



AHEAD OF DRILLING HPHT WELLS, A UK OPERATOR TURNED TO ABERDEEN DRILLING SCHOOL FOR A BESPOKE BLENDED HPHT/MPD TRAINING PROGRAMME, COMBINING VIRTUAL LEARNING WITH PRACTICAL TRAINING IN A SIMULATED MPD INTERFACE.

## Case Study

**Client:** UK Operator

**Location:** UK North Sea

**Challenge:** The Client was preparing to drill HPHT wells in the UK North Sea. With the work already under an industry spotlight, the challenge was increased due to COVID restrictions and an additional MPD element to the project that some of the crew were unfamiliar with.

**Solution:** We provided a virtual learning solution blended with a practical MPD simulation to help prepare the Client's drilling team as well as their drilling contractor, the MPD service provider, and well management company as part of a cohesive intercompany crew training event. A high fidelity, full-size cyber simulator was used to create the training interface. Our in-house programming team, supported by our customer service and technical teams, ensured the bespoke programme was prepared and delivered in a very short lead-time.

*"The outcome was excellent. It was invaluable to have this preparatory MPD training immediately prior to the crews mobilising."* - Drilling Supt.

## Background

Our Client is an ambitious and proactive new generation UK Operator with a growing number of assets in the UK, Norwegian and Dutch sectors. In 2020, the Client was preparing to drill HPHT (High Pressure/High Temperature) development wells using Weatherford's Managed Pressure Drilling (MPD) system.

An important project for the Client, it had gained the interest of both the HSE and other North Sea operators. The Client was therefore very focused on ensuring a successful outcome, while also dealing with the logistical challenges of COVID-19, and the impact this had on training.

## Solution

As a trusted training and consultancy partner we were able to prepare and deliver a bespoke virtual training solution blended with practical HPHT and MPD simulation to help prepare the drilling team as they mobilised. A series of meetings involving key client representatives and our technical team helped ensure the bespoke training package would meet all operational and commercial objectives.

Once the package was finalised, and the virtual training modules uploaded, one of our high fidelity, full-size cyber simulators was used to recreate the rig's MPD interfaces in a digital twin of the Client's 3D well. Our in-house team of subject matter experts, working closely with the Client, with support from our Simulation and Digital Learning teams, helped to ensure that the simulated rig interfaces and MPD controllers were made quickly accessible to meet short lead-times.

## Outcome

Our previous experience and knowledge of this Client, combined with our advanced in-house simulator expertise and our digital and virtual learning capabilities, ensured that we were able to develop an optimised solution meeting the tight delivery times and adhering to COVID safety guidelines. We were able to design and deliver this bespoke blended HPHT/MPD training solution within 4 weeks. By the end of the delivery timeframe, a total of 36 key personnel had completed the combined HPHT/MPD virtual knowledge refreshers and the practical training on the simulator package.

As North Sea wells continue to increase in complexity, we are prepared and resourced to provide bespoke training solutions tailored to meet the goals and outcomes of this new generation of Operators in the dynamic and increasingly challenging environment associated with the maturing North Sea area.

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