

SITE HISTORY

1907

Indian Refining Company began refining operations.

1931

Texaco Inc. acquired control of Indian Refining Company and continued to operate the refinery.

1980s

Texaco suspended refinery operations (1985) and sold the refinery (1988). Refinery operations later resumed under two subsequent owners.

1990s

Refinery operations ceased permanently (1995). Off-site impacts to soil and groundwater were investigated (1996-2000). Prioritized cleanup activities were subsequently completed in residential areas. Demolition and removal of above-ground refinery equipment began (1998).

2000s

The site was added to the National Priorities List (NPL) (2000) in accordance with the "Superfund" law. Texaco entered a Consent Decree with the State of Illinois to conduct a Remedial Investigation (RI) of the site and produce a Feasibility Study (FS) of proposed remedial actions (2000). Chevron acquired Texaco (2001). Remedial Investigation of the refinery site began (2002). CEMC established a Community Advisory Council (CAC) to facilitate dialogue with key stakeholders (2005). Demolition and removal of aboveground storage tanks and underground pipelines took place (2008-2013).

2010s

A Natural Resource Damage Assessment was completed and Texaco, Inc. settled natural resource damage claims with the State of Illinois (2011) resulting in the creation of the Embarras River Bottoms State Natural Area for public use. Texaco Downstream Properties, Inc., acquired the refinery site out of a bankruptcy proceeding of the then-current owner. CEMC conducted a sulfate addition pilot test in Tank Farm E to accelerate natural biodegradation of hydrocarbons in groundwater (2014-2017) and an in-situ stabilization (ISS) treatability study in Indian Acres (2019). CEMC renewed biocell operations to enhance biodegradation of hydrocarbon-impacted soil (2019-2022). Illinois EPA re-evaluated risk assessments within the RI which led to full RI approval in 2018. CEMC submitted a revised draft FS in 2019.

2020s

Although COVID-19 precautionary health measures impacted the pace of activities, some field work continued. A larger-scale sulfate addition pilot study was initiated in the Tank Farm E and F areas (2020). The former Wastewater Treatment Plant primary basin sediment was de-watered, excavated and properly disposed off-site (2020). Piping was removed from the Separator 7 Area and properly disposed (2020). Biovent and biosparge pilot testing infrastructure were installed (October 2021). Pilot testing for the stabilization of Separator 7 Area waste materials was performed to inform remedial design (September 2022). Excavation and proper disposal of approximately 2,100 tons of asbestos containing material (ACM) and soil was completed (October 2022). During the COVID-19 pandemic, the Community Advisory Council (CAC) continued to meet virtually. In-person CAC meetings resumed in 2021. After a two-year interruption due to the pandemic, CEMC also resumed hosting an annual open house and site tour (May 2022). This annual event has been an opportunity for the community to visit the site and learn about remediation progress. The next open house is tentatively scheduled for May 2023.

