

PORT ARTHUR, TEXAS

# Veolia remediated a large industrial drainage pit, minimizing waste and environmental hazards



“Veolia succeeded by cutting down project waste from 30 frac tanks to three by implementing a cost-effective plan that used a centrifuge to filter and recycle cleaning water.”

- Melvin Gore, Account Manager, Veolia North America



## PORT ARTHUR, TEXAS



### Contract Facts

**six weeks**  
project duration

**\$500,000**  
saved in disposal costs

**90%**  
waste reduction

**zero**  
accidents or injuries

### Contact

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### Scope

A large chemical plant in Texas had a large drainage pit that was 120x120x16' and collected wastewater and run-off from the ethylene production process. The pit was reaching capacity, and had up to 12 1/8" plastic liners reinforced with Kevlar that were originally installed 18 years ago and were falling apart. The liners had exceeded their useful life and were leaking, failing to separate the waste in the pits from the ground beneath the liners.

### Challenge

Chemical waste within the pits had leaked from the liners and there was more waste material resting beneath the liners than was securely above the casing. The unsecured pit presented a safety and environmental hazard to the chemical plant. Veolia was challenged to drain the pit and remove and dispose of the waste, including the failing liners, while minimizing wastewater production and disposal costs.

### Solution

Veolia brought in a centrifuge and added a recirculation tank and high volume pump to reuse cleaning water to move the waste in the pits through the centrifuge process and reduce the amount of residuals. The centrifuge used and recycled one frac tank of cleaning water to remove and process the waste from the pit. That tank of cleaning water was processed on-site at the plant's wastewater treatment plant and did not need to be disposed of off-site.

Once the waste was removed from the pit, Veolia's team used specialized tools to cut the liner out of the pits. The liners were washed with the recirculated water and added to one of three solid waste disposal roll off boxes for disposal.

The original plastic liners that failed were replaced with an advanced spray-in liner that have a life expectancy greater than 30 years.

### Result

Veolia reduced the number of frac tanks needed for this job from about 30 to 3 by using their centrifuge recirculation system, instead of using high pressure water and a vacuum truck alone to move the waste into frac tanks for offsite disposal. This innovative method significantly reduced the amount of wastewater produced — limiting hazardous liquids transportation and disposal costs —

and reduced the amount of solid material for disposal. Veolia's work resulted in over \$500,000 of disposal savings for our customer.

The industrial waste in the pit along with the hazardous material that had seeped underneath the plant's decomposing plastic liners was safely recovered, treated, and disposed of, minimizing the pit's safety and environmental hazards.

