red Eye Multiphase Metering System (REMMS-C) provided the operator with consistent and accurate production well tests without the need for frequent recalibrations, enabling quicker individual well tests and more tests per month per well.
- The accuracy of the Red Eye meter enabled the operator to improve operational efficiency and facilitate accurate back allocations.
- Using the Red Eye Multiphase Meter System instead of a nuclear-based flowmeter enabled the operator to reduce operating costs.

Weatherford’s Compact Red Eye Multiphase Metering System (REMMS-C) combines partial separation technology with conventional liquid and gas metering to provide a complete multiphase-measurement solution.

Location
Ecuador

Well Type
Onshore, oil

Design Maximum Gas Flow
(Operating Pressure)
1.3 MMSCFD at 500 psig
(1,600 Sm³/hr at 3.44 MPa)

Design Liquid Flow
5,000 B/D (794 m³/day)

Design Pressure
1,310 psig at 200°F
(9 MPa at 93°C)

Design Temperature
200°F (93°C)

Products/Services

- Compact Red Eye Multiphase Metering System