

Case Study: Modified HPHT Set in Oil Based Mud

Challenge

A client in the North Sea required a deep-set well barrier to isolate reservoir pressure during well construction and for water isolation post-perforation. The barrier was to be set in 16.8ppg heavy weight Oil Based Mud (OBM), act as a stopper for the perforating guns' drop-off system and be able to retain integrity following perforating operations.

Solution

A modified 360-500 High Pressure High Temperature (HPHT) retrievable bridge plug, complete with a 2.7" High Pressure Hydrostatic Setting Unit (HPHSU), was proposed to meet the client's challenging requirements.

After a successful simulated verification test in the oil based mud, Interwell supplied the client with a Vo qualified solution, rated to a maximum differential pressure of 10,000psi and 180degC. The solution was successfully run, set and left as a permanent barrier in the well.

Value Created

The client required a Vo rated bridge plug that could be successfully set in oil based mud, was rated to differential pressures of 10,000psi and 180degC, and could retain integrity following perforating operations.

Date:

February 2016

Region/Field:

North Sea

Key Capabilities:

- Patented metal to metal sealing support module and exclusive packer element technology
- Ideal for workover applications: well control barrier, packer for injection valve, fixed choke, etc.
- Slim design (small OD/ large ID)
- ISO 14310:2008 international standard grade Vo.

