December 16, 2021

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: **Remedial Action Documentation Report 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 form for Technical review of the enclosed *Remedial Action Documentation Report.* An electronic copy of this document will be uploaded to the RR Program Submittal Portal. The $350 review fee is being sent separately along with the confirmation of the report upload.

Sincerely,

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

SAH:sah/N:\Projects\2018\58187103\Working Files\DRAFTS (Proposal-Reports-Communications)\RADR\RAR Tech review Cover letter.121621.docx

Enclosures: Form 4400-237
Technical Review Fee Check ($350)
Remedial Action Documentation Report

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

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			
Mailing Address			City	State	ZIP Code
N20 W22961 Watertown Road			Waukesha	WI	53183
Phone # (include area code)	Fax # (include area code)		Email		
(262) 406-2283	(262) 956-6210		dgallo@axley.com		

Property Owner (if different from requester)

Contact Last Name	First	MI	Organization/ Business Name		
Morin	Allen	L	Allen Lee Investments, LLC		
Mailing Address			City	State	ZIP Code
1651 Brookfield Ave, Suite A			Green Bay	WI	54313
Phone # (include area code)	Fax # (include area code)		Email		
(920) 680-2878			atrailside@aol.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: 09/17/2020

☐ 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: Attached RADR including a statement regarding emerging contaminants

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
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.

	12/16/21
Signature	Date Signed
Senior Project Manager, P.G.	(414) 209-7640
Title	Telephone Number (include area code)

Scott D. Hodgson

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 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.

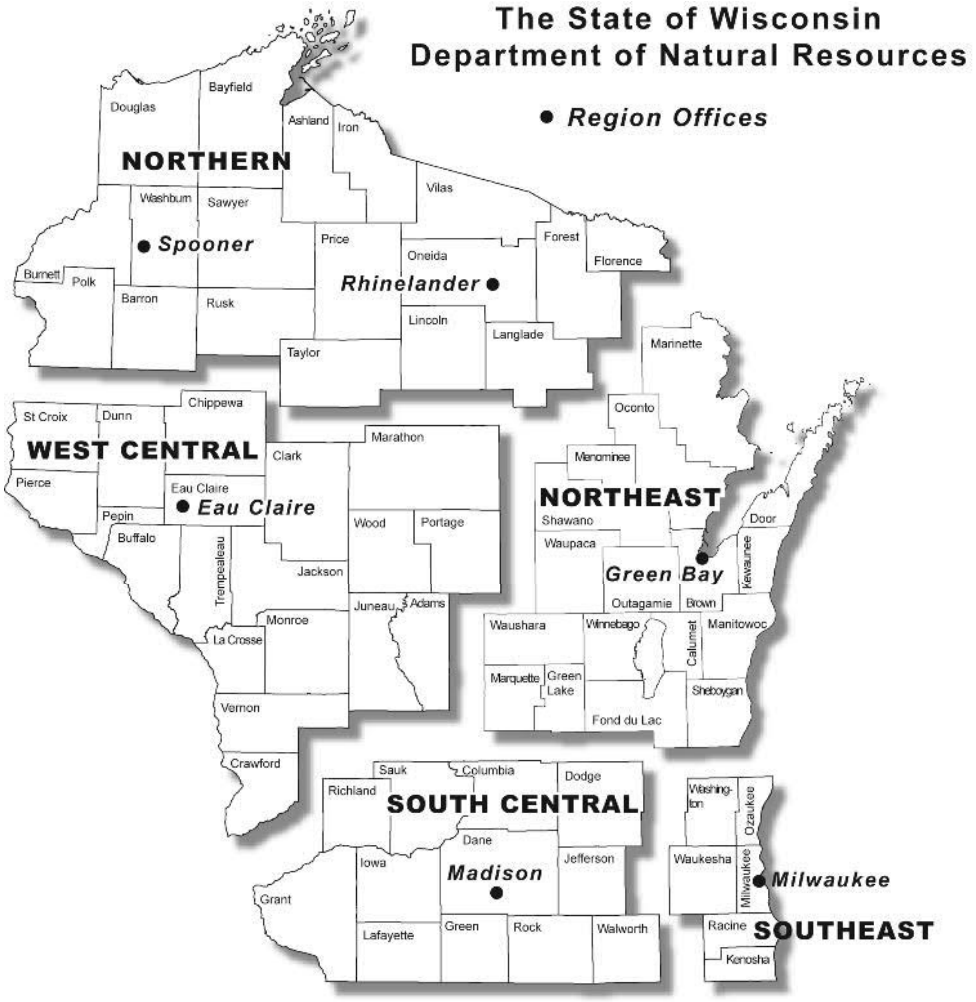
DNR NORTHERN REGION
Attn: RR Program Assistant
Department of Natural Resources
223 E Steinfest Rd Antigo, WI 54409

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		

Remedial Action Documentation Report

Smoke-Out Cleaners
1631 Brookfield Avenue, Unit D-4
Howard, Wisconsin

December 16, 2021
Terracon Project No. 58187103
WDNR BRRTS No. 02-05-552214

Prepared for:
Smoke-Out Cleaners
Howard, Wisconsin

Prepared by:
Terracon Consultants, Inc.
Franklin, Wisconsin

December 16, 2021

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: **Remedial Action Documentation Report**
Smoke-Out Cleaners
1631 Brookfield Avenue, Unit D-4
Howard, Wisconsin
BRRTS #02-05-552214
Terracon Project No. 58187103

Dear Ms. Schultz:

Terracon Consultants, Inc. (Terracon) prepared this *Remedial Action Documentation Report* for the Smoke-Out Cleaners site at 1631 Brookfield Avenue, Unit D-4, Howard, Wisconsin.

As proposed in Terracon's *Supplemental Site Investigation and Remedial Action Plan Report,* dated January 9, 2020, an injection occurred on the site which involved injection of approximately 1,224 gallons of amendment and water into the groundwater. Additionally, a sub-slab depressurization system (SSDS) was installed with two drop points (northern and southern). Post injection and SSDS installation, several visits to the site occurred to collect groundwater samples to monitor the degradation of the dissolved-phase chlorinated groundwater plume and assess the zone of influence for the SSDS by measuring vacuum at monitoring points across the site (pressure field extension testing). In addition, the emerging contaminants per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane were evaluated.

On behalf of Smoke-Out, Terracon respectfully requests concurrence from the Wisconsin Department of Natural Resources that the remedial action is complete and the emerging contaminants PFAS and 1,4-dioxane are not a concern at this site. A completed "Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request" (WDNR form 4400-237) and the associated fee are attached.

We appreciate your assistance with this project. If you have any questions or comments regarding this report or require additional information, please contact us at (414) 423-0255.

Sincerely,
Terracon

for

Lucas P. Chabela
Staff Geologist

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

Copy to: Mark Woppert-Smoke-Out Cleaners, Ltd
Don Gallo-Axley Brynelson, LLP
Chris Dockry-Team Bay, LLC

LPC/SAH/EAB:lpc;N:\Projects\2018\58187103\PROJECT DOCUMENTS (Reports-Letters-Drafts to Clients)\Smoke Out.RADR.docx

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APPENDICES

REMEDIAL ACTION DOCUMENTATION REPORT
SMOKE-OUT CLEANERS
1631 BROOKFIELD AVENUE, UNIT D-4
HOWARD, WISCONSIN 54303
BRRTS #02-05-552214

Terracon Project No. 58187103
December 16, 2021

1.0 INTRODUCTION

Smoke-Out Cleaners LTD (Smoke-Out) retained Terracon Consultants, Inc. (Terracon) to provide environmental consulting services at the Smoke-Out Cleaners facility located at 1631 Brookfield Avenue, Unit D-4, Howard, Wisconsin (Site). The Wisconsin Department of Natural Resources (WDNR) requested that supplemental site investigation (SSI) be performed to further evaluate chlorinated volatile organic compounds (CVOC) that were previously identified within onsite soil and groundwater.

The SSI scope of services included collecting soil samples from two soil borings, and construction and sampling of a groundwater observation well and piezometer constructed according to the requirements of NR 141, Wisconsin Administrative Code (WAC). The information presented herein was used to develop a conceptual site model. Remedial action options were identified and evaluated in general accordance with NR 722, WAC, using the conceptual site model. Based on the results of the remedial action options evaluation, a Remedial Action Plan (RAP) was developed for the site to address the identified impacted soil and groundwater. The RAP was implemented in June 2020 and results are documented in this report.

2.0 PROPERTY LOCATION, DESCRIPTION, AND CONTACTS

The site is located in part of the southeast quarter of the northwest quarter of Section 3, Township 24 North, Range 20 East, Village of Howard, Brown County, Wisconsin (Figure 1, Appendix A).

The following information is provided in accordance with NR 716.15:

Site Name:	Smoke-Out Cleaners: BRRTS #02-05-552214
Site Location:	Village of Howard, Brown County, Wisconsin SE¼ of the NW¼ of Section 3, Township 24 North, Range 20 East WTM: X=67401 Y=458863 Latitude/Longitude: 44.586323º N, - 88.0598306º W

Responsible Party: Mark Woppert
535 Half Mile Road
Verona, Wisconsin 53593
(608) 438-1746
mark.woppert@smoke-out.net

Agent: Chris Dockry
2105 Springcrest Place
Green Bay, Wisconsin 54304
(920) 680-1374
cdockry@gmail.com

Environmental Consultant: Scott A. Hodgson, P.G.
Terracon Consultants, Inc.
9856 South 57th Street
Franklin, Wisconsin 53213
(414) 423-0255
scott.hodgson@terracon.com

The site lies within a commercial business park, which is in an area of mixed industrial, commercial, and residential use. Beginning in 2005, Smoke-Out operated from a leased space within the western multi-tenant building on the property. The building is slab-on-grade construction with single story offices along the eastern part of the building, and with a two-story work space in the western part of the building. A dry-cleaning machine (DCM) was located in the south-central part of the work area, but was removed in 2019 or early 2020. Black Diamond Builders occupies the lease space adjacent north of Smoke-Out, and Badger Scale adjoins Smoke-Out to the south. Badger Scale was included in the investigation area due to its proximity to the DCM. The dry-cleaning solvent tetrachloroethene (a.k.a. perchloroethene, perc, or PCE), which is a CVOC, was previously used at the Site and was stored in the DCM. Asphalt-paved parking areas exist to the east and west of the building.

3.0 PROJECT BACKGROUND

3.1 Previous Site Investigation

A Preliminary Site Assessment (PEA) was completed at the site by Giles Engineering Associates (Giles) in August 2008. The PEA included two interior soil borings (HP-1 and HP-2) near the DCM and one exterior hand boring (GP-1) near the rear (west) service door. The PEA identified 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. Shallow groundwater flow is generally to the east. Historical groundwater elevations are presented in Table 1, Appendix B.

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, Appendix A. Soil, groundwater, and sub-slab vapor samples were collected and analyzed for VOC. Historical laboratory analytical results for soil, groundwater, and vapor (sub-slab and indoor air) are summarized in Tables 2 through 5, Appendix B, respectively.

Specifically, the soil to groundwater pathway residual contaminant level 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.

The sub-slab vapor sampling results indicated that PCE and/or TCE were detected at concentrations above their respective small commercial vapor risk screening levels (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. Historical soil analytical results are documented in Table 2. 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). A soil quality map which depicts the estimated lateral extent of CVOC-impacted soil at concentrations above soil to groundwater pathway RCLs is presented as Figure 3, Appendix A.

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). A sub-slab vapor quality results map that depicts the CVOC analytical results is presented as Figure 4, Appendix A. 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 complete the sub-slab to indoor air pathway. The sub-slab vapor source should be addressed to eliminate or interrupt that potential pathway. A spatial depiction of the sub-slab vapor exceedances as of October 2017 are shown on Figure 4 and historical results are summarized in Table 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. Historical results are summarized in Table 4.

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. PCE and its degradation daughter compounds, TCE, cis-DCE, 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 to the north. 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 has been delineated, is estimated to be 40 feet long (north-south) and 45 feet wide (west-east). The approximate extent of the dissolved phase CVOC plume at concentrations above their ESs is presented on Figure 5, Appendix A. Historical analytical groundwater results are summarized in Table 5, Appendix B.

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 RAP was developed to address the identified impacts in soil, groundwater, and sub-slab vapor and facilitate a path towards case closure. The recommended RAP included installation of a 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.

4.0 REMEDIAL ACTION ACTIVITIES

The approved RAP consisted of in-situ amendment injection and installation of a sub-slab depressurization system (SSDS), followed by quarterly groundwater monitoring to verify natural attenuation of the groundwater contaminant plume. The in-situ groundwater treatment injection

program was implemented in March 2020, beginning with the injection permit application. Following issuance of the permits, injection proceeded in June 2020. Details are described in the following sections.

4.1 Permits

On February 21, 2020, Terracon submitted an *In-Situ Amendment Approval Request* to the WDNR for review and written approval. Approval of a temporary exemption for injection with the Wisconsin Pollutant Discharge Elimination System (WPDES) general permit in accordance with NR 812.05, WAC, and NR 140, WAC, was requested for the in-situ amendment injection to treat CVOC-impacted groundwater. The request included the *Notice of Intent (NOI) Contaminated Groundwater from Remedial Action Operations, WPDES Permit No. WI-0046566-07-0 (revised 6/2018).* The WDNR approved/issued the permits in correspondence dated March 17, 2020. A copy of the WPDES permit approval is included in Appendix C.

4.2 Baseline Monitoring

A baseline groundwater monitoring event was conducted on June 9, 2020. Interior groundwater monitoring wells, which are located along the dissolved phase CVOC plume centerline, (MW-1 through MW-4) contained CVOCs at concentrations exceeding either their respective PALs or ESs. PCE, TCE, and cis-12 DCE were detected at concentrations exceeding their respective ESs at groundwater monitoring wells MW-3 and MW-4. VC was detected at concentrations exceeding its ES at groundwater monitoring wells MW-1 and MW-3. PCE was detected at concentrations exceeding its PAL at groundwater monitoring wells MW-1 and MW-2.

4.3 Amendment Injection

From June 10 to 11, 2020, in-situ amendment injection activities took place at the site. Regenesis supplied the products 3-D Microemulsion (3DMe)®, Sulfidated Micro Zero Valent Iron (S-MicroZVI), and Bio-Dechlor Inoculum Plus (BDI Plus®) and Horizon Exploration and Construction (Horizon) mixed/injected the amendment and advanced direct-push injection borings. Terracon personnel provided oversight of the mixing/injection activities. A summary of the in-situ amendment injection is presented below:

- The amendment application was implemented by direct-push injection in 12 soil borings (I-1 through I-12), advanced to approximately 8 feet bgs in an approximate 500-square-foot treatment area within the building;
- The injection points were spaced at a minimum distance of 5 feet apart;
- The target treatment injection interval in each boring was between depths of approximately 2 and 8 feet bgs;

- Approximately 600 pounds of 3DMe®, 800 pounds of S-MicroZVI, and 18 liters of BDI Plus® were mixed with water. Approximately 1,224 gallons of amendment and water was injected; and
- Approximately 1,224 total gallons of amendment was injected via a bottom up delivery across the 12 injection points.

Horizon mixed the amendment solution and pumped at injection pressures ranging from 5 to 45 pounds per square inch (psi). The direct-push rig utilized 1.5-inch outer-diameter injection rods with expendable tips. The approximate injection point locations are shown on Figure 6, Appendix A.

Horizon's injection trailer was equipped with pumps, mixing tank, delivery manifold, injection heads with flow and pressure gauges, safety bypass valve, first aid station, and nitrogen gas tank for BDI Plus® preparation. The injection rods were advanced to the target depth at each injection point and connected to the injection equipment. The solution was injected as the rods were raised at 1-foot intervals to distribute the solution across the targeted treatment zone. A summary of injection quantities, general notes, depth to water, measured throughout the injection activities, is presented in Appendix C.

During the injection Terracon monitored carbon dioxide, oxygen, and methane using a four-gas meter in observation wells MW-1 through MW-4 for initial measurements. Methane was not detected in each of the four observation wells. Additionally, a photoionization detector (PID) was used to screen each observation well (MW-1 through MW-4) during the initial phase of the injection. PID readings varied from 0 up to 2.9 ppmv. The gas and PID data are presented in Appendix C.

Groundwater samples were collected from monitoring wells MW-1 through MW-4 upon completion of the injection on June 11, 2020, for analysis of TOC as an initial measure of the subsurface distribution of the 3D Microemulsion®. The analytical lab report with results is included in Appendix G.

Upon completion of injection, each soil boring was abandoned in general conformance with NR 141, WAC, and completed with hydraulic cement to the floor surface. Borehole abandonment forms are included in Appendix D. Since each boring was advanced without sampling, boring logs are not included. A photographic log documenting the injection activities is included as Appendix E.

4.4 Sub-Slab Depressurization System (SSDS) Installation

The RAP recommended installing a sub-slab depressurization system (SSDS) prior to injection to control potential methane generated by the dechlorination process as well as to control sub-slab CVOC vapors. Prior to SSDS installation, Terracon inspected the building and floor slab

condition to determine whether any cracks, sumps, or drains needed to be considered or addressed as part of the SSDS design. Cracks and potentially leaking penetrations in the floor slab were not observed. Terracon contacted a local radon abatement contractor, SWAT Environmental, to install the SSDS. On June 9, 2020, SWAT Environmental installed the SSDS, which consisted of two suction drop points manifolded to a single exhaust stack with in-line blower. The two suction drop-points, consisting of 3-inch diameter polyvinyl chloride (PVC) piping, were installed along the northern and southern walls to cover the area of known concern near the former DCM and office area within the Smoke-Out space and adjoining Badger Scale space to the south. The southern suction drop point near the former DCM location is manifolded via overhead piping to the northern suction drop point with the exhaust piping along the wall east of the northern suction drop point. The exhaust piping was placed vertically along the wall and through the ceiling to the roof where the in-line blower was placed. A u-tube manometer was installed on the southern drop-point riser to measure the vacuum in inches of water. A sample port was also installed on the southern riser pipe to allow air screening for VOC vapors (with a PID) and methane, oxygen and carbon dioxide. An Operation and Maintenance Manual, which includes an inspection/maintenance log example, is included as Appendix F.

Due to the subsequent injection on June 10, 2021, the SSDS was tested after installation and then shut down in preparation for the injection. The system was shut down because the groundwater table was already very high at the time of injection and the injection can cause further mounding of the water table, which can reduce vacuum in the subsurface. During injection, the floor seal around the southern suction drop-point was broken and injection fluid leaked out onto the floor. The interior injection borings were abandoned properly with bentonite chips and hydraulic sealing cement as required and to prevent short-circuiting during future SSDS operation.

In July 2020, Terracon and SWAT Environmental returned to the site to reseal the leaking drop-point floor seal, install an array of vacuum monitoring points, and begin operating the SSDS full-time. The leaking drop-point was re-caulked. A total of fifteen ¼-inch diameter vacuum monitoring points were drilled through the floor slab throughout the Smoke-Out Cleaners and Badger Scale spaces to test the SSDS' area of influence. Each vacuum monitoring point was finished with a removable plug flush with the floor surface. Vacuum monitoring points, the southern drop-point, existing vapor monitoring points, and applicable groundwater monitoring wells were measured and tested for vacuum (pressure field extension testing), PID readings, methane, oxygen, and carbon dioxide.

4.5 Vacuum Monitoring Results

After the vacuum monitoring points were drilled and the southern drop-point resealed after the injection, the SSDS was operational beginning July 14, 2020. Upon startup the southern drop-point applied 2.5 inches of water vacuum ("H_2O). initially, pressure extension field testing was performed using a magnehelic gauge. Vacuum was measured at the 15 vacuum monitoring points

(VAC-1 through VAC-15); 5 of the existing vapor monitoring points (VP-4 through VP-8), and the interior groundwater monitoring wells MW-1 through MW-4. Vacuum monitoring points, vapor monitoring points and observations each used to measure vacuum influence are shown on Figure 6, Appendix A.

During the initial assessment in July 2020, vacuum was observed at each of the vacuum measuring points including MW-1 through MW-4 and vapor points VP-4 through VP-8, except at VP-6, VAC-2, and VAC-5. Vacuum monitoring point VAC-2 is the furthest vacuum monitoring point to the northeast, and VAC-5 is located to the northeast of the area of concern near the eastern building wall and halfway between the two drop-points. Vacuum readings throughout the measured points with vacuum varied between 0.02 to 1.5"H_2O. The initial assessment in July 2020 represented high groundwater conditions, and the pressure extension field extended from VAC-1 to VAC-14 (north/south) and VAC-3/VAC-9 to VAC-8/VAC-15 (east/west).

During Terracon's September 2020 site visit to sample groundwater, the vacuum monitoring points and other points were again measured to assess the efficiency of the SSDS. The southern drop-point continued to apply a vacuum at 2.5"H_2O. The air stream in the southern drop point exhibited a PID reading of 59 ppmv and methane at 1.9%. Several of the vacuum monitoring points including VAC-1, VAC-2, VAC-3, VAC-5, VAC-8, VAC-9, and VAC-15 did not have measurable vacuum readings. These vacuum monitoring points are the farthest measuring points from the suction drop points to the north, east, and west. In general, the vacuum in monitoring points with measured vacuum decreased from the July 2020 to the September 2020 event primarily due to significant lowering of the water table. In addition, over the beginning stages of the SSDS operation, it is common for farther monitoring points to contain zero vacuum and closer monitoring points to lose vacuum as sub-slab air pathways are established. Overall, the SSDS is operational and continues to pull sub-slab air throughout the area of concern. The system's efficiency for decreasing sub-slab and ambient air CVOC concentrations will be assessed during the next annual site visit. The second assessment in September 2020 represents low groundwater conditions and the pressure extension field extended from VP-8 to VAC-14 (north/south) and VAC-6/VAC-13 to VP-5/VP-7 (east/west).

5.0 POST-INJECTION GROUNDWATER MONITORING

5.1 Site Stratigraphy and Hydrogeology

Surficial material consisting of approximately 6 inches of concrete and base course gravel at soil boring GP-4, and approximately 6 inches of asphalt and base course gravel at soil boring PZ-2/MW-10 were underlain by very fine-medium grained sand to approximately 3 feet bgs. A silty clay unit is present at both borings beneath the sand at depths ranging from 1.5 to 3 feet bgs. In general, sand, silty sand, and clayey sand are present beneath the silty clay to depths of

approximately 22 feet bgs. Silty clay was encountered at PZ-2/MW-10 at depths ranging from 22 to 26 feet bgs, the maximum depth explored.

During the most recent groundwater sampling event on September 17, 2020, static groundwater levels were measured at each well within the monitoring well network. Static groundwater levels ranged from a high of 2.60 (MW-9) to a low of 3.46 (MW-2) feet below the top of PVC casing in observation wells MW-1 through MW-10, with groundwater flow generally to the north. Static groundwater levels in piezometer PZ-1 and PZ-2 were 2.85 and 3.19 feet below top of casing, respectively.

An average horizontal hydraulic gradient of approximately 0.0006 foot per foot (ft/ft) was calculated for September 2020. Groundwater elevation data for monitoring well nests MW-8/PZ-1 and MW-10/PZ-2 were compared to determine the vertical hydraulic gradient. On September 17, 2020, these data indicate that a slight upward vertical gradient of 0.009 ft/ft existed at both MW-8/PZ-1 and MW-10/PZ-2. By convention, the vertical gradient was evaluated using the difference in groundwater elevations divided by the difference in the bottom screen elevations. Water level data is summarized in Table 1. A groundwater table contour map for the June 9, 2020, July 14, 2020, and September 17, 2020, sampling events is included as Figures 7 through 9, Appendix A. The contour maps indicate general shallow groundwater flow to the north but the flow pattern is locally variable due to the flat gradient.

5.2 Post-Injection Monitoring Results

Groundwater monitoring is required to document the efficacy of the injection to induce reductive dechlorination and confirm groundwater contaminant concentrations are declining. A pre-injection baseline sampling event occurred on June 9, 2020. The first post-injection event was performed on July 14, 2020, approximately one month after injection as required by the injection permit. The second post-injection sampling event occurred approximately 60 days later on September 17, 2020.

Groundwater monitoring was largely limited to a few selected wells during most sampling events. Post-injection sampling events #1 and #2 conducted in July and September 2020, respectively, included sampling observation wells MW-1, MW-2, MW-3, and MW-4 for VOCs and a suite of natural attenuation geochemical parameters including TOC, MEE, sulfate, dissolved iron, and dissolved manganese. Groundwater sampling was completed using low-flow purge and sample techniques and field parameters were also recorded for the sampled monitoring wells.

The WDNR has established groundwater quality standards, which are set forth in NR 140, WAC (January 2020). For each regulated compound, two standards have been established, the ES and the PAL. In general, if the regulated contaminant exceeds the PAL, but is below the ES, the WDNR may require additional investigation/continued monitoring. If the regulated contaminant is

above its ES, the WDNR may require additional investigation, continued monitoring, and/or remediation.

At groundwater monitoring wells MW-2 through MW-4, PCE was not detected above its analytical LOD in the September 2020 sampling event. At groundwater monitoring wells MW-1 through MW-4, the reductive dechlorination degradation products of TCE, cis-DCE, were present and have generally decreased in concentrations post-injection. VC concentrations at groundwater monitoring wells MW-1 through MW-4 peaked in the post-injection monitoring event in July 2020 and then decreased during the September 2020 sampling event.

The geochemical indicator laboratory parameter compounds of TOC and MEE were also analyzed during each of the sampling events. The results indicated a significant increase in the TOC immediately following the injection on June 11, 2020. Post-injection, the TOC has decreased but still remains elevated above the pre-injection sampling levels of June 9, 2020. MEE concentrations in groundwater monitoring wells MW-1 through MW-4 have increased since the injection with the highest levels being observed during the July 2020 sampling event. The increased methane concentrations and the presence of ethane and ethene are definitive indicators of continued and/or increased attenuation by reductive dechlorination processes in the source area. TOC concentrations near the source are above the 20 milligrams per liter (mg/L) minimum concentration thought to be necessary to support reductive dechlorination per WDNR guidance document *RR-699 Understanding Chlorinated Hydrocarbon Behavior in Groundwater* (April 2003) in the sampling rounds following the injection, indicating good subsurface amendment distribution in the source soils.

Groundwater analytical results for detected VOCs and geochemical parameters are summarized in Tables 4 and 5, respectively. A groundwater quality map, which presents the estimated extent of the dissolved phase CVOC plume at concentrations exceeding its ESs, is presented as Figure 5, Appendix A. Laboratory reports and the COC documentation are included in Appendix G.

5.3 Management of Investigation-Derived Waste

Investigation-derived waste (purge water) generated during groundwater monitoring well sampling was containerized in labeled 55-gallon drums for temporary storage on site. Due to the limited sampling event, the containerized purge water remains onsite and will be disposed in the near future. Documentation for the investigation-derived waste will be included at that time.

6.0 EMERGING CONTAMINANTS STATEMENT

The WDNR sent a letter dated August 17, 2020, to all responsible parties (RPs) that have an “open contamination site” on the WDNR’s Bureau for Remediation and Redevelopment Tracking System (BRRTS). The purpose of the letter was to remind RPs to assess sites for the potential

presence of emerging contaminants, such as per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane. Terracon, on behalf of Smoke-Out Cleaners, prepared this statement to document the consideration of emerging contaminants during site investigation scoping for the Smoke-Out Cleaners property (BRRTS #02-05-552214). This statement was prepared using the WDNR guidance document "Site Investigation Scoping: Identifying Contaminants of Concern" (RR-101) for potential/emerging contaminants in general, and the Interstate Technology Regulatory Council (ITRC) fact sheet "History and Use of Per- and Polyfluoroalkyl Substances (PFAS)" for PFAS.

Giles Engineering Associates, Inc. completed a PEA for the site in August of 2008. The PEA was prepared to determine the existence of a release due to the recent site history of dry-cleaning operation. Aerial photographs show the site was vacant prior to 1999. Sometime later it was developed into a multi-tenant lot with several commercial buildings. In 2005, Smoke-Out operated from a single, multi-tenant building located on the property. The PEA included the installation and sampling of soil from two interior soil borings and on exterior soil boring which contained CVOCs in both soil and groundwater. Following the discovery, Giles Engineering Associates, Inc. conducted a site investigation of the soil, groundwater, and vapor to delineate the extent and assess the magnitude of the release. Giles Engineering Associates, Inc. submitted the results from their site investigation in a *Site Investigation Report,* dated August 31, 2017.

Terracon was retained to conduct a supplemental site investigation to further evaluate soil and groundwater impacted by CVOCs. Soil and groundwater samples were submitted for VOC laboratory analysis. CVOCs continue to be detected in the groundwater samples at concentrations above their laboratory analytical LODs. The site investigation scope of work was developed in 2019, prior to the issuance of the above-referenced WDNR and ITRC documents. Terracon used these documents to further evaluate the site history with respect to emerging contaminants. The WDNR guidance document lists several classes of contaminants and associated chemicals and commercial/industrial operations. Table 2-4 of the ITRC document lists industries and applications associated with PFAS usage. PFAS has been used in a wide range of consumer products, including waterproofing and stain resisting agents.

Historically, the site operated as offices, storage, and dry-cleaning operations for Smoke-out Cleaners. Smoke-Out Cleaners has been the sole operator of the dry-cleaning operations at this site since operations began in the early 2000's. According to Mark Woppert, owner of Smoke-Out Cleaners, waterproofing or stain resisting operations have not been performed at the facility nor have PFAS products been stored onsite for any reason.

The emerging contaminant 1,4-dioxane was used as a stabilizer in solvents, primarily 1,1,1-trichloroethane (1,1,1-TCA). Chlorinated VOCs were detected within the soil and groundwater samples at Smoke-Out Cleaners. However, 1,1,1-TCA was not detected within the soil or groundwater nor was 1,1,1-TCA used at the site. Therefore historical operations and CVOC results indicate that neither PFAS nor emerging contaminants associated with solvents (i.e., 1,4-

dioxane) are associated with the historical uses of the site, are not likely present, or anticipated to be present at the site.

7.0 EVALUATION AND CONCLUSIONS

In June 2020, the groundwater remedial action was performed by injection of 3DMe®, BDI Plus®, and S-MicroZVI amendment to enhance the reductive dechlorination of the dissolved phase CVOC contaminant plume in the source zone beneath the Smoke-out Cleaners building. Twelve (12) direct-push injection borings were completed within an approximately 500-square-foot area beneath the building. Approximately 1,224 gallons of amendment was injected through the 12 injection points. The design intention was to inject into the most impacted portion of the CVOC plume and reduce the mass of CVOCs.

Based upon TOC and MEE concentrations, it appears that there was sufficient distribution of the 3DMe®, BDI Plus®, and S-MicroZVI amendment to allow reductive dechlorination to occur in the area. The TOC concentration in groundwater samples collected from groundwater monitoring wells MW-1 through MW-4 indicate that there is still an adequate supply of carbon remaining to allow continued degradation of the CVOCs.

From June to July 2020, a SSDS was installed with two drop points and 15 vacuum monitoring points to evaluate its efficiency. The blower applies a sub-slab vacuum of approximately 2.5”H_2O vacuum. The vacuum monitoring points around the area of concern show consistent vacuum; however, the marginal extent of vacuum influence varies as the groundwater table falls. Terracon has determined that the current vacuum readings are adequate to continue operation of the SSDS. Spatial distribution of vacuum influence in July 2020 (high groundwater table) and September 2020 (low groundwater table) are displayed on Figure 6, Appendix A.

PCE concentrations have decreased and daughter compound concentrations have slightly decreased as well with the exception of vinyl chloride in the source area following the June 2020 remedial injection. Since the historical highs of vinyl chloride documented during the July 2020 sampling event, the VC concentrations have decreased but continue to remain elevated above pre-injection concentrations. PCE and TCE within the source area groundwater monitoring wells have decreased substantially and at some locations, are below the analytical LODs.

Chemical and geochemical laboratory analytical results indicate that increased/continued attenuation by reductive dechlorination processes is occurring, as evidenced by the reductive dechlorination of PCE to VC and generation of methane, ethane, and ethene. Overall, the decrease in individual and total CVOC concentrations and increased methane, ethane, and ethene concentrations in groundwater monitoring wells near the source indicates that the remedial action injections have been effective at reducing the contaminant mass. Further, the addition of

S-MicroZVI to supplement the (3DMe)®, and BDI Plus® amendment, will provide a continued source of iron to accelerate natural attenuation.

8.0 RECOMMENDATIONS

8.1.1 Groundwater Monitoring

Continue quarterly post-injection groundwater monitoring as proposed in the RAP. Quarterly sampling events #3 (December 2020) and #7 (December 2021) will be annual sampling rounds and will include measuring static groundwater levels and collecting samples from the 12 monitoring wells (MW-1 through MW-10, PZ-1 and PZ-2) in the well network. Field parameters will be measured and recorded at each sampling location. In addition, samples from monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-7 will be analyzed for geochemical parameters, including TOC, MEE, and dissolved iron. A water sample will be collected from on-site potable well PW-4 for laboratory analysis of VOCs. Quarterly post-injection groundwater monitoring events #4 (March 2021), #5 (June 2021), #6 (September 2021), and #8 (March 2022) will be reduced sampling rounds. Each event will include measuring water levels throughout the monitoring well network and collecting samples from interior source-area groundwater monitoring wells MW-1, MW-3, and MW-4 for analysis of VOCs, TOC, MEE, and dissolved iron.

8.1.2 Vapor Monitoring

Approximately 18 months after the first post-injection quarterly groundwater monitoring event (July 2020), in conjunction with post-injection groundwater monitoring event #7 (December 2021), vapor monitoring will be completed to evaluate sub-slab CVOC vapor concentrations and the continuing necessity of the SSDS, especially assuming CVOC mass reduction has occurred in soil and groundwater due to the injection treatment. After the SSDS is shut down and sub-slab conditions have been allowed to equilibrate for at least 30 days, Terracon will collect 30-minute vapor grab samples from sub-slab vapor monitoring points VP-4, VP-5, VP-7, and VP-8 as proposed in the RAP. Leak testing will be performed at each vapor point. Samples will be collected in 6-Liter Summa Canisters and submitted to a Wisconsin-certified lab for analysis of PCE and associated CVOCs only by EPA Method TO-15.

Based on recent changes in vapor intrusion assessment guidance and discussions with WDNR, additional indoor air vapor monitoring will be required as well as additional vapor intrusion assessment of the sanitary sewer lateral and holding tank associated with the Smoke-Out space as well as the building to the east. Terracon will prepare a work plan for WDNR review and approval prior to implementing the work plan in conjunction with the December 2021 monitoring event.

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 one to two additional sub-slab vapor sampling events will be performed (including at least 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.

Terracon is submitting this *Remedial Action Documentation Report* along with a Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request" (WDNR form 4400-237) and the associated fee to the WDNR, and respectfully requests concurrence that the remedial action activities are complete, and emerging contaminants PFAS and 1,4-dioxane are not concerns at the site.

9.0 GENERAL COMMENTS

The analysis and opinions expressed in this report are based upon data obtained from the previous assessments and laboratory chemical analyses at the indicated locations or from other information discussed in this proposal. This report 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 report was prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted environmental engineering practices. Materials supplied by Regenesis may be influenced by several site-specific factors that affect their performance. No warranties, express or implied are intended or made. In the event any changes in the nature or location of suspected sources of contamination as outlined in this report are observed, the conclusions and recommendations contained in this proposal shall not be valid unless these changes are reviewed and the opinions of this proposal are modified or verified in writing by Terracon.

10.0 CERTIFICATIONS

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

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, 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.

