September 13, 2022

Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, Wisconsin 54313

Attention: Ms. Josie Schultz
Phone: 920.662.5424
Email: Josie.Schultz@wisconsin.gov

Re: **Supplemental Vapor Intrusion Investigation and System Decommissioning Work Plan Technical Review**
Smoke-Out Cleaners
1631 Brookfield Avenue, Unit D-4
Howard, Wisconsin
BRRTS #02-05-552214
Terracon Project No. 58187103

Dear Ms. Schultz:

On behalf of Smoke-Out Cleaners, Terracon Consultants, Inc. (Terracon) is submitting the attached Form 4400-237 for technical review of the enclosed Supplemental Vapor Intrusion Investigation and System Decommissioning Work Plan. An electronic copy of this document will be uploaded to the RR Program Submittal Portal. The $700 review fee is being sent separately along with the confirmation of the report upload.

Sincerely,

Scott A. Hodgson, P.G.
Senior Project Manager

SAH/EAB:sah/N:\Projects\2018\58187103\PROJECT DOCUMENTS (Reports-Letters-Drafts to Clients)\WP Tech review Cover letter.docx

Enclosures: Form 4400-237
Technical Review Fee Check ($700)
Supplemental Vapor Investigation and System Decommissioning Work Plan

Copies to: Mark Woppert-Smoke-Out Cleaners, Ltd
Don Gallo-Gallo Law, LLC
Chris Dockry-Team Bay, LLC

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Notice: Use this form to request **a written response (on agency letterhead)** from the Department of Natural Resources (DNR) regarding technical assistance, a post-closure change to a site, a specialized agreement or liability clarification for Property with known or suspected environmental contamination. A fee will be required as is authorized by s. 292.55, Wis. Stats., and NR 749, Wis. Adm. Code., unless noted in the instructions below. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

Definitions

"Property" refers to the subject Property that is perceived to have been or has been impacted by the discharge of hazardous substances.

"Liability Clarification" refers to a written determination by the Department provided in response to a request made on this form. The response clarifies whether a person is or may become liable for the environmental contamination of a Property, as provided in s. 292.55, Wis. Stats.

"Technical Assistance" refers to the Department's assistance or comments on the planning and implementation of an environmental investigation or environmental cleanup on a Property in response to a request made on this form as provided in s. 292.55, Wis. Stats.

"Post-closure modification" refers to changes to Property boundaries and/or continuing obligations for Properties or sites that received closure letters for which continuing obligations have been applied or where contamination remains. Many, but not all, of these sites are included on the GIS Registry layer of RR Sites Map to provide public notice of residual contamination and continuing obligations.

Select the Correct Form

This from should be used to request the following from the DNR:

- Technical Assistance
- Liability Clarification
- Post-Closure Modifications
- Specialized Agreements (tax cancellation, negotiated agreements, etc.)

Do <u>not</u> use this form if one of the following applies:

- Request for an **off-site liability exemption or clarification** for Property that has been or is perceived to be contaminated by one or more hazardous substances that originated on another Property containing the source of the contamination. Use DNR's Off-Site Liability Exemption and Liability Clarification Application Form 4400-201.
- Submittal of an Environmental Assessment for the **Lender Liability Exemption**, s 292.21, Wis. Stats., **if no response or review by DNR is requested**. Use the Lender Liability Exemption Environmental Assessment Tracking Form 4400-196.
- Request for an **exemption to develop on a historic fill site** or licensed landfill. Use DNR's Form 4400-226 or 4400-226A.
- **Request for closure** for Property where the investigation and cleanup actions are completed. Use DNR's Case Closure - GIS Registry Form 4400-202.

All forms, publications and additional information are available on the internet at: dnr.wi.gov/topic/Brownfields/Pubs.html.

Instructions

1. Complete sections 1, 2, 6 and 7 for all requests. Be sure to provide adequate and complete information.
2. Select the type of assistance requested: Section 3 for technical assistance or post-closure modifications, Section 4 for a written determination or clarification of environmental liabilities; or Section 5 for a specialized agreement.
3. Include the fee payment that is listed in Section 3, 4, or 5, unless you are a "Voluntary Party" enrolled in the Voluntary Party Liability Exemption Program **and** the questions in Section 2 direct otherwise. Information on to whom and where to send the fee is found in Section 8 of this form.
4. Send the completed request, supporting materials and the fee to the appropriate DNR regional office where the Property is located. See the map on the last page of this form. A paper copy of the signed form and all reports and supporting materials shall be sent with an electronic copy of the form and supporting materials on a compact disk. For electronic document submittal requirements see: http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf"

The time required for DNR's determination varies depending on the complexity of the site, and the clarity and completeness of the request and supporting documentation.

Section 1. Contact and Recipient Information

Requester Information

This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.

Last Name	First	MI	Organization/ Business Name		
Woppert	Mark		Smoke-Out Cleaners Ltd		
Mailing Address			City	State	ZIP Code
535 Half Mile Road			Verona	WI	53593
Phone # (include area code)	Fax # (include area code)		Email		
(608) 438-1746			mark.woppert@smoke-out.net		

The requester listed above: (select all that apply)

- ☐ Is currently the owner
- ☒ Is renting or leasing the Property
- ☐ Is a lender with a mortgagee interest in the Property
- ☐ Other. Explain the status of the Property with respect to the applicant:
- ☐ Is considering selling the Property
- ☐ Is considering acquiring the Property

Contact Information (to be contacted with questions about this request)

☒ Select if same as requester

Contact Last Name	First	MI	Organization/ Business Name		
Woppert	Mark		Smoke-Out Cleaners Ltd		
Mailing Address			City	State	ZIP Code
535 Half Mile Road			Verona	WI	53593
Phone # (include area code)	Fax # (include area code)		Email		
(608) 438-1746			mark.woppert@smoke-out.net		

Environmental Consultant (if applicable)

Contact Last Name	First	MI	Organization/ Business Name		
Hodgson	Scott	A	Terracon Consultants, Inc.		
Mailing Address			City	State	ZIP Code
9856 South 57th Street			Franklin	WI	53132
Phone # (include area code)	Fax # (include area code)		Email		
(414) 209-7640			Scott.Hodgson@terracon.com		

Attorney (if applicable)

Contact Last Name	First	MI	Organization/ Business Name		
Gallo	Donald	P	Gallo Law, LLC		
Mailing Address			City	State	ZIP Code
1386 State Road 83			Hartford	WI	53027
Phone # (include area code)	Fax # (include area code)		Email		
(414) 507-6350			DonGalloLaw@outlook.com		

Property Owner (if different from requester)

Contact Last Name	First	MI	Organization/ Business Name		
Tenor	David		Howard Self Storage		
Mailing Address			City	State	ZIP Code
1651 Brookfield Avenue			Green Bay	WI	54313
Phone # (include area code)	Fax # (include area code)		Email		
(920) 437-1184			howardselfstorage@gmail.com		

Section 2. Property Information

Property Name	FID No. (if known)
Smoke-Out Cleaners Ltd	70751

BRRTS No. (if known)	Parcel Identification Number
0205552214	J17780-20

Street Address	City	State	ZIP Code
1631 Brookfield Drive, Unit D-4	Howard	WI	54313

County	Municipality where the Property is located	Property is composed of:	Property Size Acres
Brown	○ City ○ Town ◉ Village of Howard	◉ Single tax parcel ○ Multiple tax parcels	16

1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

◉ No ○ Yes

Date requested by: _____

Reason:

_____

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

◉ No. **Include the fee that is required for your request in Section 3, 4 or 5.**

○ Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:
Section 3. Technical Assistance or Post-Closure Modifications;
Section 4. Liability Clarification; or Section 5. Specialized Agreement.

Section 3. Request for Technical Assistance or Post-Closure Modification

Select the type of technical assistance requested: [**Numbers in brackets are for WI DNR Use]**

☐ No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - **Include a fee of $350.** Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.

☒ Review of Site Investigation Work Plan - NR 716.09, [135] - **Include a fee of $700.**

☐ Review of Site Investigation Report - NR 716.15, [137] - **Include a fee of $1050.**

☐ Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of $1050.**

☐ Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of $1050.**

☐ Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of $1050.**

☐ Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of $350**

☐ Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of $425.**

☐ Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of $425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

☐ Schedule a Technical Assistance Meeting - **Include a fee of $700.**

☐ Hazardous Waste Determination - **Include a fee of $700.**

☐ Other Technical Assistance - **Include a fee of $700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

☐ Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of $1050, and:**

☐ Include a fee of $300 for sites with residual soil contamination; and

☐ Include a fee of $350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

Skip Sections 4 and 5 if the technical assistance you are requesting is listed above and complete Sections 6 and 7 of this form.

Section 5. Request for a Specialized Agreement

Select the type of agreement needed. Include the appropriate draft agreements and supporting materials. Complete Sections 6 and 7 of this form. More information and model draft agreements are available at: dnr.wi.gov/topic/Brownfields/lgu.html#tabx4.

☐ Tax cancellation agreement - s. 75.105(2)(d), Wis. Stats. [654]

- ❖ **Include a fee of $700, and the information listed below:**

(1) Phase I and II Environmental Site Assessment Reports,
(2) a copy of the Property deed with the correct legal description.

☐ Agreement for assignment of tax foreclosure judgement - s.75.106, Wis. Stats. [666]

- ❖ **Include a fee of $700, and the information listed below:**

(1) Phase I and II Environmental Site Assessment Reports,
(2) a copy of the Property deed with the correct legal description.

☐ Negotiated agreement - Enforceable contract for non-emergency remediation - s. 292.11(7)(d) and (e), Wis. Stats. [630]

- ❖ **Include a fee of $1400, and the information listed below:**

(1) a draft schedule for remediation; and,
(2) the name, mailing address, phone and email for each party to the agreement.

Section 6. Other Information Submitted

Identify all materials that are included with this request.

Send both a paper copy of the signed form and all reports and supporting materials, and an electronic copy of the form and all reports, including Environmental Site Assessment Reports, and supporting materials on a compact disk.

Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate reports or information.

☐ Phase I Environmental Site Assessment Report - Date: _____
☐ Phase II Environmental Site Assessment Report - Date: _____
☐ Legal Description of Property (required for all liability requests and specialized agreements)
☒ Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

☒ Groundwater ☐ Soil ☐ Sediment ☐ Other medium - Describe: _____

Date of Collection: 08/04/2022

☐ A copy of the closure letter and submittal materials
☐ Draft tax cancellation agreement
☐ Draft agreement for assignment of tax foreclosure judgment
☒ Other report(s) or information - Describe: Supplemental Vapor Investigation and System Decommissioning Work Plan

For Property with newly identified discharges of hazardous substances only: Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

◯ Yes - Date (if known): _____
◯ No

Note: The Notification for Hazardous Substance Discharge (non-emergency) form is available at: dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf.

Section 7. Certification by the Person who completed this form

☐ I am the person submitting this request (requester)
☒ I prepared this request for: Mark Woppert/Chris Dockry
Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.

Signature

9/13/22
Date Signed

Senior Project Manager, P.G.
Title

(414) 209-7640
Telephone Number (include area code)

Scott D. Hodgson

Section 8. DNR Contacts and Addresses for Request Submittals

Send or deliver one paper copy and one electronic copy on a compact disk of the completed request, supporting materials, and fee to the region where the property is located to the address below. Contact a DNR regional brownfields specialist with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf.

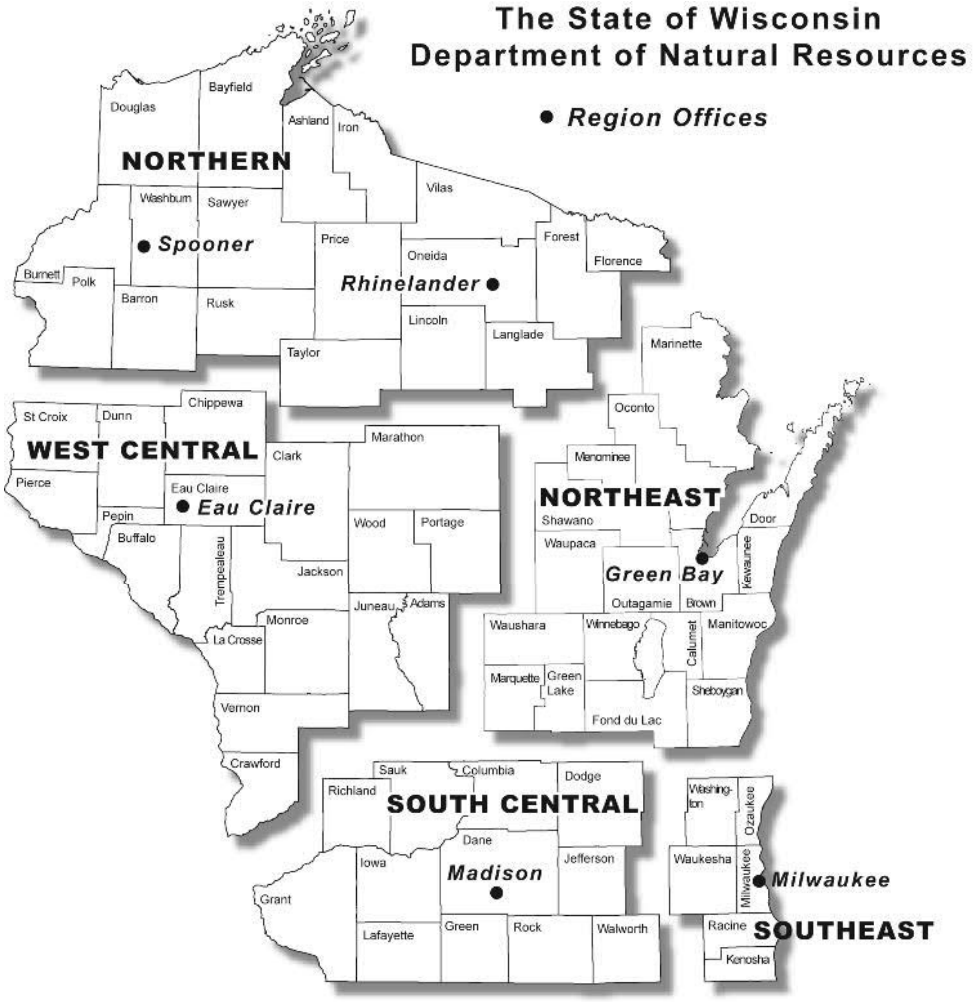
DNR NORTHERN REGION
Attn: RR Program Assistant
Department of Natural Resources
223 E Steinfest Rd Antigo, WI 54409

DNR NORTHEAST REGION
Attn: RR Program Assistant
Department of Natural Resources
2984 Shawano Avenue
Green Bay WI 54313

DNR SOUTH CENTRAL REGION
Attn: RR Program Assistant
Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg WI 53711

DNR SOUTHEAST REGION
Attn: RR Program Assistant
Department of Natural Resources
2300 North Martin Luther King Drive
Milwaukee WI 53212

DNR WEST CENTRAL REGION
Attn: RR Program Assistant
Department of Natural Resources
1300 Clairemont Ave.
Eau Claire WI 54702



Note: These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.

DNR Use Only			
Date Received	Date Assigned	BRRTS Activity Code	BRRTS No. (if used)
DNR Reviewer	Comments		
Fee Enclosed? ◯ Yes ◯ No	Fee Amount $	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		

September 13, 2022

Remediation and Redevelopment Program
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, Wisconsin 54313

Attention: Ms. Josie Schultz
Telephone: 920.662.5178
E-mail: Josie.Schultz@wisconsin.gov

RE: **Supplemental Vapor Investigation and System Decommissioning Work Plan**
Smoke-Out Cleaners
1631 Brookfield Avenue, Unit D-4
Howard, Wisconsin ("Property")
BRRTS #02-05-552214
Terracon Project No. 58187103

Dear Ms. Schultz:

On behalf of Smoke-Out Cleaners (Smoke-Out), Terracon Consultants, Inc. (Terracon) has prepared this Supplemental Vapor Intrusion Investigation Work Plan (SVIIWP) for the above-referenced project (see the attached Figure 1) in general conformance with Wisconsin Administrative Code (WAC), Chapter NR 716. A brief project background, proposed scope of services, and tentative schedule are provided in the following sections.

Also on behalf of Smoke-Out, Terracon requests Wisconsin Department of Natural Resources (WDNR) review and comment regarding this SVIIWP. A completed "Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request" (WDNR form 4400-237) is included. The associated fee ($700) will be submitted separately along with the verification of WDNR receipt of the electronic copy of this SVIIWP.

1.0 BACKGROUND

1.1 Previous Investigations

A Preliminary Site Assessment (PSA) was completed at the site by Giles Engineering Associates (Giles) in August 2008. The PSA included two interior soil borings (HP-1 and HP-2) near the dry cleaning machine (DCM) and one exterior hand boring (GP-1) near the rear (west) service door (see the attached Figure 2). The PSA identified chlorinated volatile organic compounds (CVOCs) in both soil and groundwater. As a result, a Notification of Release was submitted to the WDNR on August 21, 2008. The WDNR issued a Responsible Party (RP) letter on August 29, 2008, that

named Mark Woppert of Smoke-Out as the RP and required a site investigation be performed to determine the magnitude and extent of contamination.

Giles performed the subsequent site investigation during multiple phases from 2008 through 2017. Giles advanced a total of 12 additional direct-push soil borings from July 2011 through March 2017, to investigate the nature and extent of soil and groundwater contamination. Nine shallow, small-diameter prepacked observation wells (MW-1 through MW-9) and one piezometer (PZ-1) were installed. Four observation wells (MW-1 through MW-4) were installed in the building's interior. A total of eight sub-slab vapor sampling points (VP-1 through VP-8) were installed during the course of the site investigation, including five within the Smoke-Out space, and three in the south adjacent Badger Scale space. Soil, sub-slab vapor, and groundwater samples were collected and analyzed for volatile organic compounds (VOC). Giles also collected groundwater samples from the four potable wells that serve the occupied buildings in the business park. The site investigation results indicated that soil and groundwater had been impacted above applicable standards by CVOCs, and that indoor air may be impacted based on sub-slab vapor results that exceeded small commercial vapor risk screening levels (VRSLs). The site investigation indicated that shallow soils were primarily fine to medium-grained sand with varying amounts of silt to depths of approximately 10-12 feet below grade. The sand is underlain by clay, silt, and silty clay to the terminus of the deepest boring at approximately 30 feet below grade. Groundwater at the site is shallow, typically ranging from approximately 2.5 to 4.5 feet below grade, but seasonally may be as shallow as 1.5 feet below grade in some parts of the site (see attached Table 1). Giles showed shallow groundwater flow generally to the east.

The site investigation results were documented in Giles' *Site Investigation Report* dated August 31, 2017. The soil, groundwater, and vapor sampling locations are shown on Figure 2. Soil, groundwater, and sub-slab vapor samples were collected and analyzed for VOC.

Specifically, the soil to groundwater pathway residual contaminant level (RCL) for soil was exceeded for one or more CVOCs including cis-1,2-dichloroethene (cis-DCE), methylene chloride, PCE, and trichloroethene (TCE) at interior borings HP-1, HP-2, MW-2, MW-3, and MW-4, and exterior boring GP-1. The highest concentration detected in soil was 2,500 micrograms per kilogram (µg/kg) PCE at 2 to 3 feet below grade at interior soil boring MW-3, located near the DCM.

During the groundwater sampling event conducted in March 2017, the CVOCs cis-DCE, PCE, TCE, and vinyl chloride (VC) were detected at concentrations above their respective WAC, Chapter NR 140 Enforcement Standard (ES) at one or more interior observation wells, including MW-1, MW-3, and MW-4 (see attached Table 2).

The sub-slab vapor sampling results indicated that PCE and/or TCE were detected at concentrations above their respective small commercial VRSLs at sub-slab vapor monitoring

points VP-1, VP-4, VP-5, and VP-8 located within the Smoke-Out space, and at VP-2 and VP-7 located within the south adjoining Badger Scale space.

