

Lauridsen, Keld B - DNR

From: Lauridsen, Keld B - DNR
Sent: Wednesday, May 30, 2018 3:47 PM
To: 'Brian Youngwirth'; Lynn Bradley (lbradley@generalengineering.net)
Subject: RE: Van Deurzen Site Investigation Report

Brian/Lynn:

I have reviewed the SIR for the above site. The hard copy of the report was received on March 29, 2018.

Based on my limited review, it seems like degree and extent of soil and groundwater contamination is fairly well defined laterally based on the available soil and groundwater analytical results. During my review, the following observations/questions/concerns came up:

- Based on the groundwater flow direction outlined in the SIR, a downgradient well of temporary monitoring well TW9 does not exist. Contaminant concentrations in TW9 have been dropping most recently and if this trend continues, a second well across George Street may not be needed.
- Vertical extent of soil and groundwater contamination does not appear to have been defined.
- Remaining soil contamination above the RCLs does not appear to be delineated correctly. In my opinion, there is likely some soil contamination below the building and it also extends to the north towards George Street.
- Fairly limited groundwater data exists for this site. Additional sampling rounds are necessary to evaluate the effects of the remedial action (soil excavation). A select number of impacted monitoring wells can be proposed to be included in a monitoring schedule. Note that increasing contaminant trends are observed at temporary monitoring well TW-6.
- Will you be able to justify that the potential for vapor intrusion concerns do not exist in the adjacent residential homes without any actual sub-slab sampling?
- Is migration of contamination along utility laterals/corridors a concern?

Let me know if you would like to discuss any of the above. In my opinion, this case is not ready for closure at this point in time.

Thanks,

-Keld

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Keld B. Lauridsen

Phone: (920) 662-5420

Keld.Lauridsen@wisconsin.gov

From: Brian Youngwirth [mailto:byoungwirth@generalengineering.net]
Sent: Tuesday, March 27, 2018 3:40 PM
To: Lauridsen, Keld B - DNR <Keld.Lauridsen@wisconsin.gov>
Subject: FW: Van Deurzen Site Investigation Report

Keld, attached please find the site investigation report for Van Deurzen Cleaners. A hard copy will be sent out in the mail today. Please give me a call after you have read the report to discuss whether closure is a possibility as we have recommended or to discuss whether the WDNR believes other work is necessary.

Thank you,

Brian Youngwirth
Environmental Project Manager | General Engineering Company
916 Silver Lake Drive | PO Box 340 | Portage, WI 53901
P 608-742-2169 | Fax 608-742-2592 | C 608-697-8010
byoungwirth@generalengineering.net
www.generalengineering.net

From: Lisa Fish [<mailto:lfish@generalengineering.net>]
Sent: Tuesday, March 27, 2018 3:30 PM
To: Brian Youngwirth <byoungwirth@generalengineering.net>
Subject: RE: Van Deurzen Site Investigation Report

Please review.

Lisa L. Fish
Administrative Coordinator | General Engineering Company
916 Silver Lake Drive | PO Box 340 | Portage, WI 53901
P 608-742-2169 | F 608-742-2592
lfish@generalengineering.net
www.generalengineering.net

From: Brian Youngwirth [<mailto:byoungwirth@generalengineering.net>]
Sent: Tuesday, March 27, 2018 3:32 AM
To: Lisa Fish <lfish@generalengineering.net>
Cc: Lynn Bradley <bradley@generalengineering.net>
Subject: Van Deurzen Site Investigation Report

Lisa, please put together the Site Investigation Report at the link below and send me a copy to review. The attached signature page needs to be inserted on page 4.

<G:\Current Files R-Z\VanDeurzen Cleaners - 2-0614-154\Rept & Misc 2-0614-154\Site Investigation Report>

Thank you,

Brian Youngwirth
Environmental Project Manager | General Engineering Company
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byoungwirth@generalengineering.net
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From: Joe Ramcheck [<mailto:jramcheck@endeavorenv.com>]
Sent: Monday, March 26, 2018 1:31 PM

To: 'Brian Youngwirth' <byoungwirth@generalengineering.net>

Subject: RE: Site Investigation Report Review

Brian:

Attached is the signature page.

I see the site plan as the configuration upon commencement of investigation activities (bldgs, surface cover, pumps, UST basin, etc). The subsequent figure (Figure 3) illustrates everything associated with GECs investigation activities. I will leave this one up to you.

Attached are a few missed edits. Mainly with consistent use of "boring" and "probe" across the report.

Please forward a complete final version.

Thanks,
Joe

From: Brian Youngwirth <byoungwirth@generalengineering.net>

Sent: Wednesday, March 21, 2018 1:36 PM

To: 'Joe Ramcheck' <jramcheck@endeavorenv.com>

Subject: RE: Site Investigation Report Review

Joe, attached are the revisions to the report and the revised tables. I adjusted the number of wells on the groundwater tables to increase the size. We have always included the wells or things with visible covers on the site plan since you would find them there now so if it is ok with you I will leave them on the site plan. Our CAD person is out this week so I also did not add WAC to the figure. I have included the cross section figure so you can read it better. Please let me know if you have anything additional. If everything appears ok, please send back the signature page and I will get you a final copy.

Thank you,

Brian Youngwirth
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From: Joe Ramcheck [<mailto:jramcheck@endeavorenv.com>]

Sent: Wednesday, March 21, 2018 10:43 AM

To: 'Brian Youngwirth' <byoungwirth@generalengineering.net>

Subject: RE: Site Investigation Report Review

Brian:

Attached please find my revisions.

Please return upon completion of edits.

Font small on figures and tables. Let me know if any questions.

Joe

From: Brian Youngwirth <byoungwirth@generalengineering.net>
Sent: Monday, March 12, 2018 12:34 PM
To: 'Joe Ramcheck' <jramcheck@endeavorenv.com>
Subject: Site Investigation Report Review

Joe, could you please review this site investigation report for Vandeurzen Cleaners? I have attached the entire report.

Also, could you let me know when you may have the report completed for the Atkinson SI?

Brian Youngwirth
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Engineers • Consultants • Inspectors

March 27, 2018

Mr. Keld Lauridsen
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, Wisconsin 54313

RE: SITE INVESTIGATION REPORT
Van Deurzen Cleaners (BRRTS No. 02-05-561974)
1002 George Street
De Pere, Wisconsin
GEC Project Number: 2-0614-154


Dear Mr. Lauridsen:

General Engineering Company has completed this Site Investigation Report for the Van Deurzen Cleaners property located at 1002 George Street, in the City of De Pere, Wisconsin. Please feel free to contact General Engineering Company with any questions you may have.

Sincerely yours,

GENERAL ENGINEERING COMPANY


Brian Youngwirth
Environmental Project Manager


Lynn Bradley
Environmental Project Manager



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SITE INVESTIGATION REPORT

For

VAN DEURZEN CLEANERS

Located at

**1002 GEORGE STREET
CITY OF DE PERE, BROWN COUNTY, WISCONSIN**

March 27, 2018

Prepared by:

GENERAL ENGINEERING COMPANY

916 Silver Lake Drive

Phone: (608) 742-2169

GEC Project No.: 2-0113-27C

Client:

Robert L. Van Deurzen

312 S. Webster Avenue

De Pere, Wisconsin 54115

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- Monitoring Well Construction and Development Forms

1.0 EXECUTIVE SUMMARY AND SUBMITTAL CERTIFICATION

General Engineering Company (GEC) has performed a site investigation and remedial excavation for the Van Deurzen Cleaners site located at 1002 George Street, in the City of De Pere, Brown County, Wisconsin. The site investigation and remedial activities were completed as a result of chlorinated solvent contamination identified during a previous Phase II environmental site assessment (ESA) performed by Robert E. Lee & Associates.

GEC reviewed a Phase I and II ESA performed by Robert E. Lee & Associates, dated April 9, 2014, which was provided to GEC by Mr. Robert Van Deurzen. A recognized environmental condition was identified as part of the Phase I ESA associated with the historical usage of the property as a dry cleaner from 1976 to approximately 1999. A Phase II ESA was performed which included the advancement of five soil probes (B-1 through B-5) at the property to evaluate the potential presence of solvents associated with the former dry cleaning business. Soil probes B-4 and B-5 were converted to temporary monitoring wells TW-4 and TW-5, respectively. Soil samples collected from soil probe B-4 (located east of the structure), and soil probe B-5 (located southeast of the structure) reported tetrachloroethene (PCE) concentrations of 750 micrograms per kilogram ($\mu\text{g}/\text{kg}$) and 179 $\mu\text{g}/\text{kg}$, respectively. These soil concentrations exceed the Wisconsin Administrative Code (WAC), NR 720 soil to groundwater residual contaminant level (RCL) of 4.5 $\mu\text{g}/\text{kg}$ for PCE. Groundwater samples collected from temporary monitoring well TW-4 reported the presence of PCE at a concentration of 198 micrograms per liter ($\mu\text{g}/\text{l}$) and trichloroethene (TCE) at a concentration 1.09 $\mu\text{g}/\text{L}$. The PCE concentration exceeds the WAC, NR 140 enforcement standard (ES) of 5 $\mu\text{g}/\text{l}$ and TCE exceeds the NR 140 preventive action limit (PAL) of 0.5 $\mu\text{g}/\text{L}$.

The WDNR was subsequently notified of a release on May 19, 2014. As a result, GEC was retained to complete the site investigation and remedial activities. It should be noted that temporary monitoring well TW-4 was renamed temporary monitoring well TW-1 for purposes of this site investigation and that temporary monitoring well TW-5 cannot be located and no further sampling has been performed at temporary monitoring well TW-5.

The site investigation activities to date have included the advancement of five soil borings (B-1 to B-5), which were converted to monitoring wells designated MW-1 to MW-5; respectively; the advancement of seven soil probes (GP-6 to GP-12), which were converted to temporary monitoring wells TW-6 to TW-12; respectively; the installation of five sub-slab vapor sampling ports (VP-1 to VP-5) within the on-site building; collection of soil samples from the borings, probes and VP-5; the performance of one to four rounds of groundwater sampling from the site monitoring wells, two sumps within the basement of the on-site building, and one sump within the basement of the adjoining residential property, south of the subject site; collection of vapor samples from VP-1, VP-2, VP-4, VP-5, and ambient air within the basement of the on-site building and adjoining residential property; and installation of a vapor mitigation system within the building on the subject site. It should be noted when a vapor sample was initially collected from VP-3, water was present within the vapor tubing; therefore, VP-4 was installed.

The soil borings, probes and monitoring wells were installed to delineate the extent of soil and groundwater contamination. Upon completion of the majority of the above-mentioned site investigation work, GEC performed oversight of the excavation of 52.54 tons of contaminated soil from the estimated source area of the release. The depth of the excavation ranged from 8 feet to 10 feet. A recovery well (RW-1) was installed within the remedial excavation near the

former location of temporary monitoring well TW-1, which was abandoned during the remedial excavation.

Selected soil samples from the borings, probes, and excavation were submitted for laboratory analysis of VOCs. Groundwater samples collected from the groundwater sampling points were submitted for laboratory analysis of VOCs. Vapor samples were submitted for laboratory analysis of TO-15TIC for VOCs. The highest concentration of PCE was reported in the soil sample collected from probe GP-6 at a depth of 7 to 8 feet below ground surface (6,100 µg/kg), which is below the groundwater depth. Soil samples collected from soil boring B-5, soil probe GP-7 and soil probe GP-9 also reported PCE at concentrations of 66J µg/kg, 360 µg/kg/247 µg/kg and 930 µg/kg, respectively, exceeding the NR 720 soil to groundwater RCL. The samples collected from points B-1 to B-4, GP-8, GP-11, GP-12 and VP-5 did not report VOCs above the laboratory limit of detection.

With regard to the remedial excavation soil sampling, ten confirmation soil samples were collected from the excavation limits. Sidewall soil samples were collected from depths ranging from 3 feet to 7 feet. Floor soil samples were collected from the southeastern floor and northwestern floor of the excavation at depths of 8 feet and 10 feet, respectively. The soil sample collected from the north wall at a depth of 3 feet did not report detectable levels of VOCs. The confirmation soil samples collected at the remaining locations reported PCE at concentrations ranging from 320 µg/kg to 2,780 µg/kg. The highest levels were detected in the samples collected from the south wall a depth of 7 feet (2,780 µg/kg) and from the west wall at a depth of 3 feet (2,360 µg/kg). None of the concentrations detected within the upper four feet of soil exceeded the NR 720 direct contact RCL of 33,000 µg/kg for PCE.

The groundwater samples collected from monitoring wells MW-5, TW-1/RW-1, TW-6, TW-7, TW-9 and Sump 1 have contained PCE at concentrations exceeding the WAC, NR 140 ES. The groundwater samples collected from monitoring well TW-8 and Sump 2 have contained PCE concentrations exceeding its WAC, NR 140 PAL. The groundwater samples collected from monitoring wells TW-1, TW-6, TW-7, Sump 1, and Sump 2 have contained TCE at concentrations exceeding its WAC, NR 140 ES or PAL. The highest concentrations of PCE have been detected in the groundwater samples collected from monitoring wells TW-6 (620 µg/L to 1,260 µg/L), TW-1 (196 µg/L to 320 µg/L), TW-9 (116 µg/L to 144 µg/L), and TW-7 (19.6 µg/L to 44 µg/L). The groundwater samples collected from monitoring well RW-1 (installed within the remedial excavation) contained PCE at a concentration of 13.9 µg/L, well below the concentrations previously identified at TW-1. The groundwater samples collected from monitoring wells MW-1, MW-2, MW-3, MW-4, TW-10, TW-11, TW-12, and the Rockstroh Sump (southern adjoining residence) have not contained detectable levels of VOCs.

One to four rounds of sub-slab/ambient vapor testing have been performed at VP-1 to VP-5. Ambient 1 (upper level of the on-site building), and Ambient 2 (basement of the residence on the southern adjoining property). At location VP-3, groundwater was encountered beneath the floor slab and the port has not been utilized.

The results of the initial two rounds of sub-slab vapor testing at VP-1, VP-2, and VP-4 reported concentrations of PCE and/or TCE exceeding the WDNR small commercial sub-slab vapor risk screening levels (VRSL) with PCE concentrations reported up to 8,800 micrograms per cubic meter (µg/cubic meter) and TCE concentrations up to 2,200 µg/cubic meter.

Due to the elevated test readings, it was recommended to the property owner that a vapor mitigation system be installed to attempt to prevent the migration of vapors into the building and that Sump 1 be sealed. The system was installed during July of 2015 by American Radon Reduction, LLC. The system consisted of the installation of a sealed 3-inch PVC pipe installed beneath the floor slab (within the area of VP-3) within the gravel beneath the floor slab. The piping was then connected to an electric blower and vented out of the southeast portion of the building. Sump 1 was also sealed at that time.

Subsequent to activation of the system, Mr. Scott Fischer of American Radon Reduction indicated that it did not appear that the sump and drain tile beneath the foundation were functioning properly, and the system may not be effective without lowering the groundwater level beneath the floor slab, so that the system could effectively draw vapor without in-taking water. Prior to performance of the testing, an additional sump (Sump 2) was installed within the basement by a subcontractor. The sump was sealed, but a removable water sampling port was installed.

Subsequent to installation of the additional groundwater sump, the concentrations of PCE and TCE were reduced during the two most recent sampling rounds. During the most recent sampling round, the sub-slab samples collected from VP-1, VP-2, VP-4, VP-5 and Ambient 1 collected on the main level of the on-site building, reported VOCs at concentrations below their respective small commercial sub-slab or indoor air screening levels. The indoor air sample (Ambient 2) collected within the basement of the residence on the southern adjoining property did not contain VOCs at concentrations exceeding their respective standards with the exception of naphthalene, which was detected at a concentration of 4.93 µg/cubic meter. However, naphthalene was also detected in the laboratory blank, indicating it may be a laboratory contaminant. Naphthalene was not a contaminant of concern in this case, and therefore, its presence does not appear to be attributable to this release. During the ambient sampling, it was noted that small containers of oil were present within this area of the basement, which may have also caused the exceedance of naphthalene.

Based on the site investigation work performed to date, it appears that the extent of soil and groundwater contamination has been adequately defined. The vapor mitigation system appears to be controlling vapors beneath the slab of the on-site building. The most highly affected soils have been removed from the estimated source area of the release. It appears some affected soil and groundwater may to be present on the southern adjoining property boundary, within the alley east of the subject site and within the George Street right-of-way. Groundwater samples collected from the site monitoring wells indicate relatively stable contaminant concentrations. Therefore, it does not appear that any additional work is necessary, and this case can be considered for closure. GEC will prepare a closure request, subsequent to WDNR review of this report and concurrence with the recommendation.

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

SIGNATURE: *Joseph M. Ramcheck* DATE: 03/26/2018

PROFESSIONAL REGISTRATION NUMBER: PH-186-111

STAMP:



2.0 INTRODUCTION

2.1 General

This report presents the findings and conclusions of the site investigation and remedial activities performed at the Van Deurzen Cleaners site located at 1002 George Street in the City of De Pere, Wisconsin.

Site Name and Location: Van Deurzen Cleaners
1002 George Street
De Pere, Wisconsin
Northeast ¼ of the Southeast ¼ of Section 22, Township 23 North,
Range 20 East
Brown County, Wisconsin
WTM Coordinates: X=674927, Y=443556

Site Operations: The building on the property is currently a physical fitness center. The property was formerly occupied by Van Deurzen Dry Cleaners from approximately 1976 to 1999.

Responsible Party: Robert Van Deurzen
312 S. Webster Avenue
De Pere, Wisconsin 54115
Phone: (920) 336-3089

Consultant: General Engineering Company
916 Silver Lake Drive
Portage, WI 53901
Phone: (608) 742-2169

Project Manager: Lynn Bradley
General Engineering Company
916 Silver Lake Drive
Portage, WI 53901
Phone: (608) 742-2169
lbradley@generalengineering.net

2.2 Purpose

The purpose of the site investigation activities was to define the horizontal and vertical extent of soil and groundwater contamination at the site in accordance with NR 716, Wis. Adm. Code. The purpose of the remedial activities was to remove and properly dispose of the most highly affected soils identified near the southeast corner of the existing building to a few feet beyond the groundwater depth.

2.3 Scope of Work

The scope of investigative activities performed by GEC and/or subcontractors to date includes the following: advancement of five soil borings which were converted to groundwater monitoring wells; advancement of seven soil probes which were converted to temporary monitoring wells; performance of a remedial excavation; installation of five sub-slab vapor points within the building on the subject site; installation of a vapor mitigation system within the building on the subject site; collection of soil samples from the soil borings, probes, one of the vapor probes and the remedial excavation; collection of groundwater samples from the monitoring wells, two on-site basement sumps and a sump within the basement of the adjoining residential property to the south; collection of sub-slab vapor samples from four of the installed vapor points, collection of ambient air samples from within the basement of the on-site building and the basement of the residence on the southern adjoining property; submittal of soil, groundwater and air samples for laboratory testing; and analysis of the collected data and preparation of this report.

3.0 SITE DESCRIPTION

3.1 Site Features

The former Van Deurzen Dry Cleaners property is located at 1002 George Street in the City of De Pere, Wisconsin. The property is located at the southeast intersection of S. Ontario Street and George Street. More specifically, the property is located within the Northeast ¼ of the Southeast ¼ of Section 22, Township 23 North, Range 20 East, Brown County, Wisconsin. The property is located approximately 3 blocks east of downtown De Pere. The property is located within an area that is primarily residential properties with a few intermixed commercial properties. A site location map is shown in Figure 1, Appendix A.

The property is occupied by a single story commercial building with a partial basement. It is understood that the portion of the building without a basement (northeast corner of the building) formerly contained the dry cleaning machine and the dry cleaning chemicals were transported to the machine through access doors on the east side of the building. The ground surface consists of concrete to the north, east and west of the building and grass to the south. A site plan is shown on Figure 2, Appendix A.

The property is bordered to the north by George Street, across which are residential properties; to the south by residential properties; to the east by an asphalt paved alley, across which are residential properties; and to the west by Ontario Street, across which are residential properties.

A sanitary sewer lateral extends south beneath the alley, east of the property. A storm sewer extends north from the north end of the alley toward George Street.

3.2 Background

GEC reviewed a Phase I and II ESA performed by Robert E. Lee & Associates, dated April 9, 2014, which was provided to GEC by Mr. Van Deurzen. The work was performed as part of a potential property transaction. The report provided historic information regarding the subject site, and also the results of a Phase II ESA.

A recognized environmental condition was identified as part of the Phase I ESA associated with the historical usage of the property as a dry cleaner from 1976 to approximately 1999. A Phase II ESA was performed, which included the advancement of five soil probes (B-1 through B-5) at the property to evaluate the potential presence of solvents associated with the former dry cleaning business. The locations of the probes are shown of Figure 3, Appendix A. Soil samples were collected from the soil borings and submitted for laboratory analysis for the presence of VOC. Analytical results reported the presence of PCE in the soil samples collected from soil probe B-4 (located east of the structure) and soil probe B-5 (located southeast of the structure) at concentrations of 750 µg/kg and 179 µg/kg, respectively. These soil concentrations exceed the WAC, NR 720 soil to groundwater RCL of 4.5 µg/kg for PCE.

