



Subsea 7 successfully installed its deepest reeled pipe-in-pipe to date at (1,950m) for Murphy's Dalmatian South development in the Gulf of Mexico.

The Subsea 7 work scope included project management, engineering, procurement, fabrication, installation and pre-commissioning for the pipe-in-pipe flowline, including Pipeline End Terminations (PLET), In-Line Sleds (ILS) and control umbilical.

# Murphy Dalmatian South

## Project

Dalmatian South

## Client

Murphy Exploration and Production Co.

## Location

Desoto Canyon Block 134, Gulf of Mexico

## Water depth

1,950m

## Project Type

SURF

## Date Awarded

June 2014

## Date Completed

December 2015

## Vessels/Spoolbases /Facilities Utilised

*Seven Oceans*

*Normand Oceanic*

*Grant Candies*

Port Isabel Spoolbase

## Overview

The Dalmatian South project included the following elements:

- Fabrication and installation of reeled 6"/10" pipe-in-pipe flowline (21km)
- Design, fabrication and installation of two Pipeline End Terminals (PLETs)
- Design, fabrication and installation of three In-Line Sleds (ILS')
- Fabrication and installation of two 6" vertical jumpers
- Installation of a 5" control umbilical (8.7km) including Subsea Umbilical Termination Assembly
- Installation of two steel tube flying leads and four electrical flying leads
- Pipeline pre-commissioning (hydro strength test and dewatering)

The Murphy Dalmatian South development is an extension to Murphy's Dalmatian field and will tie production wells back to the Petronius Platform through the Dalmatian flowline. Several ILSs along the line and a double hub PLET ensures future expansions can be accommodated.

The Dalmatian South flowline is the deepest reeled pipe-in-pipe installed by Subsea 7 to date. The engineering was managed and executed in Houston with help from the company's worldwide technical support groups to ensure that the necessary checks and analysis were performed to successfully install the pipeline.

The Dalmatian South flowline was also the first pipe-in-pipe to be fabricated at Subsea 7's Port Isabel spoolbase in Texas. The pipe-in-pipe flowline system itself was comprised of 10" x 18.3mm WT X65 outer sleeve pipe and 6" x 15.9mm X70 inner pipe, with associated water stops, centralisers, buckle arrestors and bulkhead connections. Pipe welding, including procedure qualification, was completed in-house using Subsea 7's automatic welding system. Fabrication was completed successfully to tight acceptance criteria and on schedule.

The *Seven Oceans* laid the pipeline in a single trip, followed by the *Normand Oceanic* which laid the control umbilical and rigid jumpers. In a second campaign, the *Normand Oceanic*, supported by *Grant Candies*, executed the pipeline strength test and dewatering scope.

Following a request from Murphy, the Dalmatian South team fast-tracked the project. This allowed production to start in December, accelerating time to first oil by four months.



*Fabrication of pipe-in-pipe at Port Isabel Spoolbase*



*Pipe stalks at Port Isabel Spoolbase*



*Reeling pipe onto Seven Oceans*



*Welding ILS to pipeline*