



Technology in Action



Releasable Overshot | Releasable Spear

Major International Oil Company, Southern North Sea

Technical Challenge:

Recovery of Safety Valve Lockout Tool which had parted downhole.

Well Type:

Gas Producer (66 degree deviation).

Peak Solution:

Fishing Package including. High Strength High Temp Magnet, Releasable Overshot, Releasable Spear.

The Challenge:

The safety valve lockout tool had parted downhole in the safety valve at 534 ft well depth. Video footage established that the 'bean can' mechanism (part of the safety valve lockout tool which keeps the flapper permanently in open position) had successfully locked out the Downhole Safety Valve (DHSV). The sub-assembly housing on the bean can had fallen and was expected to be sitting in the 3.688" nipple at 8155ft.

Considerations:

It was identified that the actuation dog of the lockout tool might hinder the retrieval of the housing by sitting across the top of the fish, thus preventing retrieval with a spear.

Summary:

In response to the situation, Peak worked in close collaboration with the Operator, providing technical support and discussing all the fishing options.

Peak provided layout drawings for various overshots and spears, operational procedures, rapid manufacture and delivery of the fishing tools to Great Yarmouth.

For one contingency, a gauge cutter was heavily modified to act as a sweeping tool for the actuation dog. In the event that it was needed, the gauge cutter would be rotated around the top of the sub assembly by an indexing tool and would push the actuation dog back into the sub assembly. A High Strength High Temperature Magnet was supplied for retrieval of the actuation dog and a 2.720" Releasable Spear for retrieval of the sub assembly.

The high strength high temperature magnet picked up the actuation dog and the Releasable Overshot speared the inner spring mandrel on the first attempt and pulled the fish to surface.

Value to Customer:

The Operator was delighted with the successful outcome.

- Highly effective team work - In response to the situation, Peak worked in close collaboration with the Operator, providing technical support and discussing all the fishing options
- Rapid Response – Prompt mobilisation of fishing tools to Great Yarmouth
- Reduced NPT – Expertise and high performance tools enabled successful fishing on the first attempt; production can resume much quicker

For more information please contact: info@peakwellsystems.com

Simple Safe Assured