Soil probes B-4 and B-5 were converted to temporary monitoring wells TW-4 and TW-5, respectively. Groundwater samples were collected from the temporary wells on March 21, 2014. The samples were submitted for laboratory analysis for the presence of VOCs.

Analytical results from groundwater sample collected from temporary well TW-4 reported detections of PCE (198 µg/L) and TCE (1.09 µg/L). Analytical results from groundwater samples collected from temporary well TW-5 reported a detection of PCE (2.46 µg/L). No other VOC compounds were detected in the groundwater samples above the laboratory limit of detection.

The WDNR was subsequently notified of a release on May 19, 2014. As a result, GEC was retained to complete the site investigation and remedial activities discussed herein. It should be noted that temporary monitoring well TW-4 was renamed temporary monitoring well TW-1 for purposes of this site investigation and that temporary monitoring well TW-5 cannot be located and no further sampling has been performed at temporary monitoring well TW-5.

4.0 SITE INVESTIGATION AND REMEDIAL ACTIVITIES

4.1 Scope Summary

The scope of site investigation activities included the advancement of five soil borings (B-1 to B-5), which were converted to monitoring wells designated MW-1 to MW-5; the advancement of seven soil probes (GP-6 to GP-12), which were converted to temporary monitoring wells TW-6 to TW-12; the installation of five sub-slab vapor sampling ports (VP-1 to VP-5), within the on-site building; collection of soil samples from the borings, probes and VP-5; the performance of one to four rounds of groundwater sampling from the site monitoring wells, two sumps within the basement of the on-site building (Sump 1 and Sump 2), and one sump within the basement of the adjoining residential property, south of the subject site (Rockstroh Sump); collection of vapor samples from VP-1, VP-2, VP-4, VP-5, ambient air within the main level of the on-site building (Ambient 1) and ambient air within the basement of the residence on the southern adjoining property (Ambient 2); and installation of a vapor mitigation system within the building on the subject site.

The soil borings, probes and monitoring wells were installed to delineate the extent of soil and groundwater contamination. Upon completion of the majority of the above-mentioned site investigation work, GEC performed oversight of the excavation of 52.54 tons of contaminated soil from the estimated source area of the release.

Selected soil samples from the borings, probes, VP-5 and excavation were submitted for laboratory analysis of VOCs. Groundwater samples collected from the groundwater sampling points were submitted for laboratory analysis of VOCs. Air samples were submitted for laboratory analysis of TO-15TIC for VOCs.

4.2 Field Exploration

Soil borings B-1 to B-5 were advanced on July 10, 2014, and converted to monitoring wells MW-1 to MW-5, respectively. The soil borings were installed to depths of up to 13.5 feet below ground surface. Monitoring wells MW-1, MW-2, and MW-5 were installed on the property and monitoring wells MW-3 and MW-4 were installed on the southern adjoining property. Soil probes GP-6 to GP-9 were advanced on July 30, 2015, and converted to temporary monitoring wells TW-6 to TW-9, respectively. Soil probes GP-10 to GP-12 were advanced on May 19, 2016, and converted to temporary monitoring wells TW-10 to TW-12, respectively. The probes were installed to depths of up to 14 feet below ground surface. Temporary monitoring wells

TW-6, TW-7, TW-8 and TW-9 were advanced on the property. Temporary monitoring well TW-10 was advanced within the terrace right-of-way on the north side of George Street, and TW-11 and TW-12 were advanced within the right-of-way of the eastern portion of the alley located to the east of the subject site. Soil boring and monitoring well locations are shown on Figure 3, Appendix A.

The soil borings and monitoring wells were advanced with a truck-mounted drilling rig by Midwest Engineering Services of Menasha, Wisconsin, under the direction of GEC. Soil samples were collected continuously by advancing a 24-inch steel split spoon sampler into undisturbed soils. The soil probes were performed by Kitson Environmental of Hellenville, Wisconsin, under the direction of GEC. Soil samples were collected continuously by advancing a 48-inch plastic sleeve within a steel sampler into undisturbed soils.

The monitoring well construction consisted of a 10-foot section of 2-inch/1.25-inch diameter, machine slotted PVC screen placed at or near the bottom of the borehole. This was surrounded by a graded granular filter medium in the annular space, with un-slotted riser pipe extending from the screened section to a few inches below the ground surface. A bentonite seal of approximately 2 feet was placed above the granular filter medium. The remaining annular space was filled to the ground surface with bentonite chips. Flush mounted protective covers were used to protect the wells. Well construction logs were provided within the previous status updates.

Sub-slab vapor ports VP-1 to VP-4 were installed during 2014. Sub-slab vapor port VP-5 was installed during 2016, within the concrete of the main level, where the dry-cleaner machines were stored, and a basement is not present. Sub-slab vapor ports were installed by drilling a 5/8-inch hole in the concrete floor to approximately 2 inches, followed by a 1/2 inch hole through the remainder of the concrete. General Engineering then utilizes the Cox-Colvin Vapor Kit to place the vapor points. A rubber vapor pin sleeve is placed over a stainless steel pin, which is hammered into the hole and creates a seal. The 5/8" hole that is drilled to place the cover is also used as a dam to ensure there are no leaks, and a proper seal is in place. The plastic hose for the Suma Canister is then placed over the pin for a sealed sample. The vapor samples were collected over the period of one hour. Ambient air samples were also collected from the main level of the subject site and the basement of the southern adjoining property.

On June 20, 2017, GEC was on-site to oversee the excavation of approximately 52.54 tons of affected soils. The soils were removed by Ostrenga Excavating of Green Bay, Wisconsin, and transported to Ridgeview Landfill, located in Whitelaw, Wisconsin, for proper disposal. The excavation was approximately 14 feet long by 11 feet wide and extended to depths ranging from 8 to 10 feet. The limits of the excavation are shown on Figure 4, Appendix A. The horizontal limits and depth of the excavation were impeded by the building and foundation to the west, the alley to the east and the adjoining property to the south. Temporary well TW-1 was abandoned during the excavation. An abandonment form is included in Appendix C. Recovery well RW-1 was installed near the former location of temporary monitoring well TW-1.

The recovery well construction consisted of an 8-foot section of 2-inch diameter, machine slotted PVC screen placed at or near the bottom of the excavation near a depth of 10 feet. This was surrounded by a granular backfill utilized to backfill the excavation with un-slotted riser pipe extending from the screened section to a few inches below the ground surface. A bentonite seal of approximately 2 feet was placed above the granular filter medium. The remaining

annular space was filled to the ground surface with bentonite chips. A flush mounted protective cover was used to protect the well. A well construction log is included in Appendix E.

4.3 Field Volatile Vapor Emission Screening

Soil samples collected from the soil probes and remedial excavation were screened for volatile organic vapor emissions with a Thermo TVA 1000 FID. The soil samples were placed in a plastic bag and permitted to equilibrate to at least 70 degrees Fahrenheit for a period of at least 15 minutes, based upon the ambient outdoor temperature. The screening was then performed by inserting the probe in the bag and measuring the headspace. The FID is a scientific instrument that measures the concentration of an organic species in a gas stream. The meter serves as one tool in selecting soil samples for analytical testing.

4.4 Soil Sample Collection and Preparation

Soil samples for chemical analyses were selected from the borings, probes, and remedial excavation based upon visual observations, the FID screenings, the direct contact risk, and the observed depth to groundwater. Selected soil samples were submitted for laboratory analysis for the presence of VOCs.

The selected soil samples were extracted from the soils utilizing a sterile syringe. Approximately 10 to 12 grams of soil were transferred into a clean, laboratory prepared vial with 10 milliliters of methanol preservative. The soil samples were placed on ice and chain-of-custody procedures were initiated. The samples were then submitted to Synergy Laboratory of Appleton, Wisconsin, for laboratory analysis.

5.0 DESCRIPTION OF SUBSURFACE CONDITIONS

5.1 Soil Conditions

The surface at the boring/probe locations consisted of concrete at B-1, B-2, B-5, GP-7 and GP-9; grass at B-3, B-4, GP-6, GP10, GP-11 and GP-12; and landscaping at GP-8. The surface materials beneath the concrete were underlain by approximately 1 foot of sand, silt and gravel fill. The surface materials within the grass areas were underlain by approximately 1 to 2 feet of topsoil. As exceptions, the surface materials at GP-8, GP-11 and GP-12 were underlain by clay or topsoil fill. The topsoil and fill materials were underlain by brown and reddish brown silty clay to the termination depths of the probes and borings at depths ranging from 13 feet to 14 feet below ground surface. Groundwater was encountered at depths generally ranging from approximately 6 feet to 7 feet below ground surface. Boring logs were included within the previous status updates. A geologic cross section is shown in Figure 6, Appendix A.

6.0 GROUNDWATER MONITORING ACTIVITIES

6.1 Well Development

Monitoring wells MW-1 to MW-5 were developed on July 16, 2014. The monitoring wells were developed by purging with a bailer. Monitoring well development forms are included in Appendix E.

6.2 Groundwater Sampling

One to four round of groundwater sampling were performed by GEC at monitoring wells MW-1 to MW-5, temporary wells TW-1 and TW-6 to TW-12; two sumps within the on-site building (sump and sump 2); one sump within the basement of the adjoining southern property (Rockstroh sump), and recovery well RW-1. Groundwater sampling rounds were performed on July 21, 2014, October 6, 2014, August 6, 2015, May 19, 2016, May 24, 2016, and December 14, 2017. The groundwater samples were submitted for laboratory analysis of VOCs.

Groundwater samples submitted for VOC analysis were transferred into a laboratory prepared 40-milliliter vials containing hydrochloric acid preservative. The sample containers were placed on ice and standard chain-of-custody procedures were initiated. The groundwater samples were submitted to Synergy Environmental Lab in Appleton, Wisconsin.

6.3 Water Elevations

Groundwater level measurements were collected at each monitoring well during the sampling rounds performed. Static groundwater levels have ranged from 4.02 feet below top of casing (TOC) at TW-9 (EL. 95.72) on August 18, 2015, to 8.95 feet below TOC at TW-1 (EL. 91.57) on May 24, 2016. Groundwater elevations ranged from EL. 91.57 at TW-1 on May 24, 2016 to EL. 95.72 at TW-9 on August 18, 2015. Based on the elevation data collected to date, the groundwater flow appears to be variable, but most typically ranges from northeast to northwest. Groundwater flow may be influenced by the basement sumps present in the area of the property as well as underground utilities. Groundwater elevation data is summarized on Table 3, Appendix B. A groundwater elevation contour and flow direction map for December 14, 2017, is included in Figure 5, Appendix A.

7.0 FIELD AND ANALYTICAL TESTING RESULTS

7.1 NR 720 Soil Standards

Chapter 720 of the NR700 series code established residual contaminant levels (RCLs) for soils intended to be protective of the direct contact (upper 4 feet of soil defined by human exposure to substances in soil through inhalation of particulate matter, dermal absorption, incidental ingestion, or inhalation of vapors from the soil) and soil-to-groundwater pathways. The direct contact levels are dependent on the planned use and zoning of the affected property. Although these individual RCLs have been established for a wide range of compounds, the WDNR requires that the cumulative effects of detected compounds be evaluated through use of a WDNR interactive table where individual concentrations can be entered to evaluate whether the target cancer risk has been exceeded. The individual RCLs provided by the WDNR were developed using standard default exposure assumptions. As an alternative, site specific calculations can be performed utilizing the U.S. EPA Regional Screening Level Web Calculator.

7.2 Laboratory Soil Results

Soil samples for laboratory analysis were collected from soil borings B-1 to B-5 at depths ranging from 2 to 7 feet below ground surface. Laboratory analytical results from the sample collected from B-5 at a depth of 4 to 6 feet reported tetrachloroethene at a concentration of 66J

µg/kg, which exceeds its soil to groundwater RCL of 4.5 µg/kg. The soil samples collected from the other borings did not report VOCs above the laboratory limit of detection.

With regard to the soil probing, soil samples were collected for laboratory analysis from soil probes GP-6 to GP-9, GP-11 and GP-12 at depths ranging from 0 to 7 feet below ground surface. A soil sample was also collected beneath the floor slab at VP-5 at a depth of 6 inches. The soil samples collected from soil probe GP-6 at depths of 3 to 4 feet and 7 to 8 feet reported PCE at concentrations of 860 µg/kg and 6,100 µg/kg, respectively. The soil samples collected from soil probe GP-7 at depths of 2 to 3 feet and 7 to 8 feet reported PCE at concentrations of 360 µg/kg and 247 µg/kg; respectively. The soil sample collected from probe GP-9 at a depth of 4 to 5 feet reported PCE at a concentration of 930 µg/kg. These concentrations exceed the soil to groundwater RCL for PCE of 4.5 µg/kg. The soil samples collected from probe GP-8 at a depth of 6 to 7 feet; GP-11 at depths of 0 to 2 feet and 4 to 6 feet; GP-12 at depths of 2 to 4 feet and 4 to 6 feet; and from vapor port VP-5 at a depth of 6 inches did not report detectable levels of VOCs.

With regard to the remedial excavation sampling, ten confirmation soil samples were collected from the excavation limits. Soil samples for laboratory analysis were collected from the north wall, south wall, east wall and west wall at depths ranging from 3 feet to 7 feet. Confirmation soil samples were also collected from the southeastern floor and northwestern floor of the excavation at depths of 8 feet and 10 feet, respectively. The confirmation sample collected from the north wall at a depth of 3 feet did not contain detectable levels of VOCs. The samples collected at the remaining locations reported PCE at concentrations ranging from 320 µg/kg to 2,780 µg/kg. The highest concentrations were detected in the confirmation samples collected from the south wall a depth of 7 (2,780 µg/kg) and from the west wall at a depth of 3 feet (2,360 µg/kg). None of the concentrations detected within the upper four feet of soil exceeded the NR 720 Direct Contact RCL of 33,000 µg/kg for PCE. The estimated extent of soil with PCE concentrations exceeding the NR 720 soil to groundwater RCL is shown on Figure 7, Appendix A.

Remedial excavation laboratory analytical results are included in Appendix D. Analytical results from the soil borings and probes were submitted within previous status updates. The soil analytical results of the borings and probes are summarized on Table 1, Appendix B and the analytical results from the remedial excavation are summarized on Table 4, Appendix B.

7.3 Groundwater Quality Standards

The ES and PAL are Groundwater Quality Standards, which have been established in WAC, NR140. These Standards are referenced when evaluating the need for further study or remedial activities. The PAL is the more stringent guideline, in terms of being lesser in magnitude than the ES, but will typically require less response action when exceeded. The required action is determined by DNR regulations, based on various site-specific considerations.

7.4 Laboratory Groundwater Results

The groundwater samples collected from monitoring wells MW-5, TW-1/RW-1, TW-6, TW-7, TW-9 and Sump 1 have reported PCE at concentrations exceeding the WAC, NR 140 ES. The groundwater samples collected from monitoring well TW-8 and Sump 2 have reported PCE concentrations exceeding its WAC, NR 140 PAL. The groundwater samples collected from

monitoring wells TW-1, TW-6, TW-7, Sump 1, and Sump 2 have reported TCE at concentrations exceeding its WAC, NR 140 ES or PAL. The highest concentrations of PCE have been detected in the groundwater samples collected from monitoring wells TW-6 (620 µg/L to 1,260 µg/L), TW-1 (196 µg/L to 320 µg/L), TW-9 (116 µg/L to 144 µg/L), and TW-7 (19.6 µg/L to 44 µg/L). The groundwater samples collected from monitoring well RW-1 reported PCE at a concentration of 13.9 µg/L, well below the concentrations previously identified at temporary monitoring well TW-1. The groundwater samples collected from monitoring wells MW-1, MW-2, MW-3, MW-4, TW-10, TW-11, TW-12, and the Rockstroh Sump (southern adjoining residence) have not reported detectable levels of VOCs. The estimated extent of PCE groundwater contamination exceeding the WAC, NR 140 ES is shown of Figure 8, Appendix A.

The results of the chemical analyses of the groundwater samples are summarized in Table 2 in Appendix B. A laboratory analytical report and chain of custody forms for the most recent sampling round are included in Appendix D. Prior laboratory analytical reports have been included within previous status updates.

8.0 VAPOR TESTING AND VAPOR MITIGATION SYSTEM

Sub-slab air testing was performed at VP-1, VP-2, and VP-4 on October 6, 2014, and March 9, 2015. The samples were collected utilizing a Summa Canister and submitted for laboratory analysis of TO-15TIC for Volatile Organic Compounds. At location VP-3, groundwater was encountered beneath the floor slab and the port could not be utilized.

The results of the sub-slab testing reported PCE and TCE at concentrations well above their respective screening levels. Specifically, PCE was reported at vapor port VP-1 at levels of 8,800 µg/cubic meter and 8,100 µg/cubic meter, respectively; at vapor port VP-2 at levels of 3,100 µg/cubic meter and 1,100 µg/cubic meter, respectively; and vapor port VP-4 at levels of 6,000 µg/cubic meter and 8,800 µg/cubic meter, respectively, which are generally above its recommended small commercial screening level of 6,000 µg/cubic meter. TCE was reported at vapor port VP-1 at levels of 1,800 µg/cubic meter and 2,000 µg/cubic meter, respectively; at vapor port VP-2 at levels of 530 µg/cubic meter and 320 µg/cubic meter, respectively; and vapor port VP-4 at levels of 1,400 µg/cubic meter and 2,200 µg/cubic meter, respectively, which are above its recommended small commercial sub-slab screening level of 290 µg/cubic meter.

Due to the elevated test readings, it was recommended to the property owner that a vapor mitigation system be installed to attempt to prevent the migration of vapors into the building, and that Sump 1, located in the basement, be sealed. The system was installed during July of 2015 by American Radon Reduction, LLC, of Oshkosh, WI. The system consisted of a sealed 3-inch PVC pipe installed beneath the floor slab, near vapor port VP-3, within the gravel beneath the floor slab. The piping was then connected to an electric blower and vented out of the southeast portion of the building. The sump was also sealed by a subcontractor hired by the owner.

Subsequent to activation of the system, Mr. Scott Fischer of American Radon Reduction, LLC, indicated that it did not appear that the sump and drain tile beneath the foundation were functioning properly and that the system may not be effective without lowering the groundwater level beneath the floor slab so that the system could effectively draw vapor without in-taking water. As indicated previously, GEC encountered groundwater beneath the floor slab within vapor port VP-3. Prior to performance of the testing, an additional sump (Sump 2) was installed

within the basement by a subcontractor hired by the owner, to control the groundwater elevation beneath the basement floor slab, in order for the vapor mitigation to operate more efficiently. The sump was sealed but a sampling port was installed.

At the request of the WDNR, an additional sub-slab vapor port (VP-5) was also installed near the approximate location of the former dry cleaning machine on the first floor of the building. No basement is present beneath this concrete slab. Sub-slab vapor samples were collected from the locations of two vapor ports installed within the concrete floor within the basement (VP-1 and VP-4) and from VP-5 near the location of the former dry cleaning machine on May 19, 2016. The samples were collected while the system was operating. GEC attempted to collect air samples from vapor port VP-2, and from ambient air on the first floor; however, the canisters utilized at these locations failed. The results of the sub-slab vapor testing reported PCE and TCE at levels generally below their respective screening levels, and well below the levels observed prior to installation of the additional sump. The sample collected at vapor port VP-4 reported TCE at a concentration of 355 µg/cubic meter, which exceeds its recommended small commercial sub-slab screening level of 290 µg/cubic meter. PCE was detected below its standard at vapor port VP-4. The levels of PCE at vapor port VP-1 (35.4 µg/cubic meter) and vapor port VP-5 (410 µg/cubic meter) and TCE at vapor port VP-1 (13.1 µg/cubic meter) and VP-5 (22.9 µg/cubic meter) were well below their respective sub-slab screening levels of 6,000 µg/cubic meter and 290 µg/cubic meter.

An additional round of vapor testing was performed at vapor ports VP-1, VP-2, VP-4, VP-5, and ambient air within the main level of the on-site building (Ambient 1) on December 14, 2017. GEC also attempted to collect an ambient air sample from the basement of the southern adjoining property (Ambient 2); however, the canister failed. Therefore, an ambient air sample was collected from the basement of the southern residence on January 27, 2018. The vapor samples collected from vapor ports VP-1, VP-2, VP-4, VP-5, and Ambient 1 reported VOCs at levels below their respective small commercial sub-slab or indoor air screening levels. The sample collected from Ambient 2 reported naphthalene at a concentration of 4.93 µg/cubic meter. However, the compound was detected within the laboratory blank and has not been a contaminant of concern during this investigation. In addition, small containers of oil were observed in the basement of the southern residence, which may have caused an exceedance of naphthalene. Therefore, it does not appear that its presence is attributable to this release. Vapor analytical test results are included within Appendix D and are summarized on Table 5, Appendix B.

9.0 CONCLUSIONS, RECOMMENDATIONS, OPINIONS

Conclusion: GEC has performed a site investigation and remedial excavation for the Van Deurzen Cleaners site located at 1002 George Street, in the City of De Pere, Brown County, Wisconsin. The site investigation and remedial activities were completed as a result of chlorinated solvent contamination identified during a previous Phase II ESA performed by Robert E. Lee & Associates.

