

# Deepwater Platform: Free Water KO and Bulk Oil Treater



## THE CHALLENGE

A large deepwater client enlisted RTI Upstream to help with the cleaning of process equipment in order to expedite vessel entry on the Bulk Oil Treater and Free Water KO (FWKO). Historically, the client would blow down with gas to clear liquids, vent the vessels to remove LELs and then manually clean to prepare the vessel for maintenance work, inspections, and entry. Known issues on the Bulk Oil Treater grid system would require entry, and historical solids levels of 3–4' in the FWKO were creating operational issues. Manual cleaning of the vessel internals tends to drive up POB numbers to facilitate a safe rotation schedule for the entrants over several shifts. The client challenge was: can vapor phase chemical cleaning reduce the timeline, POB, hazardous waste disposal quantities, and eliminate or minimize the risk of CSE?

## THE SOLUTION

RTI's solution utilized its patented processes and chemistry in the offshore space. In this process, RTI Upstream introduced steam and chemistry into an isolated/closed vessel and removed the condensate/hydrocarbon effluent through the use of low point drains and high point vents. The steam vaporizes our chemistry, which is then carried by the steam throughout the vessel internals. The result is a full top-to-bottom internal cleaning on vessels in 12 hours or less. A CSE entrant commented, "I've never gone into one of these and come out with my Tyvek still the same color!"

## THE CHEMISTRY

UpTime is a chemistry designed to increase the efficiency of operations while online, clean vessel internals for maintenance/inspection activities, and/or expedite confined-space entry. It is a hydrocarbon-based formula that is easy to apply, safe for the environment, exhibits excellent metallurgy properties, and will not cause problems with chemical or offshore products and waste treatment facilities. UpTime is one of many chemistries used by RTI Upstream to improve process operations while lowering total costs.

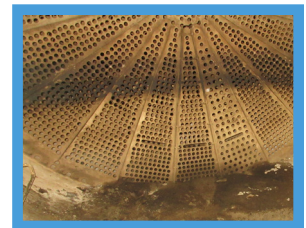
## CONTACT

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## THE RESULTS

RTI's patented chemistry, rumble, and vapor phase processes proved to be a valuable, effective, and efficient solution for this deepwater client. CSE durations were reduced by 80% on both the Bulk Oil Treater and FWKO. Inspections revealed 75% of historical solids levels had been removed prior to opening on the FWKO and close to 100% on the BOT. RTI Upstream's process, compared to historical timelines, removed over two days of planned CSE work per vessel. The reduction of the maintenance window for grid repairs was greatly reduced due to the cleanliness of the vessel internals upon entry. The client asset was able to start up 24 hours ahead of schedule on a short TAR window, and this was in part attributed to the successes on the BOT and FWKO scope reduction.

- 75% reduced solids on FWKO
- Nearly 100% removal of solids on BOT
- Facility startup 24 hours ahead of schedule
- 4 days of planned activity removed from timeline
- CSE risk greatly reduced



## 4 DAYS SAVED

*Facility startup 24 hours ahead of schedule; 4 days of planned activity removed from timeline*



## SIGNIFICANT SOLIDS REDUCTIONS

*75% reduced solids on FWKO; nearly 100% removal of solids on BOT prior to entry*

