

# Well Construction

## Frank's Tubular Running Service (TRS) - Casing Technologies

### DISPLAY™ Digital Application

The DISPLAY™ digital application by Expro is a live make-up graph viewing system that allows users to remotely access live and historical data using their computer, tablet or smart phone and analyze connections made throughout the tubular run.

This technology improves safety, optimizes efficiency, and ensures well integrity by enabling additional skilled staff to monitor connection make-up activities and make important decisions in real-time.

The DISPLAY™ digital application reduces operational costs by using thread reps to monitor and review make-up graphs for multiple jobs from a single location.

This technology works with Expro's Wireless Automated Tong System (WATS) and DATA TREK® advantage Connection Analyzed Make-up (CAM) programs to facilitate live viewing of graphs during all Wi-Fi tong, electric tong, conventional tong, and casing running tool operations.

The CAM computer program writes a continuous stream of torque-turn data, which is pushed in a continuous live stream to a Frank's land-based server via a wireless router in the rig's driller's cabin. The router is connected to the client network with access restricted to push data only, in keeping with client data-security requirements.

Registered users can access the DISPLAY™ digital application web page to see the live CAM graphs as they are being made up on the rig. The ability to switch between the "live" screen and the "review" screen allows the user to view the live graphs as they are streamed, or review historical graphs from the present or previous jobs.



#### Features and Benefits

- Produce overlays to compare graphs
- Analyze trends in make-up data, such as delta-torque, delta-turns, shoulder-slope, etc.
- View pipe, connection, tong, sensor, and make-up data
- View graphs in the same format as displayed on the computer at the rig site