

# PHOENIX<sub>2</sub>™ MEMBRANE PURIFIER IMPACT STORIES

## STORY 1: REFINERY N2 COMPRESSOR

A local refinery had a cooler leak on its 600 Gallon Nitrogen Compressor Lube oil reservoir. This leak injected a significant amount of water into the lube oil system. Once the leak was fixed the refinery decided to replace all of the oil in its 600 gallon reservoir with new oil. Upon completing the oil change it was found that there was still water left in the lube oil system which re-contaminated the lube oil causing it to turn hazy.

The refinery had purchased a PHoenix™ C4X 4 gpm Hazardous Duty Membrane oil dehydrator a year before and so installed it as a kidney loop onto the 600 gallon reservoir.

After 24 hrs water was reduced from 300 ppm to 73 ppm and particulate from 19/17/15 down to 18/16/14 iso count. After 7 days water was reduced below 50 ppm and particulate down to 17/15/13.

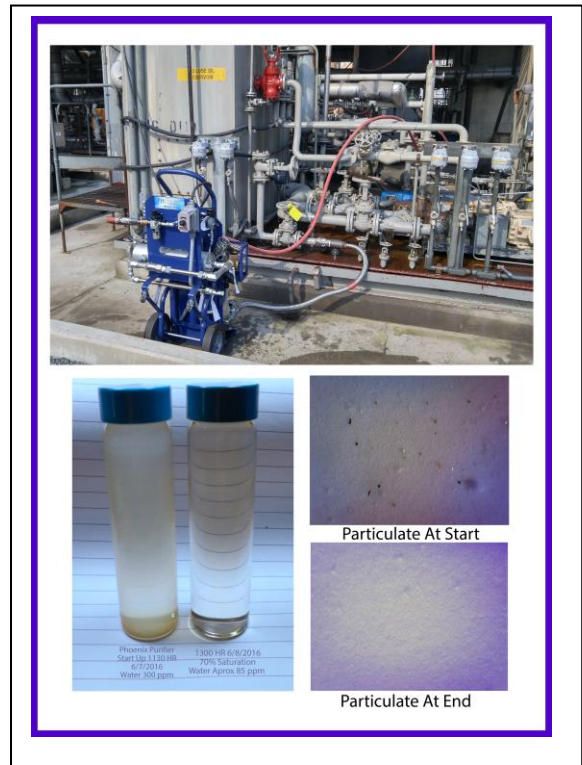


Figure 1: N2 Compressor 600 Gallon

## STORY 2: REFINERY HYDROCRACKER COMPRESSOR

A local refinery was having water condensation ingress into its Hydrocracker gas compressor 700 gallon lube oil system. Rather than changing the oil after the leak was fixed the refinery rented a PHoenix™ C1 1 gpm membrane oil dehydrator and installed it as a kidney loop on the oil reservoir. After 10 days of running water was reduced from 700 ppm down to 100 ppm and particulate from 19/16/14 down to 17/15/13 iso code.

After 30 days water was reduced down to 28 ppm and iso cleanliness counts down to 16/14/12.

This allowed the refinery to keep running the compressor and at the same time saved about \$10,000 in oil replacement.

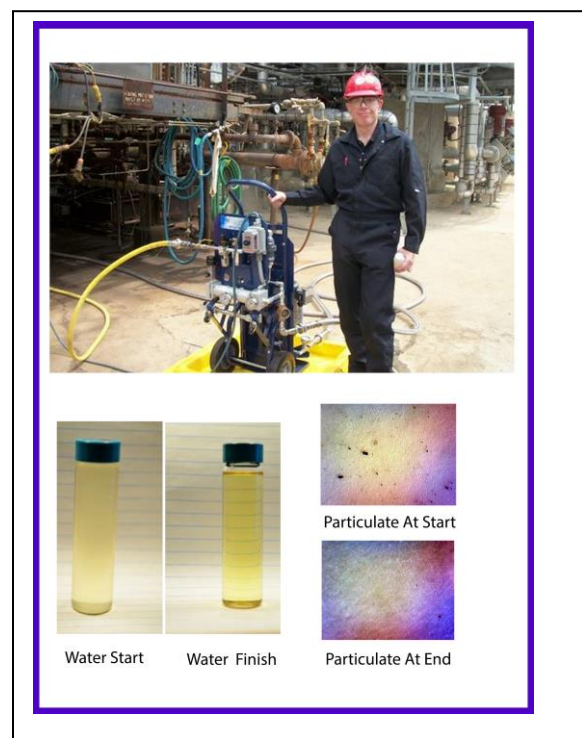


Figure 2: Hydrocracker Compressor