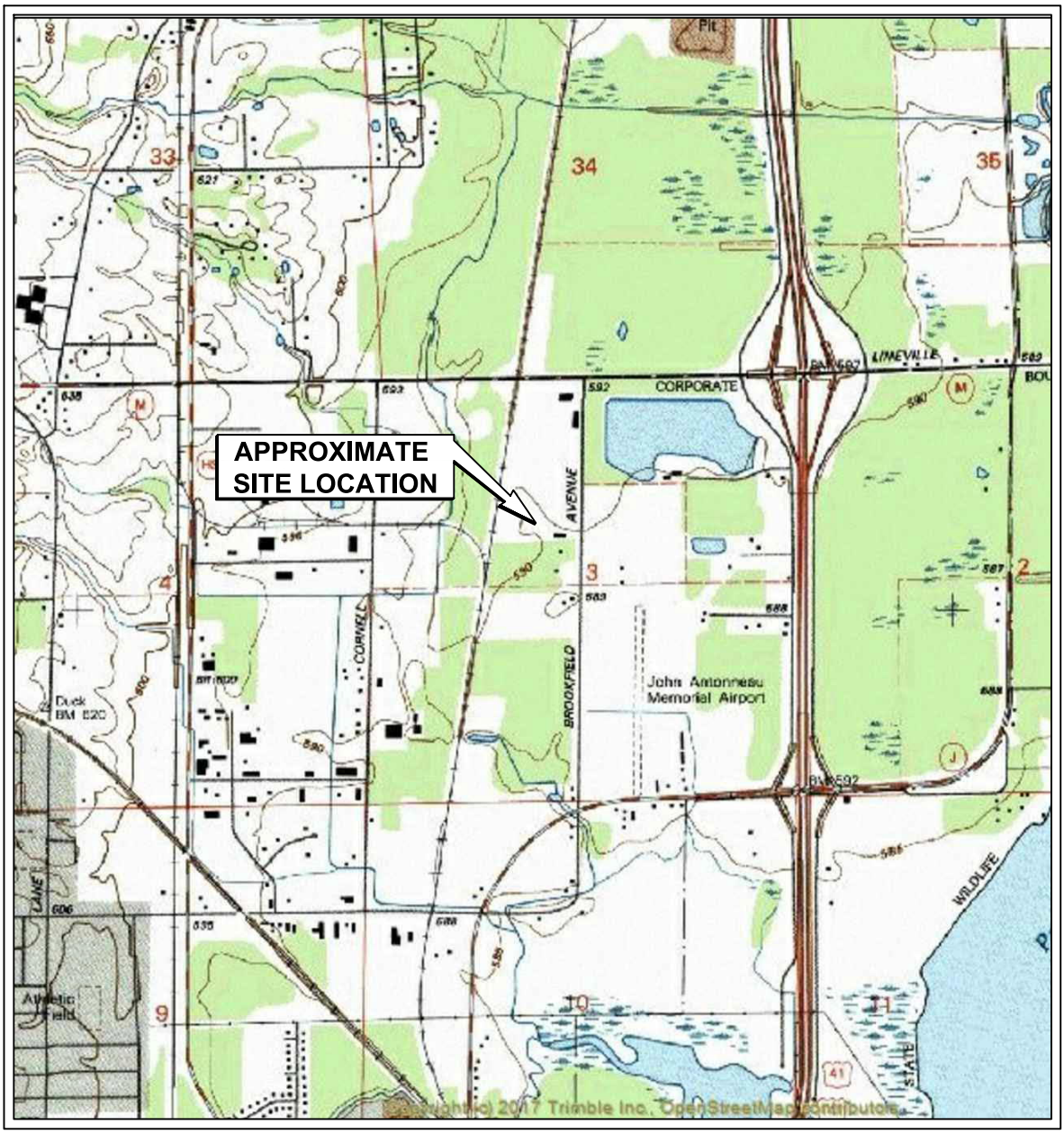
Scott A. Hodgson PG-1229 12/16/2021
Signature and P.G. number Date

Senior Geologist
Title

APPENDIX A

FIGURES 1-7

UNITED STATES – DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY



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1 .5 0 KILOMETERS 1 2

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MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

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

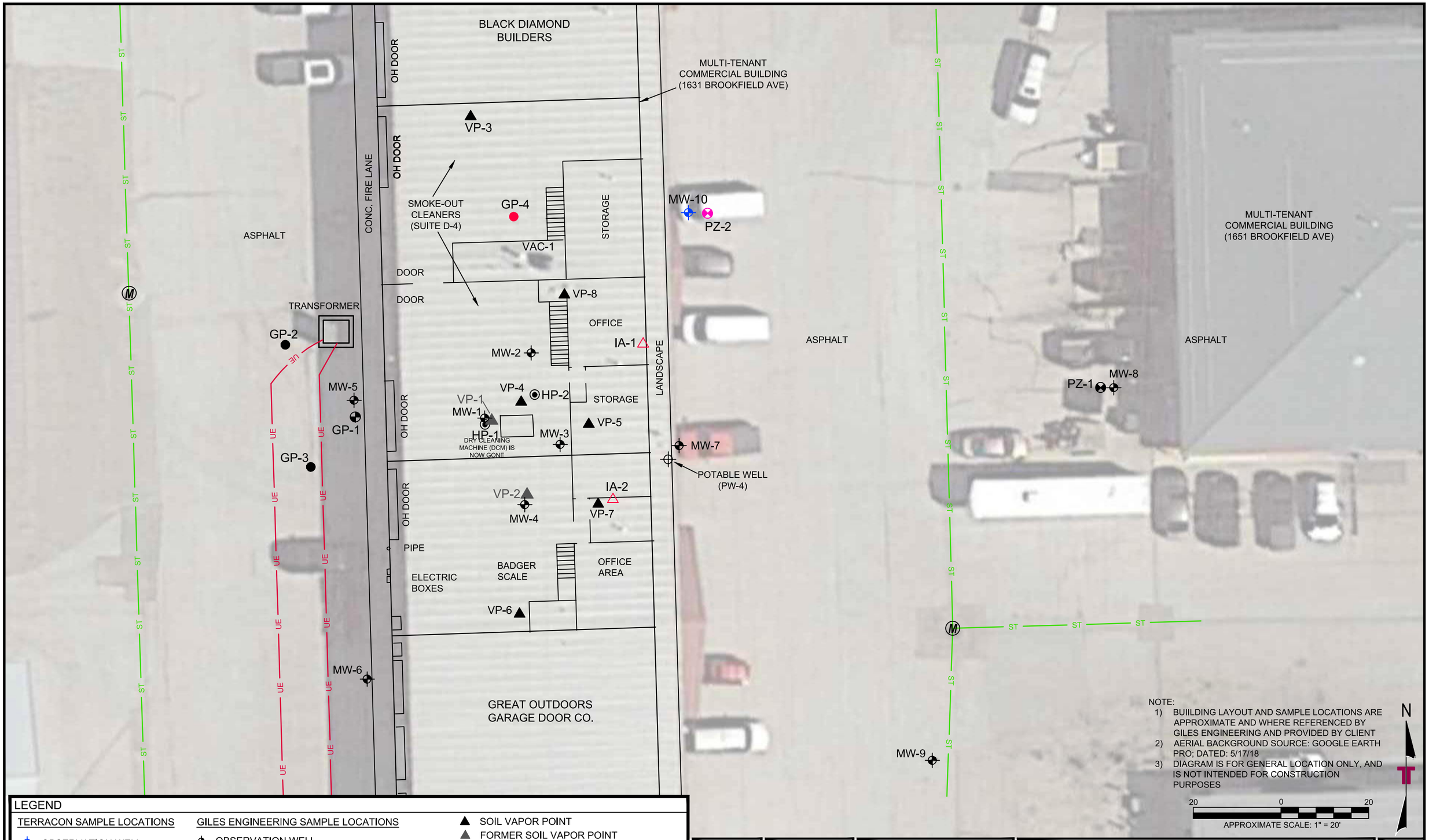
Project No.	58187103
Scale:	AS SHOWN
File No.	58187103C1
Date:	4/2019

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

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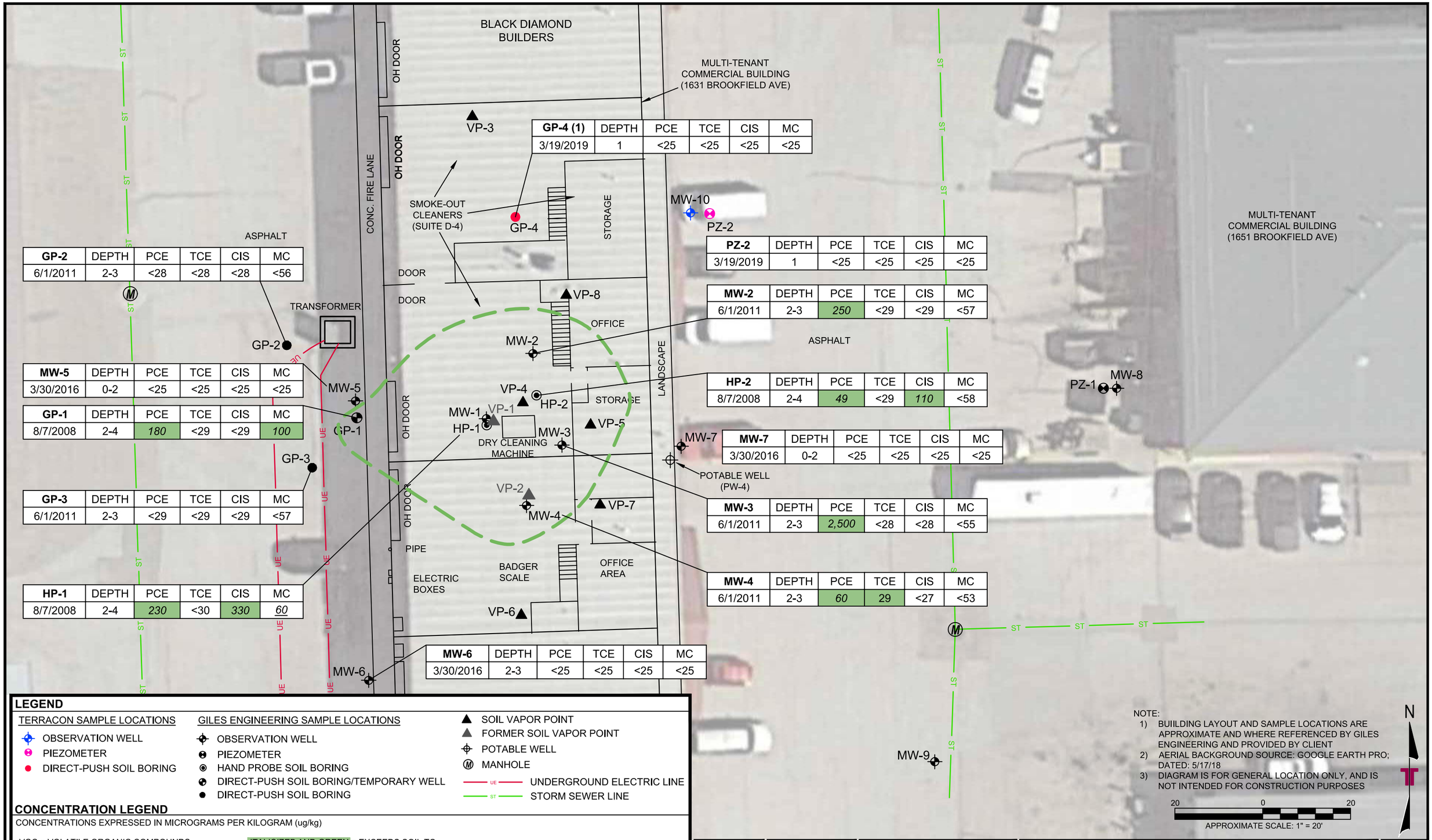
SITE MAP

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

FIGURE 2 (FIG2 SD)



GP-2	DEPTH	PCE	TCE	CIS	MC
6/1/2011	2-3	<28	<28	<28	<56

MW-5	DEPTH	PCE	TCE	CIS	MC
3/30/2016	0-2	<25	<25	<25	<25

GP-1	DEPTH	PCE	TCE	CIS	MC
8/7/2008	2-4	*180*	<29	<29	*100*

GP-3	DEPTH	PCE	TCE	CIS	MC
6/1/2011	2-3	<29	<29	<29	<57

HP-1	DEPTH	PCE	TCE	CIS	MC
8/7/2008	2-4	*230*	<30	*330*	*60*

GP-4 (1)	DEPTH	PCE	TCE	CIS	MC
3/19/2019	1	<25	<25	<25	<25

MW-6	DEPTH	PCE	TCE	CIS	MC
3/30/2016	2-3	<25	<25	<25	<25

PZ-2	DEPTH	PCE	TCE	CIS	MC
3/19/2019	1	<25	<25	<25	<25

MW-2	DEPTH	PCE	TCE	CIS	MC
6/1/2011	2-3	*250*	<29	<29	<57

HP-2	DEPTH	PCE	TCE	CIS	MC
8/7/2008	2-4	*49*	<29	*110*	<58

MW-7	DEPTH	PCE	TCE	CIS	MC
3/30/2016	0-2	<25	<25	<25	<25

MW-3	DEPTH	PCE	TCE	CIS	MC
6/1/2011	2-3	*2,500*	<28	<28	<55

MW-4	DEPTH	PCE	TCE	CIS	MC
6/1/2011	2-3	*60*	*29*	<27	<53

LEGEND

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

GILES ENGINEERING SAMPLE LOCATIONS
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CONCENTRATION LEGEND

CONCENTRATIONS EXPRESSED IN MICROGRAMS PER KILOGRAM (ug/kg)

VOC = VOLATILE ORGANIC COMPOUNDS
PCE = TETRACHLOROETHENE
TCE = TRICHLOROETHENE
CIS = cis-1,2 DICHLOROETHENE
MC = METHYLENE CHLORIDE
RCL = RESIDUAL CONTAMINATION LEVELS

ITALICIZED AND GREEN = EXCEEDS SOIL TO GROUNDWATER PATHWAY RCL (DECEMBER 2018)

ESTIMATED EXTENT OF SOIL TO GROUNDWATER PATHWAY RCL EXCEEDENCE

NOTE:
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N

20 0 20
APPROXIMATE SCALE: 1" = 20'

Project Mngr:	TPW
Drawn By:	JLM (41)
Checked By:	EPK
Approved By:	SAH
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SOIL QUALITY MAP

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

FIGURE
3
(FIG4 ISOCONC)

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	CO
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

IA-1	PCE	TCE	CIS	TRANS	DCE	VC
10/25/2017	*3,990*	1.1	<0.49	<0.42	<0.34	<0.18

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

IA-2	PCE	TCE	CIS	TRANS	DCE	VC
10/25/2017	21.8	<0.39	<0.49	<0.42	<0.34	<0.18

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)
OH DOOR
CONC. FIRE LANE
ASPHALT
SMOKE-OUT CLEANERS (SUITE D-4)
STORAGE
DOOR
TRANSFORMER
OFFICE
LANDSCAPE
DRY CLEANING MACHINE
POTABLE WELL (PW-4)
PIPE
ELECTRIC BOXES
BADGER SCALE
OFFICE AREA
ST
UE

LEGEND

TERRACON SAMPLE LOCATIONS
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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 (MAY 2021)

BOLD = VALUE EXCEEDS LARGE COMMERCIAL/INDUSTRIAL BUILDING VRSL

ITALIC = VALUE EXCEEDS LARGE COMMERCIAL BUILDING INDOOR AIR VAL

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VAPOR QUALITY MAP

SMOKE-OUT CLEANERS
1631 BROOKFIELD AVENUE, UNIT D-4
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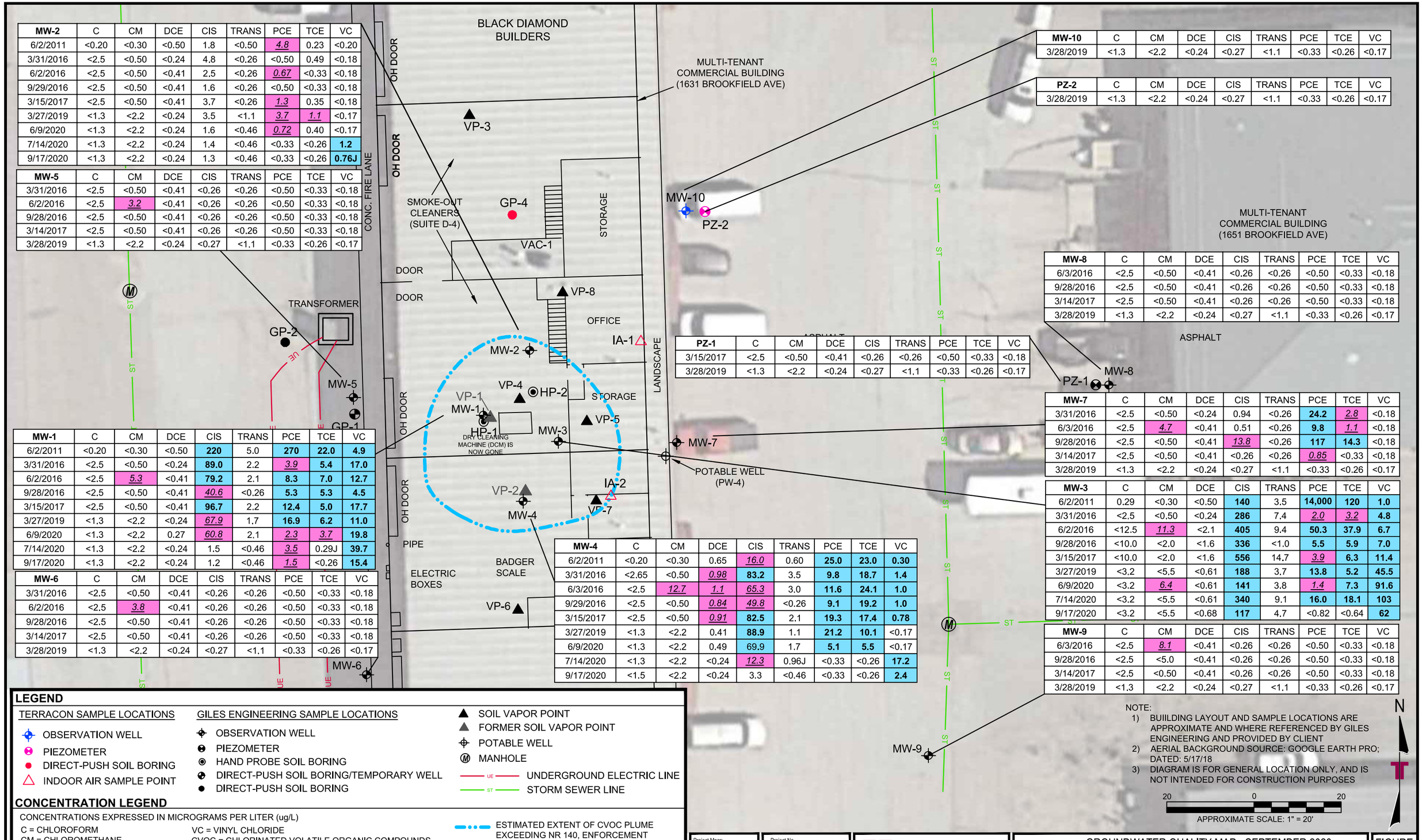
FIGURE 4
(FIG4 VQM)



MW-2	C	CM	DCE	CIS	TRANS	PCE	TCE	VC
6/2/2011	<0.20	<0.30	<0.50	1.8	<0.50	*4.8*	0.23	<0.20
3/31/2016	<2.5	<0.50	<0.24	4.8	<0.26	<0.50	0.49	<0.18
6/2/2016	<2.5	<0.50	<0.41	2.5	<0.26	*0.67*	<0.33	<0.18
9/29/2016	<2.5	<0.50	<0.41	1.6	<0.26	<0.50	<0.33	<0.18
3/15/2017	<2.5	<0.50	<0.41	3.7	<0.26	*1.3*	0.35	<0.18
3/27/2019	<1.3	<2.2	<0.24	3.5	<1.1	*3.7*	*1.1*	<0.17
6/9/2020	<1.3	<2.2	<0.24	1.6	<0.46	*0.72*	0.40	<0.17
7/14/2020	<1.3	<2.2	<0.24	1.4	<0.46	<0.33	<0.26	**1.2**
9/17/2020	<1.3	<2.2	<0.24	1.3	<0.46	<0.33	<0.26	**0.76J**

MW-5	C	CM	DCE	CIS	TRANS	PCE	TCE	VC
3/31/2016	<2.5	<0.50	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
6/2/2016	<2.5	*3.2*	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
9/28/2016	<2.5	<0.50	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
3/14/2017	<2.5	<0.50	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
3/28/2019	<1.3	<2.2	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17

MW-1	C	CM	DCE	CIS	TRANS	PCE	TCE	VC
6/2/2011	<0.20	<0.30	<0.50	**220**	5.0	**270**	**22.0**	**4.9**
3/31/2016	<2.5	<0.50	<0.24	**89.0**	2.2	*3.9*	**5.4**	**17.0**
6/2/2016	<2.5	*5.3*	<0.41	**79.2**	2.1	**8.3**	**7.0**	**12.7**
9/28/2016	<2.5	<0.50	<0.41	*40.6*	<0.26	**5.3**	**5.3**	**4.5**
3/15/2017	<2.5	<0.50	<0.41	**96.7**	2.2	**12.4**	**5.0**	**17.7**
3/27/2019	<1.3	<2.2	<0.24	*67.9*	1.7	**16.9**	**6.2**	**11.0**
6/9/2020	<1.3	<2.2	0.27	*60.8*	2.1	*2.3*	*3.7*	**19.8**
7/14/2020	<1.3	<2.2	<0.24	1.5	<0.46	*3.5*	0.29J	**39.7**
9/17/2020	<1.3	<2.2	<0.24	1.2	<0.46	*1.5*	<0.26	**15.4**

MW-6	C	CM	DCE	CIS	TRANS	PCE	TCE	VC
3/31/2016	<2.5	<0.50	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
6/2/2016	<2.5	*3.8*	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
9/28/2016	<2.5	<0.50	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
3/14/2017	<2.5	<0.50	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
3/28/2019	<1.3	<2.2	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17

MW-4	C	CM	DCE	CIS	TRANS	PCE	TCE	VC
6/2/2011	<0.20	<0.30	0.65	*16.0*	0.60	**25.0**	**23.0**	**0.30**
3/31/2016	<2.65	<0.50	*0.98*	**83.2**	3.5	**9.8**	**18.7**	**1.4**
6/3/2016	<2.5	*12.7*	*1.1*	*65.3*	3.0	**11.6**	**24.1**	**1.0**
9/29/2016	<2.5	<0.50	*0.84*	*49.8*	<0.26	**9.1**	**19.2**	**1.0**
3/15/2017	<2.5	<0.50	*0.91*	**82.5**	2.1	**19.3**	**17.4**	**0.78**
3/27/2019	<1.3	<2.2	0.41	**88.9**	1.1	**21.2**	**10.1**	<0.17
6/9/2020	<1.3	<2.2	0.49	69.9	1.7	**5.1**	**5.5**	<0.17
7/14/2020	<1.3	<2.2	<0.24	*12.3*	0.96J	<0.33	<0.26	**17.2**
9/17/2020	<1.5	<2.2	<0.24	3.3	<0.46	<0.33	<0.26	**2.4**

PZ-1	C	CM	DCE	CIS	TRANS	PCE	TCE	VC
3/15/2017	<2.5	<0.50	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
3/28/2019	<1.3	<2.2	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17

MW-10	C	CM	DCE	CIS	TRANS	PCE	TCE	VC
3/28/2019	<1.3	<2.2	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17

PZ-2	C	CM	DCE	CIS	TRANS	PCE	TCE	VC
3/28/2019	<1.3	<2.2	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17

MW-8	C	CM	DCE	CIS	TRANS	PCE	TCE	VC
6/3/2016	<2.5	<0.50	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
9/28/2016	<2.5	<0.50	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
3/14/2017	<2.5	<0.50	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
3/28/2019	<1.3	<2.2	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17

MW-7	C	CM	DCE	CIS	TRANS	PCE	TCE	VC
3/31/2016	<2.5	<0.50	<0.24	0.94	<0.26	**24.2**	*2.8*	<0.18
6/3/2016	<2.5	*4.7*	<0.41	0.51	<0.26	**9.8**	*1.1*	<0.18
9/28/2016	<2.5	<0.50	<0.41	*13.8*	<0.26	**117**	**14.3**	<0.18
3/14/2017	<2.5	<0.50	<0.41	<0.26	<0.26	*0.85*	<0.33	<0.18
3/28/2019	<1.3	<2.2	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17

MW-3	C	CM	DCE	CIS	TRANS	PCE	TCE	VC
6/2/2011	0.29	<0.30	<0.50	**140**	3.5	**14,000**	**120**	**1.0**
3/31/2016	<2.5	<0.50	<0.24	**286**	7.4	*2.0*	*3.2*	**4.8**
6/2/2016	<12.5	*11.3*	<2.1	**405**	9.4	**50.3**	**37.9**	**6.7**
9/28/2016	<10.0	<2.0	<1.6	**336**	<1.0	**5.5**	**5.9**	**7.0**
3/15/2017	<10.0	<2.0	<1.6	**556**	14.7	*3.9*	**6.3**	**11.4**
3/27/2019	<3.2	<5.5	<0.61	**188**	3.7	**13.8**	**5.2**	**45.5**
6/9/2020	<3.2	*6.4*	<0.61	**141**	3.8	*1.4*	**7.3**	**91.6**
7/14/2020	<3.2	<5.5	<0.61	**340**	9.1	**16.0**	**18.1**	**103**
9/17/2020	<3.2	<5.5	<0.68	**117**	4.7	<0.82	<0.64	**62**

MW-9	C	CM	DCE	CIS	TRANS	PCE	TCE	VC
6/3/2016	<2.5	*8.1*	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
9/28/2016	<2.5	<5.0	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
3/14/2017	<2.5	<0.50	<0.41	<0.26	<0.26	<0.50	<0.33	<0.18
3/28/2019	<1.3	<2.2	<0.24	<0.27	<1.1	<0.33	<0.26	<0.17

LEGEND

TERRACON SAMPLE LOCATIONS
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CONCENTRATION LEGEND

CONCENTRATIONS EXPRESSED IN MICROGRAMS PER LITER (ug/L)

C = CHLOROFORM
CM = CHLOROMETHANE
DCE = 1,1-DICHLOROETHENE
PCE = TETRACHLOROETHENE
TCE = TRICHLOROETHENE
CIS = cis-1,2 DICHLOROETHENE
TRANS = trans-1,2 DICHLOROETHENE
VC = VINYL CHLORIDE
CVOC = CHLORINATED VOLATILE ORGANIC COMPOUNDS

ITALICIZED, UNDERLINED AND PINK = EXCEEDS WAC, NR 140 ENFORCEMENT STANDARD (ES)
BOLD AND BLUE = EXCEEDS WAC, NR 140 PREVENTIVE ACTION LIMIT (PAL)

ESTIMATED EXTENT OF CVOC PLUME EXCEEDING NR 140, ENFORCEMENT STANDARD (JUNE 2021)

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

20 0 20
APPROXIMATE SCALE: 1" = 20'

Project Mngr:	SAH
Drawn By:	JLM (41)
Checked By:	SAH
Approved By:	SAH
Project No.	58187103
Scale:	AS SHOWN
File No.	58187103C1
Date:	10/2019

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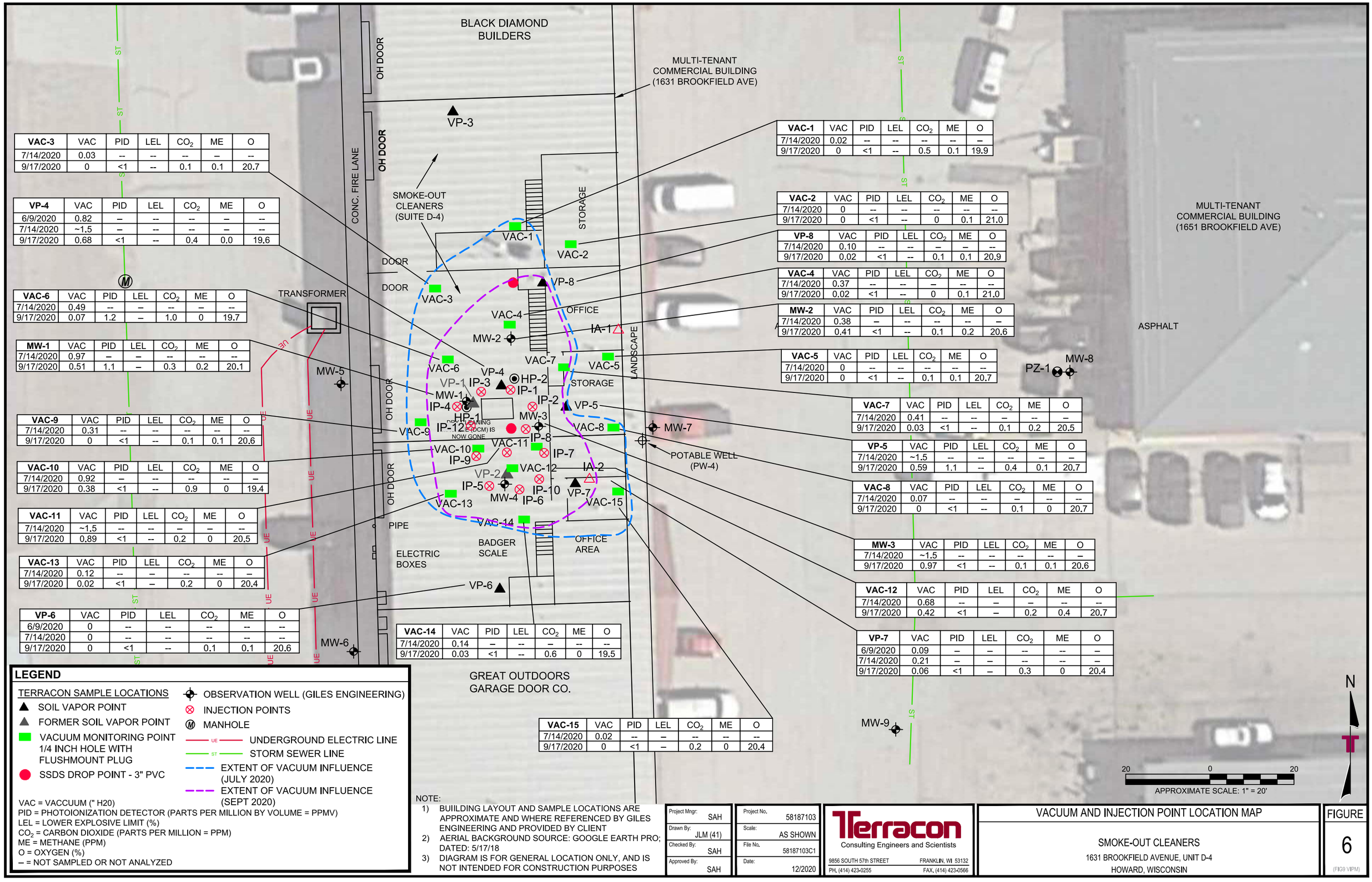
GROUNDWATER QUALITY MAP - SEPTEMBER 2020

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

FIGURE 5 (FIG5 GWQM)



VAC-3	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.03	--	--	--	–	--
9/17/2020	0	<1	--	0.1	0.1	20.7

VP-4	VAC	PID	LEL	CO_2	ME	O
6/9/2020	0.82	–	--	--	–	--
7/14/2020	~1.5	–	--	--	–	--
9/17/2020	0.68	<1	--	0.4	0.0	19.6

VAC-6	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.49	--	–	--	–	--
9/17/2020	0.07	1.2	–	1.0	0	19.7

MW-1	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.97	–	–	--	--	--
9/17/2020	0.51	1.1	–	0.3	0.2	20.1

VAC-9	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.31	--	--	--	--	--
9/17/2020	0	<1	--	0.1	0.1	20.6

VAC-10	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.92	–	--	--	--	–
9/17/2020	0.38	<1	--	0.9	0	19.4

VAC-11	VAC	PID	LEL	CO_2	ME	O
7/14/2020	~1.5	--	--	–	–	--
9/17/2020	0.89	<1	--	0.2	0	20.5

VAC-13	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.12	--	–	--	--	–
9/17/2020	0.02	<1	–	0.2	0	20.4

VP-6	VAC	PID	LEL	CO_2	ME	O
6/9/2020	0	--	--	--	--	--
7/14/2020	0	--	--	--	--	--
9/17/2020	0	<1	--	0.1	0.1	20.6

VAC-14	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.14	–	--	–	--	--
9/17/2020	0.03	<1	--	0.6	0	19.5

VAC-15	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.02	--	–	--	--	--
9/17/2020	0	<1	–	0.2	0	20.4

VAC-1	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.02	--	--	--	--	–
9/17/2020	0	<1	--	0.5	0.1	19.9

VAC-2	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0	--	--	--	--	--
9/17/2020	0	<1	--	0	0.1	21.0

VP-8	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.10	--	--	–	–	--
9/17/2020	0.02	<1	--	0.1	0.1	20.9

VAC-4	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.37	--	--	–	--	--
9/17/2020	0.02	<1	--	0	0.1	21.0

MW-2	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.38	–	--	--	--	–
9/17/2020	0.41	<1	--	0.1	0.2	20.6

VAC-5	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0	--	--	--	--	--
9/17/2020	0	<1	--	0.1	0.1	20.7

VAC-7	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.41	--	--	–	--	–
9/17/2020	0.03	<1	--	0.1	0.2	20.5

VP-5	VAC	PID	LEL	CO_2	ME	O
7/14/2020	~1.5	--	--	--	–	–
9/17/2020	0.59	1.1	--	0.4	0.1	20.7

VAC-8	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.07	--	--	–	--	--
9/17/2020	0	<1	--	0.1	0	20.7

MW-3	VAC	PID	LEL	CO_2	ME	O
7/14/2020	~1.5	--	--	--	--	–
9/17/2020	0.97	<1	--	0.1	0.1	20.6

VAC-12	VAC	PID	LEL	CO_2	ME	O
7/14/2020	0.68	--	–	–	--	--
9/17/2020	0.42	<1	–	0.2	0.4	20.7

VP-7	VAC	PID	LEL	CO_2	ME	O
6/9/2020	0.09	–	–	--	--	–
7/14/2020	0.21	–	–	--	--	–
9/17/2020	0.06	<1	–	0.3	0	20.4

LEGEND

TERRACON SAMPLE LOCATIONS
- SOIL VAPOR POINT
- FORMER SOIL VAPOR POINT
- VACUUM MONITORING POINT 1/4 INCH HOLE WITH FLUSHMOUNT PLUG
- SSDS DROP POINT - 3" PVC
- OBSERVATION WELL (GILES ENGINEERING)
- INJECTION POINTS
- MANHOLE
- UE — UNDERGROUND ELECTRIC LINE
- ST — STORM SEWER LINE
- EXTENT OF VACUUM INFLUENCE (JULY 2020)
- EXTENT OF VACUUM INFLUENCE (SEPT 2020)

VAC = VACCUUM (" H20)
PID = PHOTOIONIZATION DETECTOR (PARTS PER MILLION BY VOLUME = PPMV)
LEL = LOWER EXPLOSIVE LIMIT (%)
CO_2 = CARBON DIOXIDE (PARTS PER MILLION = PPM)
ME = METHANE (PPM)
O = OXYGEN (%)
– = NOT SAMPLED OR NOT ANALYZED

NOTE:
1) BUILDING 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

Project Mngr:	SAH
Drawn By:	JLM (41)
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Approved By:	SAH
Project No.	58187103
Scale:	AS SHOWN
File No.	58187103C1
Date:	12/2020

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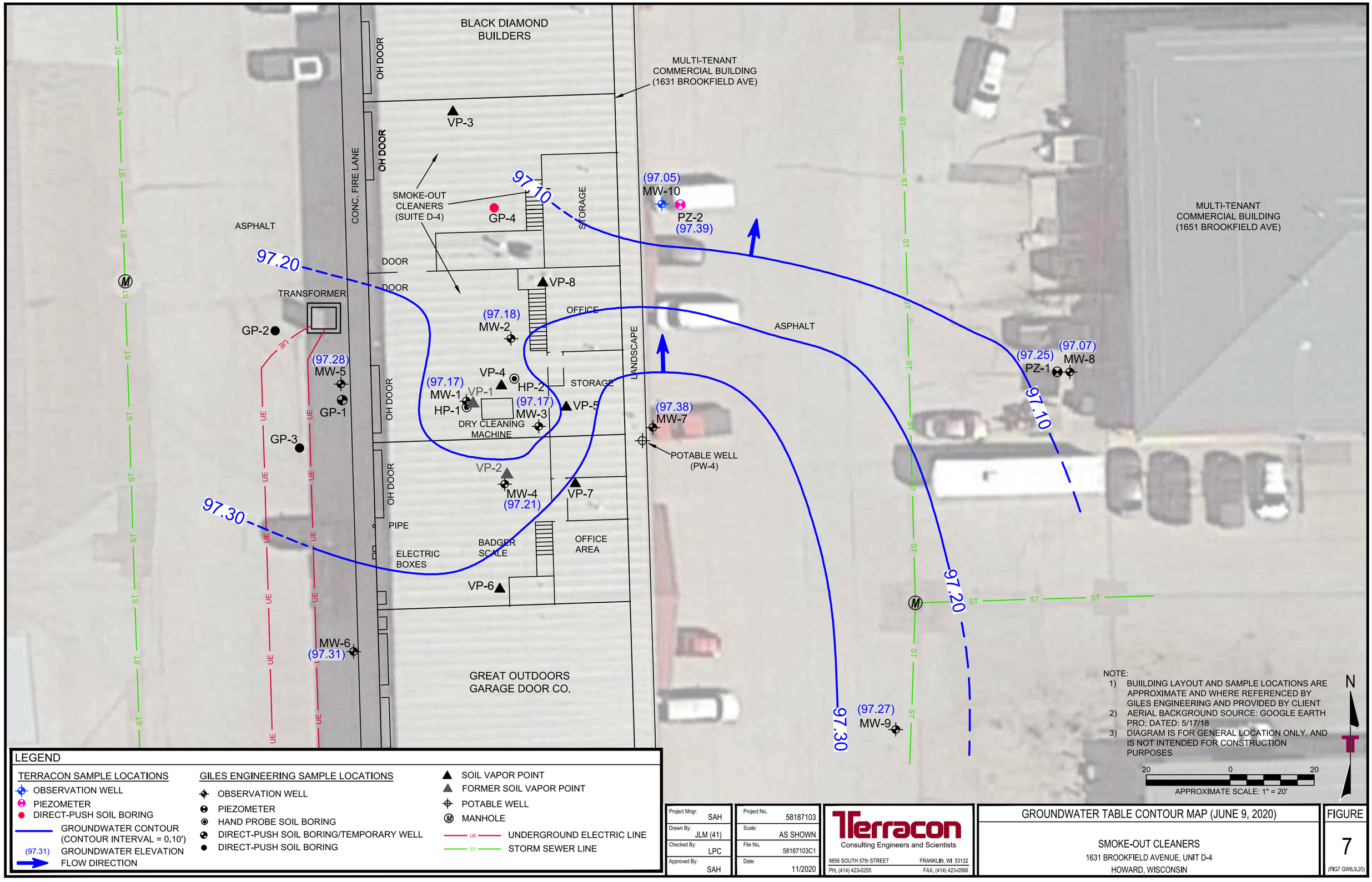
VACUUM AND INJECTION POINT LOCATION MAP

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

FIGURE 6 (FIG9 VIPM)



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
- GROUNDWATER CONTOUR (CONTOUR INTERVAL = 0.10')
- (97.31) GROUNDWATER ELEVATION
- FLOW DIRECTION

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:	LPC
Approved By:	SAH
Project No.	58187103
Scale:	AS SHOWN
File No.	58187103C1
Date:	11/2020

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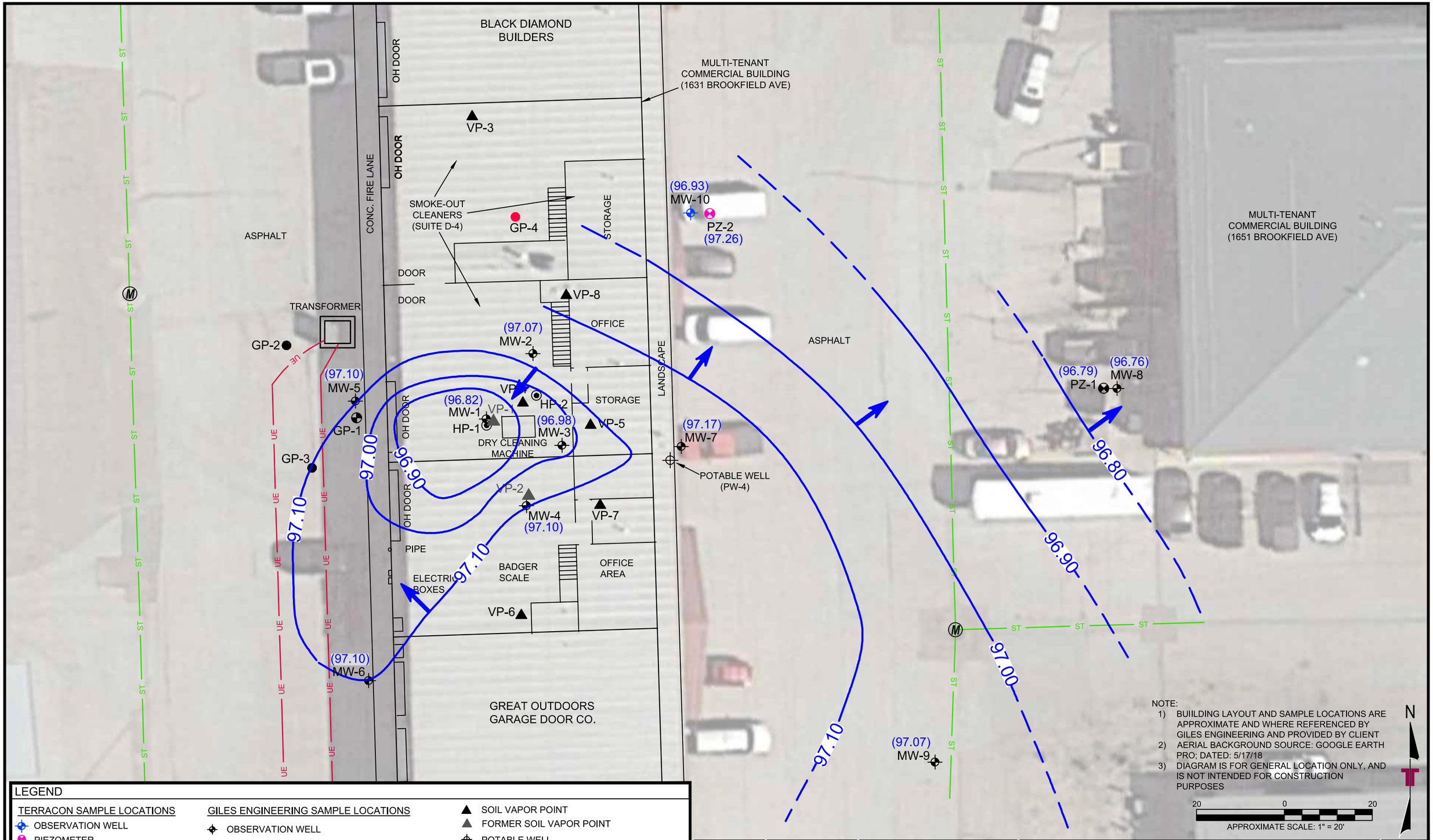
GROUNDWATER TABLE CONTOUR MAP (JUNE 9, 2020)

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

FIGURE 7
(FIG7 GW6.9.20)



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
- GROUNDWATER CONTOUR (CONTOUR INTERVAL = 0.10')
- (97.10) GROUNDWATER ELEVATION
- FLOW DIRECTION

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
- (M) MANHOLE
- UE UNDERGROUND ELECTRIC LINE
- ST STORM SEWER LINE

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

Project No.	58187103
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GROUNDWATER TABLE CONTOUR MAP (JULY 14, 2020)

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

FIGURE 8

(FIG8 GW7,14,20)

BLACK DIAMOND BUILDERS

MULTI-TENANT COMMERCIAL BUILDING (1631 BROOKFIELD AVE)

MULTI-TENANT COMMERCIAL BUILDING (1651 BROOKFIELD AVE)

ASPHALT

CONC. FIRE LANE

OH DOOR

SMOKE-OUT CLEANERS (SUITE D-4)

GP-4

STORAGE

DOOR

OFFICE

LANDSCAPE

TRANSFORMER

GP-2

GP-1

GP-3

MW-5 (96.66)

MW-2 (96.58)

VP-1

VP-2

VP-3

VP-4

VP-5

VP-6

VP-7

VP-8

HP-1

HP-2

MW-1 (96.55)

MW-3 (96.55)

DRY CLEANING MACHINE

MW-4 (96.56)

MW-6 (96.66)

MW-7 (96.75)

POTABLE WELL (PW-4)

PIPE

ELECTRIC BOXES

BADGER SCALE

OFFICE AREA

GREAT OUTDOORS GARAGE DOOR CO.

