

# PETRO-CHEM PROCESSING GROUP OF NORTRU, LLC MICHIGAN CORRECTIVE ACTION CLEANUP

## Fact Sheet

### Overview

The Michigan Department of Environmental, Great Lakes, and Energy (EGLE) is providing this fact sheet concerning Petro-Chem Processing Group of Nortru, LLC's (Petro-Chem's) environmental contamination investigation and cleanup activities. Petro-Chem is located at 421 Lycaste Avenue in Detroit, Wayne County, Michigan (Facility). They are required under their hazardous waste license to perform these activities. The Petro-Chem Facility has been licensed since 1999. Prior to 1999, releases at the Facility caused soil and groundwater contamination. Petro-Chem is conducting activities to clean up the contamination. This fact sheet serves to inform the community of the past and future environmental investigation and cleanup activities at the Facility, explain EGLE's oversight role and of what to expect from EGLE as these activities continue.



*Street View of Petro-Chem  
Hazardous Waste Storage and  
Treatment Facility*

### Facility/Site Description

The Petro-Chem Facility is located on 8.53 acres used for treating and storing hazardous waste, and storing pharmaceutical wastes. The Facility's license was last renewed on December 18, 2012, and their next renewal application is due in June 2022. The Petro-Chem License authorizes ten container storage and commingling areas, four storage and treatment tank systems, and several loading/unloading areas. Petro-Chem treats, paints, sludges, and other organic and inorganic waste streams. Petro-Chem also blends hazardous waste into fuel. The License requires, among other things, that Petro-Chem perform environmental monitoring to detect releases to soil and groundwater from their operations. When a release from the Facility is detected, the License requires Petro-Chem to investigate and clean up the contamination. This is also referred to as "corrective action" under the hazardous waste regulations.



*Aerial View of Petro-Chem Hazardous Waste  
Storage and Treatment Facility*

### Past Investigation and Cleanup Activities

Soil and groundwater investigations at the facility are ongoing, and past activities are summarized below. Please refer to the corrective action documents located at [www.michigan.gov/EGLEPetro-Chem](http://www.michigan.gov/EGLEPetro-Chem) for more details.

#### 2013 to 2015 - Soil and Groundwater investigations:

- Soil and Groundwater have been impacted with Volatile Organic Compounds (VOCs). Primary constituents of concern are Methyl tert-butyl ether (MtBE, a gasoline additive), Tetrachloroethene (a common solvent used in dry cleaning and metal parts degreasing), and Xylenes (a component of gasoline and petroleum products).
- On-site, non-residential potential exposure pathways identified: Protection of Drinking Water, Protection of the Groundwater/Surface Water Interface, Direct Contact, Volatilization to indoor air inhalation, and volatilization to ambient air inhalation.

- Off-site no apparent migration in soils and groundwater but potential inhalation concern to the west. Additional soil gas sampling is proposed.
- 2015 to 2016, On-site Corrective Measures recommendations:
  - Multi-Phase Extraction, including removal of Western Berm Area soils. Simultaneously extract contaminants from both soil and groundwater, including any Non-aqueous phase liquids. A pilot test is currently being implemented to help design full-scale implementation.
  - Restrictive Covenant – to limit property use to non-residential.
  - Groundwater Monitoring – to monitor the location of contaminants in groundwater, particularly MtBE.
- 2016 to 2019, Additional Investigations and Interim Measures Implementation:
  - EGLE approval of Sewer Evaluation Report that determined utility corridors at the property boundary are not intercepting groundwater contamination.
  - EGLE initial assessment of potential Vapor Intrusion (VI) and issuance of Site-Specific cleanup numbers.
  - EGLE approval of per- and poly-fluoroalkyl compounds (PFAS) and VI investigations, and authorization to remove western berm area soils and begin the multi-phase extraction pilot study.

