



for complex fluids

Pipeline Solids Removal



CHALLENGE

- Inhibited flow in pipeline due to paraffin deposits



SOLUTION

- CETCO Energy Services (CETCO), designed an equipment package



RESULTS

- All pipeline fluids were treated to meet NPDES requirements

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CHALLENGE

A major oil company had a pipeline (21 mi of 8" pipe, 5,500 bbl volume) in the Gulf of Mexico with inhibited flow due to paraffin deposits. In order to increase production, 8,000 ft of the line would have to be replaced and the remaining line pigged to remove the paraffin. The pipeline vessel would cut and secure the line in the moon pool for flushing. CETCO, located on an adjoining vessel, would treat the returned fluids and separate paraffin for disposal. CETCO would ensure discharges did not violate NPDES discharge criteria.

CETCO SOLUTION

CETCO designed an equipment package consisting of Filter Separators, Pumps, Bulk Storage Tanks, Solids Filters, and Bulk Carbon Vessels to treat the fluids and effectively remove the entrained solids. The equipment package was sized for the 20 BPM rate needed for successful pigging and solids removal. Equipment was packaged to accommodate the vessel deck space and loading requirements.

Filter Separators were utilized to remove large solids, and bulk storage tanks were used to separate out the remaining paraffin. Centrifugal pumps moved fluid through solids filters to remove the entrained paraffin. Bulk carbon vessels polished the fluid to below 29 ppm oil and grease for overboard discharge.

RESULTS

All pipeline fluids were treated to meet NPDES requirements. A large amount of solids were recovered during the operation, exceeding the pre-job estimated total. Due to the flexibility of the CETCO system, the solids were successfully diverted to the storage tanks for separation and eventual disposal. The pipeline was successfully cleaned and returned to service following operations. The project was a success for the customer and CETCO.

