

Vero Automated Connection Integrity Enabled Casing Running and Testing, Reduced Risk Exposure by 50%, and Ensured Connection Integrity at 100%

Objectives

- Reduce personnel on board (POB) during the operation.
- Minimize personnel exposure on the red zone.
- Ensure well integrity.
- Reduce the customer's carbon footprint.

Our Approach

- Weatherford specialists met with the customer to learn the operational objectives and identified the new technology and TRS solutions which would accomplish the goals.
- Based on similar projects and experience with this technology for the same customer, Weatherford experts recommended the Vero[®] Automated Connection Integrity service.
- Used for applications on large offshore rigs and drill ships, the Vero mechanized 22-150 and 7.6-30 systems enhanced operational efficiency by automatically making up or breaking out pipe and by autonomously evaluating the connection makeup data. Automated makeup enables precise control of the process, independent from any operator-specific influences or other human factors. Autonomous evaluation eliminates subjective graphical interpretations.
- The system offers simple and hands-free operation, removing personnel from the rig-floor red zone. With just one touch on the control panel, the operator starts the makeup cycle. The system autonomously controls the process of both connection makeup and evaluation based on the pipe and thread OEM criteria.
- After the successful completion and achieving the operational objectives of a project in Mexico using the Vero mechanized system—specifically the value delivered through POB reduction and automated technology—the customer opted to continue with the same technology on its next project in Colombia.
- Weatherford mobilized the personnel and equipment to Colombia and trained the local team.
- The Vero system delivered connection integrity through a smooth, automated makeup and evaluation process with repeatable graphs, successfully providing hands-free TRS services for all casing and drill stem testing strings.



Based on the thread-specific parameters, the onboard computer monitors and controls the makeup sequence for the system. It continually monitors several process outputs and proactively adjusts the inputs to achieve a consistent final makeup precisely to the desired parameters.

LOCATION

Colombia

WELL TYPE

Deepwater, exploration

CASING AND TUBING SIZES

22 in.
14 in.
9-5/8 in.
3-1/2 in.
4-1/2 in.

DEPTH

14,553.8 ft (4,435.9 m)

PRODUCTS/SERVICES

- Automated connection integrity services
- Vero mechanized 22-150 and 7.6-30 systems



Vero Mechanized System Enabled Casing Running, Testing of Deepwater Well, Reduced Risk Exposure by 50%, and Ensured Connection Integrity at 100%

Value to Customer

- The Vero automated makeup and evaluation software removed human factors while completing 602 connection makeups with zero laid-out joints during the project.
- The automated system executed accurate, consistent makeup and evaluation and confirmed that each connection met the OEM criteria throughout the operation.
- The remotely operated, hands-free system improved rig floor safety by requiring zero personnel in the red zone during TRS operations.
- Personnel on board was reduced by 50% compared to traditional systems, improving overall safety by reducing the POB levels and the associated transportation risk.
- With the associated reduction of the crews needed to complete the operations, the customer further reduced its carbon footprint.

