

Expro Excellence

Expro delivers Electro Hydraulic SSTTA with Subsea Gyro orientation system

Subsea Well Access



Objectives and background

- Expro was contracted by Woodside Energy Limited (WEL) to provide an Electro-Hydraulic Subsea Test Tree Assembly (SSTTA), to perform an upper completion/TH installation on a new well in Australia
- The Electro-Hydraulic SSTTA system was required due to the necessity for fast valve closure and disconnect capabilities in order to mitigate the risks associated with operations that were being performed on a dynamic positioning rig, which included a period of high rate gas flow back to the surface well test package following installation of the completion. WEL was keen to monitor downhole pressures and temperatures made possible through the Electro-Hydraulic SSTTA system
- In addition to the Electro-Hydraulic SSTTA, WEL had experienced issues on a previous operation when aligning/orientating the tubing hanger, therefore Expro was asked to provide a means to verify that the orientation helix was in the correct orientation before firing the BOP pin. This was achieved using a subsea orientation Gyro system used in conjunction with the downhole Electro-Hydraulic control system

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- Expro supplied WEL its industry leading Electro-Hydraulic SSTTA (Express 7 & ELSA-LB equipment) with a Subsea Orientation Gyro system. These solutions provided WEL with the quick means to secure the well with two fail-close barrier elements between the well and the environment, to facilitate quick disconnect in the event of an emergency situation, and the confidence to accurately confirm alignment of the helix slot orientation prior to firing the BOP pin and locking the tubing hanger into the wellhead

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- Expro not only supplied the SSTTA equipment, but provided additional support for the safety case, HAZOPs and barrier philosophy
- The Express 7 & ELSA-LB equipment were chosen due to their excellent Electro-Hydraulic track record with all Xmas Trees types. This was the first Electro-Hydraulic project that Expro and WEL had run in Australia

Value to the client

- All Expro operations were efficiently conducted with 100% uptime and no safety or quality incidents throughout the extended well campaign
- Expro's unique technology allowed all operations to be carried out without any equipment maintenance activities offshore maximising rig efficiency
- The Subsea Orientation Gyro served its purpose by confirming the landing string was in the correct position for each of the deployments before the BOP pin was activated

Customer highlights

- WEL rated Expro as the hardest working team that participated in the Pluto project and the client feedback ranked Expro at 100% in the equipment and personnel performance category

Quality standard



Contact

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