PERFORMANCE BULLETIN

Wellbore Integrity SOLUTIONS

Innovative TrackMaster™ Thru-Tubing (TT) Whipstock Contributes to Successful Offshore Casing Exit

Full-gauge, window and 1.9 m rathole completed in 4.5 hours for a Norwegian Customer.

A Wellbore Integrity Solutions (WIS) specialized solution to achieve a complex objective.

A Norwegian operator faced two key technical challenges during a planned Through Tubing Rotary Drilling (TTRD) casing exit on an offshore well. The operation demanded precise execution and specialized equipment.

The first challenge was milling a window in a 5 inch, 15 ppf 13% chromium (13Cr) liner. The corrosion-resistant material required accurate milling to create a clean exit path for a directional assembly capable of a 45°/100 feet build rate—an aggressive turn needing a compact, high-performance bottom-hole assembly.

The second challenge involved maintaining production from the motherbore after drilling the lateral. Unlike typical whipstock setups that block flow, this operation required equipment that could enable production while leaving the whipstock in place to allow for future re-entry into the lateral. This introduced tight constraints on completion and junction design, requiring a balanced solution that ensured flow access, structural integrity, and re-entry capability.

These combined challenges highlighted the complexity of the project and demanded innovative drilling and completion strategies.

Project Information	
Depth	3,024 m
Inclination	21.7°
Liner	5 inch – 15ppf 13% Cr
Whipstock	4 inch OD TrackMaster TT
Milling Tool	4.2 inch OD FasTrack Bi-Mill
Work String	2⅞ inch OD XTM 26

CHALLENGE

- Mill a window in a 5 inch, 15 ppf 13% Cr liner.
- Enable deployment of a directional assembly capable of a 45°/100 ft build rate.
- Identify equipment that allows continued production from the motherbore after lateral drilling.
- Whipstock had to remain in place to support potential future re-entry into the lateral.

SOLUTION

- WIS provided Trackmaster™ Thru-Tubing (TT) Whipstock and FastTrack™ Window Milling System to achieve their objectives.
- The back of the whipstock was fluted to provide additional flow area.
- PDC inserts were used over 30% of bi-mill cutting structure.

RESULT

- 1.7 m of window milled in 3½ hours.
- 1.9 m of rat hole drilled in 1 hour.
- Subsequent run to dress the window ensured a full gauge, usable exit.
- 3.8° AKO motor with 4 inch Smith M09 bit drilling assembly deployed through the exit.
- Customer completed window in the allocated time.

TrackMaster Select™

- A HISTORY OF INNOVATION
- UNRIVALED EXPERIENCE
- GLOBAL PRESENCE