

**Case Study** 

Wellbore Clean Up & Debris Removal

## Retrieval of injection valve from tubing crossover at 10,400ft

### The Challenge

A Customer was retrieving a bridge plug and injection valve to surface when the injection valve separated from the plug and landed at the 5-1/2" by 4-1/2" tubing crossover at 10,400ft.

An efficient method to fish the injection valve without causing damage to the tubing crossover was required so the injection value could be pulled and a new injection valve set.

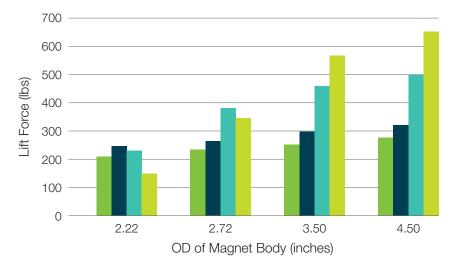
### **Considerations**

The following key requirements and concerns were identified:

- A timely and effective intervention was critical to allow a new injection valve to be installed thereby minimising the impact on production
- Damage to the tubing

# crossover was to be avoided

### Magnetic lifting capability





Location: North Sea

Customer: Independent Oil

Producer

Well Type: Oil producer (maximum 40 deg deviation)

Products/Services: Peak's High Temperature/High Strength (HTHS) Magnet

50 lbs

Weight of injection valve retrieved

**10,400**ft Depth of fish

- ◀ Left: This performance graph demonstrates the lifting capacity of a range of Peak HTHS Magnets in open air conditions.
- 15/16" SRT
- 1 1/16" SRT
- 1.55" Un Thread
- 2.00" Un Thread



### **Peak's Solution**

Peak's 4.5" OD High Temperature/ High Strength Magnet was run downhole on slickline to the location of the tubing crossover at 10,400ft.

At depth, the pick-up weight increased significantly - by over 50lbs - confirming the Magnet had a magnetised hold of the injection valve on the first attempt.

Due to the powerful strength of the Magnet, the injection valve was successfully pulled to surface.

### **Value to Customer**

All operations were carried out safely and efficiently, minimising the period of reduced production from the well.

- The tools were run in-hole without issue and successfully fished the injection valve within hours and on the first attempt
- The Customer did not need to rent additional tooling to carry out the operation
- Downward jarring was avoided thus preventing damage to the tubing crossover
- A new retrievable bridge plug and injection valve are now set in the well and full injection available



▲ Workshop demonstration: A 2.220" HTHS Magnet used to pick up a 7" GS Pulling Tool. Clean end-to-end contact not necessary.

Product Code(s): High Temperature/High Strength Magnet – 115

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