



# Weatherford®

## 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 Sm<sup>3</sup>/hr at 3.44 MPa)

**Design Liquid Flow**  
5,000 B/D (794 m<sup>3</sup>/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

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