

TR1P™ System Reduces Installation Time by Up to 60% in Deepwater West African Well

Objectives

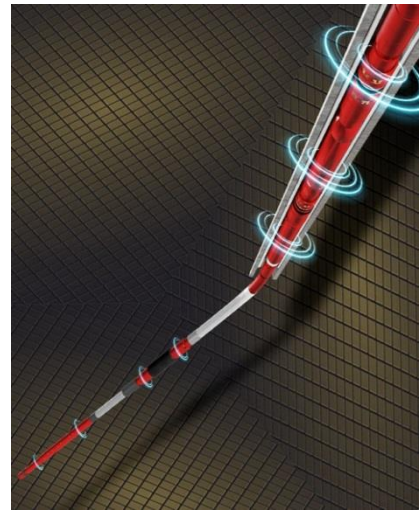
- Run upper and lower completions as one string to reduce rig time.
- Remove the need to run washpipe within the screens.
- Provide a deep-set barrier that can be opened using a remotely operated vehicle (ROV) to remove the need for mechanical intervention.
- Facilitate the placement of breaker across the sandface.
- Remotely open the sandface screens and confirm communication before isolation.
- Facilitate the placement of packer fluid in the annulus, and set and test the production packer.

Our Approach

- After meeting with the operator to discuss equipment options and key performance indicators for the upcoming well, Weatherford completion experts recommended the TR1P system. The system incorporates radio-frequency identification (RFID) technology—including an inflow control device (ICD), Optibarrier™ ball valve, and OptiROSS™ remote operating sliding sleeve—to mitigate deployment risks.
- The RFID inflow control device (ICD) removed the need to run washpipe, maintained full wash-down capability, and enabled testing liner integrity. RFID technology enabled the screens to be opened on command— independent of well pressure events—at the required time. These screens also provided an additional well barrier.
- The RFID Optibarrier provided a truly multicycle remote well barrier that enabled the team to test liner integrity, spot the breaker, and isolate the toe and reservoir at operationally optimized points.
- The TR1P engineering team created specific single-trip operational logic for the RFID Optibarrier, RFID ICD, and RFID OptiROSS components to remove the need for mechanical intervention.
- The TR1P team also developed a custom algorithm to open the RFID Optibarrier remotely and bring the well back online after suspension. This would enable the operator to use an ROV to open a deep-set barrier valve in the well.
- The TR1P team conducted system integration testing (SIT) at the Weatherford Research and Development Center in Aberdeen to validate the tool logic. Following this successful trial, the customer gave approval for field installation.
- The completions team used field-proven sand-control techniques to reach the designated depth with the completion string.
- All objectives were executed flawlessly, without safety incidents or adverse environmental impact.

Value to Customer

- In the first 3 wells of an ongoing deepwater field trial in West Africa, the TR1P system saved the operator 40 to 60% of rig time per well in comparison to a conventional two-trip completion process.



The world's first and only remote-activated installation system delivers upper and lower completions in a single trip.

LOCATION

West Africa

WELL TYPE

Deepwater Injector

FORMATION

Sand

CASING SIZE AND TYPE

9 5/8-in., 47-ft/lb L-80

PRODUCTS/SERVICES

- TR1P single-trip completion system
- RFID Optibarrier ball valve
- RFID inflow control device
- RFID OptiROSS remote operating sliding sleeve
- Tubular running services