Based on review of the initial *Site Investigation Report*, the WDNR requested an additional round of sub-slab vapor sampling in conjunction with indoor ambient air sampling. The field work was performed on October 25, 2017. Two, 8-hour indoor ambient air samples were collected. One was from the office area of Smoke-Out (IA-1) and the other from the office area of Badger Scale to the south. The results were documented in Giles' *Site Investigation Report Addendum*, dated December 6, 2017.

The results indicated that PCE concentrations in indoor ambient air sample IA-1 was above the WDNR small commercial vapor action limit (VAL). The sub-slab vapor sampling results confirmed that PCE and/or TCE concentrations remained above their respective small commercial VRSLs at sub-slab vapor monitoring points VP-1, VP-4, VP-5, and VP-8 located within the Smoke-Out space, and at VP-2 and VP-7 located within the south adjoining Badger Scale space.

The October 2017 sampling and December 2017 reporting were Giles' final activities at the site. No work was completed during 2018 as the site information was being reviewed by the WDNR and competitive bids were being sought by the WDNR for site remediation. Ultimately, Terracon was selected to oversee site remediation activities in 2018, and the WDNR requested supplemental investigation prior to the start of remedial activities. The SSI was initiated in accordance with Terracon's December 4, 2018, *Supplemental Site Investigation Work Plan.*

On March 19, 2019, Terracon supervised Horizon Construction and Exploration, LLC during the advancing of soil borings GP-4 and PZ-2. The borings were advanced using a drill rig capable of collecting soil samples using direct-push methods and turning hollow-stem augers. Soil boring GP-4 was advanced inside the Smoke-Out facility north of observation well MW-2, and boring PZ-2 was advanced outside of the facility northeast of monitoring well MW-2. One unsaturated soil sample was collected from 1-foot below ground surface (bgs) in each boring for analysis of VOCs. VOCs were not detected at concentrations above the analytical limit of detection (LOD) in the two soil samples submitted for laboratory analysis. The apparent source area of CVOC-impacted soil (predominantly PCE) is located in the shallow soil beneath the building near the DCM. PCE, cis-DCE, and methylene chloride were detected at concentrations which exceed their respective soil to groundwater pathway RCLs. The area includes the south half of the Smoke-Out Cleaners space and north part of the Badger Scale space. This area encompasses hand probes HP-1 and HP-2, observation wells MW-1 through MW-4, and soil boring GP-1. The highest PCE concentration was detected 2 to 3 feet below floor grade at well MW-3 near the DCM at a concentration of 2,500 µg/kg. The impacted area is primarily beneath the Smoke-Out and Badger Scale tenant spaces and is approximately 50 feet wide (north-south) by 60 feet (west-east).

PCE and TCE concentrations in sub-slab vapor points beneath both the Smoke-out Cleaners and Badger Scale spaces exceed the small commercial and large commercial/industrial VRSLs. Sub-slab vapor points VP-1, VP-4, VP-5, and VP-8 are located in the Smoke-Out Cleaners tenant space, while vapor points VP-2 and VP-7 are located within the Badger Scale tenant space. The highest PCE vapor concentration detected in October 2017 (the most recent sampling event) was 564,000 micrograms per cubic meter (µg/m^3). The ellipse-shaped area which exceeds the large commercial/industrial VRSLs beneath the building's interior is approximately 80 feet (north-south) by 60 feet (west-east). Although PCE is used at the site and would contribute to indoor air PCE concentrations, the shallow PCE-contaminated groundwater also provides a source to potentially complete the sub-slab to indoor air pathway. The sub-slab vapor source should be addressed to eliminate or interrupt that potential pathway. The estimated extent of the sub-slab vapor exceedances as of October 2017 along with historical sub-slab results are shown on Figure 3.

Based on information from Giles' report, PCE and TCE were detected in indoor air samples collected from indoor air sample point IA-1. PCE was detected at a concentration exceeding its large commercial VAL. TCE was detected at a concentration below its strictest VAL (residential). At indoor air monitoring point IA-2, PCE was detected below its strictest VAL (residential) and TCE was detected below its LOD.

On March 27, 2019, Terracon personnel collected groundwater samples from the 10 observation wells and two piezometers located on the site. After groundwater conditions stabilized, groundwater samples were collected in laboratory-supplied sample containers, placed on ice, and submitted under chain-of-custody (COC) control to Pace for the laboratory analysis of VOCs. Samples from observation wells MW-1, MW-2, MW-3, MW-4, and MW-7 were also analyzed for the geochemical indicator parameters methane/ethane/ethene (MEE), total organic carbon (TOC), and dissolved iron for use in evaluating aquifer characteristics (see attached Table 3). PCE and its degradation daughter compounds, TCE, cis-DCE, trans-1,2-dichloroethene (trans-DCE), and VC were detected at concentrations above their NR 140, WAC, Preventive Action Limit (PAL) and/or ES. Interior monitoring wells MW-3 and MW-4 exhibited PCE, TCE, cis-DCE, and VC concentrations that exceed their respective ESs. Trans-DCE was detected in groundwater from MW-3 and MW-4; however, the concentrations were below PALs. Groundwater from MW-1 contained PCE, TCE, and VC at concentrations above their respective ESs, and cis-DCE at a concentration above its PAL. Although concentrations remain above the ES in the three interior wells, PCE and TCE levels have generally declined from historical highs while cis-DCE and VC concentrations have increased. Groundwater from piezometers PZ-1 and PZ-2 did not contain VOCs at concentrations above LODs.

The dissolved-phase CVOC plume originates near the DCM, coinciding with the area with the highest concentrations of CVOCs in soil in the area near observation well MW-3. The CVOC contaminant plume lies entirely beneath the building in the vicinity of the DCM, and encompasses wells MW-1, MW-3, and MW-4. The contaminant plume extends southward beneath the adjacent

Badger Scale space. At each observation well within the contaminant plume, one or more CVOCs including PCE, TCE, cis-DCE, and VC exceeded their respective ESs in the March 2019 groundwater sampling event.

Groundwater at the site is present at depths ranging from approximately 0.60 to 2 feet bgs in the sands, with flow variably to the north, northeast, or east. VOCs have not been detected in piezometers PZ-1 and PZ-2 at concentrations above their LOD, defining the vertical extent of groundwater contamination.

The dissolved-phase CVOC plume at concentrations above its ES was delineated and estimated to be 40 feet long (north-south) and 45 feet wide (west-east). Historical analytical groundwater results are summarized in the attached Table 2.

Terracon prepared a *Supplemental Site Investigation and Remedial Action Plan Report,* dated January 9, 2020, to address soil, groundwater, and vapor concerns. VOCs were not detected at concentrations above the analytical LODs in the two soil samples submitted for laboratory analysis. Six VOCs were detected at concentrations above their LODs in the groundwater samples collected on March 28, 2019. PCE and its degradation daughter compounds, TCE, cis-DCE, trans-DCE, and VC were detected at concentrations above their PALs and/or ESs. Interior monitoring wells MW-3 and MW-4 exhibited PCE, TCE, cis-DCE, and VC concentrations that exceed their respective ESs. Groundwater from piezometers PZ-1 and PZ-2 did not contain VOCs at concentrations above LODs.

Based on the results of the remedial action options evaluation, a remedial action plan (RAP) was developed to address the identified impacted soil, groundwater, and sub-slab vapor and facilitate a path towards case closure. The recommended RAP included installation of a sub-slab depressurization system (SSDS), in-situ amendment injection in the contaminant source area to stimulate enhanced reductive dechlorination (ERD), followed by quarterly groundwater monitoring to demonstrate remedy effectiveness.

1.2 Remedial Actions

The proposed remedial actions described in the RAP were implemented in June 2020 following receipt of the injection approval in correspondence from WDNR on March 17, 2020. The actions included:

- Baseline groundwater monitoring (June 9, 2020);
- Initial installation of the SSDS with two drop points (June 9, 2020);
- Injection of a total of approximately 1,224 gallons of amendments (Regenesis products 3-D Microemulsion [3DMe]®, Sulfidated Micro Zero Valent Iron [S-MicroZVI], and Bio-Dechlor Inoculum Plus [BDI Plus®]) and water distributed into 12 injection borings (June 10-11, 2020);

- Post-injection sampling of total organic carbon from selected interior groundwater observation wells (June 11, 2020);
- Installation of 15 vacuum monitoring points, completion/startup of the SSDS, and initial pressure extension field (vacuum) testing (July 14, 2020); and
- Subsequent post-injection vacuum, gas, and groundwater monitoring.

The initial post-injection TOC indicated good distribution of the amendment in the target area. Vacuum monitoring indicated SSDS influence over the area of concern during high groundwater conditions, but a smaller area of influence during low groundwater conditions. Gas monitoring (VOCs, methane, carbon dioxide [CO_2], and oxygen [O2]) at the south drop point stack indicated decreasing VOCs as measured by a photoionization detector (PID) from 59.8 parts per million volume (ppmv) in September 2020 to <1 ppmv in June 2021 before increasing slightly to 8 ppmv in September 2021.

1.3 Post-Injection Groundwater Monitoring

There have been six post-injection groundwater monitoring events performed from July 2020 through September 2021. The attached Table 2 presents the historical groundwater analytic test results. Monitoring well MW-3, which is nearest the former DCM location (see the attached map) and should be considered “the source area”, had the highest overall concentrations historically. However, as of September 2021, most of the CVOCs have been degraded and only vinyl chloride remains at 0.55 micrograms per liter (µg/L), just above its ES of 0.2 µg/L. CVOCs have also been degraded in the other three interior monitoring wells (MW-1, MW-2, and MW-4) and during the most recent sampling event (September 2021) only vinyl chloride remained above its ES at MW-1 (1.1 µg/L) and MW-2 (0.40 µg/L). In September 2021, there was no detection of CVOCs above their LOD in monitoring well MW-4. In addition to vinyl chloride only low concentrations of cis-DCE or trans-DCE (0.95 to 1.3 µg/L) were detected in monitoring wells MW-1 through MW-3 in September 2021.

Terracon monitored total organic carbon (TOC) at critical monitoring points during pre-injection baseline monitoring (June 9, 2020), immediately after injection (June 11, 2020), and in post-injection monitoring events as a measure of when the injected amendment is spent. Attached is the groundwater geochemical results table (Table 3), which presents historical geochemical field and lab parameter results. The typical pattern is to see approximately 5 milligrams per liter (mg/L) TOC prior to injection, a spike after injection, and gradual decrease over time in post-injection monitoring events. The amendment is generally considered spent when post-injection TOC falls to below 20 mg/L, even though that is still above pre-injection values. At monitoring well MW-3, TOC initially increased to 690 mg/L but has been below 20 mg/L for the last four sampling rounds (December 2020 and March, June, and September 2021) without rebound of CVOC concentrations.

1.4 Remedial Action Documentation Report

Terracon prepared a *Remedial Action Documentation Report* (RADR) dated December 16, 2021, which documented the remedial actions, subsequent post-injection groundwater monitoring results, and statements regarding emerging contaminants including per and polyfluoroalkyl substances (PFAS) and 1,4-dioxane. The RADR was submitted with a completed Form 4400-237 and fee for technical review and written comment by the WDNR. The WDNR provided comment in correspondence dated February 8, 2022, indicating the need for additional information pertaining to PFAS before they could determine whether PFAS sampling was necessary, the need for additional information regarding the deep groundwater to determine if the groundwater investigation was complete, and the need for additional vapor intrusion investigation to obtain data required in recently published WDNR guidance.

Terracon prepared a response dated June 10, 2022, which provided additional PFAS scoping information; data and information regarding the site geology, potable well construction, and piezometer information; and which agreed to additional vapor intrusion investigation to come into compliance with recent WDNR guidance. In an email response dated June 27, 2022, WDNR agreed that PFAS was not necessary based on the additional information provided. In a further email response dated June 30, 2022, WDNR stated:

> "Based on current information and recent justification provided, it's difficult to determine that vertical extent of (groundwater) contamination is defined at this time. One concern is that piezometers have not been sampled since December 2020, and the injection may have pushed contamination downward. Prior to submitting a workplan for additional investigation, we recommend sampling piezometers at a minimum to show vertical extent hasn't been affected by the injection."

2.0 PIEZOMETER SAMPLING AND GROUNDWATER SCOPING

Because Terracon needed to mobilize to the site to inspect the sanitary cleanout and floor drain prior to sampling (see Section 5.3), Smoke-Out decided to sample the piezometers at the same time. The inspection and piezometer sampling were performed on August 4, 2022.

Prior to purging, static water levels were measured to the nearest 0.01 foot at each monitoring well in the well nests (MW-8/PZ-1 and MW-10/PZ-2). Historical groundwater elevations are presented in the attached Table 1 and are shown on the attached groundwater hydrographs (Figures 4 and 5). The groundwater elevations on August 4, 2022, represent historical low or near historical low elevations at each well. The vertical gradient at each well nest was calculated using the bottom well screen method (Δ groundwater elevations/Δ bottom screen elevations) in each well nest. The results indicated a downward vertical gradient of 0.0056 foot per foot (ft/ft) or 0.56% at monitoring well nest MW-8/PZ-1 and 0.019 ft/ft or 1.9% at monitoring well nest MW-10/PZ-2.

Due to overall lower groundwater elevations, there has been a downward vertical gradient present at the MW-10/PZ-2 well nest since June 30, 2021. The downward vertical gradient at the MW-10/PZ-2 well nest on August 4, 2022, represents an historical high downward vertical gradient.

The two piezometers were purged and sampled using low-flow sampling methods whereby purging was considered complete when parameter measurements (pH, temperature, dissolved oxygen [DO], oxidation-reduction potential [ORP], and specific conductance) were within 10% for three consecutive readings taken at least 5 minutes apart indicating stabilization. Samples were collected into laboratory-supplied containers after stabilization was reached. The samples were placed on ice in a cooler and shipped under chain-of-custody (COC) protocols to a Wisconsin-certified laboratory for analysis of VOCs by United States Environmental Protection Agency (USEPA) Method 8260B.

The results indicated no detection of VOCs above the laboratory LOD in either piezometer. The results are summarized in the attached Table 2. The laboratory analytic test reports, COC record, and groundwater sampling field sheets are also attached.

The no detect of VOCs above the LOD in both piezometers on August 4, 2022, is significant because there has been a downward vertical gradient present at that location for more than a year with the greatest recorded downward vertical gradient present on August 4 such that the no detect of VOCs above the LOD occurred under worst-case scenario conditions. Therefore, the August 4, 2022, piezometer results in conjunction with information presented in Terracon's June 10, 2022, *Response to WDNR RADR Comments* including the stratigraphy (sand over clay limiting downward plume movement), typical upward vertical gradient, potable well construction and depth, potable well sampling results (no detect even prior to remediation), relatively young age of the release, overall low to moderate contaminant mass prior to remediation, and destruction of that contaminant mass since injection, indicate that there is no reason to pursue additional deep groundwater investigation.

In regards to post-injection groundwater monitoring, based on the monitoring data through September 2021, the amendment was already spent in the source area at monitoring well MW-3 as of December 2020. Thus, 1 year of quarterly monitoring has already been completed after the amendment was "spent" in the source area. Since WDNR requires 2 years of monitoring after amendments are spent, only one more year of monitoring is needed. Therefore, Smoke-Out proposes to collect two more rounds of post-injection groundwater samples (approximately January 2023 and December 2023). If the results are similar to or decreased from the September 2021 results, closure should be appropriate from the groundwater perspective. If the results indicate increasing trends, additional future monitoring will likely be necessary.

3.0 SYSTEM DECOMMISSIONING

Based on the results of the injection and post-injection groundwater monitoring summarized above, Terracon recommends decommissioning the sub-slab vapor depressurization system in preparation for potential regulatory site closure. In accordance with WDNR guidance document RR-800 *Addressing Vapor Intrusion at Remediation Sites in Wisconsin* (January 2018), Appendix F-Decommissioning Guidelines, the SSDS will be shut down and sub-slab conditions allowed to equilibrate for 2 to 4 weeks prior to the first decommissioning sampling event. As proposed in Terracon's January 9, 2020, *Supplemental Site Investigation and Remedial Action Plan Report,* Terracon will collect 30-minute vapor samples from sub-slab vapor monitoring points VP-4, VP-5, VP-7, and VP-8. Leak testing will be performed at each vapor point prior to sampling. Samples will be collected in 6-Liter Summa Canisters and submitted under Chain-of-Custody (COC) protocols to a Wisconsin-certified lab (Pace Analytical) for analysis of dry-cleaner related VOCs (PCE, TCE, cis-DCE, trans-DCE, and vinyl chloride [VC]) by EPA Method TO-15.

If the results indicate the VRSLs continue to be exceeded, the system will be restarted. If there are no VRSL exceedances, the system will remain off and two additional sub-slab vapor sampling events will be performed. In accordance with RR-800, the second decommissioning sampling event will be performed 2 to 6 months after system shutdown and the third will be performed within a year of system shutdown. Two of the system decommissioning sampling events will be performed during the heating season and one event during the non-heating season to evaluate conditions and verify the system can remain off permanently. Each verification vapor sampling event will be conducted as described above for the initial vapor monitoring event.

The results from each sampling event will be submitted to the WDNR. If the data from the three system decommissioning sample events is favorable and the WDNR concurs that the system is no longer needed to interrupt the vapor migration pathway, Terracon will remove the system. A system decommissioning report will be prepared and submitted to the WDNR which will document the removal.

4.0 VAPOR INTRUSION SCOPING

In WDNR's February 8, 2022, *Conditional Approval of the Remedial Action Documentation Report,* which provided a response to Terracon's December 16, 2021, *Remedial Action Documentation Report*, comments regarding additional vapor intrusion investigation included:

> "In the attached email sent to Scott Hodgson on March 4, 2021, DNR stated that additional vapor sampling is required at the site, including a sanitary sewer investigation, indoor air sampling at the adjacent Badger Scale tenant space to the south, and potentially sub-slab sampling beneath the adjacent Diamond Builders tenant space to the north."

That email included the following comments:

1. "Verify through pressure field extension testing data (if the SSDS is to remain running) that the existing VMS captures VP-8 (PCE/TCE >> VRSL) up to VP-3 (PCE/TCE < VRSLs).
2. **Additional indoor air sampling at the Badger Scale unit immediately to the south is needed due to TCE > VRSL**. A second event should be collected to supplement the previous IA event performed by Giles in 10/2017. If the intent remains to shut down the VMS, DNR suggests the IA sampling at Badger Scale wait to be combined with the decommissioning sampling. The intent being to verify no exposure is occurring after interim & RA.
3. The adjacent building to the east is less than 100 ft from the soil source. It is unclear if a VI investigation is needed at this location with the operating VMS and injection performed. We need more information about the business in that location and sanitary lateral information for further consideration. If post-injection soil data is collected in addition to sub-slab vapor data, this should be further considered when evaluating whether a VI investigation is needed at the adjacent building.
4. The sanitary sewer preferential pathway should be investigated since this is a former active dry cleaner. If the septic includes a drain field, the drain field should also be investigated if found to be impacted. If the septic is a holding tank, we still need to consider vapor migration into occupied spaces from the sewer, if found to be impacted. **This would include a vapor grab sample from the sanitary clean-out**.
5. Please review Appendix F of RR-800, decommissioning guidelines for a sub-slab depressurization system (SSDS): collect at least three rounds of sub-slab samples **(2-4 weeks post shut-down; 2-6 months & 1 year with at least two events during the heating season)**.
6. DNR will need to review at least 8 rounds of quarterly post-injection groundwater monitoring data prior to considering site closure before all injection compounds have been spent.
7. Submit a work plan describing how these items will be addressed."

Items 1 through 4 are discussed below. Item 5 was addressed in Section 3.0 and Item 6 was discussed in Section 2.0 above. This work plan (Section 5.0) addresses Item 7.

