

Water Treatment Case History

Contaminated Water Treated During Pipeline Flushing in North Sea

Challenge

Helix Well Ops needed to treat and discharge its hydrocarbon contaminated water returns during a pipeline flushing operation in Maersk Oil's Gryphon field onboard the Helix Seawell light well intervention vessel.

CETCO Solution

Helix requested CETCO Energy Services to treat the contaminated water from the pipeline flushing operation. CETCO utilized its patented water treatment technologies – Hi-Flow™ and CrudeSorb® media, to filter and process the produced water. The treated water was discharged overboard and complied with the regulatory requirements.

CETCO mobilised Hi-Flow™ IFV 4000 skid coupled with a CrudeSorb® RFV 4000 vessel downstream. CETCO treated and discharged 9,327 bbls (1,483 m3) of produced water in the duration of the treatment.

Outcome

CETCO package was excellent in removing hydrocarbons with an oil removal efficiency of 97.5%. The average oil-in-water (OIW) sample inlet was 238 ppm whilst the overboard discharge average concentration was 5.8 ppm. Only one set of consumables was used for the duration of the project. CETCO was able to provide Helix with a cost-effective, robust system that efficiently treated its produced water, and then discharged the cleaned water in full compliance with regulatory requirements.

“The CETCO crew we had onboard during our last project carried out a lot of work on a pretty challenging job where the returns were much higher hydrocarbon content than expected. Your crew worked very hard and safely throughout the job and we had a great ‘can do’ attitude throughout and I cannot commend them and your equipment enough for helping with the success in this particular project.”

– Kevin Laing, Offshore Project Manager, Helix Seawell.

