

LEAKING UST TECHNICAL REVIEW NOTES

Reviewed by: Nicole Cosenza
Date Reviewed: September 23, 2025

Re: 0312255142 -- Cook County
Oak Park/Oak Park BP
100 Chicago Avenue
Leaking UST Incidents 20011417, 20090170, 20100294
Leaking UST Technical File

Document(s) Reviewed:
CAP and BUD dated July 14, 2025 (received July 16, 2025)

General Site Information:

Site subject to: 734

IEMA dates: 8/22/2001, 2/19/2009, 3/30/2010				Payment from the Fund: Y			
UST system removed: Y				OSFM Fac. ID #: 2001069			
Encountered groundwater: Y				SWAP mapping and evaluation completion date: 09/24/2025			
Free product: Historically Y, none present currently				Site placement correct in SWAP: Y			
Current/past land use: service station/convenience store				Inspection Required: N			
Size & product of USTs:							
Tank Number	Capacity	Product	Status	Regulated Status	Red Tag Issued	Fee Due	Abandon/Removal Date
1	6000	Gasoline	Removed	Federal		\$0.00	03/30/2010 - REM
2	6000	Gasoline	Removed	Federal		\$0.00	03/30/2010 - REM
3	4000	Gasoline	Removed	Federal		\$0.00	03/30/2010 - REM
4	1000	Heating Oil	Removed	State			03/30/2010 - REM
5	14000	Gasoline - Regular	Currently in use	Federal		\$0.00	
6	6000	Gasoline - Premium	Currently in use	Federal		\$0.00	
7	375	Used Oil	Removed	Exempt			07/10/2002 - REM
Is site located in EJ area: Y (red)				Is investigation of indoor inhalation exposure route required? Y-meets Table H			
Has enough sampling been completed to perform a Right-to-Know Evaluation: Y				PLA Checklist Complete: Y			

Consultant Information: ETS Environmental & Associates, LLC (Todd McCollister)
Phone: 630-513-4710 Ext. 311
Email: toddm@ets-environmental.com

IEPA
Division of Records Management
Releasable

OCT 06 2025
Reviewer: AMS

20011417 incident history:

- A gasoline release was reported on 08/22/2001 from 1-4,000-gallon gasoline UST (UST # 3).
- A 45-Day Report was received at the Illinois EPA on 10/21/2001 (not in Docuware and no microfilm in the Records Room).

20020981 incident history:

- A release was reported on 07/10/2002 from the used oil UST (UST # 7).
- Illinois EPA received a 45-Day Report form on 10/21/2002.
- The UST was removed on 07/10/2002. No confirmation samples were collected after UST removal.
- The Illinois EPA received a 45-Day Addendum/CACR on 09/17/2009.
- 06/04/2009 the used oil UST area was remodeled.
- As part of the remodel, one soil used oil screening sample was collected from 5 ft bgs and sent for VOC, SVOC, base/neutral, PNAs, TCLP, and total metals analysis. Analytical results showed the required indicator contaminants to be BTEX, PNAs, carbazole, and lead.
- 07/07/2009 additional used oil UST pit soil was removed one soil sample was collected from each wall, and one soil sample was collected from the UST floor. Soil samples were sent for BTEX, PNAs, carbazole, and lead analysis. Several samples were above Tier 1 ROs.
- NFA was issued 10/14/2009. NFR includes an industrial/commercial land use restriction, and the Village of Oak Park Groundwater Ordinance.

20090170 incident history:

- 2/17/2009 the Village of Oak Park received number complaints (of petroleum vapors in their homes) from residents in the area of the Oak Park Valero gas station.
- A release was reported on 2/19/2009 due to the presence of gasoline in the city sewer system.
- It was determined that the 4,000-gallon gasoline UST (UST # 3) was overfilled on the most recent delivery and the overfill leaked into the UST pit (due to a defective spill containment system/overfill shutoff failure/UST leak).
- All mechanical deficiencies of the UST system were repaired.
- Free product and contaminated groundwater were continually removed, as necessary, from the UST pit.
- Approximately 301 gallons of unleaded gasoline was lost from the UST, and 75 gallons were recovered from the UST pit.
- The connection for a previously unknown sewer line adjacent to the UST pit was severed at the point where it exists the southern property boundary just prior to entering the Village of Oak Park sewer system.
- 2/23/2009 7 HSA soil borings (A1-A7) were advanced to 15 ft bgs on-site as part of a subsurface soil investigation. One soil sample per boring was collected (based on PID readings) and sent for BTEX, MTBE, and PNA analysis (sample A1, A7 only).
- One groundwater monitoring well (MW) was installed to 15 ft bgs on-site adjacent to the gasoline UST pit. No water sample was collected from the monitoring well.
- Samples A1, A2, A4, A5, and A6 were above Tier 1 ROs for BTEX, and MTBE. No PNAs were above Tier 1 ROs.