MW-10 (96.28)

PZ-2 (96.46)

PZ-1 (96.81)

MW-8 (96.64)

MW-9 (96.69)

96.30

96.40

96.50

96.60

96.70

UE

ST

M

NOTE:

1) BUILDING 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
- GROUNDWATER CONTOUR (CONTOUR INTERVAL = 0.10')
- (97.10) GROUNDWATER ELEVATION
- FLOW DIRECTION

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
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GROUNDWATER TABLE CONTOUR MAP (SEPTEMBER 17, 2020)

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

FIGURE 9

(FIG9 GW9.17.20)

APPENDIX B

TABLES 1-7

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
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
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

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
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
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
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
					06/03/16	2.60	97.09
					09/28/16	2.94	96.75
					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

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-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
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
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
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
	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
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

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
Soil Analytical Test Results Summary for VOCs

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

					CVOCs (µg/kg)					
Sample ID	**Sample Depth (Feet)**	**Sample Date**	**Saturated / Unsaturated**	**PID (ppmv)**	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-Dichloroethene (cis-DCE)	trans-1,2-Dichloroethene (trans-DCE)	Vinyl Chloride	Methylene chloride
Site Investigation- Giles										
HP-1	2-4	8/7/2008	Unsaturated	<5	*230*	<30	*330*	<30	<42	*60*
HP-2	2-4	8/7/2008	Unsaturated	<5	*49*	<29	*110*	<29	<41	<58
GP-1	2-4	8/7/2008	Saturated	<5	*180*	<29	<29	<29	<41	*100*
GP-2	2-3	6/1/2011	Saturated	<5	<28	<28	<28	<28	<28	<56
GP-3	2-3	6/1/2011	Saturated	<5	<29	<29	<29	<29	<29	<57
MW-2	2-3	6/1/2011	Unsaturated	<5	*250*	<29	<29	<29	<29	<57
MW-3	2-3	6/1/2011	Unsaturated	<5	*2,500*	<28	<28	<28	<28	<55
MW-4	2-3	6/1/2011	Unsaturated	<5	*60*	*29*	<27	<27	<27	<53
MW-5	0-2	3/30/2016	Unsaturated	<5	<25	<25	<25	<25	<25	<25
MW-6	0-2	3/30/2016	Unsaturated	<5	<25	<25	<25	<25	<25	<25
MW-7	0-2	3/30/2016	Unsaturated	<5	<25	<25	<25	<25	<25	<25
Supplemental Site Investigation- Terracon										
GP-4 (1)	1	3/19/2019	Unsaturated	<1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
PZ-2 (1)	1	3/19/2019	Unsaturated	<1	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Non-Industrial Direct Contact Residual Contaminant Level[1]					**33,000**	**1,300**	**156,000**	**1,560**	**0.067**	**61,800**
Industrial Direct Contact Residual Contaminant Level[2]					145,000	8,410	2,340,000	1,850	2.08	1,150,000
Soil to Groundwater Pathway Residual Contaminant Level[3]					*4.5*	*3.6*	*41.2*	*62.6*	*0.1*	*2.60*

Notes:

CVOC = Chlorinated Volatile Organic Compounds

PID = Photoionization Detector

ppmv = Parts per million by volume

Results expressed in micrograms per kilogram (µg/kg)

[1] Non-Industrial Residual Contaminant Levels (RCLs) for Direct Contact per Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator PUB-RR-890, dated January 2014 (WDNR spreadsheet input parameters updated December 2018).

[2] Industrial Residual Contaminant Levels (RCLs) for Direct Contact per Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator PUB-RR-890, dated January 2014 (with WDNR spreadsheet input parameters updated December 2018).

[3] Protection of Groundwater RCLs per Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator PUB-RR-890, dated January 2014 (with WDNR spreadsheet input parameters updated December 2018).

XX.XX = Exceeds Non-Industrial Direct Contact RCL

XX.XX = Exceeds Industrial Direct Contact RCL

XX.XX = Exceeds Soil to Groundwater Pathway RCL

TABLE 3
Vapor Analytical Test Results Summary: Sub-Slab

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)
VP-1	Smoke-Out South Garage	Small Commercial Sub-slab-30 minute	06/01/11	**12,000,000**	**24,000**	6,000	<59,000	<59,000	<38,000
VP-2	Badger Scale Garage	Small Commercial Sub-slab-30 minute	06/01/11	**3,100,000**	**6,000**	<16,000	<16,000	<16,000	<10,000
VP-3	Smoke-Out North Garage	Small Commercial Sub-slab-30 minute	03/30/16	2,010	<0.41	<0.37	<0.57	<0.35	<0.29
			06/03/16	2,870	3.2	1.8	<0.55	<0.34	<0.28
			09/29/16	5,960	75	55.2	<11.4	<7.1	<5.8
			03/15/17	<0.40	0.44	<0.35	<0.55	<0.34	<0.28
			10/25/17	3,050	<20.8	<26.4	<22.9	<18.4	<9.8
VP-4	Smoke-Out South Garage	Small Commercial Sub-slab-30 minute	03/30/16	**889,000**	**5,820**	6,080	<95.2	<59.0	<48.4
			06/03/16	**1,050,000**	**13,200**	12,000	28.9	<0.34	<0.28
			09/29/16	**1,280,000**	**36,400**	36,200	67.6	1.2	12.4
			03/15/17	**604,000**	**13,200**	12,600	54.8	<6.6	<5.4
			10/25/17	**564,000**	**6,010**	4,870	<21.2	<17.1	<9.1
VP-5	Smoke-Out Storage Area	Small Commercial Sub-slab-30 minute	03/30/16	**270,000**	**7,090**	11,800	119	<59.0	<48.4
			06/03/16	**196,000**	**12,000**	22,400	114	3.2	2.6
			09/29/16	**309,000**	**27,500**	39,100	238	<14.8	<12.1
			03/15/17	**93,700**	**7,040**	12,800	168	<6.9	9.6
			10/25/17	**162,000**	**7,580**	20,100	78.9	<17.1	<9.1
VP-6	Badger Scale Garage	Small Commercial Sub-slab-30 minute	03/30/16	3,540	12.5	5.0	<0.57	<0.35	<0.29
			06/03/16	497	0.68	0.74	<0.57	<0.35	<0.29
			09/29/16	1,140	<0.41	<0.37	<0.57	<0.35	<0.29
			03/15/17	2,670	<8.2	<7.3	<11.4	<7.1	<5.8
			10/25/17	2,600	<20.8	<26.4	<22.9	<18.4	<9.8
VP-7	Badger Scale Office/Storage Area	Small Commercial Sub-slab-30 minute	06/03/16	13,800	156	<0.40	<0.62	<0.38	<0.31
			09/29/16	**24,200**	**1,270**	16.5	0.99	<0.35	<0.29
			03/15/17	**16,200**	454	41.3	<10.7	<6.6	<5.4
			10/25/17	11,200	<20.0	<25.4	<22.0	<17.7	<9.4
VP-8	Smoke-Out Office	Small Commercial Sub-slab-30 minute	06/03/16	13,600	2.1	<0.38	<0.60	<0.37	<0.30
			09/29/16	**19,200**	7.1	<0.35	<0.55	<0.34	<0.28
			03/15/17	5,360	<7.9	<7.1	<11.1	<6.9	<5.6
			10/25/17	**11,200**	<20.0	<25.4	<22.0	<17.7	<9.4
Residential Indoor Air VAL[1] (µg/m3)				42	2.1	NE	42	210	1.7
Residential Sub-slab Vapor/Soil Gas VRSL[2] (µg/m3)				1,400	70	NE	1,400	7,000	57
Small Commercial Building Indoor Air VAL[1] (µg/m3)				*180*	*8.8*	NE	*180*	*880*	*28*
Small Commercial Building Sub-slab Vapor/Soil Gas VRSL[2] (µg/m3)				6,000	290	NE	5,800	29,000	930
Large Commercial/Industrial Building Indoor Air VAL[1] (µg/m3)				**180**	**8.8**	NE	**180**	**880**	**28**
Large Commercial/Industrial Building Sub-slab Vapor/Soil Gas VRSL[3] (µg/m3)				**18,000**	**880**	**NE**	**18,000**	**88,000**	**2,800**

Notes:
Results expressed in micrograms per cubic meter (ug/m³)
VAL = Vapor Action Limit
VRSL = Vapor Risk Screening Level
CVOCs = Chlorinated Volatile Organic Compounds
< = Not detected at or above the limit of detection (LOD)
NE = Standard not established, not calculated or not analyzed

[1] VALs are shown for information only and do not apply to sub-slab results. VAL given as the lesser of 1:100,000 lifetime cancer risk or noncancer hazard index of 1 value in generic U.S EPA Tables at the web address: http://www.epa.gov/re3hwmd/risk/human/rb-concentratio_table/Generic_Tables/index.htm and modifed for Wisconsin Vapor Intrusion Guildance PUB-RR-800 lifetime cancer risk (1:100,000) (Nov 2017)

[2] VRSL is the VAL adjusted for sub-slab vapor to indoor air by applying an attenuation factor of 0.03 for comparison with the analytical results.

[3] VRSL is the VAL adjusted for sub-slab vapor to indoor air by applying an attenuation factor of 0.01 for comparison with analytical results.

Blue-Shaded values indicate exceedance of applicable residential VRSLs (sub-slab)
Gray-Shaded values indicate exceedance of applicable small commercial VRSLs (sub-slab)
Bold, Red-Shaded values indicate exceedance of applicable Large commercial building VRSLs (sub-slab)

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)

TABLE 5
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**
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
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
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
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
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
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
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
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

TABLE 5
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	[illegible]
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-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	
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	
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	
PW-4	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 6
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	Conductivity (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
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
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
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	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
MW-5	03/28/19	5.16	7.30	465	59.1	0.52	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
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
MW-8	03/28/19	5.75	7.57	879	65.4	6.52	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
MW-10	03/28/19	3.89	8.12	1,539	130.1	9.39	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
PZ-2	03/28/19	8.50	7.93	775	56.7	5.00	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
NA = Not Analyzed

TABLE 7
Vacuum and Gas Monitoring Summary

Smokeout Cleaners
Howard WI, Wisconsin
Terracon Project No. 58187103

Location	Date	Vacuum (" H2O)	PID (ppmv)	Lower Explosive Limit (%)	Carbon Dioxide (ppm)	Methane (ppm)	Oxygen (%)
MW-1	7/14/2020	0.97	--	--	--	--	--
	9/17/2020	0.51	1.1	--	0.3	0.2	20.1
MW-2	7/14/2020	0.38	--	--	--	--	--
	9/17/2020	0.41	<1	--	0.1	0.2	20.6
MW-3	7/14/2020	~1.5	--	--	--	--	--
	9/17/2020	0.97	<1	--	0.1	0.1	20.6
MW-4	7/14/2020	0.79	--	--	--	--	--
MW-4	9/17/2020	0.40	18.7	--	0.1	0.6	20.7
VP-4	6/9/2020	0.82	--	--	--	--	--
VP-4	7/14/2020	~1.5	--	--	--	--	--
VP-4	9/17/2020	0.68	<1	--	0.4	0.0	19.6
VP-5	7/14/2020	~1.5	--	--	--	--	--
VP-5	9/17/2020	0.59	1.1	--	0.4	0.1	20.7
VP-6	6/9/2020	0	--	--	--	--	--
VP-6	7/14/2020	0	--	--	--	--	--
VP-6	9/17/2020	0	<1	--	0.1	0.1	20.6
VP-7	6/9/2020	0.09	--	--	--	--	--
VP-7	7/14/2020	0.21	--	--	--	--	--
VP-7	9/17/2020	0.06	<1	--	0.3	0	20.4
VP-8	7/14/2020	0.10	--	--	--	--	--
VP-8	9/17/2020	0.02	<1	--	0.1	0.1	20.9
VAC-1	7/14/2020	0.02	--	--	--	--	--
VAC-1	9/17/2020	0	<1	--	0.5	0.1	19.9
VAC-2	7/14/2020	0	--	--	--	--	--
VAC-2	9/17/2020	0	<1	--	0	0.1	21.0
VAC-3	7/14/2020	0.03	--	--	--	--	--
VAC-3	9/17/2020	0	<1	--	0.1	0.1	20.7
VAC-4	7/14/2020	0.37	--	--	--	--	--
VAC-4	9/17/2020	0.02	<1	--	0	0.1	21.0
VAC-5	7/14/2020	0	--	--	--	--	--
VAC-5	9/17/2020	0	<1	--	0.1	0.1	20.7
VAC-6	7/14/2020	0.49	--	--	--	--	--
VAC-6	9/17/2020	0.07	1.2	--	1.0	0	19.7
VAC-7	7/14/2020	0.41	--	--	--	--	--
VAC-7	9/17/2020	0.03	<1	--	0.1	0.2	20.5
VAC-8	7/14/2020	0.07	--	--	--	--	--
VAC-8	9/17/2020	0	<1	--	0.1	0	20.7
VAC-9	7/14/2020	0.31	--	--	--	--	--
VAC-9	9/17/2020	0	<1	--	0.1	0.1	20.6

TABLE 7
Vacuum and Gas Monitoring Summary

Smokeout Cleaners
Howard WI, Wisconsin
Terracon Project No. 58187103

VAC-10	**7/14/2020**	**0.92**	**--**	**--**	**--**	**--**	**--**
VAC-10	**9/17/2020**	**0.38**	**<1**	**--**	**0.9**	**0**	**19.4**
VAC-11	**7/14/2020**	**~1.5**	**--**	**--**	**--**	**--**	**--**
VAC-11	**9/17/2020**	**0.89**	**<1**	**--**	**0.2**	**0**	**20.5**
VAC-12	**7/14/2020**	**0.68**	**--**	**--**	**--**	**--**	**--**
VAC-12	**9/17/2020**	**0.42**	**<1**	**--**	**0.2**	**0.4**	**20.7**
VAC-13	**7/14/2020**	**0.12**	**--**	**--**	**--**	**--**	**--**
VAC-13	**9/17/2020**	**0.02**	**<1**	**--**	**0.2**	**0**	**20.4**
VAC-14	**7/14/2020**	**0.14**	**--**	**--**	**--**	**--**	**--**
VAC-14	**9/17/2020**	**0.03**	**<1**	**--**	**0.6**	**0**	**19.5**
VAC-15	**7/14/2020**	**0.02**	**--**	**--**	**--**	**--**	**--**
VAC-15	**9/17/2020**	**0**	**<1**	**--**	**0.2**	**0**	**20.4**
Southern Drop Point	**6/9/2020**	**4.0**	**--**	**--**	**--**	**--**	**--**
Southern Drop Point	**9/17/2020**	**2.5**	**59.8**	**--**	**0.2**	**1.9**	**18.9**

APPENDIX C

WPDES APPROVAL AND INJECTION SUMMARY REPORT

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Oshkosh Service Center
625 E CTY Y, Suite 700
Oshkosh WI 54901-9731

Tony Evers, Governor
Preston D. Cole, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

March 17, 2020

Mark Woppert
Smoke-Out Cleaners, LTD
535 Half Mile Road
Verona WI 53593

Subject: Infiltration/Injection Temporary Exemption Request for
Smoke-Out Cleaners, 1631 Brookfield Ave, Unit D-4, Howard, WI
WDNR BRRTS Activity # 02-05-552214
WPDES FIN# 70751

Dear Mr. Woppert:

The purpose of this letter is to provide a temporary exemption for the injection of a remedial material into groundwater. A request for a temporary exemption to inject Regenesis products 3DMe®, BDI Plus®, and S-MicroZVI™ into groundwater at the Smoke-Out Cleaners site was received from your consultant, Scott Hodgson of Terracon, on February 21, 2020. The request for a WPDES General Permit for Contaminated Groundwater from Remedial Action Operations was included as part of the submittal. A review fee of $700 was submitted on February 21, 2020. This temporary exemption is intended to provide assurances to Smoke-Out Cleaners, LTD that the environmental cleanup being conducted in response to a release of contaminants on the Property is being conducted in accordance with s. 292.12, Wis. Stats.

This site is a dry cleaner located in a multi-tenant building with slab on grade construction. Shallow soils at the site are composed of fine to medium grained sand with a shallow water table of 2.5-4.5 feet below grade. This injection of Regenesis products 3DMe®, BDI Plus®, and S-MicroZVI™ is intended to reduce dissolved phase contamination in the shallow groundwater. Injection will take place at 10 injection points with approximately 215 gallons of amendment solution used at each injection point.

Determination on the NR 812 Injection Prohibition:
The injection prohibition under s. NR 812.05, Wis. Adm. Code, is not applicable in this case because the proposed action is a Department-approved activity necessary for the remediation of groundwater. This letter serves as your approval from the Department to inject Regenesis products 3DMe®, BDI Plus®, and S-MicroZVI™, to treat chlorinated solvents in groundwater, in accordance with this temporary exemption.

NR 140 Temporary Exemption:
Department approval is hereby granted to Smoke-Out Cleaners, Ltd. for the injection of Regenesis products 3DMe®, BDI Plus®, and S-MicroZVI™ to groundwater on the Smoke-Out Cleaners,Ltd property, with certain terms and conditions. The expiration date of this temporary exemption shall be 2 (two) years from the date of this letter.

The need to obtain a temporary exemption for the injection of a remedial material for which a groundwater quality standard has not been established is required under s. NR 140.28 (1) (d), Wis. Adm. Code. Based on the information provided by your consultant, it appears the requirements for a temporary exemption for the injection of a remedial material for which a groundwater quality standard has not been established under s. NR 140.28 (1) (d) have been or will be met, in accordance with s. NR 140.28 (5) (c) and (d), Wis. Adm. Code.

Department approval is granted with the following terms and conditions:

A. General:

1. The remedial action for restoring contaminated groundwater or soil, and any infiltrated or injected contaminated water and remedial materials, shall achieve the applicable response objectives required by s. NR 140.24 (2) or s. NR 140.26 (2), Wis. Adm. Code, within a reasonable period of time.
2. The type, concentration and volume of substances or remedial material to be infiltrated or injected shall be minimized to the extent that is necessary for restoration of the contaminated groundwater.
3. Any infiltration or injection of contaminated water or remedial material into groundwater shall not significantly increase the threat to public health or welfare, or to the environment.
4. No uncontaminated or contaminated groundwater, substance or remedial material shall be infiltrated or injected into an area where a floating non-aqueous liquid is present in the contaminated groundwater.
5. There shall be no expansion of soil or groundwater contamination, or migration of any infiltrated or injected contaminated water or remedial material, beyond the edge of previously contaminated areas, except that infiltration or injection into previously uncontaminated areas may be allowed if the Department determines that expansion into adjacent, previously uncontaminated areas is necessary for the restoration of the contaminated groundwater, and the requirements of s. NR 140.18 (1), Wis. Adm. Code will be met.
6. All necessary federal, state and local licenses, permits and other approvals are obtained and compliance with all applicable environmental protection requirements is required. A WPDES general permit for Discharge of Contaminated Groundwater from Remedial Action Operations is required for this action.

B. Specific:

7. The remedial materials to be injected to the groundwater shall be limited to Regenesis products 3DMe®, BDI Plus®, and S-MicroZVI™ and water.
8. The remedial material and injection project shall be as described in the January 9, 2020 Terracon report titled *Technical Review Request: Supplemental Site Investigation and Remedial Action Plan Report*.
9. Terracon shall notify the Department of field activities no less than one (1) week before implementation.
10. In the monitoring plan, include screening for soil vapor as a best management practice.
11. Remediation progress reports shall be submitted with the semi-annual progress reports. The progress reports shall include the groundwater monitoring results. The first report should be submitted not more than 180 days after the first injection. Recommendations as to the next phase of sampling and/or the need for additional treatment shall be included in a future report. This report shall be submitted as soon as the necessary information is available, and must be submitted prior to the expiration date of this temporary approval.
12. Any significant changes based on information from the injection groundwater monitoring reports or results shall be submitted to the Department for approval prior to the changes being implemented at the Smoke-Out Cleaners site. This includes, but is not limited to, adjustments to the volume/mass of the media injected, additional injection points, number of injection events, and/or changes in the type of remediation media used in the injection points.
13. Modifications to the sampling schedule may be requested.
14. In the event of future injection activities, the responsible party may apply for an extension of this approval. A request for an extension of this approval must be received by the Department before the expiration date.
15. Any permit extension approvals will be dependent on WI DNR review of site-specific data or any other information it deems necessary.
16. Upon completion of the project, the injection holes must be abandoned in accordance with s. NR 141.25, Wis. Adm. Code, and later topped off with grout or native soils if settling occurs, unless converted to NR 141 complying monitoring wells, or an alternative approved by the DNR Project Manager.

Monitoring Conditions:

1. That the actual volume injected be recorded on an hourly basis for each day of the project.
2. That baseline monitoring be performed prior to the first injection event, for the following groundwater parameters, at the following wells:
    a. VOCs, methane, ethane/ethene, total organic carbon, dissolved iron and manganese, sulfate, dissolved oxygen, oxygen reduction potential, and pH.

   b. at monitoring wells: MW-1, MW-2, MW-3 and MW-4
3. That after completion of the injection phase of the remedial action (between 30 to 40 days), all monitoring wells be sampled for the parameters listed in #2.a.
4. That a Site Specific Health and Safety Plan be followed.
5. That the injection is performed at less than 100 psi at a rate which prohibits solution mounding in the aquifer, and plume disfigurement.

Failure to adhere to the provisions of this temporary exemption may result in the Department requiring revisions to the remedial action design, operation or monitoring procedures, or the revocation of this exemption and the implementation of an alternative remedial action to restore soil or groundwater quality, or both.

WPDES Permit

Your proposed discharge is eligible for coverage under the general Wisconsin Pollutant Discharge Elimination System (WPDES) permit WI_0046566-06 for Discharge of Contaminated Groundwater from Remedial Action Operations. You are responsible for compliance with the conditions contained in this permit. The permit and factsheet can be downloaded from the DNR website at http://dnr.wi.gov/topic/wastewater/GeneralPermits.html. The amended water will be discharged to the groundwater. No pollutants shall be injected into the groundwater, with the exception of those present in the groundwater which will be extracted from the site.

Discharges under this permit are required to be consistent with a discharge management plan that has been approved by the Department. Your plan, titled *Technical Review Request: Supplemental Site Investigation and Remedial Action Plan Report* dated January 9, 2020 will be considered as the required discharge management plan. The analysis results would indicate that monitoring is required for all parameters from ch. NR 140, Tables 1 – 3, detected in the discharge, as specified in part 2.3 of the WPDES permit.

Treatment will be provided by injection of Regenesis products 3DMe®, BDI Plus®, and S-MicroZVI™ into groundwater. The Regenesis products 3DMe®, BDI Plus®, and S-MicroZVI™ will be discharged to the groundwater. Any significant system changes will require Department approval.
The Department hereby authorizes your pollutant discharge under the general WPDES permit for Discharge of Contaminated Groundwater from Remedial Action Operations, (WI-0046566-6). The following conditions are highlighted for your information:

Monitoring and Reporting Conditions:

Note: These monitoring conditions are in addition to monitoring required by the RR Program for evaluation of remedial action effectiveness.

1. That after completion of the injection phase, quarterly monitoring shall continue for one year from injection completion, with sample collection and analysis completed according to #2 above (baseline monitoring) and the requirements of the accompanying WPDES discharge permit for this site.
2. The discharge limits which must be met are included in the permit as follows:
   a. Section 5 of the General Permit
3. The monitoring results shall be sent to David Haas using the DMRS form.

Notice of Appeal Rights for WPDES General Permit:

Section 283.35, Wisconsin Statutes, authorizes the Department to issue general permits for discharges from categories or classes of point sources. If a permittee believes coverage of a facility under a general WPDES permit is not appropriate, the permittee may apply for issuance of an individual WPDES permit pursuant to section 283.35 (2) and may petition the Department for withdrawal of coverage under the general permit. The individual permit application should indicate which site specific factors would justify alternate WPDES limits for the operation. Issuance of such a site specific WPDES permit will provide for a 30 day public comment period, and potentially a public informational hearing and/or an adjudicatory hearing. The Department may withdraw a facility from coverage under a general permit if it is determined that a discharge is a significant contributor of pollutants to waters of Wisconsin, or in certain other cases set out in s. 283.35, Stats. In lieu of general permit withdrawal, the Department may refer any violation of this permit to the Department of Justice for enforcement under s. 283.89,

Stats. In order to avoid any enforcement action, please read the WPDES permit carefully and comply with the permit requirements.

If you believe you have a right to challenge the Department decision to cover this facility with a WPDES general permit, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. To request a contested case hearing pursuant to section 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. Such a petition should identify pollutant(s) that are believed to be not appropriately regulated by the general permit for the specific site. All requests for contested case hearings must be made in accordance with section NR 2.05 (5), Wis. Adm. Code, and served on the Secretary in accordance with section NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the time period for filing a petition for judicial review.

For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. A petition for judicial review must name the Department of Natural Resources as the respondent.

If you have any questions regarding this letter, please contact me at 920-424-7890 or kevin.mcknight@wisconsin.gov.

Sincerely,

Kevin D. McKnight
Hydrogeologist
Remediation & Redevelopment Program

Cc: Scott Hodgson, Terracon (Scott.Hodgson@terracon.com)
Al Morin (atrailside@aol.com)
Don Gallo (dgallo@axley.com)
Brian Austin, DNR – via email
Bill Phelps, DNR – via email
David Haas, DNR -via email

Injection Summary Report

Smokeout Cleaners
Howard WI, Wisconsin
Terracon Project No. 58187103

Location	Date	Injection Interval (feet)	Start Time	End Time	Volume Injected (Gallons)	Average Pressure (PSI)
IP-1	7/14/2020	8-7	9:55AM	9:57 AM	~28	45
		7-6	9:57AM	9:58 AM	~28	28
		6-5	9:58 AM	10:04 AM	~28	13
		5-4	10:04 AM	10:08 AM	~28	13
		4-3	10:08 AM	10:10 AM	~28	11
		3-2	10:10 AM	10:13 AM	~28	10
IP-2	7/14/2020	8-7	10:39 AM	10:44 AM	~28	21
		7-6	10:44 AM	10:46 AM	~28	18
		6-5	11:00 AM	11:10 AM	~28	6
		5-4	11:10 AM	11:19 AM	~28	6
		4-3	11:19 AM	11:28 AM	~28	6
		3-2	11:28 AM	11:36 AM	~28	6
IP-3	7/14/2020	8-7	11:43 AM	11:50 AM	~28	15
		7-6	11:50 AM	11:55 AM	~28	7
		6-5	11:55 AM	12:00 PM	~28	6
		5-4	12:00 PM	12:05 PM	~28	6
		4-3	12:05 PM	12:12 PM	~28	5
		3-2	12:12 PM	12:20 PM	~28	5
IP-4	7/14/2020	8-7	12:47 PM	12:54 PM	~16	15
		7-6	12:54 PM	12:59 PM	~16	7
		6-5	12:59 PM	1:04 PM	~16	6
		5-4	1:04 PM	1:09 PM	~16	6
		4-3	1:09 PM	1:13 PM	~16	5
		3-2	1:13 PM	1:20 PM	~16	5
IP-5	7/14/2020	8-7	1:52 PM	1:54 PM	~16	26
		7-6	1:54 PM	1:56 PM	~16	14
		6-5	1:56 PM	1:58 PM	~16	10
		5-4	1:58 PM	2:00 PM	~16	10
		4-3	2:00 PM	2:02 PM	~16	9
		3-2	2:02 PM	2:04 PM	~16	8
IP-6	7/14/2020	8-7	2:26 PM	2:28 PM	~14	27
		7-6	2:28 PM	2:29 PM	~14	22
		6-5	2:29 PM	2:31 PM	~14	20
		5-4	2:31 PM	2:36 PM	~14	12
		4-3	2:36 PM	2:38 PM	~14	9
		3-2	2:38 PM	2:40 PM	~14	7
IP-7	7/14/2020	8-7	3:09 PM	3:12 PM	~14	17
		7-6	3:12 PM	3:15 PM	~14	13
		6-5	3:15 PM	3:17 PM	~14	7
		5-4	3:17 PM	3:22 PM	~14	7
		4-3	3:22 PM	3:24 PM	~14	7
		3-2	3:24 PM	3:28 PM	~14	7

IP-8	7/14/2020	8-7	3:54 PM	3:57 PM	~14	18
		7-6	3:57 PM	3:59 PM	~14	10
		6-5	3:59 PM	4:02 PM	~14	9
		5-4	4:02 PM	4:05 PM	~14	8
		4-3	4:05 PM	4:10 PM	~14	8
		3-2	4:10 PM	4:13 PM	~14	7
IP-9	7/15/2020	8-7	9:35 AM	9:37 AM	~14	22
		7-6	9:37 AM	9:40 AM	~14	17
		6-5	9:40 AM	9:43 AM	~14	12
		5-4	9:43 AM	9:45 AM	~14	11
		4-3	9:45 AM	9:50 AM	~14	9
		3-2	9:50 AM	9:53 AM	~14	8
IP-10	7/15/2020	8-7	10:23 AM	10:27 AM	~14	19
		7-6	10:27 AM	10:30 AM	~14	10
		6-5	10:30 AM	10:32 AM	~14	10
		5-4	10:32 AM	10:35 AM	~14	11
		4-3	10:35 AM	10:41 AM	~14	8
		3-2	10:41 AM	10:44 AM	~14	8
IP-11	7/15/2020	8-7	11:09 AM	11:13 AM	~9	12
		7-6	11:13 AM	11:16 AM	~9	10
		6-5	11:16 AM	11:20 AM	~9	8
		5-4	11:20 AM	11:23 AM	~9	6
		4-3	11:23 AM	11:27 AM	~9	6
		3-2	11:27 AM	11:30 AM	~9	6
IP-12	7/15/2020	8-7	11:55 AM	11:59 AM	~9	13
		7-6	11:59 AM	12:13 PM	~9	10
		6-5	12:13 PM	12:19 PM	~9	8
		5-4	12:19 PM	12:23 PM	~9	8
		4-3	12:23 PM	12:30 PM	~9	8
		3-2	12:30 PM	12:35 PM	~9	7

Injection Summary Report

Smoke-Out Cleaners
Howard, Wisconsin
Terracon No. 58187103
Injection Monitoring Log-June 2020
MW-1

Date	Time	Static Water Level	Temp. (C)	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	pH	PID	%CH4	%CO2	%O2	LEL	Comments
6/10/2020	810	2.53					0.2	0	0.8	19.6		SSDS on
6/10/2020	1017	1.83										after IP-1
6/10/2020	1042	2.12										after IP-2
6/10/2020	1221	Surface										after IP-3
6/10/2020	1324	Surface										after IP-4
6/10/2020	1406	1.11										after IP-5
6/10/2020	1442	1.39										after IP-6
6/10/2020	1615	1.53										after IP-8
6/11/2020	806	2.32										before injecting
6/11/2020	1047	1.76										after IP-10
6/11/2020	1240	1.42										after IP-12

Injection Summary Report

Smoke-Out Cleaners

Howard, Wisconsin

Terracon No. 58187103

Injection Monitoring Log-June 2020

MW-2

Date	Time	Static Water Level	Temp. (C)	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	pH	PID	%CH4	%CO2	%O2	LEL	Comments
6/10/2020	803	2.65					0	0	0.5	20.1		SSDS on
6/10/2020	1017	1.89										after IP-1
6/10/2020	1041	2.21										after IP-2
6/10/2020	1221	1.43										after IP-3
6/10/2020	1324	1.69										after IP-4
6/10/2020	1406	1.76										after IP-5
6/10/2020	1442	1.97										after IP-6
6/10/2020	1615	2.03										after IP-8
6/11/2020	806	2.43										before injecting
6/11/2020	1047	2.23										after IP-10
6/11/2020	1240	1.91										after IP-12

Injection Summary Report

Smoke-Out Cleaners

Howard, Wisconsin

Terracon No. 58187103

Injection Monitoring Log-June 2020

MW-3

Date	Time	Static Water Level	Temp. (C)	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	pH	PID	%CH4	%CO2	%O2	LEL	Comments
6/10/2020	815	2.51					2.9	0	0.3	20		SSDS on
6/10/2020	1017	2.06										after IP-1
6/10/2020	1041	2.13										after IP-2
6/10/2020	1221	1.72										after IP-3
6/10/2020	1324	1.91										after IP-4
6/10/2020	1406	1.89										after IP-5
6/10/2020	1442	1.21										after IP-6
6/10/2020	1615	1.01										after IP-8
6/11/2020	806	2.36										before injecting
6/11/2020	1047	1.7										after IP-10
6/11/2020	1240	1.96										after IP-12

Injection Summary Report

Smoke-Out Cleaners

Howard, Wisconsin

Terracon No. 58187103

Injection Monitoring Log-June 2020

MW-4

Date	Time	Static Water Level	Temp. (C)	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	pH	PID	%CH4	%CO2	%O2	LEL	Comments
6/10/2020	822	2.46					2.9	0	0.3	20		SSDS on
6/10/2020	1018	2.13										after IP-1
6/10/2020	1041	2.14										after IP-2
6/10/2020	1222	2.25										after IP-3
6/10/2020	1324	2.27										after IP-4
6/10/2020	1406	Surface										after IP-5
6/10/2020	1442	Surface										after IP-6
6/10/2020	1615	Surface										after IP-8
6/11/2020	806	2.36										before injecting
6/11/2020	1047	Surface										after IP-10
6/11/2020	1240	2.02										after IP-12

APPENDIX D

BOREHOLE ABANDONMENT FORMS

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Brown	___ ___ ___ ___ ___	

Latitude / Longitude (see instructions) _____ N _____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #			N	☐ E ☐ W