GEC reviewed a Phase I and II ESA performed by Robert E. Lee & Associates, dated April 9, 2014, which was provided to GEC by Mr. Robert Van Deurzen. A recognized environmental condition was identified as part of the Phase I ESA associated with the historical usage of the property as a dry cleaner from 1976 to approximately 1999. A Phase II ESA was performed which included the advancement of five soil probes (B-1 through B-5) at the property to

evaluate the potential presence of solvents associated with the former dry cleaning business. Soil probes B-4 and B-5 were converted to temporary monitoring wells TW-4 and TW-5, respectively. Soil samples collected from soil probe B-4 (located east of the structure), and soil probe B-5 (located southeast of the structure) reported PCE concentrations of 750 µg/kg and 179 µg/kg, respectively. These soil concentrations exceed the WAC, NR 720 soil to groundwater RCL of 4.5 µg/kg for PCE. Groundwater samples collected from temporary monitoring well TW-4 reported the presence of PCE at a concentration of 198 µg/l and TCE at a concentration 1.09 µg/L. The PCE concentration exceeds the WAC, NR 140 ES of 5 µg/l and TCE exceeds the NR 140 PAL of 0.5 µg/L.

The WDNR was subsequently notified of a release on May 19, 2014. As a result, GEC was retained to complete the site investigation and remedial activities. It should be noted that temporary monitoring well TW-4 was renamed temporary monitoring well TW-1 for purposes of this site investigation and that temporary monitoring well TW-5 cannot be located and no further sampling has been performed at temporary monitoring well TW-5.

The site investigation activities to date have included the advancement of five soil borings (B-1 to B-5), which were converted to monitoring wells designated MW-1 to MW-5; respectively; the advancement of seven soil probes (GP-6 to GP-12), which were converted to temporary monitoring wells TW-6 to TW-12; respectively; the installation of five sub-slab vapor sampling ports (VP-1 to VP-5) within the on-site building; collection of soil samples from the borings, probes and VP-5; the performance of one to four rounds of groundwater sampling from the site monitoring wells, two sumps within the basement of the on-site building, and one sump within the basement of the adjoining residential property, south of the subject site; collection of vapor samples from VP-1, VP-2, VP-4, VP-5, and ambient air within the basement of the on-site building and adjoining residential property; and installation of a vapor mitigation system within the building on the subject site. It should be noted when a vapor sample was initially collected from VP-3, water was present within the vapor tubing; therefore, VP-4 was installed.

The soil borings, probes and monitoring wells were installed to delineate the extent of soil and groundwater contamination. Upon completion of the majority of the above-mentioned site investigation work, GEC performed oversight of the excavation of 52.54 tons of contaminated soil from the estimated source area of the release. The depth of the excavation ranged from 8 feet to 10 feet. A recovery well (RW-1) was installed within the remedial excavation near the former location of temporary monitoring well TW-1, which was abandoned during the remedial excavation.

Selected soil samples from the borings, probes, and excavation were submitted for laboratory analysis of VOCs. Groundwater samples collected from the groundwater sampling points were submitted for laboratory analysis of VOCs. Vapor samples were submitted for laboratory analysis of TO-15TIC for VOCs. The highest concentration of PCE was reported in the soil sample collected from probe GP-6 at a depth of 7 to 8 feet below ground surface (6,100 µg/kg), which is below the groundwater depth. Soil samples collected from soil boring B-5, soil probe GP-7 and soil probe GP-9 also reported PCE at concentrations of 66J µg/kg, 360 µg/kg/247 µg/kg and 930 µg/kg, respectively, exceeding the NR 720 soil to groundwater RCL. The samples collected from points B-1 to B-4, GP-8, GP-11, GP-12 and VP-5 did not report VOCs above the laboratory limit of detection.

With regard to the remedial excavation soil sampling, ten confirmation soil samples were collected from the excavation limits. Sidewall soil samples were collected from depths ranging

from 3 feet to 7 feet. Floor soil samples were collected from the southeastern floor and northwestern floor of the excavation at depths of 8 feet and 10 feet, respectively. The soil sample collected from the north wall at a depth of 3 feet did not report detectable levels of VOCs. The confirmation soil samples collected at the remaining locations reported PCE at concentrations ranging from 320 µg/kg to 2,780 µg/kg. The highest levels were detected in the samples collected from the south wall a depth of 7 feet (2,780 µg/kg) and from the west wall at a depth of 3 feet (2,360 µg/kg). None of the concentrations detected within the upper four feet of soil exceeded the NR 720 direct contact RCL of 33,000 µg/kg for PCE.

The groundwater samples collected from monitoring wells MW-5, TW-1/RW-1, TW-6, TW-7, TW-9 and Sump 1 have contained PCE at concentrations exceeding the WAC, NR 140 ES. The groundwater samples collected from monitoring well TW-8 and Sump 2 have contained PCE concentrations exceeding its WAC, NR 140 PAL. The groundwater samples collected from monitoring wells TW-1, TW-6, TW-7, Sump 1, and Sump 2 have contained TCE at concentrations exceeding its WAC, NR 140 ES or PAL. The highest concentrations of PCE have been detected in the groundwater samples collected from monitoring wells TW-6 (620 µg/L to 1,260 µg/L), TW-1 (196 µg/L to 320 µg/L), TW-9 (116 µg/L to 144 µg/L), and TW-7 (19.6 µg/L to 44 µg/L). The groundwater samples collected from monitoring well RW-1 (installed within the remedial excavation) contained PCE at a concentration of 13.9 µg/L, well below the concentrations previously identified at TW-1. The groundwater samples collected from monitoring wells MW-1, MW-2, MW-3, MW-4, TW-10, TW-11, TW-12, and the Rockstroh Sump (southern adjoining residence) have not contained detectable levels of VOCs.

One to four rounds of sub-slab/ambient vapor testing have been performed at VP-1 to VP-5. Ambient 1 (upper level of the on-site building), and Ambient 2 (basement of the residence on the southern adjoining property). At location VP-3, groundwater was encountered beneath the floor slab and the port has not been utilized.

The results of the initial two rounds of sub-slab vapor testing at VP-1, VP-2, and VP-4 reported concentrations of PCE and/or TCE exceeding the WDNR small commercial sub-slab VRSL with PCE concentrations reported up to 8,800 µg/cubic meter and TCE concentrations up to 2,200 µg/cubic meter.

Due to the elevated test readings, it was recommended to the property owner that a vapor mitigation system be installed to attempt to prevent the migration of vapors into the building and that Sump 1 be sealed. The system was installed during July of 2015 by American Radon Reduction, LLC. The system consisted of the installation of a sealed 3-inch PVC pipe installed beneath the floor slab (within the area of VP-3) within the gravel beneath the floor slab. The piping was then connected to an electric blower and vented out of the southeast portion of the building. Sump 1 was also sealed at that time.

Subsequent to activation of the system, Mr. Scott Fischer of American Radon Reduction indicated that it did not appear that the sump and drain tile beneath the foundation were functioning properly, and the system may not be effective without lowering the groundwater level beneath the floor slab, so that the system could effectively draw vapor without in-taking water. Prior to performance of the testing, an additional sump (Sump 2) was installed within the basement by a subcontractor. The sump was sealed, but a removable water sampling port was installed.

Subsequent to installation of the additional groundwater sump, the concentrations of PCE and TCE were reduced during the two most recent sampling rounds. During the most recent sampling round, the sub-slab samples collected from VP-1, VP-2, VP-4, VP-5 and Ambient 1 collected on the main level of the on-site building, reported VOCs at concentrations below their respective small commercial sub-slab or indoor air screening levels. The indoor air sample (Ambient 2) collected within the basement of the residence on the southern adjoining property did not contain VOCs at concentrations exceeding their respective standards with the exception of naphthalene, which was detected at a concentration of 4.93 µg/cubic meter. However, naphthalene was also detected in the laboratory blank, indicating it may be a laboratory contaminant. Naphthalene was not a contaminant of concern in this case, and therefore, its presence does not appear to be attributable to this release. During the ambient sampling, it was noted that small containers of oil were present within this area of the basement, which may have also caused the exceedance of naphthalene.

Based on the site investigation work performed to date, it appears that the extent of soil and groundwater contamination has been adequately defined. The vapor mitigation system appears to be controlling vapors beneath the slab of the on-site building. The most highly affected soils have been removed from the estimated source area of the release. It appears some affected soil and groundwater may to be present on the southern adjoining property boundary, within the alley east of the subject site and within the George Street right-of-way. Groundwater samples collected from the site monitoring wells indicate relatively stable contaminant concentrations. Therefore, it does not appear that any additional work is necessary, and this case can be considered for closure. GEC will prepare a closure request, subsequent to WDNR review of this report and concurrence with the recommendation.

Respectfully Submitted,

GENERAL ENGINEERING COMPANY



Brian Youngwirth
Environmental Project Manager

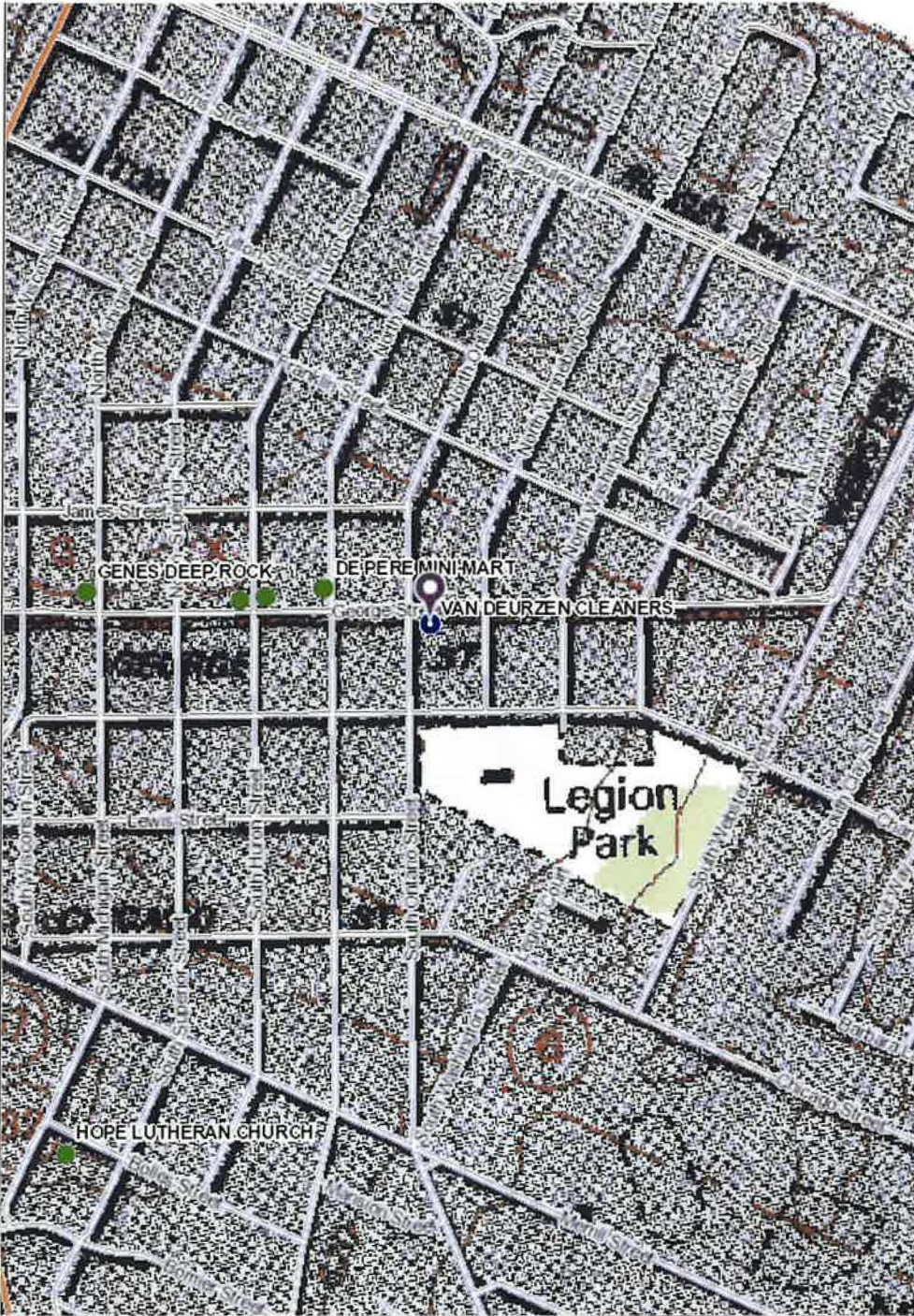


Lynn Bradley
Environmental Project Manager

APPENDIX A
FIGURES



Figure 1 Site Location Map



Legend

- Open Site (ongoing cleanup)
- Closed Site (completed cleanup)
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
 - Interstate Highway
 - State Highway
 - US Highway
- County and Local Roads
 - County HWY
 - Local Road
- Railroads
- Tribal Lands

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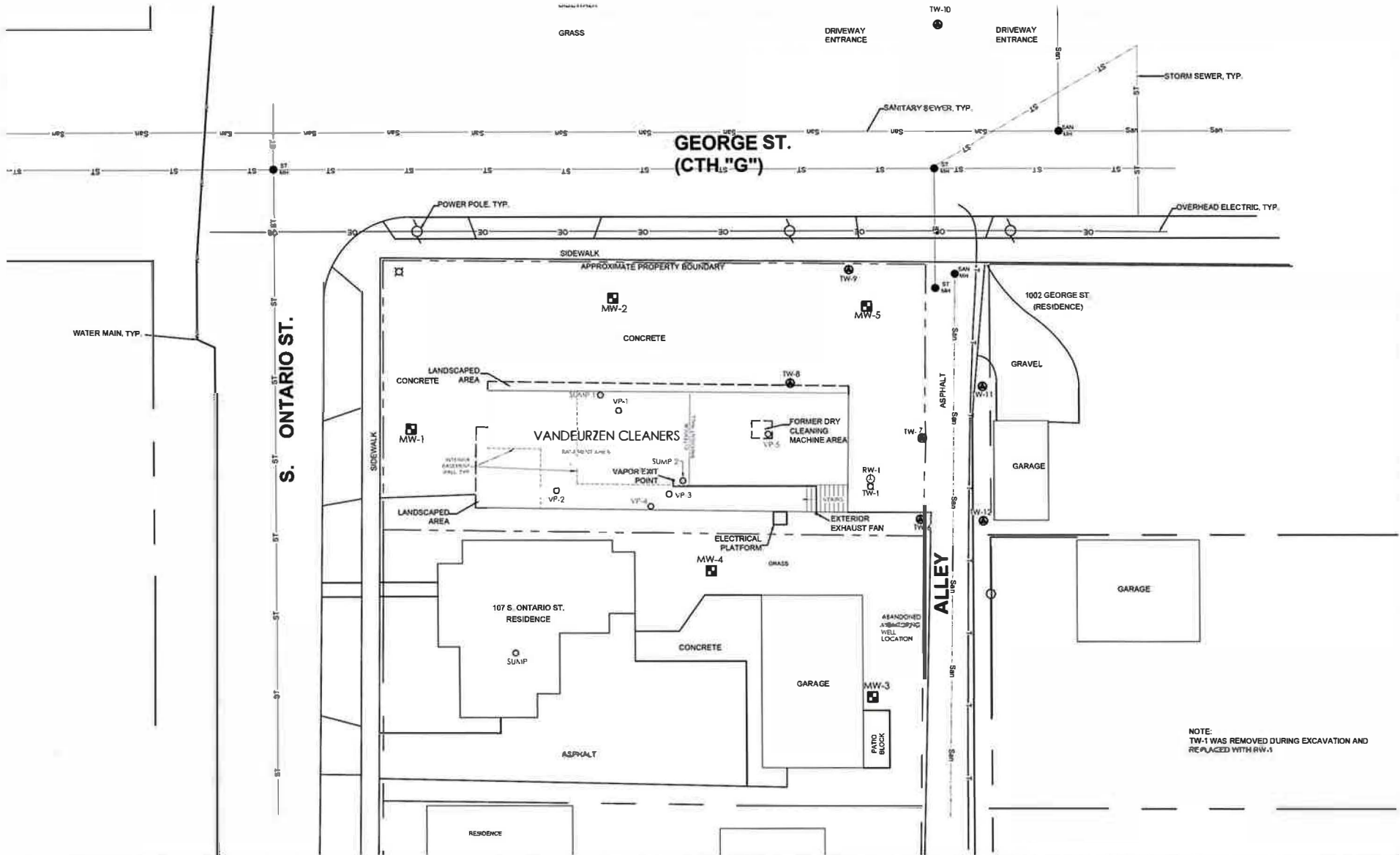
NAD_1983_HARN_Wisconsin_TM

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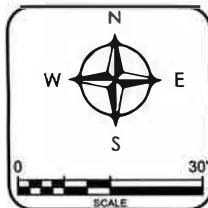
Note: Not all sites are mapped.

Notes

Site Investigation Report



NOTE:
TW-1 WAS REMOVED DURING EXCAVATION AND
REPLACED WITH RW-1



LEGEND	
	MONITORING WELL LOCATION
	TEMPORARY MONITORING WELL LOCATION
	RECOVERY WELL LOCATION
	VAPOR TESTING LOCATIONS
	SUMP LOCATION
	ABANDONED TEMPORARY MONITORING WELL LOCATION

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 P. O. Box 340 • 916 Silver Lake Dr. • Portage, WI 53901
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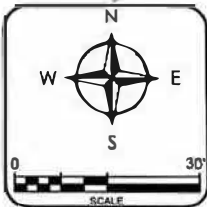
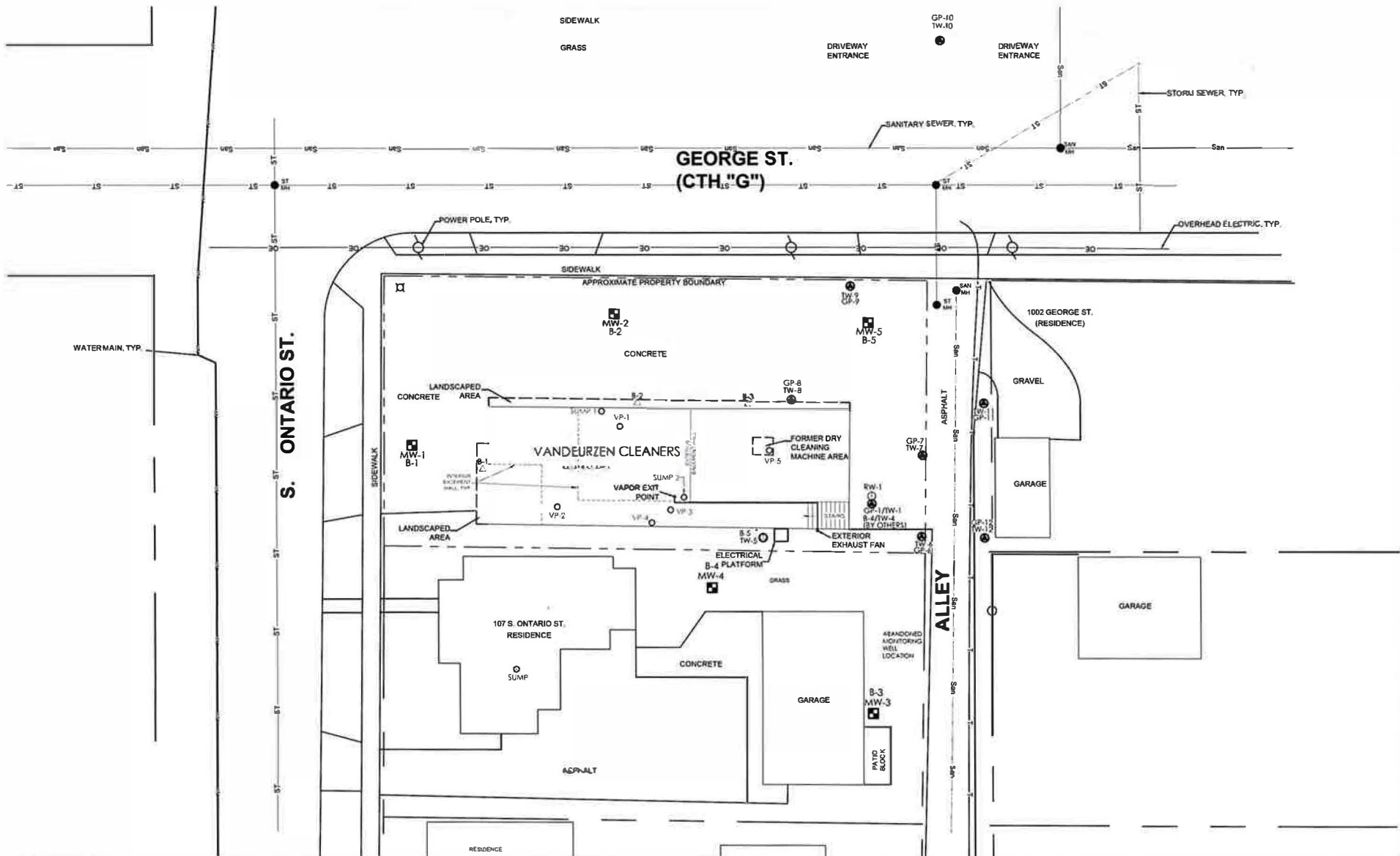
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SITE PLAN
SITE INVESTIGATION REPORT
FORMER VAN DEURZEN DRY CLEANERS
1002 GEORGE ST.
CITY OF DE PERE
BROWN COUNTY, WI

GEC

DRAWN BY	KP
REVIEWED BY	LMB
ISSUE DATE	DEC 20017
GEC FILE NO.	2-0614-154
SHEET NO.	

