



## **TFL Lock and Test ROV DIVE PLAN**

### **ROV Scope of Work**

This scenario is designed to practice locking and performing a seal test on a previously installed Through Flow Line (TFL).

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

### **Field Layout**

The field consists of a template with a BOP installed, 3 trees with flow lines running from the template, and a subsea jacket. The TFL with its associated rigging is also docked on the E2 hub of the template.

### **ROV tools and equipment required in the scenario**

ROV tools required for this dive:

- 1 Dual port hot stab
- 1 Class 4 torque tool with associated dual port hot stab

Equipment and models required for this dive:

- 1 Subsea basket
- 1 TFL (Through-flow line)
- 1 Bull's eye level indicator

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

**Pre Job Tasks**

None

**ROV Operations**

**TFL Test and Release**

1. Locate the subsea basket in the field and fly the ROV to its location.
2. Retrieve the torque tool located in the basket.
3. Return to the TFL, and lock the TFL to the template by using the torque tool to close the Max 14 connector (one revolution).
4. Return the torque tool to the subsea basket.
5. Retrieve the dual port hot stab located in the basket.
6. Position the ROV near the TFL.
7. Proceed with Seal Test 1.
8. Proceed with Seal Test 2.
9. Return the dual port hot stab to the subsea basket.
10. 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:**

## TFL Seal Test

### Seal Test 1

- Plug the hot stab into port TS1 on the TFL.
- Open the valve for port TS1.
- Inject hot water into the port by pressurizing hot stab port A.
- The gauge will increase to a pressure of 4650 psi.
- Close the valve for port TS1.
- Depressurize hot stab port A.
- Wait 5 minutes, and check the pressure gauge (the pressure should remain at 4650 psi).
- Pressurize hot stab port A, open the valve on port TS1, and depressurize hot stab port A (the pressure should slowly release, dropping to 0 psi).
- Close the valve and remove hot stab from port TS1.

### Seal Test 2

- Plug the hot stab into port TS2 on the TFL.
- Open the valve for port TS2.
- Inject hot water into the port by pressurizing hot stab port B.
- The gauge will increase to a pressure of 4650 psi.
- Close the valve for port TS2.
- Depressurize hot stab port B.
- Wait 5 minutes, and check the pressure gauge (the pressure should remain at 4650 psi).
- Pressurize hot stab port B, open the valve on port TS2, and depressurize hot stab port B (the pressure should slowly release, dropping to 0 psi).
- Close the valve and remove hot stab from port TS2.



