

AT A GLANCE

INDUSTRY

Renewable Energy

COMPANY

Landfill Gas
Collection

APPLICATION

Wastewater
Treatment

REFERENCE PROJECT

Clarifying Water of Landfill Leachate & Natural Gas Condensate with CarboNet SimpleFloc™

Overview

A leading renewable energy company partners with landfill owners to collect landfill gas (LFG) as a source of renewable energy. At one location they own and operate the gas processing facility and must treat roughly 5,000 gallons of water daily that has been contaminated with landfill leachate and natural gas condensate.

They have faced ongoing challenges with their effluent wastewater quality due to sludge build-up on filters intended to remove toxic contaminants such as arsenic. With ineffective filters, arsenic remained at hazardous levels in treated water and could not be disposed of safely. This put the company at risk of not meeting acceptable OSHA and EPA requirements which could violate their permits to operate.

Our Work

The company had two options: 1) regularly replace filters and pay more than \$25k/month or 2) treat the influent water more effectively to reduce the need for filter replacement. CarboNet was the perfect solution for option 2. CarboNet has been extremely successful at treating water with FOG (fats, oil, and grease) and removing sludge which would undoubtedly solve their filter issue at a fraction of the cost of filter replacements.

Treating the leachate and natural gas condensate contaminated water with CarboNet SimpleFloc™, ACH (aluminum chloride), and FeCl₃ (ferric chloride) resulted in faster solid settlement, lower turbidity, and lower FOG measurements.

The CarboNet treatment solution was found to extend the life of filters needed to remove arsenic and improve the overall turbidity of post-treatment effluent water. This helped save 67% on filter costs annually and made it possible for the renewable energy company to dispose of the wastewater safely.

“The speed and clarity that CarboNet helped us to achieve in our water was better than anything we ever expected—the results were astounding. Not only could this save tens of thousands in equipment costs, we are impressed with how seamless the experience was.”

**— Waste Disposal Plant
Manager**