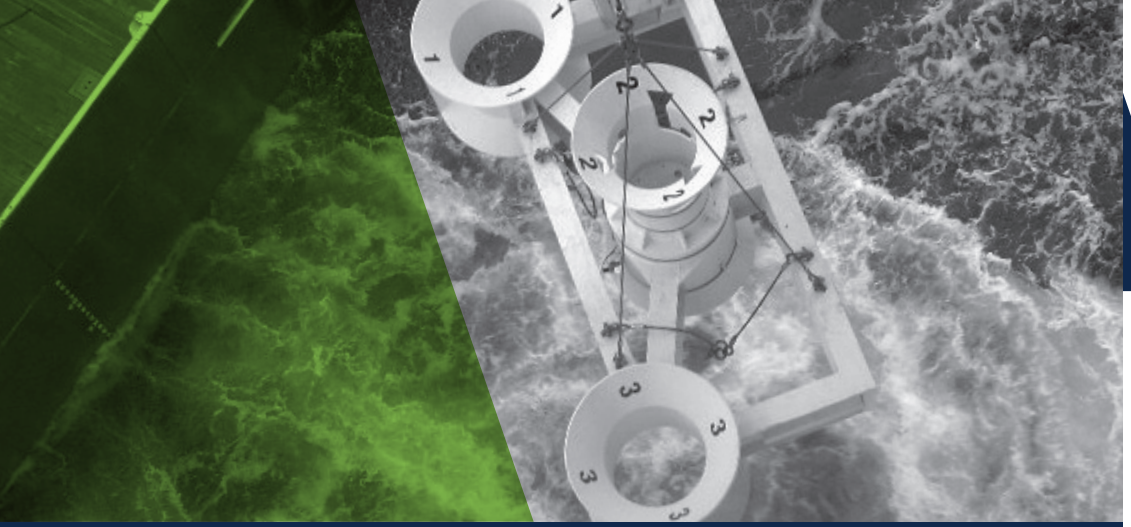

SIX BESPOKE DRILL CENTRE TEMPLATES DELIVERED TWO MONTHS EARLIER THAN CONTRACTED

CLIENT:
PREMIER OIL
CATCHER FIELD DEVELOPMENT

PRODUCT:
DRILL CENTRE TEMPLATES

Premier Oil approached us to support them with their Catcher Area field development requirements in the central North Sea. Their focus was on three discoveries on Block 28/9a and 28/10c, namely the Catcher, Varadero and Burgman fields.

Aquaterra Energy delivered six Drill Centre Templates for the project two months earlier than contracted, with design and operational enhancements creating hours of rig time savings.

Aquaterra ENERGY

BACKGROUND Premier Oil approached us to support them with their Catcher Area field development requirements in the central North Sea. Their focus was on three discoveries on Block 28/9a and 28/10c, namely the Catcher, Varadero and Burgman fields.

Development of the three fields would involve drilling 22 subsea wells, encompassing 14 production and eight water injection wells. Premier Oil were looking to develop each field as a subsea tie-back to a new Floating, Production, Storage and Offloading (FPSO) vessel, where they would export oil by shuttle tanker and gas by pipeline to a spare tee connection within existing infrastructure.

Their requirement was for six Subsea Drill Centre Templates (DCTs), with two DCTs installations per field. The FPSO vessel was to be placed equidistant from all three development sites to eliminate the need for vessel moves and would be designed to receive and process a maximum oil flow rate of up to 60,000 bbl.'s per day. The templates were to be designed and fabricated to accept up to four vertical subsea trees, which would accommodate the production and water injection as dictated by the drilling programme.

SOLUTION Our engineering team reviewed the project requirements and worked meticulously between our in-house analysis and design teams, to ensure the product would be designed and fabricated to satisfy the stringent requirements of the project. By working closely as one team, we were able to optimise the design and offer additional operational improvements to the client; such as hinged roof panels and PGB orientation keyways that improved safety and would reduce the hours required to install each DCT.

Our team highlighted various interface changes throughout the project and thorough management of these ensured that all required operations were conducted successfully during the Factory Acceptance and System Integration Testing.

RESULTS **We designed, managed the fabrication and tested all six DCTs earlier than contractually obliged which eliminated any risk of delayed delivery for Premier Oil, as well as giving them greater flexibility with their drilling campaign. The first two DCTs were installed and piled successfully, and drilling was completed in all four slots on the first template before the end of Q2 2015. First oil was reached in December 2017.**

The DCT offered a quality product to an extremely exacting specification and ensured that ROV and Diver accessibility were achieved. The design was fully reviewed and approved by DNV and was rigorously checked by Premier Oil's experienced structural engineers and technical authorities throughout the project.

HIGHLIGHTS:

- **Delivered two months earlier than contracted**
- **Design and operational improvements recommended by the Aquaterra Energy team ensured rig time savings for client**