

PHOENIX₂™ MEMBRANE PURIFIER IMPACT STORIES

PAPER PLANT BOILER FEED PUMP RESERVOIR

A paper plant was having constant water ingress into its 50-gallon boiler feed pump reservoirs. The oil was significantly emulsified and so the only way for the customer to keep up with the leak was to drain 5 gallons of oil from the bottom of the reservoir and add new oil weekly.

A 1 gpm PHoenix™ Purifier prototype cart was installed on the oil reservoir to check performance. Oil samples were pulled at regular intervals where it was found that water content in the oil had risen to as high as 8% by volume.

The PHoenix™ was allowed to run for one month and found that water reduced from 8% down to approximately 1%. After that time the unit was removed from the reservoir and water content increased back from 1% up to 5% where the PHoenix™ was reinstalled.

After one more month of running the PHoenix™ water had dropped to less than 300 ppm. This happened without having to perform any maintenance on the unit at all.



PAPER PLANT - BFP1 BOILER FEED PUMP SAMPLES PHOENIX
 Note: Prototype cart taken off Reservoir sometime after 2/16/12 and then reinstalled sometime after 3/22/2012 APPROX 30-40 Gallons of ISO 32 Oil.

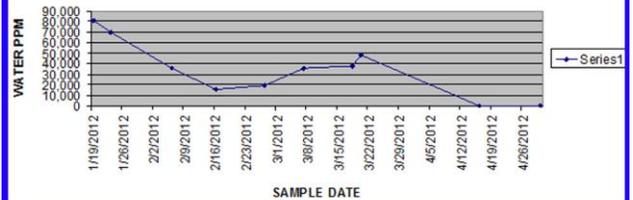


Figure 1: Paper Plant Boiler Feed Pump

PAPER PLANT CAUSTISIZER GEAR BOX

A paper plant was having steady water ingress into its caustisizer gear box. This ingress was caused by hose down water needed to clean lime off of the gear box and associated components finding its way into the oil reservoir through gasket leaks.

A PHoenix™ 1 GPM cart was installed on the 300-gallon oil reservoir with 220 weight synthetic oil. After the first oil sample was pulled it was found water levels were as high as 3000 ppm and iso cleanliness counts were 21/20/19. After the PHoenix™ completed the task after one-month water level had dropped to below 300 ppm and iso counts to 17/15/13. Results can be seen in figure 2.



Figure 2: Paper Plant Caustizer Gearbox