Item 1

The SSDS was designed to capture the sub-slab vapor field where there were VRSL exceedances encompassing vapor point VP-8 to the north and MW-4/VP-7 to the south. Pressure field extension (vacuum) testing verified that the SSDS did capture those areas, but did not extend north to vapor point VP-3 or south to VP-6. If the SSDS was to remain running, it is unclear what WDNR means by "verify pressure field extension testing data that the existing VMS captures VP-8 (PCE/TCE >> VRSL) up to VP-3 (PCE/TCE < VRSLs)." It is unclear how close to VP-3 the area of vacuum influence needs to extend or why. At this time, based on the groundwater monitoring results, Terracon recommends decommissioning the system. As a conservative measure, vapor monitoring points VP-3 and VP-6 will be resampled to verify that there are no VRSL (see Section 5.1) exceedances after system shutdown. If the results indicate VRSL exceedances at either of these locations, the SSDS will be evaluated, modified if necessary to capture those areas, re-

started, and the pressure (vacuum) field re-tested to verify influence over the area of concern.

Item 2

Because there were pre-remedial sub-slab VRSL and indoor ambient air VAL exceedances for large commercial buildings in the enclosed area near vapor monitoring point VP-7 (see the attached Table 4), within the Badger Scale space, adjacent south of Smoke-Out Cleaners, post-SSDS confirmation indoor ambient air samples will be necessary to verify VAL exceedances do not remain (see Section 5.2).

Item 3

Current general requirements for vapor intrusion investigation include assessment of structures within 100 feet of the margins of soil or ground contamination. The building to the east of Smoke-Out (1651 Brookfield Avenue) is approximately 110 feet from the Smoke-Out building and more than 135 feet from the original soil source area and groundwater plume edge. Further, there are no underground utilities that connect the buildings as the sanitary sewer and potable water systems for each building are separate. Therefore, based on distance between the buildings, lack of migration pathways, and contaminant mass removal by the remedial actions, a vapor intrusion investigation of the building east of the Smoke-Out building is not necessary.

Item 4

Vapor intrusion and utility investigation procedures and regulatory requirements have evolved rapidly since the vapor intrusion investigation was initially performed at this site. The WDNR recently released the guidance document *RR-649 Guidance for Documenting Human-Made Preferential Pathways Including Utility Corridors (June 2021)* to provide information on assessing vapor migration associated with utilities such as sanitary sewer lines by collecting vapor samples from sanitary lateral cleanouts (or other points of entry such as floor drains) and sanitary sewer manholes. These criteria will be applied to this site to bring the site vapor investigation into compliance with the recent guidance. In this case, current vapor intrusion guidance indicates 2 to 3 three rounds of sampling are required for vapor intrusion investigations for sub-slab, indoor air, and utility samples with at least one round collected during the winter assessment period season.

The sanitary sewer system at the site consists of sanitary laterals that lead from each lease space in the building to a holding tank on the west side of the building. The holding tank is periodically pumped out and the sewage treated elsewhere. A sanitary lateral cleanout is present in the floor of the northern Smoke-out space boiler room west of the bathrooms. There is also a similar cleanout near the north wall of the northern Smoke-Out space. The cleanout allows direct access to the sanitary lateral by removing the 4-inch diameter cap. In addition, each bay (north and south) of the Smoke-out space has a floor drain. The floor drain in the south bay is closest to the former DCM source area and therefore is of most interest for vapor intrusion investigation. Section 5.3 presents the proposed sampling plan for evaluating vapor migration associated with the sewer system.

5.0 SUPPLEMENTAL VAPOR INTRUSION INVESTIGATION WORK PLAN

The additional vapor intrusion investigation sampling proposed below will be performed in conjunction with the SSDS decommissioning sampling described in Section 3.0. Based on the results of the initial event, Terracon may recommend that the number of sampling points be reduced or, if necessary, additional sampling points added for future rounds. Up to three sampling events will be performed, if necessary.

5.1 Sub-Slab Vapor Sampling

Terracon proposes to sample sub-slab vapor monitoring points VP-3 and VP-6 in the Smoke-Out Cleaners space in conjunction with system decommissioning sampling (Section 3.0) to verify that there are no VRSL exceedances. Prior to sampling, the integrity of each sub-slab vapor monitoring point will be tested by performing either a helium shroud or water dam leak test. The helium shroud leak test will be conducted by placing a shroud over the sample point and introducing helium into the shroud air space. Air will be drawn through a tube connected to the sample point and tested for the presence of helium. If no helium is detected, sampling will proceed. If helium is detected, the sub-slab point will be resealed and then retested. An alternative qualitative leak test method, a water dam leak test, may also be performed in some circumstances, which consists of pouring distilled water around the vapor pin and using a PID to pull air from beneath the sub-slab. The water level in the pool is qualitatively measured as air is purged from beneath the sub-slab. Over a 15-20-minute time period, if the water level remains constant, the point is considered properly sealed.

Following leak test completion, sub-slab vapor samples will be collected by connecting each sample point to a Summa canister with dedicated tubing and opening the valve on the canister. Each sub-slab vapor sample will be collected over a 30-minute period in a laboratory-prepared 6-liter Summa canister with a flow regulator calibrated for 30-minute collection. The sub-slab vapor sample/Summa canister will be submitted under Chain-of-Custody (COC) protocol to Pace Analytical for analysis of dry-cleaner related VOCs (PCE, TCE, cis-DCE, trans-DCE, and VC) by EPA Method TO-15.

5.2 Badger Scale Indoor Air Sampling

Terracon proposes to collect an ambient indoor air sample from the same approximate location as Giles sample IA-2 (October 2017) was collected in the space near vapor monitoring point VP-7. Prior to sampling the space will be inspected for other potential sources of CVOCs. The sample will be collected using a laboratory-prepared 6-liter Summa canister with a flow regulator calibrated for 8-hour sample collection. The Summa canister will be placed at least 3 feet above the floor in the breathing zone. After sample collection, the Summa canister will be submitted

under COC protocol to Pace Analytical for analysis of dry-cleaner related VOCs (PCE, TCE, cis-DCE, trans-DCE, and VC) by EPA Method TO-15.

5.3 Floor Drain and Sanitary Sewer Cleanout Vapor Sampling

Prior to sampling Terracon proposed inspecting the sanitary sewer cleanout in the Smoke-Out boiler room and the south floor drain to determine conditions, construction, and how best to sample. Because WDNR requested collecting groundwater samples from the piezometers prior to writing this work plan, Terracon mobilized to the site on August 4, 2022, to inspect the sanitary sewer cleanout and floor drain in conjunction with the piezometer sampling.

On August 4, 2022, Terracon met facility maintenance personnel (Jesse) at Smoke-Out Cleaners who removed the grate on the floor drains (both south and north) and removed the 4-inch diameter threaded caps from the sanitary cleanouts (both the boiler room and north wall) to allow inspection. The south floor drain was completely plugged with sediment and will need to be cleaned out prior to sampling. The north floor drain had sediment in it but was not plugged. It appeared that a 3-inch diameter polyvinyl chloride (PVC) pipe was connected to the bottom of the drain basin. Jesse believed that there was a p-trap below the visible drain pipe and that the south drain likely connects to the sanitary lateral running under the boiler room to the north and the north floor drain connects to the lateral along the north wall. The sanitary cleanouts both allowed direct access to the sanitary lateral beneath them. They appeared to be locations where toilets were intended but were never installed. A photo log of the inspection is attached.

Terracon will sample the Smoke-Out Cleaners south floor drain and the sanitary sewer cleanout beneath the boiler room in accordance with WDNR's guidance document *RR-649 Guidance for Documenting Human-Made Preferential Pathways Including Utility Corridors (June 2021).* Up to three sampling events will be performed in conjunction with system decommissioning sampling.

Prior to sampling the south floor drain, a plumber will clean the sediment out from the drain basin and drain pipe to allow access. At the time of sampling, Terracon will remove the cover from the south floor drain and remove any liquid from the trap per RR-649. Sample tubing will be inserted into the piping past the trap and will be connected to a plug modified with a valved sample port that will be inserted into the 3-inch diameter drain pipe at the point where the drain pipe meets the basin. After sealing, the system will be allowed to equilibrate for at least an hour. After equilibrating, the valve will be opened and at least three tubing volumes of air will be purged after which a grab sample will be collected into a 1-liter Summa canister (no flow controller). The Summa canister will be submitted under COC protocol to Pace Analytical for analysis of dry-cleaner related VOCs (PCE, TCE, cis-DCE, trans-DCE, and VC) by EPA Method TO-15.

At the boiler room sanitary lateral cleanout location, the cleanout cap will be removed and replaced with a temporary cap that contains a valved port to connect sample tubing. The sample

tubing end will be inserted into a collar that will keep it centered within the sanitary lateral. The collared end of the tubing will be inserted several feet into the sanitary lateral toward the holding tank and attached to the underside of the modified cleanout cap. The system will be allowed to equilibrate for at least an hour. After equilibrating, at least three tubing volumes of air will be purged and then a grab sample will be collected into a 1-liter Summa canister (no flow controller). The Summa canister will be submitted under COC protocol to Pace Analytical for analysis of dry-cleaner related VOCs (PCE, TCE, cis-DCE, trans-DCE, and VC) by EPA Method TO-15.

6.0 REPORTING

Following each vapor sampling event, Terracon will prepare and submit a brief letter report with updated tables and the laboratory analytic test report. Full documentation of the vapor sampling events and results will be included in the future Groundwater Monitoring and Remediation Report. Terracon will prepare an SSDS Decommissioning Report documenting the dismantling/removal of the system upon completion of the removal.

7.0 ANTICIPATED SCHEDULE

Terracon proposes to initiate the additional vapor investigation and system decommissioning sampling following WDNR approval of this work plan and system shut down. The initial sampling event will be performed in December 2022 after the start of the vapor intrusion winter assessment period and in conjunction with post-injection groundwater sampling event #7. This schedule may be amended depending upon results of the initial vapor and groundwater sampling event in January 2023 and/or subsequent events. Specifically, the proposed schedule is as follows:

TASK	ANTICPATED SCHEDULE	ANTICIPATED COMPLETION DATE*
WDNR Approval of this Work Plan/Authorization to Proceed	Within 60 days of receipt	November 8, 2022
System Shutdown	Within 21 days of the December 1 start of the winter assessment period	December 21, 2022
Vapor Investigation & System Decommissioning Sub-Slab and Indoor Air Sampling (Round 1) and Post-Injection Groundwater Sampling Event #7 (full monitoring well network)	Within 28 days following system shut-down	January 18, 2023
Submit Results to WDNR (Tables and Lab Reports)	Within 10 days following receipt of laboratory results	February 10, 2023
Continued on next page		

TASK	ANTICPATED SCHEDULE	ANTICIPATED COMPLETION DATE*
Vapor Investigation and/or System Decommissioning Sub-Slab and Indoor Air Sampling (Round 2)	At least 2 months and no more than 6 months following system shutdown	July 10, 2023
Submit Results to WDNR (Tables and Lab Reports)	Within 10 days following receipt of laboratory results	August 3, 2023
Vapor Investigation and/or System Decommissioning Sub-Slab and Indoor Air Sampling (Round 3) and Post-Injection Groundwater Sampling Event #8	Approximately 1 year after system shutdown	December 21, 2023
Submit Results to WDNR (Tables and Lab Reports)	Within 10 days following receipt of laboratory results	January 15, 2024
Preparation of the Supplemental Vapor Intrusion Investigation Report (as part of the planned Groundwater Monitoring and Remediation Report)	60 days following receipt of the laboratory results	March 2024

*Anticipated completion dates are contingent upon WDNR and client review time, and the schedules of Terracon, laboratory, and subcontractors.

8.0 GENERAL COMMENTS

The analysis and opinions expressed in this SSIIWP are based upon data obtained from the previous assessments and laboratory chemical analyses at the indicated locations or from other information discussed in this SVIIWP. This SVIIWP does not reflect variations in subsurface stratigraphy, hydrogeology, and contaminant distribution that may occur across the site. Actual subsurface conditions may vary and may not become evident without further assessment.

This SVIIWP has been prepared in accordance with generally accepted environmental engineering practices. No warranties, express or implied are intended or made.

If you have questions or require additional information, please do not hesitate to contact our office.

Sincerely,

Scott A. Hodgson, P.G.
Senior Project Manager

Edmund A. Buc, P.E.
Environmental Department Manager

Attachments: Certification Page
Figure 1: Site Location Map
Figure 2: Site Map
Figure 3: Vapor Sampling Points
Figure 4: Groundwater Hydrographs - Observation Wells
Figure 5: Groundwater Hydrographs - Well Nests
Table 1: Groundwater Elevation Summary Table
Table 2: Groundwater Analytic Test Results Summary-VOCs
Table 3: Geochemical Parameter Analytical Results and Field Measurements Summary
Table 4: Vapor Analytical Test Results Summary: Indoor Air
Piezometer Laboratory Analytic Test Report and Field Sampling Sheets
Inspection Photographic Log

SAH/EAB:sah/\\P58WFS01\data\Projects\2018\58187103\PROJECT DOCUMENTS (Reports-Letters-Drafts to Clients)\58187103.Add VI Work Plan.docx

Copy to: Mark Woppert, Smoke-Out Cleaners
Chris Dockry, Agent for Smoke-Out Cleaners
Don Gallo, Gallo Law, LLC
File

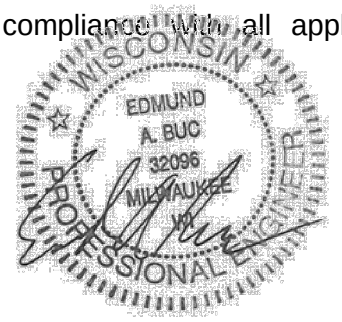
9.0 CERTIFICATIONS

I, Scott A. Hodgson, P.G., hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Scott A. Hodgson PG-1229 Date 9/13/22
Signature and P.G. number

Senior Project Geologist

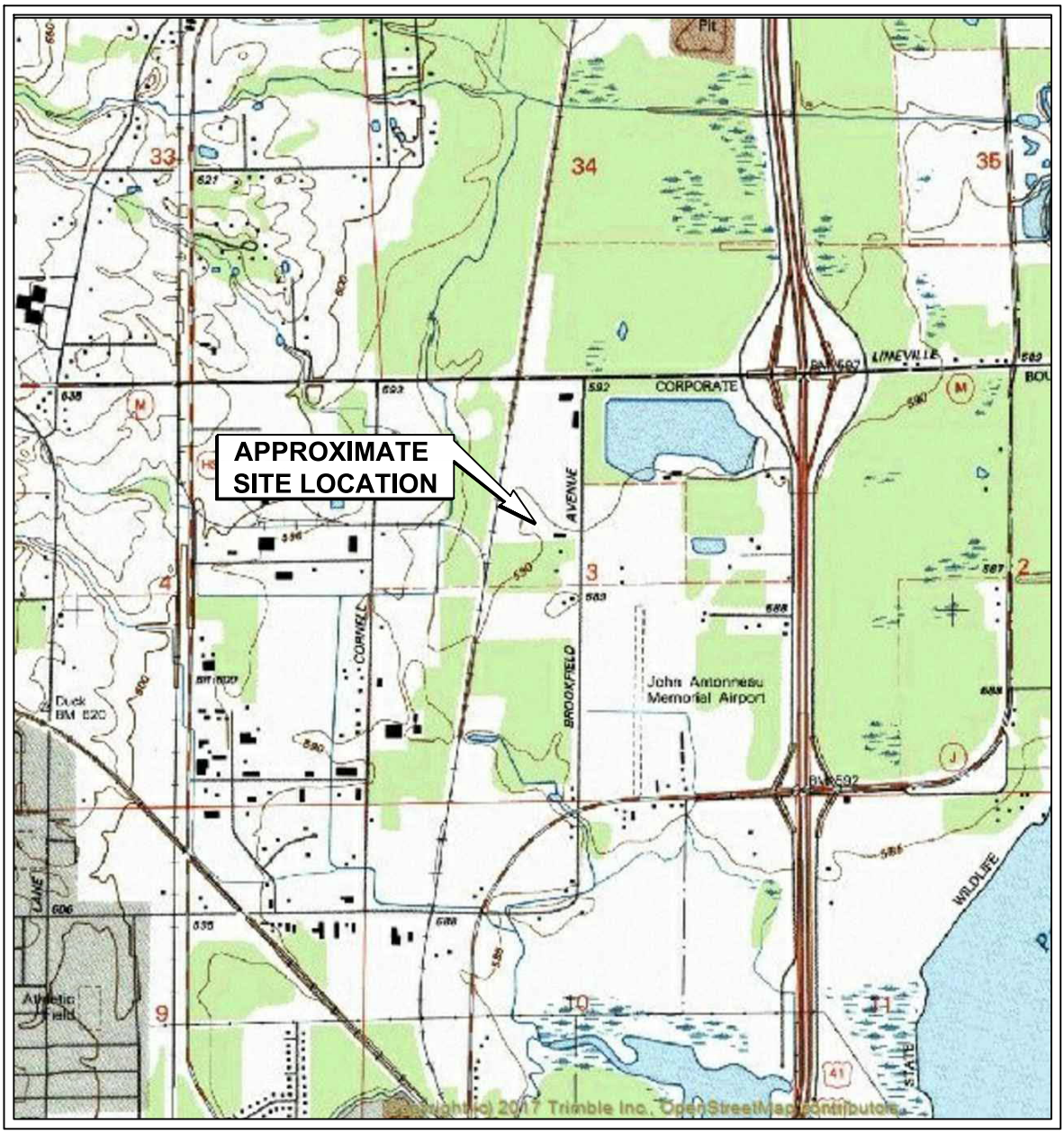
I, Edmund A. Buc, P.E., hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.



