



State-of-the-Art Wastewater Treatment



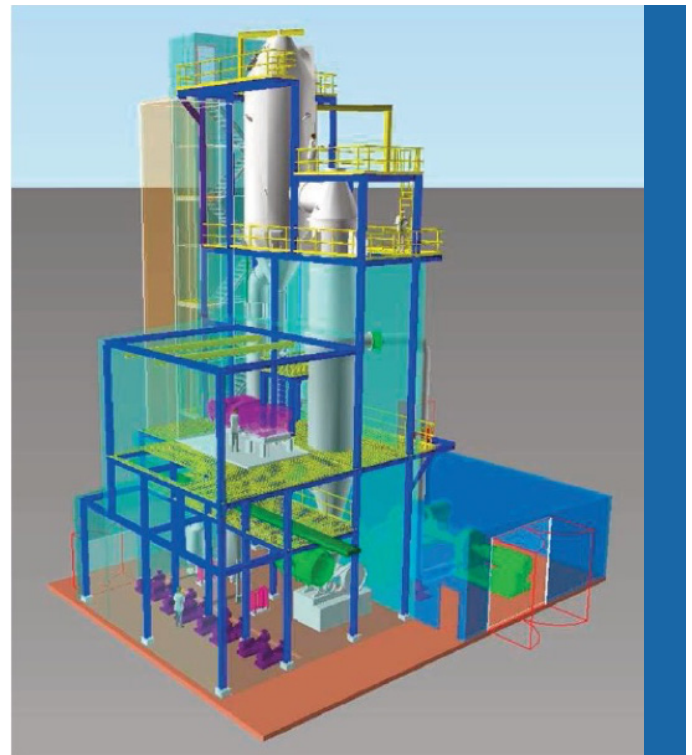
Eureka Resources has been the leading provider of wastewater treatment, recycling and reuse services for the oil and gas industry in the Marcellus Shale play since 2008.

Our innovative, state-of-the-art treatment processes maximize wastewater recycling options and protect our local water quality. We can economically treat wastewater for reuse at well sites, purify beneficial byproducts for commercial use and cleanse water to exacting standards of purity so it can be returned to the hydrologic cycle.

How We Do It

We begin by testing the wastewater we receive. If we detect materials we cannot remove, we reject the delivery.

The wastewater we accept is pumped through clarifiers capable of pretreating 10,000 barrels of wastewater per day, including oil and gas industry tophole water, spent drilling fluids and muds, and flowback and produced water. The pretreated water can be recycled to oil and gas producers, thus reducing their draw of fresh water from the hydrologic cycle.



Pretreated water that isn't recycled is sent through our crystallization and distillation process for additional purification. The crystallizer unit generates evaporated salt crystals that are so pure they could pass the test for food salt, concentrated liquid brine and distilled water that has total dissolved solids of approximately 50 mg/l, which is one tenth of the Pennsylvania Department of Environmental Protection's standard of 500 mg/l for clean water. The purified salt is sold for use in saltwater pools.

The distilled water can be further purified through our patented technology. Our innovative process includes biological treatment using a membrane biological reactor to remove residual organics. We then polish that water with reverse osmosis to remove trace materials. (US Patent No. 9,796,612)

We have a National Pollutant Discharge Elimination System (NPDES) permit from the U.S. Environmental Protection Agency certifying that our patented process generates water so pure it can be returned to waters of the United States. The state of Pennsylvania's Department of Environmental Protection (DEP) has also certified that our ultra clean water meets their WMGR123 standards for fresh water. In Pennsylvania, that means we can add our thoroughly cleansed water to the Susquehanna River.

FAQs

Where does the waste go that is removed through your processes?

We sustainably manage the residue we extract from wastewater by disposing of it according to environmental best practices and regulations. We perform analyses to monitor the content of the waste and verify that it is suitable for landfill disposal. If necessary, we can also dispose of hazardous waste in a safe and compliant manner.

What byproducts are generated by the crystallizer?

Depending on the minerals present in the wastewater we receive, the crystallizer can produce pure salt, calcium chloride, lithium, distilled water and concentrated brine, all of which have beneficial reuses.