Frade Field Fact Sheet

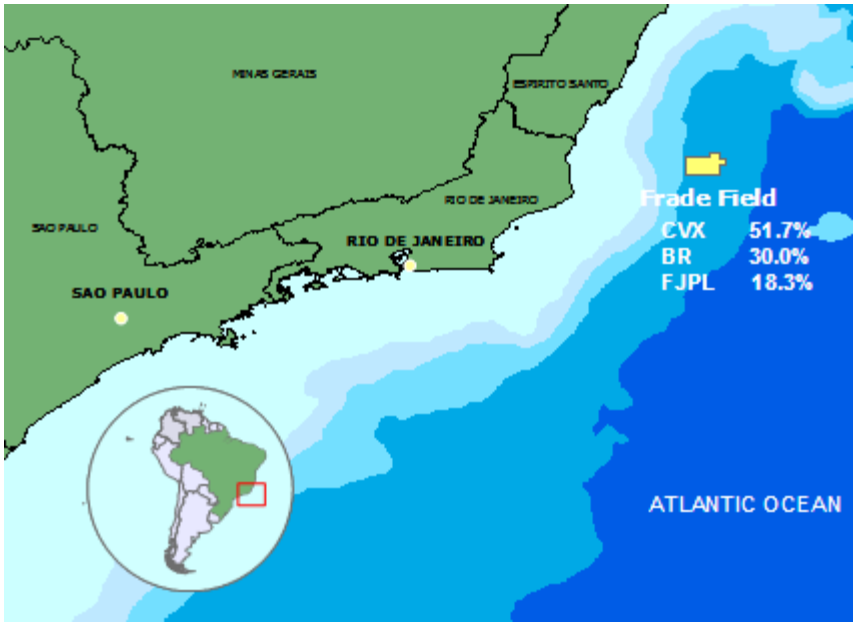
Overview

The Frade Field is Chevron's first oil field development project in Brazil. Chevron Brasil Upstream Frade Ltda., an affiliate of Chevron Corporation, operates the Frade Concession in partnership with Petróleo Brasileiro S.A. and Frade Japão Petróleo Limitada

Frade is located in the Campos Basin at a water depth of 3,700 feet (1,128 m), approximately 230 miles (370 km) northeast of Rio de Janeiro. The structure is a slope valley channel deposit with two main fault blocks and spans an area of 20 square kilometers.

Production began in 2009. Production capacity is approximately 100,000 barrels of crude oil per day, with an estimated peak annual production of 75-85,000 oil-equivalent barrels per day.

The field was discovered in 1986 by Petrobras and was subsequently appraised with a Petrobras well in 1989 and two Texaco wells in 2001.



Field Development

The development plan consists of a phased reservoir exploitation using subsea wells with a floating production storage and offloading (FPSO) vessel.

The field consists of multiple stacked reservoirs, which will be water-flooded to maintain reservoir pressure.

The development scenario consists of a total of 19 wells; 12 horizontal production and 7 vertical injection wells. The production wells will use an open-hole gravel pack completion with gas lift.

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The FPSO will provide the capacity to process 100,000 barrels of oil per day and store a maximum of 1.5 million barrels of oil.

The subsea architecture consists of a series of flexible production flowlines, gas lift and water injection pipelines and control umbilicals connecting the subsea facilities to the FPSO above.

Produced gas in excess of onboard fuel requirements is routed to shore via existing Petrobras pipelines in the area.

Project Timeline

- 1986 - Discovery by Petrobras
- 1998 - Declaration of commerciality
- 1999 - Texaco farm-in
- 2001 - Two appraisal wells drilled
- 2002 - Enter CPDEP Phase 2
- 2003 - Preliminary plan of development
- 2003 - Enter CPDEP Phase 3
- 2004 - Award FEED
- 2005 - FEED complete
- 2006 - Project sanction
- 2009 - First oil production

Principal Contractors

- SBM, FPSO construction
- Noble, drilling
- Transocean, drilling
- Acergy, subsea installation
- Wellstream, flexpipe
- FMC, subsea equipment
- MPS, umbilicals
- SBM PC, operations services

Production Facilities Capacities

- Total Liquids: 150,000 barrels per day
- Oil Rate: 100,000 barrels per day
- Produced Gas: 36 million standard cubic feet per day
- Gas Lift: 87 million standard cubic feet per day
- Produced Water: 130,000 barrels per day
- Water Injection: 150,000 barrels per day

FPSO Particulars

- VLCC conversion
- Internal turret mooring system
- Accommodations: 120 people on board
- 1.5 million barrels maximum oil storage capacity
- Turret mooring and tandem tanker offloading.
- Dimensions 337 m (length) x 54.5 m (breadth) x 28 m (depth)
- Deadweight: 273,576 tons

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