E-32096
Signature and P.E. number

Senior Project Engineer
Title

UNITED STATES – DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY



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MILES

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CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

GREEN BAY WEST QUADRANGLE
BROWN COUNTY ~ WISCONSIN
1992
7.5 MINUTE SERIES (TOPOGRAPHIC)

DIAGRAM IS FOR GENERAL LOCATION ONLY AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mngr:	SAH
Drawn By:	JLM (41)
Checked By:	EPK
Approved By:	BRS

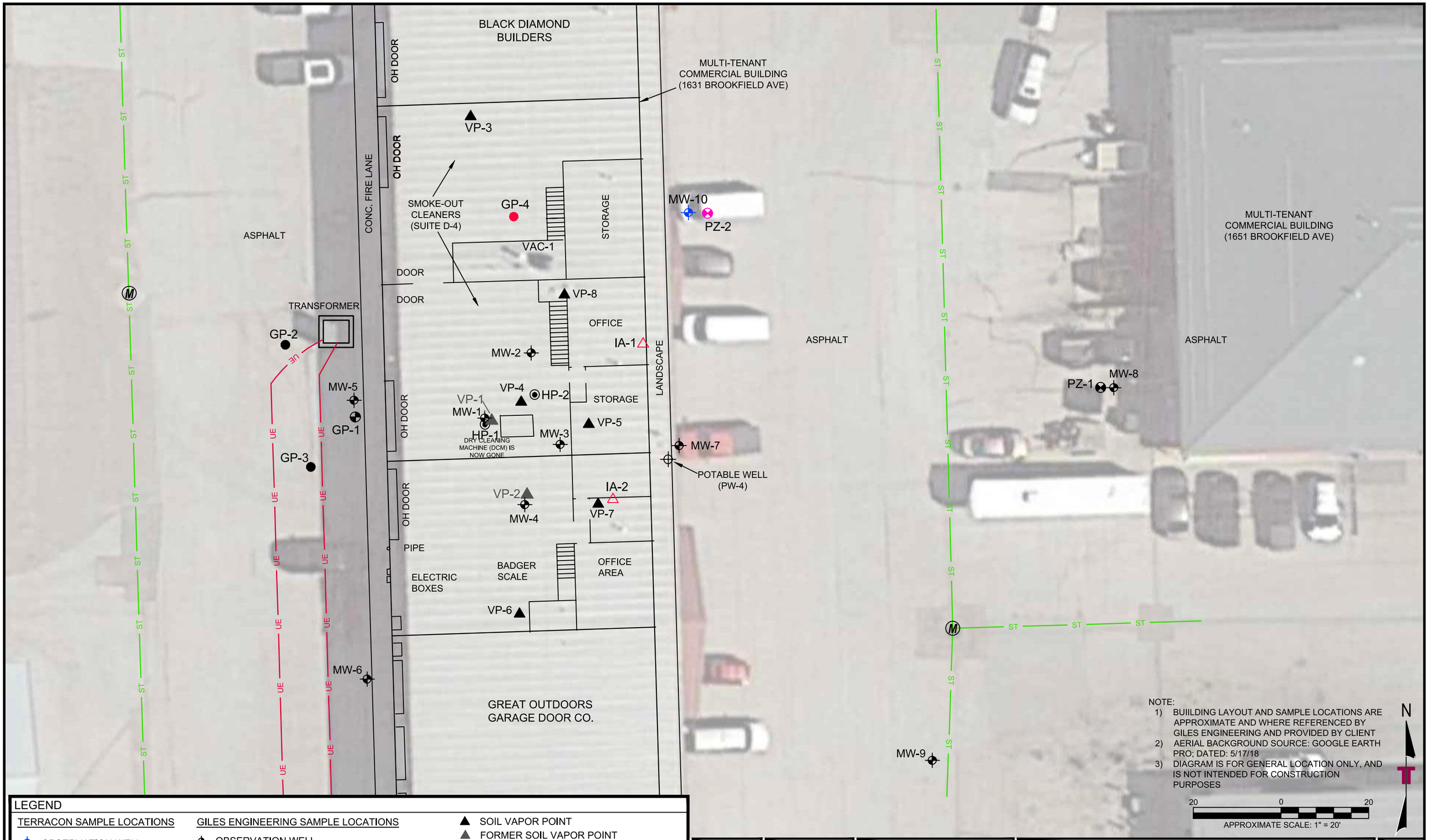
Project No.	58187103
Scale:	AS SHOWN
File No.	58187103C1
Date:	4/2019

Terracon
Consulting Engineers and Scientists
9856 SOUTH 57th STREET FRANKLIN, WI 53132
PH. (414) 423-0255 FAX. (414) 423-0566

SITE LOCATION MAP

SMOKE-OUT CLEANERS
1631 BROOKFIELD AVENUE, UNIT D-4
HOWARD, WISCONSIN

FIGURE
1
(EX1 TOPO)



NOTE:
1) BUIILDING LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE AND WHERE REFERENCED BY GILES ENGINEERING AND PROVIDED BY CLIENT
2) AERIAL BACKGROUND SOURCE: GOOGLE EARTH PRO; DATED: 5/17/18
3) DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

N

20 0 20
APPROXIMATE SCALE: 1" = 20'

LEGEND

TERRACON SAMPLE LOCATIONS
- OBSERVATION WELL
- PIEZOMETER
- DIRECT-PUSH SOIL BORING
- INDOOR AIR SAMPLE POINT

GILES ENGINEERING SAMPLE LOCATIONS
- OBSERVATION WELL
- PIEZOMETER
- HAND PROBE SOIL BORING
- DIRECT-PUSH SOIL BORING/TEMPORARY WELL
- DIRECT-PUSH SOIL BORING

- SOIL VAPOR POINT
- FORMER SOIL VAPOR POINT
- POTABLE WELL
- MANHOLE
- UE — UNDERGROUND ELECTRIC LINE
- ST — STORM SEWER LINE

Project Mngr:	SAH
Drawn By:	JLM (41)
Checked By:	SAH
Approved By:	SAH

Project No.	58187103
Scale:	AS SHOWN
File No.	58187103C1
Date:	10/2021

Terracon
Consulting Engineers and Scientists
9856 SOUTH 57th STREET FRANKLIN, WI 53132
PH. (414) 423-0255 FAX. (414) 423-0566

SITE MAP

SMOKE-OUT CLEANERS
1631 BROOKFIELD AVENUE, UNIT D-4
HOWARD, WISCONSIN

FIGURE 2 (FIG2 SD)

VP-3	PCE	TCE	CIS	TRANS	DCE	VC
3/30/2016	2,010	<0.41	<0.37	<0.57	<0.35	<0.29
6/3/2016	2,870	3.2	1.8	<0.55	<0.34	<0.28
9/29/2016	5,960	75	55.2	<11.4	<7.1	<5.8
3/15/2017	<0.40	0.44	<0.35	<0.55	<0.34	<0.28
10/25/2017	3,050	<20.8	<26.4	<22.9	<18.4	<9.8

VP-8	PCE	TCE	CIS	TRANS	DCE	VC
6/3/2016	**13,600**	156	<0.40	<0.62	<0.38	<0.31
9/29/2016	**19,200**	7.1	<0.35	<0.55	<0.34	<0.28
3/15/2017	5,360	<7.9	<7.1	<11.1	<6.9	<5.6
10/25/2017	**11,200**	<20.0	<25.4	<22.0	<17.7	<9.4

VP-1	PCE	TCE	CIS	TRANS	DCE	VC
6/1/2011	**12,000,000**	**24,000**	6,000	<59,000	<59,000	<38,000

VP-2	PCE	TCE	CIS	TRANS	DCE	VC
6/1/2011	**3,100,000**	**6,000**	<16,000	<16,000	<16,000	<10,000

VP-4	PCE	TCE	CIS	TRANS	DCE	VC
3/30/2016	**889,000**	**5,820**	6,080	<95.2	<59.0	<48.4
6/3/2016	**1,050,000**	**13,200**	12,000	28.9	<0.34	<0.28
9/29/2016	**1,280,000**	**36,400**	36,200	67.6	1.2	12.4
3/15/2017	**604,000**	**13,200**	12,600	54.8	<6.6	<5.4
10/25/2017	**564,000**	**6,010**	4,870	<21.2	<17.1	<9.1

VP-5	PCE	TCE	CIS	TRANS	DCE	VC
3/30/2016	**270,000**	**7,090**	11,800	119	<59.0	<48.4
6/3/2016	**196,000**	**12,000**	22,400	114	3.2	2.6
9/29/2016	**309,000**	**27,500**	39,100	238	<14.8	<12.1
3/15/2017	**93,700**	**7,040**	12,800	168	<6.9	9.6
10/25/2017	**162,000**	**7,580**	20,100	78.9	<17.1	<9.1

VP-7	PCE	TCE	CIS	TRANS	DCE	VC
6/3/2016	**13,800**	156	<0.40	<0.62	<0.38	<0.31
9/29/2016	**24,200**	**1,270**	16.5	0.99	<0.35	<0.29
3/15/2017	**16,200**	**454**	41.3	<10.7	<6.6	<5.4
10/25/2017	**11,200**	<20.0	<25.4	<22.0	<17.7	<9.4

VP-6	PCE	TCE	CIS	TRANS	DCE	VC
3/30/2016	3,540	12.5	5.0	<0.57	<0.35	<0.29
6/3/2016	497	0.68	0.74	<0.57	<0.35	<0.29
9/29/2016	1,140	<0.41	<0.37	<0.57	<0.35	<0.29
3/15/2017	2,670	<8.2	<7.3	<11.4	<7.1	<5.8
10/25/2017	2,600	<20.8	<26.4	<22.9	<18.4	<9.8

BLACK DIAMOND BUILDERS
MULTI-TENANT COMMERCIAL BUILDING (1631 BROOKFIELD AVE)
MULTI-TENANT COMMERCIAL BUILDING (1651 BROOKFIELD AVE)
North Sanitary Cleanout
North Floor Drain
Sanitary Cleanout
South Floor Drain
Indoor Air Near VP-7
Initial Proposed Sample Points
Additional Sample Points
SMOKE-OUT CLEANERS (SUITE D-4)
CONC. FIRE LANE
ASPHALT
OH DOOR
DOOR
STORAGE
OFFICE
LANDSCAPE
TRANSFORMER
DRY CLEANING MACHINE
POTABLE WELL (PW-4)
PIPE
ELECTRIC BOXES
BADGER SCALE
OFFICE AREA
VP-1
VP-2
VP-3
VP-4
VP-5
VP-6
VP-7
VP-8
MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
MW-9
MW-10
PZ-1
PZ-2
GP-1
GP-2
GP-3
GP-4
HP-1
HP-2
ST
UE

LEGEND

TERRACON SAMPLE LOCATIONS
- OBSERVATION WELL
- PIEZOMETER
- DIRECT-PUSH SOIL BORING

GILES ENGINEERING SAMPLE LOCATIONS
- OBSERVATION WELL
- PIEZOMETER
- HAND PROBE SOIL BORING
- DIRECT-PUSH SOIL BORING/TEMPORARY WELL
- DIRECT-PUSH SOIL BORING

- SOIL VAPOR POINT
- FORMER SOIL VAPOR POINT
- POTABLE WELL
- MANHOLE
- UE — UNDERGROUND ELECTRIC LINE
- ST — STORM SEWER LINE

CONCENTRATION LEGEND

CONCENTRATIONS EXPRESSED IN MICROGRAMS PER CUBIC METER (ug/m³)

VRSL = VAPOR RISK SCREENING LEVEL
PCE = TETRACHLOROETHENE
TCE = TRICHLOROETHENE
CIS = cis-1,2 DICHLOROETHENE
TRANS = trans-1,2 DICHLOROETHENE
DCE = 1,1 DICHLOROETHENE
VC = VINYL CHLORIDE

APPROXIMATE EXTENT OF LARGE COMMERCIAL/INDUSTRIAL BUILDINGS SUB-SLAB VRSL EXCEEDANCE (OCTOBER 2017)

BOLD = VALUE EXCEEDS LARGE COMMERCIAL/INDUSTRIAL BUILDING VRSL

NOTE:
1) BUILDLING LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE AND WHERE REFERENCED BY GILES ENGINEERING AND PROVIDED BY CLIENT
2) AERIAL BACKGROUND SOURCE: GOOGLE EARTH PRO; DATED: 5/17/18
3) DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

N

20 0 20
APPROXIMATE SCALE: 1" = 20'

Project Mngr: SAH	Project No. 58187103	Terracon Consulting Engineers and Scientists	VAPOR SAMPLING POINTS
Drawn By: JLM (41)	Scale: AS SHOWN	9856 SOUTH 57th STREET FRANKLIN, WI 53132	SMOKE-OUT CLEANERS
Checked By: TPW	File No. 58187103C1	PH. (414) 423-0255 FAX. (414) 423-0566	1631 BROOKFIELD AVENUE, UNIT D-4
Approved By: SAH	Date: 10/2019		HOWARD, WISCONSIN

FIGURE 3 (FIG6 VQM)

FIGURE 4
Groundwater Hydrographs - Observation Wells

Smoke-Out Cleaners
Howard, Wisconsin
Terracon Project No. 58187103

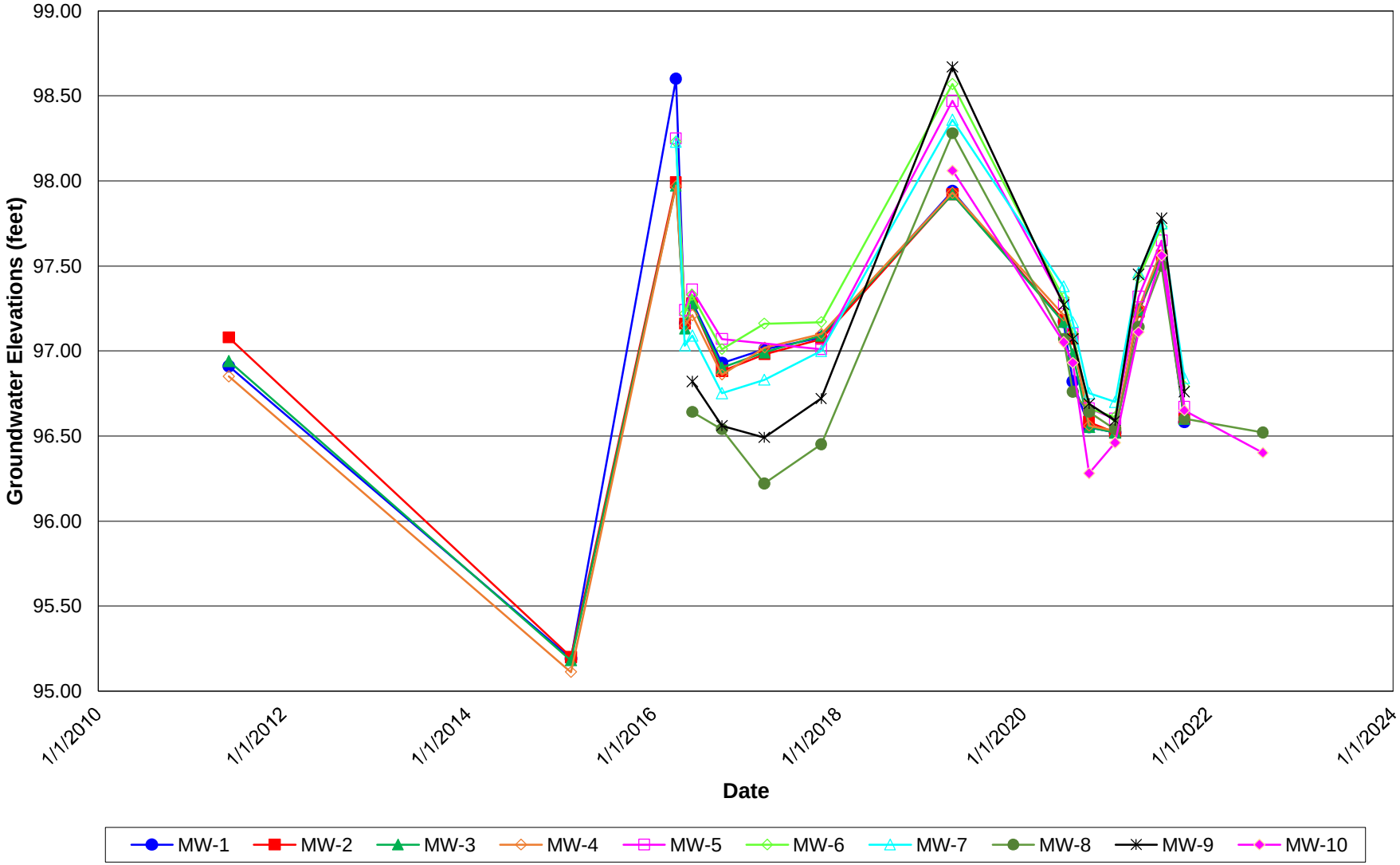


FIGURE 5
Groundwater Hydrographs - Well Nests

Smoke-Out Cleaners
Howard, Wisconsin
Terracon Project No. 58187103

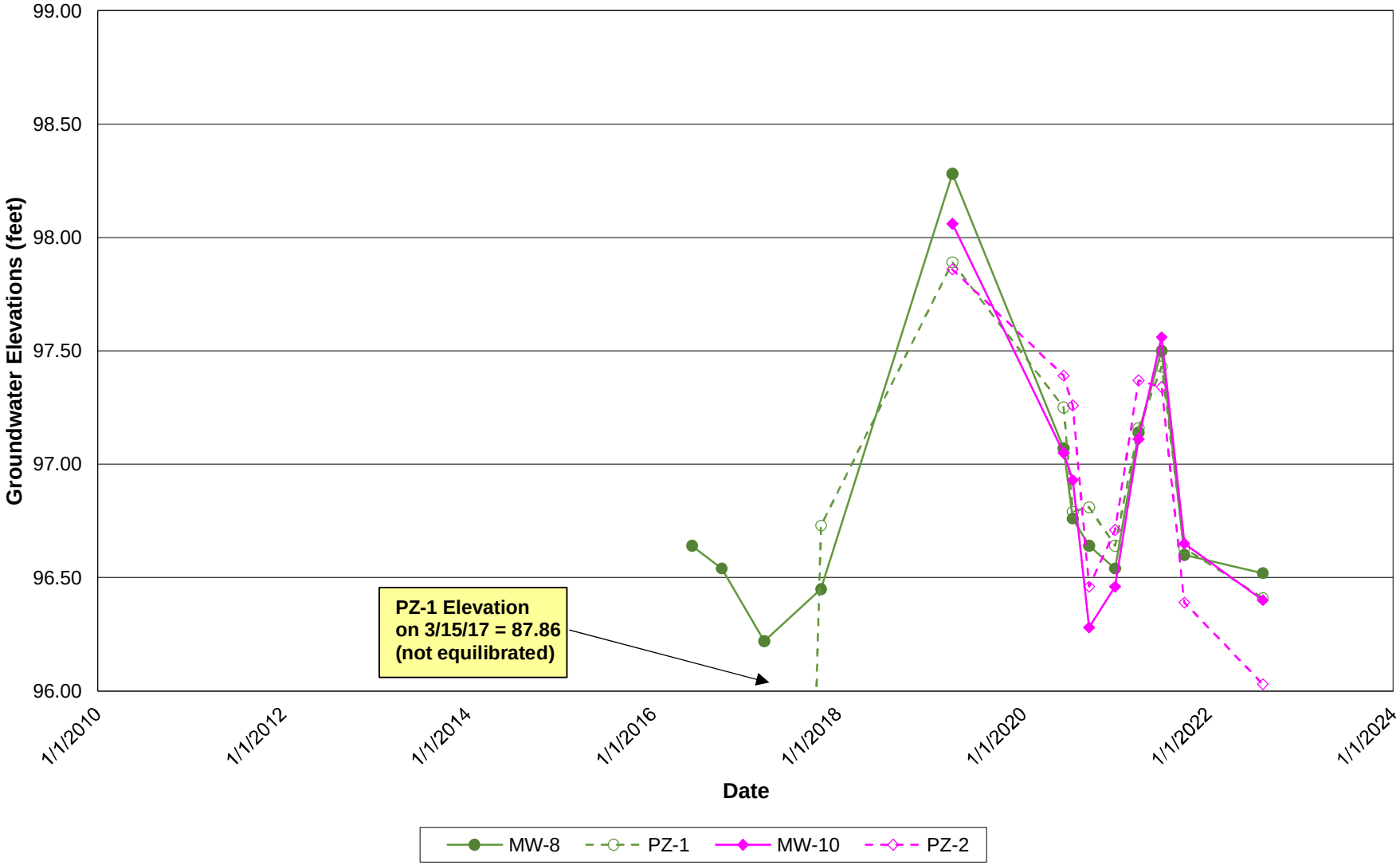


TABLE 1
Groundwater Elevation Summary Table

Smoke-Out Cleaners
Howard, Wisconsin
Terracon Project No. 58187103

Well	TOC* Elevation (ft)	Ground Surface Elevation	Well Depth (ft)	Screened Interval	Date	Depth to Groundwater from TOC (ft)	Groundwater Elevation (ft)
MW-1	99.92	100.07	7.00	93.07 - 98.07	06/01/11	3.01	96.91
					02/10/15	4.73	95.19
					03/31/16	1.32	98.60
					05/06/16	2.76	97.16
					06/02/16	2.63	97.29
					09/28/16	2.99	96.93
					03/15/17	2.91	97.01
					10/25/17	2.84	97.08
					03/27/19	1.98	97.94
					06/09/20	2.75	97.17
					07/14/20	3.10	96.82
					09/17/20	3.37	96.55
					12/29/20	3.40	96.52
					03/31/21	2.68	97.24
					06/30/21	2.36	97.56
					09/28/21	3.34	96.58
MW-2	100.04	100.13	7.00	93.13 - 98.13	06/01/11	2.96	97.08
					02/10/15	4.84	95.20
					03/31/16	2.05	97.99
					05/06/16	2.88	97.16
					06/02/16	2.76	97.28
					09/29/16	3.16	96.88
					03/15/17	3.06	96.98
					10/25/17	2.97	97.07
					03/27/19	2.12	97.92
					06/09/20	2.86	97.18
					07/14/20	2.97	97.07
					09/17/20	3.46	96.58
					12/29/20	3.52	96.52
					03/31/21	2.81	97.23
					06/30/21	2.48	97.56
					09/28/21	3.44	96.60
MW-3	99.94	100.10	7.00	93.10 - 98.10	06/01/11	3.00	96.94
					02/10/15	4.76	95.18
					03/31/16	1.97	97.97
					05/06/16	2.81	97.13
					06/02/16	2.66	97.28
					09/28/16	3.04	96.90
					03/15/17	2.95	96.99
					10/25/17	2.85	97.09
					03/27/19	2.02	97.92
					06/09/20	2.77	97.17
					07/14/20	2.96	96.98
					09/17/20	3.39	96.55
					12/29/20	3.42	96.52
					03/31/21	2.70	97.24
					06/30/21	2.39	97.55
MW-3 (cont)					09/28/21	3.34	96.60

