



# GARD *U-line*<sup>™</sup> Roller Retrieves Valuable Reservoir Data from a Hostile Environment

# **COUNTRY: UK**



U-line<sup>™</sup> Size: 2.900" & 3.600" Depth: 16,791ft

Deviation: **44** 

### CHALLENGE

A UKNS Operator planned to obtain critical data, using wireline, to extend their understanding of reservoir performance and compaction in a high-value North Sea gas condensate well. An HPHT environment, deep reservoir and the presence of buckled tubing, all combined to raise the risk profile. In particular, elevated head-tension and a need to limit time spent in the well due to a hostile environment, determined that all aspects of this well intervention programme required careful consideration.

#### SOLUTION

GARD *U-line*<sup>T</sup> Roller Technology was selected to undertake conveyance of e-line logging toolstrings, based upon a need to minimise toolstring friction to the lowest possible level. Other key considerations were the need to eliminate crossovers and potential leak paths (critical in an HPHT environment), as well provide a combination of different wheel sizes, to support multiple tool diameters and lubricator constraints. Intervention simulation confirmed that both logging strings could reach Target Depth using four (4) *U-line*<sup>T</sup> Rollers.

#### RESULTS

*U-line*<sup>™</sup> Roller Technology successfully conveyed the compaction log toolstring to target depth, registering a total of six passes with no issues recorded and head-tension controlled effectively. The pulsed neutron logging toolstring was then successfully conveyed twice, during the second run temperature recorded within the tool housing was in excess of anticipated bottom hole temperature and close to working limits. All data was retrieved successfully. Post-job analysis recorded no electrical or mechanical issues, once again proving *U-line*<sup>™</sup> reliability and effectiveness within a hostile environment.

This further validated *U-line*<sup>™</sup> Technology, with the same *U-line*<sup>™</sup> Rollers used to deploy slickline, fiber optic and e-line toolstring within the same HPHT field, demonstrating flexibility, adaptability and durability.

#### VALUE

*U-line*<sup>™</sup> Roller Technology ensured retrieval of valuable reservoir data, whilst at the same time reducing risk to asset. Intervention budget was managed effectively and ROI assured.

More detailed information can be provided upon request

## **Intervention Programme**

- Compaction Log
- Pulsed Neutron Log





METHOD: E-line

ASSET: Offshore Gas Condensate Well





TEMPERATURE: > 175°C PRESSURE: > 7.500 psi





# **Operational Highlights**

- Achieved TD on eight occasions
- Head tension managed effectively
- All HPHT data delivered successfully
- Eliminated multiple connections
- Combination of wheel sizes on same string

