Lower Completion in 8.5" Horizontal Open Hole Section, North Sea

An International Operating Company (IOC) required horizontal well completion screens across the reservoir, the first of four wells planned within this development. Deep Casing Tool's 7" TurboRunner™ (TRS700) was deployed to assist running the lower completion in an 8.5" horizontal hole section, reaming past problematic formations and successfully reaching a target depth of 1,643ft within 7.254hrs, despite running operations remotely due to the COVID-19 pandemic.



Equipment: The faulted nature of the field and the interbedded nature of the reservoir sands could lead to issues running lower completion.

Personnel logistics: The current global COVID-19 situation and restrictions to personnel travelling offshore made servicing this project extremely challenging.

THE SOLUTION

Equipment: The deployment of a DCT 7" TurboRunner (TRS700) to assist running the lower completion in 8.5" horizontal hole section. This ensured the IOC had the ability to ream past any formation problems such as ledges, sloughing or/and cuttings build up, to maximise the potential of reaching TD and placing the lower completion screens and swell packers over critical pay zones.

Personnel logistics: Due to the current COVID-19 health risk and high number of collective personnel required to run the lower completion, the client had to decide which 3rd party companies' personnel would not travel offshore to operate their respective equipment. In discussions with the IOC, DCT suggested supporting operations remotely. The client then provided the DCT operations team with access to real time data during to allow for almost instant advice/decisions whilst RIH for screen deployment to TD.

THE RESULT

The well was completed successfully.

Multiple hole issues were encountered during open hole deployment, the TurboRunner™ was activated numerous times throughout the project to successfully reach TD. On the run from open hole to TD, the Turborunner™ reamed 1,643ft over a period of 7.25 hours.

The collective pre-planning and communication between DCT and the client was vital in achieving the goal of reaching TD during the COVID-19 pandemic.

Confidence in the rig crew's handling and operating of the TurboRunner™ technology without onsite support has since grown significantly.



IN NUMBERS

Conventional Technology

TurboRunner™



5 DAYS SAVED

The TurboRunner™ successfully reamed through problematic formations, successfully reaching TD and saving 5 days.



75% TIME SAVEI

TurboRunner™ meant no wiper trips were needed allowing significant cost savings.



ADDITIONAL PRODUCTION

TurboRunner™ ensured TD was reached with potential increase in ROI around 1.5%.