TABLE 1
Groundwater Elevation Summary Table

Smoke-Out Cleaners
Howard, Wisconsin
Terracon Project No. 58187103

Well	TOC* Elevation (ft)	Ground Surface Elevation	Well Depth (ft)	Screened Interval	Date	Depth to Groundwater from TOC (ft)	Groundwater Elevation (ft)
MW-4	99.94	100.11	7.00	93.11 - 98.11	06/01/11	3.09	96.85
					02/10/15	4.83	95.11
					03/31/16	1.97	97.97
					05/06/16	2.79	97.15
					06/03/16	2.73	97.21
					09/29/16	3.08	96.86
					03/15/17	2.92	97.02
					10/25/17	2.84	97.10
					03/27/19	2.01	97.93
					06/09/20	2.73	97.21
					07/14/20	2.84	97.10
					09/17/20	3.38	96.56
					12/29/20	3.41	96.53
					03/31/21	2.69	97.25
					06/30/21	2.35	97.59
					09/28/21	3.33	96.61
MW-5	99.57	99.73	6.00	93.73 - 98.73	03/31/16	1.32	98.25
					05/06/16	2.33	97.24
					06/02/16	2.21	97.36
					09/28/16	2.50	97.07
					10/25/17	2.56	97.01
	99.70	*99.82*	*Resurveyed 3/28/19*		03/27/19	1.23	98.47
					06/09/20	2.42	97.28
					07/14/20	2.60	97.10
					09/17/20	3.04	96.66
					12/29/20	3.10	96.60
					03/31/21	2.38	97.32
					06/30/21	2.05	97.65
					09/28/21	3.03	96.67
MW-6	99.59	99.73	6.50	93.73 - 98.23	03/31/16	1.36	98.23
					05/06/16	2.37	97.22
					06/02/16	2.26	97.33
					09/28/16	2.58	97.01
					03/14/17	2.43	97.16
					10/25/17	2.42	97.17
	99.89	*99.97*	*Resurveyed 3/28/19*		03/27/19	1.32	98.57
					06/09/20	2.58	97.31
					07/14/20	2.79	97.10
					09/17/20	3.23	96.66
					12/29/20	3.28	96.61
					03/31/21	2.46	97.43
					06/30/21	2.16	97.73
					09/28/21	3.10	96.79
MW-7	99.69	99.81	6.50	93.31 - 98.31	03/31/16	1.46	98.23
					05/06/16	2.66	97.03
MW-7 (cont)					06/03/16	2.60	97.09
					09/28/16	2.94	96.75

TABLE 1
Groundwater Elevation Summary Table

Smoke-Out Cleaners
Howard, Wisconsin
Terracon Project No. 58187103

Well	TOC* Elevation (ft)	Ground Surface Elevation	Well Depth (ft)	Screened Interval	Date	Depth to Groundwater from TOC (ft)	Groundwater Elevation (ft)
					03/14/17	2.86	96.83
					10/25/17	2.69	97.00
	100.02	*100.10*	*Resurveyed 3/28/19*		03/27/19	1.66	98.36
					06/09/20	2.64	97.38
					07/14/20	2.85	97.17
					09/17/20	3.27	96.75
					12/29/20	3.32	96.70
					03/31/21	2.56	97.46
					06/30/21	2.27	97.75
					09/28/21	3.18	96.84
MW-8	99.24	99.43	6.50	92.93 - 97.93	06/03/16	2.60	96.64
					09/28/16	2.70	96.54
					03/14/17	3.02	96.22
					10/25/17	2.79	96.45
	99.52	*99.62*	*Resurveyed 3/28/19*		03/27/19	1.24	98.28
					06/09/20	2.45	97.07
					07/14/20	2.76	96.76
					09/17/20	2.88	96.64
					12/29/20	2.98	96.54
					03/31/21	2.38	97.14
					06/30/21	2.02	97.50
					09/28/21	2.92	96.60
					08/04/22	3.00	96.52
MW-9	98.88	99.11	6.50	92.61 - 97.61	06/03/16	2.06	96.82
					09/28/16	2.32	96.56
					03/14/17	2.39	96.49
					10/25/17	2.16	96.72
	99.29	*99.32*	*Resurveyed 3/28/19*		03/27/19	0.62	98.67
					06/09/20	2.02	97.27
					07/14/20	2.22	97.07
					09/17/20	2.60	96.69
					12/29/20	2.70	96.59
					03/31/21	1.84	97.45
					06/30/21	1.51	97.78
					09/28/21	2.53	96.76
MW-10	99.52	100.04	6.50	93.54 - 98.54	03/27/19	1.46	98.06
					06/09/20	2.47	97.05
					07/14/20	2.59	96.93
					09/17/20	3.24	96.28
					12/29/20	3.06	96.46
					03/31/21	2.41	97.11
					06/30/21	1.96	97.56
					09/28/21	2.87	96.65
					08/04/22	3.12	96.40
PZ-1	99.47	99.57	26.31	73.26 - 78.26	03/15/17	11.61	87.86
					10/25/17	2.74	96.73

TABLE 1
Groundwater Elevation Summary Table

Smoke-Out Cleaners
Howard, Wisconsin
Terracon Project No. 58187103

Well	TOC* Elevation (ft)	Ground Surface Elevation	Well Depth (ft)	Screened Interval	Date	Depth to Groundwater from TOC (ft)	Groundwater Elevation (ft)
	99.66	*99.70*	*Resurveyed 3/28/19*		03/27/19	1.77	97.89
					06/09/20	2.41	97.25
					07/14/20	2.87	96.79
					09/17/20	2.85	96.81
					12/29/20	3.02	96.64
					03/31/21	2.50	97.16
					06/30/21	2.23	97.43
					09/28/21	3.03	96.63
					08/04/22	3.25	96.41
PZ-2	99.65	100.05	26.00	74.05 - 79.05	03/27/19	1.79	97.86
					06/09/20	2.26	97.39
					07/14/20	2.39	97.26
					09/17/20	3.19	96.46
					12/29/20	2.94	96.71
					03/31/21	2.28	97.37
					06/30/21	2.31	97.34
					09/28/21	3.26	96.39
					08/04/22	3.62	96.03

Note:
*TOC: Top of Well Casing
1) All elevations were recorded in feet and referenced to an arbitrary 100 foot local benchmark, which is the top of concrete at north side of overhead door to Smoke-Out unit (west side of the building).
2) Elevations for 2016 and 2017 were measured by Giles Engineering, Inc. Elevations from March 2019 were measured by Terracon Consultants, Inc.
3) Observation wells MW-5 through MW-9 and piezometer PZ-1 were resurveyed on March 28, 2019, while MW-10 and PZ-2 were surveyed for the first time following construction on that date.

TABLE 2
Groundwater Analytic Test Results Summary-VOCs

Smoke-Out Cleaners
Howard, Wisconsin
Terracon Project No. 58187103

Sample ID	Sample Date	Volatile Organic Compounds (VOCs - µg/L)										
		Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene (cis-DCE)	trans-1,2-Dichloroethene (trans-DCE)	Vinyl chloride (VC)	1,1-Dichloroethene (DCE)	Chloroform	Chloromethane	1,2,4-Trimethylbenzene	Toluene	Total Xylene Methane
NR 140 WAC, PAL[1]		0.5	0.5	7	20	0.02	0.7	0.6	3	96	160	400
NR 140 WAC, ES[2]		**5**	**5**	**70**	**100**	**0.2**	**7**	**6**	**30**	**480**	**800**	**2,000**
GP-1	08/07/08	<0.50	<0.20	<0.50	<0.50	<0.20	<0.50	<0.20	0.80	<0.20	<0.50	<0.50
MW-1	06/02/11	**270**	**22.0**	**220**	5.0	**4.9**	<0.50	<0.20	<0.30	<0.20	<0.5	<0.50
	03/31/16	3.9	**5.4**	**89.0**	2.2	**17.0**	<0.24	<2.5	<0.50	<0.50	<0.50	<1.5
	06/02/16	**8.3**	**7.0**	**79.2**	2.1	**12.7**	<0.41	<2.5	5.3	<0.50	<0.50	<1.5
	09/28/16	**5.3**	**5.3**	40.6	<0.26	**4.5**	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/15/17	**12.4**	**5.0**	**96.7**	2.2	**17.7**	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/27/19	**16.9**	**6.2**	67.9	1.7	**11.0**	<0.24	<1.3	<2.2	<0.84	<0.17	<0.73
	06/09/20	2.3	3.7	60.8	2.1	**19.8**	0.27	<1.3	<2.2	<0.84	<0.27	<0.73
	07/14/20	3.5	0.29 J	1.5	<0.46	**39.7**	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
	09/17/20	1.5	<0.26	1.2	<0.46	**15.4**	<0.24	<1.3	<2.2	<0.84	0.50	<0.73
	12/29/20	0.88	<0.26	2.3	<0.46	**3.5**	<0.24	<1.3	<2.2	<0.84	0.53	<0.73
	03/31/21	0.71	<0.51	0.84	<0.93	**1.4**	<0.24	<1.3	<2.2	<0.84	0.85	<0.73
	06/30/21	<0.41	<0.32	1.5	<0.53	**2.4**	<0.58	<1.2	<1.6	1.7	2.0	<1.05
	09/28/21	<0.41	<0.32	1.5	<0.53	**1.2**	<0.58	<1.2	<1.6	<0.95	6.7	<1.05
BD1	09/28/21	<0.41	<0.32	0.95	<0.53	**1.1**	<0.58	<1.2	<1.6	<0.95	7.2	<1.05
MW-2	06/02/11	4.8	0.23	1.8	<0.50	<0.20	<0.50	<0.20	<0.30	<0.20	<0.50	1.5
	03/31/16	<0.50	0.49	4.8	<0.26	<0.18	<0.24	<2.5	<0.50	<0.50	<0.50	<1.5
	06/02/16	0.67	<0.33	2.5	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	09/29/16	<0.50	<0.33	1.6	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/15/17	1.3	0.35	3.7	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/27/19	3.7	1.1	3.5	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	<0.17	<0.73
	06/09/20	0.72	0.40	1.6	<0.46	<0.17	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
	07/14/20	<0.33	<0.26	1,4	<0.46	**1.2**	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
	09/17/20	<0.33	<0.26	1.3	<0.46	**0.76**	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
	12/29/20	<0.33	0.26	1.4	<0.46	**0.51**	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
BD2	12/29/20	<0.33	<0.26	1.2	<0.46	**0.40**	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
MW-3	06/02/11	**14,000**	**120**	**140**	3.5	**1.0**	<0.50	0.29	<0.30	0.52	0.94	1.7
	03/31/16	2.0	3.2	**286**	7.4	**4.8**	<0.24	<2.5	<0.50	<0.50	<0.50	<1.5
	06/02/16	**50.3**	**37.9**	**405**	9.4	**6.7**	<2.1	<12.5	11.3	<2.5	<2.5	<7.5
	09/28/16	**5.5**	**5.9**	**336**	<1.0	**7.0**	<1.6	<10.0	<2.0	<2.0	<2.0	<6.0
	03/15/17	3.9	**6.3**	**556**	14.7	**11.4**	<1.6	<10.0	<2.0	<2.0	<2.0	<6.0
	03/27/19	**13.8**	**5.2**	**188**	3.7	**45.5**	<0.61	<3.2	<5.5	<2.1	<0.43	<1.85
	06/09/20	1.4	**7.3**	**141**	3.8	**91.6**	<0.61	<3.2	6.4	<2.1	<0.67	<1.85
BD1	07/14/20	**13.1**	**14.0**	**427**	8.6	**118**	0.59 J	<1.3	<2.2	<0.84	<0.27	<0.73
	07/14/20	**16.0**	**18.1**	**340**	9.1	**103**	<0.61	<3.2	<5.5	<2.1	<0.67	<1.85
	09/17/20	<0.82	<0.64	**117**	4.7	**62**	<0.68	<3.2	<5.5	<2.1	<0.67	<1.85
	12/29/20	<0.82	<0.64	25.7	2.6	**16.4**	<0.68	<3.2	<2.2	<2.1	<0.27	<1.85
BD1	03/31/21	<0.33	0.76	59.9	2.0	**27.2**	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
	03/31/21	<0.33	0.54	66.4	2.3	**30.6**	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
	06/30/21	<0.41	1.3	41.2	1.7	**20.8**	<0.58	<1.2	<1.6	<0.45	<0.29	<1.05
BD1	06/30/21	<0.41	1.1	38.2	1.6	**18.0**	<0.58	<1.2	<1.6	<0.45	<0.29	<1.05
	09/28/21	<0.41	<0.32	<0.47	1.3	**0.55**	<0.58	<1.2	<1.6	<0.45	<0.29	<1.05
MW-4	06/02/11	**25.0**	**23.0**	16.0	0.60	**0.30**	0.65	<0.20	<0.30	<0.20	<0.50	<0.50
	03/31/16	**9.8**	**18.7**	**83.2**	3.5	**1.4**	0.98	<2.65	<0.50	<0.50	<0.50	<1.5
	06/03/16	**11.6**	**24.1**	65.3	3.0	**1.0**	1.1	<2.5	12.7	<0.50	<0.50	<1.5
	09/29/16	**9.1**	**19.2**	49.8	<0.26	**1.0**	0.84	<2.5	<0.50	<0.50	<0.50	<1.5
	03/15/17	**19.3**	**17.4**	**82.5**	2.1	**0.78**	0.91	<2.5	<0.50	<0.50	<0.50	<1.5
	03/28/19	**21.2**	**10.1**	**88.9**	1.1	<0.17	0.41	<1.3	<2.2	<0.84	<0.17	<0.73
	06/09/20	**5.1**	**5.5**	**69.9**	1.7	<0.17	0.49	<1.3	<2.2	<0.84	<0.27	<0.73
BD1	06/09/20	4.6	**5.2**	**64.9**	1.5	<0.17	0.59	<1.3	<2.2	<0.84	<0.27	<0.73
	07/14/20	<0.33	<0.26	12.3	0.96 J	**17.2**	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
	09/17/20	<0.33	<0.26	3.3	<0.46	**2.4**	<0.24	<1.3	<2.2	<0.84	0.73	0.57
BD1	09/17/20	<0.33	<0.26	3.7	<0.46	**2.6**	<0.24	<1.3	<2.2	<0.84	0.31	0.47
	12/29/20	<0.33	<0.26	0.83	<0.46	<0.17	<0.24	<1.3	<2.2	<0.84	1.6	1.27
	03/31/21	<0.33	<0.26	0.85	<0.46	**0.71**	<0.24	<1.3	<2.2	<0.84	0.79	0.57
	06/30/21	<0.41	<0.32	0.66	<0.53	<0.17	<0.58	<1.6	<1.6	1.7	0.69	<1.05
	09/28/21	<0.41	<0.32	<0.47	<0.53	<0.17	<0.58	<1.2	<1.6	<0.45	3.3	<1.05
MW-5	03/31/16	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	06/02/16	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	3.2	<0.50	<0.50	<1.5
	09/28/16	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/14/17	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/28/19	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	0.71	<0.73
	12/28/20	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	0.71	<0.73

TABLE 2
Groundwater Analytic Test Results Summary-VOCs

Smoke-Out Cleaners
Howard, Wisconsin
Terracon Project No. 58187103

Sample ID	Sample Date	Volatile Organic Compounds (VOCs - µg/L)										
		Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene (cis-DCE)	trans-1,2-Dichloroethene (trans-DCE)	Vinyl chloride (VC)	1,1-Dichloroethene (DCE)	Chloroform	Chloromethane	1,2,4-Trimethylbenzene	Toluene	Total Xylene
NR 140 WAC, PAL[1]		0.5	0.5	7	20	0.02	0.7	0.6	3	96	160	400
NR 140 WAC, ES[2]		**5**	**5**	**70**	**100**	**0.2**	**7**	**6**	**30**	**480**	**800**	**2,000**
MW-6	03/31/16	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	06/02/16	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	3.8	<0.50	<0.50	<1.5
	09/28/16	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/14/17	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/28/19	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	0.74	<0.73
	12/28/20	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
MW-7	03/31/16	**24.2**	2.8	0.94	<0.26	<0.18	<0.24	<2.5	<0.50	<0.50	<0.50	<1.5
	06/03/16	**9.8**	1.1	0.51	<0.26	<0.18	<0.41	<2.5	4.7	<0.50	<0.50	<1.5
	09/28/16	**117**	**14.3**	13.8	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/14/17	0.85	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/28/19	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	<0.17	<0.73
BD-2	03/28/19	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	<0.17	<0.73
	12/28/20	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
MW-8	06/03/16	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	09/28/16	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/14/17	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/28/19	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	0.74	<0.73
	12/29/20	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
MW-9	06/03/16	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	8.1	<0.50	<0.50	<1.5
	09/28/16	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	<5.0	<0.50	<0.50	<1.5
	03/14/17	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/28/19	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	0.79	<0.73
	12/29/20	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
MW-10	03/28/19	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	<0.17	<0.73
	12/28/20	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
PZ-1	03/15/17	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<2.5	<0.50	<0.50	<0.50	<1.5
	03/28/19	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	0.66	<0.73
	12/28/20	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
	08/04/22	<0.41	<0.32	<0.47	<0.53	<0.17	<0.58	<1.2	<1.6	<0.45	<0.29	<1.05
PZ-2	03/28/19	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	0.30	<0.73
BD-1	03/28/19	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	0.28	<0.73
	12/28/20	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73
	08/04/22	<0.41	<0.32	<0.47	<0.53	<0.17	<0.58	<1.2	<1.6	<0.45	<0.29	<1.05
PW-1	03/15/17	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<1.3	<2.5	<0.50	<0.50	<1.5
PW-2	03/15/17	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<1.3	<2.5	<0.50	<0.50	<1.5
PW-3	03/15/17	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<1.3	<2.5	<0.50	<0.50	<1.5
PW-4	03/15/17	<0.50	<0.33	<0.26	<0.26	<0.18	<0.41	<1.3	<2.5	<0.50	<0.50	<1.5
	12/29/20	<0.33	<0.26	<0.27	<1.1	<0.17	<0.24	<1.3	<2.2	<0.84	<0.27	<0.73

Notes:

[1]NR 140, Wisconsin Administrative Code, (WAC) Preventive Action Limit (PAL), Register, February 2017

[2]NR 140, WAC, Enforcement Standard (ES), Register, February 2017

Results expressed in micrograms per liter (ug/L)

BD = Blind Duplicate

Only compounds detected by the laboratory are included on the table.

