

## Expro Excellence

# TRS Optimization eliminates Red Zone risks and increases rig time efficiencies in the Caspian Sea

## Well Construction | Tubular Running Services (TRS)



### Objectives and background

- A major operator and Expro have been working together to continuously improve tubular running services (TRS) operational efficiencies, safety performance, and value maximization in the Azeri sector of the Caspian Sea since 2017. In 2019, Expro and a local drilling contractor began working together to provide additional safety and operations improvements on multiple wells drilled using an offshore platform
- The primary shared goals of the operator, drilling contractor, and Expro were to 1) increase safety by reducing personnel in the Red Zone, 2) increase safety and value by reducing overall personnel on board (POB), 3) simultaneously increase operational efficiencies through enhanced technology deployment, and 4) replicate this value across the operator's additional rigs in the area
- While all technologies directly targeted personnel goals, they also contributed to the goals to enhance overall operational efficiencies in a manner that can be efficiently replicated to add maximum value across all rigs. Expro and the drilling contractor anticipated the following baseline objectives could be accomplished:
  - Eliminate ~50 man-hours of Red Zone risk exposure per well
  - Reduce POB during TRS operations
  - Save ~6.5 hours of rig-time per well or 31 hours per year

### Expro Excellence

- A combination of the following field-proven and newly-commercialized casing and completions technologies were deployed on the project in two distinct deployment plan stages to reduce personnel in the Red Zone and reduce overall POB:
  - Door Style Clamp Type Elevator
  - Mechanized Remote Boxing Device
  - Radio Remote Control Power Tong
  - Universal Spider Control Console
  - DISPLAY™ Digital Application
  - Sheaveless COBRA® Control Line Manipulator Arm

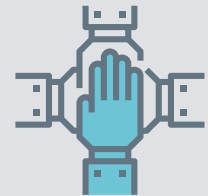
### Value to the client

- The first technologies deployed included the Door-Style Clamp Type Elevators to eliminate the use of lift nubbins while running flush/semi-flush casing and Mechanized Remote Boxing Device to eliminate the use of stabbing guides on all intermediate casing runs. Combined, these two casing technologies eliminated an estimated 41.13 man-hours of Red Zone risk exposure and an estimated 12.7 hours of rig time on the well
- The second stage of technology deployment included the Radio Remote Control Power Tong; driller-controlled Universal Spider Control Console for RS-350™ Completion Spider; DISPLAY™ Digital Application for live streaming and remote monitoring of torque-turn data; and the wirelessly-controlled Sheaveless COBRA® Control Line Manipulator Arm. Together, these four completions technologies reduced Red Zone risk exposure by 51.48 man-hours on the well
- Overall, Expro introduced six new casing and completions technologies that when combined, resulted in 92.56 total man-hours of Red Zone risk reduction and 12.7 total hours of rig time savings, significantly exceeding the initial objectives
- The local drilling contractor and Expro met to discuss how these results could be replicated on the upcoming wells, with a planned goal to reduce Red Zone risk exposure by a further 23 man-hours and reduce working-at-height risk by 17.5 man-hours by eliminating use of overhead sheaves
- Maximize value
- Improve safety & efficiency

#### Safety



#### Partnership



#### Innovative solution