- Subsurface investigation results indicate contamination in the UST area and the pump island area.
- Illinois EPA received a 45-Day Addendum and Free Product Report on 04/23/2009 detailing the above-described free product removal and subsurface investigation sampling.
- Illinois EPA approved the 45-Day/Stage 1 report on 6/18/2009.

Incident 20100294:

- 3 gasoline USTs and 1 heating oil UST (and product piping) were removed on 03/30/2010 (USTs # 1-4).
- Perched groundwater was present in the excavation. Contamination was visible on the UST floor, sidewalls, and backfill.
- A release was reported on 03/30/2010.
- Approximately 446.36 yds³ of contaminated soil was hauled off-site. The excavation was backfilled with pea gravel and crushed limestone. (2 split compartment USTs were installed in the excavation on 4/19/2010, along with new pump islands, and piping).
- 17 soil samples (10 wall samples, 7 floor samples) were collected after excavation and sent for BTEX, MTBE, and PNA analysis (N1, W1, I7). Several samples were above Tier 1 ROs.
- Illinois EPA received a 45-Day/Stage 1 Plan and Budget Report on 05/28/2010. Illinois EPA approved the report on 6/10/2010.
- Illinois EPA received a Stage 2 plan and budget on 05/16/2016.
- As part of Stage 1 site investigation, 9 soil borings (A1-A9) were advanced to 15 ft bgs around the site on 02/9-10/2016. Borings A1-A5 and A9 were placed in the vicinity of the pump islands and product piping. Borings A6-A8 were placed downgradient of potential migration towards the sewer line where petroleum was previously evident.
- One soil sampler per each five-foot interval above the water table was collected and sent for BTEX, MTBE, and PNAs.
- A5 and A8 were above Tier 1 ROs for multiple BTEX, PNAs.
- A groundwater investigation occurred on 2/9-10/2016.
- Soil borings A1-A3 were converted to monitoring wells (MW1-MW3). The remaining two required monitoring wells were proposed to be installed in Stage 2 site investigation.
- Water samples collected were sent for BTEX, MTBE, and PNA analysis. Samples were below Tier 1 GWRO objectives at the time.
- **Depth to water while drilling is 11-13 ft bgs.** Groundwater flow direction is west/southwest.
- The proposed Stage 2 work is the following:
 1. Five soil borings (B1-B5) will be advanced to 15 ft bgs on-site to complete soil contamination delineation. One soil sample per every five-foot interval above the water table will be collected and sent for BTEX, MTBE, and PNAs.
 2. Two soil borings (B2, A8) will be converted to groundwater monitoring wells (MW4-MW5). The groundwater sample will be analyzed for BTEX, MTBE, and PNAs.
 3. One Geotech boring (GT-1) will be advanced to 6 ft bgs on-site and a sample collected at 4-6 ft bgs for site-specific data (foc, moisture content, soil bulk density, soil particle density). The sample will also be analyzed for BTEX, MTBE, and PNAs.

