SureLOC 12000 Release Reduces Fishing Frequency in HPHT Reservoirs, Gulf of Thailand

Reliable operation eliminates redundant use of mechanical weakpoints to expand logging capabilities

**CHALLENGE**
Improve resolution of tool-sticking situations in the HPHT reservoirs of the Gulf of Thailand to reduce the frequency of wireline tool fishing.

**SOLUTION**
Replace tandem deployment of a mechanical weakpoint and conventional electronically controlled release device (ECRD) with the SureLOC* 12000 electronically controlled cable release device for improved pulling capability at surface and reliable release even at 1,000-lbf tool head tension.

**RESULTS**
Significantly reduced the occurrence of wireline fishing operations to greatly improve efficiency and acquire full sets of logging data.

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**Tool sticking conundrum**
Tool sticking is an all too common occurrence in the HPHT reservoirs of the Gulf of Thailand. Operators were resorting to redundancy in their release systems by pairing a conventional ECRD, which did not perform reliably, with a mechanical weakpoint. Not only did the use of a mechanical weakpoint limit cable pulling capability but conversely the downhole stress required to part the weakpoint in the deep boreholes could exceed the maximum stress applicable at surface. Applying excessive tension at surface could break the logging cable there, resulting in a challenging fishing operation involving a long length of tangled cable in the borehole.

**Reliable release**
The SureLOC electronically controlled cable release device overcomes the operational limitations of mechanical weakpoints and previous-generation ECRDs to reliably perform under a wide range of downhole conditions.

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Installed in the wireline logging head, the SureLOC device allows full conveyance pull capability for stick prevention and mitigation as needed. Activation by a software command and electrical power enables releasing the cable, even in situations with excessive surface-applied tension or ineffective tension transmission along the cable. In combination with TuffLINE* torque-balanced composite wireline cable, the SureLOC release device performs with more than 97% release reliability.

**Less fishing, more logging**
Deployment of the SureLOC 12000 release device has provided increased reliability, greater pulling capability at surface, and the ability to release under tool head tension at 1,000 lbf. As a result, wireline fishing operations have been reduced to greatly improve logging efficiency. The operators can run longer, heavier toolstring combinations to reduce the number of well descents and acquire full sets of logging data.