Well Street Address

Well City, Village or Town	Well ZIP Code

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
	___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Smoke-Out Cleaners
Facility ID (FID or PWS)
License/Permit/Monitoring #
Original Well Owner
Present Well Owner
Mailing Address of Present Owner

City of Present Owner	State	ZIP Code

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well IP-1
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): June 10-11, 2020
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct-push

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
8	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2"	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☒ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Hydraulic Cement	Surface	0.5	1/4 bag	
Bentonite chips	0.5	8	1/4 bag	

6. Comments

Soil boring driven to 8 feet bgs, then injection with remediation amendment.Post injection, the soil boring was abandoned.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Terracon		6/11/2020

Street or Route	Telephone Number
9856 s. 57th street	(414) 423-0255

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Franklin	WI	53132		1/4/2020

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Brown	___ ___ ___ ___ ___	

Latitude / Longitude (see instructions) _____ N _____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #			N	☐ E ☐ W

Well Street Address

Well City, Village or Town	Well ZIP Code

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
	___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Smoke-Out Cleaners
Facility ID (FID or PWS)
License/Permit/Monitoring #
Original Well Owner
Present Well Owner
Mailing Address of Present Owner

City of Present Owner	State	ZIP Code

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well IP-2
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): June 10-11, 2020
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct-push

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
8	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2"	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☒ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Hydraulic Cement	Surface	0.5	1/4 bag	
Bentonite chips	0.5	8	1/4 bag	

6. Comments

Soil boring driven to 8 feet bgs, then injection with remediation amendment.Post injection, the soil boring was abandoned.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Terracon		6/11/2020

Street or Route	Telephone Number
9856 s. 57th street	(414) 423-0255

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Franklin	WI	53132		1/4/2020

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Brown	___ ___ ___ ___ ___	

Latitude / Longitude (see instructions) _____ N _____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #			N	☐ E ☐ W

Well Street Address

Well City, Village or Town	Well ZIP Code

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
	___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Smoke-Out Cleaners
Facility ID (FID or PWS)
License/Permit/Monitoring #
Original Well Owner
Present Well Owner
Mailing Address of Present Owner

City of Present Owner	State	ZIP Code

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well IP-3
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): June 10-11, 2020
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct-push

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
8	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2"	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☒ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Hydraulic Cement	Surface	0.5	1/4 bag	
Bentonite chips	0.5	8	1/4 bag	

6. Comments

Soil boring driven to 8 feet bgs, then injection with remediation amendment.Post injection, the soil boring was abandoned.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Terracon		6/11/2020

Street or Route	Telephone Number
9856 s. 57th street	(414) 423-0255

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Franklin	WI	53132		1/4/2020

DNR Use Only

Date Received	Noted By

Comments

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dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Brown	___ ___ ___ ___ ___	

Latitude / Longitude (see instructions) _____ N _____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #			N	☐ E ☐ W

Well Street Address

Well City, Village or Town	Well ZIP Code

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
	___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Smoke-Out Cleaners
Facility ID (FID or PWS)
License/Permit/Monitoring #
Original Well Owner
Present Well Owner
Mailing Address of Present Owner

City of Present Owner	State	ZIP Code

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well IP-4
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): June 10-11, 2020
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct-push

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
8	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2"	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☒ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Hydraulic Cement	Surface	0.5	1/4 bag	
Bentonite chips	0.5	8	1/4 bag	

6. Comments

Soil boring driven to 8 feet bgs, then injection with remediation amendment.Post injection, the soil boring was abandoned.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Terracon		6/11/2020

Street or Route	Telephone Number
9856 s. 57th street	(414) 423-0255

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Franklin	WI	53132		1/4/2020

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Brown	___ ___ ___ ___ ___	

Latitude / Longitude (see instructions) _____ N _____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #			N	☐ E ☐ W

Well Street Address

Well City, Village or Town | Well ZIP Code

Subdivision Name | Lot #

Reason for Removal from Service | WI Unique Well # of Replacement Well ___ ___ ___ ___ ___

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well IP-5
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): June 10-11, 2020

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct-push

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
8	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2"	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

2. Facility / Owner Information

Facility Name: Smoke-Out Cleaners

Facility ID (FID or PWS)

License/Permit/Monitoring #

Original Well Owner

Present Well Owner

Mailing Address of Present Owner

City of Present Owner	State	ZIP Code

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☒ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Hydraulic Cement	Surface	0.5	1/4 bag	
Bentonite chips	0.5	8	1/4 bag	

6. Comments

Soil boring driven to 8 feet bgs, then injection with remediation amendment.Post injection, the soil boring was abandoned.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Terracon		6/11/2020

Street or Route	Telephone Number
9856 s. 57th street	(414) 423-0255

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Franklin	WI	53132		1/4/2020

DNR Use Only

Date Received	Noted By
Comments	

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Brown	___ ___ ___ ___ ___	

Latitude / Longitude (see instructions) _____ N _____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #			N	☐ E ☐ W

Well Street Address

Well City, Village or Town	Well ZIP Code

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
	___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Smoke-Out Cleaners
Facility ID (FID or PWS)
License/Permit/Monitoring #
Original Well Owner
Present Well Owner
Mailing Address of Present Owner

City of Present Owner	State	ZIP Code

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well IP-6
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): June 10-11, 2020
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct-push

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
8	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2"	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☒ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Hydraulic Cement	Surface	0.5	1/4 bag	
Bentonite chips	0.5	8	1/4 bag	

6. Comments

Soil boring driven to 8 feet bgs, then injection with remediation amendment.Post injection, the soil boring was abandoned.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Terracon		6/11/2020

Street or Route	Telephone Number
9856 s. 57th street	(414) 423 0275

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Franklin	WI	53132		1/4/2020

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Brown	___ ___ ___ ___ ___	

Latitude / Longitude (see instructions) _____ N _____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #			N	☐ E ☐ W

Well Street Address

Well City, Village or Town	Well ZIP Code

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
	___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Smoke-Out Cleaners
Facility ID (FID or PWS)
License/Permit/Monitoring #
Original Well Owner
Present Well Owner
Mailing Address of Present Owner

City of Present Owner	State	ZIP Code

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well IP-7
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): June 10-11, 2020
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct-push

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
8	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2"	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☒ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Hydraulic Cement	Surface	0.5	1/4 bag	
Bentonite chips	0.5	8	1/4 bag	

6. Comments

Soil boring driven to 8 feet bgs, then injection with remediation amendment.Post injection, the soil boring was abandoned.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Terracon		6/11/2020

Street or Route	Telephone Number
9856 s. 57th street	(414) 423-0255

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Franklin	WI	53132		1/4/2020

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Brown	___ ___ ___ ___ ___	

Latitude / Longitude (see instructions) _____ N _____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #			N	☐ E ☐ W

Well Street Address

Well City, Village or Town	Well ZIP Code

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
	___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Smoke-Out Cleaners
Facility ID (FID or PWS)
License/Permit/Monitoring #
Original Well Owner
Present Well Owner
Mailing Address of Present Owner

City of Present Owner	State	ZIP Code

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well IP-8
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): June 10-11, 2020
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct-push

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
8	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2"	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☒ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Hydraulic Cement	Surface	0.5	1/4 bag	
Bentonite chips	0.5	8	1/4 bag	

6. Comments

Soil boring driven to 8 feet bgs, then injection with remediation amendment.Post injection, the soil boring was abandoned.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Terracon		6/11/2020

Street or Route	Telephone Number
9856 s. 57th street	(414) 423-0235

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Franklin	WI	53132		1/4/2020

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Brown	___ ___ ___ ___ ___	

Latitude / Longitude (see instructions) _____ N _____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #			N	☐ E ☐ W

Well Street Address

Well City, Village or Town	Well ZIP Code

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
	___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Smoke-Out Cleaners
Facility ID (FID or PWS)
License/Permit/Monitoring #
Original Well Owner
Present Well Owner
Mailing Address of Present Owner

City of Present Owner	State	ZIP Code

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well IP-9
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): June 10-11, 2020
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct-push

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
8	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2"	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☒ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Hydraulic Cement	Surface	0.5	1/4 bag	
Bentonite chips	0.5	8	1/4 bag	

6. Comments

Soil boring driven to 8 feet bgs, then injection with remediation amendment.Post injection, the soil boring was abandoned.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Terracon		6/11/2020

Street or Route	Telephone Number
9856 s. 57th street	(414) 423-0255

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Franklin	WI	53132		1/4/2020

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Brown	___ ___ ___ ___ ___	

Latitude / Longitude (see instructions) _____ N _____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #			N	☐ E ☐ W

Well Street Address

Well City, Village or Town	Well ZIP Code

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
	___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Smoke-Out Cleaners
Facility ID (FID or PWS)
License/Permit/Monitoring #
Original Well Owner
Present Well Owner
Mailing Address of Present Owner

City of Present Owner	State	ZIP Code

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well IP-10
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): June 10-11, 2020
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct-push

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
8	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2"	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☒ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Hydraulic Cement	Surface	0.5	1/4 bag	
Bentonite chips	0.5	8	1/4 bag	

6. Comments

Soil boring driven to 8 feet bgs, then injection with remediation amendment.Post injection, the soil boring was abandoned.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Terracon		6/11/2020

Street or Route	Telephone Number
9856 s. 57th street	(414) 423-0235

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Franklin	WI	53132		1/4/2020

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Brown	___ ___ ___ ___ ___	

Latitude / Longitude (see instructions) _____ N _____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #			N	☐ E ☐ W

Well Street Address

Well City, Village or Town	Well ZIP Code

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
	___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Smoke-Out Cleaners
Facility ID (FID or PWS)
License/Permit/Monitoring #
Original Well Owner
Present Well Owner
Mailing Address of Present Owner

City of Present Owner	State	ZIP Code

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well IP-11
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): June 10-11, 2020
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct-push

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
8	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2"	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☒ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Hydraulic Cement	Surface	0.5	1/4 bag	
Bentonite chips	0.5	8	1/4 bag	

6. Comments

Soil boring driven to 8 feet bgs, then injection with remediation amendment.Post injection, the soil boring was abandoned.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Terracon		6/11/2020

Street or Route	Telephone Number
9856 s. 57th street	(414) 423-0255

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Franklin	WI	53132		1/4/2020

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Brown	___ ___ ___ ___ ___	

Latitude / Longitude (see instructions) _____ N _____ W
Format Code: ☐ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #			N	☐ E ☐ W

Well Street Address

Well City, Village or Town	Well ZIP Code

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
	___ ___ ___ ___ ___

2. Facility / Owner Information

Facility Name: Smoke-Out Cleaners
Facility ID (FID or PWS)
License/Permit/Monitoring #
Original Well Owner
Present Well Owner
Mailing Address of Present Owner

City of Present Owner	State	ZIP Code

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well IP-12
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): June 10-11, 2020
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Direct-push

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
8	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2"	

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☒ Yes	☐ No	☐ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☒ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Hydraulic Cement	Surface	0.5	1/4 bag	
Bentonite chips	0.5	8	1/4 bag	

6. Comments

Soil boring driven to 8 feet bgs, then injection with remediation amendment.Post injection, the soil boring was abandoned.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Terracon		6/11/2020

Street or Route	Telephone Number
9856 s. 57th street	(414) 423-0255

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Franklin	WI	53132		1/4/2020

DNR Use Only

Date Received	Noted By

Comments

APPENDIX E

PHOTOGRAPHIC LOG

Photo #1 Photograph of injection boring abandonment with hydraulic cement.

Photo #2 Photograph of injection boring installation and subsequent amendment injection.

Photo #3 Photograph of injection pumping and mixing set up.

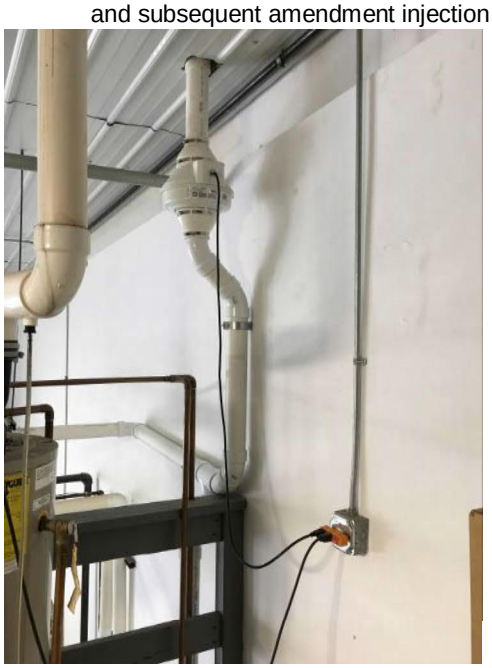

Photo #4 Photograph of blower and piping components part of the SSDS.

Photo #5 Photograph of northern drop-point component part of the SSDS.

Photo #6 Photograph of southern drop-point component part of the SSDS.

Photo #7 Photograph of the U-Tube manometer vacuum measuring device on the southern drop-point.

Photo #8 Photograph of the injection area and SSDS area post remedial activities.

Photo #9 Photograph SDSS system installation on top of the roof (Photograph taken by SWAT).

APPENDIX F

SSDS OPERATION AND MAINTENANCE MANUAL

SWAT ENVIRONMENTAL
Soil, Water, and Air Technologies

Operations, Maintenance, & Monitoring Plan

Swat Environmental
16680 W Cleveland STE C
New Berlin, WI 53151
Service: 262-754-2211

The Active Soil Depressurization System installed is designed to lower the amount of Radon exposure the buildings occupants are exposed to from the soil gas below the foundation. The ultimate goal of the of the Active Soil Depressurization System is to lower the Radon measurements to As Low as Reasonably Achievable (ALARA). While still adopting the EPA guideline to, at minimum, reduce levels to below 4.0 pCi/L.

- The pressure gauges are attached to the pipe below each fan.
- How to interpret pressure gauge: The fluid should be higher on one side than the other which indicates vacuum. If both sides of the fluid is "even" then the fan is not operational.

- If the levels are "even" then the power needs to be checked. These may have tripped and may need to be reset. SWAT cannot perform maintenance on electrical parts.
- If the fan is not operational and the electrical is working properly, call SWAT Environmental for service.

Sump Pump Guidance

-If your sump pump needs service, turn off the radon fan and simply remove the caulking around the lid. If the radon system is tied into the sump pump (for maximum efficiency) then there is a removable rubber coupling that can be removed with a standard screwdriver or 5/16th nut driver. This will allow the piping to be removed. Once the sump work has been completed, simply reverse the process and reseal with a silicone.

- Routinely Check

- Power Source (especially before storms strike)
- Inspect floats for obstructions and free movements, clean sump of any debris
- Visually inspect for water leaks at joints and connections.
- Tighten all rubber connections if they are loose
- Inspect pipe where it exits the home to ensure pipes are not frozen or blocked
- Disconnect smaller pipes and flexible hoses when temperatures are below freezing
- Inspect water levels (Levels should remain at or under the float; if water levels are above normal operating levels, get pump serviced)

- Maintain & Test Battery Back Up (If applicable)

- Run a test on battery back-up monthly
- Maintain Battery
- Follow all other guidance from routine checklist

- In Case of Emergency

- Have a plan, sump pumps can fail at any time (e.g. Battery back-up, secondary pump or spare, generator)
- Call service number for additional guidance

SWAT ENVIRONMENTAL
Soil, Water, and Air Technologies

Operations, Maintenance, & Monitoring Plan
Swat Environmental
16680 W Cleveland STE C
New Berlin, WI 53151
Service: 262-754-2211

Active Alarm Guidance (If applicable)

Active alarms are vacuum sensing. If your mitigation fan is running, your alarm will remain silent. If the fan dies or the power to the fan fails, the alarm will sound off to let you know to inspect the system.

- What to do if alarm goes off

- First, if the yellow light on the alarm is visible, this indicates the battery needs to be replace (Uses 3.6V ½ AA Battery)
- The red alarm light indicates a drastic drop in air pressure moving inside of the system. To silence the alarm, press the hush button and call service for guidance. A service call will not always be necessary to resolve issue.
- If the blue light on the alarm is visible, this indicates the alarm recorded 3 losses of air pressure in 48 hours. This is a built-in feature of the alarm to prevent false alarms. To silence the alarm, press the hush button and call service for guidance. A service call will not always be necessary to resolve issue.
- When the "Hush" button is pressed, the alarm will be silent for 7 days.

Additional Guidance

- It is recommended to retest the building at least every 2 years. It is also recommended to test if any of these following circumstances occur:

1) A new addition is constructed or alterations for building reconfigurations or rehabilitation occurs.
2) A ground contact area not previously tested is occupied.
3) Heating or cooling systems are altered with changes to air distribution or pressure relationships.
4) Ventilation is altered by extensive weatherization, changes to mechanical systems or comparable procedures.
5) Sizable openings to soil occur due to:
   Groundwater or slab surface water control systems are added or altered (e.g.,sumps, drain tiles, shower/tub retrofits, etc) or natural settlement causing major cracks to develop.
7) An installed mitigation system is altered or repaired.

SUB SLAB SYSTEM OPERATION

Operation: Vapor mitigation systems are designed to operate 24 hours per day, 7 days per week, except for brief periods of time when the system may be disconnected from the power source, de-energized, and locked out for routine maintenance or service.

Activation: A sub-slab depressurization system is activated when the circuit breaker is active and the mitigation fan is plugged into a duplex GFCI receptacle, or directly hard wired. Activations are to be conducted by or with a mitigation professional. Under no circumstances is this system to be disconnected or deactivated permanently without first contacting an AARST/NRPP Certified Vapor Mitigation Professional.

Deactivation: A sub-slab depressurization system may be safely deactivated by first disconnecting the mitigation fan from the duplex GFCI receptacle and placing a protective cover over the male plug to prevent it from being reinserted and then flipping the circuit breaker to the off position. We recommend securing a lockout cover which identifies the system is being serviced and prevents the breaker from being re-activated.

SSDS DIAGNOSTIC REFERENCE

A SSDS should be inspected once every three (3) months for operation, and a static pressure reading taken and recorded. There are some instances when an AARST/NRPP Certified Mitigation Professional should be contacted as soon as possible:

1. The mitigation fan is not operational, or the Manometer is registering outside of the recommended operating range. (<<.0.5" to 4.75" for RN4 fan>>). First check the electrical connection and make sure that the circuit breaker is set to "on".
2. The mitigation fan is vibrating abnormally (beyond the subtle vibration of normal operation), is making a "screeching" or "grinding" sound, or, is unusually hot to the touch.
3. The electrical wire has been damaged or altered, or the fan has been vandalized or is no longer present.
4. There are visible cracks in the suction line or vent stack piping, or piping is no longer structurally supported.
5. There are visible cracks in or missing material from the seal where the suction line enters the collection chamber.
6. Major structural changes have been made to the building, or construction has occurred which affects the foundation.
7. In the event the property has changed ownership, warranties may be transferred to the new owner without additional charge.

SSDS: ORIGINAL STARTUP SYSTEM COMPONENTS AND SETTINGS

System#/Unit	System #1
Pressure Gauge Location	Located next to interior piping **(South Suction Point)**
Fan Model	RN4
Fan Location	Exterior
Original Fan WC"	4.4

SSDS INSPECTION/MAINTENANCE LOG EXAMPLE

Year		Qtr 1	Qtr 2	Qtr 3	Qtr 4
Sys. #1	Monitor WC"				
	Sealed Items				
	Piping/Labels				
	Noted concerns				
	Last Radon Test (at least every 2 years)				
Sys. #2	Monitor WC"				
	Sealed Items				
	Piping/Labels				
	Noted concerns				
	Last Radon Test (at least every 2 years)				
Sys. #3	Monitor WC"				
	Sealed Items				
	Piping/Labels				
	Noted concerns				
	Last Radon Test (at least every 2 years)				
Sys. #4	Monitor WC"				
	Sealed Items				
	Piping/Labels				
	Noted concerns				
	Last Radon Test (at least every 2 years)				

Fill in the Date and Initial Each Category	DATES →							
MAINTENANCE ITEMS								
The mitigation fan is running and is not "screeching" or hot.								
The manometer is present and there is sufficient W.C.								
A static pressure reading was taken and recorded in the table.								
The collection chamber is intact, without cracks or missing sealant.								
Piping is intact and free of cracks. No joints are loose or open.								
Fire collars and intumescent fire caulk is intact.								
The piping remains securely bracketed or secured.								
The circuit breaker is functional and is switched to the "On" position.								
The wiring to the fan is intact and free of damage.								
The fan is securely connected to the power source.								
The flexible rubber couplings are free from cracks or damage.								
The system is free of signs of weather damage or vandalism.								

APPENDIX G

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORMS, AND GROUNDWATER SAMPLING FIELD SHEETS

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

June 23, 2020

Scott Hodgson
Terracon, Inc. - Franklin
9856 South 57th Street
Franklin, WI 53132

RE: Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Dear Scott Hodgson:

Enclosed are the analytical results for sample(s) received by the laboratory on June 09, 2020. 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
(920)469-2436

CERTIFICATIONS

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

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

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40209152001	**MW-2**	Water	06/09/20 11:05	06/09/20 15:07
40209152002	**MW-3**	Water	06/09/20 14:05	06/09/20 15:07
40209152003	**MW-4**	Water	06/09/20 13:10	06/09/20 15:07
40209152004	**BD1**	Water	06/09/20 00:00	06/09/20 15:07
40209152005	**MW-1**	Water	06/09/20 12:00	06/09/20 15:07
40209152006	**TRIP BLANK**	Water	06/09/20 00:00	06/09/20 15:07

Pace Analytical Services, LLC
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Green Bay, WI 54302
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SAMPLE ANALYTE COUNT

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40209152001	**MW-2**	EPA 8015B Modified	ALD	3	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 8260	HNW	64	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40209152002	**MW-3**	EPA 8015B Modified	ALD	3	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 8260	HNW	64	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40209152003	**MW-4**	EPA 8015B Modified	ALD	3	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 8260	HNW	64	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40209152004	**BD1**	EPA 8015B Modified	ALD	3	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 8260	HNW	64	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40209152005	**MW-1**	EPA 8015B Modified	ALD	3	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 8260	HNW	64	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40209152006	**TRIP BLANK**	EPA 8260	HNW	64	PASI-G

PASI-G = Pace Analytical Services - Green Bay

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

SUMMARY OF DETECTION

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40209152001	**MW-2**					
EPA 8015B Modified	Methane	18.8	ug/L	2.8	06/18/20 10:09	
EPA 6010	Manganese, Dissolved	284	ug/L	5.0	06/18/20 23:50	
EPA 8260	cis-1,2-Dichloroethene	1.6	ug/L	1.0	06/10/20 16:00	
EPA 8260	Tetrachloroethene	0.72J	ug/L	1.1	06/10/20 16:00	
EPA 8260	Trichloroethene	0.40J	ug/L	1.0	06/10/20 16:00	
EPA 300.0	Sulfate	33.2	mg/L	2.0	06/18/20 00:58	
SM 5310C	Total Organic Carbon	2.6	mg/L	0.50	06/11/20 16:11	
40209152002	**MW-3**					
EPA 8015B Modified	Ethene	6.9	ug/L	5.0	06/18/20 10:16	
EPA 8015B Modified	Methane	887	ug/L	28.0	06/18/20 14:23	
EPA 6010	Iron, Dissolved	2920	ug/L	100	06/18/20 23:52	
EPA 6010	Manganese, Dissolved	739	ug/L	5.0	06/18/20 23:52	
EPA 8260	Chloroethane	6.4J	ug/L	12.5	06/10/20 20:17	
EPA 8260	cis-1,2-Dichloroethene	141	ug/L	2.5	06/10/20 20:17	
EPA 8260	trans-1,2-Dichloroethene	3.8J	ug/L	3.9	06/10/20 20:17	
EPA 8260	Tetrachloroethene	1.4J	ug/L	2.7	06/10/20 20:17	
EPA 8260	Trichloroethene	7.3	ug/L	2.5	06/10/20 20:17	
EPA 8260	Vinyl chloride	91.6	ug/L	2.5	06/10/20 20:17	
EPA 300.0	Sulfate	49.6	mg/L	2.0	06/18/20 01:13	
SM 5310C	Total Organic Carbon	5.5	mg/L	0.50	06/11/20 16:45	
40209152003	**MW-4**					
EPA 8015B Modified	Methane	14.0	ug/L	2.8	06/18/20 10:23	
EPA 6010	Manganese, Dissolved	16.4	ug/L	5.0	06/18/20 23:55	
EPA 8260	1,1-Dichloroethene	0.49J	ug/L	1.0	06/10/20 16:21	
EPA 8260	cis-1,2-Dichloroethene	69.9	ug/L	1.0	06/10/20 16:21	
EPA 8260	trans-1,2-Dichloroethene	1.7	ug/L	1.5	06/10/20 16:21	
EPA 8260	Tetrachloroethene	5.1	ug/L	1.1	06/10/20 16:21	
EPA 8260	Trichloroethene	5.5	ug/L	1.0	06/10/20 16:21	
EPA 300.0	Sulfate	111	mg/L	20.0	06/19/20 12:46	
SM 5310C	Total Organic Carbon	4.1	mg/L	0.50	06/11/20 17:02	
40209152004	**BD1**					
EPA 8015B Modified	Methane	18.7	ug/L	2.8	06/18/20 10:30	
EPA 6010	Manganese, Dissolved	16.7	ug/L	5.0	06/18/20 23:57	
EPA 8260	1,1-Dichloroethene	0.59J	ug/L	1.0	06/10/20 16:42	
EPA 8260	cis-1,2-Dichloroethene	64.9	ug/L	1.0	06/10/20 16:42	
EPA 8260	trans-1,2-Dichloroethene	1.5J	ug/L	1.5	06/10/20 16:42	
EPA 8260	Tetrachloroethene	4.6	ug/L	1.1	06/10/20 16:42	
EPA 8260	Trichloroethene	5.2	ug/L	1.0	06/10/20 16:42	
EPA 300.0	Sulfate	108	mg/L	20.0	06/19/20 13:29	
SM 5310C	Total Organic Carbon	3.8	mg/L	0.50	06/11/20 17:20	
40209152005	**MW-1**					
EPA 8015B Modified	Ethene	3.2J	ug/L	5.0	06/18/20 10:37	
EPA 8015B Modified	Methane	711	ug/L	11.2	06/18/20 13:42	
EPA 6010	Iron, Dissolved	1720	ug/L	100	06/19/20 00:00	
EPA 6010	Manganese, Dissolved	761	ug/L	5.0	06/19/20 00:00	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40209152005	**MW-1**					
EPA 8260	1,1-Dichloroethene	0.27J	ug/L	1.0	06/10/20 17:04	
EPA 8260	cis-1,2-Dichloroethene	60.8	ug/L	1.0	06/10/20 17:04	
EPA 8260	trans-1,2-Dichloroethene	2.1	ug/L	1.5	06/10/20 17:04	
EPA 8260	Tetrachloroethene	2.3	ug/L	1.1	06/10/20 17:04	
EPA 8260	Trichloroethene	3.7	ug/L	1.0	06/10/20 17:04	
EPA 8260	Vinyl chloride	19.8	ug/L	1.0	06/10/20 17:04	
EPA 300.0	Sulfate	48.7	mg/L	2.0	06/18/20 15:58	
SM 5310C	Total Organic Carbon	5.4	mg/L	0.50	06/11/20 17:35	

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PROJECT NARRATIVE

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Method: **EPA 8015B Modified**
Description: Methane, Ethane, Ethene GCV
Client: Terracon, Inc. - Franklin
Date: June 23, 2020

General Information:
5 samples were analyzed for EPA 8015B Modified 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.

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:

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PROJECT NARRATIVE

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: Terracon, Inc. - Franklin
Date: June 23, 2020

General Information:
5 samples were analyzed for EPA 6010 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.

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:

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PROJECT NARRATIVE

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Method: **EPA 8260**
Description: 8260 MSV
Client: Terracon, Inc. - Franklin
Date: June 23, 2020

General Information:
6 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:

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PROJECT NARRATIVE

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Method: **EPA 300.0**
Description: 300.0 IC Anions
Client: Terracon, Inc. - Franklin
Date: June 23, 2020

General Information:
5 samples were analyzed for EPA 300.0 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.

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:

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PROJECT NARRATIVE

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Method: **SM 5310C**
Description: 5310C TOC
Client: Terracon, Inc. - Franklin
Date: June 23, 2020

General Information:
5 samples were analyzed for SM 5310C 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.

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.

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ANALYTICAL RESULTS

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Sample: MW-2 **Lab ID: 40209152001** Collected: 06/09/20 11:05 Received: 06/09/20 15:07 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	**<1.2**	ug/L	5.6	1.2	1		06/18/20 10:09	74-84-0	
Ethene	**<1.2**	ug/L	5.0	1.2	1		06/18/20 10:09	74-85-1	
Methane	**18.8**	ug/L	2.8	0.66	1		06/18/20 10:09	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Pace Analytical Services - Green Bay								
Iron, Dissolved	**<29.6**	ug/L	100	29.6	1		06/18/20 23:50	7439-89-6	
Manganese, Dissolved	**284**	ug/L	5.0	1.1	1		06/18/20 23:50	7439-96-5	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Benzene	**<0.25**	ug/L	1.0	0.25	1		06/10/20 16:00	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		06/10/20 16:00	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		06/10/20 16:00	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		06/10/20 16:00	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		06/10/20 16:00	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		06/10/20 16:00	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 16:00	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		06/10/20 16:00	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		06/10/20 16:00	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		06/10/20 16:00	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 16:00	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		06/10/20 16:00	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		06/10/20 16:00	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		06/10/20 16:00	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		06/10/20 16:00	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		06/10/20 16:00	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		06/10/20 16:00	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		06/10/20 16:00	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		06/10/20 16:00	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		06/10/20 16:00	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 16:00	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		06/10/20 16:00	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		06/10/20 16:00	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		06/10/20 16:00	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		06/10/20 16:00	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 16:00	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		06/10/20 16:00	75-35-4	
cis-1,2-Dichloroethene	**1.6**	ug/L	1.0	0.27	1		06/10/20 16:00	156-59-2	
trans-1,2-Dichloroethene	**<0.46**	ug/L	1.5	0.46	1		06/10/20 16:00	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 16:00	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		06/10/20 16:00	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		06/10/20 16:00	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		06/10/20 16:00	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		06/10/20 16:00	10061-01-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Sample: MW-2 **Lab ID: 40209152001** Collected: 06/09/20 11:05 Received: 06/09/20 15:07 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		06/10/20 16:00	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		06/10/20 16:00	108-20-3	
Ethylbenzene	**<0.32**	ug/L	1.1	0.32	1		06/10/20 16:00	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		06/10/20 16:00	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		06/10/20 16:00	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		06/10/20 16:00	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		06/10/20 16:00	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		06/10/20 16:00	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		06/10/20 16:00	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		06/10/20 16:00	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		06/10/20 16:00	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		06/10/20 16:00	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 16:00	79-34-5	
Tetrachloroethene	**0.72J**	ug/L	1.1	0.33	1		06/10/20 16:00	127-18-4	
Toluene	**<0.27**	ug/L	0.90	0.27	1		06/10/20 16:00	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		06/10/20 16:00	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		06/10/20 16:00	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/10/20 16:00	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		06/10/20 16:00	79-00-5	
Trichloroethene	**0.40J**	ug/L	1.0	0.26	1		06/10/20 16:00	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		06/10/20 16:00	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		06/10/20 16:00	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		06/10/20 16:00	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		06/10/20 16:00	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		06/10/20 16:00	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		06/10/20 16:00	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		06/10/20 16:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		1		06/10/20 16:00	460-00-4	
Dibromofluoromethane (S)	97	%	70-130		1		06/10/20 16:00	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		06/10/20 16:00	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
	Pace Analytical Services - Green Bay								
Sulfate	**33.2**	mg/L	2.0	0.44	1		06/18/20 00:58	14808-79-8	
5310C TOC	Analytical Method: SM 5310C								
	Pace Analytical Services - Green Bay								
Total Organic Carbon	**2.6**	mg/L	0.50	0.14	1		06/11/20 16:11	7440-44-0	

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.: 40209152

Sample: MW-3 **Lab ID: 40209152002** Collected: 06/09/20 14:05 Received: 06/09/20 15:07 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	**<1.2**	ug/L	5.6	1.2	1		06/18/20 10:16	74-84-0	
Ethene	**6.9**	ug/L	5.0	1.2	1		06/18/20 10:16	74-85-1	
Methane	**887**	ug/L	28.0	6.6	10		06/18/20 14:23	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Pace Analytical Services - Green Bay								
Iron, Dissolved	**2920**	ug/L	100	29.6	1		06/18/20 23:52	7439-89-6	
Manganese, Dissolved	**739**	ug/L	5.0	1.1	1		06/18/20 23:52	7439-96-5	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Benzene	**<0.62**	ug/L	2.5	0.62	2.5		06/10/20 20:17	71-43-2	
Bromobenzene	**<0.60**	ug/L	2.5	0.60	2.5		06/10/20 20:17	108-86-1	
Bromochloromethane	**<0.91**	ug/L	12.5	0.91	2.5		06/10/20 20:17	74-97-5	
Bromodichloromethane	**<0.91**	ug/L	3.0	0.91	2.5		06/10/20 20:17	75-27-4	
Bromoform	**<9.9**	ug/L	33.1	9.9	2.5		06/10/20 20:17	75-25-2	
Bromomethane	**<2.4**	ug/L	12.5	2.4	2.5		06/10/20 20:17	74-83-9	
n-Butylbenzene	**<1.8**	ug/L	5.9	1.8	2.5		06/10/20 20:17	104-51-8	
sec-Butylbenzene	**<2.1**	ug/L	12.5	2.1	2.5		06/10/20 20:17	135-98-8	
tert-Butylbenzene	**<0.76**	ug/L	2.5	0.76	2.5		06/10/20 20:17	98-06-6	
Carbon tetrachloride	**<2.7**	ug/L	9.0	2.7	2.5		06/10/20 20:17	56-23-5	
Chlorobenzene	**<1.8**	ug/L	5.9	1.8	2.5		06/10/20 20:17	108-90-7	
Chloroethane	**6.4J**	ug/L	12.5	3.4	2.5		06/10/20 20:17	75-00-3	
Chloroform	**<3.2**	ug/L	12.5	3.2	2.5		06/10/20 20:17	67-66-3	
Chloromethane	**<5.5**	ug/L	18.2	5.5	2.5		06/10/20 20:17	74-87-3	
2-Chlorotoluene	**<2.3**	ug/L	12.5	2.3	2.5		06/10/20 20:17	95-49-8	
4-Chlorotoluene	**<1.9**	ug/L	6.3	1.9	2.5		06/10/20 20:17	106-43-4	
1,2-Dibromo-3-chloropropane	**<4.4**	ug/L	14.7	4.4	2.5		06/10/20 20:17	96-12-8	
Dibromochloromethane	**<6.5**	ug/L	21.7	6.5	2.5		06/10/20 20:17	124-48-1	
1,2-Dibromoethane (EDB)	**<2.1**	ug/L	6.9	2.1	2.5		06/10/20 20:17	106-93-4	
Dibromomethane	**<2.3**	ug/L	7.8	2.3	2.5		06/10/20 20:17	74-95-3	
1,2-Dichlorobenzene	**<1.8**	ug/L	5.9	1.8	2.5		06/10/20 20:17	95-50-1	
1,3-Dichlorobenzene	**<1.6**	ug/L	5.2	1.6	2.5		06/10/20 20:17	541-73-1	
1,4-Dichlorobenzene	**<2.4**	ug/L	7.9	2.4	2.5		06/10/20 20:17	106-46-7	
Dichlorodifluoromethane	**<1.2**	ug/L	12.5	1.2	2.5		06/10/20 20:17	75-71-8	
1,1-Dichloroethane	**<0.68**	ug/L	2.5	0.68	2.5		06/10/20 20:17	75-34-3	
1,2-Dichloroethane	**<0.70**	ug/L	2.5	0.70	2.5		06/10/20 20:17	107-06-2	
1,1-Dichloroethene	**<0.61**	ug/L	2.5	0.61	2.5		06/10/20 20:17	75-35-4	
cis-1,2-Dichloroethene	**141**	ug/L	2.5	0.68	2.5		06/10/20 20:17	156-59-2	
trans-1,2-Dichloroethene	**3.8J**	ug/L	3.9	1.2	2.5		06/10/20 20:17	156-60-5	
1,2-Dichloropropane	**<0.71**	ug/L	2.5	0.71	2.5		06/10/20 20:17	78-87-5	
1,3-Dichloropropane	**<2.1**	ug/L	6.9	2.1	2.5		06/10/20 20:17	142-28-9	
2,2-Dichloropropane	**<5.7**	ug/L	18.9	5.7	2.5		06/10/20 20:17	594-20-7	
1,1-Dichloropropene	**<1.4**	ug/L	4.5	1.4	2.5		06/10/20 20:17	563-58-6	
cis-1,3-Dichloropropene	**<9.1**	ug/L	30.2	9.1	2.5		06/10/20 20:17	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Sample: MW-3 **Lab ID: 40209152002** Collected: 06/09/20 14:05 Received: 06/09/20 15:07 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
trans-1,3-Dichloropropene	**<10.9**	ug/L	36.4	10.9	2.5		06/10/20 20:17	10061-02-6	
Diisopropyl ether	**<4.7**	ug/L	15.7	4.7	2.5		06/10/20 20:17	108-20-3	
Ethylbenzene	**<0.80**	ug/L	2.7	0.80	2.5		06/10/20 20:17	100-41-4	
Hexachloro-1,3-butadiene	**<3.7**	ug/L	12.2	3.7	2.5		06/10/20 20:17	87-68-3	
Isopropylbenzene (Cumene)	**<4.2**	ug/L	14.0	4.2	2.5		06/10/20 20:17	98-82-8	
p-Isopropyltoluene	**<2.0**	ug/L	6.7	2.0	2.5		06/10/20 20:17	99-87-6	
Methylene Chloride	**<1.5**	ug/L	12.5	1.5	2.5		06/10/20 20:17	75-09-2	
Methyl-tert-butyl ether	**<3.1**	ug/L	10.4	3.1	2.5		06/10/20 20:17	1634-04-4	
Naphthalene	**<2.9**	ug/L	12.5	2.9	2.5		06/10/20 20:17	91-20-3	
n-Propylbenzene	**<2.0**	ug/L	12.5	2.0	2.5		06/10/20 20:17	103-65-1	
Styrene	**<7.5**	ug/L	25.1	7.5	2.5		06/10/20 20:17	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.67**	ug/L	2.5	0.67	2.5		06/10/20 20:17	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.69**	ug/L	2.5	0.69	2.5		06/10/20 20:17	79-34-5	
Tetrachloroethene	**1.4J**	ug/L	2.7	0.82	2.5		06/10/20 20:17	127-18-4	
Toluene	**<0.67**	ug/L	2.2	0.67	2.5		06/10/20 20:17	108-88-3	
1,2,3-Trichlorobenzene	**<5.5**	ug/L	18.4	5.5	2.5		06/10/20 20:17	87-61-6	
1,2,4-Trichlorobenzene	**<2.4**	ug/L	12.5	2.4	2.5		06/10/20 20:17	120-82-1	
1,1,1-Trichloroethane	**<0.61**	ug/L	2.5	0.61	2.5		06/10/20 20:17	71-55-6	
1,1,2-Trichloroethane	**<1.4**	ug/L	12.5	1.4	2.5		06/10/20 20:17	79-00-5	
Trichloroethene	**7.3**	ug/L	2.5	0.64	2.5		06/10/20 20:17	79-01-6	
Trichlorofluoromethane	**<0.54**	ug/L	2.5	0.54	2.5		06/10/20 20:17	75-69-4	
1,2,3-Trichloropropane	**<1.5**	ug/L	12.5	1.5	2.5		06/10/20 20:17	96-18-4	
1,2,4-Trimethylbenzene	**<2.1**	ug/L	7.0	2.1	2.5		06/10/20 20:17	95-63-6	
1,3,5-Trimethylbenzene	**<2.2**	ug/L	7.3	2.2	2.5		06/10/20 20:17	108-67-8	
Vinyl chloride	**91.6**	ug/L	2.5	0.44	2.5		06/10/20 20:17	75-01-4	
m&p-Xylene	**<1.2**	ug/L	5.0	1.2	2.5		06/10/20 20:17	179601-23-1	
o-Xylene	**<0.65**	ug/L	2.5	0.65	2.5		06/10/20 20:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		2.5		06/10/20 20:17	460-00-4	
Dibromofluoromethane (S)	96	%	70-130		2.5		06/10/20 20:17	1868-53-7	
Toluene-d8 (S)	100	%	70-130		2.5		06/10/20 20:17	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
	Pace Analytical Services - Green Bay								
Sulfate	**49.6**	mg/L	2.0	0.44	1		06/18/20 01:13	14808-79-8	
5310C TOC	Analytical Method: SM 5310C								
	Pace Analytical Services - Green Bay								
Total Organic Carbon	**5.5**	mg/L	0.50	0.14	1		06/11/20 16:45	7440-44-0	