## Current Investigations and Cleanup Activities

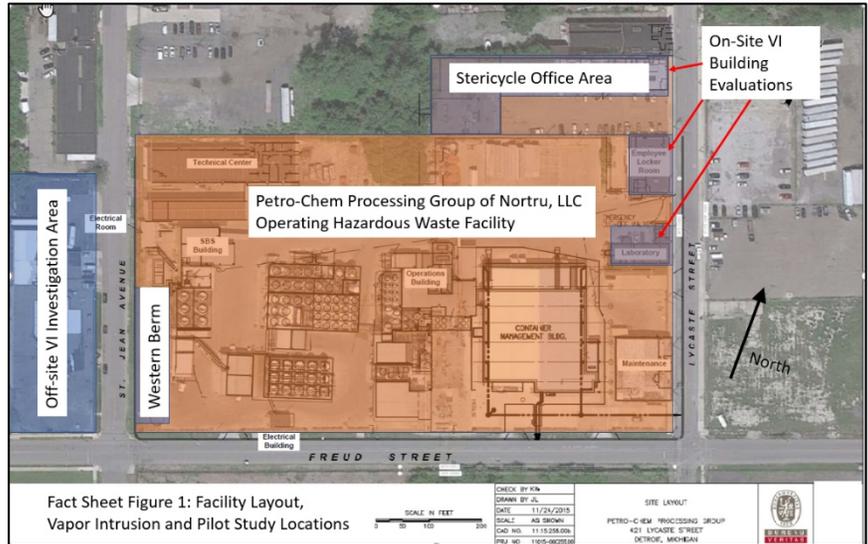
On July 9, 2019, EGLE approved Petro-Chem's PFAS investigation plan for groundwater dated April 2, 2019 and disapproved Petro-Chem's revised corrective measure implementation (CMI) work plan dated February 18, 2019. However, Petro-Chem is authorized to proceed with investigating (sampling) on-site and off-site to identify where VOCs are present and whether the contamination could evaporate and enter nearby buildings where people could breathe the chemical vapors (also referred to as vapor intrusion or volatilization to the indoor air pathway). To learn more about vapor intrusion, please go to [Michigan.gov/VaporIntrusion](http://Michigan.gov/VaporIntrusion). As an initial step in addressing the contamination, EGLE has also approved Petro-Chem's removal of a contaminated western berm and to perform a pilot study for removing contaminants from the soil and groundwater underneath the berm using a multi-phase extraction system.

**Per- and Polyfluoroalkyl Compounds (PFAS) Investigation.** Petro-Chem submitted a groundwater investigation work plan for PFAS on April 2, 2019, that was approved by EGLE on July 9, 2019. Under the work plan Petro-Chem must collect and analyze groundwater samples for PFAS from four groundwater monitoring wells. Petro-Chem collected the samples in the fourth quarter of 2019, and a report will be submitted in the first quarter of 2020. Any detections above the 70 ppt drinking water standard for PFAS will require Petro-Chem to do additional investigation to determine the nature and extent of contamination.

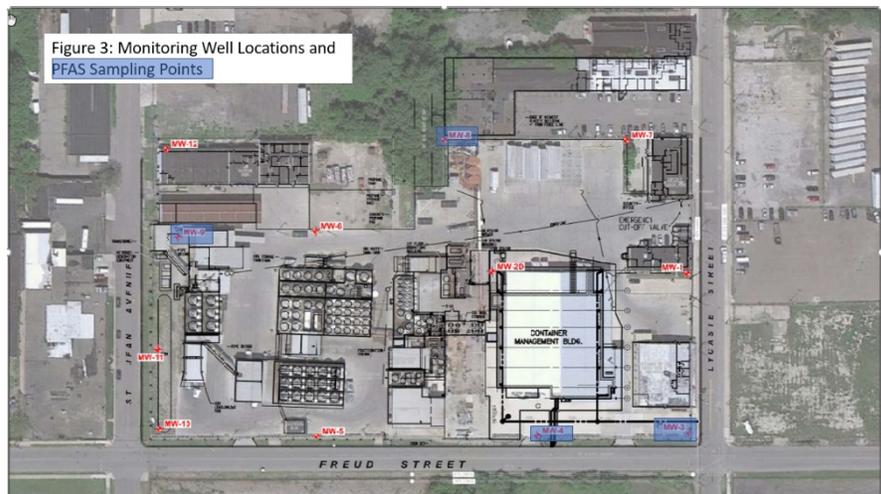
**Vapor Intrusion (VI) Investigation.** Petro-Chem collected soil gas samples near on-site buildings (office, locker room, and laboratory) in the fourth quarter of 2019 and is collecting samples along utility corridors in the first quarter of 2020 to determine whether vapors could enter buildings where people could breathe them. Petro-Chem must collect and analyze additional soil gas samples in the off-site VI investigation area shown in Figure 1 below. Investigation is also required for off-site buildings to the west of the facility (please refer to Figure 1). For additional details on Petro-Chem's VI investigations, please see the CMI work plan, posted on-line with the corrective action materials at [Michigan.gov/EGLEPetro-Chem](http://Michigan.gov/EGLEPetro-Chem).