FIGURE 2



LEGEND	
	MONITORING WELL & SOIL BORING LOCATION
	TEMPORARY MONITORING WELL & SOIL PROBE LOCATION
	RECOVERY WELL LOCATION
	VAPOR TESTING LOCATIONS
	SUMP LOCATION
	TEMPORARY MONITORING WELL LOCATION (BY OTHERS)
	GEOPROBE BORING LOCATION (BY OTHERS)

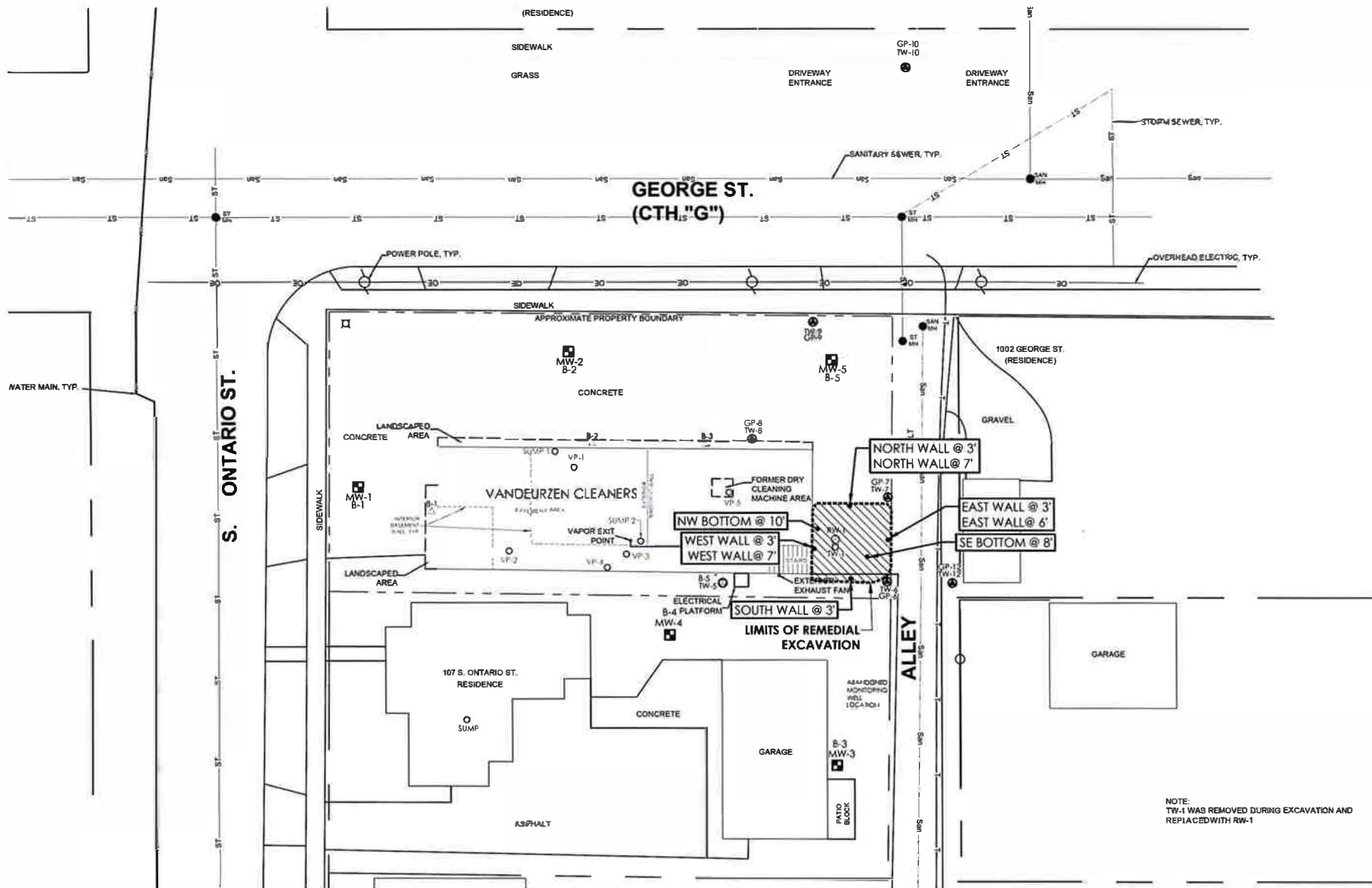
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SOIL PROBE, BORING, AND MONITORING WELL LOCATION MAP
SITE INVESTIGATION REPORT
FORMER VAN DEURZEN DRY CLEANERS
1002 GEORGE ST.
CITY OF DE PERE
BROWN COUNTY, WI

DRAWN BY	KP
REVIEWED BY	LMB
ISSUE DATE	DEC 2017
GEC FILE NO.	2-0614-154
SHEET NO.	

FIGURE 3



NOTE:
TW-1 WAS REMOVED DURING EXCAVATION AND
REPLACED WITH RW-1



LEGEND	
B-1	MONITORING WELL & SOIL BORING LOCATION
MW	TEMPORARY MONITORING WELL & SOIL PROBE LOCATION
GP-1	RECOVERY WELL LOCATION
TW-1	VAPOR TESTING LOCATIONS
SUMP	SUMP LOCATIONS
TW-1	TEMPORARY MONITORING WELL LOCATION (BY OTHERS)
B-1	GEOPROBE BORING LOCATION (BY OTHERS)
○	ABANDONED TEMPORARY MONITORING WELL LOCATION (REMOVED DURING EXCAVATION)

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LIMITS OF REMEDIAL EXCAVATION & SOIL SAMPLING LOCATIONS

SITE INVESTIGATION REPORT

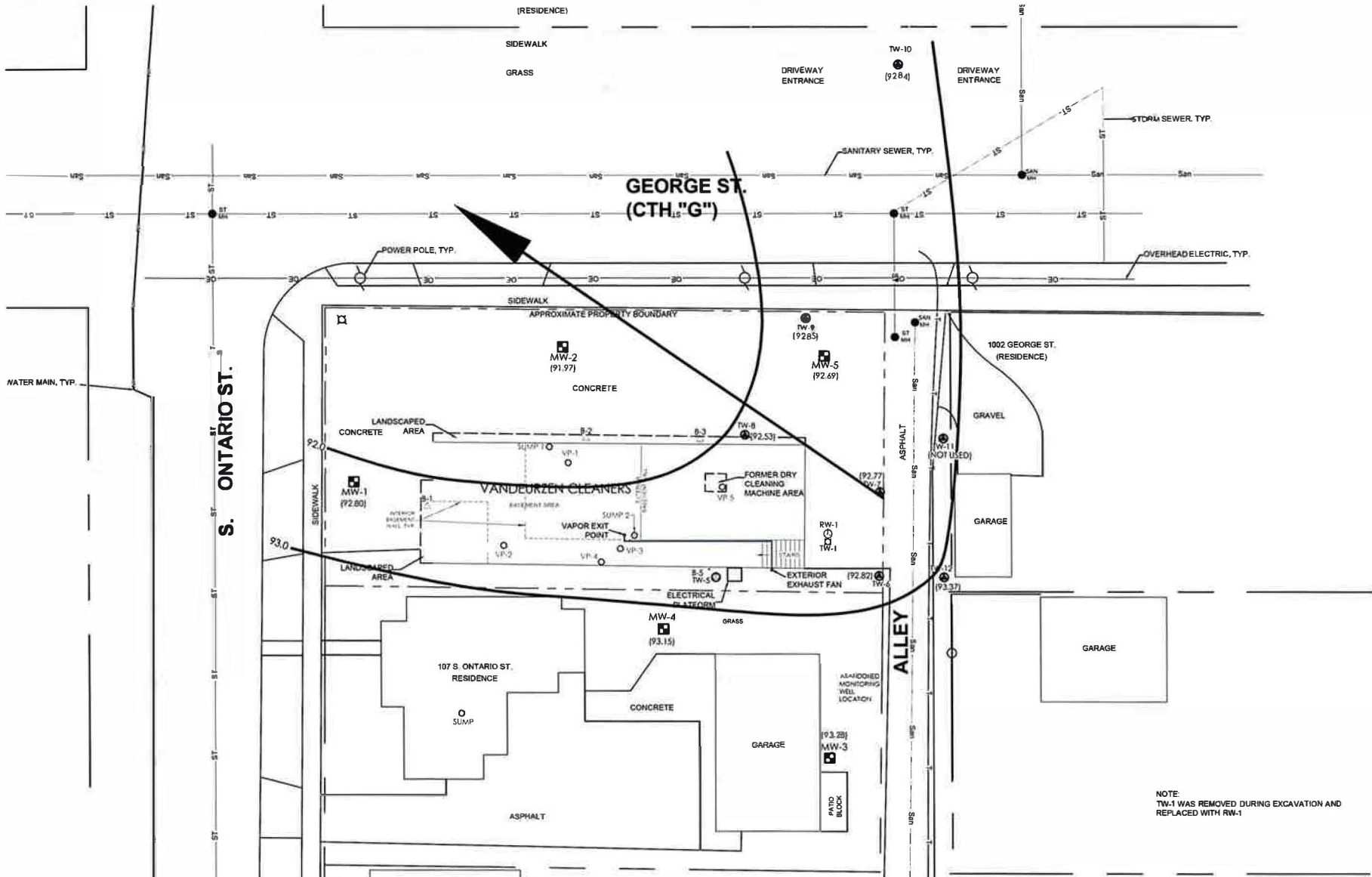
Former Van Deurzen Dry Cleaners

102 George St.
 City of DePere
 Brown County, WI

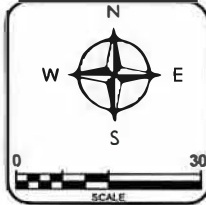
GEC

DRAWN BY	KP
REVIEWED BY	LMB
ISSUE DATE	June 2016
GEC FILE NO.	2-0614-154
SHEET NO.	

FIGURE 4



NOTE:
TW-1 WAS REMOVED DURING EXCAVATION AND
REPLACED WITH RW-1



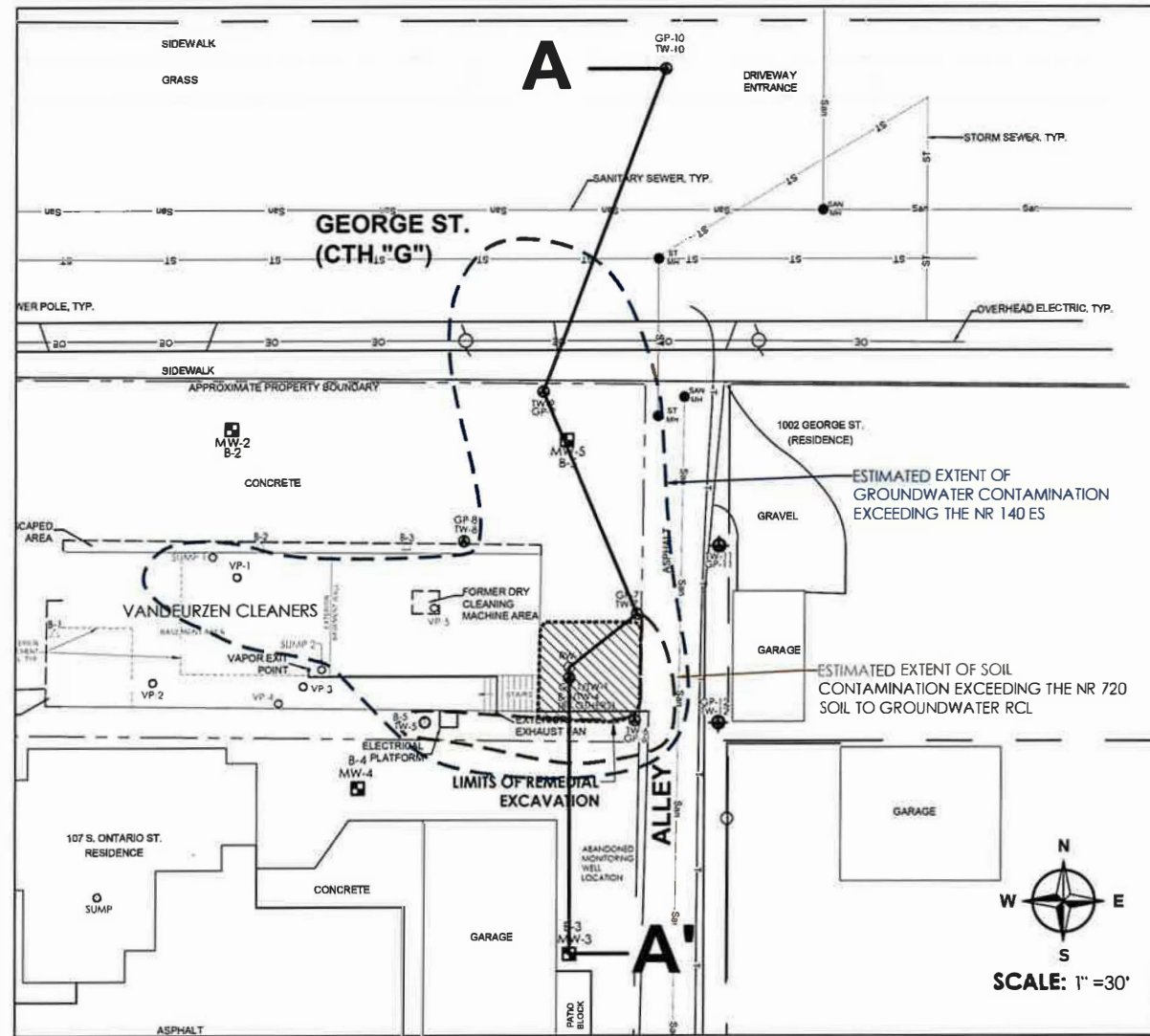
LEGEND	
	MONITORING WELL & SOIL BORING LOCATION
	TEMPORARY MONITORING WELL & GEOPROBE LOCATION
	VAPOR TESTING LOCATIONS
	RECOVERY WELL LOCATION
	ABANDONED MONITORING WELL LOCATION

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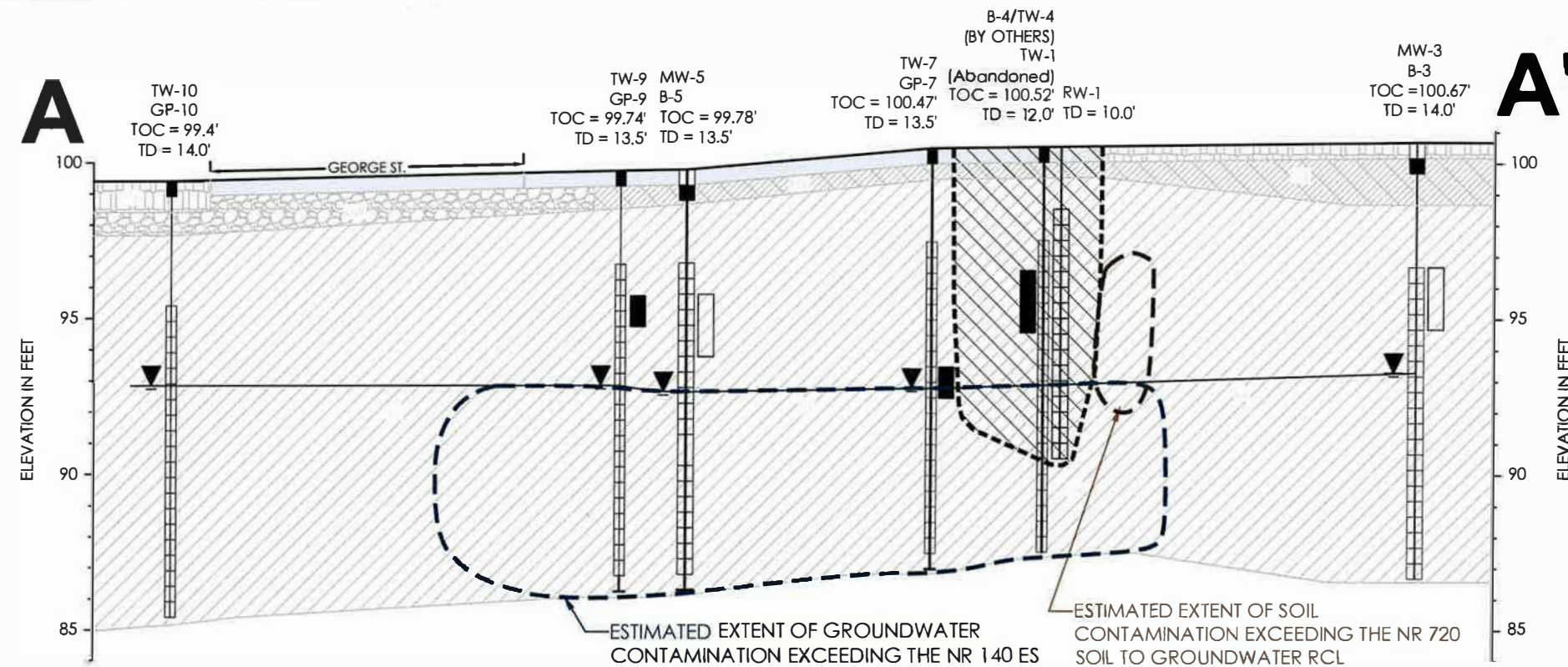
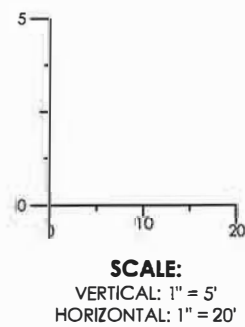
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GROUNDWATER ELEVATION CONTOUR AND FLOW DIRECTION MAP (12/14/17)
SITE INVESTIGATION REPORT
FORMER VAN DEURZEN DRY CLEANERS
 CITY OF DE PERE
 BROWN COUNTY, WI

GEC	
DRAWN BY	KP
REVIEWED BY	LMB
ISSUE DATE	DEC 2017
GEC FILE NO.	2-0614-154
SHEET NO.	
FIGURE 5	



EXPLANATION	
MONITORING WELL	SOIL DESCRIPTION
<ul style="list-style-type: none"> TOC - TOP OF WELL CASING MONITORING WELL SOIL SAMPLE LOCATION SOIL SAMPLE EXCEEDING NR 720 NC RCL GROUNDWATER ELEVATIONS (12/14/17) MONITORING WELL SCREEN TD - TOTAL DEPTH OF BORING 	<ul style="list-style-type: none"> Concrete, Asphalt: See Bore Logs FILL: See Bore Logs OL: Organic silts and organic silt-clays of low plasticity GW: Well graded gravels or gravelly sand mixtures, little or no fines CL: Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays CH: Inorganic clays of high plasticity, fat clays



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GEOLOGIC CROSS-SECTION A-A'
SITE INVESTIGATION REPORT
FORMER VAN DEURZEN DRY CLEANERS
 1002 GEORGE ST.
 CITY OF DE PERE
 BROWN COUNTY, WI

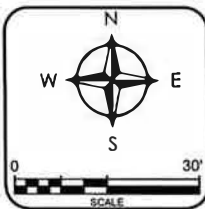
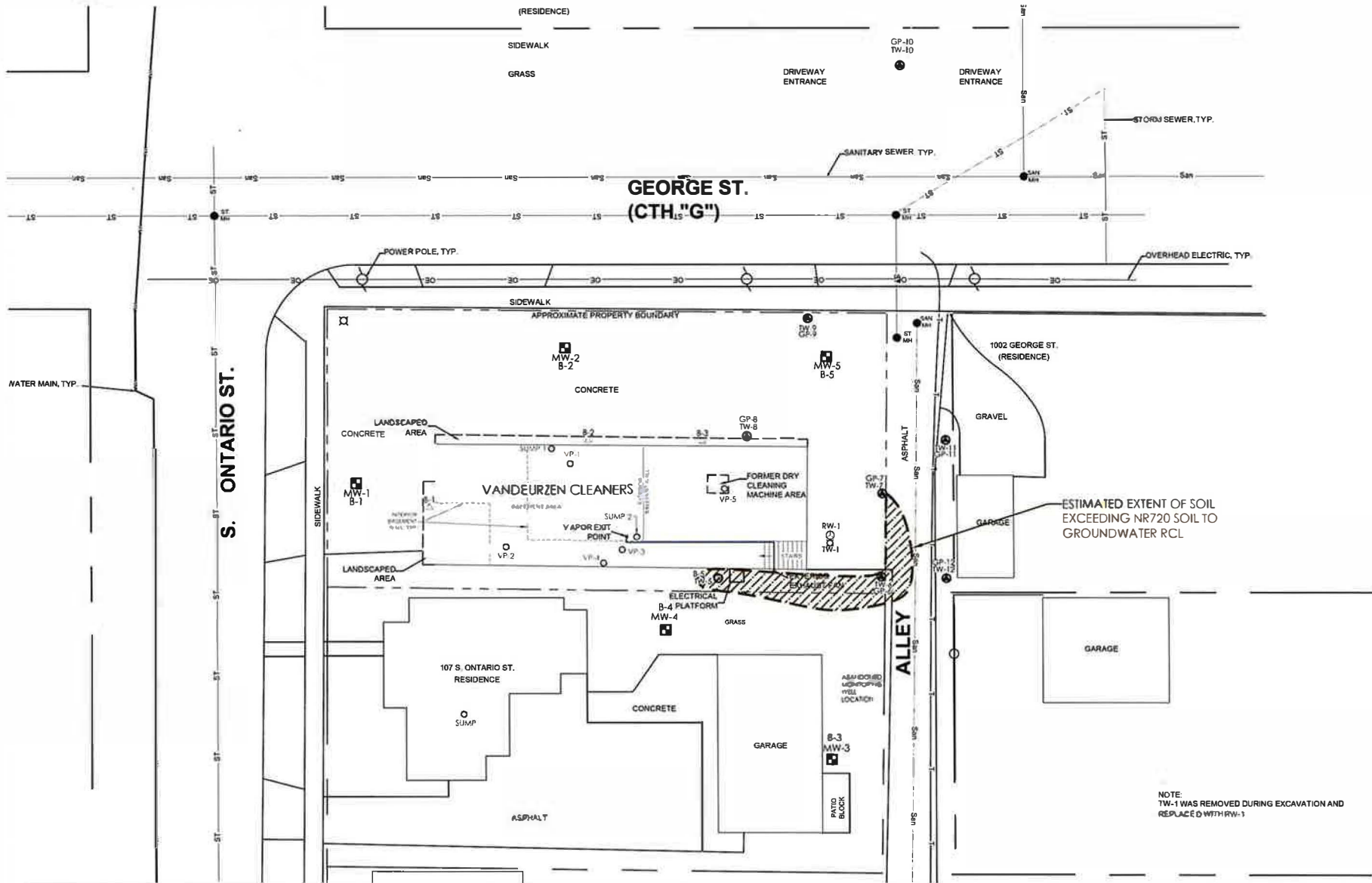
LEGEND

- MW-1 MONITORING WELLS & SOIL BORING LOCATION
- GP-1 TEMPORARY MONITORING WELL & RECOVERY WELL LOCATION
- VP-1 VAPOR TESTING LOCATIONS
- SUMP-1 SUMP LOCATIONS
- TW-1 TEMPORARY MONITORING WELL LOCATION (BY OTHERS)
- B-1 GEOPROBE BORING LOCATION (BY OTHERS)
- EXCAVATION SOIL SAMPLE LOCATION



DRAWN BY: KSP
 REVIEWED BY: LMB
 ISSUE DATE: DEC 2017
 GEC FILE NO.: 2-0614-154
 SHEET NO.:

FIGURE 6



LEGEND	
B-1	MONITORING WELL & SOIL BORING LOCATION
GP-1	TEMPORARY MONITORING WELL & SOIL PROBE LOCATION
TW-1	RECOVERY WELL LOCATION
○	VAPOR TESTING LOCATIONS
○	SUMP LOCATIONS
TW-1	TEMPORARY MONITORING WELL LOCATION (BY OTHERS)
B-1	GEOPROBE BORING LOCATION (BY OTHERS)
○	ABANDONED TEMPORARY MONITORING WELL LOCATION (Removed during excavation)

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ESTIMATED EXTENT OF SOIL CONTAMINATION EXCEEDING THE NR 720 SOIL TO GROUNDWATER RCL

SITE INVESTIGATION REPORT

FORMER VAN DEURZEN DRY CLEANERS

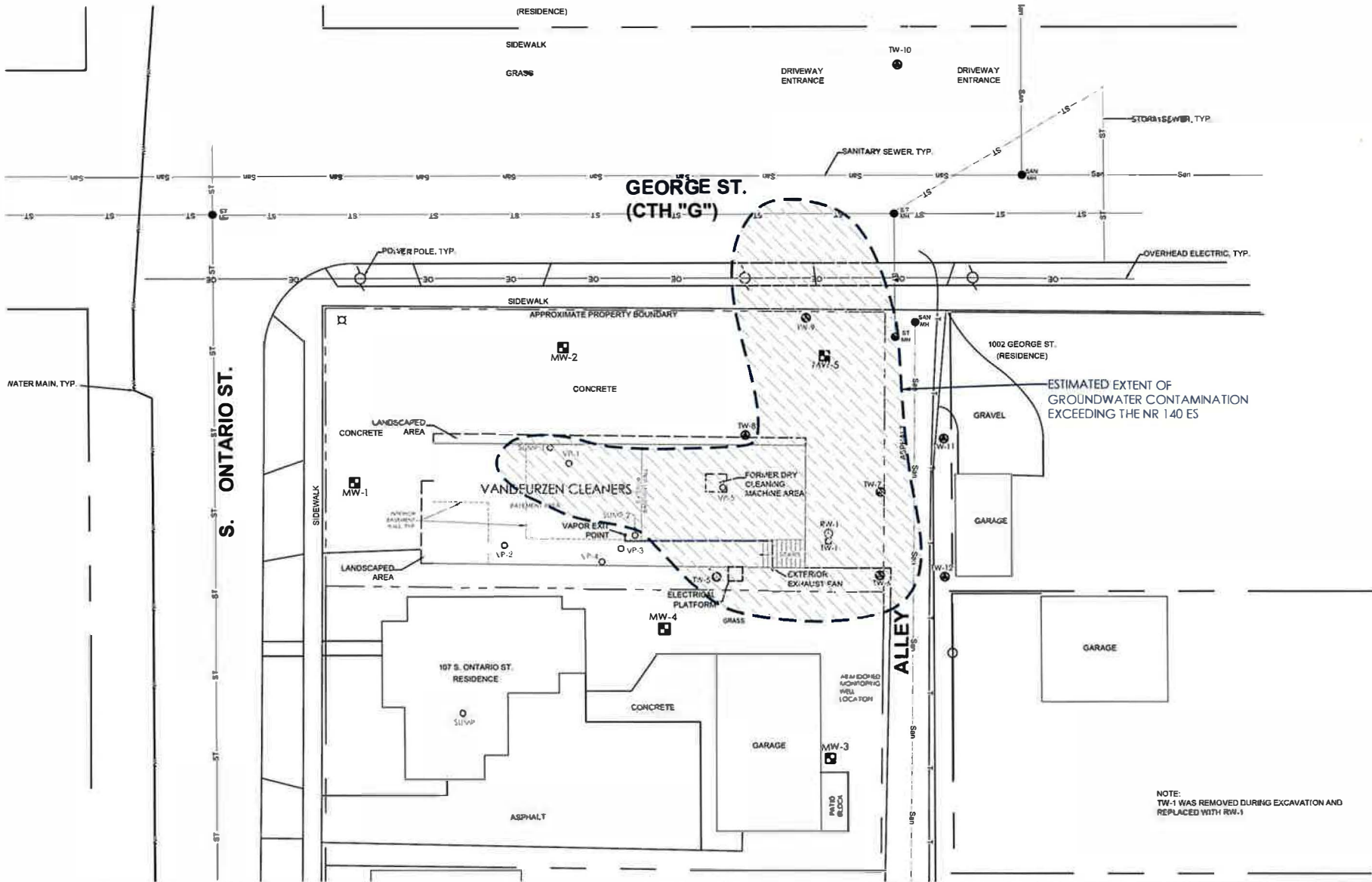
CITY OF DE PERE

BROWN COUNTY, WI

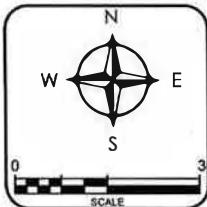
GEC

DRAWN BY	KP
REVIEWED BY	LMB
ISSUE DATE	JAN 2018
GEC FILE NO.	2-0614-154
SHEET NO.	

FIGURE 7



NOTE:
TW-1 WAS REMOVED DURING EXCAVATION AND
REPLACED WITH RW-1



LEGEND	
	MONITORING WELL & SOIL BORING LOCATION
	TEMPORARY MONITORING WELL & SOIL PROBE LOCATION
	RECOVERY WELL LOCATION
	VAPOR TESTING LOCATIONS
	SUMP LOCATIONS
	TEMPORARY MONITORING WELL LOCATION (BY OTHERS)
	ABANDONED TEMPORARY MONITORING WELL LOCATION (Removed during excavation)

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**ESTIMATED EXTENT OF GROUNDWATER
 CONTAMINATION EXCEEDING THE NR 140 ES
 SITE INVESTIGATION REPORT
 FORMER VAN DEURZEN DRY CLEANERS
 CITY OF DE PERE
 BROWN COUNTY, WI**

GEC

DRAWN BY	KP
REVIEWED BY	LMB
ISSUE DATE	JAN 2018
GEC FILE NO.	2-0614-154
SHEET NO.	

FIGURE 8

APPENDIX B
TABLES

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS-SOIL BORINGS
VAN DEURZEN CLEANERS
02-0614-154

Sample No.	NC RCL (ug/kg)	C RCL (ug/kg)	Direct Contact RCL (ug/kg)	Soil to Groundwater RCL	B-1/MW-1	B-2/MW-2	B-3/MW-3	B-4/MW-4	B-4/MW-4	B-5/MW-5
					07/10/14	07/10/14	07/10/14	07/10/14	07/10/14	07/10/14
					4-6'	4-6'	4-6'	2-4'	6-7'	4-6'
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (µg/kg)										
Benzene	106,000	1,600	1,600	5.1	<9.2	<9.2	<9.2	<9.2	<9.2	<9.2
Ethylbenzene	4,080,000	8,020	8,020	1,570	<10	<10	<10	<10	<10	<10
Methyl tert-butyl ether	22,100,000	63,800	63,800	27	<30	<30	<30	<30	<30	<30
Naphthalene	178,000	5,520	5,520	658	<114	<114	<114	<114	<114	<114
Tetrachloroethene	109,000	33,000	33,000	4.5	<49	<49	<49	<49	<49	66J
Toluene	5,240,000	NE	818,000	1,107	<20	<20	<20	<20	<20	<20
1,2,4-Trimethylbenzene	373,000	NE	219,000	1,382	<26	<26	<26	<26	<26	<26
1,3,5-Trimethylbenzene	339,000	NE	182,000	1,382	<26	<26	<26	<26	<26	<26
Xylenes, -m, -p	818,000	NE	260,000	3,940	<68	<68	<68	<68	<68	<68
Xylenes, -o					<31	<31	<31	<31	<31	<31

µg/kg = micrograms per kilogram

RCL = Residual Contaminant Level

C = Cancer

NC = Non Cancer

NE = NR 720 RCL not established

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Bold indicates analytical results exceed NR 720 RCL

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS-SOIL PROBES
VAN DEURZEN CLEANERS
02-0614-154

Sample No.	NC RCL (ug/kg)	C RCL (ug/kg)	Direct Contact RCL (ug/kg)	Soil to Groundwater RCL	GP-6	GP-6	GP-7	GP-7	GP-8	GP-9	GP-11		GP-12		VP-5
					07/30/15	07/30/15	07/30/15	07/30/15	07/30/15	07/30/15	05/19/16		05/19/16		05/19/16
Sampling Date					3-4	7-8	2-3	7-8	6-7'	4-5	0-2	4-6	2-4	4-6	0.5
Sample Depth (feet)															
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (ug/kg)															
Benzene	106,000	1,600	1,600	5.1	<16	<16	<16	<16	<16	<16	<16	<16	<16	<16	<16
Ethylbenzene	4,080,000	8,020	8,020	1,570	<27	<27	<27	<27	<27	<27	<27	<27	<27	<27	<27
Methyl tert-butyl ether	22,100,000	63,800	63,800	27	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Naphthalene	178,000	5,520	5,520	658	<87	<87	<87	<87	<87	<87	<87	<87	<87	<87	<87
Tetrachloroethene	109,000	33,000	33,000	4.5	860	6,100	360	247	<54	930	<54	<54	<54	<54	<54
Toluene	5,240,000	NE	818,000	1,107	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31
1,2,4-Trimethylbenzene	373,000	NE	219,000	1,382	<78	<78	<78	<78	<78	<78	<78	<78	<78	<78	<78
1,3,5-Trimethylbenzene	339,000	NE	182,000	1,382	<89	<89	<89	<89	<89	<89	<89	<89	<89	<89	<89
Xylenes, -m, -p	818,000	NE	260,000	3,940	<70	<70	<70	<70	<70	<70	<70	<70	<70	<70	<70
Xylenes, -o					<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29

ug/kg = micrograms per kilogram
RCL = Residual Contaminant Level
C = Cancer
NC = Non Cancer
NE = NR 720 RCL not established

J = Analyte detected above laboratory limit of detection but below limit of quantitation.
Bold indicates analytical results exceed NR 720 RCL.

**TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
VAN DEURZEN CLEANERS
02-0614-154**

Monitoring Well	NR 140		MW-1				MW-2				MW-3			
	ES	PAL	7/21/2014	8/6/2015	5/19/2016	12/14/2017	7/21/2014	8/6/2015	5/19/2016	12/14/2017	7/21/2014	8/6/2015	5/19/2016	12/14/2017
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) ($\mu\text{g/L}$)														
Benzene	5	0.5	<0.24	<0.44	<0.44	<0.17	<0.24	<0.44	<0.44	<0.17	<0.24	<0.44	<0.44	<0.17
Ethylbenzene	700	140	<0.55	<0.71	<0.71	<0.2	<0.55	<0.71	<0.71	<0.2	<0.55	<0.71	<0.71	<0.2
Methyl tert-butyl ether	60	12	<0.23	<1.1	<1.1	<0.82	<0.23	<1.1	<1.1	<0.82	<0.23	<0.44	<1.1	<0.82
Toluene	800	160	<0.69	<0.44	<0.44	<0.67	<0.69	<0.44	<0.44	<0.67	<0.69	<0.44	<0.44	<0.67
1,2,4 -Trimethylbenzene	480	96	<2.2	<1.6	<1.6	<1.14	<2.2	<1.6	<1.6	<1.14	<2.2	<1.6	<1.6	<1.14
1,3,5 -Trimethylbenzene			<1.4	<1.5	<1.5	<0.91	<1.4	<1.5	<1.5	<0.91	<1.4	<1.5	<1.5	<0.91
Xylenes, -m, -p	2,000	400	<0.69	<2.2	<2.2	<1.56	<0.69	<2.2	<2.2	<1.56	<0.69	<2.2	<2.2	<1.56
Xylenes, -o			<0.63	<0.9	<0.9	<0.39	<0.63	<0.9	<0.9	<0.39	<0.63	<0.9	<0.9	<0.39
OTHER DETECTED VOLATILE ORGANIC COMPOUNDS (VOC) ($\mu\text{g/L}$)														
Cis 1,2 Dichloroethene	70	7	<0.38	<0.45	<0.45	<0.41	<0.38	<0.45	<0.45	<0.41	<0.38	<0.45	<0.45	<0.41
Tetrachloroethene	5	0.5	<0.33	<0.49	<0.49	<0.48	<0.33	<0.49	<0.49	<0.48	<0.33	<0.49	<0.49	<0.48
Trichloroethene (TCE)	5	0.5	<0.33	<0.47	<0.47	<0.45	<0.33	<0.47	<0.47	<0.45	<0.33	<0.47	<0.47	<0.45

ES = Enforcement Standard

PAL = Preventive Action Limit

$\mu\text{g/L}$ = micrograms per liter

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Bold indicates analytical results above NR 140 ES

**TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
VAN DEURZEN CLEANERS
02-0614-154**

Monitoring Well	NR 140		MW-4				MW-5				TW-1		
	ES	PAL	7/21/2014	8/6/2015	5/19/2016	12/14/2017	7/21/2014	8/6/2015	5/19/2016	12/14/2017	7/21/2014	8/6/2015	5/19/2016
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (µg/L)													
Benzene	5	0.5	<0.24	<0.44	<0.44	<0.17	<0.24	<0.44	<0.44	<0.17	<0.24	<4.4	<2.2
Ethylbenzene	700	140	<0.55	<0.71	<0.71	<0.2	<0.55	<0.71	<0.71	<0.2	<0.55	<7.1	<3.55
Methyl tert-butyl ether	60	12	<0.23	<1.1	<1.1	<0.82	<0.23	<1.1	<1.1	<0.82	<0.23	<11	<5.5
Toluene	800	160	<0.69	<0.44	<0.44	<0.67	<0.69	<0.44	<0.44	<0.67	<0.69	<4.4	<2.2
1,2,4-Trimethylbenzene	480	96	<2.2	<1.6	<1.6	<1.14	<2.2	<1.6	<1.6	<1.14	<2.2	<16	<8
1,3,5-Trimethylbenzene			<1.4	<1.5	<1.5	<0.91	<1.4	<1.5	<1.5	<0.91	<1.4	<15	<7.5
Xylenes, -m, -p	2,000	400	<0.69	<2.2	<2.2	<1.56	<0.69	<2.2	<2.2	<1.56	<0.69	<22	<11
Xylenes, -o			<0.63	<0.9	<0.9	<0.39	<0.63	<0.9	<0.9	<0.39	<0.63	<9	<4.5
OTHER DETECTED VOLATILE ORGANIC COMPOUNDS (VOC) (µg/L)													
Cis 1,2 Dichloroethene	70	7	<0.38	<0.45	<0.45	<0.41	<0.38	<0.45	<0.45	<0.41	<0.38	32	34
Tetrachloroethene	5	0.5	<0.33	<0.49	<0.49	<0.48	12.9	8.3	11.4	6.2	320	218	196
Trichloroethene (TCE)	5	0.5	<0.33	<0.47	<0.47	<0.45	<0.33	<0.47	<0.47	<0.45	11.3	23.1	26.6

ES = Enforcement Standard

PAL = Preventive Action Limit

µg/L = micrograms per liter

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Bold indicates analytical results above NR 140 ES

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
VAN DEURZEN CLEANERS
02-0614-154

Monitoring Well	NR 140		TW-6			TW-7			TW-8		
	ES	PAL	8/6/2015	5/19/2016	12/14/2017	8/6/2015	5/19/2016	12/14/2017	8/6/2015	5/19/2016	12/14/2017
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (µg/L)											
Benzene	5	0.5	<4.4	<4.4	<1.7	<0.44	<0.44	<0.17	<0.44	<0.44	<0.17
Ethylbenzene	700	140	<7.1	<7.1	<2	<0.71	<0.71	<0.2	<0.71	<0.71	<0.2
Methyl tert-butyl ether	60	12	<11	<11	<8.2	<1.1	<1.1	<0.82	<1.1	<1.1	<0.82
Toluene	800	160	<4.4	<4.4	<6.7	<0.44	<0.44	<0.67	<0.44	<0.44	<0.67
1,2,4 -Trimethylbenzene	480	96	<16	<16	<11.4	<1.6	<1.6	<1.14	<1.6	<1.6	<1.14
1,3,5 -Trimethylbenzene			<15	<15	<9.1	<1.5	<1.5	<0.91	<1.5	<1.5	<0.91
Xylenes, -m, -p	2,000	400	<22	<22	<15.6	<2.2	<2.2	<1.56	<2.2	<2.2	<1.56
Xylenes, -o			<9	<9	<3.9	<0.9	<0.9	<0.39	<0.9	<0.9	<0.39
OTHER DETECTED VOLATILE ORGANIC COMPOUNDS (VOC) (µg/L)											
Cis 1,2 Dichloroethene	70	7	<4.5	8.5J	17.2	2.2	0.76J	0.61J	<0.45	<0.45	<0.41
Tetrachloroethene	5	0.5	620	1,230	1,260	23.5	44	19.6	2.46	2.94	1.97
Trichloroethene (TCE)	5	0.5	<4.7	12.4J	9.7J	1.37J	1.51	2.59	<0.47	<0.47	<0.45

ES = Enforcement Standard

PAL = Preventive Action Limit

µg/L = micrograms per liter

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Bold indicates analytical results above NR 140 ES

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
VAN DEURZEN CLEANERS
02-0614-154

Monitoring Well	NR 140		TW-9			TW-10		TW-11		TW-12	
	ES	PAL	8/6/2015	5/19/2016	12/14/2017	5/24/2016	12/14/2017	5/24/2016	12/24/2017	5/24/2016	12/24/2017
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (µg/L)											
Benzene	5	0.5	<2.2	<0.44	<0.17	<0.44	<0.17	<0.44	NA	<0.44	<0.17
Ethylbenzene	700	140	<3.55	<0.71	<0.2	<0.71	<0.2	<0.71	NA	<0.71	<0.2
Methyl tert-butyl ether	60	12	<5.5	<1.1	<0.82	<1.1	<0.82	<1.1	NA	<1.1	<0.82
Toluene	800	160	<2.2	<0.44	<0.67	<0.44	<0.67	<0.44	NA	<0.44	<0.67
1,2,4 -Trimethylbenzene	480	96	<8	<1.6	<1.14	<1.6	<1.14	<1.6	NA	<1.6	<1.14
1,3,5 -Trimethylbenzene			<7.5	<1.5	<0.91	<1.5	<0.91	<1.5	NA	<1.5	<0.91
Xylenes, -m, -p	2,000	400	<11	<2.2	<1.56	<2.2	<1.56	<2.2	NA	<2.2	<1.56
Xylenes, -o			<4.5	<0.9	<0.39	<0.9	<0.39	<0.9	NA	<0.9	<0.39
OTHER DETECTED VOLATILE ORGANIC COMPOUNDS (VOC) (µg/L)											
Cis 1,2 Dichloroethene	70	7	<2.25	<0.45	<0.41	<0.45	<0.41	<0.45	NA	<0.45	<0.41
Tetrachloroethene	5	0.5	144	162	116	<0.49	<0.48	<0.49	NA	<0.49	<0.48
Trichloroethene (TCE)	5	0.5	<2.35	<0.47	<0.45	<0.47	<0.45	<0.47	NA	<0.47	<0.45

ES = Enforcement Standard

PAL = Preventive Action Limit

µg/L = micrograms per liter

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Bold indicates analytical results above NR 140 ES

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
VAN DEURZEN CLEANERS
02-0614-154

Monitoring Well	NR 140		RW-1	Sump	Sump 2	Rockstroh Sump
	ES	PAL	12/14/2017	10/6/2014	12/14/2017	12/14/2017
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (µg/L)						
Benzene	5	0.5	0.36J	<0.24	<0.17	<0.17
Ethylbenzene	700	140	<0.2	<0.55	<0.2	<0.2
Methyl tert-butyl ether	60	12	<0.82	<0.23	<0.82	<0.82
Toluene	800	160	<0.67	<0.69	<0.67	<0.67
1,2,4 -Trimethylbenzene	480	96	<1.14	<2.2	<1.14	<1.14
1,3,5 -Trimethylbenzene			<0.91	<1.4	<0.91	<0.91
Xylenes, -m, -p	2,000	400	<1.56	<0.69	<1.56	<1.56
Xylenes, -o			<0.39	<0.63	<0.39	<0.39
OTHER DETECTED VOLATILE ORGANIC COMPOUNDS (VOC) (µg/L)						
Cis 1,2 Dichloroethene	70	7	<0.41	5.9	<0.41	<0.41
Tetrachloroethene	5	0.5	13.9	41	1.9	<0.48
Trichloroethene (TCE)	5	0.5	<0.45	17.4	0.53J	<0.45

ES = Enforcement Standard

PAL = Preventive Action Limit

µg/L = micrograms per liter

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Bold indicates analytical results above NR 140 ES

**TABLE 3
WATER LEVEL DATA
VAN DEURZEN CLEANERS
2-0614-154**

Monitoring Well Number	Top of Well Casing Elevation	Date Measured	Depth to Water (Ft.)	Groundwater Elevation (Ft.)	
MW-1	99.76	7/16/2014	10.32	89.44	
		7/21/2014	8.40	91.36	
		8/6/2015	6.81	92.95	
		8/18/2015	4.59	95.17	
		5/19/2016	6.45	93.31	
		5/24/2016	6.77	92.99	
		12/14/2017	6.96	92.80	
MW-2	99.69	7/16/2014	6.99	92.70	
		7/21/2014	7.16	92.53	
		8/6/2015	7.02	92.67	
		8/18/2015	5.39	94.30	
		5/19/2016	6.90	92.79	
		5/24/2016	7.28	92.41	
		12/14/2017	7.72	91.97	
MW-3	100.67	7/16/2014	7.49	93.18	
		7/21/2014	7.50	93.17	
		8/6/2015	7.35	93.32	
		8/18/2015	6.73	93.94	
		5/19/2016	7.35	93.32	
		5/24/2016	7.43	93.24	
		12/14/2017	7.39	93.28	
MW-4	100.3	7/16/2014	7.01	93.29	
		7/21/2014	6.09	94.21	
		8/6/2015	6.73	93.57	
		8/18/2015	5.55	94.75	
		5/19/2016	6.98	93.32	
		5/24/2016	7.11	93.19	
		12/15/2017	7.15	93.15	
MW-5	99.78	7/16/2014	8.66	91.12	
		7/21/2014	7.80	91.98	
		8/6/2015	6.92	92.86	
		8/18/2015	5.70	94.08	
		5/19/2016	6.27	93.51	
		5/24/2016	6.78	93.00	
		12/14/2017	7.09	92.69	
TW-1	100.52	7/16/2014	5.55	94.97	
		7/21/2014	8.59	91.93	
		8/6/2015	8.69	91.83	
		8/18/2015	8.95	91.57	
		5/19/2016	8.33	92.19	
		5/24/2016	8.90	91.62	
		6/20/2017	Abandoned During Excavation		
RW-1		12/14/2017	7.95	--	
TW-6	100.56	8/6/2015	9.84	90.72	
		8/18/2015	7.21	93.35	
		5/19/2016	7.36	93.20	
		5/24/2016	8.50	92.06	
		12/14/2017	7.74	92.82	
TW-7	100.47	8/6/2015	10.45	90.02	
		8/18/2015	8.97	91.50	
		5/19/2016	7.44	93.03	
		5/24/2016	8.29	92.18	
		12/14/2017	7.70	92.77	
TW-8	101.26	8/6/2015	11.37	89.89	
		8/18/2015	6.96	94.30	
		5/19/2016	7.85	93.41	
		5/24/2016	8.35	92.91	
		12/14/2017	8.73	92.53	
TW-9	99.74	8/6/2015	7.35	92.39	
		8/18/2015	4.02	95.72	
		5/19/2016	5.90	93.84	
		5/24/2016	7.06	92.68	
		12/14/2017	6.89	92.85	
TW-10	99.4	5/19/2016	--	--	
		5/24/2016	10.02	89.38	
		12/14/2017	6.56	92.84	
TW-11	100.26	5/19/2016	--	--	
		5/24/2016	8.05	92.21	
		12/14/2017	Well Not Located		
TW-12	100.47	5/19/2016	--	--	
		5/24/2016	10.19	90.28	
		12/14/2017	7.10	93.37	

ft = feet
Elevations in feet in reference to benchmark with an assumed elevation of 100 feet.

**TABLE 4
SUMMARY OF SOIL ANALYTICAL RESULTS-REMEDIAL EXCAVATION
VAN DEURZEN CLEANERS
02-0614-154**

Sample No. Sampling Date Sample Depth (feet)	NC RCL (ug/kg)	C RCL (ug/kg)	Direct Contact RCL (ug/kg)	Soil to Groundwater RCL	North Wall		South Wall	East Wall		West Wall		SE Bottom	NW Bottom
					06/20/17		06/20/17	06/20/17		06/20/17		06/20/17	06/20/17
					3	7	3	3	6	3	7	8	10
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) and DETECTED VOCs (µg/kg)													
Benzene	106,000	1,600	1,600	5.1	<30	<30	<30	<30	<30	<30	<30	<30	<30
Ethylbenzene	4,080,000	8,020	8,020	1,570	<35	<35	<35	<35	<35	<35	<35	<35	<35
Methyl tert-butyl ether	22,100,000	63,800	63,800	27	<50	<50	<50	<50	<50	<50	<50	<50	<50
Naphthalene	178,000	5,520	5,520	658	<94	<94	<94	<94	<94	<94	<94	<94	<94
Tetrachloroethene	109,000	33,000	33,000	4.5	<32	350	2,780	660	720	2,360	1,060	320	1,160
Toluene	5,240,000	NE	818,000	1,107	<32	<32	<32	<32	<32	<32	<32	<32	<32
1,2,4-Trimethylbenzene	373,000	NE	219,000	1,382	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,3,5-Trimethylbenzene	339,000	NE	182,000	1,382	<32	<32	<32	<32	<32	<32	<32	<32	<32
Xylenes, -m, -p	818,000	NE	260,000	3,940	<72	<72	<72	<72	<72	<72	<72	<72	<72
Xylenes, -o					<44	<44	<44	<44	<44	<44	<44	<44	<44

µg/kg = micrograms per kilogram

RCL = Residual Contaminant Level

C = Cancer

NC = Non Cancer

NE = NR 720 RCL not established

Bold indicates analytical results exceed NR 720 RCL

TABLE 5
SUMMARY OF SUB-SLAB/AMBIENT VAPOR ANALYTICAL RESULTS
VAN DEURZEN CLEANERS
2-0614-154

TABLE 1 REGIONAL SCREENING LEVEL SUMMARY											
Sample No.	Residential Indoor Air VAL	Small Commercial Indoor Air VAL	Small Commercial Sub-Slab Vapor VRSL	VP-1				VP-2			
				10/06/14	03/09/15	05/19/16	12/14/17	10/06/14	03/09/15	05/19/16	12/14/17
Sampling Date	ug/m3	ug/m3	ug/m3								
VOLATILE ORGANIC COMPOUNDS (VOC) (ug/m3)											
Benzene	3.6	16	530	<5.1	<1.3	0.661	0.507	3.2	0.67	Suma Canister Failure	<0.489
Chloroform	1.2	5.3	180	54	45	<0.930	1.21	2.0	1.2		<0.930
1,1-Dichloroethane	18	77	2600	<6.4	<1.6	<0.685	<0.685	1.1	<0.80		<0.685
1,1-Dichloroethene	210	880	29000	270	190	<0.646	<0.646	7.5	9.5		<0.646
cis-1,2-Dichloroethene	NE	NE	NE	440	230	6.99	3.32	38	27		0.539
trans-1,2-Dichloroethene	NE	NE	NE	33	22	0.663	<0.614	19	9.1		<0.614
Ethylbenzene	11	49	1600	<6.9	<1.7	1.33	2	4.0	<0.87		1.08
Trichlorofluoromethane	NE	NE	NE	<9.0	<2.2	2.44	1.51	2.6	1.3		1.56
Dichlorodifluoromethane	100	440	15000	<7.9	2.5	1.73	2.16	1.3	2.4		2.64
Methylene Chloride	630	2600	87000	<5.6	<1.4	14.8	2.69	1.8	<0.69		1.26
Naphthalene	0.83	3.6	120	52	<6.6	<2.69	3.27	<3.3	<3.3		<2.69
Tetrachloroethylene	42	180	6000	8800	8100	35.4	82.6	3100	1100		9.70
Toluene	5200	22000	730000	11	6.0	4.07	1.53	14	4.9		<0.625
1,1,1-Trichloroethane	5200	22000	730000	<8.7	<2.2	<1.21	<1.21	1.6	<1.1		<1.21
Trichloroethylene	2.1	8.8	290	1800	2000	13.1	13.1	530	320		3.96
1,2,4-Trimethylbenzene	7.3	31	1000	<7.9	<2.0	7.65	5.24	3.8	1.4	3.94	
1,3,5-Trimethylbenzene	NE	NE	NE	<7.9	<2.0	1.43	<1.03	1.1	<0.98	<1.03	
Vinyl chloride	1.7	28	930	<4.1	1.2	<1.06	<0.389	<0.51	<0.51	<0.389	
m&p-Xylene	100	440	15000	<14	<3.5	11.1	6.57	9.1	2.3	3.69	
o-Xylene	100	440	15000	<6.9	<1.7	2.54	2.08	4.0	<0.87	1.16	
TPH (GC/MS)	NE	NE	NE	9100	4500	--	--	1900	2600	--	

UG/M³ - Micrograms per Cubic Meter of Air

Bold indicates analytical results exceed sub-slab screening level

NE= Not Established

**TABLE 5
SUMMARY OF SUB-SLAB/AMBIENT VAPOR ANALYTICAL RESULTS
VAN DEURZEN CLEANERS
2-0614-154**

TABLE 1 REGIONAL SCREENING LEVEL SUMMARY													
Sample No.	Residential Indoor Air VAL	Small Commercial Indoor Air VAL	Small Commercial Sub-Slab Vapor VRSL	VP-4				VP-5		Ambient 1-Vandeurzen		Ambient 2- Rockstroh	
				10/08/14	03/09/15	05/19/16	12/14/17	05/19/16	12/14/17	05/19/16	12/14/17	12/14/17	01/27/16
Sampling Date	ug/m3	ug/m3	ug/m3										
VOLATILE ORGANIC COMPOUNDS (VOC) (ug/m3)													
Benzene	3.6	16	530	2.7	<1.3	0.986	<0.489	27	3.13	Suma Canister Failure	1.10	Suma Canister Failure	1.03
Chloroform	1.2	5.3	180	4.5	5.4	<0.930	1.33	1.22	<0.930		<0.930		<0.930
1,1-Dichloroethane	18	77	2800	<0.80	<1.6	<0.685	<0.685	<0.685	<0.685		<0.685		<0.685
1,1-Dichloroethene	210	880	29000	230	230	41.9	5.64	<0.646	<0.646		<0.646		<0.646
cis-1,2-Dichloroethene	NE	NE	NE	240	180	207	8.29	<0.515	<0.515		<0.515		<0.515
trans-1,2-Dichloroethene	NE	NE	NE	48	26	5.24	1.08	<0.614	<0.614		<0.614		<0.614
Ethylbenzene	11	49	1600	4.8	<1.7	3.11	1.61	12.5	2.35		<0.733		2.10
Trichlorofluoromethane	NE	NE	NE	2.6	<2.2	1.51	<1.26	1.95	1.36		1.75		<1.26
Dichlorodifluoromethane	100	440	15000	1.3	2.6	1.55	1.71	1.64	3.04		1.91		1.48
Methylene Chloride	630	2800	87000	1.5	<1.4	79.5	1.48	36	4.67		1.43		6.46
Naphthalene	0.83	3.6	120	<3.3	<6.6	<2.69	3.34	<2.69	<2.69		<2.69		4.93B
Tetrachloroethylene	42	180	6000	6000	8800	1500	311	410	189		7		<1.32
Toluene	5200	22000	730000	15	11	10.4	1.66	50.6	5.52		2.72		9.44
1,1,1-Trichloroethane	5200	22000	730000	4.9	7.6	<1.21	<1.21	<1.21	<1.21		<1.21		<1.21
Trichloroethylene	2.1	8.8	290	1400	2200	365	52.1	22.9	8.26		<0.975		<0.975
1,2,4-Trimethylbenzene	7.3	31	1000	6.4	2.5	8.67	5.25	21.5	6.48		<0.790		2.53
1,3,5-Trimethylbenzene	NE	NE	NE	2.3	<2.0	1.52	<1.03	4.46	<1.03	<1.03	<1.03		
Vinyl chloride	1.7	28	930	3.1	9.2	79.7	<0.389	<0.389	<0.389	<0.389	<0.389		
m&p-Xylene	100	440	15000	10	4.8	11.3	4.69	399	122	25.2	8.66		
o-Xylene	100	440	15000	4.8	1.7	4.24	1.57	12.3	2.14	<0.915	2.64		
TPH (GC/MS)	NE	NE	NE	3800	5400	--	--	--	--	--	--		

UG/M³ - Micrograms per Cubic Meter of Air

Bold indicates analytical results exceed vapor risk screening level or vapor action level

B=Analyte detected within the laboratory blank

NE=Not Established

APPENDIX C
ABANDONMENT FORM

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Page 1 of 2

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: Brown WI Unique Well # of Removed Well: _____ Hicap #: _____

Latitude / Longitude (see instructions): 44.4487081 N Format Code: DD Method Code: GPS008
88.0528905 W DDM SCR002
 OTH001

1/4 NE 1/4 SE Section: 22 Township: 23 N Range: 20 E W

Well Street Address: 1002 George St

Well City, Village or Town: De Pere Well ZIP Code: 54115

Subdivision Name: _____ Lot #: _____

2. Facility / Owner Information

Facility Name: Van Derzen Cleaners

Facility ID (FID or PWS): _____

License/Permit/Monitoring #: TW-1

Original Well Owner: Robert Van Derzen

Present Well Owner: Robert Van D

Mailing Address of Present Owner: 312 S. Webster Ave

City of Present Owner: De Pere State: WI ZIP Code: 54115

Reason for Removal from Service: Removal Excavation WI Unique Well # of Replacement Well: _____

3. Filled & Sealed Well / Drillhole / Borehole Information

Monitoring Well Original Construction Date (mm/dd/yyyy): 3/12/14
 Water Well If a Well Construction Report is available, please attach.
 Borehole / Drillhole

Construction Type:
 Drilled Driven (Sandpoint) Dug
 Other (specify): Geoprobe

Formation Type:
 Unconsolidated Formation Bedrock

Total Well Depth From Ground Surface (ft.): 12 Casing Diameter (in.): 1.25

Lower Drillhole Diameter (in.): _____ Casing Depth (ft.): 12

Was well annular space grouted? Yes No Unknown

If yes, to what depth (feet)? _____ Depth to Water (feet): 8'

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
<u>Surface</u>			
<u>10</u>	<u>12</u>	<u>0.25</u>	

3/8 Grout and
Remainder Excavated out

6. Comments

7. Supervision of Work

Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)	Date Received	Noted By	
<u>General Engineering Co</u>		<u>6/20/17</u>			
Street or Route	Telephone Number	Comments			
<u>916 Silver Lakes Dr</u>	<u>(608) 742-2169</u>				
City	State	ZIP Code	Signature of Person Doing Work	Date Signed	
<u>Portage</u>	<u>WI</u>	<u>53901</u>	<u>[Signature]</u>	<u>1/9/18</u>	

APPENDIX D
SOIL, GROUNDWATER, AND VAPOR
ANALYTICAL

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Sample Handling Request

Rush Analysis Date Required _____
(Rushes accepted only with prior authorization)
Normal Turn Around _____

Lab I.D. # _____
Account No.: VanDeuzen Quote No.: _____
Project #: VanDeuzen
Sampler: (signature) [Signature]

Project (Name / Location): VanDeuzen, De Pere, WI
Reports To: Lynn Bradley Invoice To: _____
Company: Coenrad Engineering Company: _____
Address: 916 S. Jun Lake Dr Address: Same
City State Zip: Portage WI 53901 City State Zip: _____
Phone: 608-742-2169 Phone: _____
FAX: 608-742-2592 FAX: _____

Analysis Requested												Other Analysis			
DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 524.2)	VOC (EPA 8260)	8-PCRA METALS	PID/ FID	

Lab I.D.	Sample I.D.	Collection Date	Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)	Preservation
<u>S033123A</u>	<u>E Wall 6'</u>	<u>6/20/17</u>	<u>AM</u>		<input checked="" type="checkbox"/>	<u>N</u>	<u>2</u>	<u>S</u>	<u>Meth</u>
<u>B</u>	<u>W Wall 3'</u>				<input checked="" type="checkbox"/>				
<u>C</u>	<u>N Wall 3'</u>				<input checked="" type="checkbox"/>				
<u>D</u>	<u>W Wall 7'</u>				<input checked="" type="checkbox"/>				
<u>E</u>	<u>S Wall 3'</u>				<input checked="" type="checkbox"/>				
<u>F</u>	<u>SE Bottom 8'</u>				<input checked="" type="checkbox"/>				
<u>G</u>	<u>NW Bottom 10'</u>				<input checked="" type="checkbox"/>				
<u>H</u>	<u>E Wall 3'</u>				<input checked="" type="checkbox"/>				
<u>I</u>	<u>N Wall 7'</u>				<input checked="" type="checkbox"/>				

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Chill
Temp. of Temp. Blank: _____ °C On Ice:
Cooler seal intact upon receipt: Yes No

Relinquished By: (sign) _____ Time _____ Date _____
Received By: (sign) _____ Time: 13:15 Date: 6/20/17

Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

LYNN BRADLEY
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PORTAGE, WI 53901

Report Date 10-Jul-17

Project Name VAN DEURZEN
Project #

Invoice # E33123

Lab Code 5033123A
Sample ID E WALL 6'
Sample Matrix Soil
Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	81.0	%			1	5021		6/21/2017	NJC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.096	1	8260B		7/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		7/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		7/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		7/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		7/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		7/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		7/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		7/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		7/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		7/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		7/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		7/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		7/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		7/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		7/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		7/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN

Invoice # E33123

Project #

Lab Code 5033123A

Sample ID E WALL 6'

Sample Matrix Soil

Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		7/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		7/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		7/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		7/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		7/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		7/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		7/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		7/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		7/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		7/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
Tetrachloroethene	0.72	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		7/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		7/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		7/7/2017	CJR	1
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		7/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		7/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		7/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		7/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		7/7/2017	CJR	1
SUR - Toluene-d8	94	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Dibromofluoromethane	105	Rec %			1	8260B		7/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	97	Rec %			1	8260B		7/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	101	Rec %			1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN
Project #

Invoice # E33123

Lab Code 5033123B
Sample ID W WALL 3'
Sample Matrix Soil
Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	82.8	%			1	5021		6/21/2017	NJC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.096	1	8260B		7/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		7/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		7/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		7/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		7/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		7/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		7/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		7/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		7/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		7/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		7/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		7/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		7/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		7/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		7/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		7/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		7/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		7/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		7/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		7/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		7/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		7/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		7/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		7/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		7/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		7/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
Tetrachloroethene	2.36	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		7/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		7/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN
Project #

