Scope of Work

SOFEC is responsible for the design and procurement of a spread mooring system for the FPSO Cidade de Angra dos Reis MV22 in the giant Tupi area in Brazil's vast pre-salt reserves of the Santos Basin.

The FPSO is capable of processing 100,000 barrels of oil per day or 150,000 barrels of total fluids per day, 177 MMscf/d of gas, and has a storage capacity of 1,600,000 barrels of oil. The FPSO will also be able to inject 100,000 barrels of water per day. The FPSO will initially gather production from 5 subsea wells with the capability to handle 4 additional production wells in the future.

The SOFEC spread mooring system will be ABS classed.

General Description

Client Name: Petroleo Brasileiro S.A. [Petrobras]
Contract Award: August 2008
Installation Date: July 2010
First Oil: October 2010
Vessel Size: 340,000 dwt
Storage Capacity: 1,600,000 bbls
Water Depth: 2,140m (7,037 ft)

Design Environmental Criteria (100-year storm)

- Sig. Wave Height: 11.11m (36.5 ft)
- Wind Velocity: 34m/s (66 kts)
- Current: 1.72m/s (3.34 kts)

Mooring System

- Mooring Type: Spread Mooring
- Mooring Arrangement: 24 Chain-polyester mooring lines in a 4x6 arrangement

Riser System

43 Flexible Risers and Umbilicals installed on portside riser balcony.

Flexible lines and umbilicals supplied by PETROBRAS