



TFL Prepare and Install DS (Drill String) ROV DIVE PLAN

ROV Scope of Work

This scenario is designed to practice installing the Through-Flow Line (TFL) on the E2 hub of the template after the debris cover has been removed and the hub cleaned. After the TFL has been installed, the drill string must be released from the TFL and retrieved by the surface ship.

The scenario requires the use of a single ROV with attached tooling skid.

Field Layout

The field consists of the template with the BOP installed, and 3 trees with flow lines running from the template. The TFL with associated rigging is located near the template.

ROV tools and equipment required in the scenario

ROV tools required for this dive:

- 1 10 inch cleaning tool

Equipment and models required for this dive:

- 1 Subsea basket
- 1 TFL (Through-flow line) with bull's eye level indicator
- 1 Debris cover

ROV Set Up	
<p>ROV 1</p> <ul style="list-style-type: none"> • ROV starboard manipulator (Titan 4 - 7 function arm) • ROV port manipulator (Rigmaster 5 function arm) • Sediment displacement tool • ROV tooling skid 	<p>TMS</p> <ul style="list-style-type: none"> • None
<p>ROV 2</p> <ul style="list-style-type: none"> • ROV starboard manipulator (Gauntlet - 4 function arm) 	<p>TMS</p> <ul style="list-style-type: none"> • Cage TMS

Pre Job Tasks

None

ROV Operations

TFL Prepare and Install DS

1. Locate the template using the VSONAR and then position the ROV at the template.
2. Search for the Max 14 hub E2 located on the east side of the template.
3. Remove the debris cap.
4. Inspect the E2 hub using the camera's pan and tilt control.

If there is detriment on the E2 hub, continue with step 5. If not, continue with step 10.

5. Retrieve the sediment displacement tool from its receptacle on the ROV skid and clean the external portion of the hub.
6. Place the sediment displacement tool back in its receptacle.
7. Locate the subsea basket in the field and fly the ROV to its location.
8. Retrieve the 10 inch cleaning tool located in the basket and clean the internal portion of the hub.
9. Return the cleaning tool to the subsea basket.
10. Position the ROV near the TFL and instruct the surface ship how to lower the TFL as you guide it on to the E2 hub. Use the bull's eye level indicator to make sure the TFL has landed properly.
11. Fly to the subsea basket in the field and retrieve the torque tool.
12. Return to the TFL and release the drill string using the torque tool in all three receptacles on the drill string connector until the associated indicator pins stop moving (three revolutions each).
13. Signal the surface ship to retrieve the drill string. Follow the drill string to ensure that it does not tangle with any equipment.
14. Lock the TFL to the E2 hub using the torque tool on the main TFL panel (one revolution).
15. Return the torque tool to the subsea basket.
16. Signal the surface ship to retrieve the subsea basket. Follow the basket to ensure that it does not tangle with any equipment.

ROV Supervisor Name:

Date:

Comments:

