



October 4, 2023

Ms. Sarah Harmeling  
Phillips Edison & Company  
11501 Northlake Drive  
Cincinnati, OH 45249  
*Via Electronic Mail Only to sharmeling@phillipsedison.com*

**KEEP THIS LEGAL DOCUMENT WITH YOUR PROPERTY RECORDS**

**SUBJECT:** Case Closure with Continuing Obligations  
Greentree Cleaners, 5111 Douglas Ave., Racine, WI 53402  
BRRTS #: 02-52-579863

Dear Ms. Harmeling:

The Wisconsin Department of Natural Resources (DNR) is pleased to inform you that the Greentree Cleaners case identified above met the requirements of Wisconsin Administrative (Wis. Admin.) Code chs. NR 700 to 799 for case closure with continuing obligations (COs). COs are legal requirements to address potential exposure to remaining contamination. No further investigation or remediation is required at this time for the reported hazardous substance discharge and/or environmental pollution.

However, you, future property owners and occupants of the property must comply with the COs as explained in this letter, which may include maintaining certain features and notifying the DNR and obtaining approval before taking specific actions. You must provide this letter and all enclosures to anyone who purchases, rents or leases this property from you.

This case closure decision is issued under Wis. Admin. Code chs. NR 700 to 799 and is based on information received by the DNR to date. The DNR reviewed the case closure request for compliance with state laws and standards and determined the case closure request met the notification requirements of Wis. Admin. Code ch. NR 725, the response action goals of Wis. Admin. Code § NR 726.05(4), the case closure criteria of Wis. Admin. Code §§ NR 726.05, 726.09 and 726.11.

The Greentree Cleaners site was investigated for a discharge of hazardous substances and/or environmental pollution from a former drycleaning machine located in building 5131 Douglas Avenue (building 5131) within the strip mall on the northeast portion of the 7-acre parcel. The Site Investigation was focused in and around this building. Soil, groundwater and vapor beneath building 5131 and east of this building were identified as being contaminated during the course of the investigation. Case closure is granted for the volatile organic compounds (VOCs) as documented in the case file. The site investigation and/or remedial action addressed soil, groundwater and vapor. Contamination remains in soil, groundwater and vapor beneath building 5131 and east of this building.

The case closure decision and COs required were based on the current use of the site for commercial purposes. The site is currently zoned commercial with the City of Racine. Based on the land use and zoning, the site meets

the non-industrial land use classification under Wis. Admin. Code § NR 720.05(5) for application of residual contaminant levels in soil.

### SUMMARY OF CONTINUING OBLIGATIONS

COs are applied at the following locations:

ADDRESS (CITY, WI)	COS APPLIED	DATE OF MAINTENANCE PLAN(S)
5111 Douglas Ave, Racine, WI	Residual Groundwater Cont.	
	Residual Soil Cont.	
	Cover for GW Pathway and Non-industrial DC	January 12, 2023
	Structural Impediment	
	Vapor Intrusion - Commercial/industrial vapor assumptions	
	Vapor Intrusion – Future vapor risk	

### CLOSURE CONDITIONS

Closure conditions are legally required conditions which include both COs and other requirements for case closure (Wis. Stat. § 292.12(2)). Under Wis. Stat. § 292.12(5), you, any subsequent property owners and occupants of the property must comply with the closure conditions as explained in this letter. The property owner must notify occupants for any condition specified in this letter under Wis. Admin. Code §§ NR 726.15(1)(b) and NR 727.05(2). If an occupant is responsible for maintenance of any closure condition specified in this letter, you and any subsequent property owner must include the condition in the lease agreement under Wis. Admin. Code § NR 727.05(3) and provide the maintenance plan to any occupant that is responsible.

DNR staff may conduct periodic pre-arranged inspections to ensure that the conditions included in this letter and the maintenance plan dated January 12, 2023 are met (Wis. Stat. § 292.11(8)). If these requirements are not followed, the DNR may take enforcement action under Wis. Stat. ch. 292 to ensure compliance with the closure conditions.

### SOIL

#### *Continuing Obligations to Address Soil Contamination*

Residual Soil Contamination (Wis. Admin. Code chs. NR 718, NR 500 to 599, and § NR 726.15(2)(b) and Wis. Stat. ch. 289)

Soil contamination remains beneath building 5131 east of this building as indicated on the enclosed map (Figure B.2.b., Residual Soil Contamination, October 16, 2023). If soil in the location(s) shown on the map is excavated in the future, the property owner or right of way holder at the time of excavation must sample and analyze the excavated soil. If sampling confirms that contamination is present, the property owner or right of way holder at

the time of excavation will need to determine if the material is considered solid waste and ensure that any storage, treatment or disposal complies with applicable standards and rules. Contaminated soil may be managed under Wis. Admin. Code ch. NR 718 with prior DNR approval.

Cover (for soil) (Wis. Stat. § 292.12(2)(a), Wis. Admin. Code §§ NR 724.13(1) and (2), NR 726.15(2)(d) and/or (e), NR 727.07(1))

The cover for the Greentree Cleaners includes the current building, the pavement to the east of the building as shown on the enclosed map (Figure D.2, Location Map, December 14, 2022) shall be maintained in compliance with the enclosed maintenance plan, dated January 12, 2023. The purpose of the cover is to minimize the infiltration of water through contaminated soil and prevent direct contact with residual soil contamination that might otherwise pose a threat to human health. The building is also considered a structural impediment; additional investigation and response requirements apply as described in the section of this letter titled Structural Impediments.

The cover approved for this closure was designed to be protective for commercial or industrial land uses. Before using the property for residential purposes and before taking an action, the property owner must notify the DNR to determine if additional response actions are warranted. A cover intended for industrial land uses or certain types of commercial land uses may not be protective if the property changes to a residential use. This may include, but is not limited to, single or multiple family residences, a school, day care, senior center, hospital or similar settings. In addition, a cover designed for multi-family residential housing use may not be appropriate for use at a single-family residence.

To modify or replace a cover, the property owner must submit a request to the DNR under Wis. Admin. Code ch. NR 727. The DNR approval must be obtained before implementation. The replacement or modified cover must be a structure of similar permeability or be protective of the revised use of the property until contaminant levels no longer exceed Wis. Admin. Code ch. NR 720 groundwater pathway residual contaminant levels and direct contact residual contaminant levels (RCLs).

Structural Impediment (Wis. Stat. § 292.12(2)(b), Wis. Admin. Code §§ NR 726.15(2)(f), NR 727.07(2))

The building 5131, as shown on the enclosed map (Figure B.2.b., Residual Soil Contamination, October 16, 2023) made complete site investigation and remediation of the contamination on this property impracticable. Upon removal of the structural impediment, the property owner shall investigate the degree and extent of VOC contamination obstructed by the structural impediment. If contamination is found at that time, the property owner shall remediate the contamination in accordance with Wis. Admin. Code chs. NR 700 to 799.

## GROUNDWATER

### *Continuing Obligations to Address Groundwater Contamination and/or Monitoring Wells*

Residual Groundwater Contamination (Wis. Admin. Code ch. NR 140 and § NR 812.09(4)(w))

Groundwater contamination which equals or exceeds the enforcement standards for tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene and vinyl chloride (VC) beneath building 5131 and east of this building as shown on the enclosed map (Figure B.3.b.1 – B.3.b.4, Groundwater Isoconcentration figures, April 19, 2022). To construct a new well or reconstruct an existing well, the property owner must obtain prior DNR approval. Additional casing may be necessary to prevent contamination of the well.

## VAPOR

### *Continuing Obligations to Address Vapor Contamination*

Vapor intrusion (VI) is the movement of vapors coming from volatile chemicals in the soil or groundwater or within preferential pathways into buildings where people may breathe air contaminated by the vapors.

**VI - Commercial/Industrial Use:** (Wis. Stat. § 292.12(2), Wis. Admin. Code § NR 726.15(2)(k) or (m)) Soil vapor, soil and groundwater beneath the Greentree Cleaners building 5131 contains contamination at concentrations that pose a long-term risk to human health if allowed to migrate into an occupied building. See the enclosed map (Figure B.4.a.1., Sub-slab Vapor Sample Results Pre and Post SVE, January 13, 2023). Case closure is based on the following site-specific exposure assumptions: this building is currently used for commercial purposes, the building will remain in place with the current layout. Use of this property is restricted to the following uses: commercial or industrial. If changes in property or land use are planned, the property owner must evaluate whether the closure is protective for the proposed use. The DNR may require additional response actions. The property owner shall maintain the floor and building layout as well as the paved areas surrounding the building in accordance with the enclosed maintenance plan dated January 12, 2023.

**VI - Future Concern:** (Wis. Stat. § 292.12(2), Wis. Admin. Code § NR 726.15(2)(L) or (m), as applicable.) Chlorinated VOCs remain in soil and groundwater beneath the building 5131 and east of the building, as shown on the enclosed maps, (Figures B.3.b.1 – B.3.b.4, Groundwater Isoconcentration, April 19, 2022; Figure B.2.b., Residual Soil Contamination, October 16, 2023), at concentrations that may be of concern for vapor intrusion in the future, if a building is constructed, renovated or expanded in an area where no building currently exists or if an existing building is remodeled. At the time of closure, a strip mall building with various retail/commercial uses and unoccupied spaces are present on the property.

Vapor control technologies are required for new construction or for modification of occupied buildings on the property unless the property owner assesses the vapor pathway and the DNR agrees that vapor control technologies are not needed. The property owner shall maintain the current building use and layout.

## OTHER CLOSURE REQUIREMENTS

**Maintenance Plan and Inspection Log** (Wis. Admin. Code §§ NR 726.11(2), NR 726.15(1)(d), NR 727.05(1)(b)3., Wis. Admin. Code § NR 716.14(2) for monitoring wells)

The property owner is required to comply with the enclosed maintenance plan dated January 12, 2023 for the cover, to conduct inspections annually, and to use the inspection log (DNR Form 4400-305 or Form 4400-321 VMS Inspection Log) to document the required inspections. The maintenance plan and inspection log are to be kept up-to-date and on-site. The property owner shall submit the inspection log to the DNR only upon request using the RR Program Submittal Portal. See the DNR Notification and Approval Requirements section below for more information on how to access the Submittal Portal.

The limitations on activities are identified in the enclosed maintenance plan(s). The following activities are prohibited on any portion of this property where the cover and current building use and layout are required, without prior DNR approval.

- 1) removal of the existing barrier;
- 2) replacement with another barrier;
- 3) excavating or grading of the land surface;
- 4) filling on capped or paved areas;

- 5) plowing for agricultural cultivation;
- 6) construction or placement of a building or other structure; or
- 7) changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings.

Pre-Approval Required for Well Construction (Wis. Admin. Code § NR 812.09(4)(w))

DNR approval is required before well construction or reconstruction for all sites identified as having residual contamination and/or COs. This requirement applies to private drinking water wells and high capacity wells. To obtain approval, the property owner is required to complete and submit Form 3300-254, Continuing Obligations/Residual Contamination Well Approval Application, to the DNR Drinking and Groundwater program's regional water supply specialist. A well driller can help complete this form. The form can be obtained online at [dnr.wi.gov](http://dnr.wi.gov), search "3300-254." Additional casing may be necessary to help prevent contamination of the well.

General Wastewater Permits for Construction-related Dewatering Activities (Wis. Admin. Code ch. NR 200)

The DNR's Water Quality Program regulates point source discharges of contaminated water, including discharges to surface waters, storm sewers, pits, or to the ground surface. This includes discharges from construction-related dewatering activities, including utility work and building construction.

If the property owner or any other person plans to conduct such activities, that person must contact the Water Quality Program and, if necessary, apply for the required discharge permit. If residual soil or groundwater contamination is likely to affect water collected in a pit/trench that requires dewatering, a general permit for discharge of *Contaminated Groundwater from Remedial Action Operations* may be needed. If water collecting in a pit/trench that requires dewatering is expected to be free of pollutants other than suspended solids, oil and grease, a general permit for pit/trench *Dewatering Operations* may be needed. Additional information can be obtained by visiting the DNR website at "[dnr.wi.gov](http://dnr.wi.gov)," search "wastewater general permits."

## **DNR NOTIFICATION AND APPROVAL REQUIREMENTS**

Certain activities are limited at closed sites to maintain protectiveness to human health and the environment. The property owner is required to notify the DNR at least 45 days before and obtain approval from the DNR prior to taking the following actions (Wis. Admin. Code §§ NR 727.07, NR 726.15 (2), Wis. Stat. § 292.12(6)).

- Before removing a cover or any portion of a cover.
- Before removing a structural impediment.
- Before changing the land use for sites where commercial or industrial exposure settings were used to determine vapor risk screening levels.
- Before constructing a building and/or modifying use of or the construction of an existing building or changing property use. Certain activities are limited at closed sites to reduce the risk of exposure to residual contamination via vapor intrusion.
- For properties with a continuing obligation for addressing the future risk of vapor intrusion when buildings exist at the time of closure approval, changes to the current building use and layout are prohibited without prior DNR approval. This includes any change in building construction, reconstruction or partial demolition. The DNR may require additional actions at that time to re-assess for vapor intrusion and mitigate, as appropriate.

The DNR may require additional investigation and/or cleanup actions if necessary, to be protective of human health and the environment. The case may be reopened under Wis. Admin. Code § NR 727.13 if additional

information indicates that contamination on or from the site poses a threat, or for a lack of compliance with a CO or closure requirement. Compliance with the maintenance plan is considered when evaluating the reopening criteria.

## SUBMITTALS AND CONTACT INFORMATION

Site, case-related information and DNR contacts can be found online in the Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web (BOTW); go to [dnr.wi.gov](http://dnr.wi.gov) and search “BOTW.” Use the BRRTS ID # found at the top of this letter. The site can also be found on the map view, Remediation and Redevelopment Sites Map (RRSM) by searching “RRSM.”

Send written notifications and inspection logs to the DNR using the RR Program Submittal Portal at [dnr.wi.gov](http://dnr.wi.gov), search “RR submittal portal” (<https://dnr.wi.gov/topic/Brownfields/Submittal.html>). Questions on using this portal can be directed to the Project Manager below or to the environmental program associate (EPA) for the regional DNR office. Visit [dnr.wi.gov](http://dnr.wi.gov), search “RR contacts” and select the EPA tab (<https://dnr.wi.gov/topic/Brownfields/Contact.html>).

## CLOSING

The DNR appreciates your efforts to restore the environment at this site. If you have any questions regarding this this letter, please contact DNR project manager Shanna Laube-Anderson at [shanna.laubeanderson@wisconsin.gov](mailto:shanna.laubeanderson@wisconsin.gov).

Sincerely,



Pamela A. Mylotta  
Southeast Region Team Supervisor  
Remediation & Redevelopment Program

Attachments:

Figures B.3.b.1, B.3.b.2 and B.3.b.4, Groundwater Isoconcentration figures, April 19, 2022  
Figure B.2.b., Residual Soil Contamination, October 16, 2023  
Figure B.4.a.1., Sub-slab Vapor Sample Results Pre and Post SVE, January 13, 2023  
Figure D.2, Location Map, December 14, 2023  
Attachment D, Maintenance Plan, January 12, 2023  
Inspection Log (DNR Form 4400-305)

cc.

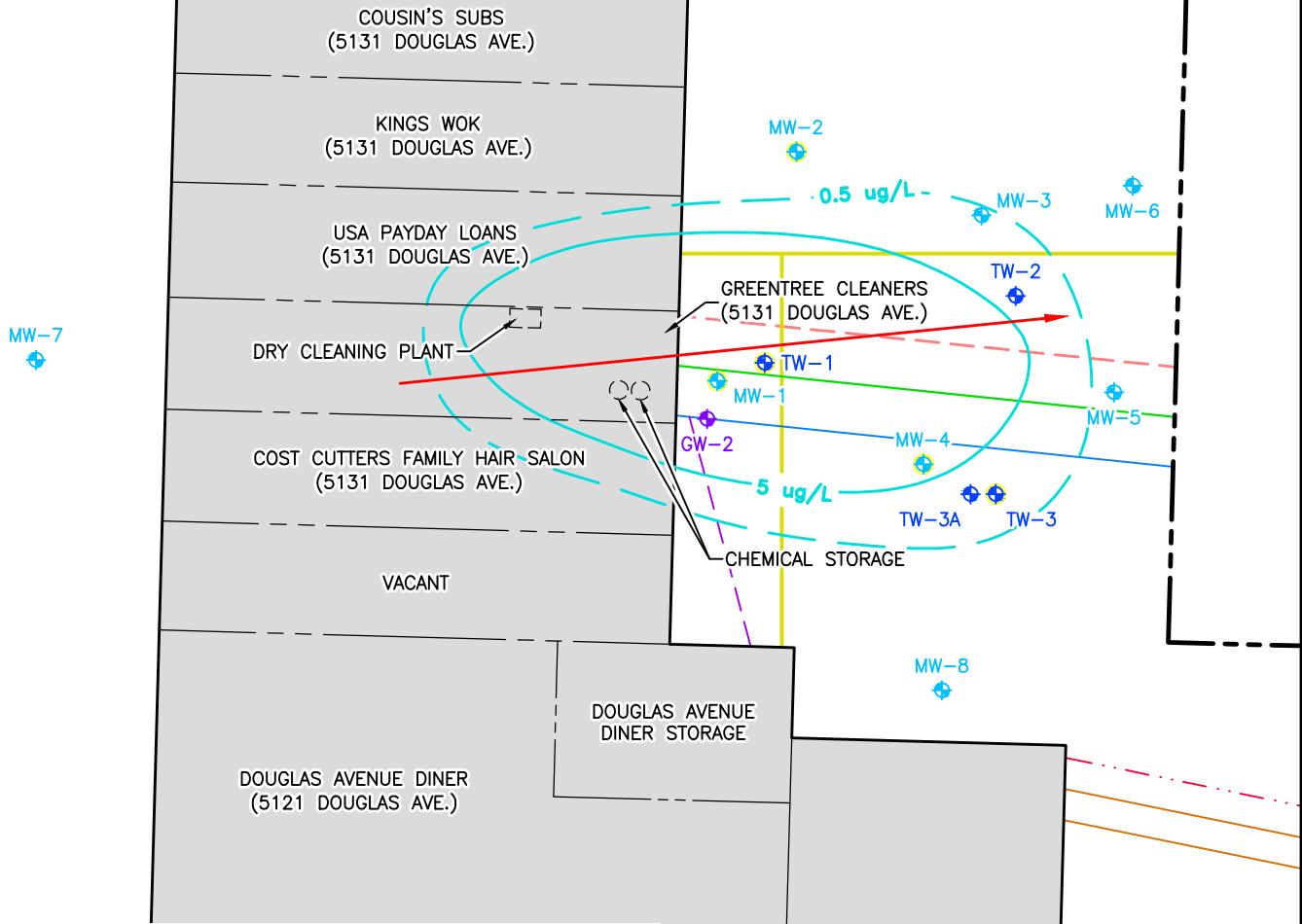
William Phelps, DNR, [William.Phelps@Wisconsin.gov](mailto:William.Phelps@Wisconsin.gov)  
Jane Allen, Apex Companies via email at [Jane.Allan@ApexCos.com](mailto:Jane.Allan@ApexCos.com)

The DNR fact sheets listed below can be obtained by visiting the DNR website at “dnr.wi.gov,” search the DNR publication number.

*Guidance for Electronic Submittals for the Remediation and Redevelopment Program (RR-690)*  
*Continuing Obligations for Environmental Protection (RR-819)*  
*Environmental Contamination and Your Real Estate (RR-973)*  
*Post-Closure Modifications: Changes to Property Conditions after a State-Approved Cleanup (RR-987)*

	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	Groundwater Quality Standards
Date Collected	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	5/22/18	11/15/18	Enforcement Standards
Tetrachloroethene	<b>41.7</b>	<0.33	0.67J	<b>7.1</b>	<0.33	<0.33	<0.50	<0.33	Preventative Action Limit

KMART  
(5141 DOUGLAS AVE.)



#### LEGEND

- BOLD** TETRACHLOROETHENE ISOCONCENTRATION
- ◆ TEMPORARY MONITORING WELLS
- ◆ MONITORING WELLS
- ◆ ECS TEMPORARY MONITORING WELLS (2005)
- GROUNDWATER FLOW DIRECTION
- AT&T
- AT&T (COPPER LINES)
- SANITARY
- - - SPECTRUM
- - - STORM DRAIN
- WATER SERVICE
- WE ENERGY

CONCENTRATIONS IN MICROGRAMS PER LITER (ug/L)

CONCENTRATIONS EXCEEDING THE GQS'S ES AND PAL ARE SHOWN IN BOLD AND ITALICS, RESPECTIVELY

SCALE IN FEET  
0 15 30 60

CHECK BY JA	
DRAWN BY EM	
DATE 04-19-22	
SCALE AS SHOWN	
CAD NO. 2017-100.05[2]	
PRJ NO. PECO_2017-100	

GROUNDWATER ISOCONCENTRATION TETRACHLOROETHENE

GREENTREE CENTRE  
5111 DOUGLAS AVENUE  
RACINE, WISCONSIN



FIGURE  
B3b1

	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	Groundwater Quality Standards
Date Collected	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	5/22/18	11/15/18	Enforcement Standards
Trichloroethene	<b>6.6</b>	<0.26	0.97J	2.3	<0.26	<0.26	<0.33	<0.26	Preventative Action Limit

KMART  
(5141 DOUGLAS AVE.)



MW-7

COUSIN'S SUBS  
(5131 DOUGLAS AVE.)

KINGS WOK  
(5131 DOUGLAS AVE.)

USA PAYDAY LOANS  
(5131 DOUGLAS AVE.)

DRY CLEANING PLANT

COST CUTTERS FAMILY HAIR SALON  
(5131 DOUGLAS AVE.)

VACANT

DOUGLAS AVENUE DINER  
(5121 DOUGLAS AVE.)

MW-2

0.5 ug/L

MW-3

MW-6

5 ug/L

GREENTREE CLEANERS

(5131 DOUGLAS AVE.)

TW-2

TW-1

MW-1

MW-4

MW-5

TW-3A TW-3

MW-8

CHEMICAL STORAGE

PAPA MURPHY'S  
(5121 DOUGLAS AVE.)

PICK 'N SAVE  
(5111 DOUGLAS AVE.)

#### LEGEND

- TRICHLOROETHENE ISOCONCENTRATION**
- TEMPORARY MONITORING WELLS
- MONITORING WELLS
- ECS TEMPORARY MONITORING WELLS (2005)
- GROUNDWATER FLOW DIRECTION
- AT&T
- AT&T (COPPER LINES)
- SANITARY
- SPECTRUM
- STORM DRAIN
- WATER SERVICE
- WE ENERGY

CONCENTRATIONS IN MICROGRAMS PER LITER (ug/L)

CONCENTRATIONS EXCEEDING THE GQS'S ES AND PAL ARE  
SHOWN IN BOLD AND ITALICS, RESPECTIVELY

SCALE IN FEET  
0 15 30 60

CHECK BY JA	
DRAWN BY EM	
DATE	04-19-22
SCALE	AS SHOWN
CAD NO.	2017-100.05[2]
PRJ NO.	PECO_2017-100

GROUNDWATER ISOCONCENTRATION TRICHLOROETHENE

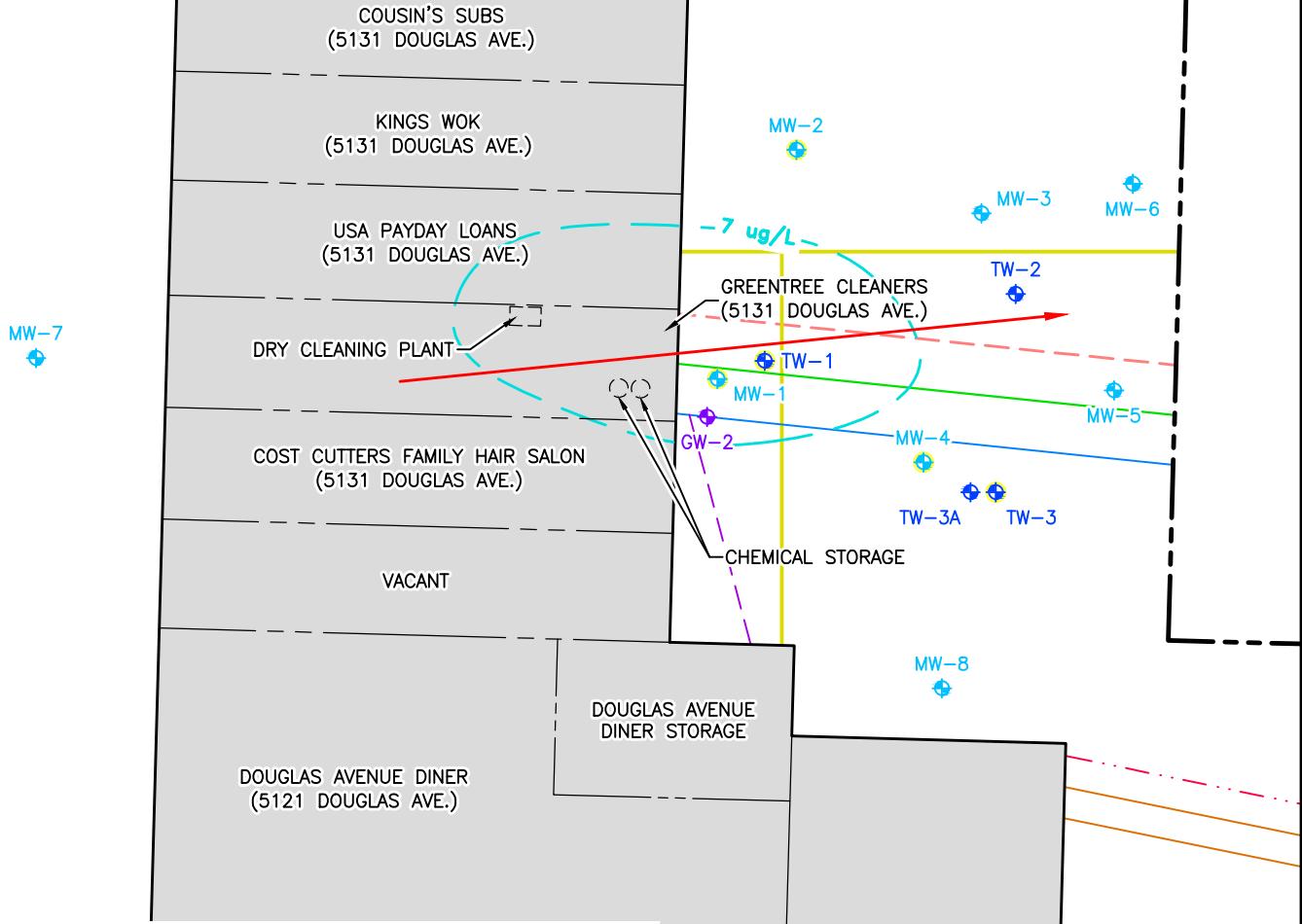
GREENTREE CENTRE  
5111 DOUGLAS AVENUE  
RACINE, WISCONSIN



FIGURE  
B3b2

	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	Groundwater Quality Standards
Date Collected	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	5/22/18	11/15/18	Enforcement Standards
cis-1,2-Dichloroethene	18.8	<0.27	0.60J	3.3	<0.27	<0.27	<0.26	<0.27	Preventative Action Limit

KMART  
(5141 DOUGLAS AVE.)



#### LEGEND

- CIS-1,2 DICHLORETHENE ISOCONCENTRATION**
- TEMPORARY MONITORING WELLS
- MONITORING WELLS
- ECS TEMPORARY MONITORING WELLS (2005)
- GROUNDWATER FLOW DIRECTION
- AT&T
- AT&T (COPPER LINES)
- SANITARY
- SPECTRUM
- STORM DRAIN
- WATER SERVICE
- WE ENERGY

CONCENTRATIONS IN MICROGRAMS PER LITER (ug/L)

CONCENTRATIONS EXCEEDING THE GQS'S ES AND PAL ARE SHOWN IN BOLD AND ITALICS, RESPECTIVELY

SCALE IN FEET

0 15 30 60

CHECK BY JA	
DRAWN BY EM	
DATE 04-19-22	
SCALE AS SHOWN	
CAD NO. 2017-100.05[2]	
PRJ NO. PECO_2017-100	

GROUNDWATER ISOCONCENTRATION CIS-1,2 DICHLORETHENE

GREENTREE CENTRE  
5111 DOUGLAS AVENUE  
RACINE, WISCONSIN



FIGURE  
B3b3

	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	Groundwater Quality Standards
Date Collected	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	11/15/18	5/22/18	11/15/18	Enforcement Standards
Vinyl chloride	37	7.3	<0.17	<b>2.7</b>	<0.17	<0.17	<0.18	<0.17	Preventative Action Limit

KMART  
(5141 DOUGLAS AVE.)



MW-7

COUSIN'S SUBS  
(5131 DOUGLAS AVE.)

KINGS WOK  
(5131 DOUGLAS AVE.)

USA PAYDAY LOANS  
(5131 DOUGLAS AVE.)

DRY CLEANING PLANT

COST CUTTERS FAMILY HAIR SALON  
(5131 DOUGLAS AVE.)

VACANT

DOUGLAS AVENUE DINER  
(5121 DOUGLAS AVE.)

DOUGLAS AVENUE  
DINER STORAGE

GREENTREE CLEANERS  
(5131 DOUGLAS AVE.)

TW-2

MW-6

MW-3

TW-1

MW-1

GW-2

MW-4

TW-3A

TW-3

MW-5

MW-8

0.2 ug/L

0.02 ug/L

CHEMICAL STORAGE

PAPA MURPHY'S  
(5121 DOUGLAS AVE.)

PICK 'N SAVE  
(5111 DOUGLAS AVE.)

#### LEGEND

- VINYL CHLORIDE ISOCONCENTRATION**
- TEMPORARY MONITORING WELLS
- MONITORING WELLS
- ECS TEMPORARY MONITORING WELLS (2005)

GROUNDWATER FLOW DIRECTION

AT&T

AT&T (COPPER LINES)

SANITARY

SPECTRUM

STORM DRAIN

WATER SERVICE

WE ENERGY

CONCENTRATIONS IN MICROGRAMS PER LITER (ug/L)

CONCENTRATIONS EXCEEDING THE GQS'S ES AND PAL ARE SHOWN IN BOLD AND ITALICS, RESPECTIVELY

SCALE IN FEET  
0 15 30 60

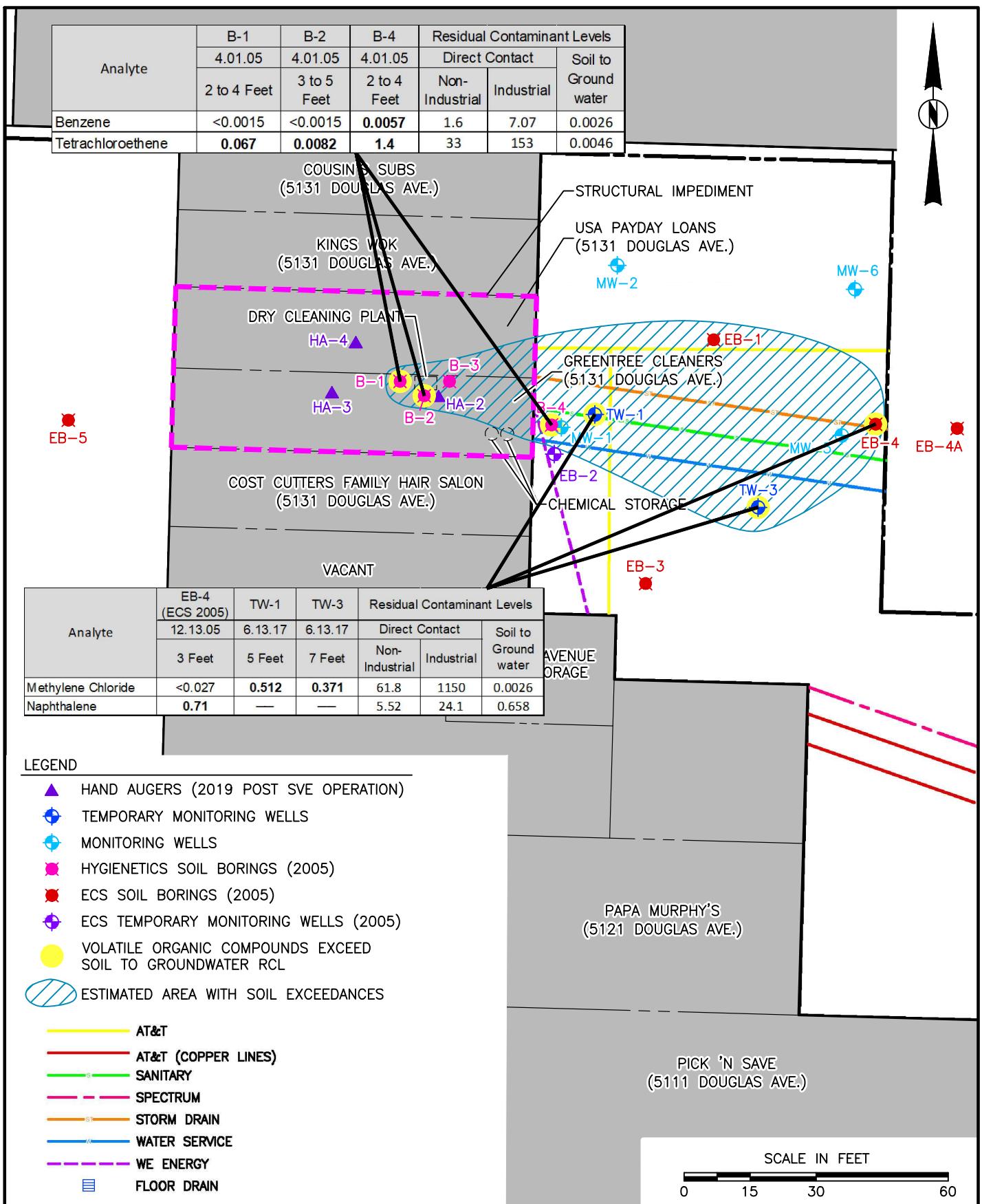
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DRAWN BY EM	
DATE 04-19-22	
SCALE AS SHOWN	
CAD NO. 2017-100.05[2]	
PRJ NO. PECO_2017-100	

GROUNDWATER ISOCONCENTRATION VINYL CHLORIDE

GREENTREE CENTRE  
5111 DOUGLAS AVENUE  
RACINE, WISCONSIN



FIGURE  
B3b4



CHECK BY JA	
DRAWN BY OS	
DATE	10-16-22
SCALE	AS SHOWN
CAD NO.	PECO.2017.100e5
PRJ NO.	PECO_2017-100

RESIDUAL SOIL CONTAMINATION  
GREENTREE CENTRE  
5111 DOUGLAS AVENUE, UNIT D  
RACINE, WISCONSIN



FIGURE  
**B.2.b**

**A.1 Groundwater Analytical Table**  
**Greentree Centre**  
**5111 Douglas Avenue, Racine, Wisconsin**

Analyte	Groundwater Quality Standards		Sample ID	TW-1	TW-3	Dup (MW-1)	Dup (MW-1)	MW-1						MW-2						MW-3						
	Enforcement Standards (ES)	Preventative Action Limit (PAL)						Date	6/14/2017	6/14/2017	8/9/2017	2/22/2018	8/9/2017	2/22/2018	5/22/2018	8/28/2018	11/15/2018	8/10/2017	2/22/2018	5/22/2018	8/28/2018	11/15/2018	8/10/2017	2/22/2018	5/22/2018	8/28/2018
Benzene	5	0.5		<0.50	<0.50	<2.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25
Bromobenzene	NE	NE		<0.23	<0.23	<0.92	<0.23	<2.3	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.24
Bromoform	4.4	0.44		<0.50	<0.50	<2.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.40
Bromochloromethane	NE	NE		<0.34	<0.34	<1.4	<0.34	<3.4	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.36
Bromodichloromethane	0.6	0.06		<0.50	<0.50	<2.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.36	
Bromomethane	10	1		<2.4	<2.4	<9.7	<2.4	<2.4	<24.3	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<0.97
n-Butylbenzene	NE	NE		<0.50	<0.50	<2.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.71
sec-Butylbenzene	NE	NE		<2.2	<2.2	<8.7	<2.2	<21.9	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<0.85
tert-Butylbenzene	NE	NE		<0.18	<0.18	<0.72	<0.18	<1.8	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.30
Carbon tetrachloride	5	0.5		<0.50	<0.50	<2.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.17
Chlorobenzene	100	20		<0.50	<0.50	<2.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.71
Chloroethane	400	80		<0.37	<0.37	<1.5	<0.37	<3.7	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<1.3
Chloroform	6	0.6		<2.5	<2.5	<10.0	<2.5	<25.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<1.3
Chloromethane	30	3		<0.50	<0.50	<2.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.22
2-Chlorotoluene	NE	NE		<0.50	<0.50	<2.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.93
4-Chlorotoluene	NE	NE		<0.21	<0.21	<0.85	<0.21	<2.1	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.76
Dibchloromethane	60	6		<0.50	<0.50	<2.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.6
1,2-Dibromo-3-	0.2	0.02		<2.2	<2.2	<8.7	<2.2	<21.6	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.8
1,2-Dibromoethane	0.05	0.005		<0.18	<0.18	<0.71	<0.18	<1.8	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.83
Dibromomethane	NE	NE		<0.43	<0.43	<1.7	<0.43	<4.3	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.94
1,2-Dichlorobenzene	600	60		<0.50	<0.50	<2.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.71
1,3-Dichlorobenzene	600	120		<0.50	<0.50	<2.0	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.63	
1,4-Dichlorobenzene	75	15		<0.50	<0.50	<2.0	<0.50	<5.0	<0.50																	

**A.1 Groundwater Analytical Table**  
**Greentree Centre**  
**5111 Douglas Avenue, Racine, Wisconsin**

Analyte	Groundwater Quality Standards		Sample ID	MW-4					MW-5					MW-6					MW-7			MW-8		
	Enforcement Standards (ES)	Preventative Action Limit (PAL)		Date	8/9/2017	2/22/2018	5/22/2018	8/28/2018	11/15/2018	8/9/2017	2/22/2018	5/22/2018	8/28/2018	11/15/2018	8/10/2017	2/22/2018	5/22/2018	8/28/2018	11/15/2018	2/22/2018	5/22/2018	2/22/2018	8/28/2018	11/15/2018
Benzene	5	0.5		<0.50	<0.50	<0.50	<0.50	<0.25	<0.50	<0.50	<0.50	<0.50	<0.25	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25
Bromobenzene	NE	NE		<0.23	<0.23	<0.23	<0.23	<0.24	<0.23	<0.23	<0.23	<0.23	<0.24	<0.23	<0.23	<0.23	<0.23	<0.24	<0.23	<0.23	<0.23	<0.23	<0.24	<0.24
Bromochloromethane	NE	NE		<0.34	<0.34	<0.34	<0.34	<0.36	<0.34	<0.34	<0.34	<0.34	<0.36	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.36	<0.36
Bromodichloromethane	0.6	0.06		<0.50	<0.50	<0.50	<0.50	<0.36	<0.50	<0.50	<0.50	<0.50	<0.36	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.36
Bromoform	4.4	0.44		<0.50	<0.50	<0.50	<0.50	<4.0	<0.50	<0.50	<0.50	<0.50	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<4.0
Bromomethane	10	1		<2.4	<2.4	<2.4	<2.4	<0.97	<2.4	<2.4	<2.4	<2.4	<0.97	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<0.97
n-Butylbenzene	NE	NE		<0.50	<0.50	<0.50	<0.50	<0.71	<0.50	<0.50	<0.50	<0.71	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.71
sec-Butylbenzene	NE	NE		<2.2	<2.2	<2.2	<2.2	<0.85	<2.2	<2.2	<2.2	<0.85	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<0.85
tert-Butylbenzene	NE	NE		<0.18	<0.18	<0.18	<0.18	<0.30	<0.18	<0.18	<0.18	<0.30	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.30
Carbon tetrachloride	5	0.5		<0.50	<0.50	<0.50	<0.50	<0.17	<0.50	<0.50	<0.50	<0.17	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.17
Chlorobenzene	100	20		<0.50	<0.50	<0.50	<0.50	<0.71	<0.50	<0.50	<0.50	<0.71	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.71
Chloroethane	400	80		<0.37	<0.37	<0.37	<0.37	<1.3	<0.37	<0.37	<0.37	<1.3	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<1.3
Chloroform	6	0.6		<2.5	<2.5	<2.5	<2.5	<1.3	<2.5	<2.5	<2.5	<1.3	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<1.3
Chloromethane	30	3		<0.50	<0.50	<0.50	<0.50	<2.2	<0.50	<0.50	<0.50	<2.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.2
2-Chlorotoluene	NE	NE		<0.50	<0.50	<0.50	<0.50	<0.93	<0.50	<0.50	<0.50	<0.93	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.93
4-Chlorotoluene	NE	NE		<0.21	<0.21	<0.21	<0.21	<0.76	<0.21	<0.21	<0.21	<0.76	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.76
Dibromochloromethane	60	6		<0.50	<0.50	<0.50	<0.50	<2.6	<0.50	<0.50	<0.50	<2.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.6
1,2-Dibromo-3-	0.2	0.02		<2.2	<2.2	<2.2	<2.2	<1.8	<2.2	<2.2	<2.2	<1.8	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<1.8
1,2-Dibromoethane	0.05	0.005		<0.18	<0.18	<0.18	<0.18	<0.83	<0.18	<0.18	<0.18	<0.83	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.83
Dibromomethane	NE	NE		<0.43	<0.43	<0.43	<0.43	<0.94	<0.43	<0.43	<0.43	<0.94	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.94
1,2-Dichlorobenzene	600	60		<0.50	<0.50	<0.50	<0.50	<0.71	<0.50	<0.50	<0.50	<0.71	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.71
1,3-Dichlorobenzene	600	120		<0.50	<0.50	<0.50	<0.50	<0.63	<0.50	<0.50	<0.50	<0.63	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.63	
1,4-Dichlorobenzene	75	15		<0.50	<0.50	<0.50	<0.50	<0.94	<0.50	<0.50	<0.50	<0.94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.94	
Dichlorodifluoromethane	1,000	200		<0.22	<0.22	<0.22	<0.22	<0.50	<0.22	<0.22	<0.22	<0.50	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.50	
1,1-Dichloroethane	850	85		<0.24	<0.24	<0.24	<0.24	<0.27	<0															

**A.3 Residual Soil Contamination Table**  
**Greentree Centre**  
**5111 Douglas Avenue, Racine, Wisconsin**

Analyte	Residual Contaminant Levels			Boring Number	B-1	B-2	B-4	EB-4 (ECS 2005)	TW-1	TW-3	
	Direct Contact		Soil to Ground water								
	Date Collected	Non- Industrial	Industrial		Sample Depth (feet bgs)	2 to 4 *	3 to 5 *	2 to 4 *	3 *	5 *	7 *
Benzene	1.6	7.07	0.0051		<0.0015	<0.0015	<b>0.0057</b>	<0.027	<0.025	<0.025	
Methylene Chloride	61.8	1150	0.0026		<0.005	<0.005	<0.005	<0.027	<b>0.512</b>	<b>0.371</b>	
Naphthalene	5.52	24.1	0.658		—	—	—	<b>0.71</b>	—	—	
Tetrachloroethene	33	153	0.0046		<b>0.067</b>	<b>0.0082</b>	<b>1.4</b>	<0.027	<0.025	<0.025	

Notes:

\* indicates soil sample was taken in unsaturated conditions

Units are in mg/kg

bgs = feet below ground surface

< = Not Detected: Concentration less than the indicated laboratory detection limit

Detected compounds are shown as *italicized*

Compounds exceeding RCLs are shown as **bold**

— = specific parameter not included in analysis

NE = Remedial Objective not established

RCLs = Residual Contaminant Levels from WDNR Remediation and Redevelopment Program's spreadsheets (updated December 2018), in accordance with Wisconsin Administrative Code NR 720.

A.4.1 Sub-Slab Soil Vapor Analytical Table  
 Greentree Centre  
 5111 Douglas Avenue, Racine, Wisconsin

Analytes	Sub-Slab Vapor VRSL			Sub-slab Sample Location	SV-1		SV-2			SV-3				
	RESIDENTIAL	SMALL COMMERCIAL	LARGE COMMERCIAL		Collection Time	8:44-9:14 AM	10:38-11:17 AM	9:36-10:15 AM	11:11-11:48 AM	12:31-1:12 PM	12:52-1:25 PM	11:00-11:39 AM	10:46-11:22 AM	12:31-1:12 PM
		AF = 0.03	AF = 0.03	AF = 0.01	Date	6/13/2017	6/27/2019	6/13/2017	1/4/2019	1/13/2022	6/13/2017	1/4/2019	6/27/2019	1/13/2022
Benzene	120	520	1,600			1.3	0.6	1.4	<0.23	NR	1.2	0.28	0.62	NR
Chloroform	41.0	180	530			1.7	2.2	39.0	27.3	NR	29.8	13.6	16.2	NR
Chloromethane	3,100	13,000	39,000			1.9	<0.23	11.8	<0.24	NR	<0.19	<0.24	<0.24	NR
Dichlorodifluoromethane	3,500	15,000	44,000			849	139	3.2	6.4	NR	3.7	10.9	3.3	NR
1,1-Dichloroethane	590	2,600	7,700			<0.26	<0.34	<0.23	<0.34	NR	<0.27	<0.34	<0.35	NR
1,2-Dichloroethane	36	160	470			<0.34	<0.22	<0.31	<0.23	NR	<0.36	<0.23	<0.23	NR
1,1-Dichloroethene	7,000	29,000	88,000			<0.40	<0.41	<0.353	<0.42	NR	<0.42	<0.42	<0.42	NR
cis-1,2-Dichloroethene	NE	NE	NE			<0.41	<0.33	2.2	13.4	<0.27	5.4	<0.33	<0.34	<0.28
trans-1,2-Dichloroethene	1400	5,800	18,000			<0.65	<0.42	<0.57	<0.43	<0.24	<0.67	<0.43	<0.44	<0.24
Ethylbenzene	370	1,600	4,900			2.3	1	1.5	2.0	NR	2.0	1.4	1.1	NR
Methylene Chloride	21,000	88,000	260,000			14.7	19.6	4.8	2.9	NR	3.8	3.9	17.9	NR
Methyl tertiary-butyl ether	3,700	16,000	47,000			<0.51	<0.99	<0.45	<1.0	NR	<0.53	<1.0	<1.0	NR
Naphthalene	28.0	120	360			19.0	2.9	25.3	11.7	NR	26.0	18.0	2.3	NR
Tetrachloroethene	1,400.0	5,800	18,000			116	30.8	4,570	490	8.3	7,720	128	61	178
Toluene	170,000	730,000	2,200,000			13.0	3.9	2.8	7.9	NR	4.1	3.7	3.1	NR
1,1,1-Trichloroethane	170,000	730,000	2,200,000			<0.41	<0.46	<0.37	<0.47	NR	<0.43	<0.47	<0.48	NR
Trichloroethene	70.0	290	880			2.7	1.1	28.6	44.9	<0.28	48.0	2.0	2.1	5.6
Trichlorofluoromethane	NE	NE	NE			3.3	2.9	1.9	<0.56	NR	1.9	1.1	1.5	NR
1,2,4-Trimethylbenzene	2,100	8,700	26,000			36.6	15.3	10.6	6.7	NR	16.5	6.6	10.3	NR
1,3,5-Trimethylbenzene	2,100	8,700	26,000			22.4	8.5	4.4	3.6	NR	7.9	2.4	4.7	NR
Vinyl chloride	56	930	2,800			<0.33	<0.19	<0.29	<0.19	<0.12	<0.34	<0.19	<0.20	<0.12
m,p-Xylene	3,500	15,000	44,000			6.3	3.6	2.8	9.1	NR	3.3	6.6	4.1	NR
o-Xylene	3,500	15,000	44,000			3.4	3.8	1.5	3.4	NR	2.2	2.7	3	NR

Notes:

Concentrations expressed in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )

Analytes above residential VRSL are shown in *italics*

Analytes above small commercial VRSL concentrations are shown in **bold**

NR = Not reported

AF = Attenuation Factor

NE = Remedial Objective not established.

< = Not Detected: Concentration less than the indicated laboratory detection limit.

All samples collected into 6L Summa canisters; Vapor pins purged and sampled at < 0.2 lpm.

Each vapor pin location was leak tested using the water dam method and shut in test.

VRSL = Vapor Risk Screening level

VRSLs from Vapor Quick Look-Up Table (RR-0136) and U.S. EPA VISL Calculator

A.4.1 Sub-Slab Soil Vapor Analytical Table  
 Greentree Centre  
 5111 Douglas Avenue, Racine, Wisconsin

Analytes	Sub-Slab Vapor VRSL			Sub-slab Sample Location	SV-4			SV-5		SV-6		SV-7		SV-8	
	RESIDENTIAL	SMALL COMMERCIAL	LARGE COMMERCIAL		Collection Time	1:23-1:58 PM	9:34-10:11 AM	3:08-3:48 PM	1:24-1:58 PM	3:09-3:49 PM	12:24-12:57 PM	11:34-12:00 PM	12:15-12:52 PM	3:06-3:43 PM	2:38-3:11 PM
		AF = 0.03	AF = 0.03	AF = 0.01	Date	8/16/2017	6/27/2019	1/13/2022	8/16/2017	1/13/2022	8/16/2017	1/13/2022	8/16/2017	1/13/2022	8/16/2017
Benzene	120	520	1,600		<2.1	0.5	NR	<2.0	NR	<2.1	NR	<2.0	NR	<2.2	NR
Chloroform	41.0	180	530		<b>630</b>	0.58	NR	53	NR	92.2	NR	39.8	NR	124	NR
Chloromethane	3,100	13,000	39,000		<1.7	0.26	NR	<1.6	NR	<1.7	NR	<1.6	NR	<1.8	NR
Dichlorodifluoromethane	3,500	15,000	44,000		<6.7	2.9	NR	115	NR	<6.7	NR	<6.4	NR	<7.0	NR
1,1-Dichloroethane	590	2,600	7,700		<3.4	<0.34	NR	<3.3	NR	<3.4	NR	<3.3	NR	<3.6	NR
1,2-Dichloroethane	36	160	470		<3.0	<0.23	NR	<2.9	NR	<3.0	NR	<2.9	NR	<3.2	NR
1,1-Dichloroethene	7,000	29,000	88,000		<3.8	<0.42	NR	<3.7	NR	<3.8	NR	<3.7	NR	<4.0	NR
cis-1,2-Dichloroethene	NE	NE	NE		32	<0.33	0.49	6	3.7	<3.5	3.4	28.2	2.6	3.9	<0.31
trans-1,2-Dichloroethene	1400	5,800	18,000		<3.1	<0.43	<0.24	<3.0	<0.24	<3.1	<0.26	<3.0	<0.25	<3.3	<0.27
Ethylbenzene	370	1,600	4,900		<2.8	0.9	NR	<2.7	NR	<2.8	NR	<2.7	NR	<2.9	NR
Methylene Chloride	21,000	88,000	260,000		<24.5	105	NR	71.7	NR	<24.5	NR	<23.6	NR	<25.5	NR
Methyl tertiary-butyl ether	3,700	16,000	47,000		<5.0	<1.0	NR	<4.9	NR	<5.0	NR	<4.9	NR	<5.3	NR
Naphthalene	28.0	120	360		<9.4	<2.0	NR	<9.0	NR	<9.4	NR	<9.0	NR	<9.8	NR
Tetrachloroethene	1,400.0	5,800	18,000		<b>26,100</b>	4.3	126	3,700	82	2,340	120	2,590	49	2,230	6
Toluene	170,000	730,000	2,200,000		69.6	4.7	NR	117	NR	63	NR	101	NR	81.5	NR
1,1,1-Trichloroethane	170,000	730,000	2,200,000		<5.5	<0.47	NR	<5.3	NR	<5.5	NR	<5.3	NR	<5.7	NR
Trichloroethene	70.0	290	880		<b>491</b>	<0.339	4.5	58.5	4.4	18.1	8.4	76.5	1.5	47.6	<0.32
Trichlorofluoromethane	NE	NE	NE		<6.7	1.4	NR	<6.5	NR	<6.7	NR	<6.5	NR	<7.0	NR
1,2,4-Trimethylbenzene	2,100	8,700	26,000		14.2	1.2	NR	14.9	NR	11.4	NR	15.8	NR	<2.9	NR
1,3,5-Trimethylbenzene	2,100	8,700	26,000		<3.8	<0.61	NR	<3.6	NR	<3.8	NR	<3.6	NR	<3.5	NR
Vinyl chloride	56	930	2,800		<2.0	<0.41	<0.12	<2.0	<0.12	<2.0	<0.13	<2.0	<0.13	<2.1	<0.14
m,p-Xylene	3,500	15,000	44,000		<5.6	2.9	NR	<5.4	NR	<5.6	NR	<5.4	NR	<5.9	NR
o-Xylene	3,500	15,000	44,000		<2.8	0.9	NR	<2.7	NR	<2.8	NR	<2.0	NR	<3.0	NR

Notes:

Concentrations expressed in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )

Analytes above residential VRSL are shown in *italics*

Analytes above small commercial VRSL concentrations are shown in **bold**

NR = Not reported

AF = Attenuation Factor

NE = Remedial Objective not established.

< = Not Detected: Concentration less than the indicated laboratory detection limit.

All samples collected into 6L Summa canisters; Vapor pins purged and sampled at < 0.2 lpm.

Each vapor pin location was leak tested using the water dam method and shut in test.

VRSL = Vapor Risk Screening level

VRSLs from Vapor Quick Look-Up Table (RR-0136) and U.S. EPA VISL Calculator

A.4.1 Sub-Slab Soil Vapor Analytical Table  
 Greentree Centre  
 5111 Douglas Avenue, Racine, Wisconsin

Analytes	Sub-Slab Vapor VRSI			Sub-slab Sample Location	SV-9		SV-10		SV-11		SV-12		SV-13	SV-14	
	RESIDENTIAL	SMALL COMMERCIAL	LARGE COMMERCIAL		Collection Time	10:56-11:27 PM	3:07-3:52 PM	11:21-11:51 PM	11:24-12:00 PM	11:53-12:23 PM	3:05-3:42 PM	11:19-11:44 AM	10:54-11:31 AM	11:24-12:00 PM	3:05-3:42 PM
		AF = 0.03	AF = 0.03	AF = 0.01	Date	9/13/2017	1/13/2022	9/13/2017	1/13/2022	9/13/2017	1/13/2022	1/4/2019	6/27/2019	1/13/2022	1/13/2022
Benzene	120	520	1,600			2.8	NR	4.3	NR	4.7	NR	0.7	0.72	NR	NR
Chloroform	41.0	180	530			2	NR	5.6	NR	36.5	NR	6.0	11.5	NR	NR
Chloromethane	3,100	13,000	39,000			<0.23	NR	<0.23	NR	<0.23	NR	<0.24	<0.24	NR	NR
Dichlorodifluoromethane	3,500	15,000	44,000			49	NR	2.8	NR	32.6	NR	7.4	2.8	NR	NR
1,1-Dichloroethane	590	2,600	7,700			<0.36	NR	<0.37	NR	<0.37	NR	<0.35	<0.34	NR	NR
1,2-Dichloroethane	36	160	470			<0.33	NR	<0.35	NR	<0.35	NR	<0.23	<0.23	NR	NR
1,1-Dichloroethene	7,000	29,000	88,000			<0.40	NR	<0.41	NR	<0.41	NR	<0.42	<0.42	NR	NR
cis-1,2-Dichloroethene	NE	NE	NE			<0.57	<0.26	<0.60	4.2	<0.60	6.8	<0.34	<0.33	<0.28	6.6
trans-1,2-Dichloroethene	1400	5,800	18,000			<0.50	<0.23	<0.52	<0.26	<0.52	<0.25	<0.68	<0.43	<0.25	<0.25
Ethylbenzene	370	1,600	4,900			4.0	NR	3.3	NR	5.1	NR	2.3	1.3	NR	NR
Methylene Chloride	21,000	88,000	260,000			6.7	NR	<2.7	NR	<2.7	NR	1.8	22.1	NR	NR
Methyl tertiary-butyl ether	3,700	16,000	47,000			<1.1	NR	<1.2	NR	<1.2	NR	<1.0	<1.0	NR	NR
Naphthalene	28.0	120	360			<1.0	NR	<1.0	NR	<1.0	NR	12.7	4.8	NR	NR
Tetrachloroethene	1,400.0	5,800	18,000			100.0	3	127.0	83.6	4,530	342.0	119	83.8	19.7	165
Toluene	170,000	730,000	2,200,000			19.5	NR	12.9	NR	12.5	NR	7.4	4.6	NR	NR
1,1,1-Trichloroethane	170,000	730,000	2,200,000			<0.57	NR	<0.60	NR	<0.60	NR	<0.48	<0.47	NR	NR
Trichloroethene	70.0	290	880			1.8	<0.26	1.5	4.7	68.8	16.7	2.0	2.5	<0.29	10.3
Trichlorofluoromethane	NE	NE	NE			1.8	NR	1.5	NR	2.6	NR	<0.57	1.5	NR	NR
1,2,4-Trimethylbenzene	2,100	8,700	26,000			5.2	NR	7.8	NR	5.3	NR	7.1	31.7	NR	NR
1,3,5-Trimethylbenzene	2,100	8,700	26,000			1.6	NR	3.3	NR	1.7	NR	1.9	16.0	NR	NR
Vinyl chloride	56	930	2,800			<0.21	<0.12	<0.22	<0.13	<0.22	<0.13	<0.20	<0.19	<0.13	<0.13
m,p-Xylene	3,500	15,000	44,000			7.1	NR	7.4	NR	10.4	NR	9.4	5.4	NR	NR
o-Xylene	3,500	15,000	44,000			3.3	NR	3.5	NR	4.1	NR	3.8	8.8	NR	NR

Notes:

Concentrations expressed in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )

Analytes above residential VRSI are shown in *italics*

Analytes above small commercial VRSI concentrations are shown in **bold**

NR = Not reported

AF = Attenuation Factor

NE = Remedial Objective not established.

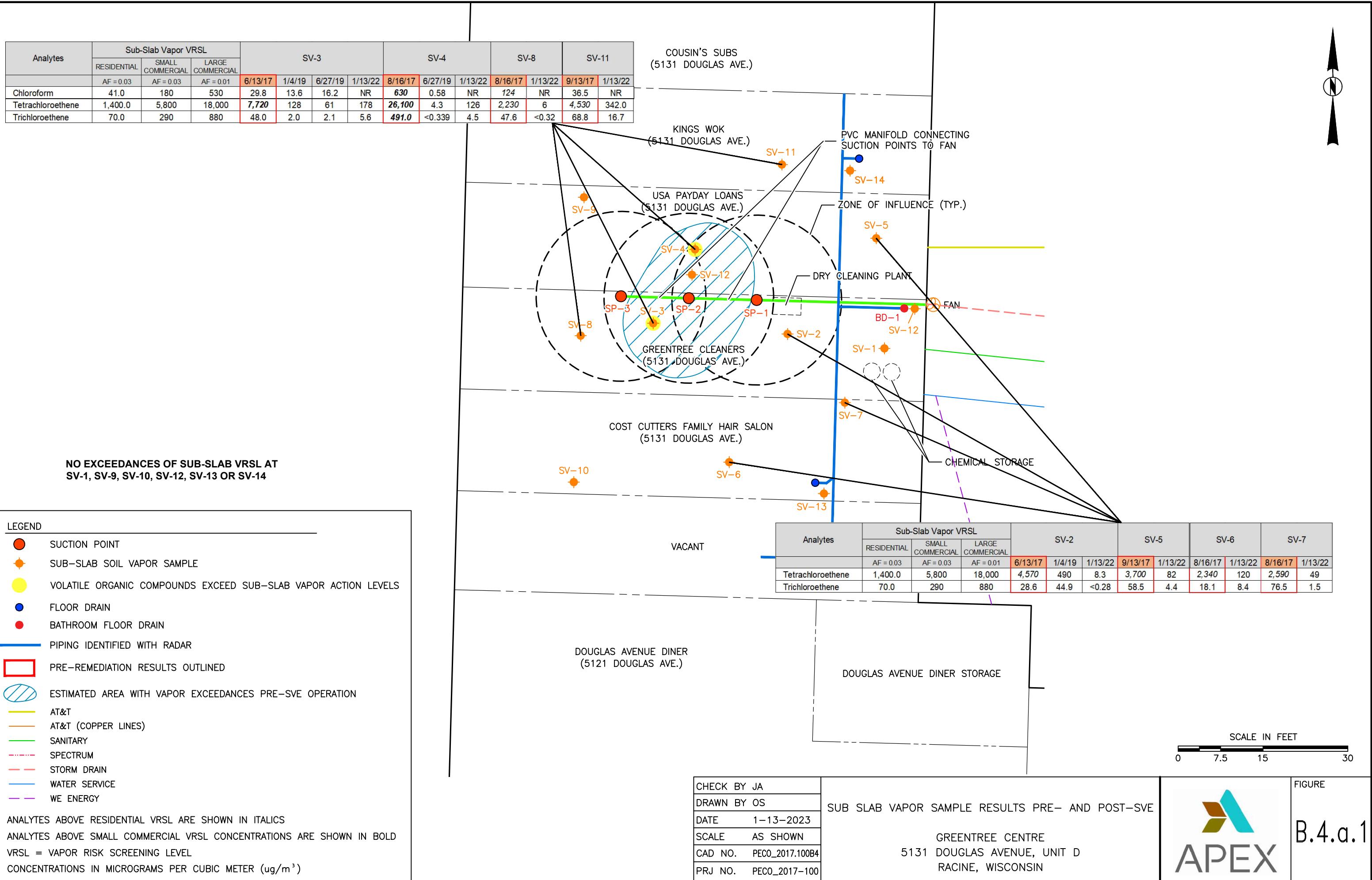
< = Not Detected: Concentration less than the indicated laboratory detection limit.

All samples collected into 6L Summa canisters; Vapor pins purged and sampled at < 0.2 lpm.

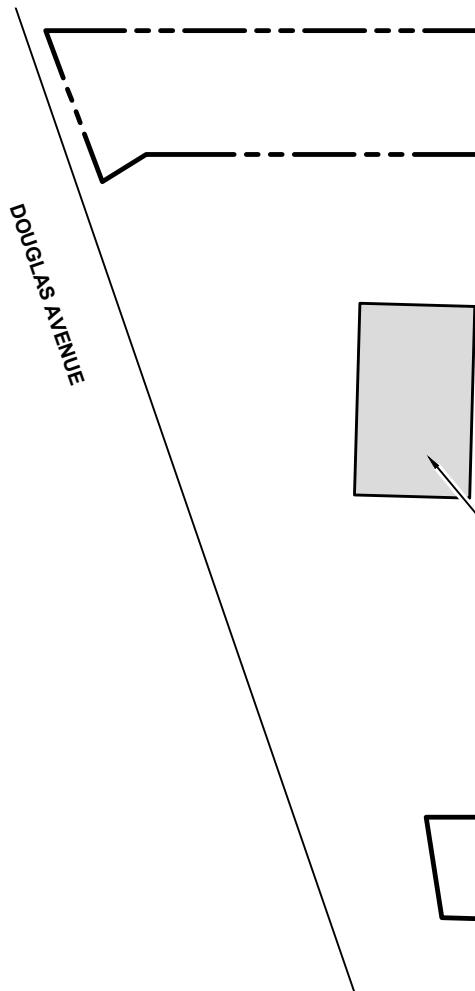
Each vapor pin location was leak tested using the water dam method and shut in test.

VRSI = Vapor Risk Screening level

VRSIs from Vapor Quick Look-Up Table (RR-0136) and U.S. EPA VISL Calculator



**D.2     Location Map(s)**



PARCEL ID  
104-04-23-103-110

FIGURE B.2, B.3 & B.4

GREENTREE CLEANERS  
(5131 DOUGLAS AVE.)

OUTPARCEL  
(5055 DOUGLAS AVE.)

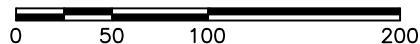
SITE: PICK 'N SAVE  
(5111 DOUGLAS AVE.)

CHESTER LANE

#### LEGEND

- PROPERTY BOUNDARY
- RESIDUAL SOIL CONTAMINATION
- BARRIERS TO BE MAINTAINED AND INSPECTED ANNUALLY
- GROUNDWATER PLUME

SCALE IN FEET



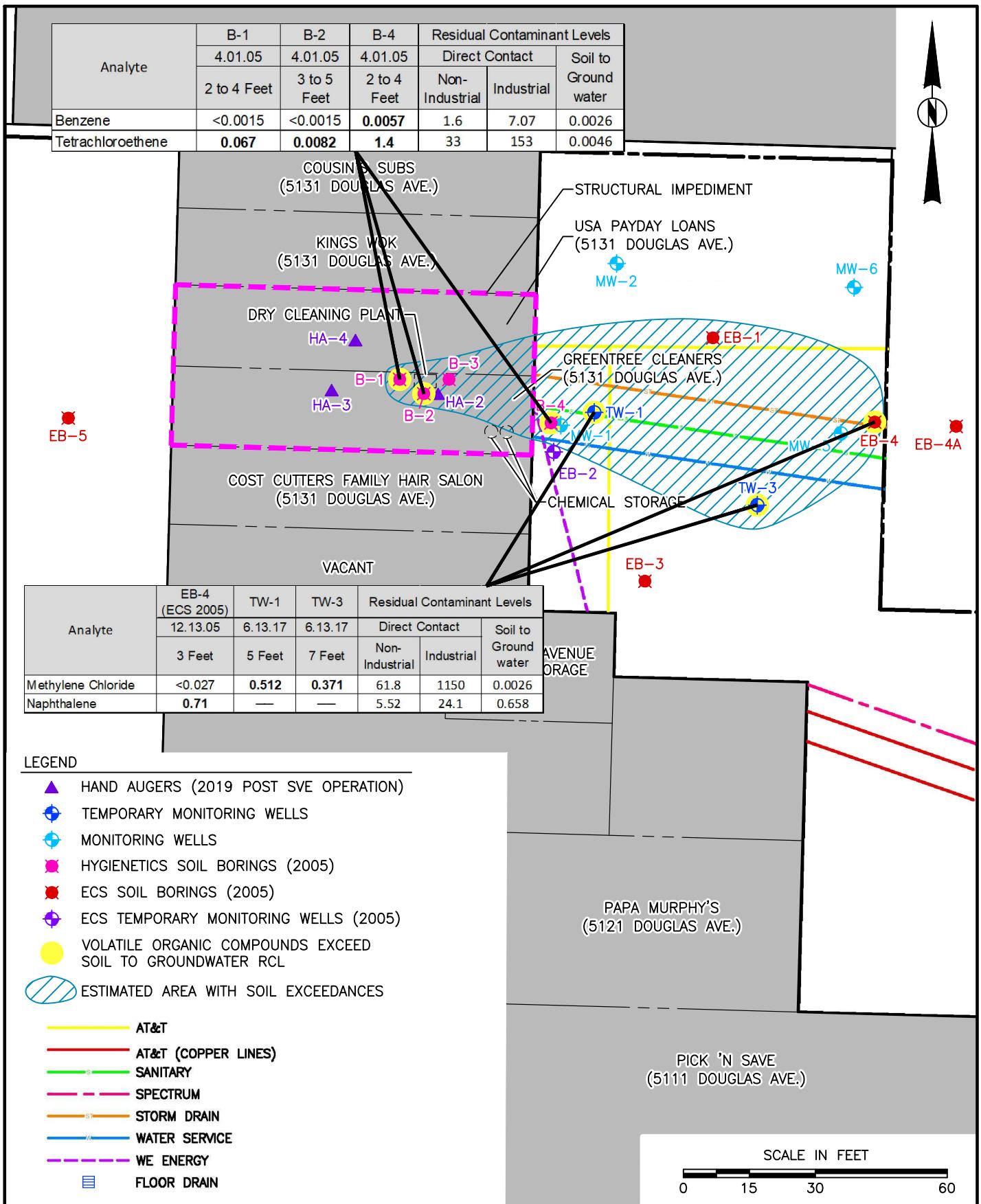
CHK BY	JA
DWN BY	EM
DATE	12-14-22
SCALE	AS SHOWN
CAD NO.	2017-100.05[2]
PRJ NO.	PECO_2017-100

#### LOCATION MAP

GREENTREE CENTRE  
5111 DOUGLAS AVENUE  
RACINE, WISCONSIN



FIGURE  
D2

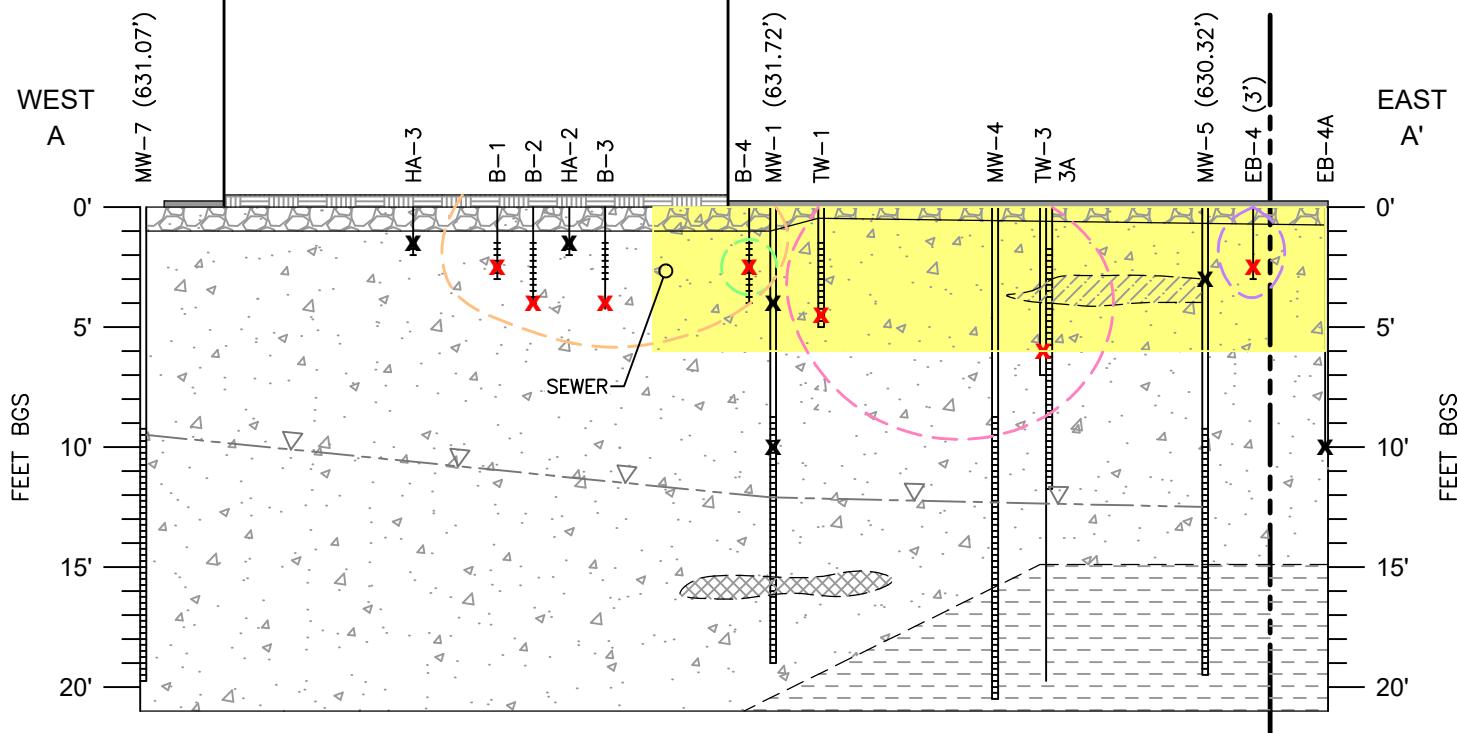


CHECK BY JA	RESIDUAL SOIL CONTAMINATION  GREENTREE CENTRE 5111 DOUGLAS AVENUE, UNIT D RACINE, WISCONSIN
DRAWN BY OS	
DATE 10-16-22	
SCALE AS SHOWN	
CAD NO. PECO.2017.100e5	
PRJ NO. PECO_2017-100	



**B.2.b**

CROSS SECTION VIEW (A-A')



LEGEND

- ▽ GROUNDWATER ELEVATION MEASURED ON SEPTEMBER 15, 2017
- BENZENE EXCEEDANCE
- Methylene Chloride EXCEEDANCE
- NAPHTHALENE EXCEEDANCE
- TETRACHLOETHYLENE EXCEEDANCE
- AREA OF UTILITIES BETWEEN BUILDING AND PROPERTY WITH ESTIMATED DEPTHS LESS THAN 7'
- EXCEEDANCE OF SOIL TO GROUNDWATER RCL
- NO EXCEEDANCE OF SOIL TO GROUNDWATER RCL

- Property Line
- Asphalt
- Clayey Silt

- Concrete
- Crushed Stone
- Gravelly Sand
- Silty Clay
- Silty Sand

SCALE IN FEET  
0 4 8 16

CHK BY JB
DWN BY EM
DATE 05-04-22
SCALE AS SHOWN
CAD NO. 2017-100.05[3]
PRJ NO. PECO_2017-100

GEOLOGICAL CROSS SECTION A-A'  
RESIDUAL SOIL EXCEEDING RCL  
GREENTREE CENTRE  
5111 DOUGLAS AVENUE, UNIT D  
RACINE, WISCONSIN



FIGURE  
B3a1

## ***COVER MAINTENANCE PLAN***

January 12, 2023

Property Located at:

5111 Douglas Avenue, Racine, Wisconsin

BRRTS No. 02-52-579863

Parcel No. 104-04-23-20-103-110

### **Introduction**

This document is the Maintenance Plan for the asphalt and building slab cover at the above-referenced property in accordance with the requirements of s. NR 724.13 (2), Wis. Adm. Code. The maintenance activities relate to the existing asphalt and building slab cover which occupies the area over the contaminated groundwater plume and residual contamination **Figure D-2**.

More site-specific information about this property/site may be found in:

- The case file in the DNR Southeast Region office
- At <http://dnr.wi.gov/topic/Brownfields/wrrd.html>, which includes:
  - BRRTS on the Web (DNR's internet based data base of contaminated sites)for the link to a PDF for site-specific information at the time of closure and on continuing obligations;
  - RR Sites Map for a map view of the site, and
- The DNR project manager for Racine County.

### **D.1. Descriptions:**

#### Description of Contamination

Soil contaminated by chlorinated volatile organic compounds (VOCs) at concentrations that exceed the soil to groundwater standards are located at a depth of 2 to 7 feet beneath the building slab in the area of the dry cleaning equipment (at samples B-1 and B-2) and for chlorinated VOCs, benzene and toluene at B-4, located outside the back door of the dry cleaner. Soils exceeding the soil to groundwater standards for Methylene Chloride and/or Naphthalene in soil borings TW-1, TW-3 and EB-4 in that asphalt covered parking area. The source is unknown and not associated with the release at the dry cleaner. The limits of residual soil contamination are depicted on **Figure B.2.b** and **Figure B.3.a** in **Attachment D.2**.

Groundwater contaminated by chlorinated VOCs is located at a depth of approximately 8 feet grade at monitoring wells MW-1, MW-2 and MW-4. The presence of the building, narrow doorways and tenant's equipment posed a structural impediment to the installation of a groundwater monitoring well, and collection of deeper soils sample, and removal of soils that exceed the soil to groundwater standard in the area of the dry cleaning equipment.

The extent of soil and groundwater contamination, and the extent of the capped area which needs to be

maintained to prevent leaching from soil to groundwater are identified on the attached **Figure D.2**. Greentree Cleaner continues to operate as a dry cleaner, however, the current operator uses equipment that does not use chlorinated solvents.

#### Description of the Cover to be Maintained

Stability monitoring over a period of 8 quarters has demonstrated that the existing building slab and asphalt pavement provide adequate cover against leaching of soil to groundwater.

Since an area of residual soils with VOCs that exceed soil to groundwater standards remain on the Site, the concrete slab and asphalt barrier surface seal that cover the residual soils must be maintained after site closure.

The existing building slab and asphalt paved parking lot, are each approximately 3-4 inches in thickness.

The area of residual soil impacts is depicted on **Figure D-2**.

#### Building Slab/Asphalt Cover Purpose

The existing concrete slab and asphalt cover over the contaminated groundwater and residual soil contamination serves as a partial infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. As demonstrated by eight quarters of groundwater monitoring, the groundwater plume with the existing building slab and asphalt cover is stable. Based on the current used of the property for commercial use, the barrier should continue to function as intended unless disturbed.

#### Annual Inspection

The concrete slab and asphalt cover overlying residual contaminated soil, and as depicted in Figure D-2 will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause additional infiltration into underlying soils. The inspections will be performed by the property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where infiltration from the surface will not be effectively minimized will be documented.

A log of the inspections and any repairs will be maintained by the property owner and is included as D.4, Form 4400-305, Continuing Obligations Inspection and Maintenance Log. The log will include recommendations for necessary repair of any areas where underlying soils are exposed and where infiltration from the surface will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the site; or, if there is no acceptable place (for example, no building is present) to keep it at the site, at the address of the property owner and available for submittal or inspection by Wisconsin Department of Natural Resources (DNR) representatives upon their request.

#### Maintenance Activities

If problems are noted during the annual inspections or at any other time during the year, repairs will be

scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the existing building slab and asphalt cover overlying the contaminated groundwater plume and residual soil contamination are removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the DNR or its successor.

The property owner, in order to maintain the integrity of the existing building slab and asphalt pavement cover, will maintain a copy of this Maintenance Plan at the site and make it available to all interested parties for viewing.

#### Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Barrier

The following activities are prohibited on any portion of the property where the asphalt pavement and building foundation barrier is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure; or 7) changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings.

If removal, replacement or other changes to a cover, or a building which is acting as a cover, are considered, the property owner will contact DNR at least 45 days before taking such an action, to determine whether further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code.

#### Amendment or Withdrawal of Maintenance Plan

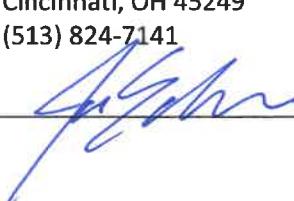
This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of DNR.

#### Contact Information

December 2022

Site Owner and Operator: Greentree Station LLC  
c/o Schawanda White  
11501 Northlake Drive  
Cincinnati, OH 45249  
(513) 824-7141

Signature:

A handwritten signature in blue ink, appearing to read "Schawanda White". It is positioned above a horizontal line, with the name "Schawanda White" printed in a standard font below the line.

Consultant: Jane Allan  
Apex Companies, LLC  
4701 Creek Road, Suite 100  
Cincinnati, OH 45220  
513-771-3617

DNR: Shanna Laube-Anderson  
141 NW Barstow St, Room 180  
Waukesha, WI 53188  
(262) 574-2142