Invoice # E33123

Lab Code 5033123B
Sample ID W WALL 3'
Sample Matrix Soil
Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		7/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		7/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		7/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		7/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		7/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	99	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Toluene-d8	96	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Dibromofluoromethane	100	Rec %			1	8260B		7/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	96	Rec %			1	8260B		7/7/2017	CJR	1

Project #

Lab Code 5033123C
 Sample ID N WALL 3'
 Sample Matrix Soil
 Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	79.2	%			1	5021		6/21/2017	NJC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.096	1	8260B		7/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		7/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		7/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		7/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		7/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		7/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		7/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		7/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		7/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		7/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		7/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		7/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		7/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		7/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		7/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		7/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		7/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		7/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		7/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		7/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		7/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		7/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		7/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		7/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		7/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		7/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
Tetrachloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		7/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		7/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN
Project #

Invoice # E33123

Lab Code 5033123C
Sample ID N WALL 3'
Sample Matrix Soil
Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		7/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		7/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		7/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		7/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		7/7/2017	CJR	1
SUR - Toluene-d8	93	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Dibromofluoromethane	103	Rec %			1	8260B		7/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	112	Rec %			1	8260B		7/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	97	Rec %			1	8260B		7/7/2017	CJR	1

Project #

Lab Code 5033123D
 Sample ID W WALL 7'
 Sample Matrix Soil
 Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	80.9	%			1	5021		6/21/2017	NJC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.096	1	8260B		7/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		7/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		7/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		7/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		7/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		7/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		7/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		7/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		7/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		7/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		7/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		7/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		7/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		7/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		7/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		7/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		7/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		7/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		7/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		7/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		7/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		7/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		7/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		7/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		7/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		7/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
Tetrachloroethene	1.06	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		7/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		7/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN

Invoice # E33123

Project #

Lab Code 5033123D

Sample ID W WALL 7'

Sample Matrix Soil

Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		7/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		7/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		7/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		7/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		7/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	107	Rec %			1	8260B		7/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	99	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Dibromofluoromethane	101	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Toluene-d8	95	Rec %			1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN
Project #

Invoice # E33123

Lab Code 5033123E
Sample ID S WALL 3'
Sample Matrix Soil
Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	82.1	%			1	5021		6/21/2017	NJC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.096	1	8260B		7/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		7/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		7/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		7/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		7/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		7/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		7/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		7/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		7/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		7/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		7/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		7/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		7/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		7/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		7/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		7/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		7/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		7/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		7/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		7/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		7/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		7/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		7/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		7/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		7/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		7/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
Tetrachloroethene	2.78	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		7/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		7/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN
Project #

Invoice # E33123

Lab Code 5033123E
Sample ID S WALL 3'
Sample Matrix Soil
Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		7/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		7/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		7/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		7/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		7/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	105	Rec %			1	8260B		7/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	95	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Dibromofluoromethane	103	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Toluene-d8	98	Rec %			1	8260B		7/7/2017	CJR	1

Project #

Lab Code 5033123F
 Sample ID SE BOTTOM 8'
 Sample Matrix Soil
 Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	81.0	%			1	5021		6/21/2017	NJC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.096	1	8260B		7/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		7/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		7/7/2017	CJR	1
Bromofom	< 0.029	mg/kg	0.029	0.092	1	8260B		7/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		7/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		7/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		7/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		7/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		7/7/2017	CJR	1
Chlorofom	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		7/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		7/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		7/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		7/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		7/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		7/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		7/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		7/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		7/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		7/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		7/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		7/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		7/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		7/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		7/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		7/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		7/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
Tetrachloroethene	0.32	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		7/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		7/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN

Invoice # E33123

Project #

Lab Code 5033123F

Sample ID SE BOTTOM 8'

Sample Matrix Soil

Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		7/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		7/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		7/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		7/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		7/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	105	Rec %			1	8260B		7/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	98	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Dibromofluoromethane	104	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Toluene-d8	95	Rec %			1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN

Invoice # E33123

Project #

Lab Code 5033123G

Sample ID NW BOTTOM 10'

Sample Matrix Soil

Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	74.3	%			1	5021		6/21/2017	NJC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.096	1	8260B		7/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		7/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		7/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		7/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		7/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		7/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		7/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		7/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		7/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		7/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		7/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		7/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		7/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		7/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		7/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		7/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		7/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		7/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		7/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		7/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		7/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		7/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		7/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		7/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		7/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		7/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
Tetrachloroethene	1.16	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		7/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		7/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN

Invoice # E33123

Project #

Lab Code 5033123G

Sample ID NW BOTTOM 10'

Sample Matrix Soil

Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		7/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		7/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		7/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		7/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		7/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	102	Rec %			1	8260B		7/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	92	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Dibromofluoromethane	102	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Toluene-d8	94	Rec %			1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN
Project #

Invoice # E33123

Lab Code 5033123H
Sample ID E WALL 3'
Sample Matrix Soil
Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	83.7	%			1	5021		6/21/2017	NJC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.096	1	8260B		7/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		7/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		7/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		7/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		7/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		7/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		7/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		7/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		7/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		7/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		7/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		7/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		7/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		7/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		7/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		7/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		7/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		7/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		7/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		7/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		7/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		7/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		7/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		7/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		7/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		7/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
Tetrachloroethene	0.66	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		7/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		7/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN
Project #

Invoice # E33123

Lab Code 5033123H
Sample ID E WALL 3'
Sample Matrix Soil
Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		7/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		7/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		7/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		7/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		7/7/2017	CJR	1
SUR - Toluene-d8	96	Rec %			1	8260B		7/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	87	Rec %			1	8260B		7/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	98	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Dibromofluoromethane	101	Rec %			1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN
 Project #

Invoice # E33123

Lab Code 5033123I
 Sample ID N WALL 7'
 Sample Matrix Soil
 Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	80.8	%			1	5021		6/21/2017	NJC	1
Organic										
VOC's										
Benzene	< 0.03	mg/kg	0.03	0.096	1	8260B		7/7/2017	CJR	1
Bromobenzene	< 0.025	mg/kg	0.025	0.081	1	8260B		7/7/2017	CJR	1
Bromodichloromethane	< 0.074	mg/kg	0.074	0.24	1	8260B		7/7/2017	CJR	1
Bromoform	< 0.029	mg/kg	0.029	0.092	1	8260B		7/7/2017	CJR	1
tert-Butylbenzene	< 0.026	mg/kg	0.026	0.084	1	8260B		7/7/2017	CJR	1
sec-Butylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
n-Butylbenzene	< 0.04	mg/kg	0.04	0.13	1	8260B		7/7/2017	CJR	1
Carbon Tetrachloride	< 0.016	mg/kg	0.016	0.053	1	8260B		7/7/2017	CJR	1
Chlorobenzene	< 0.013	mg/kg	0.013	0.04	1	8260B		7/7/2017	CJR	1
Chloroethane	< 0.091	mg/kg	0.091	0.29	1	8260B		7/7/2017	CJR	1
Chloroform	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Chloromethane	< 0.076	mg/kg	0.076	0.24	1	8260B		7/7/2017	CJR	1
2-Chlorotoluene	< 0.015	mg/kg	0.015	0.047	1	8260B		7/7/2017	CJR	1
4-Chlorotoluene	< 0.018	mg/kg	0.018	0.057	1	8260B		7/7/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.058	mg/kg	0.058	0.18	1	8260B		7/7/2017	CJR	1
Dibromochloromethane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
1,4-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,3-Dichlorobenzene	< 0.037	mg/kg	0.037	0.12	1	8260B		7/7/2017	CJR	1
1,2-Dichlorobenzene	< 0.028	mg/kg	0.028	0.088	1	8260B		7/7/2017	CJR	1
Dichlorodifluoromethane	< 0.048	mg/kg	0.048	0.15	1	8260B		7/7/2017	CJR	1
1,2-Dichloroethane	< 0.038	mg/kg	0.038	0.12	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethane	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
1,1-Dichloroethene	< 0.022	mg/kg	0.022	0.069	1	8260B		7/7/2017	CJR	1
cis-1,2-Dichloroethene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
trans-1,2-Dichloroethene	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
1,2-Dichloropropane	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
1,3-Dichloropropane	< 0.025	mg/kg	0.025	0.079	1	8260B		7/7/2017	CJR	1
trans-1,3-Dichloropropene	< 0.022	mg/kg	0.022	0.068	1	8260B		7/7/2017	CJR	1
cis-1,3-Dichloropropene	< 0.039	mg/kg	0.039	0.12	1	8260B		7/7/2017	CJR	1
Di-isopropyl ether	< 0.01	mg/kg	0.01	0.032	1	8260B		7/7/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.023	mg/kg	0.023	0.072	1	8260B		7/7/2017	CJR	1
Ethylbenzene	< 0.035	mg/kg	0.035	0.11	1	8260B		7/7/2017	CJR	1
Hexachlorobutadiene	< 0.085	mg/kg	0.085	0.27	1	8260B		7/7/2017	CJR	1
Isopropylbenzene	< 0.034	mg/kg	0.034	0.11	1	8260B		7/7/2017	CJR	1
p-Isopropyltoluene	< 0.029	mg/kg	0.029	0.093	1	8260B		7/7/2017	CJR	1
Methylene chloride	< 0.15	mg/kg	0.15	0.46	1	8260B		7/7/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.05	mg/kg	0.05	0.16	1	8260B		7/7/2017	CJR	1
Naphthalene	< 0.094	mg/kg	0.094	0.3	1	8260B		7/7/2017	CJR	1
n-Propylbenzene	< 0.033	mg/kg	0.033	0.1	1	8260B		7/7/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.88	1	8260B		7/7/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.028	mg/kg	0.028	0.09	1	8260B		7/7/2017	CJR	1
Tetrachloroethene	0.35	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Toluene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
1,2,4-Trichlorobenzene	< 0.064	mg/kg	0.064	0.2	1	8260B		7/7/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.066	mg/kg	0.066	0.21	1	8260B		7/7/2017	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.96	1	8260B		7/7/2017	CJR	1

Project Name VAN DEURZEN

Invoice # E33123

Project #

Lab Code 5033123I

Sample ID N WALL 7'

Sample Matrix Soil

Sample Date 6/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.033	mg/kg	0.033	0.11	1	8260B		7/7/2017	CJR	1
Trichloroethene (TCE)	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
Trichlorofluoromethane	< 0.041	mg/kg	0.041	0.13	1	8260B		7/7/2017	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.025	0.08	1	8260B		7/7/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.032	mg/kg	0.032	0.1	1	8260B		7/7/2017	CJR	1
Vinyl Chloride	< 0.019	mg/kg	0.019	0.062	1	8260B		7/7/2017	CJR	1
m&p-Xylene	< 0.072	mg/kg	0.072	0.23	1	8260B		7/7/2017	CJR	1
o-Xylene	< 0.044	mg/kg	0.044	0.14	1	8260B		7/7/2017	CJR	1
SUR - Toluene-d8	94	Rec %			1	8260B		7/7/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	107	Rec %			1	8260B		7/7/2017	CJR	1
SUR - 4-Bromofluorobenzene	100	Rec %			1	8260B		7/7/2017	CJR	1
SUR - Dibromofluoromethane	100	Rec %			1	8260B		7/7/2017	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code **Comment**

1 Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature



Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

BRIAN YOUNGWIRTH
GENERAL ENGINEERING
916 SILVER LAKE DRIVE
PORTAGE, WI 53901

Report Date 21-Dec-17

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045A
Sample ID MW-1
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/18/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/18/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/18/2017	CJR	1
Bromofom	< 0.49	ug/l	0.49	1.56	1	8260B		12/18/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/18/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/18/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/18/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/18/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/18/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/18/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/18/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/18/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/18/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/18/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/18/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/18/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/18/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/18/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/18/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/18/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/18/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/18/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE

Invoice # E34045

Project #

Lab Code 5034045A

Sample ID MW-1

Sample Matrix Water

Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/18/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/18/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/18/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/18/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/18/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/18/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/18/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/18/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/18/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/18/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		12/18/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/18/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/18/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/18/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/18/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/18/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/18/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/18/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/18/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/18/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	103	REC %			1	8260B		12/18/2017	CJR	1
SUR - 4-Bromofluorobenzene	100	REC %			1	8260B		12/18/2017	CJR	1
SUR - Dibromofluoromethane	101	REC %			1	8260B		12/18/2017	CJR	1
SUR - Toluene-d8	99	REC %			1	8260B		12/18/2017	CJR	1

Project #

Lab Code 5034045B
 Sample ID MW-2
 Sample Matrix Water
 Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/18/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/18/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/18/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		12/18/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/18/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/18/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/18/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/18/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/18/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/18/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/18/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/18/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/18/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/18/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/18/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/18/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/18/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/18/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/18/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/18/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/18/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/18/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/18/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/18/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/18/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/18/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/18/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/18/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/18/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/18/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/18/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/18/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/18/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		12/18/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/18/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/18/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/18/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/18/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/18/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045B
Sample ID MW-2
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/18/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/18/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/18/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	107	REC %			1	8260B		12/18/2017	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		12/18/2017	CJR	1
SUR - 4-Bromofluorobenzene	100	REC %			1	8260B		12/18/2017	CJR	1
SUR - Dibromofluoromethane	102	REC %			1	8260B		12/18/2017	CJR	1

Project

Lab Code 5034045C

Sample ID MW-3

Sample Matrix Water

Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/18/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/18/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/18/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		12/18/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/18/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/18/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/18/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/18/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/18/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/18/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/18/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/18/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/18/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/18/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/18/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/18/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/18/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/18/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/18/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/18/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/18/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/18/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/18/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/18/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/18/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/18/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/18/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/18/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/18/2017	CJR	1
Methyl tert-butylether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/18/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/18/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/18/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/18/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		12/18/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/18/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/18/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/18/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/18/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/18/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045C
Sample ID MW-3
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/18/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/18/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/18/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		12/18/2017	CJR	1
SUR - 4-Bromofluorobenzene	100	REC %			1	8260B		12/18/2017	CJR	1
SUR - Dibromofluoromethane	101	REC %			1	8260B		12/18/2017	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		12/18/2017	CJR	1

Project

Lab Code 5034045D
 Sample ID MW-4
 Sample Matrix Water
 Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/18/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/18/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/18/2017	CJR	1
Bromoforn	< 0.49	ug/l	0.49	1.56	1	8260B		12/18/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/18/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/18/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/18/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/18/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/18/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/18/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/18/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/18/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/18/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/18/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/18/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/18/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/18/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/18/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/18/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/18/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/18/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/18/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/18/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/18/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/18/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/18/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/18/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/18/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/18/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/18/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/18/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/18/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/18/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		12/18/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/18/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/18/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/18/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/18/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/18/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045D
Sample ID MW-4
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/18/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/18/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/18/2017	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		12/18/2017	CJR	1
SUR - Dibromofluoromethane	103	REC %			1	8260B		12/18/2017	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		12/18/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	105	REC %			1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045E
Sample ID MW-5
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/18/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/18/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/18/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		12/18/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/18/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/18/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/18/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/18/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/18/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/18/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/18/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/18/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/18/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/18/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/18/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/18/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/18/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/18/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/18/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/18/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/18/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/18/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/18/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/18/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/18/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/18/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/18/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/18/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/18/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/18/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/18/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/18/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/18/2017	CJR	1
Tetrachloroethene	6.2	ug/l	0.48	1.52	1	8260B		12/18/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/18/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/18/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/18/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/18/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/18/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE-PERE
Project #

Invoice # E34045

Lab Code 5034045E
Sample ID MW-5
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/18/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/18/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/18/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	102	REC %			1	8260B		12/18/2017	CJR	1
SUR - 4-Bromofluorobenzene	102	REC %			1	8260B		12/18/2017	CJR	1
SUR - Dibromofluoromethane	101	REC %			1	8260B		12/18/2017	CJR	1
SUR - Toluene-d8	105	REC %			1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045F
Sample ID TW-6
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 1.7	ug/l	1.7	5.5	10	8260B		12/18/2017	CJR	1
Bromobenzene	< 4.3	ug/l	4.3	13.7	10	8260B		12/18/2017	CJR	1
Bromodichloromethane	< 3.1	ug/l	3.1	10	10	8260B		12/18/2017	CJR	1
Bromoform	< 4.9	ug/l	4.9	15.6	10	8260B		12/18/2017	CJR	1
tert-Butylbenzene	< 3.9	ug/l	3.9	12.3	10	8260B		12/18/2017	CJR	1
sec-Butylbenzene	< 2.4	ug/l	2.4	7.6	10	8260B		12/18/2017	CJR	1
n-Butylbenzene	< 3.4	ug/l	3.4	10.8	10	8260B		12/18/2017	CJR	1
Carbon Tetrachloride	< 2.1	ug/l	2.1	6.8	10	8260B		12/18/2017	CJR	1
Chlorobenzene	< 2.7	ug/l	2.7	8.6	10	8260B		12/18/2017	CJR	1
Chloroethane	< 5	ug/l	5	16	10	8260B		12/18/2017	CJR	1
Chloroform	< 9.6	ug/l	9.6	30.4	10	8260B		12/18/2017	CJR	1
Chloromethane	< 13	ug/l	13	41.5	10	8260B		12/18/2017	CJR	1
2-Chlorotoluene	< 3.6	ug/l	3.6	11.5	10	8260B		12/18/2017	CJR	1
4-Chlorotoluene	< 3.5	ug/l	3.5	11.1	10	8260B		12/18/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 18.8	ug/l	18.8	59.8	10	8260B		12/18/2017	CJR	1
Dibromochloromethane	< 4.5	ug/l	4.5	14.4	10	8260B		12/18/2017	CJR	1
1,4-Dichlorobenzene	< 4.2	ug/l	4.2	13.4	10	8260B		12/18/2017	CJR	1
1,3-Dichlorobenzene	< 4.5	ug/l	4.5	14.3	10	8260B		12/18/2017	CJR	1
1,2-Dichlorobenzene	< 3.4	ug/l	3.4	10.9	10	8260B		12/18/2017	CJR	1
Dichlorodifluoromethane	< 3.8	ug/l	3.8	12	10	8260B		12/18/2017	CJR	1
1,2-Dichloroethane	< 4.5	ug/l	4.5	14.3	10	8260B		12/18/2017	CJR	1
1,1-Dichloroethane	< 4.2	ug/l	4.2	13.4	10	8260B		12/18/2017	CJR	1
1,1-Dichloroethene	< 4.6	ug/l	4.6	14.7	10	8260B		12/18/2017	CJR	1
cis-1,2-Dichloroethene	17.2	ug/l	4.1	12.9	10	8260B		12/18/2017	CJR	1
trans-1,2-Dichloroethene	< 3.5	ug/l	3.5	11.2	10	8260B		12/18/2017	CJR	1
1,2-Dichloropropane	< 3.9	ug/l	3.9	12.4	10	8260B		12/18/2017	CJR	1
1,3-Dichloropropane	< 4.9	ug/l	4.9	15.5	10	8260B		12/18/2017	CJR	1
trans-1,3-Dichloropropene	< 4.2	ug/l	4.2	13.3	10	8260B		12/18/2017	CJR	1
cis-1,3-Dichloropropene	< 2.1	ug/l	2.1	6.5	10	8260B		12/18/2017	CJR	1
Di-isopropyl ether	< 2.6	ug/l	2.6	8.3	10	8260B		12/18/2017	CJR	1
EDB (1,2-Dibromoethane)	< 3.4	ug/l	3.4	10.9	10	8260B		12/18/2017	CJR	1
Ethylbenzene	< 2	ug/l	2	6.3	10	8260B		12/18/2017	CJR	1
Hexachlorobutadiene	< 14.7	ug/l	14.7	46.8	10	8260B		12/18/2017	CJR	1
Isopropylbenzene	< 2.9	ug/l	2.9	9.3	10	8260B		12/18/2017	CJR	1
p-Isopropyltoluene	< 2.8	ug/l	2.8	9.1	10	8260B		12/18/2017	CJR	1
Methylene chloride	< 9.4	ug/l	9.4	29.8	10	8260B		12/18/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 8.2	ug/l	8.2	26	10	8260B		12/18/2017	CJR	1
Naphthalene	< 21.7	ug/l	21.7	69	10	8260B		12/18/2017	CJR	1
n-Propylbenzene	< 1.9	ug/l	1.9	6.2	10	8260B		12/18/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 6.9	ug/l	6.9	22.1	10	8260B		12/18/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 4.7	ug/l	4.7	14.8	10	8260B		12/18/2017	CJR	1
Tetrachloroethene	1260	ug/l	4.8	15.2	10	8260B		12/18/2017	CJR	1
Toluene	< 6.7	ug/l	6.7	21.3	10	8260B		12/18/2017	CJR	1
1,2,4-Trichlorobenzene	< 12.9	ug/l	12.9	41	10	8260B		12/18/2017	CJR	1
1,2,3-Trichlorobenzene	< 8.3	ug/l	8.3	26.3	10	8260B		12/18/2017	CJR	1
1,1,1-Trichloroethane	< 3.5	ug/l	3.5	11.1	10	8260B		12/18/2017	CJR	1
1,1,2-Trichloroethane	< 6.5	ug/l	6.5	20.6	10	8260B		12/18/2017	CJR	1
Trichloroethene (TCE)	9.7 "J"	ug/l	4.5	14.3	10	8260B		12/18/2017	CJR	1
Trichlorofluoromethane	< 6.4	ug/l	6.4	20.4	10	8260B		12/18/2017	CJR	1
1,2,4-Trimethylbenzene	< 11.4	ug/l	11.4	36.3	10	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045F
Sample ID TW-6
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 9.1	ug/l	9.1	29	10	8260B		12/18/2017	CJR	1
Vinyl Chloride	< 1.9	ug/l	1.9	6.2	10	8260B		12/18/2017	CJR	1
m&p-Xylene	< 15.6	ug/l	15.6	49.5	10	8260B		12/18/2017	CJR	1
o-Xylene	< 3.9	ug/l	3.9	12.5	10	8260B		12/18/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	103	REC %			10	8260B		12/18/2017	CJR	1
SUR - 4-Bromofluorobenzene	97	REC %			10	8260B		12/18/2017	CJR	1
SUR - Dibromofluoromethane	105	REC %			10	8260B		12/18/2017	CJR	1
SUR - Toluene-d8	102	REC %			10	8260B		12/18/2017	CJR	1

