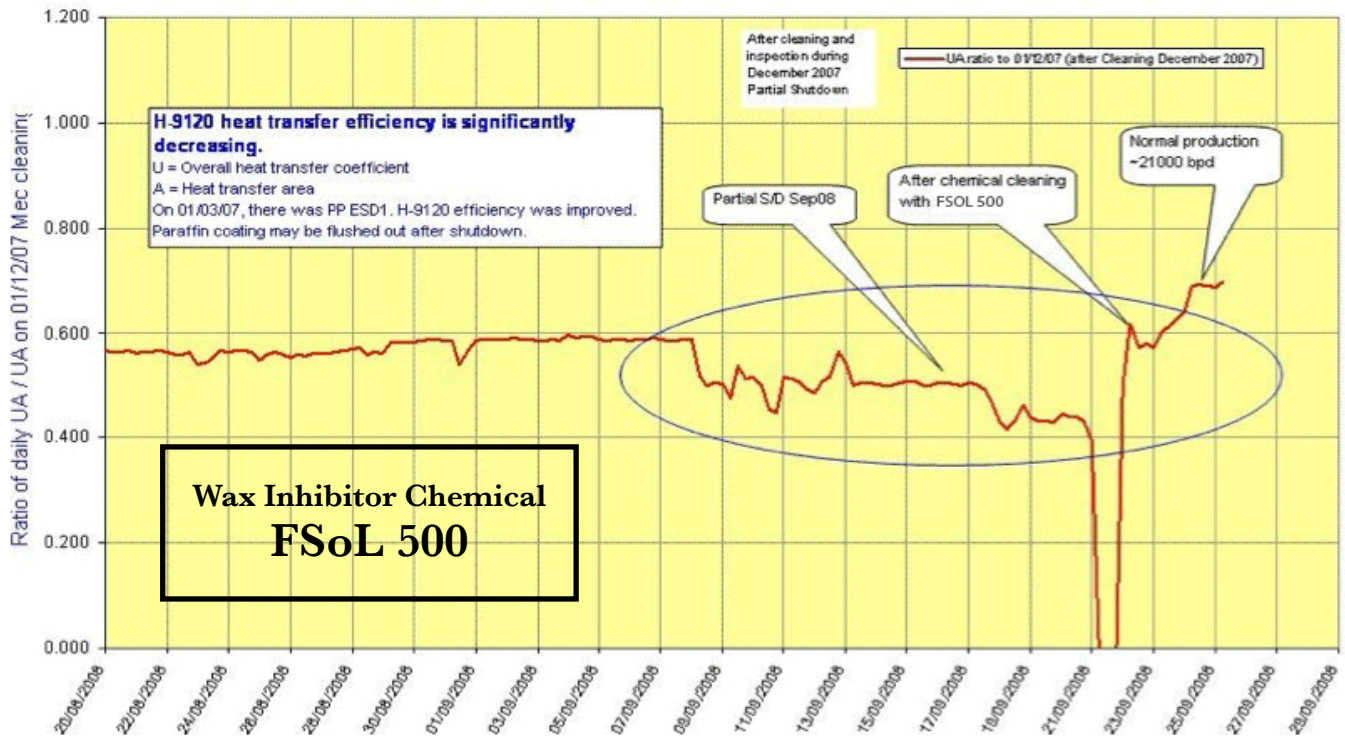


# HEAT EXCHANGER CLEANING CHEMICAL CIRCULATION TECHNIQUE

TOTAL HAZARDOUS AND INTEGRATED SOLUTIONS

WAX INHIBITOR - FSOL 500

## H-9120 Heat Transfer Degradation



## Performance Recovery of HEX Unit

Using a Closed Loop Flushing system, designed in-house, it was possible to achieve a HP, dual-way circulation of the Wax Inhibitor chemical FSOL 500 to remove any deposits or blockages from both the Tube & Shell side of the system.



**Vessel:** Condensate Heater  
**Vessel ID:** H-9120  
**Location:** Offshore  
**Facility:** Gas Production

*Contact Us*

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Work was carried out on an offshore Condensate Heat Exchanger Drum that, even after chemical cleaning by 3rd parties, was experiencing serious heat transfer degradation.

Performance on the system had been greatly reduced with the daily Ratio of Heat Transfer Coefficient (usually standard @ 0.590) dropping to a level of 0.433 prior to works.

FSOL 500 chemical was chosen for the job after lab tests had proven the rapid effectiveness on the deposit samples provided by the client. A closed-loop flushing manifold, designed and built in-house, enabled dual-way HP circulation without spillage or release of the chemical's aromatic vapour. The performance of the chemical was

monitored, real time, using a Turbidimeter. The increase in Turbidity (NTU) units was a clear indication of the dissolution properties of FSOL 500 without reaching its saturation point.

Using a pneumatic positive displacement diaphragm pump the chemical was pumped into the system (neat). A total of 2.4m<sup>3</sup> was used to achieve a 70% volume inside the tubes and piping.

Heat Transfer performance immediately after flushing with FSOL 500 had returned to a high of 0.579 prior to the unit being put back online. When the unit was fully operational and back up to production volume (21,000 bpd) the Heat Transfer Coefficient was recorded at over 0.700.