Samples from 2008 through 2017 were collected by Giles Engineering, Inc. Samples from March 2019 onward were collected by Terracon

Choloethene (6.8 µg/L in MW-3), Benzene (0.57 µg/L in MW-1 and 0.80 µg/L in MW-4), and Ethylbenenze (0.35 µg/L in MW-1 and 0.36 µg/L in MW-4) were first detected in the Septemeber 17,2020 sampling event

XX.XX Exceeds NR 140 PAL

XX.XX Exceeds NR 140 ES

<X.XX Analyte not detected above its laboratory limit of detection

TABLE 3
Geochemical Parameter Analytical Results and Field Measurements Summary

Smoke-Out Cleaners
Howard, Wisconsin
Terracon Project No. 58187103

Sample ID	Sample Date	Field Parameters					Laboratory Parameters						
		Temperature (°C)	pH	Specific Conductance (mS/cm)	Oxidation Reduction Potential (ORP, mV)	Dissolved Oxygen (mg/L)	Total Organic Carbon (mg/L)	Sulfate (mg/L)	Manganese, Dissolved (µg/L)	Iron, Dissolved (µg/L)	Ethane (µg/L)	Ethene (µg/L)	Methane (µg/L)
Conducive to/Indicative of Reductive Dechlorination		--	5<pH<9	>BG	<50	<0.5	>20 mg/L	<BG	>BG	>BG	Present	Present	>BG
MW-1	03/27/19	18.81	7.52	641	23.4	0.91	4.5	NA	NA	506	<0.58	3.1	1,070
	06/09/20	19.63	7.38	522	59.0	2.43	5.4	48.7	761	1,720	<1.2	3.2	711
	06/11/20	NM	NM	NM	NM	NM	11,300	NA	NA	NA	NA	NA	NA
	07/14/20	16.28	5.89	3,209	-65.6	1.12	2,810	3.5 J	4,980	255,000	7.0	8.7	321
	09/17/20	NM	NM	NM	NM	NM	2,650	2.6 J	4,380	423,000	50.8	50.2	2,580
	12/29/20	19.99	6.31	1,705	-271.5	6.31	NA	NA	NA	NA	NA	NA	NA
	03/31/21	17.66	7.01	1,979	-189.9	8.5	274	NA	NA	144,000	11.3	11.1	3,420
	06/30/21	21.65	7.06	1,048	-112.6	6.78	115	NA	NA	31,400	<0.39	1.3	4,000
	09/28/21	21.55	6.29	0.839	-166.3	6.36	106	NA	NA	112,000	<0.39	<0.25	4,340
MW-2	03/27/19	18.97	7.43	655	52.2	0.95	2.5	NA	NA	52.0	<0.58	<0.52	52.8
	06/09/20	19.37	7.26	647	-39.2	1.52	2.6	33.2	284.0	<29.6	<1.2	<1.2	18.8
	06/11/20	NM	NM	NM	NM	NM	6,360	NA	NA	NA	NA	NA	NA
	07/14/20	15.87	5.99	1,528	-57.9	0.37	726	8.8 J	8,100	57,000	<1.2	<1.2	64.1
	09/17/20	21.07	6.75	1,479	-102.3	0.31	374	6.0 J	4,340	70,600	<1.2	<1.2	1,140
	12/29/20	19.56	7.01	1,260	-279.3	2.50	23.7	NA	NA	26,000	<1.2	<1.2	2,330
MW-3	03/27/19	18.86	7.54	552	39.5	0.93	4.1	NA	NA	1,690	<0.58	8.5	1,830
	06/09/20	19.41	7.17	729	-47.0	0.10	5.5	49.6	739	2,920	<1.2	6.9	887
	06/11/20	NM	NM	NM	NM	NM	690	NA	NA	NA	NA	NA	NA
	07/14/20	16.06	6.38	1,587	-96.7	0.20	283	6.9 J	2,850	36,000	<1.2	8.3	2,160
	09/17/20	21.23	6.88	1,062	-106.8	0.10	98.4	5.3 J	1,590	32,700	<1.2	18.1	1,660
	12/29/20	18.89	6.91	850	-293.7	0.29	9.7	NA	NA	15,900	4.5	19.8	1,860
	03/31/21	18.44	6.10	800	594.2	2.49	7.3	NA	NA	12,400	<1.2	11.6	2,520
	06/30/21	20.29	7.22	887	-95.2	1.17	6.4	NA	NA	247	<0.39	5.1	2,730
	09/28/21	21.25	6.61	0.910	-160.5	1.25	10.5	NA	NA	9,830	0.93	1.6	982
MW-4	03/28/19	17.29	7.30	965	177.4	0.63	3.4	NA	NA	103	<0.58	<0.52	15.9
	06/09/20	19.12	7.14	942	82.9	0.55	4.1	111	16.4	<29.6	<1.2	<1.2	14.0
BD1	06/09/20	19.12	7.14	942	82.9	0.55	3.8	108	16.7	<29.6	<1.2	<1.2	16.7
	06/11/20	NM	NM	NM	NM	NM	5,170	NA	NA	NA	NA	NA	NA
	07/14/20	16.73	6.22	2,501	-54.0	2.37	1,150	13.2	5,540.0	160,000	15.2	16.6	1,820
	09/17/20	21.30	6.91	3,252	-157.0	1.33	1,430	2.3 J	3,980	333,000	19.6	16.9	213
	12/29/20	18.68	6.70	2,366	-281.2	1.80	NA	NA	NA	NA	NA	NA	NA
	03/31/21	16.99	7.22	3,122	-274.1	3.27	540	NA	NA	168,000	8.5	7.8	4,590
	06/30/21	22.30	7.62	1,660	-198.8	4.75	181	NA	NA	135	7.0	7.7	5,430
	09/28/21	21.68	6.55	0.995	-252.1	5.12	83	NA	NA	29,100	5.0	3.2	4,470
MW-5	03/28/19	5.16	7.30	465	59.1	0.52	NA	NA	NA	NA	NA	NA	NA
	12/29/20	5.05	7.85	0.224	-253.9	3.60	NA	NA	NA	NA	NA	NA	NA
MW-6	03/28/19	4.39	7.18	416	59.7	0.68	NA	NA	NA	NA	NA	NA	NA
	12/29/20	5.81	7.87	148	-224.1	4.86	NA	NA	NA	NA	NA	NA	NA
MW-7	03/28/19	5.16	8.15	1,536	142.6	11.71	0.26	NA	NA	236	<0.58	<0.52	<1.4
	12/29/20	6.40	7.91	493	-219.1	7.39	1.50	NA	NA	1,430	<1.2	<1.2	0.7
MW-8	03/28/19	5.75	7.57	879	65.4	6.52	NA	NA	NA	NA	NA	NA	NA
	12/29/20	6.07	7.51	186	-273.8	2.20	NA	NA	NA	NA	NA	NA	NA
MW-9	03/28/19	4.18	7.62	645	77.9	2.10	NA	NA	NA	NA	NA	NA	NA
	12/29/20	6.60	6.60	785	-234.2	5.16	NA	NA	NA	NA	NA	NA	NA
MW-10	03/28/19	3.89	8.12	1,539	130.1	9.39	NA	NA	NA	NA	NA	NA	NA
	12/29/20	6.61	7.30	445	-230.3	4.53	NA	NA	NA	NA	NA	NA	NA
PZ-1	03/28/19	5.17	7.76	781	69.4	3.13	NA	NA	NA	NA	NA	NA	NA
	12/29/20	7.77	7.13	77	-203.3	4.81	NA	NA	NA	NA	NA	NA	NA
	08/04/22	16.78	7.62	NM	-182.3	0.15	NA	NA	NA	NA	NA	NA	NA
PZ-2	03/28/19	8.50	7.93	775	56.7	5.00	NA	NA	NA	NA	NA	NA	NA
	12/29/20	10.91	7.13	223	-277.9	1.93	NA	NA	NA	NA	NA	NA	NA
	08/04/22	18.37	7.57	NM	-142.1	0.28	NA	NA	NA	NA	NA	NA	NA

Notes:
BG = Background; MW-9 represents background concentrations and values
°C = Celsius
mV = Millivolts
ug/L = Micrograms per liter
mg/L = Milligrams per liter
ms/cm = Millisiemens per centimeter
NM = Not Measured or Anomalous Reading
NA = Not Analyzed

TABLE 4
Vapor Analytical Test Results Summary: Indoor Air

Smoke-Out Cleaners
Howard, Wisconsin
Terracon Project No. 58187103

Vapor Sampling Point	Location	Sample Type	Sample Date	Chlorinated Volatile Organic Compounds (CVOCs - µg/m^3)					
				Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene (cis-DCE)	trans-1,2-Dichloroethene (trans-DCE)	1,1-Dichloroethene (DCE)	Vinyl Chloride (VC)
IA - 1	Smoke-Out Office	Small Commercial Ambient Air 8-hour	10/25/17	**3,990**	1.1	<0.49	<0.42	<0.34	<0.18
IA - 2	Badger Scale Office	Small Commercial Ambient Air 8-hour	10/25/17	21.8	<0.39	<0.49	<0.42	<0.34	<0.18
Residential Indoor Air VAL[1] (µg/m3)				42	2.1	NE	42	210	1.7
Small Commercial Building Indoor Air VAL[1] (µg/m3)				*180*	*8.8*	NE	*180*	*880*	*28*
Large Commercial/Industrial Building Indoor Air VAL[1] (µg/m3)				**180**	**8.8**	NE	**180**	**880**	**28**

Notes:

Results expressed in micrograms per cubic meter (ug/m³)
VAL = Vapor Action Limit
CVOCs = Chlorinated Volatile Organic Compounds
< = Not detected at or above the limit of detection (LOD)
NE = Standard not established, not calculated or not analyzed
Underline values indicate exceedance of applicable residential VALs (indoor)
Italic values indicate exceedance of applicable small commercial VALs (indoor)
Bold values indicate exceedance of applicable Large commercial building VALs (indoor)

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

August 17, 2022

Scott A. Hodgson
Terracon, Inc.
9856 S. 57th Street
Franklin, WI 53132

RE: Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

Dear Scott Hodgson:

Enclosed are the analytical results for sample(s) received by the laboratory on August 04, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:
- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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CERTIFICATIONS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

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SAMPLE SUMMARY

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40249327001	**PZ-1**	Water	08/04/22 11:35	08/04/22 12:04
40249327002	**PZ-2**	Water	08/04/22 10:50	08/04/22 12:04
40249327003	**BD-1**	Water	08/04/22 00:00	08/04/22 12:04
40249327004	**HCl TRIP BLANK**	Water	08/04/22 00:00	08/04/22 12:04

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SAMPLE ANALYTE COUNT

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40249327001	**PZ-1**	EPA 8260	SMT	64	PASI-G
40249327002	**PZ-2**	EPA 8260	SMT	64	PASI-G
40249327003	**BD-1**	EPA 8260	SMT	64	PASI-G
40249327004	**HCl TRIP BLANK**	EPA 8260	SMT	64	PASI-G

PASI-G = Pace Analytical Services - Green Bay

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PROJECT NARRATIVE

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

Method: **EPA 8260**
Description: 8260 MSV
Client: Terracon, Inc. - Franklin
Date: August 17, 2022

General Information:
4 samples were analyzed for EPA 8260 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

Sample: PZ-1 **Lab ID: 40249327001** Collected: 08/04/22 11:35 Received: 08/04/22 12:04 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
Benzene	**<0.30**	ug/L	1.0	0.30	1		08/06/22 03:02	71-43-2	
Bromobenzene	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:02	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		08/06/22 03:02	74-97-5	
Bromodichloromethane	**<0.42**	ug/L	1.0	0.42	1		08/06/22 03:02	75-27-4	
Bromoform	**<3.8**	ug/L	5.0	3.8	1		08/06/22 03:02	75-25-2	
Bromomethane	**<1.2**	ug/L	5.0	1.2	1		08/06/22 03:02	74-83-9	
n-Butylbenzene	**<0.86**	ug/L	1.0	0.86	1		08/06/22 03:02	104-51-8	
sec-Butylbenzene	**<0.42**	ug/L	1.0	0.42	1		08/06/22 03:02	135-98-8	
tert-Butylbenzene	**<0.59**	ug/L	1.0	0.59	1		08/06/22 03:02	98-06-6	
Carbon tetrachloride	**<0.37**	ug/L	1.0	0.37	1		08/06/22 03:02	56-23-5	
Chlorobenzene	**<0.86**	ug/L	1.0	0.86	1		08/06/22 03:02	108-90-7	
Chloroethane	**<1.4**	ug/L	5.0	1.4	1		08/06/22 03:02	75-00-3	
Chloroform	**<1.2**	ug/L	5.0	1.2	1		08/06/22 03:02	67-66-3	
Chloromethane	**<1.6**	ug/L	5.0	1.6	1		08/06/22 03:02	74-87-3	
2-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/06/22 03:02	95-49-8	
4-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/06/22 03:02	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.4**	ug/L	5.0	2.4	1		08/06/22 03:02	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	5.0	2.6	1		08/06/22 03:02	124-48-1	
1,2-Dibromoethane (EDB)	**<0.31**	ug/L	1.0	0.31	1		08/06/22 03:02	106-93-4	
Dibromomethane	**<0.99**	ug/L	5.0	0.99	1		08/06/22 03:02	74-95-3	
1,2-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		08/06/22 03:02	95-50-1	
1,3-Dichlorobenzene	**<0.35**	ug/L	1.0	0.35	1		08/06/22 03:02	541-73-1	
1,4-Dichlorobenzene	**<0.89**	ug/L	1.0	0.89	1		08/06/22 03:02	106-46-7	
Dichlorodifluoromethane	**<0.46**	ug/L	5.0	0.46	1		08/06/22 03:02	75-71-8	
1,1-Dichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/06/22 03:02	75-34-3	
1,2-Dichloroethane	**<0.29**	ug/L	1.0	0.29	1		08/06/22 03:02	107-06-2	
1,1-Dichloroethene	**<0.58**	ug/L	1.0	0.58	1		08/06/22 03:02	75-35-4	
cis-1,2-Dichloroethene	**<0.47**	ug/L	1.0	0.47	1		08/06/22 03:02	156-59-2	
trans-1,2-Dichloroethene	**<0.53**	ug/L	1.0	0.53	1		08/06/22 03:02	156-60-5	
1,2-Dichloropropane	**<0.45**	ug/L	1.0	0.45	1		08/06/22 03:02	78-87-5	
1,3-Dichloropropane	**<0.30**	ug/L	1.0	0.30	1		08/06/22 03:02	142-28-9	
2,2-Dichloropropane	**<4.2**	ug/L	5.0	4.2	1		08/06/22 03:02	594-20-7	
1,1-Dichloropropene	**<0.41**	ug/L	1.0	0.41	1		08/06/22 03:02	563-58-6	
cis-1,3-Dichloropropene	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:02	10061-01-5	
trans-1,3-Dichloropropene	**<3.5**	ug/L	5.0	3.5	1		08/06/22 03:02	10061-02-6	
Diisopropyl ether	**<1.1**	ug/L	5.0	1.1	1		08/06/22 03:02	108-20-3	
Ethylbenzene	**<0.33**	ug/L	1.0	0.33	1		08/06/22 03:02	100-41-4	
Hexachloro-1,3-butadiene	**<2.7**	ug/L	5.0	2.7	1		08/06/22 03:02	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	5.0	1.0	1		08/06/22 03:02	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	5.0	1.0	1		08/06/22 03:02	99-87-6	
Methylene Chloride	**<0.32**	ug/L	5.0	0.32	1		08/06/22 03:02	75-09-2	
Methyl-tert-butyl ether	**<1.1**	ug/L	5.0	1.1	1		08/06/22 03:02	1634-04-4	
Naphthalene	**<1.1**	ug/L	5.0	1.1	1		08/06/22 03:02	91-20-3	
n-Propylbenzene	**<0.35**	ug/L	1.0	0.35	1		08/06/22 03:02	103-65-1	
Styrene	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:02	100-42-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

Sample: PZ-1 **Lab ID: 40249327001** Collected: 08/04/22 11:35 Received: 08/04/22 12:04 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:02	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.38**	ug/L	1.0	0.38	1		08/06/22 03:02	79-34-5	
Tetrachloroethene	**<0.41**	ug/L	1.0	0.41	1		08/06/22 03:02	127-18-4	
Toluene	**<0.29**	ug/L	1.0	0.29	1		08/06/22 03:02	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	5.0	1.0	1		08/06/22 03:02	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		08/06/22 03:02	120-82-1	
1,1,1-Trichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/06/22 03:02	71-55-6	
1,1,2-Trichloroethane	**<0.34**	ug/L	5.0	0.34	1		08/06/22 03:02	79-00-5	
Trichloroethene	**<0.32**	ug/L	1.0	0.32	1		08/06/22 03:02	79-01-6	
Trichlorofluoromethane	**<0.42**	ug/L	1.0	0.42	1		08/06/22 03:02	75-69-4	
1,2,3-Trichloropropane	**<0.56**	ug/L	5.0	0.56	1		08/06/22 03:02	96-18-4	
1,2,4-Trimethylbenzene	**<0.45**	ug/L	1.0	0.45	1		08/06/22 03:02	95-63-6	
1,3,5-Trimethylbenzene	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:02	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		08/06/22 03:02	75-01-4	
m&p-Xylene	**<0.70**	ug/L	2.0	0.70	1		08/06/22 03:02	179601-23-1	
o-Xylene	**<0.35**	ug/L	1.0	0.35	1		08/06/22 03:02	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/06/22 03:02	460-00-4	
1,2-Dichlorobenzene-d4 (S)	97	%	70-130		1		08/06/22 03:02	2199-69-1	
Toluene-d8 (S)	103	%	70-130		1		08/06/22 03:02	2037-26-5	

Sample: PZ-2 **Lab ID: 40249327002** Collected: 08/04/22 10:50 Received: 08/04/22 12:04 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
Benzene	**<0.30**	ug/L	1.0	0.30	1		08/06/22 03:22	71-43-2	
Bromobenzene	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:22	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		08/06/22 03:22	74-97-5	
Bromodichloromethane	**<0.42**	ug/L	1.0	0.42	1		08/06/22 03:22	75-27-4	
Bromoform	**<3.8**	ug/L	5.0	3.8	1		08/06/22 03:22	75-25-2	
Bromomethane	**<1.2**	ug/L	5.0	1.2	1		08/06/22 03:22	74-83-9	
n-Butylbenzene	**<0.86**	ug/L	1.0	0.86	1		08/06/22 03:22	104-51-8	
sec-Butylbenzene	**<0.42**	ug/L	1.0	0.42	1		08/06/22 03:22	135-98-8	
tert-Butylbenzene	**<0.59**	ug/L	1.0	0.59	1		08/06/22 03:22	98-06-6	
Carbon tetrachloride	**<0.37**	ug/L	1.0	0.37	1		08/06/22 03:22	56-23-5	
Chlorobenzene	**<0.86**	ug/L	1.0	0.86	1		08/06/22 03:22	108-90-7	
Chloroethane	**<1.4**	ug/L	5.0	1.4	1		08/06/22 03:22	75-00-3	
Chloroform	**<1.2**	ug/L	5.0	1.2	1		08/06/22 03:22	67-66-3	
Chloromethane	**<1.6**	ug/L	5.0	1.6	1		08/06/22 03:22	74-87-3	
2-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/06/22 03:22	95-49-8	
4-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/06/22 03:22	106-43-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

