



CLEAR SOLUTIONS

Performance Drilling Products
The Earth Can Trust



Hole Stability



Faster ROP



Cost saving



Environmentally friendly

Pure-Bore® mud system delivers problem free, highly deviated, onshore European Unconventional Gas Well

Challenge

- **Environmentally sensitive region.**
- **Highly deviated S shape well.**
- **Tectonically stressed and faulted formations.**
- **Highly reactive fluvial-deltaic sediments.**
- **Limited equipment capability with no top drive.**

Solution

- **Pure-Bore® high performance water based mud system.**
- **Utilising just: Pure-Bore®, Pure-Bore® LV and 7% KCl.**

Value



Well Info

The operator drilled a highly deviated S shape 8½” hole section. This section was then side tracked, drilled horizontally and then back to vertical. The goal was to evaluate a range of extremely complex geological formations and structures across both a vertical and horizontal plane.

Challenges

The depositional environment was heavily influenced by early Hercynian earth movements establishing widespread uplifting, faulting and folding in the region. Subsequent tectonic movements exacerbated this, resulting in the reactivation of existing structures and the creation of new ones, creating highly unstable formations which are prone to caving.

Solution

The Pure-Bore® KCl mud system was chosen by the operator for its environmental credentials and ability to develop significantly improved hole cleaning and borehole stability. KCl was added to provide additional shale inhibition to support the encapsulation effect provided by the Pure-Bore® nano chemistry.

Value Created

The Pure-Bore® HPWBM system effectively overcame the geological challenges. It provided a highly gauge, clean stable borehole which was drilled with low torque and drag.

Significant cost savings were achieved as the only viable technical alternative would have been to use SBM, which would have significantly increased the overall mud cost and potentially rendered the project economically unviable.

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