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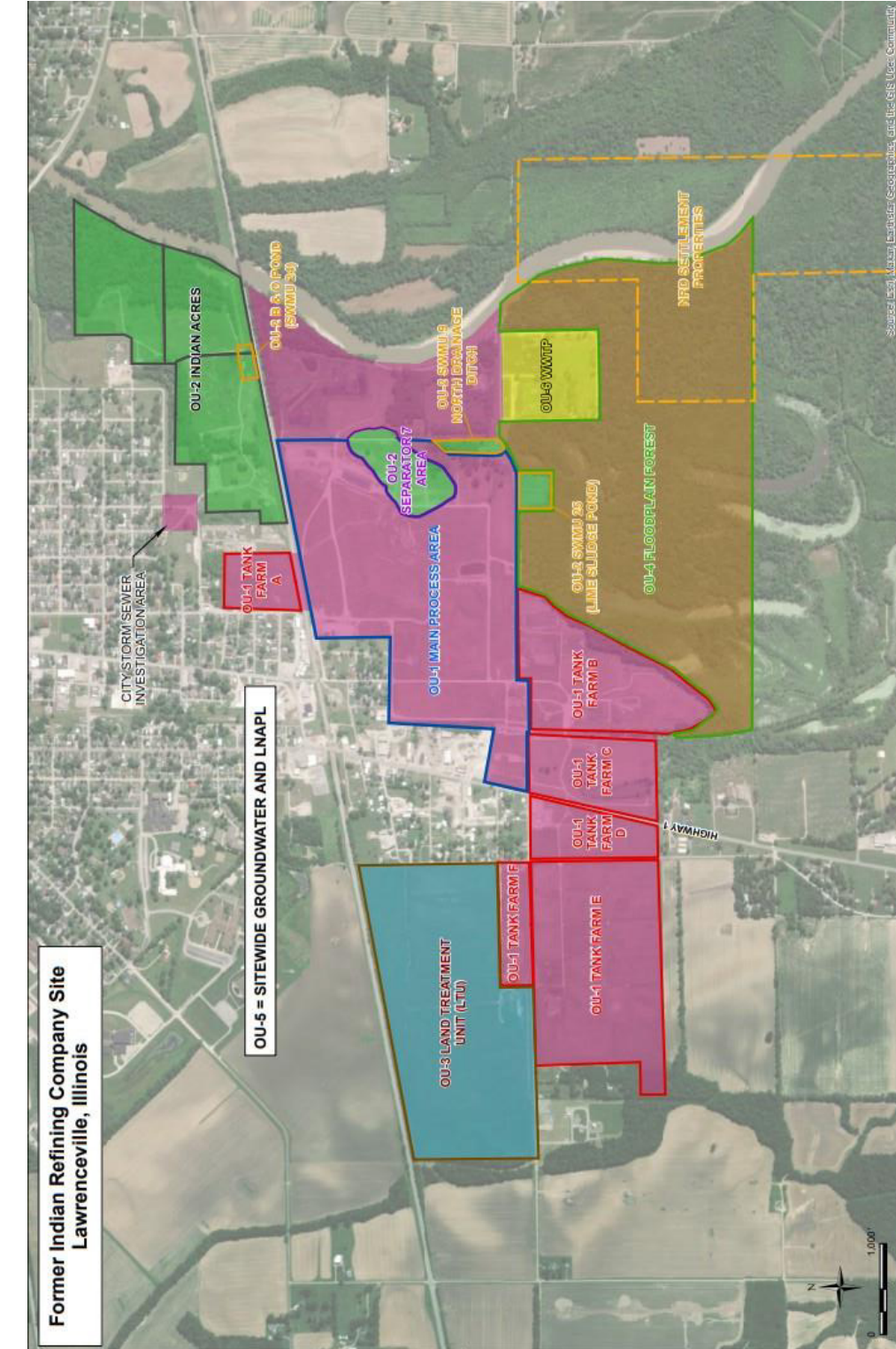
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Indian Refinery Site

January 2024

Fact Sheet #15

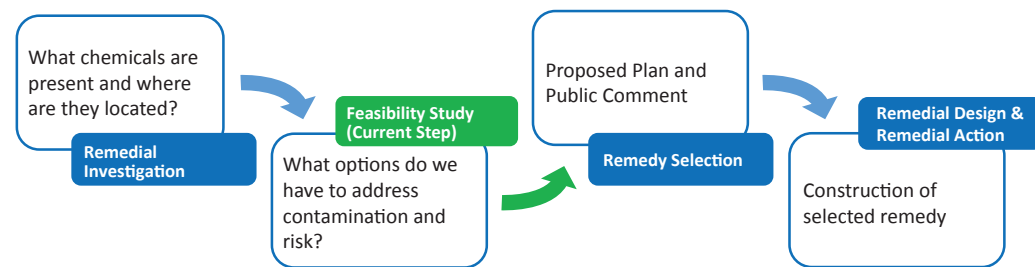


Introduction

The Indian Refinery site is a 990-acre former petroleum refinery southeast of Lawrenceville, Illinois. The site requires environmental cleanup of contaminated soil and groundwater caused by refinery operations between 1907 and 1995. Environmental cleanup first began in 1996 and is now conducted under the Federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), informally known as the “Superfund” program. The Illinois Environmental Protection Agency (Illinois EPA), in consultation with the U.S. Environmental Protection Agency (USEPA), provides regulatory oversight of the cleanup. Chevron Environmental Management Company (CEMC) manages the cleanup for Texaco Downstream Properties, Inc., which was designated the responsible party.

Environmental Cleanup Process

The Superfund law and its regulations (the “National Contingency Plan,” 40 CFR 300.430) provide a process for investigation and remediation of properties if an environmental risk to human health or the environment is present. There are four steps in the process. First, Remedial Investigation (RI) determines where contamination is located, how much is present and if it poses health risks to humans, plants, or animals on the site or in the area. Next, a Feasibility Study (FS) examines remedy alternatives. Then during Remedy Selection, the public has an opportunity to review the remedial alternatives and provide input for selecting the best remedial option. Finally, during the Remedial Design/Remedial Action step the remedial work is planned and executed. Often, post-Remedial Action monitoring is conducted for a period to ensure the remedy remains effective in protecting human health and the environment. Five-year reviews are required by CERCLA when contamination is left in place.



