

MUTINEER-EXETER FIELDS, AUSTRALIA:

FPSO MODEC Venture MV11 Internal Disconnectable Turret



Scope of Work

SOFEC designed and constructed a disconnectable internal turret mooring system to moor a 150,000 dwt MODEC-converted FPSO in 156m water depth.

General Description

Client Name:	Santos Ltd.
Contract Award:	October 2003
Installation Date:	January 2005
First Oil:	March 2005
Vessel Size:	150,000 dwt
Storage Capacity:	930,000 bbls
Water Depth:	156m (512ft)
Supply / Fabrication:	Turret - Singapore Vessel - Singapore

Design Environmental Criteria (100-year storm)

Significant Wave Height:	5.1m (16.7ft)
Wind Velocity:	25m/s (48.6 knots)
Surface Current:	1.3m/s (2.5 knots)

Mooring System

- Spider Buoy
- 6-leg Symmetric, chain, wire rope and drag anchor

Turret

Disconnectable Internal

Fluid Swivel Assembly

Production:	3 x 8-in. toroid (ANSI Class 1500)
Water Injection:	1 x 8-in. toroid (ANSI Class 1500)
Well Service:	2 x 2-in. toroid (ANSI Class 1500)
Chemical/Utility:	XX paths x 5,500 psi
Electrical Slip Ring Assembly:	
Medium Voltage:	62 paths x 6.6 KV
Low Voltage/Signal:	172 paths

Riser System

2 x 12-in. Flexible pipe - Production (Provision for 1 x 12-in. future)



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(Continued)

- 1 x 12-in. Flexible pipe – Water Injection
- 2 x 2-in. Flexible pipe – Well Service
- 4 x Medium voltage power umbilical – Subsea Power
- 2 x Integrated service umbilical – Subsea Control (Provision for 1x future ISU)

Comments

When a cyclone approaches, the FPSO can easily temporarily evacuate from the field by the unique SOFEC internal disconnectable turret mooring system.