

Oceanering Completes Riserless Live Well Production Logging and Inflow Testing



Project overview

Oceanering was contracted to verify the position of downhole sliding sleeves, and then to complete a production inflow test to ascertain well flow rates. The production on the well was lower than expected and the customer wanted to mechanically verify the position of downhole sliding

sleeves in order to diagnose the issue. The oil-producing subsea well was located in the Gulf of Mexico at a water depth of 3,000 ft (914 m) with a horizontal tree. The project was further complicated by potentially leaking crown plugs in a well with a 60° deviation.

Issues

The operator was not receiving the level of production expected from this well, possibly due to partially or fully closed sliding sleeves downhole. At the same time, the horizontal Christmas tree (HXT) crown plugs were suspected of leaking, thus causing possible hydrate issues. The riserless wireline intervention was further affected by a 60° deviation in the wellbore in combination with a requirement for longer e-line tool strings.



The Oceaneering solution

Oceaneering worked with the operator and its wireline supplier to achieve a solution that would enable riserless production logging and live-well, in-flow testing after ensuring that the downhole sliding sleeves were indeed fully open. In the Gulf of Mexico, no riserless

system had been utilized to perform this type of live-well production logging. This solution was detailed out to the regulatory authorities to allow them to fully understand the process and well control during these planned operations. After gaining the regulatory approval for the Oceaneering riserless system in this application, the project execution phase could be initiated.

Execution plan

The successful execution of the project involved various operations. Using a chartered vessel, Oceaneering pulled the well's crown plugs, set the nipple protector in the HXT, and completed a gauge run. Following the gauge run, wireline was run in hole with a BO selective tool but could not reach the desired well depth. This prompted the use of a different tool string with a combination roller boogie (a type of wheeled tool section designed to allow tools to ride on the tubing walls on sharper inclines). Utilizing this tool string, the team was able to confirm that both sliding sleeves were fully open. After establishing the open position, the in-flow testing was performed using production logging tools. Finally, all tools were retrieved, along with the nipple protector from the HXT, before resetting the crown plugs to successfully close out intervention operations.

Results

The project was completed successfully, and without any safety issues. Upon completion, the client was able to answer all questions on why the well was not producing at the rates expected.

© 2018 Oceaneering International, Inc. All rights reserved.