

Oil Field Environmental Incident Summary

Incident: 20140730084346 **Date/Time of Notice:** 07/30/2014 08:43
Responsible Party: MUREX PETROLEUM CORPORATION
Well Operator: MUREX PETROLEUM CORPORATION
Well Name: JESPERSON 31-29
Field Name: NORTH HAAS **Well File #:** 11772
Date Incident: 7/29/2014 **Time Incident:** 18:00 **Facility ID Number:**
County: BOTTINEAU **Twp:** 163 **Rng:** 82 **Sec:** 29 **Qtr:** NE NW
Location Description:

Submitted By: William Jansky **Received By:**
Contact Person: Shannon Holter
363 N. Sam Houston Pkwy. E.
Suite 200
HOUSTON, TX 77060

General Land Use: Well/Facility Site **Affected Medium:** Well/Facility Soil

Distance Nearest Occupied Building: 2650 Feet

Distance Nearest Water Well:

Type of Incident: Tank Leak

Release Contained in Dike: No

Reported to NRC: No

	Spilled	Units	Recovered	Units	Followup	Units
Oil	5	Barrels			5	barrels
Brine	260	Barrels			250	barrels

Other

Description of Other Released Contaminant:

Inspected: **Written Report Received:** 7/25/2016 **Clean Up Concluded:** 7/17/2016

Risk Evaluation:

None

Areal Extent:

Release of oil and brine along access road and farm field.

Potential Environmental Impacts:

Brine getting into ditch

Action Taken or Planned:

Entire area diked. Vacuum truck recovering fluids.

Wastes Disposal Location: Company tanks and solids will be taken to Clean Harbors waste disposal.

Agencies Involved:

Updates

Date: 7/31/2014 **Status:** Inspection

Author: Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

7/30/14 - 13:30 on location. Met company contact and other representatives there as well as the landowner and tenant farmer. Although sketchy, release and flow path pretty much as reported. My estimation is more than 5 barrels of oil involved, but not a great deal more. Majority of the released brine flowed out of the west and northwest portions of the containment dike. A small amount was released on the east side when the tank tipped over and flowed across the east side of the dike. Cleanup contractors were on location and working. Still a good deal of oil inside the containment dike, and off the northwest portion of the location in the agricultural field. This field was not planted this year due to excessive water.

The immediate action taken upon discovery on 7/29 was to use equipment to form a small berm on the west side of the flow path along the lease access road to keep the brine contained to the smallest area possible. A partial diversion berm was placed across the flow path at the upstream side of the culvert under the lease access road. A minimal amount of the brine did flow through the culvert and was captured in a very small pool on the outfall side.

Top soil from 8 to 12 inches of depth was being removed from the west side of the access road during the inspection.

Electrical conductivity readings were taken with a 24 inch soil probe at depths of 3, 6, 12, and 24 inches. Background reading on both sides of the road ranged from 700 to 1730 uS/cm (microSiemens per centimeter). Potential impact areas were probed at the same depth intervals, starting with the lowest area in the road/field verge (cattails growing there) and moving up the flow path to the point where oil was observable on the ground. Electrical conductivity reading did not go above background levels until the small pool at the access road culvert outfall. On the west side of the access road, along the flow path, elevated readings were recorded at all sample points in the 3 and 6 inch depths (below what had already been excavated), dropping below 2,000 uS/cm in the 12 and 24 inch depths in all samples. The impact area on the east side of the access road, near the loop drive and where the tank toppled, showed very similar conductivities with respect to depth. Company contacts were advised to remove another 8-12 inches of impacted soil in all impact areas, and to then collect additional samples for cleanup confirmation.

Contrary to initial telephone report received at 07:30 on 7/30/14, there were no surface water impacts from this incident.

Another inspection is recommended to confirm the cleanup and grade restoration.

Date: 8/1/2014 **Status:** Inspection

Author: Roberts, Kris

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Tenant farmer requested telephone contact from NDDoH. Called. Tenant stated that removal of impacted stockpile was slow due to truck availability. Questioned whether NDDoH was coming back to sample excavation bottom. Asked about his options if replacement topsoil did not produce the crop the previous topsoil had produced. Told him that we asked the company to collect post-excavation samples for laboratory analysis. Also suggested that he contact the company safety/environmental representative to receive copies of the analytical reports. Sending an email to company representative reminding him of the sampling/reporting requirement.

Tennant called back on, or around 8/4 concerned that the material was still on location. Told him that as the tennant, he was the wrong person to be requesting further assistance, it is the land owner who needed to make the request. Landowner called back shortly after to make the request that we reinspect. Agreed.

Date: 8/12/2014 **Status:** Inspection

Author: Suess, Bill

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Visited site and took electrical conductivity readings from 4 to 18 inches deep. East side of access road has been cleaned up and regraded. Work is still being completed on west side of road. All readings from the east side of the access road were below 1,820 uS/cm. Site should be revisited when west side of access road is completed.

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

8/20/14 on location with another colleague to collect soil samples at request of landowner. Met landowner and son. Sporadic light rain, temperature cool, light breeze.

Landowner had dug several holes to a depth of approximately 24 inches in the footprint of the release. Collected three soil samples from the side wall of three of the holes at a depth of 18-24 inches with a steel trowel. By nitrile-gloved hand, took soil that had not come in contact with the trowel and placed in 500-ml glass jars with teflon liner inside the jar cover and transported to state chemistry laboratory on 8/25/2014 for analysis of chloride, sodium, sulfate, calcium, magnesium, potassium, iron, manganese, and sodium adsorption ratio (SAR).

These samples were analyzed by the synthetic precipitation leaching procedure (SPLP), where a 20-to-1 mixture of synthetic precipitation (simulated rain water) to soil is shaken for 18 hours. The sediment is then filtered out, and the remaining water is analyzed. This determines the amount of any of the analytes that have the potential to leach out of the soil into the soil water that plants utilize. Sample locations shown on air photo in the linked file.

Results reported out of laboratory on 10/4/2014.

Station 1: chloride=9.96 mg/L, sodium=5.6 mg/L

Station 2: chloride=28.0 mg/L, sodium=13.9mg/L

Station 3: chloride=3.38 mg/L, sodium= less than3 mg/L

These concentrations should have no adverse impact on plant growth.

Results reported to land owner.