- The Stage 2 plan and budget was approved on 7/7/2016. Current PM notes that the previous PM (Urish) listed all three incident numbers (20011417, 20090170, and 20100294) on the Stage 2 approval letter.
- Illinois EPA received a Stage 3 plan and budget on 11/22/2016 for all three incidents.
- Per the approved Stage 2 plan, five soil borings (B1-B5) were advanced to 15 ft bgs on 07/16/2016.
- One soil sample for every five-foot interval above the water table was collected and sent for BTEX, MTBE, PNA analysis (15 samples total). Groundwater was not encountered while drilling.
- Soil samples from B1, B4, and B5 were above Tier 1 ROs for BTEX, and naphthalene.
- **Groundwater was not encountered while drilling down to 15 ft bgs.**
- One geotechnical boring was advanced to 6 ft bgs and sample collected at 4-6 ft bgs. Current PM notes that the Geotech sample was not analyzed for BTEX, MTBE, and PNAs, as proposed in the Stage 2 plan.
- Two monitoring wells (MW4, MW5) were installed to 15 ft bgs on 07/26/2016, and sampled on 08/04/2016. Groundwater samples were analyzed for BTEX, MTBE, and PNAs.
- Groundwater from wells MW4 and MW5 were above Tier 1 Class 1 GWROs for BTEX.
- Current PM notes that the Stage 3 plan states that monitoring well MW5 was placed at A8, where the most significant contamination was detected as part of Stage 1. PM notes that the highest contamination at the site is at location E3 (benzene at 26.7 mg/kg).

Proposed Stage 3 work:

- Two soil borings (C1, C2) will be advanced to 10 ft bgs to complete soil contamination delineation to the south and east (C1 will be to the south across Chicago Ave and C2 will be to the east across the sidewalk). One soil sample from each five-foot interval will be collected and sent for BTEX, MTBE, and PNA analysis.
- One monitoring well (MW6) will be advanced (15 ft bgs) on-site next to soil sample A5 to determine if the soil contamination present at A5 has reached the groundwater. The groundwater sample will be analyzed for BTEX, MTBE, and PNAs.
- The Illinois EPA approved the Stage 3 plan and budget on 12/9/2016.
- Illinois EPA received an Amended Stage 3 plan and SICR on 08/22/2019.
- The approved (12/9/2016) Stage 3 work was completed on 07/12/2017.
- Per the approved plan, two soil borings (C1, C2) were advanced to 10 ft bgs to the south and east. One soil sample per every five-foot interval was collected and sent for BTEX, MTBE, and PNA analysis.
- The soil samples were below Tier 1 ROs.
- **Groundwater was not encountered while drilling down to 10 ft bgs.**
- One monitoring well (MW6) was advanced to 15 ft bgs on-site next to A5. One water sample was collected and sent for BTEX, MTBE, and PNA analysis.
- The groundwater sample was above Tier 1 Class 1 GWROs for benzene and MTBE.
- The Amended Stage 3 plan states that the groundwater classification at the site is Class II because of the following factors: the conductivity is 10^{-6} , depth to groundwater is less than 10 ft, a clay soil classification which is incapable of sustaining a groundwater yield from a 12-inch borehole of 150- gallons per day or more from a thickness of 15-feet or less.

- The Amended Stage 3 plan proposed the advancement of three borings (D1-D3) to 15 ft bgs along the western property line. All monitoring wells will have the water level remeasured (to verify the groundwater flow direction).
- The Illinois EPA approved the Amended Stage 3 plan with the following modifications on 09/24/2019: a groundwater monitoring well is required off-site south of MW-5 and one east of MW-6 to complete groundwater delineation, and the soil contamination present at the west property boundary (B1) needs to be delineated or provide an off-site access denial demonstration.
- The Illinois EPA received a Site Investigation Completion Report (SICR) on 10/02/2023.
- In order to get current data on the western property boundary, boring D3 was installed to 15 ft bgs next to B1. One soil sample per five-foot interval was collected and sent for BTEX, MTBE, and PNA analysis. The soil samples collected from D3 were collected at the highest PID in the interval and/or the depth of the exact historic contamination.
- All samples were below Tier 1 ROs.
- Per the modified Amended Stage 3 plan, two soil borings were placed north of B1 (D1 to 15 ft bgs, and D2 to 10 ft bgs). One sample from each five-foot interval was collected and sent for BTEX, MTBE analysis.
- The soil samples were below Tier 1 ROs.
- **Depth while drilling is 9-11 ft bgs in D1 and D2.**
- Monitoring well MW-4 was resampled on 06/13/2023. Monitoring well MW-4 is now below Tier 1 Class 1 GWROs.
- Per the modified Amended Stage 3 plan, two temporary wells (TMW1, TMW2) were installed to the south and east. One groundwater sample was collected from each well and sent for BTEX, MTBE analysis.
- The groundwater samples were non-detect.
- Groundwater flow direction is now south/southwest.
- Illinois EPA approved the SICR on 01/03/2024.
- Illinois EPA received a CAP and BUD on 07/07/2025.

