



WELL-SAFE
SOLUTIONS

CASE STUDY

Spirit Energy Trees fields decommissioning campaign

Well-Safe Solutions supported Spirit Energy with the decommissioning of 15 wells across the Trees development (Birch, Chestnut, Sycamore, Larch and Appleton) from April 2023 to March 2024.

This scope resulted in 99.2% uptime on the Well-Safe Defender semi-submersible rig, thanks to collaborative working practices and Well-Safe Solutions' Well Decommissioning Delivery Process (WDDP).

Located in blocks 16/12a and 16/7 in the Central North Sea in a water depth of 125m, Trees is a multi-production and injection well subsea development over three oil accumulations (Birch, Larch and Sycamore), tied back to Brae Alpha. The Appleton field is 160 miles east of Dundee and was first discovered in 1997 by Amoco and Amerada Hess.

Less than one year after being accepted into the Well-Safe Solutions fleet from a period of warm stack, the Well-Safe Defender put to sea in April 2023. This rapid turnaround was thanks to the clear lines of communication between Spirit Energy, the rig inspection team and Well-Safe Solutions, working in tandem to address opportunities for improvement and onboard personnel effectively.

Well-Safe Solutions provided trainers for the new crew to strengthen team spirit and drive accountability for personal safety. This sustained focus on safe operations – and empowerment of anyone to stop the job throughout the scope - led to 86% of 4,381 safety observations recognising positive working practices, with 598 stop work authorities used in support of an effective safety culture.

One of the most challenging aspects of the project was the weather, with 13 named storms passing through the North Sea during the project. Despite the severity of these storms, the Well-Safe Defender was able to continue work thanks to considerable focus on planning for safe operations, and new technology optimising safety processes.

Key facts:

- 15 wells successfully abandoned
- Four horizontal and six vertical trees safely recovered
- Nine rig moves within 11 months
- 23 cement plugs placed (700MT)
- 45.7km of tubing and casing recovered



13 storms occurred during this scope



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Well-Safe Solutions manufactured and introduced a specialised blow out preventer (BOP) guide funnel to enable proper alignment and deployment of the BOP stack, with offline installation capability.

This bespoke modification to the Well-Safe Defender reduced the time required for deploying and installing additional equipment such as drilling guidebases, and was used on a well in the Appleton field.

The Appleton well scope was awarded to Well-Safe Solutions following satisfactory completion of the first 14 wells. The work carried out for the Appleton well included our engineering consultancy offering, with front end engineering and design (FEED) work increasing project efficiency and reducing overall cost.

Well-Safe Solutions was able to 'hop' the BOP between wells, removing the time-consuming process of recovering subsea equipment back to the rig. The BOP remained subsea throughout, with zero non-productive time (NPT) recorded. In total, 12 runs were made, with four hops and a further 12 pulls.

With some wells involving dual bore riser activities, Well-Safe Solutions improved operational efficiency by exploiting the ability to 'rack back' the dual bore riser with multiple handling tools on relevant wells, a capability built into the Well-Safe Defender.

Well-Safe Solutions, as the trusted decommissioning partner of Spirit Energy, collaborated effectively to safely, smartly and efficiently complete the project in spring 2024.



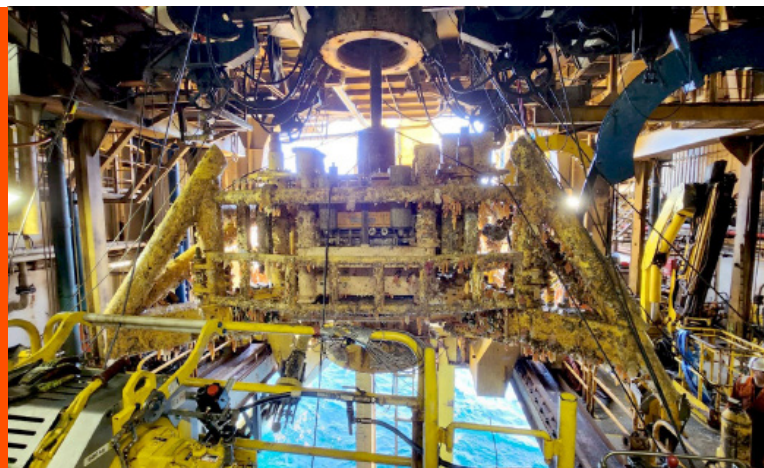
Well-Safe's continued strong performance has allowed us to collaborate further with the team - accelerating the decommissioning of the Appleton well, aligning us further with our strategic pillar of meeting and de-risking our decommissioning operations.



Nicky Riley, Head of Wells - Spirit Energy

A very special thanks is due to the team aboard the Well-Safe Defender for their hard work and commitment to realising Well-Safe Solutions' vision of being the trusted well decommissioning service partner of choice.

Matt Jenkins, Chief Operating Officer, Well-Safe Solutions



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