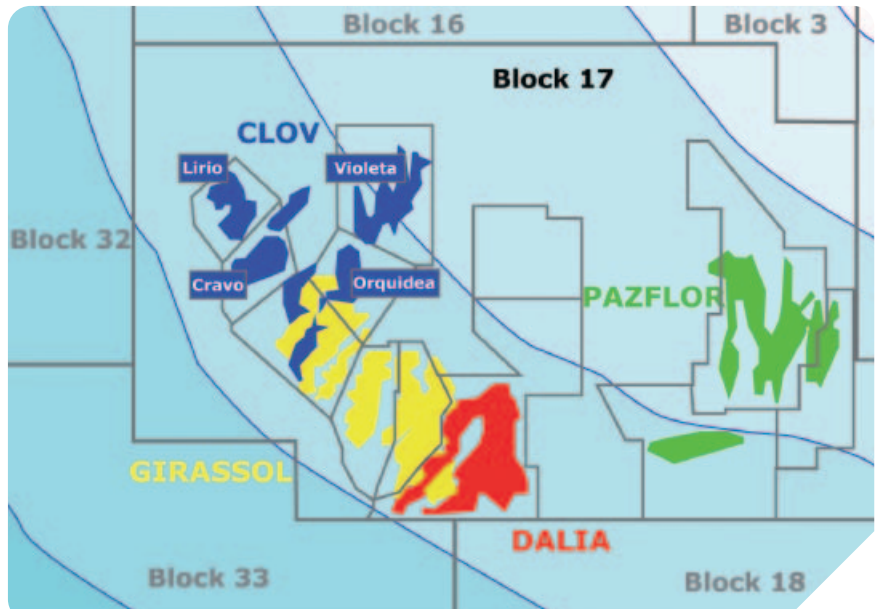
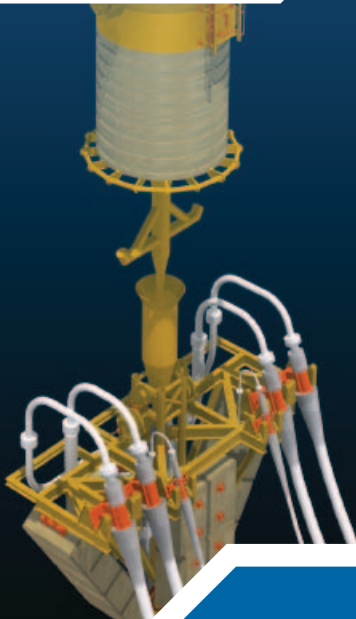


# Total E&P CLOV



Client:  
Total E&P Angola

Location:  
Offshore Angola

Project Type:  
EPIC

Subsea 7\* was awarded this \$1.3 billion contract in July 2010 covering four reservoirs offshore West Africa.

Located in the northern part of Angola Block 17, approximately 40km north-north-west of the Girassol Development, the project represents the largest ever project award for Subsea 7. In total the development includes four reservoirs which give their name to the project: Cravo (C), Lirio (L), Orquidea (O) and Violeta (V). Subsea 7 will carry out works on this extensive development in water depths ranging from 1050m to 1410m.

\*Project carried out by Acergy prior to merger with Subsea 7.

# Total E&P Angola CLOV Development Project

## Project

CLOV Development Project

## Client

Total E&P Angola

## Location

Offshore West Africa

## Water depth

1050m to 1410m

## Project Type

EPIC

## Date Awarded

July 2010

## Vessels/Spoolbases Utilised

*Seven Borealis*

*Acergy Eagle*

*Acergy Legend*

Subsea 7's proposal has been developed with a focus on six key drivers including safety, quality, environment, schedule, efficiency and local content.

## Overview

Engineering is at the heart of this extremely large project. Our scope includes the:

- Engineering, procurement, fabrication and installation of 130km of pipes including:
  - 40km of pipe-in-pipe production
  - 60km of water injection
  - 32km of gas export
  - Two Hybrid Riser Towers, one for each production loop
  - A Single Hybrid Riser at the end of the gas export line
  - 80km of subsea umbilicals
  - 37 spools and 15 jumpers
- Installation of manifolds and subsea pumps

In addition to this diverse workscope Subsea 7 will also carry out overall pre-commissioning activities.

Subsea 7 is committed to local content and will utilise the skills of its partners, Sonamet and our local subsidiary, Subsea 7 Angola. Sonamet will undertake the majority of fabrication for this significant project, including the Hybrid Riser Towers from its facilities in Lobito.

Offshore installation is scheduled to commence in Q4 2012, using the *Seven Borealis* to lay pipe-in-pipe production flowlines in J-Lay mode, to lay water injection and gas export lines in J-Lay and S-Lay mode, and to install gas export Single Hybrid Riser and manifolds.

*Acergy Eagle* will be in charge of the installation of 80km of umbilicals, 13 units of flexible risers, the jumpers and spools, the subsea pumping unit and to support the dewatering of the gas export system.

*Acergy Legend* will undertake the installation of LBL arrays and flying leads, she will support the pre-commissioning operations, the metrologies and all surveys.



*Seven Borealis*



*Acergy Eagle*



*Acergy Legend*