

# Petrochemical



# SAMCO

Separation from the ordinary

## PROJECT BRIEF

Petroleum Drum Cleaning and Recycling Facility Optimizes Oil Recovery, Realizing Rapid Investment Return with SAMCO Treatment Solution

### PROJECT OVERVIEW

When a leading petroleum drum cleaning and recycling facility in South Carolina needed to optimize oil recovery from its wastewater streams, SAMCO delivered a wastewater treatment system (WWTS) designed to support up to 70% recovery, yielding a rapid return on investment.

### OBJECTIVE

Treat wastewater streams from petroleum oil drum cleaning operations to meet stringent discharge limits and recover valuable waste oil for resale.

### SCOPE OF SERVICE

SAMCO delivered a turnkey WWTS to suit the client's environment, beginning with a pilot treatability study, and comprising detailed engineering, system fabrication, controls integration, and startup support.

### CHALLENGES

- Stringent discharge testing limits for biochemical oxygen demand (BOD) and chemical oxygen demand (COD)
- Exceptional durability for extended equipment life
- Limited operator availability

### SOLUTION

SAMCO engineered a turnkey 50 GPM WWTS for integration into a new petroleum oil drum recycling line at the client facility. Designed to optimize recovery of oil from wastewater streams, the WWTS included a pre-rinse washer station with oil-water separation (OWS) technology for efficient segregation of waste streams prior to treatment and discharge. In achieving recycle/reuse rates of up to 70%, and reducing chemical feeds, the solution yielded rapid, single-year payback. To ensure lasting durability, the OWS and washer stations featured corrosion-resistant SAE 304 stainless steel construction. The modular WWTS design also allowed for expansion loads and future growth, and was outfitted with programmable logic controls (PLC) to minimize on-site operation and maintenance demands while providing process monitoring capabilities.

### TECHNOLOGY

WWTS components included:

- SAE 304 stainless steel OWS, pre-rinse, and drum washer stations
- Equalization, de-emulsification and pH neutralization reactor tanks
- Oil handling and collection tank
- Oil transfer, high pressure, and influent pumps
- Chemical feeds
- PLC controls

## OVERVIEW

### Industry

Petrochemical

### Location

South Carolina, US

### Objective

Treat complex wastewater streams to meet discharge requirements & optimize oil recovery

### Solution

50 GPM Wastewater Treatment System

Need help bringing your wastewater to industry compliance standards? Is contamination an issue? Contact us today at [SamcoTech.com](http://SamcoTech.com) • [askengineers@samcotech.com](mailto:askengineers@samcotech.com) • (716) 743 9000