CAP and BUD received 07/16/2025:

- The CAP includes the results of the Tier 2 analysis.
- The following samples are above Tier 2 ROs: A2, A4, A5, A6, N1, N2, S1, S2, E3, W3, A8, B1, B5.
- The following monitoring wells are above Tier 1 ROs and required modeling: MW5, MW6. MW-5 and MW-6 model off-site to the south and east (23 feet offsite).
- The following institutional controls are proposed to address the Tier 2 exceedances:

On-site:

Industrial/commercial land use restriction
Construction worker caution
Groundwater use restriction
Slab-on-grade restriction

Off-site:

HAA for soil and groundwater to the east and south (North Taylor Ave to Chicago Ave)

- The CAP includes a draft HAA for the Village of Oak Park. PM notes the draft HAA matches 35 Ill. Adm. Code 742. Appendix E except for the following issues: the UST site address needs verifying and correcting, if necessary (it is 100 West Chicago Ave or 100 Chicago Ave?), line item #2 (The Illinois Emergency Management Agency has assigned incident numbers) needs to list all three incident numbers as well as remove the parentheses section that says [Use this paragraph if IEMA has issued an incident number].

Site-specific data (4-6 ft):

Hydraulic conductivity (MW-3): 1.947×10^{-4} cm/sec (later determined to be not consistent with clay geology)

(MW-6): 1.131×10^{-6} cm/sec

(MW-4): 3.14×10^{-5} cm/sec (modeling performed with this value)

Hydraulic gradient: 0.01568 (R^2 is 0.787)

Foc: 0.01568 ft/ft

Moisture content: 23.8%

Specific gravity: 2.65 (default)

Dry soil bulk density: 1.67 g/cm^3

Static water elevations: 1ft-14.4 ft

Water depth while drilling: 9 ft bgs

Groundwater flow direction: south/southwest

- SWAP results from 09/24/2025 show no private potable wells within 200 feet of site, and no CWS or non-CWS located within 2500 feet of site. Site is within the Village of Oak Park Groundwater Ordinance 2001-0-107.

Illinois EPA Decision:

- Modify the CAP:
 1. The draft HAA with the Village of Oak Park needs the following modifications: the UST site address needs verifying and correcting, if necessary (it is 100 West Chicago Ave or 100 Chicago Ave?), line item #2 (The Illinois Emergency Management Agency has assigned incident numbers) needs to list all three incident numbers.
- Approve the CAP BUD.

Response Due:

- CACR by February 24, 2026.



