# **ENVIRO**CLEAN

# **Project Summary**





**Saltwater Pit Closure**Osage County, Oklahoma

#### **Key Project Elements**

- Sampling
- · Waste removal
- Soil remediation

#### Client

Confidential

#### **Duration**

2014

#### **Description**

Enviro Clean provided services for the closure of a saltwater pit in Osage County. The pit had long been used by the client and its predecessors to store saltwater until they were directed by the Bureau of Land Management and/or the United States Environmental Protection Agency to close it. The pit was an unlined or partially clay-lined earthen structure with sloped earthen beams. At the time of the assessment, fluids inside the pit were largely covered with a thick black foam-like film that appeared to be emulsified crude oil.

Enviro Clean's pit assessment included the drilling/sampling of 3 hand-augered borings, collection and testing of water and sediment samples, and a topographic survey.

A small floating platform was employed to access the fluid-filled portions of the pit. The team used a 4-gas detector equipped with combustible gas, oxygen, hydrogen sulfate, and carbon monoxide detectors and used a GPS to identify the borings' positions. Samples from 3 borings, a water sample from the center location, and sediment were all collected and sent to a laboratory.

Enviro Clean then removed free liquids from the pit, removed tanks and ancillary equipment from the area, solidified the contents of the pit using fly ash to support the final cover, constructed a final cover, and graded the final soil cover and exterior slopes to direct runoff and reduce the potential for erosion. Once completed, two soil samples were prepared and sent to a lab to determine what soil amendments were recommended for the vegetation of the soil cover, exterior slopes, and adjacent areas. Enviro Clean established a Bermuda grass cover which will prevent erosion in the near term until native vegetation establishes itself and continues to prevent erosion.

For more information, please contact:

info@eccgrp.com



**Decontamination & Decommissioning of Facilities**Oklahoma

## **Key Project Elements**

- Remediation
- Tank Cleanout
- Waste Disposal
- Confined Space Entry
- Rescue Services

#### Client

Undisclosed

#### **Duration**

2018-2019

## **Description**

Enviro Clean was contracted to handle a project involving the decontamination and decommissioning of 88 tanks requiring confined space entry and sludge removal.

This project required working under hazardous conditions due to heavy metals present in the dust and sludge of the tanks/piping, buildings, and process equipment requiring removal. In certain situations, crews had to dismantle and/or cut scraps into manageable pieces and stockpile them in a lay down area.



Initial steps included gathering and removing any debris, removing solids, and draining water from inside the tanks. Process lines required flushing and removal.

All debris collected were sampled and analyzed for characterization prior to being transported for disposal.

Once the tanks were emptied, EC teams needed to power wash the interior and collect the waste water for disposal. EC also power washed the exterior tanks, pavement and ditches.



### **NORM Survey & Disposal**

Ponca City, Oklahoma

## **Key Project Elements**

- NORM Survey
- NORM Disposal

#### Client

Undisclosed

#### **Duration**

Completed 2017

# **Description**

The Waste Service team conducted a NORM (Naturally Occurring Radioactive Material) survey near Ponca City, OK. Upon arrival the team assessed the situation and conducted a NORM survey of the materials in question. Once complete, the team developed a plan of action to properly handle the material. The waste services team were contracted to oversee the final disposal of the NORM materials.

To learn more about our waste services and Enviro Clean, please contact: info@eccgrp.com







# **Tank Cleanout** Oklahoma

# **Key Project Elements**

- Tank Cleanout
- Waste Disposal
- Confined Space Entry
- Rescue Services

#### Client

Undisclosed

#### **Duration**

2018

# **Description**

Enviro Clean was contracted to perform a 653 inspection clean out of a 250k barrel crude oil tank.

Prior to entry into the tank, crews constructed crib stacks for safety and performed hydrovac operations to remove all crude oil and gross contamination. Crews performed a visual inspection to ensure all remaining liquids and sludges within the tanks had been removed prior to beginning power washing activities.

Once assured that all tanks were debris free, personnel performed a final rinse utilizing squeegees and a pressure washer.





# **Tank Cleanout** Oklahoma

# **Key Project Elements**

• Confined Space Entry

#### Client

Undisclosed

**Duration** 

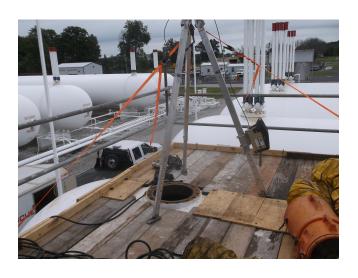
2018

## **Description**

Enviro Clean was contracted to provide safety and rescue services.

The job involved experienced teams to be readily available to gain vertical entry into a high-pressure horizontal tank in the event of an emergency. EC teams stayed tank side while the clients' teams performed inspection and maintenance activity on the tanks.

Our Confined-Space Entry Team is trained to the OSHA 146 standard, that encompasses supervisor, entrant, attendant, and rescue. Furthermore, all technicians are trained to the 40 hr. HAZWOPER standard OSHA 1910.120.





