



/ Expro Excellence Subsea

Expro provides bespoke subsea system for BP's Quad 204 development, increasing features despite decreasing size



Objectives/background

- To deliver a suitable landing string for BP's Quad 204 development in the North Sea
- This was a technically challenging scope of work due to the rig BOP configuration/orientation as well as the unique completion/installation methods and bespoke SPS interface – this was to suit BP's rig of convenience which was a new semi-submersible that had been optimised for drilling operations and harsh environments
- A dual bore vertical xmas tree (VXT) solution was selected by BP

Expro Excellence

- Expro's long-standing relationship and track record using similar technology, allowed the Subsea team to use previous experience and lessons learnt to ensure complete compliance with the customer's expectations for the project
- Engineering work was undertaken to provide a landing string that fitted the BOP without compromising our customer's specific project requirements, nor reducing the landing string functionality

- Re-engineering work resulted in the creation of a combined Integral Slick Joint (ISJ) and Tubing Hanger Running Tool Adapter (THRTA), reducing the overall landing string assembly length so to accommodate the rig BOP dimensions and configuration
- Production and annulus access requirements, along with full helix orientation and BOP and SPS interface challenges highlighted the unique features within Expro's bespoke landing string
- Engineering analysis for FMECAs, stress analysis and multiple GRAs to account for various scenarios were undertaken

Value to client

- Expro's modular/flexible subsea system allowed use of a rig of convenience
- Cost-efficiencies due to a reduction in equipment complexity:
 - Monobore landing String
 - Integral Slick Joint
- No requirement for dual bore riser due to Expro's technical solution, single completion string deployment, full well control inclusive within THOJ/orientation helix arrangement
- Accelerated timeline achieved within nine months, in line with rig delivery



Expro added value with a dual bore VXT configuration that allowed:

- Orientation helix for BOP alignment included in the system (full well control and disconnect features were not compromised)
- Deployment with monobore tubing, eliminating the need for dual bore riser
- Primary barriers allowing well flow clean-ups prior to the installation of the dual bore xmas tree
- Provision of dual bore access for manipulation of the annulus and mechanical access for intervention

Contact

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