Illinois Environmental Protection Agency

2520 West Iles Avenue • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

IEPA

Right-to-Know Evaluation

Division of Records Management
Releasable

Date: Sep 25, 2025

OCT 06 2025

Reviewer: AMS

Site Information	Employee Information
Site Name: <u>Oak Park BP</u>	Name: <u>Nicole Cosenza</u>
Site ID Number: <u>0312255142</u>	Section/Unit: <u>BOL/LUST</u>
Site County: <u>Cook</u>	Phone: <u>217-782-1638</u>
Site Address: <u>100 Chicago Avenue</u>	Email: <u>nicole.cosenza@illinois.gov</u>
City, State, Zip: <u>Oak Park, IL 60302</u>	
Criteria (check all that apply)	
<input type="checkbox"/> Groundwater contamination (including soil contamination exceeding the applicable remediation objectives for the soil component of the groundwater ingestion exposure route) from the site where the release occurred poses a threat of exposure to the public above the Class I groundwater quality standards or the Class I groundwater remediation objectives within the setback zone of a potable water supply well: <ul style="list-style-type: none"> <input type="radio"/> Limited community relations activities are required: Five (5) or fewer potable water supply wells, other than a community water system well, are affected by the release at the site. <input type="radio"/> Expanded community relations activities are required: More than five (5) potable water supply wells, or one (1) or more community water system wells, are affected by the release at the site. 	
<input type="checkbox"/> Groundwater contamination or soil gas contamination from volatile chemicals beyond the boundary of the site where the release occurred poses a threat of indoor inhalation exposure to the public above the appropriate Tier 1 remediation objectives, based on the current use of the off-site property: <ul style="list-style-type: none"> <input type="radio"/> Limited community relations activities are required: Five (5) or fewer off-site properties are affected by the release at the site. <input type="radio"/> Expanded community relations activities are required: More than five (5) off-site properties are affected by the release at the site. 	
<input type="checkbox"/> Soil contamination or soil gas contamination beyond the boundary of the site where the release occurred poses a threat of exposure to the public above the appropriate Tier 1 remediation objectives, based on the current use of the off-site property: <ul style="list-style-type: none"> <input type="radio"/> Limited community relations activities are required: Five (5) or fewer off-site properties are affected by the release at the site. <input type="radio"/> Expanded community relations activities are required: More than five (5) off-site properties are affected by the release at the site. 	
<input type="checkbox"/> The Illinois EPA refers a matter for enforcement under Section 43(a) of the Act.	
<input type="checkbox"/> The Illinois EPA issues a seal order under Section 34 of the Act.	
<input type="checkbox"/> The Illinois EPA, U.S. EPA, or a third party under Illinois EPA or U.S. EPA oversight performs an immediate/emergency removal under the federal Comprehensive Environmental Response, Compensation, and Liability Act.	
Summary	
<input checked="" type="checkbox"/> None of the above criteria are met and the site does not warrant further evaluation.	
<input type="checkbox"/> At least one of the above criteria is met and the site must be further evaluated: this Right-to-Know Evaluation should be submitted to the Office of Community Relations Right-to-Know Coordinator along with a Right-to-Know Referral. Both forms should be completed, digitally signed, and submitted electronically.	
Project Manager: <u>Nicole Cosenza</u> <div style="text-align: center;">Signature</div>	Digitally signed by Nicole Cosenza Date: 2025.09.25 16:28:46 -05'00' <div style="text-align: center;">Date</div>



Illinois EPA Leaking Underground Storage Tank Section Indoor Inhalation Exposure Route Checklist

Applicability: This checklist may be used to exclude the indoor inhalation exposure route in accordance with 35 Illinois Administrative Code (Ill. Adm. Code) Section 742.312. This checklist shall be applied during the development of site investigation completion report (SICR) and corrective action plan (CAP), if applicable, and may be reapplied after completion of a corrective action plan proposing active remediation.

Reviewed by: Nicole Cosenza
Date Reviewed: 09/24/2025

BOLID <u>0312255142</u>	County: <u>Cook</u>
Incident # <u>20011417, 20090170, 20100294</u>	City: <u>Oak Park</u>
Site Name: <u>Oak Park BP</u>	
Site Address: <u>100 Chicago Avenue, Oak Park, IL 60302</u>	
Leaking UST Technical File	

1. Do you have volatile chemicals at your site per 35 Ill. Adm. Code 742.Appendix A.Table J?

No Yes

If "No" is checked, no further evaluation of the indoor inhalation exposure route is required.

If "Yes" is checked, continue to question No. 2.

2. Was groundwater encountered at the site?

No Yes

If "No" is checked, continue to question No. 3.

If "Yes" is checked, continue to question No. 5.

IEPA
Division of Records Management
Releasable

3. Do benzene concentrations in the soil exceed 10 mg/kg?

No Yes

If "No" is checked, continue to question No. 12.

If "Yes" is checked, continue to question No. 4.

OCT 06 2025
Reviewer: AMS

4. Vertical Separation Screening (Residual LNAPL)

Is there at least 15 feet of soil exhibiting benzene concentrations less than 10 mg/kg between the soil exhibiting benzene concentrations greater than 10 mg/kg and the lowest point of a building foundation/crawl space or ground surface if there is no overlying receptor?

No Yes

If "No" is checked, evaluation of the indoor inhalation exposure route in accordance with 35 Ill. Adm. Code 742 is required.

If "Yes" is checked, continue to question No. 10.

5. Has the groundwater plume been defined to the Class I standards for the volatile chemicals?

No Yes

If "No" is checked, additional investigation is required to define the groundwater plume.

If "Yes" is checked, continue to question No. 6.

6. Do benzene concentrations in groundwater exceed the Class I standard (0.005 mg/L)?

No Yes

Answer this question (No. 6) and continue to question No. 7.

7. LNAPL/Residual LNAPL Determination

Is there free product exceeding one-eighth of an inch in depth as measured in a monitoring well?

