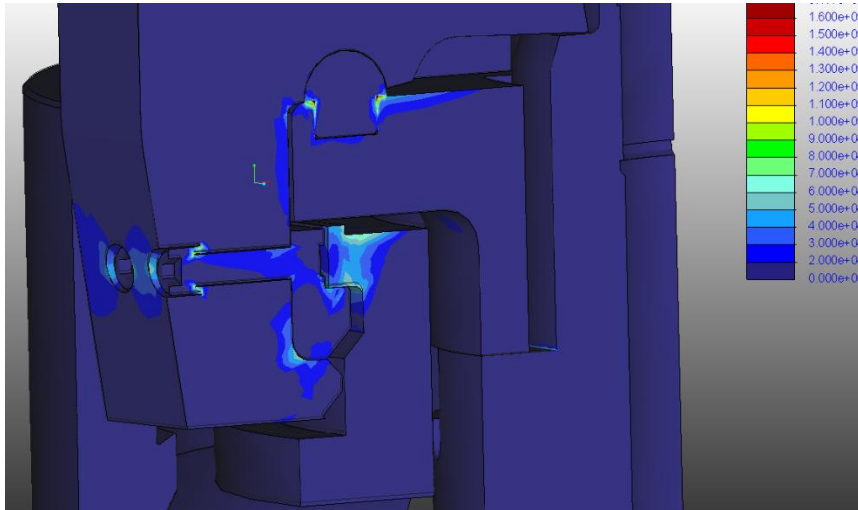


A Faster Path to Platform Abandonment

Tailored Mechanical Cutting Solution Safely Cuts 27 Conductors in 10 Days With Zero NPT



The Weatherford engineering department redesigned the M.O.S.T. Plus system, a key technology in the Weatherford P&A portfolio, for the requirements of the job. The above image shows finite element analysis (FEA) as part of the process.

Objectives

- Deliver equipment in under one week to complete final abandonment and enable early jackup rig release after attempted rigless cutting failure.
- Cut 27 remaining conductors on the 30-slot shallow-water platform using the existing jackup rig.
- Verify all 30 conductors—213 ft [64.9 m], 132,277 to 143,300 lb [60,000 to 65,000 kg]—are fully free from the lower well and jacket structure.

Our Approach

- Engaged with the operator after a competitor's rigless system delivered limited success—after a 40-day campaign, only 3 of 12 wells were partially cut—and was constrained by abrasive jet cutting limitations under high compression conditions.
- Completed rapid engineering development in 3 days, including 3D modeling, fit-and-function simulation, and finite element analysis to validate tool performance.
- Evaluated the challenge and recommended a plug and abandonment (P&A) solution with a modified M.O.S.T. Plus mechanical outside-latch single-trip system, integrating a next-generation M.O.S.T. tool, mud motor, non-rotating flexible stabilizers, and a 17-in A-1 M24 hydraulic casing cutter with CustomCut™ carbide inserts.
- Engineered a redesigned M.O.S.T. Plus system for fixed-platform use, modifying grapple arms to engage the A210 hub profile and enable lifting, cutting, and movement verification of cemented conductors despite well-to-well profile variations.

LOCATION

North Sea, Norway

WELL TYPE

Offshore, shallow platform

HOLE SIZE AND ANGLE

Cased-hole, vertical

CASING SIZES

20 × 30 in

18-5/8 × 24 in

DEPTH

>984 ft [>300 m]

PRODUCTS/SERVICES

- Well abandonment services
- Fishing services
- M.O.S.T. Plus system
- CustomCut carbide inserts
- Non-rotating flexible stabilizer
- A-1 M24 hydraulic casing cutter



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Our Approach (Continued)

- Manufactured custom grapple arms within one week, enabling rapid field deployment of the tailored solution.
- Deployed the customized P&A solution on a jackup rig and executed cutting operations under a 143,300 lb [65 T]
- lifting load, achieving approximately 1 hour average cutting time per well.
- Delivered 27 cuts in 7 days—averaging just over 6 hours per well including assembly, tripping, skidding, and maintenance—using a single bottomhole assembly (BHA) and only 11 knife sets with high durability, enabling 20 cuts from just 4 sets.
- Completed cutting and verification across 27 wells in 10 days, then verified previously cut wells over an additional 3 days to confirm all 30 wells were conductor-free.
- Executed the full operation with zero nonproductive time (NPT) or safety incidents, enabling the operator to release the rig ahead of the AFE schedule and proceed to subsequent operations.



The image shows the M.O.S.T. Plus system, a proven subsea wellhead recovery tool that latches onto the external profile of a subsea wellhead while a hydraulic internal casing cutter cuts the conductors.

Value to Customer

- The P&A solution delivered the M.O.S.T. Plus system on an accelerated timeline, supplying fully customized equipment in just one week to keep the operator's project on schedule without delay.
- The M.O.S.T. Plus system then transformed a historically inefficient 40-day operation with only three successful cuts into a streamlined 10-day execution, enabled by optimized knife technology that improved cutting efficiency and verification success.
- The M.O.S.T. Plus system ultimately shifted performance from a prolonged, low-success process to a fast, reliable, and tightly controlled cutting operation that improved certainty and execution quality.