Sample: PZ-2 **Lab ID: 40249327002** Collected: 08/04/22 10:50 Received: 08/04/22 12:04 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
1,2-Dibromo-3-chloropropane	**<2.4**	ug/L	5.0	2.4	1		08/06/22 03:22	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	5.0	2.6	1		08/06/22 03:22	124-48-1	
1,2-Dibromoethane (EDB)	**<0.31**	ug/L	1.0	0.31	1		08/06/22 03:22	106-93-4	
Dibromomethane	**<0.99**	ug/L	5.0	0.99	1		08/06/22 03:22	74-95-3	
1,2-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		08/06/22 03:22	95-50-1	
1,3-Dichlorobenzene	**<0.35**	ug/L	1.0	0.35	1		08/06/22 03:22	541-73-1	
1,4-Dichlorobenzene	**<0.89**	ug/L	1.0	0.89	1		08/06/22 03:22	106-46-7	
Dichlorodifluoromethane	**<0.46**	ug/L	5.0	0.46	1		08/06/22 03:22	75-71-8	
1,1-Dichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/06/22 03:22	75-34-3	
1,2-Dichloroethane	**<0.29**	ug/L	1.0	0.29	1		08/06/22 03:22	107-06-2	
1,1-Dichloroethene	**<0.58**	ug/L	1.0	0.58	1		08/06/22 03:22	75-35-4	
cis-1,2-Dichloroethene	**<0.47**	ug/L	1.0	0.47	1		08/06/22 03:22	156-59-2	
trans-1,2-Dichloroethene	**<0.53**	ug/L	1.0	0.53	1		08/06/22 03:22	156-60-5	
1,2-Dichloropropane	**<0.45**	ug/L	1.0	0.45	1		08/06/22 03:22	78-87-5	
1,3-Dichloropropane	**<0.30**	ug/L	1.0	0.30	1		08/06/22 03:22	142-28-9	
2,2-Dichloropropane	**<4.2**	ug/L	5.0	4.2	1		08/06/22 03:22	594-20-7	
1,1-Dichloropropene	**<0.41**	ug/L	1.0	0.41	1		08/06/22 03:22	563-58-6	
cis-1,3-Dichloropropene	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:22	10061-01-5	
trans-1,3-Dichloropropene	**<3.5**	ug/L	5.0	3.5	1		08/06/22 03:22	10061-02-6	
Diisopropyl ether	**<1.1**	ug/L	5.0	1.1	1		08/06/22 03:22	108-20-3	
Ethylbenzene	**<0.33**	ug/L	1.0	0.33	1		08/06/22 03:22	100-41-4	
Hexachloro-1,3-butadiene	**<2.7**	ug/L	5.0	2.7	1		08/06/22 03:22	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	5.0	1.0	1		08/06/22 03:22	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	5.0	1.0	1		08/06/22 03:22	99-87-6	
Methylene Chloride	**<0.32**	ug/L	5.0	0.32	1		08/06/22 03:22	75-09-2	
Methyl-tert-butyl ether	**<1.1**	ug/L	5.0	1.1	1		08/06/22 03:22	1634-04-4	
Naphthalene	**<1.1**	ug/L	5.0	1.1	1		08/06/22 03:22	91-20-3	
n-Propylbenzene	**<0.35**	ug/L	1.0	0.35	1		08/06/22 03:22	103-65-1	
Styrene	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:22	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:22	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.38**	ug/L	1.0	0.38	1		08/06/22 03:22	79-34-5	
Tetrachloroethene	**<0.41**	ug/L	1.0	0.41	1		08/06/22 03:22	127-18-4	
Toluene	**<0.29**	ug/L	1.0	0.29	1		08/06/22 03:22	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	5.0	1.0	1		08/06/22 03:22	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		08/06/22 03:22	120-82-1	
1,1,1-Trichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/06/22 03:22	71-55-6	
1,1,2-Trichloroethane	**<0.34**	ug/L	5.0	0.34	1		08/06/22 03:22	79-00-5	
Trichloroethene	**<0.32**	ug/L	1.0	0.32	1		08/06/22 03:22	79-01-6	
Trichlorofluoromethane	**<0.42**	ug/L	1.0	0.42	1		08/06/22 03:22	75-69-4	
1,2,3-Trichloropropane	**<0.56**	ug/L	5.0	0.56	1		08/06/22 03:22	96-18-4	
1,2,4-Trimethylbenzene	**<0.45**	ug/L	1.0	0.45	1		08/06/22 03:22	95-63-6	
1,3,5-Trimethylbenzene	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:22	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		08/06/22 03:22	75-01-4	
m&p-Xylene	**<0.70**	ug/L	2.0	0.70	1		08/06/22 03:22	179601-23-1	
o-Xylene	**<0.35**	ug/L	1.0	0.35	1		08/06/22 03:22	95-47-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

Sample: PZ-2 **Lab ID: 40249327002** Collected: 08/04/22 10:50 Received: 08/04/22 12:04 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/06/22 03:22	460-00-4	
1,2-Dichlorobenzene-d4 (S)	96	%	70-130		1		08/06/22 03:22	2199-69-1	
Toluene-d8 (S)	104	%	70-130		1		08/06/22 03:22	2037-26-5	

Sample: BD-1 **Lab ID: 40249327003** Collected: 08/04/22 00:00 Received: 08/04/22 12:04 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
Benzene	**<0.30**	ug/L	1.0	0.30	1		08/06/22 03:41	71-43-2	
Bromobenzene	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:41	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		08/06/22 03:41	74-97-5	
Bromodichloromethane	**<0.42**	ug/L	1.0	0.42	1		08/06/22 03:41	75-27-4	
Bromoform	**<3.8**	ug/L	5.0	3.8	1		08/06/22 03:41	75-25-2	
Bromomethane	**<1.2**	ug/L	5.0	1.2	1		08/06/22 03:41	74-83-9	
n-Butylbenzene	**<0.86**	ug/L	1.0	0.86	1		08/06/22 03:41	104-51-8	
sec-Butylbenzene	**<0.42**	ug/L	1.0	0.42	1		08/06/22 03:41	135-98-8	
tert-Butylbenzene	**<0.59**	ug/L	1.0	0.59	1		08/06/22 03:41	98-06-6	
Carbon tetrachloride	**<0.37**	ug/L	1.0	0.37	1		08/06/22 03:41	56-23-5	
Chlorobenzene	**<0.86**	ug/L	1.0	0.86	1		08/06/22 03:41	108-90-7	
Chloroethane	**<1.4**	ug/L	5.0	1.4	1		08/06/22 03:41	75-00-3	
Chloroform	**<1.2**	ug/L	5.0	1.2	1		08/06/22 03:41	67-66-3	
Chloromethane	**<1.6**	ug/L	5.0	1.6	1		08/06/22 03:41	74-87-3	
2-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/06/22 03:41	95-49-8	
4-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/06/22 03:41	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.4**	ug/L	5.0	2.4	1		08/06/22 03:41	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	5.0	2.6	1		08/06/22 03:41	124-48-1	
1,2-Dibromoethane (EDB)	**<0.31**	ug/L	1.0	0.31	1		08/06/22 03:41	106-93-4	
Dibromomethane	**<0.99**	ug/L	5.0	0.99	1		08/06/22 03:41	74-95-3	
1,2-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		08/06/22 03:41	95-50-1	
1,3-Dichlorobenzene	**<0.35**	ug/L	1.0	0.35	1		08/06/22 03:41	541-73-1	
1,4-Dichlorobenzene	**<0.89**	ug/L	1.0	0.89	1		08/06/22 03:41	106-46-7	
Dichlorodifluoromethane	**<0.46**	ug/L	5.0	0.46	1		08/06/22 03:41	75-71-8	
1,1-Dichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/06/22 03:41	75-34-3	
1,2-Dichloroethane	**<0.29**	ug/L	1.0	0.29	1		08/06/22 03:41	107-06-2	
1,1-Dichloroethene	**<0.58**	ug/L	1.0	0.58	1		08/06/22 03:41	75-35-4	
cis-1,2-Dichloroethene	**<0.47**	ug/L	1.0	0.47	1		08/06/22 03:41	156-59-2	
trans-1,2-Dichloroethene	**<0.53**	ug/L	1.0	0.53	1		08/06/22 03:41	156-60-5	
1,2-Dichloropropane	**<0.45**	ug/L	1.0	0.45	1		08/06/22 03:41	78-87-5	
1,3-Dichloropropane	**<0.30**	ug/L	1.0	0.30	1		08/06/22 03:41	142-28-9	
2,2-Dichloropropane	**<4.2**	ug/L	5.0	4.2	1		08/06/22 03:41	594-20-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

Sample: BD-1 **Lab ID: 40249327003** Collected: 08/04/22 00:00 Received: 08/04/22 12:04 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
1,1-Dichloropropene	**<0.41**	ug/L	1.0	0.41	1		08/06/22 03:41	563-58-6	
cis-1,3-Dichloropropene	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:41	10061-01-5	
trans-1,3-Dichloropropene	**<3.5**	ug/L	5.0	3.5	1		08/06/22 03:41	10061-02-6	
Diisopropyl ether	**<1.1**	ug/L	5.0	1.1	1		08/06/22 03:41	108-20-3	
Ethylbenzene	**<0.33**	ug/L	1.0	0.33	1		08/06/22 03:41	100-41-4	
Hexachloro-1,3-butadiene	**<2.7**	ug/L	5.0	2.7	1		08/06/22 03:41	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	5.0	1.0	1		08/06/22 03:41	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	5.0	1.0	1		08/06/22 03:41	99-87-6	
Methylene Chloride	**<0.32**	ug/L	5.0	0.32	1		08/06/22 03:41	75-09-2	
Methyl-tert-butyl ether	**<1.1**	ug/L	5.0	1.1	1		08/06/22 03:41	1634-04-4	
Naphthalene	**<1.1**	ug/L	5.0	1.1	1		08/06/22 03:41	91-20-3	
n-Propylbenzene	**<0.35**	ug/L	1.0	0.35	1		08/06/22 03:41	103-65-1	
Styrene	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:41	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:41	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.38**	ug/L	1.0	0.38	1		08/06/22 03:41	79-34-5	
Tetrachloroethene	**<0.41**	ug/L	1.0	0.41	1		08/06/22 03:41	127-18-4	
Toluene	**<0.29**	ug/L	1.0	0.29	1		08/06/22 03:41	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	5.0	1.0	1		08/06/22 03:41	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		08/06/22 03:41	120-82-1	
1,1,1-Trichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/06/22 03:41	71-55-6	
1,1,2-Trichloroethane	**<0.34**	ug/L	5.0	0.34	1		08/06/22 03:41	79-00-5	
Trichloroethene	**<0.32**	ug/L	1.0	0.32	1		08/06/22 03:41	79-01-6	
Trichlorofluoromethane	**<0.42**	ug/L	1.0	0.42	1		08/06/22 03:41	75-69-4	
1,2,3-Trichloropropane	**<0.56**	ug/L	5.0	0.56	1		08/06/22 03:41	96-18-4	
1,2,4-Trimethylbenzene	**<0.45**	ug/L	1.0	0.45	1		08/06/22 03:41	95-63-6	
1,3,5-Trimethylbenzene	**<0.36**	ug/L	1.0	0.36	1		08/06/22 03:41	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		08/06/22 03:41	75-01-4	
m&p-Xylene	**<0.70**	ug/L	2.0	0.70	1		08/06/22 03:41	179601-23-1	
o-Xylene	**<0.35**	ug/L	1.0	0.35	1		08/06/22 03:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		08/06/22 03:41	460-00-4	
1,2-Dichlorobenzene-d4 (S)	97	%	70-130		1		08/06/22 03:41	2199-69-1	
Toluene-d8 (S)	103	%	70-130		1		08/06/22 03:41	2037-26-5	

Sample: HCl TRIP BLANK **Lab ID: 40249327004** Collected: 08/04/22 00:00 Received: 08/04/22 12:04 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
Benzene	**<0.30**	ug/L	1.0	0.30	1		08/05/22 22:47	71-43-2	
Bromobenzene	**<0.36**	ug/L	1.0	0.36	1		08/05/22 22:47	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		08/05/22 22:47	74-97-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

Sample: HCl TRIP BLANK **Lab ID: 40249327004** Collected: 08/04/22 00:00 Received: 08/04/22 12:04 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
Bromodichloromethane	**<0.42**	ug/L	1.0	0.42	1		08/05/22 22:47	75-27-4	
Bromoform	**<3.8**	ug/L	5.0	3.8	1		08/05/22 22:47	75-25-2	
Bromomethane	**<1.2**	ug/L	5.0	1.2	1		08/05/22 22:47	74-83-9	
n-Butylbenzene	**<0.86**	ug/L	1.0	0.86	1		08/05/22 22:47	104-51-8	
sec-Butylbenzene	**<0.42**	ug/L	1.0	0.42	1		08/05/22 22:47	135-98-8	
tert-Butylbenzene	**<0.59**	ug/L	1.0	0.59	1		08/05/22 22:47	98-06-6	
Carbon tetrachloride	**<0.37**	ug/L	1.0	0.37	1		08/05/22 22:47	56-23-5	
Chlorobenzene	**<0.86**	ug/L	1.0	0.86	1		08/05/22 22:47	108-90-7	
Chloroethane	**<1.4**	ug/L	5.0	1.4	1		08/05/22 22:47	75-00-3	
Chloroform	**<1.2**	ug/L	5.0	1.2	1		08/05/22 22:47	67-66-3	
Chloromethane	**<1.6**	ug/L	5.0	1.6	1		08/05/22 22:47	74-87-3	
2-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/05/22 22:47	95-49-8	
4-Chlorotoluene	**<0.89**	ug/L	5.0	0.89	1		08/05/22 22:47	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.4**	ug/L	5.0	2.4	1		08/05/22 22:47	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	5.0	2.6	1		08/05/22 22:47	124-48-1	
1,2-Dibromoethane (EDB)	**<0.31**	ug/L	1.0	0.31	1		08/05/22 22:47	106-93-4	
Dibromomethane	**<0.99**	ug/L	5.0	0.99	1		08/05/22 22:47	74-95-3	
1,2-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		08/05/22 22:47	95-50-1	
1,3-Dichlorobenzene	**<0.35**	ug/L	1.0	0.35	1		08/05/22 22:47	541-73-1	
1,4-Dichlorobenzene	**<0.89**	ug/L	1.0	0.89	1		08/05/22 22:47	106-46-7	
Dichlorodifluoromethane	**<0.46**	ug/L	5.0	0.46	1		08/05/22 22:47	75-71-8	
1,1-Dichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/05/22 22:47	75-34-3	
1,2-Dichloroethane	**<0.29**	ug/L	1.0	0.29	1		08/05/22 22:47	107-06-2	
1,1-Dichloroethene	**<0.58**	ug/L	1.0	0.58	1		08/05/22 22:47	75-35-4	
cis-1,2-Dichloroethene	**<0.47**	ug/L	1.0	0.47	1		08/05/22 22:47	156-59-2	
trans-1,2-Dichloroethene	**<0.53**	ug/L	1.0	0.53	1		08/05/22 22:47	156-60-5	
1,2-Dichloropropane	**<0.45**	ug/L	1.0	0.45	1		08/05/22 22:47	78-87-5	
1,3-Dichloropropane	**<0.30**	ug/L	1.0	0.30	1		08/05/22 22:47	142-28-9	
2,2-Dichloropropane	**<4.2**	ug/L	5.0	4.2	1		08/05/22 22:47	594-20-7	
1,1-Dichloropropene	**<0.41**	ug/L	1.0	0.41	1		08/05/22 22:47	563-58-6	
cis-1,3-Dichloropropene	**<0.36**	ug/L	1.0	0.36	1		08/05/22 22:47	10061-01-5	
trans-1,3-Dichloropropene	**<3.5**	ug/L	5.0	3.5	1		08/05/22 22:47	10061-02-6	
Diisopropyl ether	**<1.1**	ug/L	5.0	1.1	1		08/05/22 22:47	108-20-3	
Ethylbenzene	**<0.33**	ug/L	1.0	0.33	1		08/05/22 22:47	100-41-4	
Hexachloro-1,3-butadiene	**<2.7**	ug/L	5.0	2.7	1		08/05/22 22:47	87-68-3	
Isopropylbenzene (Cumene)	**<1.0**	ug/L	5.0	1.0	1		08/05/22 22:47	98-82-8	
p-Isopropyltoluene	**<1.0**	ug/L	5.0	1.0	1		08/05/22 22:47	99-87-6	
Methylene Chloride	**<0.32**	ug/L	5.0	0.32	1		08/05/22 22:47	75-09-2	
Methyl-tert-butyl ether	**<1.1**	ug/L	5.0	1.1	1		08/05/22 22:47	1634-04-4	
Naphthalene	**<1.1**	ug/L	5.0	1.1	1		08/05/22 22:47	91-20-3	
n-Propylbenzene	**<0.35**	ug/L	1.0	0.35	1		08/05/22 22:47	103-65-1	
Styrene	**<0.36**	ug/L	1.0	0.36	1		08/05/22 22:47	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	1.0	0.36	1		08/05/22 22:47	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.38**	ug/L	1.0	0.38	1		08/05/22 22:47	79-34-5	
Tetrachloroethene	**<0.41**	ug/L	1.0	0.41	1		08/05/22 22:47	127-18-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

Sample: HCl TRIP BLANK **Lab ID: 40249327004** Collected: 08/04/22 00:00 Received: 08/04/22 12:04 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
Toluene	**<0.29**	ug/L	1.0	0.29	1		08/05/22 22:47	108-88-3	
1,2,3-Trichlorobenzene	**<1.0**	ug/L	5.0	1.0	1		08/05/22 22:47	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		08/05/22 22:47	120-82-1	
1,1,1-Trichloroethane	**<0.30**	ug/L	1.0	0.30	1		08/05/22 22:47	71-55-6	
1,1,2-Trichloroethane	**<0.34**	ug/L	5.0	0.34	1		08/05/22 22:47	79-00-5	
Trichloroethene	**<0.32**	ug/L	1.0	0.32	1		08/05/22 22:47	79-01-6	
Trichlorofluoromethane	**<0.42**	ug/L	1.0	0.42	1		08/05/22 22:47	75-69-4	
1,2,3-Trichloropropane	**<0.56**	ug/L	5.0	0.56	1		08/05/22 22:47	96-18-4	
1,2,4-Trimethylbenzene	**<0.45**	ug/L	1.0	0.45	1		08/05/22 22:47	95-63-6	
1,3,5-Trimethylbenzene	**<0.36**	ug/L	1.0	0.36	1		08/05/22 22:47	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		08/05/22 22:47	75-01-4	
m&p-Xylene	**<0.70**	ug/L	2.0	0.70	1		08/05/22 22:47	179601-23-1	
o-Xylene	**<0.35**	ug/L	1.0	0.35	1		08/05/22 22:47	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		08/05/22 22:47	460-00-4	
1,2-Dichlorobenzene-d4 (S)	96	%	70-130		1		08/05/22 22:47	2199-69-1	
Toluene-d8 (S)	107	%	70-130		1		08/05/22 22:47	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

QC Batch: 422735
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40249327001, 40249327002, 40249327003, 40249327004

