

Delivering critical imaging data in real time for optimal well placement in the UK

CHALLENGES

- Drill a naturally fractured reservoir, where permeable fractures are the primary source of permeability and fluid flow pathway
- Being able to confidently understand the fracture characteristics for optimal well placement and completion design while utilizing oil-based muds (OBM)
- Increase production by enhancing well placement, in addition to reducing drilling risks and challenges associated with wellbore stability

SOLUTION

- **ImageTrak UHD** ultrasonic borehole imaging service used while drilling
- The real-time ImageTrak UHD records detailed images of the subsurface, providing the ability to evaluate bedding, open or closed fractures, features and borehole geometry by capturing both amplitude and travel time images.
- Real-time image capture enabled on-the-fly parameter adjustments to reduce formation and wellbore challenges, boost drilling efficiency, and optimize well placement.

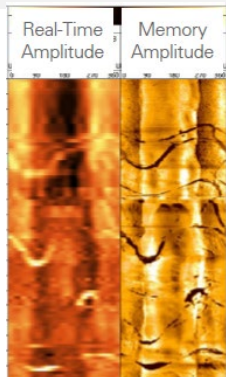


Image 1: Dense, localized fracture network visible in realtime

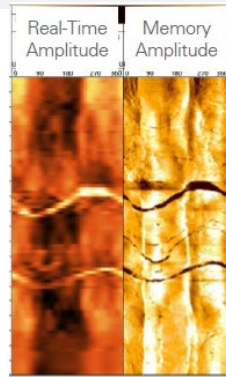


Image 2: Sharp, clear fracture sinusoid feature visible in realtime

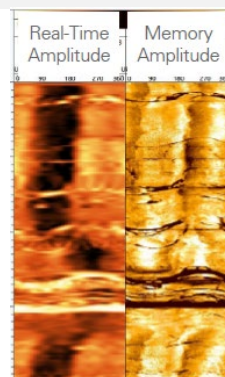


Image 3: Multiple, large bright features near prognosed fault crossing – fault interpretation due to associated drilling parameters and fluid losses

RESULTS

- Executed the first global commercial deployment of real-time ImageTrak UHD service
- Enabled real-time interpretation of bedding, fractures, and faults while drilling
- Informed completion design, startup, and losses control decisions
- Seamless data streaming via WITSML into customer systems
- Met the customer objectives, highlighting strong Baker Hughes collaboration and delivery