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.: 40209152

Sample: MW-4 **Lab ID: 40209152003** Collected: 06/09/20 13:10 Received: 06/09/20 15:07 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	**<1.2**	ug/L	5.6	1.2	1		06/18/20 10:23	74-84-0	
Ethene	**<1.2**	ug/L	5.0	1.2	1		06/18/20 10:23	74-85-1	
Methane	**14.0**	ug/L	2.8	0.66	1		06/18/20 10:23	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Pace Analytical Services - Green Bay								
Iron, Dissolved	**<29.6**	ug/L	100	29.6	1		06/18/20 23:55	7439-89-6	
Manganese, Dissolved	**16.4**	ug/L	5.0	1.1	1		06/18/20 23:55	7439-96-5	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Benzene	**<0.25**	ug/L	1.0	0.25	1		06/10/20 16:21	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		06/10/20 16:21	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		06/10/20 16:21	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		06/10/20 16:21	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		06/10/20 16:21	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		06/10/20 16:21	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 16:21	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		06/10/20 16:21	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		06/10/20 16:21	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		06/10/20 16:21	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 16:21	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		06/10/20 16:21	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		06/10/20 16:21	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		06/10/20 16:21	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		06/10/20 16:21	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		06/10/20 16:21	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		06/10/20 16:21	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		06/10/20 16:21	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		06/10/20 16:21	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		06/10/20 16:21	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 16:21	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		06/10/20 16:21	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		06/10/20 16:21	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		06/10/20 16:21	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		06/10/20 16:21	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 16:21	107-06-2	
1,1-Dichloroethene	**0.49J**	ug/L	1.0	0.24	1		06/10/20 16:21	75-35-4	
cis-1,2-Dichloroethene	**69.9**	ug/L	1.0	0.27	1		06/10/20 16:21	156-59-2	
trans-1,2-Dichloroethene	**1.7**	ug/L	1.5	0.46	1		06/10/20 16:21	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 16:21	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		06/10/20 16:21	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		06/10/20 16:21	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		06/10/20 16:21	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		06/10/20 16:21	10061-01-5	

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.: 40209152

Sample: MW-4 **Lab ID: 40209152003** Collected: 06/09/20 13:10 Received: 06/09/20 15:07 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		06/10/20 16:21	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		06/10/20 16:21	108-20-3	
Ethylbenzene	**<0.32**	ug/L	1.1	0.32	1		06/10/20 16:21	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		06/10/20 16:21	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		06/10/20 16:21	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		06/10/20 16:21	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		06/10/20 16:21	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		06/10/20 16:21	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		06/10/20 16:21	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		06/10/20 16:21	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		06/10/20 16:21	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		06/10/20 16:21	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 16:21	79-34-5	
Tetrachloroethene	**5.1**	ug/L	1.1	0.33	1		06/10/20 16:21	127-18-4	
Toluene	**<0.27**	ug/L	0.90	0.27	1		06/10/20 16:21	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		06/10/20 16:21	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		06/10/20 16:21	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/10/20 16:21	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		06/10/20 16:21	79-00-5	
Trichloroethene	**5.5**	ug/L	1.0	0.26	1		06/10/20 16:21	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		06/10/20 16:21	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		06/10/20 16:21	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		06/10/20 16:21	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		06/10/20 16:21	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		06/10/20 16:21	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		06/10/20 16:21	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		06/10/20 16:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		06/10/20 16:21	460-00-4	
Dibromofluoromethane (S)	99	%	70-130		1		06/10/20 16:21	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		06/10/20 16:21	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
	Pace Analytical Services - Green Bay								
Sulfate	**111**	mg/L	20.0	4.4	10		06/19/20 12:46	14808-79-8	
5310C TOC	Analytical Method: SM 5310C								
	Pace Analytical Services - Green Bay								
Total Organic Carbon	**4.1**	mg/L	0.50	0.14	1		06/11/20 17:02	7440-44-0	

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.: 40209152

Sample: BD1 **Lab ID: 40209152004** Collected: 06/09/20 00:00 Received: 06/09/20 15:07 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	**<1.2**	ug/L	5.6	1.2	1		06/18/20 10:30	74-84-0	
Ethene	**<1.2**	ug/L	5.0	1.2	1		06/18/20 10:30	74-85-1	
Methane	**18.7**	ug/L	2.8	0.66	1		06/18/20 10:30	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Pace Analytical Services - Green Bay								
Iron, Dissolved	**<29.6**	ug/L	100	29.6	1		06/18/20 23:57	7439-89-6	
Manganese, Dissolved	**16.7**	ug/L	5.0	1.1	1		06/18/20 23:57	7439-96-5	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Benzene	**<0.25**	ug/L	1.0	0.25	1		06/10/20 16:42	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		06/10/20 16:42	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		06/10/20 16:42	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		06/10/20 16:42	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		06/10/20 16:42	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		06/10/20 16:42	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 16:42	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		06/10/20 16:42	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		06/10/20 16:42	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		06/10/20 16:42	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 16:42	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		06/10/20 16:42	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		06/10/20 16:42	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		06/10/20 16:42	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		06/10/20 16:42	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		06/10/20 16:42	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		06/10/20 16:42	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		06/10/20 16:42	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		06/10/20 16:42	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		06/10/20 16:42	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 16:42	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		06/10/20 16:42	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		06/10/20 16:42	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		06/10/20 16:42	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		06/10/20 16:42	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 16:42	107-06-2	
1,1-Dichloroethene	**0.59J**	ug/L	1.0	0.24	1		06/10/20 16:42	75-35-4	
cis-1,2-Dichloroethene	**64.9**	ug/L	1.0	0.27	1		06/10/20 16:42	156-59-2	
trans-1,2-Dichloroethene	**1.5J**	ug/L	1.5	0.46	1		06/10/20 16:42	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 16:42	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		06/10/20 16:42	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		06/10/20 16:42	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		06/10/20 16:42	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		06/10/20 16:42	10061-01-5	

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.: 40209152

Sample: BD1 **Lab ID: 40209152004** Collected: 06/09/20 00:00 Received: 06/09/20 15:07 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		06/10/20 16:42	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		06/10/20 16:42	108-20-3	
Ethylbenzene	**<0.32**	ug/L	1.1	0.32	1		06/10/20 16:42	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		06/10/20 16:42	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		06/10/20 16:42	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		06/10/20 16:42	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		06/10/20 16:42	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		06/10/20 16:42	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		06/10/20 16:42	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		06/10/20 16:42	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		06/10/20 16:42	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		06/10/20 16:42	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 16:42	79-34-5	
Tetrachloroethene	**4.6**	ug/L	1.1	0.33	1		06/10/20 16:42	127-18-4	
Toluene	**<0.27**	ug/L	0.90	0.27	1		06/10/20 16:42	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		06/10/20 16:42	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		06/10/20 16:42	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/10/20 16:42	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		06/10/20 16:42	79-00-5	
Trichloroethene	**5.2**	ug/L	1.0	0.26	1		06/10/20 16:42	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		06/10/20 16:42	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		06/10/20 16:42	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		06/10/20 16:42	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		06/10/20 16:42	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		06/10/20 16:42	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		06/10/20 16:42	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		06/10/20 16:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130		1		06/10/20 16:42	460-00-4	
Dibromofluoromethane (S)	98	%	70-130		1		06/10/20 16:42	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		06/10/20 16:42	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
	Pace Analytical Services - Green Bay								
Sulfate	**108**	mg/L	20.0	4.4	10		06/19/20 13:29	14808-79-8	
5310C TOC	Analytical Method: SM 5310C								
	Pace Analytical Services - Green Bay								
Total Organic Carbon	**3.8**	mg/L	0.50	0.14	1		06/11/20 17:20	7440-44-0	

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.: 40209152

Sample: MW-1 **Lab ID: 40209152005** Collected: 06/09/20 12:00 Received: 06/09/20 15:07 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	**<1.2**	ug/L	5.6	1.2	1		06/18/20 10:37	74-84-0	
Ethene	**3.2J**	ug/L	5.0	1.2	1		06/18/20 10:37	74-85-1	
Methane	**711**	ug/L	11.2	2.7	4		06/18/20 13:42	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Pace Analytical Services - Green Bay								
Iron, Dissolved	**1720**	ug/L	100	29.6	1		06/19/20 00:00	7439-89-6	
Manganese, Dissolved	**761**	ug/L	5.0	1.1	1		06/19/20 00:00	7439-96-5	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Benzene	**<0.25**	ug/L	1.0	0.25	1		06/10/20 17:04	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		06/10/20 17:04	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		06/10/20 17:04	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		06/10/20 17:04	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		06/10/20 17:04	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		06/10/20 17:04	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 17:04	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		06/10/20 17:04	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		06/10/20 17:04	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		06/10/20 17:04	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 17:04	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		06/10/20 17:04	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		06/10/20 17:04	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		06/10/20 17:04	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		06/10/20 17:04	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		06/10/20 17:04	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		06/10/20 17:04	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		06/10/20 17:04	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		06/10/20 17:04	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		06/10/20 17:04	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 17:04	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		06/10/20 17:04	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		06/10/20 17:04	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		06/10/20 17:04	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		06/10/20 17:04	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 17:04	107-06-2	
1,1-Dichloroethene	**0.27J**	ug/L	1.0	0.24	1		06/10/20 17:04	75-35-4	
cis-1,2-Dichloroethene	**60.8**	ug/L	1.0	0.27	1		06/10/20 17:04	156-59-2	
trans-1,2-Dichloroethene	**2.1**	ug/L	1.5	0.46	1		06/10/20 17:04	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 17:04	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		06/10/20 17:04	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		06/10/20 17:04	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		06/10/20 17:04	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		06/10/20 17:04	10061-01-5	

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.: 40209152

Sample: MW-1 **Lab ID: 40209152005** Collected: 06/09/20 12:00 Received: 06/09/20 15:07 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		06/10/20 17:04	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		06/10/20 17:04	108-20-3	
Ethylbenzene	**<0.32**	ug/L	1.1	0.32	1		06/10/20 17:04	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		06/10/20 17:04	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		06/10/20 17:04	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		06/10/20 17:04	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		06/10/20 17:04	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		06/10/20 17:04	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		06/10/20 17:04	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		06/10/20 17:04	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		06/10/20 17:04	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		06/10/20 17:04	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 17:04	79-34-5	
Tetrachloroethene	**2.3**	ug/L	1.1	0.33	1		06/10/20 17:04	127-18-4	
Toluene	**<0.27**	ug/L	0.90	0.27	1		06/10/20 17:04	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		06/10/20 17:04	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		06/10/20 17:04	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/10/20 17:04	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		06/10/20 17:04	79-00-5	
Trichloroethene	**3.7**	ug/L	1.0	0.26	1		06/10/20 17:04	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		06/10/20 17:04	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		06/10/20 17:04	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		06/10/20 17:04	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		06/10/20 17:04	108-67-8	
Vinyl chloride	**19.8**	ug/L	1.0	0.17	1		06/10/20 17:04	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		06/10/20 17:04	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		06/10/20 17:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	89	%	70-130		1		06/10/20 17:04	460-00-4	
Dibromofluoromethane (S)	96	%	70-130		1		06/10/20 17:04	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		06/10/20 17:04	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
	Pace Analytical Services - Green Bay								
Sulfate	**48.7**	mg/L	2.0	0.44	1		06/18/20 15:58	14808-79-8	
5310C TOC	Analytical Method: SM 5310C								
	Pace Analytical Services - Green Bay								
Total Organic Carbon	**5.4**	mg/L	0.50	0.14	1		06/11/20 17:35	7440-44-0	

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.: 40209152

Sample: TRIP BLANK **Lab ID: 40209152006** Collected: 06/09/20 00:00 Received: 06/09/20 15:07 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	**<0.25**	ug/L	1.0	0.25	1		06/10/20 15:38	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		06/10/20 15:38	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		06/10/20 15:38	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		06/10/20 15:38	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		06/10/20 15:38	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		06/10/20 15:38	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 15:38	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		06/10/20 15:38	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		06/10/20 15:38	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		06/10/20 15:38	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 15:38	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		06/10/20 15:38	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		06/10/20 15:38	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		06/10/20 15:38	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		06/10/20 15:38	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		06/10/20 15:38	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		06/10/20 15:38	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		06/10/20 15:38	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		06/10/20 15:38	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		06/10/20 15:38	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		06/10/20 15:38	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		06/10/20 15:38	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		06/10/20 15:38	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		06/10/20 15:38	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		06/10/20 15:38	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 15:38	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		06/10/20 15:38	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		06/10/20 15:38	156-59-2	
trans-1,2-Dichloroethene	**<0.46**	ug/L	1.5	0.46	1		06/10/20 15:38	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 15:38	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		06/10/20 15:38	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		06/10/20 15:38	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		06/10/20 15:38	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		06/10/20 15:38	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		06/10/20 15:38	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		06/10/20 15:38	108-20-3	
Ethylbenzene	**<0.32**	ug/L	1.1	0.32	1		06/10/20 15:38	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		06/10/20 15:38	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		06/10/20 15:38	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		06/10/20 15:38	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		06/10/20 15:38	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		06/10/20 15:38	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		06/10/20 15:38	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		06/10/20 15:38	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		06/10/20 15:38	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.: 40209152

Sample: TRIP BLANK **Lab ID: 40209152006** Collected: 06/09/20 00:00 Received: 06/09/20 15:07 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	**<0.27**	ug/L	1.0	0.27	1		06/10/20 15:38	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		06/10/20 15:38	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		06/10/20 15:38	127-18-4	
Toluene	**<0.27**	ug/L	0.90	0.27	1		06/10/20 15:38	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		06/10/20 15:38	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		06/10/20 15:38	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/10/20 15:38	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		06/10/20 15:38	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/10/20 15:38	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		06/10/20 15:38	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		06/10/20 15:38	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		06/10/20 15:38	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		06/10/20 15:38	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		06/10/20 15:38	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		06/10/20 15:38	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		06/10/20 15:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		06/10/20 15:38	460-00-4	
Dibromofluoromethane (S)	95	%	70-130		1		06/10/20 15:38	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		06/10/20 15:38	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.: 40209152

QC Batch: 357991
QC Batch Method: EPA 8015B Modified
Analysis Method: EPA 8015B Modified
Analysis Description: Methane, Ethane, Ethene GCV
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40209152001, 40209152002, 40209152003, 40209152004, 40209152005

METHOD BLANK: 2070776 Matrix: Water
Associated Lab Samples: 40209152001, 40209152002, 40209152003, 40209152004, 40209152005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	<1.2	5.6	06/18/20 09:03	
Ethene	ug/L	<1.2	5.0	06/18/20 09:03	
Methane	ug/L	<0.66	2.8	06/18/20 09:03	

LABORATORY CONTROL SAMPLE & LCSD: 2070777 2070778

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	53.6	53.1	53.3	99	99	80-120	0	20	
Ethene	ug/L	50	49.1	49.0	98	98	80-120	0	20	
Methane	ug/L	28.6	27.5	27.6	96	97	79-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2070779 2070780

Parameter	Units	40209189004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Ethane	ug/L	<1.2	53.6	53.6	50.6	50.2	95	94	79-120	1	20	
Ethene	ug/L	<1.2	50	50	47.3	46.6	95	93	79-120	1	20	
Methane	ug/L	<0.66	28.6	28.6	26.0	25.8	91	90	10-200	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

QC Batch: 358056
QC Batch Method: EPA 6010
Analysis Method: EPA 6010
Analysis Description: ICP Metals, Trace, Dissolved
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40209152001, 40209152002, 40209152003, 40209152004, 40209152005

METHOD BLANK: 2071189 Matrix: Water
Associated Lab Samples: 40209152001, 40209152002, 40209152003, 40209152004, 40209152005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	<29.6	100	06/18/20 23:12	
Manganese, Dissolved	ug/L	<1.1	5.0	06/18/20 23:12	

LABORATORY CONTROL SAMPLE: 2071190

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	5000	5000	100	80-120	
Manganese, Dissolved	ug/L	500	459	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2071191 2071192

Parameter	Units	40209557001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	<29.6	5000	5000	5040	5040	101	101	75-125	0	20	
Manganese, Dissolved	ug/L	67.5	500	500	525	526	92	92	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

QC Batch: 357240
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40209152001, 40209152002, 40209152003, 40209152004, 40209152005, 40209152006

METHOD BLANK: 2066159
Matrix: Water
Associated Lab Samples: 40209152001, 40209152002, 40209152003, 40209152004, 40209152005, 40209152006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	06/10/20 13:29	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	06/10/20 13:29	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	06/10/20 13:29	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	06/10/20 13:29	
1,1-Dichloroethane	ug/L	<0.27	1.0	06/10/20 13:29	
1,1-Dichloroethene	ug/L	<0.24	1.0	06/10/20 13:29	
1,1-Dichloropropene	ug/L	<0.54	1.8	06/10/20 13:29	
1,2,3-Trichlorobenzene	ug/L	<2.2	7.4	06/10/20 13:29	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	06/10/20 13:29	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	06/10/20 13:29	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	06/10/20 13:29	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	06/10/20 13:29	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	06/10/20 13:29	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	06/10/20 13:29	
1,2-Dichloroethane	ug/L	<0.28	1.0	06/10/20 13:29	
1,2-Dichloropropane	ug/L	<0.28	1.0	06/10/20 13:29	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	06/10/20 13:29	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	06/10/20 13:29	
1,3-Dichloropropane	ug/L	<0.83	2.8	06/10/20 13:29	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	06/10/20 13:29	
2,2-Dichloropropane	ug/L	<2.3	7.6	06/10/20 13:29	
2-Chlorotoluene	ug/L	<0.93	5.0	06/10/20 13:29	
4-Chlorotoluene	ug/L	<0.76	2.5	06/10/20 13:29	
Benzene	ug/L	<0.25	1.0	06/10/20 13:29	
Bromobenzene	ug/L	<0.24	1.0	06/10/20 13:29	
Bromochloromethane	ug/L	<0.36	5.0	06/10/20 13:29	
Bromodichloromethane	ug/L	<0.36	1.2	06/10/20 13:29	
Bromoform	ug/L	<4.0	13.2	06/10/20 13:29	
Bromomethane	ug/L	<0.97	5.0	06/10/20 13:29	
Carbon tetrachloride	ug/L	<1.1	3.6	06/10/20 13:29	
Chlorobenzene	ug/L	<0.71	2.4	06/10/20 13:29	
Chloroethane	ug/L	<1.3	5.0	06/10/20 13:29	
Chloroform	ug/L	<1.3	5.0	06/10/20 13:29	
Chloromethane	ug/L	<2.2	7.3	06/10/20 13:29	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	06/10/20 13:29	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	06/10/20 13:29	
Dibromochloromethane	ug/L	<2.6	8.7	06/10/20 13:29	
Dibromomethane	ug/L	<0.94	3.1	06/10/20 13:29	
Dichlorodifluoromethane	ug/L	<0.50	5.0	06/10/20 13:29	
Diisopropyl ether	ug/L	<1.9	6.3	06/10/20 13:29	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

METHOD BLANK: 2066159 Matrix: Water
Associated Lab Samples: 40209152001, 40209152002, 40209152003, 40209152004, 40209152005, 40209152006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.32	1.1	06/10/20 13:29	
Hexachloro-1,3-butadiene	ug/L	<1.5	4.9	06/10/20 13:29	
Isopropylbenzene (Cumene)	ug/L	<1.7	5.6	06/10/20 13:29	
m&p-Xylene	ug/L	<0.47	2.0	06/10/20 13:29	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	06/10/20 13:29	
Methylene Chloride	ug/L	<0.58	5.0	06/10/20 13:29	
n-Butylbenzene	ug/L	<0.71	2.4	06/10/20 13:29	
n-Propylbenzene	ug/L	<0.81	5.0	06/10/20 13:29	
Naphthalene	ug/L	<1.2	5.0	06/10/20 13:29	
o-Xylene	ug/L	<0.26	1.0	06/10/20 13:29	
p-Isopropyltoluene	ug/L	<0.80	2.7	06/10/20 13:29	
sec-Butylbenzene	ug/L	<0.85	5.0	06/10/20 13:29	
Styrene	ug/L	<3.0	10.0	06/10/20 13:29	
tert-Butylbenzene	ug/L	<0.30	1.0	06/10/20 13:29	
Tetrachloroethene	ug/L	<0.33	1.1	06/10/20 13:29	
Toluene	ug/L	<0.27	0.90	06/10/20 13:29	
trans-1,2-Dichloroethene	ug/L	<0.46	1.5	06/10/20 13:29	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	06/10/20 13:29	
Trichloroethene	ug/L	<0.26	1.0	06/10/20 13:29	
Trichlorofluoromethane	ug/L	<0.21	1.0	06/10/20 13:29	
Vinyl chloride	ug/L	<0.17	1.0	06/10/20 13:29	
4-Bromofluorobenzene (S)	%	93	70-130	06/10/20 13:29	
Dibromofluoromethane (S)	%	101	70-130	06/10/20 13:29	
Toluene-d8 (S)	%	100	70-130	06/10/20 13:29	

LABORATORY CONTROL SAMPLE: 2066160

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	49.1	98	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	55.2	110	64-131	
1,1,2-Trichloroethane	ug/L	50	50.3	101	70-130	
1,1-Dichloroethane	ug/L	50	55.9	112	69-163	
1,1-Dichloroethene	ug/L	50	48.7	97	77-123	
1,2,4-Trichlorobenzene	ug/L	50	51.1	102	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	52.3	105	63-130	
1,2-Dibromoethane (EDB)	ug/L	50	48.9	98	70-130	
1,2-Dichlorobenzene	ug/L	50	53.3	107	70-130	
1,2-Dichloroethane	ug/L	50	52.0	104	78-142	
1,2-Dichloropropane	ug/L	50	52.4	105	86-134	
1,3-Dichlorobenzene	ug/L	50	53.1	106	70-130	
1,4-Dichlorobenzene	ug/L	50	51.2	102	70-130	
Benzene	ug/L	50	51.8	104	70-130	
Bromodichloromethane	ug/L	50	52.1	104	70-130	
Bromoform	ug/L	50	43.9	88	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.: 40209152

LABORATORY CONTROL SAMPLE: 2066160

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/L	50	30.6	61	39-129	
Carbon tetrachloride	ug/L	50	43.2	86	70-132	
Chlorobenzene	ug/L	50	52.8	106	70-130	
Chloroethane	ug/L	50	42.6	85	66-140	
Chloroform	ug/L	50	48.3	97	75-132	
Chloromethane	ug/L	50	29.1	58	32-143	
cis-1,2-Dichloroethene	ug/L	50	48.0	96	70-130	
cis-1,3-Dichloropropene	ug/L	50	52.2	104	70-130	
Dibromochloromethane	ug/L	50	52.2	104	70-130	
Dichlorodifluoromethane	ug/L	50	21.9	44	10-141	
Ethylbenzene	ug/L	50	57.6	115	80-120	
Isopropylbenzene (Cumene)	ug/L	50	58.5	117	70-130	
m&p-Xylene	ug/L	100	117	117	70-130	
Methyl-tert-butyl ether	ug/L	50	53.0	106	61-129	
Methylene Chloride	ug/L	50	53.9	108	70-130	
o-Xylene	ug/L	50	56.2	112	70-130	
Styrene	ug/L	50	59.3	119	70-130	
Tetrachloroethene	ug/L	50	46.8	94	70-130	
Toluene	ug/L	50	53.7	107	80-120	
trans-1,2-Dichloroethene	ug/L	50	53.7	107	70-130	
trans-1,3-Dichloropropene	ug/L	50	47.6	95	69-130	
Trichloroethene	ug/L	50	51.4	103	70-130	
Trichlorofluoromethane	ug/L	50	48.7	97	75-145	
Vinyl chloride	ug/L	50	39.5	79	51-140	
4-Bromofluorobenzene (S)	%			109	70-130	
Dibromofluoromethane (S)	%			98	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2066196 2066197

Parameter	Units	40209152001 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	<0.24	50	50	51.1	52.7	102	105	70-130	3	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	57.5	60.3	115	121	64-137	5	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	49.9	51.9	100	104	70-137	4	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	56.7	58.8	113	118	69-163	4	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	52.9	56.5	106	113	77-129	7	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	51.6	54.1	103	108	68-130	5	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	53.4	54.5	107	109	60-130	2	20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	51.3	51.6	103	103	70-130	0	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	53.6	55.6	107	111	70-130	4	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	54.1	54.9	108	110	78-145	2	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	53.0	55.2	106	110	86-135	4	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	53.8	56.6	108	113	70-130	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2066196 2066197

Parameter	Units	40209152001 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	<0.94	50	50	50.8	53.3	102	107	70-130	5	20	
Benzene	ug/L	<0.25	50	50	53.4	54.4	107	109	70-136	2	20	
Bromodichloromethane	ug/L	<0.36	50	50	52.8	53.6	106	107	70-130	2	20	
Bromoform	ug/L	<4.0	50	50	43.8	44.3	88	89	69-130	1	20	
Bromomethane	ug/L	<0.97	50	50	38.7	39.4	77	79	39-138	2	20	
Carbon tetrachloride	ug/L	<1.1	50	50	46.4	47.7	93	95	70-142	3	20	
Chlorobenzene	ug/L	<0.71	50	50	52.7	54.0	105	108	70-130	2	20	
Chloroethane	ug/L	<1.3	50	50	52.5	53.1	105	106	61-149	1	20	
Chloroform	ug/L	<1.3	50	50	49.6	50.8	99	102	75-133	2	20	
Chloromethane	ug/L	<2.2	50	50	43.1	43.6	86	87	32-143	1	20	
cis-1,2-Dichloroethene	ug/L	1.6	50	50	51.3	53.8	99	104	70-130	5	20	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	53.9	53.2	108	106	70-130	1	20	
Dibromochloromethane	ug/L	<2.6	50	50	51.7	54.9	103	110	70-130	6	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	43.6	42.8	87	86	10-141	2	20	
Ethylbenzene	ug/L	<0.32	50	50	57.7	60.0	115	120	80-120	4	20	
Isopropylbenzene (Cumene)	ug/L	<1.7	50	50	58.4	60.9	117	122	70-130	4	20	
m&p-Xylene	ug/L	<0.47	100	100	117	122	117	122	70-130	5	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	54.3	55.8	109	112	61-136	3	20	
Methylene Chloride	ug/L	<0.58	50	50	55.4	56.2	111	112	68-137	1	20	
o-Xylene	ug/L	<0.26	50	50	56.6	59.1	113	118	70-130	4	20	
Styrene	ug/L	<3.0	50	50	58.9	61.5	118	123	70-130	4	20	
Tetrachloroethene	ug/L	0.72J	50	50	48.7	50.4	96	99	70-130	3	20	
Toluene	ug/L	<0.27	50	50	54.3	57.1	109	114	80-120	5	20	
trans-1,2-Dichloroethene	ug/L	<0.46	50	50	56.0	58.8	112	117	70-130	5	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	48.4	50.1	97	100	69-130	4	20	
Trichloroethene	ug/L	0.40J	50	50	52.7	52.9	105	105	70-130	0	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	58.3	60.0	117	120	74-157	3	20	
Vinyl chloride	ug/L	<0.17	50	50	52.9	53.0	106	106	51-140	0	20	
4-Bromofluorobenzene (S)	%						105	112	70-130			
Dibromofluoromethane (S)	%						97	98	70-130			
Toluene-d8 (S)	%						97	98	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.: 40209152

QC Batch: 357900
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40209152001, 40209152002

METHOD BLANK: 2070253 Matrix: Water
Associated Lab Samples: 40209152001, 40209152002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<0.44	2.0	06/17/20 21:23	

LABORATORY CONTROL SAMPLE: 2070254

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	20.2	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2070255 2070256

Parameter	Units	40209143001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	52.3	400	400	465	463	103	103	90-110	1	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

QC Batch: 357960 | Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 | Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40209152003, 40209152004, 40209152005

METHOD BLANK: 2070612 Matrix: Water
Associated Lab Samples: 40209152003, 40209152004, 40209152005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<0.44	2.0	06/18/20 14:30	

LABORATORY CONTROL SAMPLE: 2070613

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	20.2	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2070614 2070615

Parameter	Units	40209152003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	111	200	200	314	312	102	100	90-110	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2070616 2070617

Parameter	Units	40209189002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	89.1	200	200	284	291	98	101	90-110	2	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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.: 40209152

QC Batch: 357357 | Analysis Method: SM 5310C
QC Batch Method: SM 5310C | Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40209152001, 40209152002, 40209152003, 40209152004, 40209152005

METHOD BLANK: 2066850 Matrix: Water
Associated Lab Samples: 40209152001, 40209152002, 40209152003, 40209152004, 40209152005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<0.14	0.50	06/11/20 10:52	

LABORATORY CONTROL SAMPLE: 2066851

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	12.5	12.1	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2066852 2066853

Parameter	Units	40208964001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	3.8	6	6	9.8	10.1	99	104	80-120	3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2066854 2066855

Parameter	Units	40208964002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	0.90	6	6	6.7	6.8	96	98	80-120	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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.: 40209152

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58187103 SMOKE-OUT CLEANERS
Pace Project No.: 40209152

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40209152001	**MW-2**	EPA 8015B Modified	357991		
40209152002	**MW-3**	EPA 8015B Modified	357991		
40209152003	**MW-4**	EPA 8015B Modified	357991		
40209152004	**BD1**	EPA 8015B Modified	357991		
40209152005	**MW-1**	EPA 8015B Modified	357991		
40209152001	**MW-2**	EPA 6010	358056		
40209152002	**MW-3**	EPA 6010	358056		
40209152003	**MW-4**	EPA 6010	358056		
40209152004	**BD1**	EPA 6010	358056		
40209152005	**MW-1**	EPA 6010	358056		
40209152001	**MW-2**	EPA 8260	357240		
40209152002	**MW-3**	EPA 8260	357240		
40209152003	**MW-4**	EPA 8260	357240		
40209152004	**BD1**	EPA 8260	357240		
40209152005	**MW-1**	EPA 8260	357240		
40209152006	**TRIP BLANK**	EPA 8260	357240		
40209152001	**MW-2**	EPA 300.0	357900		
40209152002	**MW-3**	EPA 300.0	357900		
40209152003	**MW-4**	EPA 300.0	357960		
40209152004	**BD1**	EPA 300.0	357960		
40209152005	**MW-1**	EPA 300.0	357960		
40209152001	**MW-2**	SM 5310C	357357		
40209152002	**MW-3**	SM 5310C	357357		
40209152003	**MW-4**	SM 5310C	357357		
40209152004	**BD1**	SM 5310C	357357		
40209152005	**MW-1**	SM 5310C	357357		

Pace Analytical
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of 1

4L0091S2

CHAIN OF CUSTODY

(Please Print Clearly)	
Company Name:	TestAmerica
Branch/Location:	Franklin / milwaukee
Project Contact:	Scott Hodgson
Phone:	
Project Number:	58187103
Project Name:	Smoke-out Cleaners
Project State:	WI
Sampled By (Print):	Ryan Johnson
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	VOCs	TOC	MEE	Dissolved Fe	Dissolved Mn	Sulfate
	~~MW-1~~		~~Ha~~									
001	MW-2	6/9/20	1105	GW	N	B	X	X	X	X	X	X
002	MW-3		1405	GW	N	C	X	X	X	X	X	X
003	MW-4		1310	GW	N	B	X	X	X	X	X	X
004	BD1		-	GW	Y	D	X	X	X	X	X	X
005	MW-1		1200	GW	Y	D	X	X	X	X	X	X
006	Trip Blank	↓		GW	N	A	X	X	X	X	X	X

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	6/9/2020 1507	Virginia Colt Pace	6/9/20 1507

PACE Project No. 4L0091S2

Receipt Temp = 20I °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

ORIGINAL

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

Sample Preservation Receipt Form

Client Name: Terracon Project # 410209152

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

Lab Lot# of pH paper: 101S291 Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN							
001				—						—		—					6													X		2.5 / 5 / 10
002				—						—		—					6													X		2.5 / 5 / 10
003				—						—		—					6													X		2.5 / 5 / 10
004				—						—		—					6													X		2.5 / 5 / 10
005				—						—		—					6													X		2.5 / 5 / 10
006																	6										2	1					2.5 / 5 / 10
007																											VC						2.5 / 5 / 10
008																											6/19/20						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																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

MJL 6-9-20

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	

Pace Analytical® 1241 Bellevue Street, Green Bay, WI 54302	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: 26Mar2020
	Document No.: **ENV-FRM-GBAY-0014-Rev.00**	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: **WO# : 40209152**

Client Name: Terracon

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☒ Client ☒ Pace Other: _____ VC 6/9/20

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 - NA **Type of Ice:** Wet Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROL /Corr: _____

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

Person examining contents: Date: 6/9/20 Initials: VC

Labeled By Initials: MLR

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. MW-1 crossed off prior to receipt MLR 6-9-20 VC 6/9/20
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2. No mail, invoice, phone #
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. VC 6/9/20
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. MLR 6-9-20
Sample Labels match COC: MLR 6-9-20	☒Yes ☐No ☐N/A	12. new year 006 MLR 6-9-20
-Includes date/time/ID/Analysis Matrix: W		VC 6/9/20
Trip Blank Present:	☒Yes ☐No ☒N/A	13.
Trip Blank Custody Seals Present	☒Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 447		

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

TERRACON

GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Smoke-Out Cleaners	**PROJECT NO.** 58187103
PROJECT LOCATION: Howard, WI	
SAMPLE POINT: MW- 1	**SAMPLE POINT DESCRIPTION:**
CASING DIAMETER: 2"	
WELL DEPTH: 6.4'	
DATE: 6/9/2020 **TIME** 958 AM/PM	**DEPTH TO GROUND WATER (FT):** 2.75
SAMPLING METHOD: Peristaltic	**FLOW RATE:** ~200 ml/min
SAMPLE TIME: 1200	**TOTAL PURGED:** ~2.0 gal

TIME	WATER LEVEL	TEMP.(°)	pH	COND. ( )	ORP ( )	DO ( )
1124	-	19.80	7.31	0.670	-57.2	4.51
1129		19.76	7.24	0.643	-27.3	0.96
1134		19.80	7.25	0.641	-36.3	1.25
1139		19.67	7.25	0.642	-35.4	1.46
1144		19.71	7.27	0.644	-35.7	1.73
1149		19.68	7.27	0.646	-37.8	1.60
1154		19.63	7.26	0.647	-39.2	1.52

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)	**ODOR:** YES (NO) NOT NOTED	**ANALYSES:** TOC, Dissolved MEE, Sulfate, FE/MN

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

250

COMMENTS:

Water level after sampling ~ 2.86

SAMPLED BY: HST	**DATE:** 6/9/2020
REVIEWED BY: Scott A. Hodgson	**DATE:** 7/23/20

TERRACON — GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Smoke-Out Cleaners	**PROJECT NO.** 58187103
PROJECT LOCATION: Howard, WI	
SAMPLE POINT: MW-2	**SAMPLE POINT DESCRIPTION:**
CASING DIAMETER: ~~2"~~ 1"	
WELL DEPTH: 6.4'	
DATE: 6/9/2020	**TIME** 1000 (AM/PM)
DEPTH TO GROUND WATER (FT): 2.86	
SAMPLING METHOD: Peristaltic	**FLOW RATE:** ~200 ml/min
SAMPLE TIME: 1105	**TOTAL PURGED:** ~ 2.0 gal

TIME	WATER LEVEL	TEMP.(° C)	pH	COND. (mS/cm)	ORP (mV)	DO (mg/L)
0933	~~20.19~~ inst	20.19	7.37	0.589	76.5	5.05
1038		19.42	7.20	0.548	77.2	3.04
1043		19.36	7.27	0.533	69.7	2.90
1048		19.34	7.31	0.529	66.2	2.51
1053		19.36	7.34	0.526	63.1	2.42
1058		19.40	7.36	0.524	61.1	2.53
1103		19.37	7.38	0.522	59.0	2.43

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)	**ODOR:** YES (NO) NOT NOTED	**ANALYSES:** TOC, Dissolved MEE, Sulfate, FE/MN

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

RST

COMMENTS:

water level at end - 2.93

SAMPLED BY: RST	**DATE:** 6/9/2020
REVIEWED BY: Scott A. Hodgson	**DATE:** 7/23/20

TERRACON

GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Smoke-Out Cleaners	**PROJECT NO.** 58187103
PROJECT LOCATION: Howard, WI	
SAMPLE POINT: MW- 3	**SAMPLE POINT DESCRIPTION:**
CASING DIAMETER: ~~2~~ "1"	
WELL DEPTH: 6.4'	
DATE: 6/9/2020 **TIME** 1002 **AM /PM**	**DEPTH TO GROUND WATER (FT):** 2.86
SAMPLING METHOD: peristaltic	**FLOW RATE:** ~200 ml/min
SAMPLE TIME: 1405	**TOTAL PURGED:** ~ 2.0 gal

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (mS/cm)	ORP (mV)	DO (mg/L)
1330		19.20	7.26	0.781	-79.1	4.25
1335		19.39	7.13	0.776	-78.1	0.47
1340		19.42	7.16	0.754	-64.2	0.15
1345		19.41	7.17	0.740	-52.7	0.18
1350		19.40	7.17	0.736	-50.4	0.11
1355		19.39	7.17	0.732	-49.8	0.09
1400		19.41	7.17	0.729	-47.0	0.10

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)

ODOR: YES (NO) NOT NOTED

ANALYSES: TOC, Dissolved MEE, Sulfate, FE/MN

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

DST

COMMENTS:

Depth to water after Sampling - 2.97

SAMPLED BY: DST	**DATE:** 6/9/2020
REVIEWED BY: Scott A. Hodgson	**DATE:** 7/23/20

TERRACON

GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Smoke-Out Cleaners	**PROJECT NO.** 58187103
PROJECT LOCATION: Howard, WI	
SAMPLE POINT: MW- 4	**SAMPLE POINT DESCRIPTION:**
CASING DIAMETER: ~~"2"~~ 1"	
WELL DEPTH: 6.41'	
DATE: 6/9/2020 **TIME** 1005 **AM /PM**	**DEPTH TO GROUND WATER (FT):** 2.73
SAMPLING METHOD: Peristaltic	**FLOW RATE:** ~200 ml/min
SAMPLE TIME: 1310	**TOTAL PURGED:** ~~3~~ ~ 2.0 gal

TIME	WATER LEVEL	TEMP.(° C)	pH	COND. (mS/cm)	ORP (MV)	DO (mg/L)
1235		19.93	7.54	0.935	92.7	2.24
1240		19.29	7.23	0.939	96.9	3.01
1245		19.18	7.19	0.942	94.2	1.91
1250		19.13	7.17	0.943	91.3	1.03
1255		19.12	7.15	0.942	86.4	0.68
1300		19.11	7.15	0.942	83.7	0.62
1305		19.12	7.14	0.942	82.9	0.55

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)	**ODOR:** YES (NO) NOT NOTED	**ANALYSES:** TOC, MEE, Sulfate, Dissolved FE/MN

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

DST

COMMENTS:

Depth to water after sampling - 2.80 *BD1*

SAMPLED BY: DST	**DATE:** 6/9/2020
REVIEWED BY: Scott A. Hodgson	**DATE:** 7/23/20

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

July 22, 2020

Scott Hodgson
Terracon, Inc. - Franklin
9856 South 57th Street
Franklin, WI 53132

RE: Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Dear Scott Hodgson:

Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2020. 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
(920)469-2436

CERTIFICATIONS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

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

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

SAMPLE SUMMARY

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40211104001	**MW-1**	Water	07/14/20 10:15	07/14/20 14:40
40211104002	**MW-2**	Water	07/14/20 11:20	07/14/20 14:40
40211104003	**MW-3**	Water	07/14/20 12:00	07/14/20 14:40
40211104004	**MW-4**	Water	07/14/20 13:00	07/14/20 14:40
40211104005	**BD1**	Water	07/14/20 00:00	07/14/20 14:40
40211104006	**TRIP BLANK**	Water	07/14/20 00:00	07/14/20 14:40

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

SAMPLE ANALYTE COUNT

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40211104001	**MW-1**	EPA 8015B Modified	ALD	3	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 8260	LAP	64	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40211104002	**MW-2**	EPA 8015B Modified	ALD	3	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 8260	LAP	64	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40211104003	**MW-3**	EPA 8015B Modified	ALD	3	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 8260	LAP	64	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40211104004	**MW-4**	EPA 8015B Modified	ALD	3	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 8260	LAP	64	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40211104005	**BD1**	EPA 8260	LAP	64	PASI-G
40211104006	**TRIP BLANK**	EPA 8260	LAP	64	PASI-G

PASI-G = Pace Analytical Services - Green Bay

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SUMMARY OF DETECTION

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40211104001	**MW-1**					
EPA 8015B Modified	Ethane	7.0	ug/L	5.6	07/20/20 14:54	
EPA 8015B Modified	Ethene	8.7	ug/L	5.0	07/20/20 14:54	
EPA 8015B Modified	Methane	321	ug/L	11.2	07/20/20 15:11	
EPA 6010	Iron, Dissolved	255000	ug/L	100	07/20/20 15:39	
EPA 6010	Manganese, Dissolved	4980	ug/L	5.0	07/20/20 15:39	
EPA 8260	cis-1,2-Dichloroethene	1.5	ug/L	1.0	07/15/20 15:36	
EPA 8260	Tetrachloroethene	3.5	ug/L	1.1	07/15/20 15:36	
EPA 8260	Trichloroethene	0.29J	ug/L	1.0	07/15/20 15:36	
EPA 8260	Vinyl chloride	39.7	ug/L	1.0	07/15/20 15:36	
EPA 300.0	Sulfate	3.5J	mg/L	10.0	07/16/20 00:29	D3,M0
SM 5310C	Total Organic Carbon	2810	mg/L	150	07/20/20 11:32	
40211104002	**MW-2**					
EPA 8015B Modified	Methane	64.1	ug/L	2.8	07/20/20 11:22	
EPA 6010	Iron, Dissolved	57000	ug/L	100	07/20/20 15:49	
EPA 6010	Manganese, Dissolved	8100	ug/L	5.0	07/20/20 15:49	
EPA 8260	cis-1,2-Dichloroethene	1.4	ug/L	1.0	07/15/20 15:55	
EPA 8260	Vinyl chloride	1.2	ug/L	1.0	07/15/20 15:55	
EPA 300.0	Sulfate	8.8J	mg/L	10.0	07/16/20 01:56	D3
SM 5310C	Total Organic Carbon	726	mg/L	50.0	07/19/20 19:29	
40211104003	**MW-3**					
EPA 8015B Modified	Ethene	8.3	ug/L	5.0	07/20/20 11:29	
EPA 8015B Modified	Methane	2160	ug/L	28.0	07/20/20 14:11	
EPA 6010	Iron, Dissolved	36000	ug/L	100	07/20/20 15:52	
EPA 6010	Manganese, Dissolved	2850	ug/L	5.0	07/20/20 15:52	
EPA 8260	Chloroethane	13.2	ug/L	12.5	07/15/20 16:52	
EPA 8260	cis-1,2-Dichloroethene	340	ug/L	2.5	07/15/20 16:52	
EPA 8260	trans-1,2-Dichloroethene	9.1	ug/L	3.9	07/15/20 16:52	
EPA 8260	Tetrachloroethene	16.0	ug/L	2.7	07/15/20 16:52	
EPA 8260	Trichloroethene	18.1	ug/L	2.5	07/15/20 16:52	
EPA 8260	Vinyl chloride	103	ug/L	2.5	07/15/20 16:52	
EPA 300.0	Sulfate	6.9J	mg/L	10.0	07/16/20 02:10	D3
SM 5310C	Total Organic Carbon	283	mg/L	15.0	07/19/20 19:45	
40211104004	**MW-4**					
EPA 8015B Modified	Ethane	15.2	ug/L	5.6	07/20/20 11:36	
EPA 8015B Modified	Ethene	16.6	ug/L	5.0	07/20/20 11:36	
EPA 8015B Modified	Methane	1820	ug/L	28.0	07/20/20 14:18	
EPA 6010	Iron, Dissolved	160000	ug/L	100	07/20/20 15:54	
EPA 6010	Manganese, Dissolved	5540	ug/L	5.0	07/20/20 15:54	
EPA 8260	cis-1,2-Dichloroethene	12.3	ug/L	1.0	07/15/20 16:14	
EPA 8260	trans-1,2-Dichloroethene	0.96J	ug/L	1.5	07/15/20 16:14	
EPA 8260	Vinyl chloride	17.2	ug/L	1.0	07/15/20 16:14	
EPA 300.0	Sulfate	13.2	mg/L	10.0	07/16/20 02:25	
SM 5310C	Total Organic Carbon	1150	mg/L	50.0	07/19/20 20:02	
40211104005	**BD1**					
EPA 8260	Chloroethane	11.3	ug/L	5.0	07/15/20 16:33	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40211104005	**BD1**					
EPA 8260	1,1-Dichloroethene	0.59J	ug/L	1.0	07/15/20 16:33	
EPA 8260	cis-1,2-Dichloroethene	427	ug/L	5.0	07/16/20 07:20	
EPA 8260	trans-1,2-Dichloroethene	8.6	ug/L	1.5	07/15/20 16:33	
EPA 8260	Tetrachloroethene	13.1	ug/L	1.1	07/15/20 16:33	
EPA 8260	Trichloroethene	14.0	ug/L	1.0	07/15/20 16:33	
EPA 8260	Vinyl chloride	118	ug/L	1.0	07/15/20 16:33	

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PROJECT NARRATIVE

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Method: **EPA 8015B Modified**
Description: Methane, Ethane, Ethene GCV
Client: Terracon, Inc. - Franklin
Date: July 22, 2020

General Information:
4 samples were analyzed for EPA 8015B Modified 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.

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:

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PROJECT NARRATIVE

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: Terracon, Inc. - Franklin
Date: July 22, 2020

General Information:
4 samples were analyzed for EPA 6010 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.

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:

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PROJECT NARRATIVE

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Method: **EPA 8260**
Description: 8260 MSV
Client: Terracon, Inc. - Franklin
Date: July 22, 2020

General Information:
6 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:

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PROJECT NARRATIVE

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Method: **EPA 300.0**
Description: 300.0 IC Anions
Client: Terracon, Inc. - Franklin
Date: July 22, 2020

General Information:
4 samples were analyzed for EPA 300.0 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.

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.

QC Batch: 360174

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40211104001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 2082436)
  - Sulfate
- MSD (Lab ID: 2082437)
  - Sulfate

Additional Comments:

Analyte Comments:

QC Batch: 360174

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- MW-1 (Lab ID: 40211104001)
  - Sulfate
- MW-2 (Lab ID: 40211104002)
  - Sulfate
- MW-3 (Lab ID: 40211104003)
  - Sulfate

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PROJECT NARRATIVE

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Method: **SM 5310C**
Description: 5310C TOC
Client: Terracon, Inc. - Franklin
Date: July 22, 2020

General Information:
4 samples were analyzed for SM 5310C 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.

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.

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ANALYTICAL RESULTS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Sample: MW-1 **Lab ID: 40211104001** Collected: 07/14/20 10:15 Received: 07/14/20 14:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	**7.0**	ug/L	5.6	1.2	1		07/20/20 14:54	74-84-0	
Ethene	**8.7**	ug/L	5.0	1.2	1		07/20/20 14:54	74-85-1	
Methane	**321**	ug/L	11.2	2.7	4		07/20/20 15:11	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Pace Analytical Services - Green Bay								
Iron, Dissolved	**255000**	ug/L	100	29.6	1		07/20/20 15:39	7439-89-6	
Manganese, Dissolved	**4980**	ug/L	5.0	1.1	1		07/20/20 15:39	7439-96-5	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Benzene	**<0.25**	ug/L	1.0	0.25	1		07/15/20 15:36	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		07/15/20 15:36	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		07/15/20 15:36	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		07/15/20 15:36	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		07/15/20 15:36	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		07/15/20 15:36	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 15:36	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		07/15/20 15:36	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		07/15/20 15:36	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		07/15/20 15:36	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 15:36	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		07/15/20 15:36	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		07/15/20 15:36	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		07/15/20 15:36	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		07/15/20 15:36	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		07/15/20 15:36	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		07/15/20 15:36	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		07/15/20 15:36	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		07/15/20 15:36	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		07/15/20 15:36	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 15:36	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		07/15/20 15:36	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		07/15/20 15:36	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		07/15/20 15:36	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		07/15/20 15:36	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 15:36	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		07/15/20 15:36	75-35-4	
cis-1,2-Dichloroethene	**1.5**	ug/L	1.0	0.27	1		07/15/20 15:36	156-59-2	
trans-1,2-Dichloroethene	**<0.46**	ug/L	1.5	0.46	1		07/15/20 15:36	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 15:36	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		07/15/20 15:36	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		07/15/20 15:36	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		07/15/20 15:36	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		07/15/20 15:36	10061-01-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Sample: MW-1 **Lab ID: 40211104001** Collected: 07/14/20 10:15 Received: 07/14/20 14:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		07/15/20 15:36	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		07/15/20 15:36	108-20-3	
Ethylbenzene	**<0.32**	ug/L	1.1	0.32	1		07/15/20 15:36	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		07/15/20 15:36	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		07/15/20 15:36	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		07/15/20 15:36	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		07/15/20 15:36	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		07/15/20 15:36	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		07/15/20 15:36	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		07/15/20 15:36	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		07/15/20 15:36	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		07/15/20 15:36	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 15:36	79-34-5	
Tetrachloroethene	**3.5**	ug/L	1.1	0.33	1		07/15/20 15:36	127-18-4	
Toluene	**<0.27**	ug/L	0.90	0.27	1		07/15/20 15:36	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		07/15/20 15:36	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		07/15/20 15:36	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/15/20 15:36	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		07/15/20 15:36	79-00-5	
Trichloroethene	**0.29J**	ug/L	1.0	0.26	1		07/15/20 15:36	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		07/15/20 15:36	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		07/15/20 15:36	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		07/15/20 15:36	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		07/15/20 15:36	108-67-8	
Vinyl chloride	**39.7**	ug/L	1.0	0.17	1		07/15/20 15:36	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		07/15/20 15:36	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		07/15/20 15:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130		1		07/15/20 15:36	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		07/15/20 15:36	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		07/15/20 15:36	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
	Pace Analytical Services - Green Bay								
Sulfate	**3.5J**	mg/L	10.0	2.2	5		07/16/20 00:29	14808-79-8	D3,M0
5310C TOC	Analytical Method: SM 5310C								
	Pace Analytical Services - Green Bay								
Total Organic Carbon	**2810**	mg/L	150	41.5	300		07/20/20 11:32	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Sample: MW-2 **Lab ID: 40211104002** Collected: 07/14/20 11:20 Received: 07/14/20 14:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	**<1.2**	ug/L	5.6	1.2	1		07/20/20 11:22	74-84-0	
Ethene	**<1.2**	ug/L	5.0	1.2	1		07/20/20 11:22	74-85-1	
Methane	**64.1**	ug/L	2.8	0.66	1		07/20/20 11:22	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Pace Analytical Services - Green Bay								
Iron, Dissolved	**57000**	ug/L	100	29.6	1		07/20/20 15:49	7439-89-6	
Manganese, Dissolved	**8100**	ug/L	5.0	1.1	1		07/20/20 15:49	7439-96-5	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Benzene	**<0.25**	ug/L	1.0	0.25	1		07/15/20 15:55	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		07/15/20 15:55	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		07/15/20 15:55	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		07/15/20 15:55	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		07/15/20 15:55	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		07/15/20 15:55	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 15:55	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		07/15/20 15:55	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		07/15/20 15:55	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		07/15/20 15:55	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 15:55	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		07/15/20 15:55	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		07/15/20 15:55	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		07/15/20 15:55	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		07/15/20 15:55	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		07/15/20 15:55	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		07/15/20 15:55	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		07/15/20 15:55	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		07/15/20 15:55	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		07/15/20 15:55	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 15:55	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		07/15/20 15:55	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		07/15/20 15:55	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		07/15/20 15:55	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		07/15/20 15:55	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 15:55	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		07/15/20 15:55	75-35-4	
cis-1,2-Dichloroethene	**1.4**	ug/L	1.0	0.27	1		07/15/20 15:55	156-59-2	
trans-1,2-Dichloroethene	**<0.46**	ug/L	1.5	0.46	1		07/15/20 15:55	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 15:55	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		07/15/20 15:55	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		07/15/20 15:55	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		07/15/20 15:55	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		07/15/20 15:55	10061-01-5	

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.: 40211104

Sample: MW-2 **Lab ID: 40211104002** Collected: 07/14/20 11:20 Received: 07/14/20 14:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		07/15/20 15:55	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		07/15/20 15:55	108-20-3	
Ethylbenzene	**<0.32**	ug/L	1.1	0.32	1		07/15/20 15:55	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		07/15/20 15:55	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		07/15/20 15:55	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		07/15/20 15:55	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		07/15/20 15:55	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		07/15/20 15:55	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		07/15/20 15:55	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		07/15/20 15:55	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		07/15/20 15:55	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		07/15/20 15:55	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 15:55	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		07/15/20 15:55	127-18-4	
Toluene	**<0.27**	ug/L	0.90	0.27	1		07/15/20 15:55	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		07/15/20 15:55	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		07/15/20 15:55	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/15/20 15:55	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		07/15/20 15:55	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/15/20 15:55	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		07/15/20 15:55	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		07/15/20 15:55	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		07/15/20 15:55	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		07/15/20 15:55	108-67-8	
Vinyl chloride	**1.2**	ug/L	1.0	0.17	1		07/15/20 15:55	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		07/15/20 15:55	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		07/15/20 15:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	87	%	70-130		1		07/15/20 15:55	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		07/15/20 15:55	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		07/15/20 15:55	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
	Pace Analytical Services - Green Bay								
Sulfate	**8.8J**	mg/L	10.0	2.2	5		07/16/20 01:56	14808-79-8	D3
5310C TOC	Analytical Method: SM 5310C								
	Pace Analytical Services - Green Bay								
Total Organic Carbon	**726**	mg/L	50.0	13.8	100		07/19/20 19:29	7440-44-0	

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.: 40211104

Sample: MW-3 **Lab ID: 40211104003** Collected: 07/14/20 12:00 Received: 07/14/20 14:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	**<1.2**	ug/L	5.6	1.2	1		07/20/20 11:29	74-84-0	
Ethene	**8.3**	ug/L	5.0	1.2	1		07/20/20 11:29	74-85-1	
Methane	**2160**	ug/L	28.0	6.6	10		07/20/20 14:11	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Pace Analytical Services - Green Bay								
Iron, Dissolved	**36000**	ug/L	100	29.6	1		07/20/20 15:52	7439-89-6	
Manganese, Dissolved	**2850**	ug/L	5.0	1.1	1		07/20/20 15:52	7439-96-5	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Benzene	**<0.62**	ug/L	2.5	0.62	2.5		07/15/20 16:52	71-43-2	
Bromobenzene	**<0.60**	ug/L	2.5	0.60	2.5		07/15/20 16:52	108-86-1	
Bromochloromethane	**<0.91**	ug/L	12.5	0.91	2.5		07/15/20 16:52	74-97-5	
Bromodichloromethane	**<0.91**	ug/L	3.0	0.91	2.5		07/15/20 16:52	75-27-4	
Bromoform	**<9.9**	ug/L	33.1	9.9	2.5		07/15/20 16:52	75-25-2	
Bromomethane	**<2.4**	ug/L	12.5	2.4	2.5		07/15/20 16:52	74-83-9	
n-Butylbenzene	**<1.8**	ug/L	5.9	1.8	2.5		07/15/20 16:52	104-51-8	
sec-Butylbenzene	**<2.1**	ug/L	12.5	2.1	2.5		07/15/20 16:52	135-98-8	
tert-Butylbenzene	**<0.76**	ug/L	2.5	0.76	2.5		07/15/20 16:52	98-06-6	
Carbon tetrachloride	**<2.7**	ug/L	9.0	2.7	2.5		07/15/20 16:52	56-23-5	
Chlorobenzene	**<1.8**	ug/L	5.9	1.8	2.5		07/15/20 16:52	108-90-7	
Chloroethane	**13.2**	ug/L	12.5	3.4	2.5		07/15/20 16:52	75-00-3	
Chloroform	**<3.2**	ug/L	12.5	3.2	2.5		07/15/20 16:52	67-66-3	
Chloromethane	**<5.5**	ug/L	18.2	5.5	2.5		07/15/20 16:52	74-87-3	
2-Chlorotoluene	**<2.3**	ug/L	12.5	2.3	2.5		07/15/20 16:52	95-49-8	
4-Chlorotoluene	**<1.9**	ug/L	6.3	1.9	2.5		07/15/20 16:52	106-43-4	
1,2-Dibromo-3-chloropropane	**<4.4**	ug/L	14.7	4.4	2.5		07/15/20 16:52	96-12-8	
Dibromochloromethane	**<6.5**	ug/L	21.7	6.5	2.5		07/15/20 16:52	124-48-1	
1,2-Dibromoethane (EDB)	**<2.1**	ug/L	6.9	2.1	2.5		07/15/20 16:52	106-93-4	
Dibromomethane	**<2.3**	ug/L	7.8	2.3	2.5		07/15/20 16:52	74-95-3	
1,2-Dichlorobenzene	**<1.8**	ug/L	5.9	1.8	2.5		07/15/20 16:52	95-50-1	
1,3-Dichlorobenzene	**<1.6**	ug/L	5.2	1.6	2.5		07/15/20 16:52	541-73-1	
1,4-Dichlorobenzene	**<2.4**	ug/L	7.9	2.4	2.5		07/15/20 16:52	106-46-7	
Dichlorodifluoromethane	**<1.2**	ug/L	12.5	1.2	2.5		07/15/20 16:52	75-71-8	
1,1-Dichloroethane	**<0.68**	ug/L	2.5	0.68	2.5		07/15/20 16:52	75-34-3	
1,2-Dichloroethane	**<0.70**	ug/L	2.5	0.70	2.5		07/15/20 16:52	107-06-2	
1,1-Dichloroethene	**<0.61**	ug/L	2.5	0.61	2.5		07/15/20 16:52	75-35-4	
cis-1,2-Dichloroethene	**340**	ug/L	2.5	0.68	2.5		07/15/20 16:52	156-59-2	
trans-1,2-Dichloroethene	**9.1**	ug/L	3.9	1.2	2.5		07/15/20 16:52	156-60-5	
1,2-Dichloropropane	**<0.71**	ug/L	2.5	0.71	2.5		07/15/20 16:52	78-87-5	
1,3-Dichloropropane	**<2.1**	ug/L	6.9	2.1	2.5		07/15/20 16:52	142-28-9	
2,2-Dichloropropane	**<5.7**	ug/L	18.9	5.7	2.5		07/15/20 16:52	594-20-7	
1,1-Dichloropropene	**<1.4**	ug/L	4.5	1.4	2.5		07/15/20 16:52	563-58-6	
cis-1,3-Dichloropropene	**<9.1**	ug/L	30.2	9.1	2.5		07/15/20 16:52	10061-01-5	

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.: 40211104

Sample: MW-3 **Lab ID: 40211104003** Collected: 07/14/20 12:00 Received: 07/14/20 14:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
trans-1,3-Dichloropropene	**<10.9**	ug/L	36.4	10.9	2.5		07/15/20 16:52	10061-02-6	
Diisopropyl ether	**<4.7**	ug/L	15.7	4.7	2.5		07/15/20 16:52	108-20-3	
Ethylbenzene	**<0.80**	ug/L	2.7	0.80	2.5		07/15/20 16:52	100-41-4	
Hexachloro-1,3-butadiene	**<3.7**	ug/L	12.2	3.7	2.5		07/15/20 16:52	87-68-3	
Isopropylbenzene (Cumene)	**<4.2**	ug/L	14.0	4.2	2.5		07/15/20 16:52	98-82-8	
p-Isopropyltoluene	**<2.0**	ug/L	6.7	2.0	2.5		07/15/20 16:52	99-87-6	
Methylene Chloride	**<1.5**	ug/L	12.5	1.5	2.5		07/15/20 16:52	75-09-2	
Methyl-tert-butyl ether	**<3.1**	ug/L	10.4	3.1	2.5		07/15/20 16:52	1634-04-4	
Naphthalene	**<2.9**	ug/L	12.5	2.9	2.5		07/15/20 16:52	91-20-3	
n-Propylbenzene	**<2.0**	ug/L	12.5	2.0	2.5		07/15/20 16:52	103-65-1	
Styrene	**<7.5**	ug/L	25.1	7.5	2.5		07/15/20 16:52	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.67**	ug/L	2.5	0.67	2.5		07/15/20 16:52	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.69**	ug/L	2.5	0.69	2.5		07/15/20 16:52	79-34-5	
Tetrachloroethene	**16.0**	ug/L	2.7	0.82	2.5		07/15/20 16:52	127-18-4	
Toluene	**<0.67**	ug/L	2.2	0.67	2.5		07/15/20 16:52	108-88-3	
1,2,3-Trichlorobenzene	**<5.5**	ug/L	18.4	5.5	2.5		07/15/20 16:52	87-61-6	
1,2,4-Trichlorobenzene	**<2.4**	ug/L	12.5	2.4	2.5		07/15/20 16:52	120-82-1	
1,1,1-Trichloroethane	**<0.61**	ug/L	2.5	0.61	2.5		07/15/20 16:52	71-55-6	
1,1,2-Trichloroethane	**<1.4**	ug/L	12.5	1.4	2.5		07/15/20 16:52	79-00-5	
Trichloroethene	**18.1**	ug/L	2.5	0.64	2.5		07/15/20 16:52	79-01-6	
Trichlorofluoromethane	**<0.54**	ug/L	2.5	0.54	2.5		07/15/20 16:52	75-69-4	
1,2,3-Trichloropropane	**<1.5**	ug/L	12.5	1.5	2.5		07/15/20 16:52	96-18-4	
1,2,4-Trimethylbenzene	**<2.1**	ug/L	7.0	2.1	2.5		07/15/20 16:52	95-63-6	
1,3,5-Trimethylbenzene	**<2.2**	ug/L	7.3	2.2	2.5		07/15/20 16:52	108-67-8	
Vinyl chloride	**103**	ug/L	2.5	0.44	2.5		07/15/20 16:52	75-01-4	
m&p-Xylene	**<1.2**	ug/L	5.0	1.2	2.5		07/15/20 16:52	179601-23-1	
o-Xylene	**<0.65**	ug/L	2.5	0.65	2.5		07/15/20 16:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130		2.5		07/15/20 16:52	460-00-4	
Dibromofluoromethane (S)	103	%	70-130		2.5		07/15/20 16:52	1868-53-7	
Toluene-d8 (S)	100	%	70-130		2.5		07/15/20 16:52	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
	Pace Analytical Services - Green Bay								
Sulfate	**6.9J**	mg/L	10.0	2.2	5		07/16/20 02:10	14808-79-8	D3
5310C TOC	Analytical Method: SM 5310C								
	Pace Analytical Services - Green Bay								
Total Organic Carbon	**283**	mg/L	15.0	4.2	30		07/19/20 19:45	7440-44-0	

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.: 40211104

Sample: MW-4 **Lab ID: 40211104004** Collected: 07/14/20 13:00 Received: 07/14/20 14:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	**15.2**	ug/L	5.6	1.2	1		07/20/20 11:36	74-84-0	
Ethene	**16.6**	ug/L	5.0	1.2	1		07/20/20 11:36	74-85-1	
Methane	**1820**	ug/L	28.0	6.6	10		07/20/20 14:18	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Pace Analytical Services - Green Bay								
Iron, Dissolved	**160000**	ug/L	100	29.6	1		07/20/20 15:54	7439-89-6	
Manganese, Dissolved	**5540**	ug/L	5.0	1.1	1		07/20/20 15:54	7439-96-5	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Benzene	**<0.25**	ug/L	1.0	0.25	1		07/15/20 16:14	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		07/15/20 16:14	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		07/15/20 16:14	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		07/15/20 16:14	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		07/15/20 16:14	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		07/15/20 16:14	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 16:14	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		07/15/20 16:14	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		07/15/20 16:14	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		07/15/20 16:14	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 16:14	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		07/15/20 16:14	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		07/15/20 16:14	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		07/15/20 16:14	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		07/15/20 16:14	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		07/15/20 16:14	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		07/15/20 16:14	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		07/15/20 16:14	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		07/15/20 16:14	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		07/15/20 16:14	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 16:14	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		07/15/20 16:14	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		07/15/20 16:14	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		07/15/20 16:14	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		07/15/20 16:14	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 16:14	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		07/15/20 16:14	75-35-4	
cis-1,2-Dichloroethene	**12.3**	ug/L	1.0	0.27	1		07/15/20 16:14	156-59-2	
trans-1,2-Dichloroethene	**0.96J**	ug/L	1.5	0.46	1		07/15/20 16:14	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 16:14	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		07/15/20 16:14	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		07/15/20 16:14	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		07/15/20 16:14	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		07/15/20 16:14	10061-01-5	

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.: 40211104

Sample: MW-4 **Lab ID: 40211104004** Collected: 07/14/20 13:00 Received: 07/14/20 14:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		07/15/20 16:14	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		07/15/20 16:14	108-20-3	
Ethylbenzene	**<0.32**	ug/L	1.1	0.32	1		07/15/20 16:14	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		07/15/20 16:14	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		07/15/20 16:14	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		07/15/20 16:14	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		07/15/20 16:14	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		07/15/20 16:14	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		07/15/20 16:14	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		07/15/20 16:14	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		07/15/20 16:14	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		07/15/20 16:14	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 16:14	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		07/15/20 16:14	127-18-4	
Toluene	**<0.27**	ug/L	0.90	0.27	1		07/15/20 16:14	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		07/15/20 16:14	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		07/15/20 16:14	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/15/20 16:14	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		07/15/20 16:14	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/15/20 16:14	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		07/15/20 16:14	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		07/15/20 16:14	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		07/15/20 16:14	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		07/15/20 16:14	108-67-8	
Vinyl chloride	**17.2**	ug/L	1.0	0.17	1		07/15/20 16:14	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		07/15/20 16:14	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		07/15/20 16:14	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	88	%	70-130		1		07/15/20 16:14	460-00-4	
Dibromofluoromethane (S)	98	%	70-130		1		07/15/20 16:14	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		07/15/20 16:14	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
	Pace Analytical Services - Green Bay								
Sulfate	**13.2**	mg/L	10.0	2.2	5		07/16/20 02:25	14808-79-8	
5310C TOC	Analytical Method: SM 5310C								
	Pace Analytical Services - Green Bay								
Total Organic Carbon	**1150**	mg/L	50.0	13.8	100		07/19/20 20:02	7440-44-0	

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.: 40211104

Sample: BD1 **Lab ID: 40211104005** Collected: 07/14/20 00:00 Received: 07/14/20 14:40 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	**<0.25**	ug/L	1.0	0.25	1		07/15/20 16:33	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		07/15/20 16:33	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		07/15/20 16:33	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		07/15/20 16:33	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		07/15/20 16:33	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		07/15/20 16:33	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 16:33	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		07/15/20 16:33	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		07/15/20 16:33	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		07/15/20 16:33	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 16:33	108-90-7	
Chloroethane	**11.3**	ug/L	5.0	1.3	1		07/15/20 16:33	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		07/15/20 16:33	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		07/15/20 16:33	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		07/15/20 16:33	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		07/15/20 16:33	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		07/15/20 16:33	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		07/15/20 16:33	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		07/15/20 16:33	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		07/15/20 16:33	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 16:33	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		07/15/20 16:33	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		07/15/20 16:33	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		07/15/20 16:33	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		07/15/20 16:33	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 16:33	107-06-2	
1,1-Dichloroethene	**0.59J**	ug/L	1.0	0.24	1		07/15/20 16:33	75-35-4	
cis-1,2-Dichloroethene	**427**	ug/L	5.0	1.4	5		07/16/20 07:20	156-59-2	
trans-1,2-Dichloroethene	**8.6**	ug/L	1.5	0.46	1		07/15/20 16:33	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 16:33	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		07/15/20 16:33	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		07/15/20 16:33	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		07/15/20 16:33	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		07/15/20 16:33	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		07/15/20 16:33	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		07/15/20 16:33	108-20-3	
Ethylbenzene	**<0.32**	ug/L	1.1	0.32	1		07/15/20 16:33	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		07/15/20 16:33	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		07/15/20 16:33	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		07/15/20 16:33	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		07/15/20 16:33	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		07/15/20 16:33	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		07/15/20 16:33	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		07/15/20 16:33	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		07/15/20 16:33	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.: 40211104

Sample: BD1 **Lab ID: 40211104005** Collected: 07/14/20 00:00 Received: 07/14/20 14:40 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	**<0.27**	ug/L	1.0	0.27	1		07/15/20 16:33	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 16:33	79-34-5	
Tetrachloroethene	**13.1**	ug/L	1.1	0.33	1		07/15/20 16:33	127-18-4	
Toluene	**<0.27**	ug/L	0.90	0.27	1		07/15/20 16:33	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		07/15/20 16:33	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		07/15/20 16:33	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/15/20 16:33	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		07/15/20 16:33	79-00-5	
Trichloroethene	**14.0**	ug/L	1.0	0.26	1		07/15/20 16:33	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		07/15/20 16:33	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		07/15/20 16:33	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		07/15/20 16:33	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		07/15/20 16:33	108-67-8	
Vinyl chloride	**118**	ug/L	1.0	0.17	1		07/15/20 16:33	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		07/15/20 16:33	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		07/15/20 16:33	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		07/15/20 16:33	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		07/15/20 16:33	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		07/15/20 16:33	2037-26-5	

Sample: TRIP BLANK **Lab ID: 40211104006** Collected: 07/14/20 00:00 Received: 07/14/20 14:40 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	**<0.25**	ug/L	1.0	0.25	1		07/15/20 15:17	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		07/15/20 15:17	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		07/15/20 15:17	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		07/15/20 15:17	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		07/15/20 15:17	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		07/15/20 15:17	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 15:17	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		07/15/20 15:17	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		07/15/20 15:17	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		07/15/20 15:17	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 15:17	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		07/15/20 15:17	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		07/15/20 15:17	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		07/15/20 15:17	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		07/15/20 15:17	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		07/15/20 15:17	106-43-4	

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.: 40211104

Sample: TRIP BLANK **Lab ID: 40211104006** Collected: 07/14/20 00:00 Received: 07/14/20 14:40 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	**<1.8**	ug/L	5.9	1.8	1		07/15/20 15:17	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		07/15/20 15:17	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		07/15/20 15:17	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		07/15/20 15:17	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		07/15/20 15:17	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		07/15/20 15:17	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		07/15/20 15:17	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		07/15/20 15:17	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		07/15/20 15:17	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 15:17	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		07/15/20 15:17	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		07/15/20 15:17	156-59-2	
trans-1,2-Dichloroethene	**<0.46**	ug/L	1.5	0.46	1		07/15/20 15:17	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 15:17	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		07/15/20 15:17	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		07/15/20 15:17	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		07/15/20 15:17	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		07/15/20 15:17	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		07/15/20 15:17	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		07/15/20 15:17	108-20-3	
Ethylbenzene	**<0.32**	ug/L	1.1	0.32	1		07/15/20 15:17	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		07/15/20 15:17	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		07/15/20 15:17	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		07/15/20 15:17	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		07/15/20 15:17	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		07/15/20 15:17	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		07/15/20 15:17	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		07/15/20 15:17	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		07/15/20 15:17	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		07/15/20 15:17	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		07/15/20 15:17	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		07/15/20 15:17	127-18-4	
Toluene	**<0.27**	ug/L	0.90	0.27	1		07/15/20 15:17	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		07/15/20 15:17	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		07/15/20 15:17	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		07/15/20 15:17	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		07/15/20 15:17	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		07/15/20 15:17	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		07/15/20 15:17	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		07/15/20 15:17	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		07/15/20 15:17	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		07/15/20 15:17	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		07/15/20 15:17	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		07/15/20 15:17	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		07/15/20 15:17	95-47-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Sample: TRIP BLANK **Lab ID: 40211104006** Collected: 07/14/20 00:00 Received: 07/14/20 14:40 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)	89	%	70-130		1		07/15/20 15:17	460-00-4	HS
Dibromofluoromethane (S)	103	%	70-130		1		07/15/20 15:17	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		07/15/20 15:17	2037-26-5	

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QUALITY CONTROL DATA

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

QC Batch: 360600
QC Batch Method: EPA 8015B Modified
Analysis Method: EPA 8015B Modified
Analysis Description: Methane, Ethane, Ethene GCV
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40211104001, 40211104002, 40211104003, 40211104004

METHOD BLANK: 2085315 Matrix: Water
Associated Lab Samples: 40211104001, 40211104002, 40211104003, 40211104004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	<1.2	5.6	07/20/20 10:26	
Ethene	ug/L	<1.2	5.0	07/20/20 10:26	
Methane	ug/L	<0.66	2.8	07/20/20 10:26	

LABORATORY CONTROL SAMPLE & LCSD: 2085316 2085317

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	53.6	51.9	53.2	97	99	80-120	2	20	
Ethene	ug/L	50	47.9	48.2	96	96	80-120	1	20	
Methane	ug/L	28.6	27.2	28.1	95	98	79-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2085318 2085319

Parameter	Units	40211355008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Ethane	ug/L	<1.2	53.6	53.6	48.4	49.6	90	93	79-120	2	20	
Ethene	ug/L	<1.2	50	50	44.2	45.1	88	90	79-120	2	20	
Methane	ug/L	<0.66	28.6	28.6	25.5	26.0	89	91	10-200	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

