

Autonomous Release Tool Saves Operator from Costly Wire Cutting in Back-to-Back Slickline Interventions in Norwegian North Sea

Objectives

- Minimize inherent risks during routine slickline intervention operations, particularly toolstring sticking, which often leads to expensive and time-consuming wire-cutting operations.

Our Approach

- Properly planning any well intervention operation is the key to maximizing efficiency and reducing costly nonproductive time (NPT). Managing the risk during slickline intervention operations requires a properly planned toolstring that not only meets the requirements for the downhole scope of work but also includes contingency release in the event of the toolstring becoming stuck.
- Weatherford experts recommended including the Impact Selector[®] EXIT SUB[™] release tool (ESRT) below the rope socket. In the event of a stuck toolstring, the ESRT provides an autonomous release below the rope socket allowing all the wireline and rope socket to be recovered. After release, the fish is left with an industry standard fish neck in preparation for a dedicated heavy-duty fishing run.
- During the initial intervention run to perform a drift with 3.7-in. gauge cutter to TD, toolstring sticking was encountered. After several hours of working the toolstring with spring jars, the decision was taken to activate the ESRT release, and the wireline, rope socket, and upper half of the ESRT was recovered efficiently to the surface.
- During the subsequent fishing operation—which included an ESRT—a considerable amount of jarring was performed while attempting to free the stuck lower toolstring and, after working the wire for an extended period, the wireline broke at surface due to fatigue.
- The wireline was secured at the surface and after the autonomous release of the second ESRT, the wireline, rope socket, and upper half of the ESRT was efficiently recovered, and the operator then established a heavy-duty fishing plan to recover the remaining stuck toolstring.

Value to Customer

- By integrating the ESRT into both the initial and fishing toolstrings, Weatherford experts demonstrated a proactive approach to risk management.
- The autonomous release capability ensured equipment recovery without resorting to wire cutting, delivering operational efficiency and cost savings to the operator.



The exit sub release tool is used for slickline and braided-line applications, providing an autonomous release when the toolstring gets stuck and avoids costly wire cutting operations.

LOCATION

Norwegian North Sea

WELL TYPE

Production

TUBING SIZE

4-1/2 in.

CASING SIZE

9-5/8 in., 65° deviation

TEMPERATURE

190.4°F (88°C)

PRESSURE

1,450 psi (100 bar)

DEPTH

11,483 ft (3,500 m)

PRODUCTS/SERVICES

- Impact Selector EXIT SUB release tool
- Smart Planner software

