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CASE STUDY

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DISCOVER HOW JONELL SYSTEMS WORKED WITH A NATURAL GAS PRODUCER TO SOLVE CHALLENGES IN THEIR GLYCOL DEHYDRATION SYSTEMS WITH HIGH FLOW FILTRATION SOLUTIONS TO INCREASE THE TIME BETWEEN CHANGE OUTS AND DEHY FLUSHES AS WELL AS REDUCED THE SPEND ON PUMP REBUILDS TO REDUCE OPERATIONAL COSTS AND IMPROVE THE OVERALL PROCESS.

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## THE CHALLENGE

**A LEADING NATURAL GAS PRODUCER ENGAGED IN HYDROCARBON EXPLORATION AND GAS GATHERING IN NORTH EAST US WAS EXPERIENCING INFERIOR PERFORMANCE IN THEIR GLYCOL DEHYDRATION SYSTEMS.**

The original OEM glycol skid package included standard small diameter dated technology with sock filters for upstream protection of the carbon adsorber. The system was being overwhelmed with contaminants such as iron sulfide, silica and liquid hydrocarbons which were accumulating in regeneration loop causing glycol degradation, foaming issues and pump seal damage.

The customer needed a solution that was cost effective, scalable, and most importantly would restore the dehydration skid to optimal performance.

## THE SOLUTION

To quickly upgrade the system a high flow style particulate filter vessel was proposed upstream of the reboiler to reduce fouling in heat exchangers, reboiler, pumps as well as the carbon bed.

**The Jonell Systems solution included the HF series vessel and the LiquiPleat HF series cartridge.**

The system provided high efficiency filtration with an increased in surface area that was approximately 900% higher than OEM filter.

The first unit was rented to clean up a specific glycol unit but, once the operator realized the performance benefits of an optimized filtration solution, the site bought it for permanent install at that location. The regional engineer and superintendent decided the solution would be installed as the standard in all locations.

## THE RESULTS

This solution reduced strain on personnel by reducing the filter cartridge change out frequency on 18 locations from 1-2 times per week to once in 4 months. The optimized high flow solution design was able to handle the entire gas field range from 5 MMSCFD to 300 MMSCFD. It has quadrupled time between Dehy flushes and new glycol saving \$25-30K per flush.

The product quality improved with cleaned up glycol which went from dark brown, almost black, color to a light-yellow coloration.

The overall maintenance requirements reduced with fewer foaming incidents across all sites, pump rebuilds were cut by up to 80% saving the site between \$1000 to \$2500 per rebuild and the filter changeout intervals extended out to once every 4 months

**This tried and tested solution is now in use in over 60 locations in the area.**

