



CLEAR SOLUTIONS for complex fluids

Protecting A 5,000 BPD Production Increase in the North Sea



CHALLENGE

- Well start up produced sand and suspended solids problems



SOLUTION

- CETCO Energy Services (CETCO), conducted an ORCA™ Objective Root Cause Analysis, study, Hi-Flow® Advanced Coalescing Technology, and pre-filter unit



RESULTS

- Achieved a 90% oil removal efficiency, and handled 600 ppm Oil-In-Water (OIW)

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CHALLENGE

During the course of a well start-up operation on a North Sea Production Platform, a problematic well tie-back of produced sand and suspended solids arrived cold at the installation. Separation difficulties arose in addition to an associated increase in produced water, OIW concentration.

CETCO was asked to provide a solution to this recurring problem; while protecting the increase of production on the platform without breaching legislative requirements.

CETCO SOLUTION

CETCO conducted a Fluid Process and Optimization Study which included a wellhead to overboard study and a treatability study on the platform's produced water system.

CETCO then mobilized a two stage filtration and coalescer package consisting of a PFU800 solids filtration unit, the IFV-4000, and CETCO's proprietary Hi-Flow® unit.

The treatment package accepted produced water from the hydro cyclone outlet, the package itself is capable of running at a maximum flow rate of 20,000 BPD. The rental units were installed downstream of the hydro cyclone and all fluids discharged from the rental package were routed through the degasser and then overboard. CETCO's trained personnel in OIW analysis were able to accurately record effluent discharge.

RESULTS

The advanced capabilities of Hi-Flow® Advanced Coalescing Technology media and pre-filtration consistently achieved a combined oil removal efficiency of over 90% and in some instances, handling spikes in OIW concentration up to 600 ppm while still reducing down to 8 ppm.

For the duration of the project, the operator was able to protect their increase in production without breaching legislative requirements.