No Yes

Do benzene concentrations in groundwater exceed 5 mg/L?

No Yes

Do total BETX concentrations in groundwater exceed 20 mg/L?

No Yes

Do benzene concentrations in soil exceed 10 mg/kg?

No Yes

If "No" is checked for question No. 6, and "No" is checked for all the LNAPL/Residual LNAPL questions above, continue to question No. 12.

If "Yes" is checked for question No. 6, and "No" is checked for all the LNAPL/Residual LNAPL questions above, a dissolved groundwater plume is present. Continue to question No. 8.

If "Yes" is checked for any of the LNAPL/Residual LNAPL questions above, an LNAPL/Residual LNAPL plume is present. Continue to question No. 9.

8. Vertical Separation Screening (Dissolved Groundwater Plume)

Is there at least five feet of soil exhibiting benzene concentrations less than 10 mg/kg between the highest measured groundwater elevation in a monitoring well and the lowest point of a building foundation/crawl space or ground surface if there is no overlying receptor?

No

Yes

If "No" is checked, evaluation of the indoor inhalation exposure route in accordance with 35 Ill. Adm. Code 742 is required.

If "Yes" is checked, continue to question No. 10.

9. Vertical Separation Screening (LNAPL/Residual LNAPL)

Is there at least 15 feet of soil exhibiting benzene concentrations less than 10 mg/kg between the highest measured free product elevation in a monitoring well or the highest measured groundwater elevation in a monitoring well and the lowest point of a building foundation/crawl space or ground surface if there is no overlying receptor?

No

Yes

If "No" is checked, evaluation of the indoor inhalation exposure route in accordance with 35 Ill. Adm. Code 742 is required.

If "Yes" is checked, continue to question No. 10.

10. Precluding Factors (Karst Geology)

Are the properties affected by the release located in an area with Karst geology, as determined by the SWAP Mapping System?

No

Yes

If "No" is checked, continue to question No. 11.

If "Yes" is checked, the release cannot be screened out using a vertical separation distance, and an evaluation of the indoor inhalation exposure route in accordance with 35 Ill. Adm. Code 742 is required.

11. Precluding Factors (Utility Conduits)

Are utility conduits present within the contaminated groundwater or LNAPL/residual LNAPL that may allow for migration of vapors into buildings? Note, for the conduit to allow for migration of vapors into the building, the conduit must be improperly sealed at the building.

No

Yes

If "No" is checked, continue to question No. 12.

If "Yes" is checked, the conduit must be properly sealed in a manner that does not allow for migration of vapors into the building.

12. Are there reports of petroleum vapors in buildings as a result of the release from the UST?

No

Yes

If "No" is checked, no further evaluation of the indoor inhalation exposure route is required.

If "No" is checked, and "Yes" is checked for question No. 8, then an engineered barrier consisting of 5 feet of soil exhibiting benzene concentrations less than 10 mg/kg must be accepted. However, if "Yes" is checked for question No. 4 or question No. 9, an engineered barrier consisting of 15 feet of soil exhibiting benzene concentrations less than 10 mg/kg must be accepted.

If "Yes" is checked, evaluation of the indoor inhalation exposure route in accordance with 35 Ill. Adm. Code Part 742 is required.

CONCLUSION

- Evaluation of the indoor inhalation exposure route in accordance with 35 Ill. Adm. Code 742 is required.
- Evaluation of the indoor inhalation exposure route is not required.
- Evaluation of the indoor inhalation exposure route is not required subject to accepting 5 feet of soil exhibiting benzene concentrations less than 10 mg/kg as an engineered barrier.
- Evaluation of the indoor inhalation exposure route is not required subject to accepting 15 feet of soil exhibiting benzene concentrations less than 10 mg/kg as an engineered barrier.

Sources:

<https://www.itrcweb.org/PetroleumVI-Guidance/>

<https://www.epa.gov/ust/technical-guide-addressing-petroleum-vapor-intrusion-leaking-underground-storage-tank-sites>

Note:

To access a map of Illinois' Karst geology, click <https://illinois-epa.maps.arcgis.com/apps/webappviewer/index.html?id=4d37a05f5ba441f1b30dab54ccb81fc8>, click "Layer List," check and expand "Source Water Assessment Protection Data," check and expand "Surficial/Bedrock Geology," and check "Karst."

September 2024