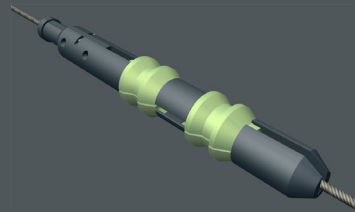


PEAK E-NEWS

Welcome to Issue 29 of Peak e-News. With an emphasis on bespoke engineering this month, we look at three solutions for customers in the UK, Russia and South East Asia. The challenges separately presented themselves in the form of perforating gun alignment concerns in smart-type completions, inability to reach target depth with explosive type cable cutters and internal spearing reach difficulties during fishing operations. When undertaking each individual project Peak maintain a strong interactive work flow process with the client working towards each hold point / milestone. The process starts with conceptual engineering with clients followed by an internal design review including engineering, technical sales and operational staff. Prototype manufacture is carried out with workshop testing and engineering validation. Upon customer acceptance and after execution in the field, Peak provide a feedback loop to ensure continuous improvement.

PUMP DOWN MANDREL

Peak have supplied a very simple but effective solution to a reoccurring problem for major operating company, Chevron. In the event that large diameter logging or compacted fishing lines become stuck and a weak point is unable to be freed, a drop-from-surface timed pyrotechnically activated cutting tool is required to sever the cable and recover it to surface. The challenge comes when deploying the cutting tool in a tortuous or highly deviated well and likelihood of the cutter reaching the target depth is low. The original concept was devised by Chevron and Peak worked in conjunction with Chevron to engineer and deliver the ultimate solution. After the explosive type cutter is deployed, the Peak Pump Down Mandrel is assembled onto the cable above the closed BOP, similar to a Go-Devil or Drop Bar. The BOP is then opened and the Pump Down Mandrel is allowed to fall into the well and rest against the cutter. The design incorporates swab-type rubber elements which provide enough surface area to enable pumping into the well. After the cut has been made, the Pump Down Mandrel is recovered on the wireline with the cutter or with an industry standard pulling tool in the event that the Mandrel parts company with the wireline.



PERFORATING GUN LOCATOR & ORIENTATION SUB

The Peak Perforating Gun Orientation System allows wireline conveyed guns to be orientated relative to the completion components and external control lines. The system consists of two parts. Firstly a locating sub with an internal orientation profile is run as part of the completion string and located at the section of well bore to be perforated. During the running of the completion any external control lines or cables can be located within the fixed external slots in the Peak Orientation Sub body. These external lines are strategically located relative to the internal locating profile within the Orientation Sub.

The second part of the system comprises of a Wireline run locating and orientating tool which is run above the guns. The Peak Gun Locating Tool consists of an indexable lower connection allowing the guns to be orientated to the correct position relative to the tool "trigger" which will locate within the completion sub profile. The Wireline conveyed Gun Locating Tool is run past the depth of the Orientation Sub and by picking back up the trigger will locate within the positioning profile in the Orientation Sub. The positioning motion is similar to that of a Kickover Tool within a Side Pocket Mandrel. As the guns are indexed relative to this trigger, the position of the charges relative to any external control lines and or cables is fixed thus preventing accidental severing of these critical control / sensor communication lines. The Peak Gun Locating Tool has an overpull release feature which, once the guns have fired, allows a straight overpull to be applied to the Wireline in order to release the tool from the completion Orientation Sub.



EXTENDED RELEASABLE SPEAR

The Peak Extended Releasable Spear was designed to recover straddle packer components in the event that standard recovery necks were damaged or parted during HD fishing operations. The simple design included 90% of the original Peak Releasable Spear components whilst retaining all of the design features & benefits. Peak also supplied a range of diagnostic tools which determined status and position of components within the fish to assist in correctly setting the Extended Spear grapple point. For more information, on this or any of the other tools featured in this issue please contact info@peakwellservices.com



NEXT ISSUE:

- Peak Flow Through Check Sub

"Think before you print."

- Please consider the environment before printing

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