



CLEAR SOLUTIONS for complex fluids

Brownfield Improvement



CHALLENGE

- Ensuring production is maintained without the requirement to shut-in whilst long-term permanent solutions are implemented



SOLUTION

- Immediately available technological solution provided by CETCO Energy Services (CETCO), in the form of its patented Hi-Flow® Advanced Coalescing Technology maintained production whilst permanent solutions were engineered



RESULTS

- Immediate temporary solution allowed, design and manufacture of a bespoke permanent Produced Water Treatment (PWT) package, whilst mitigating any production loss

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CHALLENGE

An Operator in the South China Sea had cracked its existing Hydrocyclone vessel. The company approached the CETCO Energy Services (CETCO), Malaysia team for a temporary fix, and then again for a long-term solution to its onboard produced water treatment.

CETCO SOLUTION

CETCO mobilized a Hi-Flow® rental package to replace the malfunctioning Hydrocyclone and maintain the platform's production. Following the rental's success, CETCO designed, and installed two 24" Hydrocyclones and a 48" CrudeSep® compact flotation vessel to solve their produced water treatment problem with a permanent solution.

The Hi-Flow® unit could accommodate flow rates of 70,000 bbls/d and treat produced water inlet flows up to 1000 PPM oil-in-water and achieve overboard discharge quality of less than 40 PPM. The platform also experienced sanding issues, so the Hydrocyclone liners were coated with tungsten carbide to prolong their life span. This permanent package had to fit in a congested area, so CETCO utilized and modified the existing structure when designing the new equipment. The Hi-Flow® rental unit was in place, allowing for uninterrupted platform production, as the permanent equipment was installed in phases; first installing the Hydrocyclone vessels, then CETCO CrudeSep® polishing unit downstream.

RESULTS

The effluent quality met and exceeded overboard discharge requirements and was subsequently discharged overboard. Throughout the process, as a result of using the Hi-Flow® rental package, the platform experienced no operating downtime before or during the replacement of the permanent water treating package thus preventing lost revenue. CETCO's performance was recognized by the company for minimizing their chemical usage, and allowing maximum production flow rates.