Remedial investigation and Feasibility Study Progress

The Indian Refinery site RI was completed in 2018. More than 4,895 soil and groundwater samples from on and off site were analyzed. RI focus areas included the Tank Farms, Main Process Area, Indian Acres, Separator 7, other areas with oily soils, the Floodplain Forest, and the Land Treatment Unit. The RI identified areas of surface soil, subsurface soil, and groundwater contaminated with chemicals commonly found in petroleum (crude oil), petroleum products (gasoline, diesel, lubricants) and manufacturing process wastes. Metals, such as arsenic, chromium, lead, mercury, and zinc, are also present, primarily associated with the Land Treatment Unit. Throughout much of the Tank Farm and Main Process Area, a petroleum product, called

Light Non-Aqueous Phase Liquid (LNAPL), floats on top of groundwater, causing impacts to the groundwater and nearby subsurface soil. If not cleaned up, these contaminants can pose long term health risks to current and future industrial/commercial workers, construction workers, and certain birds and mammals. Subsurface contamination will continue to impact groundwater, if not addressed.

Annual groundwater sampling conducted after the RI continues to indicate that impacted groundwater has neither migrated off site nor affected off-site water wells.

In 2021, CEMC and Illinois EPA agreed to divide the site into Operable Units (OU). This is a common approach for managing environmental remediation at large sites and recognizes various areas of the site may require different remedies and may be remediated on different schedules. A potential benefit of this approach is that some portions of the site may be returned to beneficial use sooner than the entire site.

CEMC has submitted Feasibility Studies for each Operable Unit. Once the entire FS is approved by Illinois EPA, a Proposed Plan will be provided to the public describing the OUs, the remedial alternatives under consideration, and Illinois EPA's preferred alternatives. The public will have the opportunity to submit comments on the Proposed Plan. After the public comment period, a Record of Decision (ROD) will document the final selection of the remedial action for each OU and Illinois EPA responses to any public comments.

Progress and Pilot Studies

While Illinois EPA and CEMC work toward finalizing the FS, CEMC has continued to prepare the site for Remedial Design/Remedial Action. Over the last several years, CEMC decommissioned underground structures, the oil/water separator, barometric basin and pump house. Decommissioning and interim remedial work has included:

- Removing 93,000 feet of pipeline
- Removing 36,000 feet of sewer lines
- Recovering 394,000 gallons of hydrocarbons
- Recycling 10,200 tons of steel
- Recycling 219,000 cubic yards of concrete for on-site use
- Properly disposed of 2,100 tons of asbestos-containing material



CEMC is also conducting field-scale pilot tests of air sparging, bioventing and sulfate addition in Tank Farms E and F. These are technologies that will enhance the natural breakdown of petroleum hydrocarbons in soil, LNAPL, and groundwater. Field studies in the Indian Acres and Separator 7 areas helped determine how to best neutralize and stabilize wastes and soil for potential consolidation on-site. Data from pilot tests and field studies help inform development of the Feasibility Study and Remedial Design.

What Happens Next

Illinois EPA anticipates approving the FS soon. The Proposed Plan is anticipated to be released for public review early in 2024. A public meeting will be held to explain the Proposed Plan and to receive public comment. Public notice and another fact sheet will be provided to announce the Proposed Plan availability, public comment period, and details of the public meeting.

For additional information:

Site documents are available at the Lawrence Public Library, 814 12th Street in Lawrenceville. Site information and documents are also available at:

Illinois EPA – Indian Refining Company site:
epa.illinois.gov/topics/community-relations/sites/indian-refining

U.S. EPA – Indian Refinery – Texaco, Lawrenceville (EPA ID: ILD042671248):
cumulis.epa.gov/supercpad/cursites/csinfo.cfm?id=0500315

Information about settlement of the Natural Resources Damages Assessment is available at:

Embarras River Bottoms State Habitat Area – The Former Indian Refinery: dnr.illinois.gov/programs/nrda/erbsha

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CEMC has organized a Community Advisory Council (CAC) to discuss site progress and address stakeholders' questions. The public is invited to attend CAC meetings. If you are interested in attending a CAC meeting, please contact Monte McKillip at monte@mckillipassociates.com or 402-326-2448.