QC Batch: 360701
QC Batch Method: EPA 6010
Analysis Method: EPA 6010
Analysis Description: ICP Metals, Trace, Dissolved
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40211104001, 40211104002, 40211104003, 40211104004

METHOD BLANK: 2085580 Matrix: Water
Associated Lab Samples: 40211104001, 40211104002, 40211104003, 40211104004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	<29.6	100	07/20/20 15:25	
Manganese, Dissolved	ug/L	<1.1	5.0	07/20/20 15:25	

LABORATORY CONTROL SAMPLE: 2085581

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	5000	5010	100	80-120	
Manganese, Dissolved	ug/L	500	482	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2085583 2085584

Parameter	Units	40211094009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	6410	5000	5000	11100	11100	93	94	75-125	0	20	
Manganese, Dissolved	ug/L	431	500	500	890	890	92	92	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

QC Batch: 360247
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40211104001, 40211104002, 40211104003, 40211104004, 40211104005, 40211104006

METHOD BLANK: 2083126 Matrix: Water
Associated Lab Samples: 40211104001, 40211104002, 40211104003, 40211104004, 40211104005, 40211104006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	07/15/20 07:26	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	07/15/20 07:26	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	07/15/20 07:26	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	07/15/20 07:26	
1,1-Dichloroethane	ug/L	<0.27	1.0	07/15/20 07:26	
1,1-Dichloroethene	ug/L	<0.24	1.0	07/15/20 07:26	
1,1-Dichloropropene	ug/L	<0.54	1.8	07/15/20 07:26	
1,2,3-Trichlorobenzene	ug/L	<2.2	7.4	07/15/20 07:26	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	07/15/20 07:26	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	07/15/20 07:26	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	07/15/20 07:26	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	07/15/20 07:26	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	07/15/20 07:26	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	07/15/20 07:26	
1,2-Dichloroethane	ug/L	<0.28	1.0	07/15/20 07:26	
1,2-Dichloropropane	ug/L	<0.28	1.0	07/15/20 07:26	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	07/15/20 07:26	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	07/15/20 07:26	
1,3-Dichloropropane	ug/L	<0.83	2.8	07/15/20 07:26	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	07/15/20 07:26	
2,2-Dichloropropane	ug/L	<2.3	7.6	07/15/20 07:26	
2-Chlorotoluene	ug/L	<0.93	5.0	07/15/20 07:26	
4-Chlorotoluene	ug/L	<0.76	2.5	07/15/20 07:26	
Benzene	ug/L	<0.25	1.0	07/15/20 07:26	
Bromobenzene	ug/L	<0.24	1.0	07/15/20 07:26	
Bromochloromethane	ug/L	<0.36	5.0	07/15/20 07:26	
Bromodichloromethane	ug/L	<0.36	1.2	07/15/20 07:26	
Bromoform	ug/L	<4.0	13.2	07/15/20 07:26	
Bromomethane	ug/L	<0.97	5.0	07/15/20 07:26	
Carbon tetrachloride	ug/L	<1.1	3.6	07/15/20 07:26	
Chlorobenzene	ug/L	<0.71	2.4	07/15/20 07:26	
Chloroethane	ug/L	<1.3	5.0	07/15/20 07:26	
Chloroform	ug/L	<1.3	5.0	07/15/20 07:26	
Chloromethane	ug/L	<2.2	7.3	07/15/20 07:26	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	07/15/20 07:26	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	07/15/20 07:26	
Dibromochloromethane	ug/L	<2.6	8.7	07/15/20 07:26	
Dibromomethane	ug/L	<0.94	3.1	07/15/20 07:26	
Dichlorodifluoromethane	ug/L	<0.50	5.0	07/15/20 07:26	
Diisopropyl ether	ug/L	<1.9	6.3	07/15/20 07:26	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

METHOD BLANK: 2083126 Matrix: Water
Associated Lab Samples: 40211104001, 40211104002, 40211104003, 40211104004, 40211104005, 40211104006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.32	1.1	07/15/20 07:26	
Hexachloro-1,3-butadiene	ug/L	<1.5	4.9	07/15/20 07:26	
Isopropylbenzene (Cumene)	ug/L	<1.7	5.6	07/15/20 07:26	
m&p-Xylene	ug/L	<0.47	2.0	07/15/20 07:26	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	07/15/20 07:26	
Methylene Chloride	ug/L	<0.58	5.0	07/15/20 07:26	
n-Butylbenzene	ug/L	<0.71	2.4	07/15/20 07:26	
n-Propylbenzene	ug/L	<0.81	5.0	07/15/20 07:26	
Naphthalene	ug/L	<1.2	5.0	07/15/20 07:26	
o-Xylene	ug/L	<0.26	1.0	07/15/20 07:26	
p-Isopropyltoluene	ug/L	<0.80	2.7	07/15/20 07:26	
sec-Butylbenzene	ug/L	<0.85	5.0	07/15/20 07:26	
Styrene	ug/L	<3.0	10.0	07/15/20 07:26	
tert-Butylbenzene	ug/L	<0.30	1.0	07/15/20 07:26	
Tetrachloroethene	ug/L	<0.33	1.1	07/15/20 07:26	
Toluene	ug/L	<0.27	0.90	07/15/20 07:26	
trans-1,2-Dichloroethene	ug/L	<0.46	1.5	07/15/20 07:26	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	07/15/20 07:26	
Trichloroethene	ug/L	<0.26	1.0	07/15/20 07:26	
Trichlorofluoromethane	ug/L	<0.21	1.0	07/15/20 07:26	
Vinyl chloride	ug/L	<0.17	1.0	07/15/20 07:26	
4-Bromofluorobenzene (S)	%	91	70-130	07/15/20 07:26	
Dibromofluoromethane (S)	%	100	70-130	07/15/20 07:26	
Toluene-d8 (S)	%	98	70-130	07/15/20 07:26	

LABORATORY CONTROL SAMPLE: 2083127

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	52.4	105	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	53.1	106	64-131	
1,1,2-Trichloroethane	ug/L	50	54.2	108	70-130	
1,1-Dichloroethane	ug/L	50	53.3	107	69-163	
1,1-Dichloroethene	ug/L	50	59.6	119	77-123	
1,2,4-Trichlorobenzene	ug/L	50	43.0	86	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	48.2	96	63-130	
1,2-Dibromoethane (EDB)	ug/L	50	50.0	100	70-130	
1,2-Dichlorobenzene	ug/L	50	50.4	101	70-130	
1,2-Dichloroethane	ug/L	50	42.7	85	78-142	
1,2-Dichloropropane	ug/L	50	53.4	107	86-134	
1,3-Dichlorobenzene	ug/L	50	49.0	98	70-130	
1,4-Dichlorobenzene	ug/L	50	48.5	97	70-130	
Benzene	ug/L	50	54.2	108	70-130	
Bromodichloromethane	ug/L	50	50.6	101	70-130	
Bromoform	ug/L	50	45.0	90	70-130	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

LABORATORY CONTROL SAMPLE: 2083127

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/L	50	61.1	122	39-129	
Carbon tetrachloride	ug/L	50	55.6	111	70-132	
Chlorobenzene	ug/L	50	53.4	107	70-130	
Chloroethane	ug/L	50	53.0	106	66-140	
Chloroform	ug/L	50	52.4	105	75-132	
Chloromethane	ug/L	50	43.4	87	32-143	
cis-1,2-Dichloroethene	ug/L	50	50.6	101	70-130	
cis-1,3-Dichloropropene	ug/L	50	50.7	101	70-130	
Dibromochloromethane	ug/L	50	50.0	100	70-130	
Dichlorodifluoromethane	ug/L	50	27.8	56	10-141	
Ethylbenzene	ug/L	50	55.2	110	80-120	
Isopropylbenzene (Cumene)	ug/L	50	57.7	115	70-130	
m&p-Xylene	ug/L	100	114	114	70-130	
Methyl-tert-butyl ether	ug/L	50	47.9	96	61-129	
Methylene Chloride	ug/L	50	52.3	105	70-130	
o-Xylene	ug/L	50	55.8	112	70-130	
Styrene	ug/L	50	56.0	112	70-130	
Tetrachloroethene	ug/L	50	52.5	105	70-130	
Toluene	ug/L	50	55.4	111	80-120	
trans-1,2-Dichloroethene	ug/L	50	58.4	117	70-130	
trans-1,3-Dichloropropene	ug/L	50	48.3	97	69-130	
Trichloroethene	ug/L	50	54.3	109	70-130	
Trichlorofluoromethane	ug/L	50	54.6	109	75-145	
Vinyl chloride	ug/L	50	55.2	110	51-140	
4-Bromofluorobenzene (S)	%			100	70-130	
Dibromofluoromethane (S)	%			100	70-130	
Toluene-d8 (S)	%			101	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

QC Batch: 360174 | Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 | Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40211104001, 40211104002, 40211104003, 40211104004

METHOD BLANK: 2082434 Matrix: Water
Associated Lab Samples: 40211104001, 40211104002, 40211104003, 40211104004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<0.44	2.0	07/16/20 00:01	

LABORATORY CONTROL SAMPLE: 2082435

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	20.6	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2082436 2082437

Parameter	Units	40211104001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	3.5J	100	100	128	128	125	124	90-110	0	15	M0

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

QC Batch: 360541 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40211104001, 40211104002, 40211104003, 40211104004

METHOD BLANK: 2085166 Matrix: Water
Associated Lab Samples: 40211104001, 40211104002, 40211104003, 40211104004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<0.14	0.50	07/19/20 18:39	

LABORATORY CONTROL SAMPLE: 2085167

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	12.5	12.4	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2085168 2085169

Parameter	Units	40211355001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	4.4	6	6	10.6	10.6	102	102	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2085170 2085171

Parameter	Units	40211355008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	1.6	18	18	16.9	16.9	85	85	80-120	0	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALIFIERS

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

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.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58187103 SMOKE OUT CLEANERS
Pace Project No.: 40211104

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40211104001	**MW-1**	EPA 8015B Modified	360600		
40211104002	**MW-2**	EPA 8015B Modified	360600		
40211104003	**MW-3**	EPA 8015B Modified	360600		
40211104004	**MW-4**	EPA 8015B Modified	360600		
40211104001	**MW-1**	EPA 6010	360701		
40211104002	**MW-2**	EPA 6010	360701		
40211104003	**MW-3**	EPA 6010	360701		
40211104004	**MW-4**	EPA 6010	360701		
40211104001	**MW-1**	EPA 8260	360247		
40211104002	**MW-2**	EPA 8260	360247		
40211104003	**MW-3**	EPA 8260	360247		
40211104004	**MW-4**	EPA 8260	360247		
40211104005	**BD1**	EPA 8260	360247		
40211104006	**TRIP BLANK**	EPA 8260	360247		
40211104001	**MW-1**	EPA 300.0	360174		
40211104002	**MW-2**	EPA 300.0	360174		
40211104003	**MW-3**	EPA 300.0	360174		
40211104004	**MW-4**	EPA 300.0	360174		
40211104001	**MW-1**	SM 5310C	360541		
40211104002	**MW-2**	SM 5310C	360541		
40211104003	**MW-3**	SM 5310C	360541		
40211104004	**MW-4**	SM 5310C	360541		

UPPER MIDWEST REGION
MN: 612-607-1700 **WI:** 920-469-2436

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

40211104

(Please Print Clearly)	
Company Name:	TerraCon
Branch/Location:	Milwaukee, WI
Project Contact:	Scott Hodgson
Phone:	
Project Number:	58187103
Project Name:	Smoke out Cleaners
Project State:	WI
Sampled By (Print):	Ryan Johnson
Sampled By (Sign):	
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO)	PRESERVATION (CODE)*	Analysis Requested: VOCs	MNA	Sulfate	Dissolved Fe/Mn	TOC
					Y/N	Pick Letter	N	N	N	Y	N
							B	B	A	D	C
001	MW-1	7/14/2020	1015	GW			X	X	X	X	X
002	MW-2		1120				X	X	X	X	X
003	MW-3		1200				X	X	X	X	X
004	MW-4		1300				X	X	X	X	X
005	BD1		—				X				
006	Trip blank		—				X				

Quote #:	40211104
Mail To Contact:	
Mail To Company:	
Mail To Address:	SAME
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
Send invoice directly to Scott Hodgson		

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed: 5 day TAT

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	7/14/2020 1440	Fed Ex Next Day	7/14/20 1440
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
40211104
Receipt Temp = 8.0 °C
Sample Receipt pH
(OK) / Adjusted
Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Preservation Receipt Form

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

Client Name: Tervacon Project # 40211104

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

Lab Lot# of pH paper: 100827 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				1						1		1					6													X		2.5 / 5 / 10
002				1						1		1					6													X		2.5 / 5 / 10
003				1						1		1					6													X		2.5 / 5 / 10
004				1						1		1					6													X		2.5 / 5 / 10
005																	3															2.5 / 5 / 10
006																	2										2					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																												7/14/20				2.5 / 5 / 10
017																																2.5 / 5 / 10
018																												MP				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	

Pace Analytical® 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 26Mar2020
	Document No.: ENV-FRM-GBAY-0014-Rev.00	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO#: 40211104

40211104

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 - NA **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: Lot /Corr:

Person examining contents:
Date: 7/14/20 Initials: VP

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

Labeled By Initials: MLL

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.
Chain of Custody Filled Out: MLL 7-14-20	☒Yes ☒No ☐N/A	2. phone, time 0005 MLL 7-14-20
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: MLL 7-14-20 -Includes date/time/ID/Analysis Matrix: W	☒Yes ☒No ☐N/A	12. 005 no date +006 MLL 7-14-20 MLL 7-14-20
Trip Blank Present:	☒Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☒Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 447		

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

TERRACON

GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME:	Smoke out Cleaners	PROJECT NO.	58187103
PROJECT LOCATION:	Ironwood, WI		
SAMPLE POINT:	MW-1	SAMPLE POINT DESCRIPTION:	
CASING DIAMETER:	1" 3/4"		
WELL DEPTH:			
DATE:	7/14/2020	TIME: 845 AM /PM	DEPTH TO GROUND WATER (FT): 3.10
SAMPLING METHOD:	Low flow	FLOW RATE:	~200 ml/min
SAMPLE TIME:	1015	TOTAL PURGED:	~2 ~~gal~~ ~2.0 gal

TIME	WATER LEVEL	TEMP.(° ( )	pH	COND. (mS/cm)	ORP (mV)	DO (mg/L)
942	3.10	16.70	6.08	5.456	-70.0	2.06
947	3.13	16.61	6.06	5.176	-66.2	1.97
952	3.16	16.34	5.96	4.168	-92.3	1.36
957	3.20	16.29	5.91	3.563	-78.1	1.27
1002	3.26	16.30	5.90	3.311	-71.0	1.29
1007	3.29	16.31	5.89	3.277	-68.6	1.14
1012	3.33	16.28	5.89	3.209	-65.6	1.12
			~~5.90~~			

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)

ODOR: (YES) NO ~~product~~ NOT NOTED

ANALYSES: VOC, TOC, MEE Dissolved Fe/Mn, Sulfate

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

RST

COMMENTS:

TG

SAMPLED BY: RST	DATE: 7/14/2020
REVIEWED BY: Scott D. Hodgson	DATE: 7/23/20

TERRACON

GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME:	Smoke out Cleaners	PROJECT NO.	58187103
PROJECT LOCATION:	Itasca, WI		
SAMPLE POINT:	MW-2	SAMPLE POINT DESCRIPTION:	
CASING DIAMETER:	3/4"		
WELL DEPTH:			
DATE:	7/14/2020	TIME: 8.48 AM /PM	DEPTH TO GROUND WATER (FT): 2.97
SAMPLING METHOD:	Low flow	FLOW RATE:	~200 ml/min
SAMPLE TIME:	1120	TOTAL PURGED:	~2.0 gal

	TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (mS/cm)	ORP (mV)	DO (mg/L)
1052	~~952~~	3.02	16.22	5.86	1.908	-36.7	7.12
1057	~~957~~	3.11	15.98	5.92	1.679	-46.7	1.25
1102	~~1002~~	3.20	15.99	5.96	1.509	-49.0	0.50
1107	~~1007~~	3.23	15.91	6.00	1.524	-52.3	0.47
1112	~~↓~~	3.25	15.90	6.01	1.536	-55.1	0.41
	1117	3.27	15.87	5.99	1.528	-57.9	0.37

SAMPLE APPEARANCE: VERY TURBID TURBID. SLIGHTLY TURBID (CLEAR)	ODOR: (YES) NO NOT NOTED	ANALYSES: VOC, TOC, MEE Dissolved Fe, MN, Sulfate

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

RST

COMMENTS:

SAMPLED BY: RST	DATE: 7/14/2020
REVIEWED BY: Scott A. Hodgson	DATE: 7/23/20

TERRACON

GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Smoke out Cleaners	PROJECT NO. 58187103
PROJECT LOCATION: Ithaca, WI	
SAMPLE POINT: MW-3	SAMPLE POINT DESCRIPTION:
CASING DIAMETER: 3/4"	
WELL DEPTH:	
DATE: 7/14/2020	TIME: 850 (AM) /PM — DEPTH TO GROUND WATER (FT): 2.96
SAMPLING METHOD: Low Flow	FLOW RATE: ~200 ml/min
SAMPLE TIME: 1200	TOTAL PURGED: ~1.5 gal

TIME	WATER LEVEL	TEMP.(° C)	pH	COND. (mS/cm)	ORP (mV)	DO (mg/L)
1137	3.01	16.46	6.47	1.966	-121.9	0.38
1142	3.06	16.33	6.43	1.840	-118.0	0.34
1147	3.09	16.18	6.40	1.636	-102.2	0.27
1152	3.11	16.10	6.39	1.601	-99.3	0.24
1157	3.13	16.06	6.38	1.587	-96.7	0.20

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)

ODOR: (YES) NO NOT NOTED

ANALYSES: VOC, TOC, MEE Dissolved Fe, Mn, Sulfate

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

RST

COMMENTS:

BD1

SAMPLED BY: RST	DATE: 7/14/2020
REVIEWED BY: Scott D. Hodgson	DATE: 7/23/20

TERRACON

GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Smoke out Cleaners			PROJECT NO. 58187103
PROJECT LOCATION: Ironwood, WI			
SAMPLE POINT: MW-4	SAMPLE POINT DESCRIPTION:		
CASING DIAMETER: 4" 3/4"			
WELL DEPTH:			
DATE: 7/14/2020	TIME 852	AM /PM	DEPTH TO GROUND WATER (FT): 2.84
SAMPLING METHOD: Low Flow			FLOW RATE: ~200 ml/min
SAMPLE TIME: 1300			TOTAL PURGED: ~1.5 gal

TIME	WATER LEVEL	TEMP.(° C)	pH	COND. (ms/cm)	ORP (mV)	DO (mg/L)
1235	2.91	17.26	6.78	2.543	-55.6	0.79
1240	2.96	16.83	6.34	2.861	-70.1	2.44
1245	3.00	16.79	6.25	2.643	-58.2	2.37
1250	3.02	16.80	6.23	2.587	-55.7	2.30
1255	3.04	16.73	6.22	2.501	-54.0	2.37

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)	ODOR: (YES) NO NOT NOTED	ANALYSES: VOC, TOC, MEE Dissolved Fe, Mn, Sulfate

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

DSO

COMMENTS:

SAMPLED BY: DSO	DATE: 7/14/2020
REVIEWED BY: Scott A. Hodgson	DATE: 7/23/20

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

October 01, 2020

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

RE: Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Dear Scott Hodgson:

Enclosed are the analytical results for sample(s) received by the laboratory on September 17, 2020. 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
(920)469-2436

CERTIFICATIONS

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

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

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

SAMPLE SUMMARY

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40214875001	**MW-4**	Water	09/17/20 10:10	09/17/20 14:46
40214875002	**MW-3**	Water	09/17/20 11:45	09/17/20 14:46
40214875003	**MW-2**	Water	09/17/20 11:20	09/17/20 14:46
40214875004	**MW-1**	Water	09/17/20 12:25	09/17/20 14:46
40214875005	**HCL TRIP BLANK**	Water	09/17/20 00:00	09/17/20 14:46
40214875006	**BD1**	Water	09/17/20 00:00	09/17/20 14:46

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

SAMPLE ANALYTE COUNT

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40214875001	**MW-4**	EPA 8015B Modified	ALD	3	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 8260	HNW	64	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40214875002	**MW-3**	EPA 8015B Modified	ALD	3	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 8260	HNW	64	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40214875003	**MW-2**	EPA 8015B Modified	ALD	3	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 8260	HNW	64	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40214875004	**MW-1**	EPA 8015B Modified	ALD	3	PASI-G
		EPA 6010	TXW	2	PASI-G
		EPA 8260	HNW	64	PASI-G
		EPA 300.0	HMB	1	PASI-G
		SM 5310C	TJJ	1	PASI-G
40214875005	**HCL TRIP BLANK**	EPA 8260	HNW	64	PASI-G
40214875006	**BD1**	EPA 8260	HNW	64	PASI-G

PASI-G = Pace Analytical Services - Green Bay

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

SUMMARY OF DETECTION

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40214875001	**MW-4**					
EPA 8015B Modified	Ethane	19.6	ug/L	5.6	09/29/20 09:57	
EPA 8015B Modified	Ethene	16.9	ug/L	5.0	09/29/20 09:57	
EPA 8015B Modified	Methane	213	ug/L	2.8	09/29/20 09:57	
EPA 6010	Iron, Dissolved	333000	ug/L	100	09/19/20 01:11	
EPA 6010	Manganese, Dissolved	3980	ug/L	5.0	09/19/20 01:11	
EPA 8260	Benzene	0.80J	ug/L	1.0	09/19/20 02:51	
EPA 8260	cis-1,2-Dichloroethene	3.3	ug/L	1.0	09/19/20 02:51	
EPA 8260	Ethylbenzene	0.36J	ug/L	1.1	09/19/20 02:51	
EPA 8260	Toluene	0.73J	ug/L	1.0	09/19/20 02:51	
EPA 8260	Vinyl chloride	2.4	ug/L	1.0	09/19/20 02:51	
EPA 8260	m&p-Xylene	0.57J	ug/L	2.0	09/19/20 02:51	
EPA 300.0	Sulfate	2.3J	mg/L	10.0	09/24/20 12:10	D3
SM 5310C	Total Organic Carbon	1430	mg/L	50.0	09/22/20 09:15	
40214875002	**MW-3**					
EPA 8015B Modified	Ethene	18.1	ug/L	5.0	09/29/20 10:04	
EPA 8015B Modified	Methane	1660	ug/L	56.0	09/29/20 13:05	
EPA 6010	Iron, Dissolved	32700	ug/L	100	09/19/20 01:14	
EPA 6010	Manganese, Dissolved	1590	ug/L	5.0	09/19/20 01:14	
EPA 8260	Chloroethane	6.8J	ug/L	12.5	09/19/20 04:21	
EPA 8260	cis-1,2-Dichloroethene	117	ug/L	2.5	09/19/20 04:21	
EPA 8260	trans-1,2-Dichloroethene	4.7	ug/L	3.9	09/19/20 04:21	
EPA 8260	Vinyl chloride	62.0	ug/L	2.5	09/19/20 04:21	
EPA 300.0	Sulfate	5.3J	mg/L	10.0	09/24/20 12:25	D3
SM 5310C	Total Organic Carbon	98.4	mg/L	15.0	09/22/20 09:30	
40214875003	**MW-2**					
EPA 8015B Modified	Methane	1140	ug/L	56.0	09/29/20 13:12	
EPA 6010	Iron, Dissolved	70600	ug/L	100	09/19/20 01:17	
EPA 6010	Manganese, Dissolved	4340	ug/L	5.0	09/19/20 01:17	
EPA 8260	cis-1,2-Dichloroethene	1.3	ug/L	1.0	09/19/20 03:14	
EPA 8260	Vinyl chloride	0.76J	ug/L	1.0	09/19/20 03:14	
EPA 300.0	Sulfate	6.0J	mg/L	10.0	09/24/20 12:39	D3
SM 5310C	Total Organic Carbon	374	mg/L	15.0	09/22/20 09:46	
40214875004	**MW-1**					
EPA 8015B Modified	Ethane	50.8	ug/L	5.6	09/29/20 10:18	
EPA 8015B Modified	Ethene	50.2	ug/L	5.0	09/29/20 10:18	
EPA 8015B Modified	Methane	2580	ug/L	112	09/29/20 13:19	
EPA 6010	Iron, Dissolved	423000	ug/L	1000	09/21/20 19:33	
EPA 6010	Manganese, Dissolved	4380	ug/L	5.0	09/19/20 01:19	
EPA 8260	Benzene	0.57J	ug/L	1.0	09/19/20 03:36	
EPA 8260	cis-1,2-Dichloroethene	1.2	ug/L	1.0	09/19/20 03:36	
EPA 8260	Ethylbenzene	0.35J	ug/L	1.1	09/19/20 03:36	
EPA 8260	Tetrachloroethene	1.5	ug/L	1.1	09/19/20 03:36	
EPA 8260	Toluene	0.50J	ug/L	1.0	09/19/20 03:36	
EPA 8260	Vinyl chloride	15.4	ug/L	1.0	09/19/20 03:36	
EPA 300.0	Sulfate	2.6J	mg/L	10.0	09/24/20 12:53	D3
SM 5310C	Total Organic Carbon	2650	mg/L	150	09/22/20 10:22	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40214875006	**BD1**					
EPA 8260	Benzene	0.37J	ug/L	1.0	09/19/20 03:59	
EPA 8260	cis-1,2-Dichloroethene	3.7	ug/L	1.0	09/19/20 03:59	
EPA 8260	Toluene	0.31J	ug/L	1.0	09/19/20 03:59	
EPA 8260	Vinyl chloride	2.6	ug/L	1.0	09/19/20 03:59	
EPA 8260	m&p-Xylene	0.47J	ug/L	2.0	09/19/20 03:59	

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PROJECT NARRATIVE

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Date: October 01, 2020

Revised Report: The sample ID for 40214875004 has been corrected.

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PROJECT NARRATIVE

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Method: **EPA 8015B Modified**
Description: Methane, Ethane, Ethene GCV
Client: Terracon, Inc. - Franklin
Date: October 01, 2020

General Information:
4 samples were analyzed for EPA 8015B Modified 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.

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.

QC Batch: 366772

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40215404027

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2120008)
  - Methane
- MSD (Lab ID: 2120009)
  - Methane

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: Terracon, Inc. - Franklin
Date: October 01, 2020

General Information:
4 samples were analyzed for EPA 6010 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.

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:

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PROJECT NARRATIVE

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Method: **EPA 8260**
Description: 8260 MSV
Client: Terracon, Inc. - Franklin
Date: October 01, 2020

General Information:
6 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:

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PROJECT NARRATIVE

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Method: **EPA 300.0**
Description: 300.0 IC Anions
Client: Terracon, Inc. - Franklin
Date: October 01, 2020

General Information:
4 samples were analyzed for EPA 300.0 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.

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:

Analyte Comments:

QC Batch: 366307

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- MW-1 (Lab ID: 40214875004)
  - Sulfate
- MW-2 (Lab ID: 40214875003)
  - Sulfate
- MW-3 (Lab ID: 40214875002)
  - Sulfate
- MW-4 (Lab ID: 40214875001)
  - Sulfate

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PROJECT NARRATIVE

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Method: **SM 5310C**
Description: 5310C TOC
Client: Terracon, Inc. - Franklin
Date: October 01, 2020

General Information:
4 samples were analyzed for SM 5310C 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.

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.

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ANALYTICAL RESULTS

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Sample: MW-4 **Lab ID: 40214875001** Collected: 09/17/20 10:10 Received: 09/17/20 14:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	**19.6**	ug/L	5.6	1.2	1		09/29/20 09:57	74-84-0	
Ethene	**16.9**	ug/L	5.0	1.2	1		09/29/20 09:57	74-85-1	
Methane	**213**	ug/L	2.8	0.66	1		09/29/20 09:57	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Pace Analytical Services - Green Bay								
Iron, Dissolved	**333000**	ug/L	100	29.6	1		09/19/20 01:11	7439-89-6	
Manganese, Dissolved	**3980**	ug/L	5.0	1.1	1		09/19/20 01:11	7439-96-5	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Benzene	**0.80J**	ug/L	1.0	0.25	1		09/19/20 02:51	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/19/20 02:51	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/19/20 02:51	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/19/20 02:51	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/19/20 02:51	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/19/20 02:51	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/19/20 02:51	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/19/20 02:51	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/19/20 02:51	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		09/19/20 02:51	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/19/20 02:51	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/19/20 02:51	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/19/20 02:51	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/19/20 02:51	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/19/20 02:51	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/19/20 02:51	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/19/20 02:51	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/19/20 02:51	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/19/20 02:51	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/19/20 02:51	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/19/20 02:51	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/19/20 02:51	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/19/20 02:51	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/19/20 02:51	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/19/20 02:51	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/19/20 02:51	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/19/20 02:51	75-35-4	
cis-1,2-Dichloroethene	**3.3**	ug/L	1.0	0.27	1		09/19/20 02:51	156-59-2	
trans-1,2-Dichloroethene	**<0.46**	ug/L	1.5	0.46	1		09/19/20 02:51	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/19/20 02:51	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/19/20 02:51	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/19/20 02:51	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/19/20 02:51	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/19/20 02:51	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Sample: MW-4 **Lab ID: 40214875001** Collected: 09/17/20 10:10 Received: 09/17/20 14:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/19/20 02:51	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/19/20 02:51	108-20-3	
Ethylbenzene	**0.36J**	ug/L	1.1	0.32	1		09/19/20 02:51	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		09/19/20 02:51	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		09/19/20 02:51	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/19/20 02:51	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/19/20 02:51	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/19/20 02:51	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/19/20 02:51	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/19/20 02:51	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		09/19/20 02:51	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/19/20 02:51	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/19/20 02:51	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/19/20 02:51	127-18-4	
Toluene	**0.73J**	ug/L	1.0	0.27	1		09/19/20 02:51	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		09/19/20 02:51	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/19/20 02:51	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/19/20 02:51	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/19/20 02:51	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/19/20 02:51	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/19/20 02:51	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/19/20 02:51	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/19/20 02:51	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/19/20 02:51	108-67-8	
Vinyl chloride	**2.4**	ug/L	1.0	0.17	1		09/19/20 02:51	75-01-4	
m&p-Xylene	**0.57J**	ug/L	2.0	0.47	1		09/19/20 02:51	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/19/20 02:51	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		09/19/20 02:51	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		09/19/20 02:51	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		09/19/20 02:51	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
	Pace Analytical Services - Green Bay								
Sulfate	**2.3J**	mg/L	10.0	2.2	5		09/24/20 12:10	14808-79-8	D3
5310C TOC	Analytical Method: SM 5310C								
	Pace Analytical Services - Green Bay								
Total Organic Carbon	**1430**	mg/L	50.0	13.8	100		09/22/20 09:15	7440-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Sample: MW-3 **Lab ID: 40214875002** Collected: 09/17/20 11:45 Received: 09/17/20 14:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	**<1.2**	ug/L	5.6	1.2	1		09/29/20 10:04	74-84-0	
Ethene	**18.1**	ug/L	5.0	1.2	1		09/29/20 10:04	74-85-1	
Methane	**1660**	ug/L	56.0	13.3	20		09/29/20 13:05	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Pace Analytical Services - Green Bay								
Iron, Dissolved	**32700**	ug/L	100	29.6	1		09/19/20 01:14	7439-89-6	
Manganese, Dissolved	**1590**	ug/L	5.0	1.1	1		09/19/20 01:14	7439-96-5	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Benzene	**<0.62**	ug/L	2.5	0.62	2.5		09/19/20 04:21	71-43-2	
Bromobenzene	**<0.60**	ug/L	2.5	0.60	2.5		09/19/20 04:21	108-86-1	
Bromochloromethane	**<0.91**	ug/L	12.5	0.91	2.5		09/19/20 04:21	74-97-5	
Bromodichloromethane	**<0.91**	ug/L	3.0	0.91	2.5		09/19/20 04:21	75-27-4	
Bromoform	**<9.9**	ug/L	33.1	9.9	2.5		09/19/20 04:21	75-25-2	
Bromomethane	**<2.4**	ug/L	12.5	2.4	2.5		09/19/20 04:21	74-83-9	
n-Butylbenzene	**<1.8**	ug/L	5.9	1.8	2.5		09/19/20 04:21	104-51-8	
sec-Butylbenzene	**<2.1**	ug/L	12.5	2.1	2.5		09/19/20 04:21	135-98-8	
tert-Butylbenzene	**<0.76**	ug/L	2.5	0.76	2.5		09/19/20 04:21	98-06-6	
Carbon tetrachloride	**<2.7**	ug/L	9.0	2.7	2.5		09/19/20 04:21	56-23-5	
Chlorobenzene	**<1.8**	ug/L	5.9	1.8	2.5		09/19/20 04:21	108-90-7	
Chloroethane	**6.8J**	ug/L	12.5	3.4	2.5		09/19/20 04:21	75-00-3	
Chloroform	**<3.2**	ug/L	12.5	3.2	2.5		09/19/20 04:21	67-66-3	
Chloromethane	**<5.5**	ug/L	18.2	5.5	2.5		09/19/20 04:21	74-87-3	
2-Chlorotoluene	**<2.3**	ug/L	12.5	2.3	2.5		09/19/20 04:21	95-49-8	
4-Chlorotoluene	**<1.9**	ug/L	6.3	1.9	2.5		09/19/20 04:21	106-43-4	
1,2-Dibromo-3-chloropropane	**<4.4**	ug/L	14.7	4.4	2.5		09/19/20 04:21	96-12-8	
Dibromochloromethane	**<6.5**	ug/L	21.7	6.5	2.5		09/19/20 04:21	124-48-1	
1,2-Dibromoethane (EDB)	**<2.1**	ug/L	6.9	2.1	2.5		09/19/20 04:21	106-93-4	
Dibromomethane	**<2.3**	ug/L	7.8	2.3	2.5		09/19/20 04:21	74-95-3	
1,2-Dichlorobenzene	**<1.8**	ug/L	5.9	1.8	2.5		09/19/20 04:21	95-50-1	
1,3-Dichlorobenzene	**<1.6**	ug/L	5.2	1.6	2.5		09/19/20 04:21	541-73-1	
1,4-Dichlorobenzene	**<2.4**	ug/L	7.9	2.4	2.5		09/19/20 04:21	106-46-7	
Dichlorodifluoromethane	**<1.2**	ug/L	12.5	1.2	2.5		09/19/20 04:21	75-71-8	
1,1-Dichloroethane	**<0.68**	ug/L	2.5	0.68	2.5		09/19/20 04:21	75-34-3	
1,2-Dichloroethane	**<0.70**	ug/L	2.5	0.70	2.5		09/19/20 04:21	107-06-2	
1,1-Dichloroethene	**<0.61**	ug/L	2.5	0.61	2.5		09/19/20 04:21	75-35-4	
cis-1,2-Dichloroethene	**117**	ug/L	2.5	0.68	2.5		09/19/20 04:21	156-59-2	
trans-1,2-Dichloroethene	**4.7**	ug/L	3.9	1.2	2.5		09/19/20 04:21	156-60-5	
1,2-Dichloropropane	**<0.71**	ug/L	2.5	0.71	2.5		09/19/20 04:21	78-87-5	
1,3-Dichloropropane	**<2.1**	ug/L	6.9	2.1	2.5		09/19/20 04:21	142-28-9	
2,2-Dichloropropane	**<5.7**	ug/L	18.9	5.7	2.5		09/19/20 04:21	594-20-7	
1,1-Dichloropropene	**<1.4**	ug/L	4.5	1.4	2.5		09/19/20 04:21	563-58-6	
cis-1,3-Dichloropropene	**<9.1**	ug/L	30.2	9.1	2.5		09/19/20 04:21	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Sample: MW-3 **Lab ID: 40214875002** Collected: 09/17/20 11:45 Received: 09/17/20 14:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
trans-1,3-Dichloropropene	**<10.9**	ug/L	36.4	10.9	2.5		09/19/20 04:21	10061-02-6	
Diisopropyl ether	**<4.7**	ug/L	15.7	4.7	2.5		09/19/20 04:21	108-20-3	
Ethylbenzene	**<0.80**	ug/L	2.7	0.80	2.5		09/19/20 04:21	100-41-4	
Hexachloro-1,3-butadiene	**<3.7**	ug/L	12.2	3.7	2.5		09/19/20 04:21	87-68-3	
Isopropylbenzene (Cumene)	**<4.2**	ug/L	14.0	4.2	2.5		09/19/20 04:21	98-82-8	
p-Isopropyltoluene	**<2.0**	ug/L	6.7	2.0	2.5		09/19/20 04:21	99-87-6	
Methylene Chloride	**<1.5**	ug/L	12.5	1.5	2.5		09/19/20 04:21	75-09-2	
Methyl-tert-butyl ether	**<3.1**	ug/L	10.4	3.1	2.5		09/19/20 04:21	1634-04-4	
Naphthalene	**<2.9**	ug/L	12.5	2.9	2.5		09/19/20 04:21	91-20-3	
n-Propylbenzene	**<2.0**	ug/L	12.5	2.0	2.5		09/19/20 04:21	103-65-1	
Styrene	**<7.5**	ug/L	25.1	7.5	2.5		09/19/20 04:21	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.67**	ug/L	2.5	0.67	2.5		09/19/20 04:21	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.69**	ug/L	2.5	0.69	2.5		09/19/20 04:21	79-34-5	
Tetrachloroethene	**<0.82**	ug/L	2.7	0.82	2.5		09/19/20 04:21	127-18-4	
Toluene	**<0.67**	ug/L	2.5	0.67	2.5		09/19/20 04:21	108-88-3	
1,2,3-Trichlorobenzene	**<5.5**	ug/L	18.4	5.5	2.5		09/19/20 04:21	87-61-6	
1,2,4-Trichlorobenzene	**<2.4**	ug/L	12.5	2.4	2.5		09/19/20 04:21	120-82-1	
1,1,1-Trichloroethane	**<0.61**	ug/L	2.5	0.61	2.5		09/19/20 04:21	71-55-6	
1,1,2-Trichloroethane	**<1.4**	ug/L	12.5	1.4	2.5		09/19/20 04:21	79-00-5	
Trichloroethene	**<0.64**	ug/L	2.5	0.64	2.5		09/19/20 04:21	79-01-6	
Trichlorofluoromethane	**<0.54**	ug/L	2.5	0.54	2.5		09/19/20 04:21	75-69-4	
1,2,3-Trichloropropane	**<1.5**	ug/L	12.5	1.5	2.5		09/19/20 04:21	96-18-4	
1,2,4-Trimethylbenzene	**<2.1**	ug/L	7.0	2.1	2.5		09/19/20 04:21	95-63-6	
1,3,5-Trimethylbenzene	**<2.2**	ug/L	7.3	2.2	2.5		09/19/20 04:21	108-67-8	
Vinyl chloride	**62.0**	ug/L	2.5	0.44	2.5		09/19/20 04:21	75-01-4	
m&p-Xylene	**<1.2**	ug/L	5.0	1.2	2.5		09/19/20 04:21	179601-23-1	
o-Xylene	**<0.65**	ug/L	2.5	0.65	2.5		09/19/20 04:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		2.5		09/19/20 04:21	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		2.5		09/19/20 04:21	1868-53-7	
Toluene-d8 (S)	99	%	70-130		2.5		09/19/20 04:21	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
	Pace Analytical Services - Green Bay								
Sulfate	**5.3J**	mg/L	10.0	2.2	5		09/24/20 12:25	14808-79-8	D3
5310C TOC	Analytical Method: SM 5310C								
	Pace Analytical Services - Green Bay								
Total Organic Carbon	**98.4**	mg/L	15.0	4.2	30		09/22/20 09:30	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Sample: MW-2 **Lab ID: 40214875003** Collected: 09/17/20 11:20 Received: 09/17/20 14:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	**<1.2**	ug/L	5.6	1.2	1		09/29/20 10:11	74-84-0	
Ethene	**<1.2**	ug/L	5.0	1.2	1		09/29/20 10:11	74-85-1	
Methane	**1140**	ug/L	56.0	13.3	20		09/29/20 13:12	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Pace Analytical Services - Green Bay								
Iron, Dissolved	**70600**	ug/L	100	29.6	1		09/19/20 01:17	7439-89-6	
Manganese, Dissolved	**4340**	ug/L	5.0	1.1	1		09/19/20 01:17	7439-96-5	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Benzene	**<0.25**	ug/L	1.0	0.25	1		09/19/20 03:14	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/19/20 03:14	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/19/20 03:14	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/19/20 03:14	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/19/20 03:14	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/19/20 03:14	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/19/20 03:14	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/19/20 03:14	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/19/20 03:14	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		09/19/20 03:14	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/19/20 03:14	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/19/20 03:14	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/19/20 03:14	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/19/20 03:14	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/19/20 03:14	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/19/20 03:14	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/19/20 03:14	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/19/20 03:14	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/19/20 03:14	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/19/20 03:14	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/19/20 03:14	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/19/20 03:14	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/19/20 03:14	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/19/20 03:14	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/19/20 03:14	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/19/20 03:14	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/19/20 03:14	75-35-4	
cis-1,2-Dichloroethene	**1.3**	ug/L	1.0	0.27	1		09/19/20 03:14	156-59-2	
trans-1,2-Dichloroethene	**<0.46**	ug/L	1.5	0.46	1		09/19/20 03:14	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/19/20 03:14	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/19/20 03:14	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/19/20 03:14	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/19/20 03:14	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/19/20 03:14	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Sample: MW-2 **Lab ID: 40214875003** Collected: 09/17/20 11:20 Received: 09/17/20 14:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/19/20 03:14	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/19/20 03:14	108-20-3	
Ethylbenzene	**<0.32**	ug/L	1.1	0.32	1		09/19/20 03:14	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		09/19/20 03:14	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		09/19/20 03:14	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/19/20 03:14	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/19/20 03:14	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/19/20 03:14	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/19/20 03:14	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/19/20 03:14	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		09/19/20 03:14	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/19/20 03:14	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/19/20 03:14	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/19/20 03:14	127-18-4	
Toluene	**<0.27**	ug/L	1.0	0.27	1		09/19/20 03:14	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		09/19/20 03:14	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/19/20 03:14	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/19/20 03:14	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/19/20 03:14	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/19/20 03:14	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/19/20 03:14	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/19/20 03:14	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/19/20 03:14	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/19/20 03:14	108-67-8	
Vinyl chloride	**0.76J**	ug/L	1.0	0.17	1		09/19/20 03:14	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/19/20 03:14	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/19/20 03:14	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		09/19/20 03:14	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		09/19/20 03:14	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/19/20 03:14	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
	Pace Analytical Services - Green Bay								
Sulfate	**6.0J**	mg/L	10.0	2.2	5		09/24/20 12:39	14808-79-8	D3
5310C TOC	Analytical Method: SM 5310C								
	Pace Analytical Services - Green Bay								
Total Organic Carbon	**374**	mg/L	15.0	4.2	30		09/22/20 09:46	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Sample: MW-1 **Lab ID: 40214875004** Collected: 09/17/20 12:25 Received: 09/17/20 14:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Methane, Ethane, Ethene GCV	Analytical Method: EPA 8015B Modified Pace Analytical Services - Green Bay								
Ethane	**50.8**	ug/L	5.6	1.2	1		09/29/20 10:18	74-84-0	
Ethene	**50.2**	ug/L	5.0	1.2	1		09/29/20 10:18	74-85-1	
Methane	**2580**	ug/L	112	26.6	40		09/29/20 13:19	74-82-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Pace Analytical Services - Green Bay								
Iron, Dissolved	**423000**	ug/L	1000	296	10		09/21/20 19:33	7439-89-6	
Manganese, Dissolved	**4380**	ug/L	5.0	1.1	1		09/19/20 01:19	7439-96-5	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Green Bay								
Benzene	**0.57J**	ug/L	1.0	0.25	1		09/19/20 03:36	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/19/20 03:36	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/19/20 03:36	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/19/20 03:36	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/19/20 03:36	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/19/20 03:36	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/19/20 03:36	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/19/20 03:36	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/19/20 03:36	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		09/19/20 03:36	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/19/20 03:36	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/19/20 03:36	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/19/20 03:36	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/19/20 03:36	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/19/20 03:36	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/19/20 03:36	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/19/20 03:36	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/19/20 03:36	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/19/20 03:36	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/19/20 03:36	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/19/20 03:36	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/19/20 03:36	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/19/20 03:36	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/19/20 03:36	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/19/20 03:36	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/19/20 03:36	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/19/20 03:36	75-35-4	
cis-1,2-Dichloroethene	**1.2**	ug/L	1.0	0.27	1		09/19/20 03:36	156-59-2	
trans-1,2-Dichloroethene	**<0.46**	ug/L	1.5	0.46	1		09/19/20 03:36	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/19/20 03:36	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/19/20 03:36	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/19/20 03:36	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/19/20 03:36	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/19/20 03:36	10061-01-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Sample: MW-1 **Lab ID: 40214875004** Collected: 09/17/20 12:25 Received: 09/17/20 14:46 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
	Pace Analytical Services - Green Bay								
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/19/20 03:36	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/19/20 03:36	108-20-3	
Ethylbenzene	**0.35J**	ug/L	1.1	0.32	1		09/19/20 03:36	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		09/19/20 03:36	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		09/19/20 03:36	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/19/20 03:36	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/19/20 03:36	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/19/20 03:36	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/19/20 03:36	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/19/20 03:36	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		09/19/20 03:36	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/19/20 03:36	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/19/20 03:36	79-34-5	
Tetrachloroethene	**1.5**	ug/L	1.1	0.33	1		09/19/20 03:36	127-18-4	
Toluene	**0.50J**	ug/L	1.0	0.27	1		09/19/20 03:36	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		09/19/20 03:36	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/19/20 03:36	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/19/20 03:36	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/19/20 03:36	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/19/20 03:36	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/19/20 03:36	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/19/20 03:36	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/19/20 03:36	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/19/20 03:36	108-67-8	
Vinyl chloride	**15.4**	ug/L	1.0	0.17	1		09/19/20 03:36	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/19/20 03:36	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/19/20 03:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		09/19/20 03:36	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		09/19/20 03:36	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/19/20 03:36	2037-26-5	
300.0 IC Anions	Analytical Method: EPA 300.0								
	Pace Analytical Services - Green Bay								
Sulfate	**2.6J**	mg/L	10.0	2.2	5		09/24/20 12:53	14808-79-8	D3
5310C TOC	Analytical Method: SM 5310C								
	Pace Analytical Services - Green Bay								
Total Organic Carbon	**2650**	mg/L	150	41.5	300		09/22/20 10:22	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Sample: HCL TRIP BLANK **Lab ID: 40214875005** Collected: 09/17/20 00:00 Received: 09/17/20 14:46 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	**<0.25**	ug/L	1.0	0.25	1		09/21/20 09:49	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/21/20 09:49	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/21/20 09:49	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/21/20 09:49	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/21/20 09:49	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/21/20 09:49	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/21/20 09:49	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/21/20 09:49	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/21/20 09:49	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		09/21/20 09:49	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/21/20 09:49	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/21/20 09:49	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/21/20 09:49	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/21/20 09:49	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/21/20 09:49	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/21/20 09:49	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		09/21/20 09:49	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/21/20 09:49	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/21/20 09:49	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/21/20 09:49	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/21/20 09:49	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/21/20 09:49	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/21/20 09:49	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/21/20 09:49	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/21/20 09:49	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/21/20 09:49	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/21/20 09:49	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		09/21/20 09:49	156-59-2	
trans-1,2-Dichloroethene	**<0.46**	ug/L	1.5	0.46	1		09/21/20 09:49	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/21/20 09:49	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/21/20 09:49	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/21/20 09:49	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/21/20 09:49	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/21/20 09:49	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/21/20 09:49	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/21/20 09:49	108-20-3	
Ethylbenzene	**<0.32**	ug/L	1.1	0.32	1		09/21/20 09:49	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		09/21/20 09:49	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		09/21/20 09:49	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/21/20 09:49	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/21/20 09:49	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/21/20 09:49	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/21/20 09:49	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/21/20 09:49	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		09/21/20 09:49	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 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Sample: HCL TRIP BLANK **Lab ID: 40214875005** Collected: 09/17/20 00:00 Received: 09/17/20 14:46 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	**<0.27**	ug/L	1.0	0.27	1		09/21/20 09:49	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/21/20 09:49	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/21/20 09:49	127-18-4	
Toluene	**<0.27**	ug/L	1.0	0.27	1		09/21/20 09:49	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		09/21/20 09:49	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/21/20 09:49	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/21/20 09:49	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/21/20 09:49	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/21/20 09:49	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/21/20 09:49	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/21/20 09:49	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/21/20 09:49	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/21/20 09:49	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		09/21/20 09:49	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		09/21/20 09:49	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/21/20 09:49	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		09/21/20 09:49	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		1		09/21/20 09:49	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		09/21/20 09:49	2037-26-5	

