

Shell Removes 900-ft Parted Wireline and Toolstring from North Sea Well, UK

Heavy-duty intervention during P&A operation completed over 4 days

Shell used a heavy-duty fishing package by Peak Well Systems, a Schlumberger company, to clean up approximately 900 ft of parted wireline and a stuck toolstring during P&A operations of its Brent Charlie Platform offshore UK. The cleanup was successfully completed over 4 operational days.

Clear 900 ft of parted digital slickline (DSL) wire and stuck toolstring from inside an offshore well

During P&A operations on its Brent Charlie Platform, Shell needed to pull a safety valve that was not functioning correctly. When the flapper of the valve was moved off seat, pressure released from below it, which caused the DSL wire being used to part downhole. This resulted in approximately 900 ft of 0.153-in parted wireline and a slickline toolstring being left in the well above the safety valve. Operations were shut down until an acceptable fishing plan was put in place. The fishing plan would be challenging due to limited deck space, working height, and safe working load limits on a small-footprint hydraulic workover unit.

Carefully select a heavy-duty (HD) fishing tool package

Peak Well Systems worked closely with the operator to select a fishing tool package that would deliver a high degree of certainty that the fish could be recovered in the challenging environment. Given the hydraulic workover unit's 5,000-lbf safe working load limit, the normal practice of using ultraheavy-duty $\frac{5}{16}$ -in wireline for the fishing operation was not an option. Additionally, tool selection and placement of wireline valves to ensure containment within the confines of the restricted height was critical.

Peak Well Systems recommended a $\frac{7}{32}$ -in braided cable with a fishing package containing a 2½-in HD power jar and high-load accelerators that could deliver up to 100,000 lbf. The package also included specialist wireline retrieval systems, long-reach HD releasable overshots, HD full-radial-contact pulling tools, and HD releasable spears.

Removed fish in 4 operational days

Under the close supervision of Peak Well Systems' HD fishing specialists, the entire 900 ft of DSL wireline and toolstring was recovered over the course of 4 operational days. The largest single recovery was about 150 ft of wireline. The toolstring and GS pulling tool were wrapped in the remaining DSL wire, requiring diligent supervision to safely recover them through the production system and enable proper closure and containment. With the entire fish recovered, a confirmation sweep run in the tubing above the safety valve was performed to ensure that no wire remained. This run was conducted using the $\frac{7}{32}$ -in braided cable and 2½-in HD toolstring.



A 50.5-ft fish recovered from the Brent Charlie offshore well.



The Peak Power Jar is a high-performance, fully adjustable spring jar with a unique inverted upstroke developed to ensure performance continuity in high-debris environments.