

ForeSite® Sense Reservoir Monitoring Delivers 100% Reliability Over 3 Years in a Multizone HPHT Offshore Well

Objectives

- Obtain continuous, reliable data regarding downhole pressure and temperature (P/T) in challenging high-pressure, high-temperature (HPHT) wells, reaching over 6,000 psi (414 bar) and 315°F (157°C), high-volume offshore oil wells plagued by electronic-gauge failures.

Our Approach

- After a thorough pre-job analysis, a Weatherford team recommended replacing the electronic gauges with optical P/T sensors. They recommended the ForeSite Sense reservoir-monitoring solution along with the corresponding surface equipment, which includes a single junction box and one surface data-acquisition unit. Together, this simplified solution would improve sensor reliability in an extreme downhole environment.
- The team installed 16 optical P/T gauges, and the operator received real-time pressure and temperature data to inform their reservoir management.
- Over a 3-year period, ForeSite Sense reservoir-monitoring data proved consistent, accurate, and reliable.

Value to Customer

- The ForeSite Sense reservoir-monitoring solution replaced failure-prone electronic gauges with reliable optical sensors. This new system enabled the client to achieved continuous, real-time downhole pressure and temperature monitoring and enhanced production optimization and reservoir management in an HPHT environment.
- After 3 years in service, ForeSite Sense has proven 100% reliable with zero incidents or failures while providing a reduced surface footprint.



The ForeSite Sense reservoir-monitoring solution provided continuous, reliable, and permanent downhole optical pressure and temperature data where previous gauges failed.

LOCATION

Vietnam

WELL TYPE

Offshore Oil Platform

CASING SIZE

7 in., 29 lbs/ft
9-5/8 in., 47 lbs/ft

TUBING SIZE

3-1/2 in., 9.2 lbs/ft, 13Cr-L80
4-1/2 in., 12.6 lbs/ft, 13Cr-L80

WELL DEPTH

7,711 to 16,637 ft (2,350 to 5,071 m)

GAUGE DEPTHS

6,897 to 12,152 ft (2,102 to 3,704 m)

PRODUCTS

ForeSite Sense reservoir monitoring
Optical P/T gauges and cable

