

Water Management and Process Treatment
To Increase Productivity and Profit

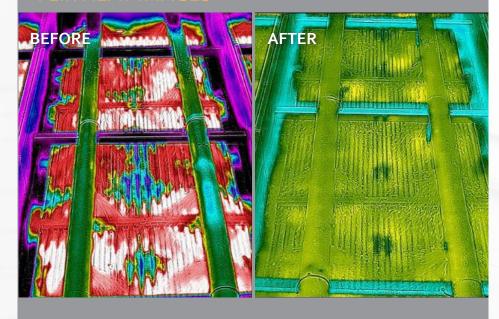


A gas processing plant in Mont Belvieu, TX had developed severe scale buildup on the tubes of their WSAC cooling tower. The scale buildup inhibited the designed heat transfer and caused the system to operate with less efficiency. ChemTreat corrected the situation by utilizing a non-invasive, on-line cleaning program to remove the scale without unscheduled downtime on the unit. The result returned the system back to design cooling efficiency and operation.

WSAC TUBE IMAGES



FLIR HEAT IMAGES



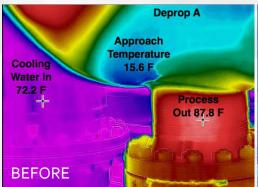
The WSAC cooling
water treatment
program should help
maintain cleaner heat
exchange surfaces
while helping protect
the integrity of the
system metallurgy.
This enhances
sustainability for longterm profitability.

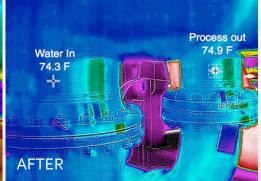


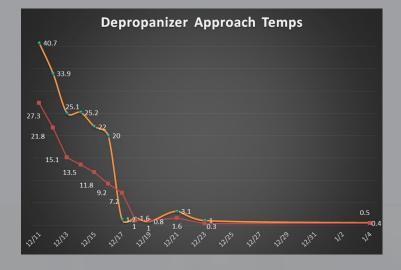
ON-LINE CLEANING IMPROVES DEPROPANIZER EFFICIENCY

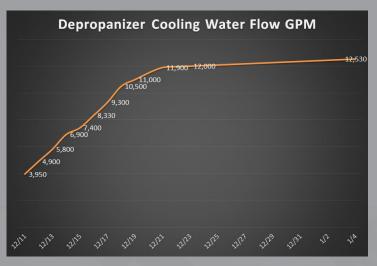
The Depropanizer A and B heat exchangers were severely scaled, resulting in reduced throughput. Cooling efficiency was reduced by the scale formation and water flow was restricted, which further compromised cooling impacting production. ChemTreat was able to clean the A and B Depropanizers with an non-invasive, on-line treatment program. This reduced the approach temperatures in the A and B heat exchangers between 23° and 37° F respectively to 0.5° F.

By utilizing ChemTreat's non-invasive, on-line cleaning, the plant did not require a turnaround on the frac unit, which resulted in a savings of \$2M.









In addition to improving the heat transfer, the cooling water flow through the heat exchangers increased by 250%. The net result was an 8,000 barrel/day increase resulting in a net profit of \$8M per year.

ChemTreat's Enhanced Offerings

Cooling Water & Heat Exchanger Treatments

- Specialized chemistries for water reuse options and blowdown reduction
- On-line and off-line heat exchanger cleaning and passivation technology
- High stress corrosion and deposit control programs
- Chlorine dioxide and other chlorine gas alternatives

Process Chemistry

Many of the day-to-day operating issues encountered in conditioning and processing natural gas can be greatly reduced through the proper application of specialty chemicals.

ChemTreat offers a full line of industry-specific process chemistries including:

- Defoamers
- Paraffin Inhibitors
- Demulsifiers
- Corrosion Inhibitors
- Iron Sulfide Dispersants
- H₂S Scavengers
- Oxygen Scavengers
- Amine Corrosion Inhibitors

Pipeline

ChemTreat offers chemical solutions for all of your gathering line needs:

- Scale & Corrosion Inhibitors
- Surfactants
- Biocides
- Specialty Chemicals
- Cleaners

Automation & Control

- Fluorescence monitoring technology for traced treatment programs
- Web-enabled data management systems to provide real-time reporting and analysis

Enhanced offerings are optional services. They are not part of all treatment packages.



