

Operator recycles more produced water while reducing chemical costs by 75%

OVERVIEW

The state of New Mexico has been stepping up regulations to increase the amount of water that industry operators recycle and decrease the amount of contaminated water being disposed of. For a large E&P operating on 800,000 acreages in the Permian Basin, though they had spent years reusing produced water via continuous investment in resources, technology, and chemistry, it was still more cost-effective to dispose of water than recycle in some locations. These new regulations meant they needed to both increase the quality of its treated water while reducing its per barrel treatment cost.

Industry:
Oil & Gas

Product:
CarboNet SimpleFloc

CHALLENGE

Delivering the required quality of water set by regulations while operating on an aggressive frac schedule was becoming increasingly expensive with their chemical package which included an oxidizer, coagulant, and flocculant.

Their objective was to meet or exceed required KPIs of <1mg/L iron, >300+ ORP, 6-6.5 pH, and 5 NTU while achieving significant reductions in chemical costs.

SOLUTION

The **CarboNet** suite of products developed on the **NanoNet chemical platform** was selected as they were researched and developed in the toughest field conditions in the Permian Basin.

Using a highly efficient, low cost SEEPEX MD 025-6L pump, **CarboNet SimpleFloc™** was injected into the 115,000 bbls/day treatment process as a direct replacement for a high-cost commodity flocculant and coagulant.



RESULTS

The simplicity of dosing neat has delivered more consistent results and improved ease of use in their water treatment systems.

They also experienced a drastic reduction in costs, saving 75% on their chemical package as a result of:

- Switching from PAC (polyaluminum chloride) to **CarboNet's equivalent**, lowering dosage by 90%
- Switching from an expensive incumbent flocculant to **CarboNet SimpleFloc™**, lowering dosage by 30%
- As a result of the switch, they required **50% less oxidizer**

Since **CarboNet** solutions are plug-and-play, work hours spent on the system were greatly reduced as there was no need to make down polymer regularly, flocculant dosing and pump reliability troubleshooting was non-existent and there was no need to clean a dosing system. With these changes the operator saw:

- Manpower **reduced by 35% a month**
- Freshwater consumption **reduced by 20% a day**
- Sludge generation **reduced by 50% a day**

The operator has seen significant economics and efficiencies and is switching to CarboNet chemical packages in multiple locations. This one change will save the company and its shareholders millions of dollars annually.

ABOUT CARBONET

CarboNet is a specialty chemicals company with a radically different approach to water treatment. Using the proprietary NanoNet chemical platform, CarboNet is helping accelerate the world's transition to recycled water.

www.carbonet.com