**Western Berm Area Soil Removal Interim Measure.** Petro-Chem completed removal of the soil berm near the western property boundary shown in Figure 1 in December 2019. The berm is contaminated with volatile organic compounds and was disposed off-site. A final report on the removal will be submitted in the first quarter of 2020. For additional details, please see the revised CMI Work Plan, dated February 18, 2019, posted on-line with the corrective action materials at [Michigan.gov/EGLEPetro-Chem](http://Michigan.gov/EGLEPetro-Chem).

**Multi-Phase Extraction System Pilot Test.** The pilot test for the multi-phase extraction system will be used to determine whether the system will be adequate to remove the soil and groundwater contamination across the site. Contaminants being treated and removed from the soil and groundwater include toluene, xylenes, tetrahydrofuran, ethylbenzene, perchloroethylene, and trichloroethylene. The pilot system will be used to treat contamination in soils and groundwater beneath the former western berm area shown on Figure 1. The system will include one extraction well, two soil vapor probes, two groundwater observation wells, and a mobile extraction and treatment system. Data will be collected and used to determine whether a larger system would be adequate for use across the site. Groundwater extracted during the pilot test will be stored in a container on-site for analysis and disposal as a hazardous waste off-site. Carbon will be used to control air emissions. For additional details, please see revised CMI Work Plan, dated February 18, 2019, for further details posted on-line with the corrective action materials at [Michigan.gov/Petro-Chem](http://Michigan.gov/Petro-Chem).



**Site-Wide Groundwater Monitoring.** The site-wide groundwater monitoring program is included in the License. Petro-Chem is required to collect groundwater samples semi-annually. See Figure 3 for a map of all groundwater monitoring wells in the site-wide groundwater monitoring program. The License is posted on-line at [Michigan.gov/Petro-Chem](http://Michigan.gov/Petro-Chem).



## Schedule

Petro-Chem began the current investigation and cleanup activities in July 2019 and those activities are expected to take a little over a year. After those activities are completed, Petro-Chem is required to submit a report and updated work plan to EGLE for review and approval.

## Role of EGLE During Petro-Chem’s Cleanup Activities

While Petro-Chem is responsible for conducting the investigation and cleanup, EGLE’s role during the corrective action cleanup activities will include the following:

- Monitor Petro-Chem’s environmental cleanup work to ensure it is conducted in a manner that is protective of public health and the environment, and in accordance with the work plans and the License;
- Ensuring citizens’ concerns related to cleanup activities at the Petro-Chem Facility are addressed in a timely manner.

To keep the community informed, EGLE has scheduled a webinar and open house and public meeting where EGLE staff will be available to provide updates on Petro-Chem’s corrective action cleanup progress.

Community members who would like to receive electronic updates can also subscribe to the Petro-Chem local topics list by going to any EGLE web page and clicking on the red envelope at the bottom of the page.

Community members interested in submitting written comments to EGLE are encouraged to send them to Mr. Daniel Dailey at [daileyd@Michigan.gov](mailto:daileyd@Michigan.gov) or by mail at Constitution Hall, Atrium North, 525 West Allegan Street, Lansing, Michigan 48933. Community comments received at the webinar and public meeting, by mail or by e-mail will be considered when reviewing Petro-Chem work plans

for performing corrective action cleanup activities at the Facility. Meeting participants who sign-in at the meetings will also be added to the EGLE Petro-Chem local topic subscriber list for receiving facility specific updates.

## **Where to Find Additional Information**

Additional information can be found on-line at [Michigan.gov/EGLEPetro-Chem](https://Michigan.gov/EGLEPetro-Chem).

## **Primary EGLE Contact**

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*Michigan's Environmental Justice Policy promotes the fair, non-discriminatory treatment and meaningful involvement of Michigan's residents regarding the development, implementation, and enforcement of environmental laws, regulations, and policies by this state. Fair, non-discriminatory treatment intends that no group of people, including racial, ethnic, or low-income populations, will bear a disproportionately greater burden resulting from environmental laws, regulations, policies, and decision-making. Meaningful involvement of residents ensures an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health.*