## **Lagoon Cleanout**

Oklahoma

### **Key Project Elements**

- Remediation
- Tank Cleanout
- Waste Disposal
- Confined Space Entry

#### Client

Undisclosed

#### **Duration**

2018-2019

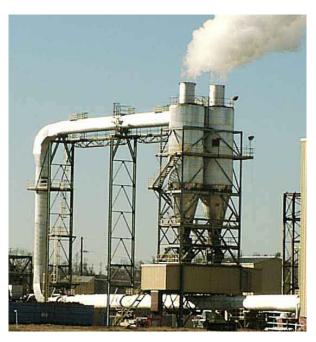
### Description

Enviro Clean was contracted to provide services for a lagoon cleanout. The project would entail confined space entry, clean out services, and waste transportation/disposal services.

The lagoon was about 1-acre in size and the liner within the retention pond had been compromised.

Enviro Clean began work immediately to contain the situation. Initial steps included gathering and removing any debris, removing solids, and draining water from inside the lagoon. The team then expelled the methane gas trapped under the liner.

# **Project Summary**



They then began the process of removing all debris and gross contamination. Once all debris was removed, the team used a power washer to perform а final rinse before removing the liner.

# **ENVIRO**CLEAN

# **Project Summary**





# **State 2 Abatement Plans** Lea County, New Mexico

#### **Key Project Elements**

- Soil Sampling & Remediation
- Waste Removal

#### Client

Confidential

**Duration** 

2014

#### **Description**

Enviro Clean provided remediation services on two sites that formerly contained oil and gas production tank batteries. Enviro Clean submitted and received approval on State 2 Abatements Plans for the sites by the New Mexico Oil Conservation Division. These plans called for excavation and removal of near-surface soils containing concentrations chloride and/or total petroleum hydrocarbons (TPH) exceeding 1,000 mg/kg, installation of clay liners, installation of additional groundwater monitoring wells, and the monitoring of the groundwater at the sites until the concentrations of chloride and benzene were below the New Mexico Quality Control Commission standards.

Prior to conducting soil removal operations, a Geonics EM-38 was utilized to assess the ground conductivities. Enviro Clean then

excavated and removed the impacted soil and caliche utilizing a hydraulic track-mounted rock hammer and excavator. The impacted soil and caliche materials, totaling approximately 13,670 cubic yards (18,780 tons), were then loaded onto dump trucks to be taken to disposal facilities.

Enviro Clean then collected samples for testing and confirmed that the chloride and TPH impacted materials had been removed. The areas were then restored, which consisted of the placement, compaction, and contouring of soil backfill material and the installation of clay liners. The NMOCD approved Enviro Clean's proposal to install geosynthetic clay liners in lieu of compacted clay liners. The geosynthetic clay liners exceeded the permeability requirements and resulted in substantial cost savings for the client. Upon completion, the sites were revegetated with native grasses.

To remedy the impacted groundwaters, quarterly groundwater monitoring was conducted by Enviro Clean until the concentrations of chloride and benzene were below the NMQCC standards.

For more information, please contact:

info@eccgrp.com



### **NORM Tank Cleanout**

**Texas** 

**Key Project Elements** 

- Remediation
- Tank Cleanout
- Waste Disposal
- Confined Space Entry
- Rescue Services

#### Client

Undisclosed

#### **Duration**

2018

## **Description**

Between May and July of 2018, Enviro Clean (EC) were on-site at 8 different locations to clean out oil/sludge and decontaminate over 40 on-site tanks and 4 gun barrels, which were impacted with Naturally Occurring Radioactive Material (NORM). Prior to entry into each of the tanks, EC had the hatches removed, available oil/ liquids/sludges were removed with a vacuum truck, and the tanks were "aired out" to remove as many as possible. Upon vapors completion of the removal of the free liquids, EC personnel, under supplied air along with 4 gas personnel and perimeter meters, entered the tanks and utilizing squeegees and washer, removed all pressure liquids/sludges within the remaining tanks.



Once the tanks were cleaned, a Ludlum Model # 3 meter was utilized to determine if any NORM remained within the tanks.

Once the tanks were cleared of NORM, Discovery personnel entered the tanks to perform a cursory inspection. All NORM impacted decontamination materials (plastic, PPE, etc.) were bagged on-site in heavy plastic trash bags, ducted tape shut, and placed in drums awaiting final disposal off-site.

# **ENVIRO**CLEAN



# **Tank Cleanout** Oklahoma

## **Key Project Elements**

- Tank Cleanout
- Waste Disposal
- Confined Space Entry
- Rescue Services

#### Client

Undisclosed

#### **Duration**

2018

## **Description**

Enviro Clean was contracted to perform a 653 inspection clean out of a 250k barrel crude oil tank.

Prior to entry into the tank, crews constructed crib stacks for safety and performed hydrovac operations to remove all crude oil and gross contamination.

# **Project Summary**



Crews performed a visual inspection to ensure all remaining liquids and sludges within the tanks had been removed prior to beginning power washing activities.

Once assured that all tanks were debris free, personnel performed a final rinse utilizing squeegees and a pressure washer.



# **Tank Cleanout**

Oklahoma

# **Key Project Elements**

- Fuel Cell Cleanout
- Waste Disposal
- Confined Space Entry

## Client

Undisclosed

#### **Duration**

2018

### **Description**

Enviro Clean was contracted to perform a time sensitive maintenance project involving a fuel cell clean out on a 10k gallon tank.

Our teams were tasked with performing fuel cell maintenance this tank. The teams began cleaning contaminated by out fuel, and removing contamination found debris that was to be clogging the filter system.

Once cleaned out the fuel cell was returned to operation.

# **Project Summary**