Sample: BD1 **Lab ID: 40214875006** Collected: 09/17/20 00:00 Received: 09/17/20 14:46 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	**0.37J**	ug/L	1.0	0.25	1		09/19/20 03:59	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		09/19/20 03:59	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		09/19/20 03:59	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		09/19/20 03:59	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		09/19/20 03:59	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		09/19/20 03:59	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		09/19/20 03:59	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		09/19/20 03:59	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		09/19/20 03:59	98-06-6	
Carbon tetrachloride	**<1.1**	ug/L	3.6	1.1	1		09/19/20 03:59	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/19/20 03:59	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		09/19/20 03:59	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		09/19/20 03:59	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		09/19/20 03:59	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		09/19/20 03:59	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		09/19/20 03:59	106-43-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Sample: BD1 **Lab ID: 40214875006** Collected: 09/17/20 00:00 Received: 09/17/20 14:46 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	**<1.8**	ug/L	5.9	1.8	1		09/19/20 03:59	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		09/19/20 03:59	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		09/19/20 03:59	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		09/19/20 03:59	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		09/19/20 03:59	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		09/19/20 03:59	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		09/19/20 03:59	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		09/19/20 03:59	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		09/19/20 03:59	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		09/19/20 03:59	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		09/19/20 03:59	75-35-4	
cis-1,2-Dichloroethene	**3.7**	ug/L	1.0	0.27	1		09/19/20 03:59	156-59-2	
trans-1,2-Dichloroethene	**<0.46**	ug/L	1.5	0.46	1		09/19/20 03:59	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		09/19/20 03:59	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		09/19/20 03:59	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		09/19/20 03:59	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		09/19/20 03:59	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		09/19/20 03:59	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		09/19/20 03:59	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		09/19/20 03:59	108-20-3	
Ethylbenzene	**<0.32**	ug/L	1.1	0.32	1		09/19/20 03:59	100-41-4	
Hexachloro-1,3-butadiene	**<1.5**	ug/L	4.9	1.5	1		09/19/20 03:59	87-68-3	
Isopropylbenzene (Cumene)	**<1.7**	ug/L	5.6	1.7	1		09/19/20 03:59	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		09/19/20 03:59	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		09/19/20 03:59	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		09/19/20 03:59	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		09/19/20 03:59	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		09/19/20 03:59	103-65-1	
Styrene	**<3.0**	ug/L	10.0	3.0	1		09/19/20 03:59	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		09/19/20 03:59	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		09/19/20 03:59	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		09/19/20 03:59	127-18-4	
Toluene	**0.31J**	ug/L	1.0	0.27	1		09/19/20 03:59	108-88-3	
1,2,3-Trichlorobenzene	**<2.2**	ug/L	7.4	2.2	1		09/19/20 03:59	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		09/19/20 03:59	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		09/19/20 03:59	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		09/19/20 03:59	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		09/19/20 03:59	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		09/19/20 03:59	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		09/19/20 03:59	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		09/19/20 03:59	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		09/19/20 03:59	108-67-8	
Vinyl chloride	**2.6**	ug/L	1.0	0.17	1		09/19/20 03:59	75-01-4	
m&p-Xylene	**0.47J**	ug/L	2.0	0.47	1		09/19/20 03:59	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		09/19/20 03:59	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 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Sample: BD1 **Lab ID: 40214875006** Collected: 09/17/20 00:00 Received: 09/17/20 14:46 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)	102	%	70-130		1		09/19/20 03:59	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		09/19/20 03:59	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		09/19/20 03:59	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

QC Batch: 366772
QC Batch Method: EPA 8015B Modified
Analysis Method: EPA 8015B Modified
Analysis Description: Methane, Ethane, Ethene GCV
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40214875001, 40214875002, 40214875003, 40214875004

METHOD BLANK: 2120005 Matrix: Water
Associated Lab Samples: 40214875001, 40214875002, 40214875003, 40214875004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	<1.2	5.6	09/29/20 09:29	
Ethene	ug/L	<1.2	5.0	09/29/20 09:29	
Methane	ug/L	<0.66	2.8	09/29/20 09:29	

LABORATORY CONTROL SAMPLE & LCSD: 2120006 2120007

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	53.6	52.1	56.2	97	105	80-120	8	20	
Ethene	ug/L	50	47.4	51.7	95	103	80-120	9	20	
Methane	ug/L	28.6	27.5	29.7	96	104	79-120	8	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2120008 2120009

Parameter	Units	40215404027 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Ethane	ug/L	<1.2	1070	1070	1090	1110	102	104	79-120	2	20	
Ethene	ug/L	<1.2	1000	1000	1000	1020	100	102	79-120	2	20	
Methane	ug/L	2190	571	571	3520	3740	232	271	10-200	6	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

QC Batch: 365859
QC Batch Method: EPA 6010
Analysis Method: EPA 6010
Analysis Description: ICP Metals, Trace, Dissolved
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40214875001, 40214875002, 40214875003, 40214875004

METHOD BLANK: 2114686 Matrix: Water
Associated Lab Samples: 40214875001, 40214875002, 40214875003, 40214875004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	<29.6	100	09/19/20 00:11	
Manganese, Dissolved	ug/L	<1.1	5.0	09/19/20 00:11	

LABORATORY CONTROL SAMPLE: 2114687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	5000	5060	101	80-120	
Manganese, Dissolved	ug/L	500	507	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2114688 2114689

Parameter	Units	40214410002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	6520	50000	50000	56900	56600	101	100	75-125	1	20	
Manganese, Dissolved	ug/L	468	5000	5000	5500	5480	101	100	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

QC Batch: 365821
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40214875001, 40214875002, 40214875003, 40214875004, 40214875006

METHOD BLANK: 2114429 Matrix: Water
Associated Lab Samples: 40214875001, 40214875002, 40214875003, 40214875004, 40214875006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	09/18/20 17:29	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	09/18/20 17:29	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	09/18/20 17:29	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	09/18/20 17:29	
1,1-Dichloroethane	ug/L	<0.27	1.0	09/18/20 17:29	
1,1-Dichloroethene	ug/L	<0.24	1.0	09/18/20 17:29	
1,1-Dichloropropene	ug/L	<0.54	1.8	09/18/20 17:29	
1,2,3-Trichlorobenzene	ug/L	<2.2	7.4	09/18/20 17:29	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	09/18/20 17:29	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	09/18/20 17:29	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	09/18/20 17:29	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	09/18/20 17:29	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	09/18/20 17:29	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	09/18/20 17:29	
1,2-Dichloroethane	ug/L	<0.28	1.0	09/18/20 17:29	
1,2-Dichloropropane	ug/L	<0.28	1.0	09/18/20 17:29	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	09/18/20 17:29	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	09/18/20 17:29	
1,3-Dichloropropane	ug/L	<0.83	2.8	09/18/20 17:29	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	09/18/20 17:29	
2,2-Dichloropropane	ug/L	<2.3	7.6	09/18/20 17:29	
2-Chlorotoluene	ug/L	<0.93	5.0	09/18/20 17:29	
4-Chlorotoluene	ug/L	<0.76	2.5	09/18/20 17:29	
Benzene	ug/L	<0.25	1.0	09/18/20 17:29	
Bromobenzene	ug/L	<0.24	1.0	09/18/20 17:29	
Bromochloromethane	ug/L	<0.36	5.0	09/18/20 17:29	
Bromodichloromethane	ug/L	<0.36	1.2	09/18/20 17:29	
Bromoform	ug/L	<4.0	13.2	09/18/20 17:29	
Bromomethane	ug/L	<0.97	5.0	09/18/20 17:29	
Carbon tetrachloride	ug/L	<1.1	3.6	09/18/20 17:29	
Chlorobenzene	ug/L	<0.71	2.4	09/18/20 17:29	
Chloroethane	ug/L	<1.3	5.0	09/18/20 17:29	
Chloroform	ug/L	<1.3	5.0	09/18/20 17:29	
Chloromethane	ug/L	<2.2	7.3	09/18/20 17:29	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	09/18/20 17:29	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	09/18/20 17:29	
Dibromochloromethane	ug/L	<2.6	8.7	09/18/20 17:29	
Dibromomethane	ug/L	<0.94	3.1	09/18/20 17:29	
Dichlorodifluoromethane	ug/L	<0.50	5.0	09/18/20 17:29	
Diisopropyl ether	ug/L	<1.9	6.3	09/18/20 17:29	

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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 SMOKEOUT CLEANERS
Pace Project No.: 40214875

METHOD BLANK: 2114429 Matrix: Water
Associated Lab Samples: 40214875001, 40214875002, 40214875003, 40214875004, 40214875006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.32	1.1	09/18/20 17:29	
Hexachloro-1,3-butadiene	ug/L	2.1J	4.9	09/18/20 17:29	
Isopropylbenzene (Cumene)	ug/L	<1.7	5.6	09/18/20 17:29	
m&p-Xylene	ug/L	<0.47	2.0	09/18/20 17:29	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	09/18/20 17:29	
Methylene Chloride	ug/L	<0.58	5.0	09/18/20 17:29	
n-Butylbenzene	ug/L	<0.71	2.4	09/18/20 17:29	
n-Propylbenzene	ug/L	<0.81	5.0	09/18/20 17:29	
Naphthalene	ug/L	<1.2	5.0	09/18/20 17:29	
o-Xylene	ug/L	<0.26	1.0	09/18/20 17:29	
p-Isopropyltoluene	ug/L	<0.80	2.7	09/18/20 17:29	
sec-Butylbenzene	ug/L	<0.85	5.0	09/18/20 17:29	
Styrene	ug/L	<3.0	10.0	09/18/20 17:29	
tert-Butylbenzene	ug/L	<0.30	1.0	09/18/20 17:29	
Tetrachloroethene	ug/L	<0.33	1.1	09/18/20 17:29	
Toluene	ug/L	<0.27	1.0	09/18/20 17:29	
trans-1,2-Dichloroethene	ug/L	<0.46	1.5	09/18/20 17:29	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	09/18/20 17:29	
Trichloroethene	ug/L	<0.26	1.0	09/18/20 17:29	
Trichlorofluoromethane	ug/L	<0.21	1.0	09/18/20 17:29	
Vinyl chloride	ug/L	<0.17	1.0	09/18/20 17:29	
4-Bromofluorobenzene (S)	%	100	70-130	09/18/20 17:29	
Dibromofluoromethane (S)	%	107	70-130	09/18/20 17:29	
Toluene-d8 (S)	%	100	70-130	09/18/20 17:29	

LABORATORY CONTROL SAMPLE: 2114430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	51.5	103	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.4	101	64-131	
1,1,2-Trichloroethane	ug/L	50	52.4	105	70-130	
1,1-Dichloroethane	ug/L	50	56.1	112	69-163	
1,1-Dichloroethene	ug/L	50	50.3	101	77-123	
1,2,4-Trichlorobenzene	ug/L	50	44.2	88	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	42.1	84	63-130	
1,2-Dibromoethane (EDB)	ug/L	50	48.9	98	70-130	
1,2-Dichlorobenzene	ug/L	50	48.6	97	70-130	
1,2-Dichloroethane	ug/L	50	54.9	110	78-142	
1,2-Dichloropropane	ug/L	50	50.2	100	86-134	
1,3-Dichlorobenzene	ug/L	50	48.1	96	70-130	
1,4-Dichlorobenzene	ug/L	50	48.7	97	70-130	
Benzene	ug/L	50	52.8	106	70-130	
Bromodichloromethane	ug/L	50	54.2	108	70-130	
Bromoform	ug/L	50	55.5	111	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 SMOKEOUT CLEANERS
Pace Project No.: 40214875

LABORATORY CONTROL SAMPLE: 2114430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/L	50	34.3	69	39-129	
Carbon tetrachloride	ug/L	50	54.1	108	70-132	
Chlorobenzene	ug/L	50	51.4	103	70-130	
Chloroethane	ug/L	50	48.5	97	66-140	
Chloroform	ug/L	50	57.0	114	75-132	
Chloromethane	ug/L	50	34.0	68	32-143	
cis-1,2-Dichloroethene	ug/L	50	51.5	103	70-130	
cis-1,3-Dichloropropene	ug/L	50	45.1	90	70-130	
Dibromochloromethane	ug/L	50	51.5	103	70-130	
Dichlorodifluoromethane	ug/L	50	31.8	64	10-141	
Ethylbenzene	ug/L	50	53.2	106	80-120	
Isopropylbenzene (Cumene)	ug/L	50	51.0	102	70-130	
m&p-Xylene	ug/L	100	102	102	70-130	
Methyl-tert-butyl ether	ug/L	50	45.0	90	61-129	
Methylene Chloride	ug/L	50	52.7	105	70-130	
o-Xylene	ug/L	50	49.9	100	70-130	
Styrene	ug/L	50	49.8	100	70-130	
Tetrachloroethene	ug/L	50	51.6	103	70-130	
Toluene	ug/L	50	50.5	101	80-120	
trans-1,2-Dichloroethene	ug/L	50	51.8	104	70-130	
trans-1,3-Dichloropropene	ug/L	50	41.8	84	69-130	
Trichloroethene	ug/L	50	54.2	108	70-130	
Trichlorofluoromethane	ug/L	50	58.7	117	75-145	
Vinyl chloride	ug/L	50	43.6	87	51-140	
4-Bromofluorobenzene (S)	%			104	70-130	
Dibromofluoromethane (S)	%			108	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2114456 2114457

Parameter	Units	40214876001 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	<0.24	50	50	51.6	52.4	103	105	70-130	1	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	50.0	49.7	100	99	64-137	1	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	52.2	53.0	104	106	70-137	2	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	56.0	56.5	112	113	69-163	1	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	49.9	50.5	100	101	77-129	1	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	45.0	45.7	90	91	68-130	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	42.0	42.3	84	85	60-130	1	20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	49.2	49.0	98	98	70-130	0	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	48.1	48.2	96	96	70-130	0	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	54.1	54.8	108	110	78-145	1	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	50.1	50.0	100	100	86-135	0	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	48.4	48.4	97	97	70-130	0	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2114456 2114457

Parameter	Units	40214876001 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	<0.94	50	50	48.3	48.7	97	97	70-130	1	20	
Benzene	ug/L	<0.25	50	50	52.3	53.2	105	106	70-136	2	20	
Bromodichloromethane	ug/L	<0.36	50	50	54.2	54.8	108	110	70-130	1	20	
Bromoform	ug/L	<4.0	50	50	54.8	55.9	110	112	69-130	2	20	
Bromomethane	ug/L	<0.97	50	50	38.6	40.1	77	80	39-138	4	20	
Carbon tetrachloride	ug/L	<1.1	50	50	54.3	55.1	109	110	70-142	2	20	
Chlorobenzene	ug/L	<0.71	50	50	51.0	51.2	102	102	70-130	0	20	
Chloroethane	ug/L	<1.3	50	50	48.8	48.6	98	97	61-149	1	20	
Chloroform	ug/L	<1.3	50	50	56.7	57.0	113	114	75-133	1	20	
Chloromethane	ug/L	<2.2	50	50	34.3	34.6	68	69	32-143	1	20	
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	51.3	52.3	103	105	70-130	2	20	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	45.5	45.5	91	91	70-130	0	20	
Dibromochloromethane	ug/L	<2.6	50	50	51.7	52.1	103	104	70-130	1	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	32.4	31.9	65	64	10-141	1	20	
Ethylbenzene	ug/L	<0.32	50	50	52.5	52.8	105	106	80-120	1	20	
Isopropylbenzene (Cumene)	ug/L	<1.7	50	50	50.4	50.6	101	101	70-130	0	20	
m&p-Xylene	ug/L	<0.47	100	100	100	101	100	101	70-130	0	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	44.8	45.2	90	90	61-136	1	20	
Methylene Chloride	ug/L	<0.58	50	50	51.8	52.3	104	105	68-137	1	20	
o-Xylene	ug/L	<0.26	50	50	49.3	49.7	99	99	70-130	1	20	
Styrene	ug/L	<3.0	50	50	47.5	47.8	95	96	70-130	1	20	
Tetrachloroethene	ug/L	<0.33	50	50	50.5	51.1	101	102	70-130	1	20	
Toluene	ug/L	<0.27	50	50	50.0	50.3	100	101	80-120	1	20	
trans-1,2-Dichloroethene	ug/L	<0.46	50	50	51.9	52.4	104	105	70-130	1	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	42.2	42.6	84	85	69-130	1	20	
Trichloroethene	ug/L	<0.26	50	50	53.6	53.6	107	107	70-130	0	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	57.6	58.0	115	116	74-157	1	20	
Vinyl chloride	ug/L	<0.17	50	50	43.4	43.8	87	88	51-140	1	20	
4-Bromofluorobenzene (S)	%						104	104	70-130			
Dibromofluoromethane (S)	%						108	109	70-130			
Toluene-d8 (S)	%						100	100	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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 SMOKEOUT CLEANERS
Pace Project No.: 40214875

QC Batch: 365906
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40214875005

METHOD BLANK: 2115486 Matrix: Water
Associated Lab Samples: 40214875005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4-Bromofluorobenzene (S)	%	100	70-130	09/21/20 07:40	
Dibromofluoromethane (S)	%	108	70-130	09/21/20 07:40	
Toluene-d8 (S)	%	99	70-130	09/21/20 07:40	

LABORATORY CONTROL SAMPLE: 2115487

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			110	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2115585 2115586

Parameter	Units	40214959002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
4-Bromofluorobenzene (S)	%						102	102	70-130			
Dibromofluoromethane (S)	%						110	110	70-130			
Toluene-d8 (S)	%						98	99	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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 SMOKEOUT CLEANERS
Pace Project No.: 40214875

QC Batch: 366307 | Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 | Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40214875001, 40214875002, 40214875003, 40214875004

METHOD BLANK: 2117199 Matrix: Water
Associated Lab Samples: 40214875001, 40214875002, 40214875003, 40214875004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<0.44	2.0	09/24/20 10:44	

LABORATORY CONTROL SAMPLE: 2117200

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	18.4	92	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2117201 2117202

Parameter	Units	40215115002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	16.5	100	100	107	112	90	95	90-110	5	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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 SMOKEOUT CLEANERS
Pace Project No.: 40214875

QC Batch: 365895 — Analysis Method: SM 5310C
QC Batch Method: SM 5310C — Analysis Description: 5310C Total Organic Carbon
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40214875001, 40214875002, 40214875003, 40214875004

METHOD BLANK: 2115456 Matrix: Water
Associated Lab Samples: 40214875001, 40214875002, 40214875003, 40214875004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<0.14	0.50	09/22/20 06:03	

LABORATORY CONTROL SAMPLE: 2115457

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	12.5	13.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2115458 2115459

Parameter	Units	10531868010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	0.63	6	6	6.8	6.7	103	102	80-120	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2115872 2115873

Parameter	Units	10532329002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	4.8	18	18	24.3	25.1	108	113	80-120	4	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

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.

WORKORDER QUALIFIERS

WO: 40214875

[1] Revised Report: The sample ID for 40214875004 has been corrected.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58187103 SMOKEOUT CLEANERS
Pace Project No.: 40214875

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40214875001	**MW-4**	EPA 8015B Modified	366772		
40214875002	**MW-3**	EPA 8015B Modified	366772		
40214875003	**MW-2**	EPA 8015B Modified	366772		
40214875004	**MW-1**	EPA 8015B Modified	366772		
40214875001	**MW-4**	EPA 6010	365859		
40214875002	**MW-3**	EPA 6010	365859		
40214875003	**MW-2**	EPA 6010	365859		
40214875004	**MW-1**	EPA 6010	365859		
40214875001	**MW-4**	EPA 8260	365821		
40214875002	**MW-3**	EPA 8260	365821		
40214875003	**MW-2**	EPA 8260	365821		
40214875004	**MW-1**	EPA 8260	365821		
40214875005	**HCL TRIP BLANK**	EPA 8260	365906		
40214875006	**BD1**	EPA 8260	365821		
40214875001	**MW-4**	EPA 300.0	366307		
40214875002	**MW-3**	EPA 300.0	366307		
40214875003	**MW-2**	EPA 300.0	366307		
40214875004	**MW-1**	EPA 300.0	366307		
40214875001	**MW-4**	SM 5310C	365895		
40214875002	**MW-3**	SM 5310C	365895		
40214875003	**MW-2**	SM 5310C	365895		
40214875004	**MW-1**	SM 5310C	365895		

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 **WI:** 920-469-2436

Page 1 of 1

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	Testcon
Branch/Location:	Franklin WI
Project Contact:	Scott Halgson
Phone:	—
Project Number:	58187103
Project Name:	Smoke out Cleaners
Project State:	WI
Sampled By (Print):	Ryan Johnson
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	4024875
Mail To Contact:	Scott Halgson
Mail To Company:	Testcon
Mail To Address:	SAME
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	SAME
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Analysis Requested	FILTERED? (YES/NO)	PRESERVATION (CODE)*	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
						Y/N	Pick Letter			
						N	B	VOCs		
						N	B	MEE		
						N	A	Sulfate		
						N	C	TOL		
						Y	D	Dissolved Iron		
						Y	D	Dissolved manganese ↑ Manganese		
001	MW-4	9-17-20	1010	GW		X	X	X	X	X	X			
002	MW-3		1145			X	X	X	X	X	X			
003	MW-2		1120			X	X	X	X	X	X			
004	MW-1		1225			X	X	X	X	X	X			
005	Hld Trip Blank		—			X								
006	BD1 ①	9/17	—											

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed: 5-day

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	9-17-2020 1446	Susan Killyea Pace	9-17-20 1446
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No. 4024875

Receipt Temp = 10.1 °C
Sample Receipt pH
OK / Adjusted
Cooler Custody Seal
Present / ~~Not Present~~
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

① Added to COC, in shipment 9/17/20 SRK

ORIGINAL

Sample Preservation Receipt Form

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

Client Name: Terracon Project # 40214825

All containers needing preservation have been checked and noted below: (Yes) □No X N/A 9/17/20 SRK

Initial when completed: SRK Date/ Time:

Lab Lot# of pH paper: 10D4194 Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN							
001				1						1		1					6													X		2.5 / 5 / 10
002				1						1		1					6													X		2.5 / 5 / 10
003				1						1		1					6													X		2.5 / 5 / 10
004				1						1		1					6										1			X		2.5 / 5 / 10
005																	2															2.5 / 5 / 10
006																	3															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																																2.5 / 5 / 10
017																																2.5 / 5 / 10
018																									9/17/20							2.5 / 5 / 10
019																									SRK							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) : (X)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	

Pace Analytical® 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 26Mar2020
	Document No.: ENV-FRM-GBAY-0014-Rev.00	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO#: 40214875

40214875

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 - N/A **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: RoI /Corr:

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

Person examining contents:
Date: 9/17/20 /Initials: SRK

Labeled By Initials: MP

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.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
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.
-Includes date/time/ID/Analysis Matrix: W		
Trip Blank Present:	☒Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☒Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 449		

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

TERRACON

GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Smoke out Cleaners	PROJECT NO. 58187103
PROJECT LOCATION: Howard, WI	
SAMPLE POINT: MW-1	SAMPLE POINT DESCRIPTION:
CASING DIAMETER: 1	
WELL DEPTH:	
DATE: 9-17-2020 TIME 924 AM /PM	DEPTH TO GROUND WATER (FT): 3.37
SAMPLING METHOD: low flow	FLOW RATE: ~ 100 ml/min
SAMPLE TIME: 1225	TOTAL PURGED: —

TIME	WATER LEVEL	TEMP.(°)	pH	COND. ( )	ORP ( )	DO ( )
No parameters due to purging Dry						

SAMPLE APPEARANCE: VERY TURBID, TURBID, SLIGHTLY TURBID, CLEAR	ODOR: YES, NO, NOT NOTED	ANALYSES: dissolved TOC, VOC, MEE, Fe+Ma

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

ARS

COMMENTS:

Purged Dry 3 times while trying to Sample

SAMPLED BY: ARS	DATE: 9-17-2020
REVIEWED BY: Scott A. Hodgson	DATE: 9/18/20

TERRACON

GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Smoke out Cleaners	PROJECT NO. 58187103
PROJECT LOCATION: Howard, WI	
SAMPLE POINT: MW-2	SAMPLE POINT DESCRIPTION:
CASING DIAMETER: 1	
WELL DEPTH:	
DATE: 9-17-2020	TIME 926 AM/PM
	DEPTH TO GROUND WATER (FT): 3.46
SAMPLING METHOD: Low-flow	FLOW RATE: ~100 ml/min
SAMPLE TIME: 1120	TOTAL PURGED: ~1 gal

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (µs/cm)	ORP (mV)	DO (mg/L)
1052		21.04	6.28	3330	-73.7	0.75
1057		21.04	6.66	1991	-110.4	0.49
1102		21.05	6.72	1672	-109.0	0.42
1107		21.06	6.73	1516	-105.1	0.41
1112		21.07	6.74	1496	-103.0	0.35
1117		21.07	6.75	1479	-102.3	0.31

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID CLEAR	ODOR: YES NO NOT NOTED	ANALYSES: Dissolved VOC, TOC, MEE, Mn + Fe

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

NSS

COMMENTS:

SAMPLED BY: NSS	DATE: 9-17-2020
REVIEWED BY: Scott D. Hodgson	DATE: 9/18/20

TERRACON

GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Smoke out Cleaners	PROJECT NO. 58187103
PROJECT LOCATION: Howard, WI	
SAMPLE POINT: MW-3	SAMPLE POINT DESCRIPTION:
CASING DIAMETER: 1	
WELL DEPTH:	
DATE: 9-17-2020 TIME 928 AM/PM	DEPTH TO GROUND WATER (FT): 3.39
SAMPLING METHOD: Low Flow	FLOW RATE: ~ 100 ml/min
SAMPLE TIME: 1145	TOTAL PURGED: ~ 1gal

TIME	WATER LEVEL	TEMP.(° C)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)
1139		21.08	6.87	1266	-105.2	6.18
1144		21.24	6.91	1169	-113.1	0.29
1149		21.29	6.89	1120	-108.7	0.19
1154		21.22	6.88	1098	-106.1	0.16
1159		21.19	6.87	1071	-105.9	0.11
1204 ~~1144~~		21.23	6.88	1062	-106.8	0.10

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)

ODOR: (YES) NO NOT NOTED

ANALYSES: dissolved VOC, ToC, MEE, mn+Fe

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

Deg

COMMENTS:

SAMPLED BY:	DATE: 9-17-2020
REVIEWED BY: Scott D. Hodgson	DATE: 9/18/20

TERRACON

GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Snake out Creeks	PROJECT NO. 58187103
PROJECT LOCATION: Howard, WI	
SAMPLE POINT: MW-4	SAMPLE POINT DESCRIPTION:
CASING DIAMETER: 1	
WELL DEPTH:	
DATE: 9/17/2020 TIME 922 AM/PM	DEPTH TO GROUND WATER (FT): 3.38
SAMPLING METHOD: Low flow	FLOW RATE: ~ 200 ml/min
SAMPLE TIME: 1010	TOTAL PURGED: ~2 gal

TIME	WATER LEVEL	TEMP.(° C)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)
949		21.27	6.30	3269	-67.6	4.77
954		21.24	6.79	3220	-140.6	1.66
959		21.37	6.94	3292	-163.2	1.35
1004		21.35	6.92	3281	-159.3	1.40
1009		21.30	6.91	3252	-157.0	1.33

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)	ODOR: (YES) NO NOT NOTED	ANALYSES: Dissolved VOC, TOC, MEE, Mn + Fe

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

COMMENTS:

BD1 for VOC

SAMPLED BY:	DATE: 9/17/2020
REVIEWED BY: Scott D. Hodgson	DATE: 9/18/20