METHOD BLANK: 2434882 Matrix: Water
Associated Lab Samples: 40249327001, 40249327002, 40249327003, 40249327004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.36	1.0	08/05/22 17:32	
1,1,1-Trichloroethane	ug/L	<0.30	1.0	08/05/22 17:32	
1,1,2,2-Tetrachloroethane	ug/L	<0.38	1.0	08/05/22 17:32	
1,1,2-Trichloroethane	ug/L	<0.34	5.0	08/05/22 17:32	
1,1-Dichloroethane	ug/L	<0.30	1.0	08/05/22 17:32	
1,1-Dichloroethene	ug/L	<0.58	1.0	08/05/22 17:32	
1,1-Dichloropropene	ug/L	<0.41	1.0	08/05/22 17:32	
1,2,3-Trichlorobenzene	ug/L	<1.0	5.0	08/05/22 17:32	
1,2,3-Trichloropropane	ug/L	<0.56	5.0	08/05/22 17:32	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	08/05/22 17:32	
1,2,4-Trimethylbenzene	ug/L	<0.45	1.0	08/05/22 17:32	
1,2-Dibromo-3-chloropropane	ug/L	<2.4	5.0	08/05/22 17:32	
1,2-Dibromoethane (EDB)	ug/L	<0.31	1.0	08/05/22 17:32	
1,2-Dichlorobenzene	ug/L	<0.33	1.0	08/05/22 17:32	
1,2-Dichloroethane	ug/L	<0.29	1.0	08/05/22 17:32	
1,2-Dichloropropane	ug/L	<0.45	1.0	08/05/22 17:32	
1,3,5-Trimethylbenzene	ug/L	<0.36	1.0	08/05/22 17:32	
1,3-Dichlorobenzene	ug/L	<0.35	1.0	08/05/22 17:32	
1,3-Dichloropropane	ug/L	<0.30	1.0	08/05/22 17:32	
1,4-Dichlorobenzene	ug/L	<0.89	1.0	08/05/22 17:32	
2,2-Dichloropropane	ug/L	<4.2	5.0	08/05/22 17:32	
2-Chlorotoluene	ug/L	<0.89	5.0	08/05/22 17:32	
4-Chlorotoluene	ug/L	<0.89	5.0	08/05/22 17:32	
Benzene	ug/L	<0.30	1.0	08/05/22 17:32	
Bromobenzene	ug/L	<0.36	1.0	08/05/22 17:32	
Bromochloromethane	ug/L	<0.36	5.0	08/05/22 17:32	
Bromodichloromethane	ug/L	<0.42	1.0	08/05/22 17:32	
Bromoform	ug/L	<3.8	5.0	08/05/22 17:32	
Bromomethane	ug/L	<1.2	5.0	08/05/22 17:32	
Carbon tetrachloride	ug/L	<0.37	1.0	08/05/22 17:32	
Chlorobenzene	ug/L	<0.86	1.0	08/05/22 17:32	
Chloroethane	ug/L	<1.4	5.0	08/05/22 17:32	
Chloroform	ug/L	<1.2	5.0	08/05/22 17:32	
Chloromethane	ug/L	<1.6	5.0	08/05/22 17:32	
cis-1,2-Dichloroethene	ug/L	<0.47	1.0	08/05/22 17:32	
cis-1,3-Dichloropropene	ug/L	<0.36	1.0	08/05/22 17:32	
Dibromochloromethane	ug/L	<2.6	5.0	08/05/22 17:32	
Dibromomethane	ug/L	<0.99	5.0	08/05/22 17:32	
Dichlorodifluoromethane	ug/L	<0.46	5.0	08/05/22 17:32	
Diisopropyl ether	ug/L	<1.1	5.0	08/05/22 17:32	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

METHOD BLANK: 2434882 Matrix: Water
Associated Lab Samples: 40249327001, 40249327002, 40249327003, 40249327004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.33	1.0	08/05/22 17:32	
Hexachloro-1,3-butadiene	ug/L	<2.7	5.0	08/05/22 17:32	
Isopropylbenzene (Cumene)	ug/L	<1.0	5.0	08/05/22 17:32	
m&p-Xylene	ug/L	<0.70	2.0	08/05/22 17:32	
Methyl-tert-butyl ether	ug/L	<1.1	5.0	08/05/22 17:32	
Methylene Chloride	ug/L	<0.32	5.0	08/05/22 17:32	
n-Butylbenzene	ug/L	<0.86	1.0	08/05/22 17:32	
n-Propylbenzene	ug/L	<0.35	1.0	08/05/22 17:32	
Naphthalene	ug/L	<1.1	5.0	08/05/22 17:32	
o-Xylene	ug/L	<0.35	1.0	08/05/22 17:32	
p-Isopropyltoluene	ug/L	<1.0	5.0	08/05/22 17:32	
sec-Butylbenzene	ug/L	<0.42	1.0	08/05/22 17:32	
Styrene	ug/L	<0.36	1.0	08/05/22 17:32	
tert-Butylbenzene	ug/L	<0.59	1.0	08/05/22 17:32	
Tetrachloroethene	ug/L	<0.41	1.0	08/05/22 17:32	
Toluene	ug/L	<0.29	1.0	08/05/22 17:32	
trans-1,2-Dichloroethene	ug/L	<0.53	1.0	08/05/22 17:32	
trans-1,3-Dichloropropene	ug/L	<3.5	5.0	08/05/22 17:32	
Trichloroethene	ug/L	<0.32	1.0	08/05/22 17:32	
Trichlorofluoromethane	ug/L	<0.42	1.0	08/05/22 17:32	
Vinyl chloride	ug/L	<0.17	1.0	08/05/22 17:32	
1,2-Dichlorobenzene-d4 (S)	%	99	70-130	08/05/22 17:32	
4-Bromofluorobenzene (S)	%	103	70-130	08/05/22 17:32	
Toluene-d8 (S)	%	105	70-130	08/05/22 17:32	

LABORATORY CONTROL SAMPLE: 2434883

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	52.9	106	70-134	
1,1,2,2-Tetrachloroethane	ug/L	50	45.3	91	69-130	
1,1,2-Trichloroethane	ug/L	50	50.1	100	70-130	
1,1-Dichloroethane	ug/L	50	49.5	99	70-130	
1,1-Dichloroethene	ug/L	50	54.2	108	74-131	
1,2,4-Trichlorobenzene	ug/L	50	48.6	97	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	42.1	84	64-137	
1,2-Dibromoethane (EDB)	ug/L	50	49.1	98	70-130	
1,2-Dichlorobenzene	ug/L	50	48.0	96	70-130	
1,2-Dichloroethane	ug/L	50	50.8	102	70-137	
1,2-Dichloropropane	ug/L	50	47.7	95	80-121	
1,3-Dichlorobenzene	ug/L	50	50.5	101	70-130	
1,4-Dichlorobenzene	ug/L	50	47.8	96	70-130	
Benzene	ug/L	50	50.4	101	70-130	
Bromodichloromethane	ug/L	50	49.3	99	70-130	
Bromoform	ug/L	50	50.2	100	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

LABORATORY CONTROL SAMPLE: 2434883

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/L	50	31.6	63	21-147	
Carbon tetrachloride	ug/L	50	55.9	112	80-146	
Chlorobenzene	ug/L	50	52.1	104	70-130	
Chloroethane	ug/L	50	50.6	101	52-165	
Chloroform	ug/L	50	54.2	108	80-123	
Chloromethane	ug/L	50	48.5	97	51-122	
cis-1,2-Dichloroethene	ug/L	50	49.4	99	70-130	
cis-1,3-Dichloropropene	ug/L	50	49.2	98	70-130	
Dibromochloromethane	ug/L	50	50.5	101	70-130	
Dichlorodifluoromethane	ug/L	50	38.1	76	25-121	
Ethylbenzene	ug/L	50	52.0	104	80-120	
Isopropylbenzene (Cumene)	ug/L	50	51.0	102	70-130	
m&p-Xylene	ug/L	100	99.9	100	70-130	
Methyl-tert-butyl ether	ug/L	50	51.1	102	70-130	
Methylene Chloride	ug/L	50	53.9	108	70-130	
o-Xylene	ug/L	50	49.9	100	70-130	
Styrene	ug/L	50	52.7	105	70-130	
Tetrachloroethene	ug/L	50	48.4	97	70-130	
Toluene	ug/L	50	51.2	102	80-120	
trans-1,2-Dichloroethene	ug/L	50	52.5	105	70-130	
trans-1,3-Dichloropropene	ug/L	50	49.2	98	70-130	
Trichloroethene	ug/L	50	50.5	101	70-130	
Trichlorofluoromethane	ug/L	50	52.7	105	65-160	
Vinyl chloride	ug/L	50	52.6	105	63-134	
1,2-Dichlorobenzene-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			103	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2434884 2434885

Parameter	Units	40249315002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.30	50	50	55.2	53.2	110	106	70-134	4	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.38	50	50	46.4	44.7	93	89	61-135	4	20	
1,1,2-Trichloroethane	ug/L	<0.34	50	50	52.6	53.3	105	107	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.30	50	50	51.5	51.0	103	102	70-130	1	20	
1,1-Dichloroethene	ug/L	<0.58	50	50	54.8	56.0	110	112	71-130	2	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	49.6	49.5	99	99	68-131	0	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.4	50	50	46.3	44.1	93	88	51-141	5	20	
1,2-Dibromoethane (EDB)	ug/L	<0.31	50	50	50.9	50.0	102	100	70-130	2	20	
1,2-Dichlorobenzene	ug/L	<0.33	50	50	49.3	49.7	99	99	70-130	1	20	
1,2-Dichloroethane	ug/L	<0.29	50	50	52.6	52.9	105	106	70-137	0	20	
1,2-Dichloropropane	ug/L	<0.45	50	50	50.9	47.9	102	96	80-121	6	20	
1,3-Dichlorobenzene	ug/L	<0.35	50	50	53.8	52.2	108	104	70-130	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2434884 2434885

Parameter	Units	40249315002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/L	<0.89	50	50	50.0	50.4	100	101	70-130	1	20	
Benzene	ug/L	<0.30	50	50	52.4	51.4	105	103	70-130	2	20	
Bromodichloromethane	ug/L	<0.42	50	50	51.7	51.3	103	103	70-130	1	20	
Bromoform	ug/L	<3.8	50	50	53.0	53.3	106	107	70-133	1	20	
Bromomethane	ug/L	<1.2	50	50	39.4	40.6	79	81	21-149	3	22	
Carbon tetrachloride	ug/L	<0.37	50	50	58.9	57.8	118	116	80-146	2	20	
Chlorobenzene	ug/L	<0.86	50	50	53.4	53.6	107	107	70-130	0	20	
Chloroethane	ug/L	<1.4	50	50	52.6	51.6	105	103	52-165	2	20	
Chloroform	ug/L	<1.2	50	50	57.3	55.7	115	111	80-123	3	20	
Chloromethane	ug/L	<1.6	50	50	45.9	44.8	92	90	42-125	2	20	
cis-1,2-Dichloroethene	ug/L	<0.47	50	50	51.9	51.8	104	104	70-130	0	20	
cis-1,3-Dichloropropene	ug/L	<0.36	50	50	53.5	52.8	107	106	70-130	1	20	
Dibromochloromethane	ug/L	<2.6	50	50	51.2	51.9	102	104	70-130	1	20	
Dichlorodifluoromethane	ug/L	<0.46	50	50	36.1	36.8	72	74	25-121	2	20	
Ethylbenzene	ug/L	<0.33	50	50	53.9	54.5	108	109	80-121	1	20	
Isopropylbenzene (Cumene)	ug/L	<1.0	50	50	53.7	52.9	107	106	70-130	2	20	
m&p-Xylene	ug/L	<0.70	100	100	105	104	105	104	70-130	2	20	
Methyl-tert-butyl ether	ug/L	<1.1	50	50	53.1	53.5	106	107	70-130	1	20	
Methylene Chloride	ug/L	<0.32	50	50	55.9	54.2	112	108	70-130	3	20	
o-Xylene	ug/L	<0.35	50	50	50.6	51.7	101	103	70-130	2	20	
Styrene	ug/L	<0.36	50	50	55.6	54.6	111	109	70-132	2	20	
Tetrachloroethene	ug/L	<0.41	50	50	48.8	49.1	98	98	70-130	1	20	
Toluene	ug/L	<0.29	50	50	52.8	53.3	106	107	80-120	1	20	
trans-1,2-Dichloroethene	ug/L	<0.53	50	50	52.3	53.2	105	106	70-130	2	20	
trans-1,3-Dichloropropene	ug/L	<3.5	50	50	52.4	53.8	105	108	70-130	3	20	
Trichloroethene	ug/L	<0.32	50	50	51.6	51.0	103	102	70-130	1	20	
Trichlorofluoromethane	ug/L	<0.42	50	50	53.8	53.8	108	108	65-160	0	20	
Vinyl chloride	ug/L	<0.17	50	50	51.1	49.2	102	98	60-137	4	20	
1,2-Dichlorobenzene-d4 (S)	%						95	94	70-130			
4-Bromofluorobenzene (S)	%						100	97	70-130			
Toluene-d8 (S)	%						105	103	70-130			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40249327

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40249327001	**PZ-1**	EPA 8260	422735		
40249327002	**PZ-2**	EPA 8260	422735		
40249327003	**BD-1**	EPA 8260	422735		
40249327004	**HCl TRIP BLANK**	EPA 8260	422735		

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

40249327

ALL SHADED AREAS are for LAB USE ONLY

Company: Terracon	Billing Information:
Address: 9856 S 57th St, Franklin, WI	
Report To: Scott Hodgson	Email To: Scott Hodgson
Copy To: Ryan Johnson	Site Collection Info/Address:
Customer Project Name/Number: Smoke out Cleanos / 58187103	State: WI County/City: Howard Time Zone Collected: [ ] PT [ ] MT [X] CT [ ] ET
Phone: Email:	Site/Facility ID #: Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Ryan Johnson	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required: 5-day - STD Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

Container Preservative Type **: 3

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Analyses: VOCs

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

See SCURF 8/4/22

LAB USE ONLY:
Lab Sample # / Comments:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	VOCs	Lab Sample # / Comments
P2-1	GW	G	8/4/22	1135					X	001
P2-2				1050					X	002
BD-1				-					X	003
HCl Trip Blank				-					X	004

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2825029

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: 107
Cooler 1 Temp Upon Receipt: 4 oC
Cooler 1 Therm Corr. Factor: -.2 oC
Cooler 1 Corrected Temp: 3.8 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time: 8/4/22 1204	Received by/Company: (Signature) Pace	Date/Time: 8/4/22 1204
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Sample Preservation Receipt Form

Client Name: Terracon Project # 40249327

All containers needing preservation have been checked and noted below: ☐Yes ☐No ☒N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass: AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	Plastic: BP1U	BP3U	BP3B	BP3N	BP3S	Vials: VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	Jars: JGFU	JG9U	WGFU	WPFU	General: SP5T	ZPLC	GN	VOA Vials (>6mm)	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001																	3										1						2.5 / 5 / 10
002																	3																2.5 / 5 / 10
003																	3																2.5 / 5 / 10
004																	2																2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016							8/4/22 NK																										2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☒Yes ☐No ☐N/A ***If yes look in headspace column***

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Sample Condition Upon Receipt Form (SCUR)

Project #: WO# : 40249327

Client Name: Terracon

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☒ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used SR - 107 **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice

Cooler Temperature Uncorr: 4 /Corr: 3.8

Temp Blank Present: ☐ yes ☒ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Person examining contents:
Date: 8/4/22 /Initials: NK

Labeled By Initials: SKW

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Chain of Custody Present:	☒Yes ☐No ☐N/A	1. + CC 8/4/22 NK
Chain of Custody Filled Out:	☐Yes ☒No ☐N/A	2. billing, 8/4/22 NK
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☒No	6.
Rush Turn Around Time Requested:	☐Yes ☒No	7.
Sufficient Volume: For Analysis: ☒Yes ☐No MS/MSD:	☐Yes ☒No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☐Yes ☒No ☐N/A	12. no dates or times
-Includes date/time/ID/Analysis Matrix: W		8/4/22 NK
Trip Blank Present:	☒Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☒Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 486		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir

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TERRACON — GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Smoke out Cleaners		PROJECT NO. 58187103	
PROJECT LOCATION: Howard, WI			
SAMPLE POINT: PZ-1	SAMPLE POINT DESCRIPTION:		
CASING DIAMETER: 1"			
WELL DEPTH: 52.3			
DATE: 8/4/22	TIME 1010 (AM) /PM	DEPTH TO GROUND WATER (FT): 3.00	
SAMPLING METHOD: Low Flow		FLOW RATE: ~ 200 ml/min	
SAMPLE TIME: 1135		TOTAL PURGED: ~ 2 gal	

TIME	WATER LEVEL	TEMP.(° c)	pH	COND. (mS/cm)	ORP (mV)	DO (mg/L)
1100	—	17.27	8.02	0.106	-123.2	2.73
1105	↓	16.88	7.67	0.069	-161.7	0.19
1110		16.79	7.63	0.065	-178.1	0.16
1115		16.77	7.63	0.061	-179.9	0.17
1120		16.77	7.62	0.059	-180.5	0.18
1125		16.76	7.62	0.057	-181.5	0.17
1130		16.78	7.62	0.056	-182.3	0.15

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID CLEAR	ODOR: YES NO NOT NOTED	ANALYSES: VOC

CLEANING PERFORMED IN FIELD: *Alconox and Distilled Water AND Disposable gloves* (METHOD PERFORMED) *INITIAL TO VERIFY OR NOTE OTHER CLEANING — DSF

COMMENTS:

No water level while Sampling due to Casing size

SAMPLED BY: DSF	DATE: 8/4/22
REVIEWED BY: Scott A. Hodgson	DATE: 8/4/22

TERRACON

GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Smoke-out Cleaners	PROJECT NO. 58187103
PROJECT LOCATION: Howard, WI	
SAMPLE POINT: MP2-2	SAMPLE POINT DESCRIPTION:
CASING DIAMETER: 2	
WELL DEPTH: 36.1	
DATE: 8/4/22	TIME: 1010 AM/PM — DEPTH TO GROUND WATER (FT): 3.62
SAMPLING METHOD: Low Flow	FLOW RATE: ~200 ml/min
SAMPLE TIME: 1050	TOTAL PURGED: ~2 gal

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (mS/cm)	ORP (mV)	DO (mg/L)
1017	4.41	18.90	7.63	1.245	-147.0	1.34
1022	5.47	18.56	7.58	1.201	-144.2	0.57
1027	6.54	18.44	7.56	1.154	-142.8	0.25
1032	7.37	18.46	7.56	1.140	~~+14~~ 142.5	0.22
1037	8.30	18.41	7.56	1.136	-142.0	0.23
1042	9.21	18.40	7.57	1.133	-141.9	0.25
1047	10.15	18.37	7.57	1.130	-142.1	0.28

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID CLEAR	ODOR: YES ~~NO~~ NOT NOTED	ANALYSES: VOC

CLEANING PERFORMED IN FIELD: *Alconox and Distilled Water AND Disposable gloves* *INITIAL TO VERIFY OR NOTE OTHER CLEANING METHOD PERFORMED: RST

COMMENTS: BD-1

SAMPLED BY: RST	DATE: 8/4/22
REVIEWED BY: Scott A. Hodgson	DATE: 8/4/22

Photo #1 South floor drain plugged with sediment.

Photo #2 North floor drain.

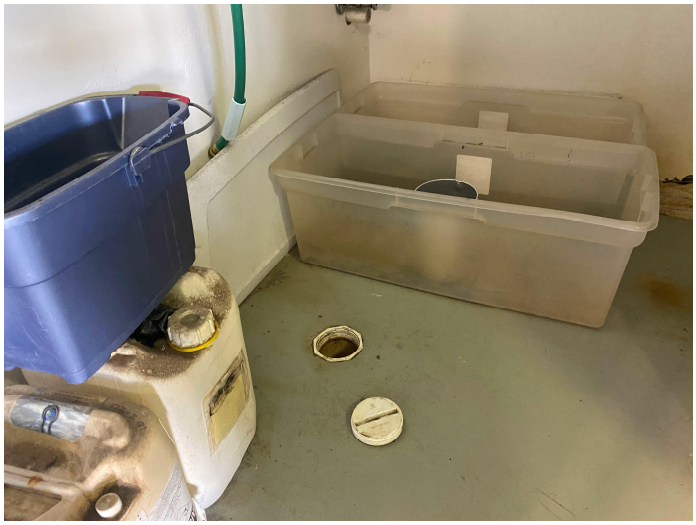

Photo #3 Approximate 4-inch diameter sanitary cleanout in the boiler room in the north part of Smoke-Out Cleaners.

Photo #4 View of north floor drain looking northeast to the sanitary cleanout along the north wall (where person is).

Photo #5 View of north floor drain looking south-southeast with south floor drain (through center door) and enclosed boiler room with the sanitary cleanout in upper left.

Photo #6 View from outside the north garage door looking southeast showing the north floor drain inside and the holding tank access box outside.