



10 3/4" Suspension Plugs run remotely on E-Line saves over four days Rig Time for Workover Campaign

Date: October 2020 - April 2021
Region: Asia Pacific, New Zealand



Key Capabilities

- Use of E-Line to set negates additional pipe rig up, run and rig down
- Suitability within unsupported Casing allows barrier to be shallow set
- Real-time verification using surface powered equipment
- Web-based support for remote operation
- 10 3/4" RBPs verified to be set within unsupported casing

Challenge

A campaign of platform workovers via a modular drilling rig was conducted by OMV New Zealand. Once the Completion was retrieved, a CBL would be performed on E-Line to identify top of cement for whipstock kick off depth. Once performed, a Vo suspension Plug is required as a barrier for removing topside equipment. After installing and testing the PCE, the barrier would be retrieved to commence kick-off operations. Due to COVID travel restrictions, movement to the rig was restricted, limiting personnel and service providers on board.

Solution

An Interwell 10 3/4" medium expansion Vo bridge plug qualified within the operating envelope of the requirements and was identified for four of the Wells. An additional Finite Element Analysis (FEA) calculation was performed to ensure the plugging operation could be safely performed in 40-year-old unsupported casing at max API ID without causing damage or ballooning during setting or testing.

To negate the additional rig up of pipe to run the suspension Plug, an Electronic Setting Tool (EST) was used on E-Line to set the barrier after the CBL and deepset Plug installation.

Once the barrier was set and tested, the PCE was rigged up and the barrier could be retrieved on the pipe ahead of whipstock operations.

Due to personnel restrictions, the E-Line service provider, MPC Kinetic was trained by Interwell ahead of the campaign to prepare, run, and retrieve the plugs. Communication during the setting and retrieval process was maintained over a web link Interwell Perth where these operations were overseen in real time. The setting log could be witnessed via Interwell's software on a laptop in the E-Line cabin where a correct set could be verified instantaneously.

Value Created

The use of the 10 3/4" ME with large slip footprint allowed the barrier to be installed shallow in unsupported casing. Coupled with the real-time setting force signature to verify its correct set, this meant the barrier could be installed and verified immediately. The use of E-Line not only allowed this to be possible but negated the rig up of pipe which saved a minimum of 24 hours per well.