Project #

Lab Code 5034045G

Sample ID TW-7

Sample Matrix Water

Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/18/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/18/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/18/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		12/18/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/18/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/18/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/18/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/18/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/18/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/18/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/18/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/18/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/18/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/18/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/18/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/18/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/18/2017	CJR	1
cis-1,2-Dichloroethene	0.61 "J"	ug/l	0.41	1.29	1	8260B		12/18/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/18/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/18/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/18/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/18/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/18/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/18/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/18/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/18/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/18/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/18/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/18/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/18/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/18/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/18/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/18/2017	CJR	1
Tetrachloroethene	19.6	ug/l	0.48	1.52	1	8260B		12/18/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/18/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/18/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/18/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/18/2017	CJR	1
Trichloroethene (TCE)	2.59	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/18/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045G
Sample ID TW-7
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/18/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/18/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/18/2017	CJR	1
SUR - Dibromofluoromethane	102	REC %			1	8260B		12/18/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			1	8260B		12/18/2017	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		12/18/2017	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045H
Sample ID TW-8
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/18/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/18/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/18/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		12/18/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/18/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/18/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/18/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/18/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/18/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/18/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/18/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/18/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/18/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/18/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/18/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/18/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/18/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/18/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/18/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/18/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/18/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/18/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/18/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/18/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/18/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/18/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/18/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/18/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/18/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/18/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/18/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/18/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/18/2017	CJR	1
Tetrachloroethene	1.97	ug/l	0.48	1.52	1	8260B		12/18/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/18/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/18/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/18/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/18/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/18/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045H
Sample ID TW-8
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/18/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/18/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/18/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	101	REC %			1	8260B		12/18/2017	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		12/18/2017	CJR	1
SUR - Dibromofluoromethane	101	REC %			1	8260B		12/18/2017	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		12/18/2017	CJR	1

Project

Lab Code 5034045I
 Sample ID TW-9
 Sample Matrix Water
 Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/18/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/18/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/18/2017	CJR	1
Bromofom	< 0.49	ug/l	0.49	1.56	1	8260B		12/18/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/18/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/18/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/18/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/18/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/18/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/18/2017	CJR	1
Chlorofom	< 0.96	ug/l	0.96	3.04	1	8260B		12/18/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/18/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/18/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/18/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/18/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/18/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/18/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/18/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/18/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/18/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/18/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/18/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/18/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/18/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/18/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/18/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/18/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/18/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/18/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/18/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/18/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/18/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/18/2017	CJR	1
Tetrachloroethene	116	ug/l	0.48	1.52	1	8260B		12/18/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/18/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/18/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/18/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/18/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/18/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045I
Sample ID TW-9
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/18/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/18/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/18/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	98	REC %			1	8260B		12/18/2017	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		12/18/2017	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		12/18/2017	CJR	1
SUR - Dibromofluoromethane	104	REC %			1	8260B		12/18/2017	CJR	1

Project

Lab Code 5034045J
 Sample ID TW-10
 Sample Matrix Water
 Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/18/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/18/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/18/2017	CJR	1
Bromofom	< 0.49	ug/l	0.49	1.56	1	8260B		12/18/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/18/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/18/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/18/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/18/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/18/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/18/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/18/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/18/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/18/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/18/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/18/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/18/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/18/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/18/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/18/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/18/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/18/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/18/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/18/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/18/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/18/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/18/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/18/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/18/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/18/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/18/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/18/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/18/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/18/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		12/18/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/18/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/18/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/18/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/18/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/18/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE

Invoice # E34045

Project #

Lab Code 5034045J

Sample ID TW-10

Sample Matrix Water

Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/18/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/18/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/18/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	108	REC %			1	8260B		12/18/2017	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		12/18/2017	CJR	1
SUR - Dibromofluoromethane	105	REC %			1	8260B		12/18/2017	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045L
Sample ID TW-12
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/18/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/18/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/18/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		12/18/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/18/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/18/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/18/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/18/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/18/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/18/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/18/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/18/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/18/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/18/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/18/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/18/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/18/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/18/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/18/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/18/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/18/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/18/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/18/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/18/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/18/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/18/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/18/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/18/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/18/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/18/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/18/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/18/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/18/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/18/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/18/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		12/18/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/18/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/18/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/18/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/18/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/18/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		12/18/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/18/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE

Invoice # E34045

Project #

Lab Code 5034045L

Sample ID TW-12

Sample Matrix Water

Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/18/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/18/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/18/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/18/2017	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		12/18/2017	CJR	1
SUR - Dibromofluoromethane	103	REC %			1	8260B		12/18/2017	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		12/18/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			1	8260B		12/18/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045M
Sample ID RW-1
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	0.36 "J"	ug/l	0.17	0.55	1	8260B		12/20/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/20/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/20/2017	CJR	1
Bromoforn	< 0.49	ug/l	0.49	1.56	1	8260B		12/20/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/20/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/20/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/20/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/20/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/20/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/20/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/20/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/20/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/20/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/20/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/20/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/20/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/20/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/20/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/20/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/20/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/20/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/20/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/20/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/20/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/20/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/20/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/20/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/20/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/20/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/20/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/20/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/20/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/20/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/20/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/20/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/20/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/20/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/20/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/20/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/20/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/20/2017	CJR	1
Tetrachloroethene	13.9	ug/l	0.48	1.52	1	8260B		12/20/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/20/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/20/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/20/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/20/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/20/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		12/20/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/20/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/20/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045M
Sample ID RW-1
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/20/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/20/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/20/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/20/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	103	REC %			1	8260B		12/20/2017	CJR	1
SUR - 4-Bromofluorobenzene	101	REC %			1	8260B		12/20/2017	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		12/20/2017	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		12/20/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045N
Sample ID SUMP 2
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/20/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/20/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/20/2017	CJR	1
Bromoforn	< 0.49	ug/l	0.49	1.56	1	8260B		12/20/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/20/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/20/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/20/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/20/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/20/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/20/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/20/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/20/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/20/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/20/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/20/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/20/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/20/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/20/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/20/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/20/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/20/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/20/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/20/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/20/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/20/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/20/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/20/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/20/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/20/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/20/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/20/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/20/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/20/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/20/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/20/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/20/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/20/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/20/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/20/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/20/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/20/2017	CJR	1
Tetrachloroethene	1.9	ug/l	0.48	1.52	1	8260B		12/20/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/20/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/20/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/20/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/20/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/20/2017	CJR	1
Trichloroethene (TCE)	0.53 "J"	ug/l	0.45	1.43	1	8260B		12/20/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/20/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/20/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 5034045N
Sample ID SUMP 2
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/20/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/20/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/20/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/20/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	98	REC %				1 8260B		12/20/2017	CJR	1
SUR - 4-Bromofluorobenzene	101	REC %				1 8260B		12/20/2017	CJR	1
SUR - Dibromofluoromethane	97	REC %				1 8260B		12/20/2017	CJR	1
SUR - Toluene-d8	105	REC %				1 8260B		12/20/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 50340450
Sample ID ROCK STROK SUM
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		12/20/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		12/20/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		12/20/2017	CJR	1
Bromof orm	< 0.49	ug/l	0.49	1.56	1	8260B		12/20/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		12/20/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		12/20/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		12/20/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		12/20/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		12/20/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		12/20/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		12/20/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		12/20/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		12/20/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		12/20/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		12/20/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		12/20/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		12/20/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		12/20/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		12/20/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		12/20/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		12/20/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		12/20/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		12/20/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		12/20/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		12/20/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		12/20/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		12/20/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		12/20/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		12/20/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		12/20/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		12/20/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		12/20/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		12/20/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		12/20/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		12/20/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		12/20/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		12/20/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		12/20/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		12/20/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		12/20/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		12/20/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		12/20/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		12/20/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		12/20/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		12/20/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		12/20/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		12/20/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		12/20/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		12/20/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		12/20/2017	CJR	1

Project Name VANDEURZEN/DE PERE
Project #

Invoice # E34045

Lab Code 50340450
Sample ID ROCK STROK SUM
Sample Matrix Water
Sample Date 12/14/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		12/20/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		12/20/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		12/20/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		12/20/2017	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		12/20/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	103	REC %			1	8260B		12/20/2017	CJR	1
SUR - 4-Bromofluorobenzene	102	REC %			1	8260B		12/20/2017	CJR	1
SUR - Dibromofluoromethane	104	REC %			1	8260B		12/20/2017	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code	Comment
1	Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature



December 21, 2017

Synergy Environmental Lab, LLC

Sample Delivery Group: L958119
Samples Received: 12/16/2017
Project Number: VANDEURZEN
Description: Vandeurzen

Report To: Mike Ricker
1990 Prospect Court
Appleton, WI 54914

Entire Report Reviewed By:



John Hawkins
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by	Collected date/time	Received date/time
VP-1 L958119-01 Air			Lynn Bradley	12/14/17 14:10	12/16/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatiles Organic Compounds (MS) by Method TO-15	WG1055587	1	12/20/17 15:02	12/20/17 15:02	MBF
			Collected by	Collected date/time	Received date/time
VP-2 L958119-02 Air			Lynn Bradley	12/14/17 14:10	12/16/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatiles Organic Compounds (MS) by Method TO-15	WG1055587	1	12/20/17 15:50	12/20/17 15:50	MBF
			Collected by	Collected date/time	Received date/time
VP-4 L958119-03 Air			Lynn Bradley	12/14/17 14:06	12/16/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatiles Organic Compounds (MS) by Method TO-15	WG1055587	1	12/20/17 16:39	12/20/17 16:39	MBF
			Collected by	Collected date/time	Received date/time
VP-5 L958119-04 Air			Lynn Bradley	12/14/17 14:20	12/16/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatiles Organic Compounds (MS) by Method TO-15	WG1055587	1	12/20/17 17:30	12/20/17 17:30	MBF
			Collected by	Collected date/time	Received date/time
AMBIENT 1 L958119-05 Air			Lynn Bradley	12/14/17 14:15	12/16/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatiles Organic Compounds (MS) by Method TO-15	WG1055587	1	12/20/17 18:25	12/20/17 18:25	MBF

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins
Technical Service Representative

Project Narrative

Please note Sample L958119-06 Ambient Air 2 was recieved without sample be collected. Canister vacuum was -25" Hg when checked. JVH 12-17-18

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 12/14/17 14:10

L958119

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	4.38	10.4		1	WG1055587
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1055587
Benzene	71-43-2	78.10	0.153	0.489	0.159	0.507		1	WG1055587
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1055587
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1055587
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1055587
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1055587
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1055587
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1055587
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1055587
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1055587
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1055587
Chloroform	67-66-3	119	0.191	0.930	0.249	1.21		1	WG1055587
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1055587
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1055587
Cyclohexane	110-82-7	84.20	0.178	0.613	ND	ND		1	WG1055587
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1055587
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1055587
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1055587
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1055587
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1055587
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1055587
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1055587
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1055587
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	0.837	3.32		1	WG1055587
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1055587
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1055587
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1055587
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1055587
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1055587
Ethanol	64-17-5	46.10	0.277	0.522	9.57	18.0		1	WG1055587
Ethylbenzene	100-41-4	106	0.169	0.733	0.460	2.00		1	WG1055587
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1055587
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	0.269	1.51		1	WG1055587
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.437	2.16		1	WG1055587
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1055587
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1055587
Heptane	142-82-5	100	0.209	0.855	ND	ND		1	WG1055587
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1055587
n-Hexane	110-54-3	86.20	0.152	0.536	0.199	0.702		1	WG1055587
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1055587
Methylene Chloride	75-09-2	84.90	0.155	0.538	0.775	2.69	B	1	WG1055587
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1055587
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	ND	ND		1	WG1055587
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1055587
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1055587
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1055587
Naphthalene	91-20-3	128	0.513	2.69	0.625	3.27		1	WG1055587
2-Propanol	67-63-0	60.10	0.294	0.723	2.26	5.56		1	WG1055587
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1055587
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1055587
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1055587
Tetrachloroethylene	127-18-4	166	0.166	1.13	12.2	82.8		1	WG1055587
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1055587
Toluene	108-88-3	92.10	0.166	0.625	0.405	1.53		1	WG1055587
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1055587

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc



Collected date/time: 12/14/17 14:10

L958119

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	WG1055587
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	WG1055587
Trichloroethylene	79-01-6	131	0.182	0.975	2.26	12.1		1	WG1055587
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	1.07	5.24		1	WG1055587
1,3,5-Trimethylbenzene	108-67-8	120	0.210	103	ND	ND		1	WG1055587
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	WG1055587
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	WG1055587
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	WG1055587
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	WG1055587
m&p-Xylene	1330-20-7	106	0.315	1.37	1.52	6.57		1	WG1055587
o-Xylene	95-47-6	106	0.211	0.915	0.480	2.08		1	WG1055587
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				WG1055587

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc



Collected date/time: 12/14/17 14:10

L958119

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	1.38	3.28		1	WG1055587
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1055587
Benzene	71-43-2	78.10	0.153	0.489	ND	ND		1	WG1055587
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1055587
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1055587
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1055587
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1055587
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1055587
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1055587
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1055587
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1055587
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1055587
Chloroform	67-66-3	119	0.191	0.930	ND	ND		1	WG1055587
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1055587
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1055587
Cyclohexane	110-82-7	84.20	0.178	0.613	ND	ND		1	WG1055587
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1055587
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1055587
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1055587
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1055587
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1055587
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1055587
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1055587
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1055587
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	0.136	0.539		1	WG1055587
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1055587
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1055587
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1055587
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1055587
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1055587
Ethanol	64-17-5	46.10	0.277	0.522	1.48	2.79		1	WG1055587
Ethylbenzene	100-41-4	106	0.169	0.733	0.250	1.08		1	WG1055587
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1055587
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	0.278	1.56		1	WG1055587
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.533	2.64		1	WG1055587
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1055587
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1055587
Heptane	142-82-5	100	0.209	0.855	ND	ND		1	WG1055587
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1055587
n-Hexane	110-54-3	86.20	0.152	0.536	ND	ND		1	WG1055587
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1055587
Methylene Chloride	75-09-2	84.90	0.155	0.538	0.362	1.26	B	1	WG1055587
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1055587
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	ND	ND		1	WG1055587
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1055587
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1055587
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1055587
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1055587
2-Propanol	67-63-0	60.10	0.294	0.723	0.374	0.920	B	1	WG1055587
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1055587
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1055587
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1055587
Tetrachloroethylene	127-18-4	166	0.166	1.13	1.43	9.70		1	WG1055587
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1055587
Toluene	108-88-3	92.10	0.166	0.625	ND	ND		1	WG1055587
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1055587

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 12/14/17 14:10

L958119

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	WG1055587
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	WG1055587
Trichloroethylene	79-01-6	131	0.182	0.975	0.739	3.96		1	WG1055587
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	0.803	3.94		1	WG1055587
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	WG1055587
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	WG1055587
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	WG1055587
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	WG1055587
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	WG1055587
m&p-Xylene	1330-20-7	106	0.315	1.37	0.851	3.69		1	WG1055587
o-Xylene	95-47-6	106	0.211	0.915	0.267	1.16		1	WG1055587
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.5				WG1055587

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc



Collected date/time: 12/14/17 14:06

L958119

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	3.26	7.75		1	WG1055587
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1055587
Benzene	71-43-2	78.10	0.153	0.489	ND	ND		1	WG1055587
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1055587
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1055587
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1055587
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1055587
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1055587
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1055587
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1055587
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1055587
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1055587
Chloroform	67-66-3	119	0.191	0.930	0.274	1.33		1	WG1055587
Chloromethane	74-87-3	50.50	0.181	0.374	0.211	0.436		1	WG1055587
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1055587
Cyclohexane	110-82-7	84.20	0.178	0.613	ND	ND		1	WG1055587
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1055587
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1055587
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1055587
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1055587
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1055587
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1055587
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1055587
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	1.42	5.64		1	WG1055587
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	2.09	8.29		1	WG1055587
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	0.272	1.08		1	WG1055587
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1055587
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1055587
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1055587
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1055587
Ethanol	64-17-5	46.10	0.277	0.522	8.53	16.1		1	WG1055587
Ethylbenzene	100-41-4	106	0.169	0.733	0.372	1.61		1	WG1055587
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1055587
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	ND	ND		1	WG1055587
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.346	1.71		1	WG1055587
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1055587
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1055587
Heptane	142-82-5	100	0.209	0.855	ND	ND		1	WG1055587
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1055587
n-Hexane	110-54-3	86.20	0.152	0.536	0.202	0.712		1	WG1055587
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1055587
Methylene Chloride	75-09-2	84.90	0.155	0.538	0.426	1.48	B	1	WG1055587
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1055587
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	ND	ND		1	WG1055587
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1055587
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1055587
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1055587
Naphthalene	91-20-3	128	0.513	2.69	0.639	3.34		1	WG1055587
2-Propanol	67-63-0	60.10	0.294	0.723	2.41	5.92		1	WG1055587
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1055587
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1055587
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1055587
Tetrachloroethylene	127-18-4	166	0.166	1.13	45.7	311		1	WG1055587
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1055587
Toluene	108-88-3	92.10	0.166	0.625	0.441	1.66		1	WG1055587
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1055587

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc



Collected date/time: 12/14/17 14:06

L958119

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	WG1055587
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	WG1055587
Trichloroethylene	79-01-6	131	0.182	0.975	9.72	52.1		1	WG1055587
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	1.07	5.25		1	WG1055587
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	WG1055587
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	WG1055587
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	WG1055587
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	WG1055587
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	WG1055587
m&p-Xylene	1330-20-7	106	0.315	1.37	1.08	4.69		1	WG1055587
o-Xylene	95-47-6	106	0.211	0.915	0.362	1.57		1	WG1055587
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				WG1055587

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 12/14/17 14:20

L958119

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	14.3	34.1		1	WG1055587
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1055587
Benzene	71-43-2	78.10	0.153	0.489	0.980	3.13		1	WG1055587
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1055587
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1055587
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1055587
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1055587
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1055587
Carbon disulfide	75-15-0	76.10	0.181	0.563	0.368	1.14		1	WG1055587
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1055587
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1055587
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1055587
Chloroform	67-66-3	119	0.191	0.930	ND	ND		1	WG1055587
Chloromethane	74-87-3	50.50	0.181	0.374	0.196	0.405		1	WG1055587
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1055587
Cyclohexane	110-82-7	84.20	0.178	0.613	ND	ND		1	WG1055587
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1055587
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1055587
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1055587
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1055587
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1055587
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1055587
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1055587
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1055587
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1055587
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1055587
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1055587
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1055587
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1055587
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1055587
Ethanol	64-17-5	46.10	0.277	0.522	24.3	45.9		1	WG1055587
Ethylbenzene	100-41-4	106	0.169	0.733	0.543	2.35		1	WG1055587
4-Ethyltoluene	622-96-8	120	0.222	1.09	0.225	1.10		1	WG1055587
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	0.241	1.36		1	WG1055587
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.614	3.04		1	WG1055587
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1055587
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1055587
Heptane	142-82-5	100	0.209	0.855	ND	ND		1	WG1055587
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1055587
n-Hexane	110-54-3	86.20	0.152	0.536	0.399	1.41		1	WG1055587
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1055587
Methylene Chloride	75-09-2	84.90	0.155	0.538	1.35	4.67		1	WG1055587
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1055587
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	0.229	0.676		1	WG1055587
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	7.00	28.6		1	WG1055587
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1055587
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1055587
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1055587
2-Propanol	67-63-0	60.10	0.294	0.723	2.73	6.70		1	WG1055587
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1055587
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1055587
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1055587
Tetrachloroethylene	127-18-4	166	0.166	1.13	27.9	189		1	WG1055587
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1055587
Toluene	108-88-3	92.10	0.166	0.625	1.47	5.52		1	WG1055587
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1055587

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc



Collected date/time: 12/14/17 14:20

L958119

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	WG1055587
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	WG1055587
Trichloroethylene	79-01-6	131	0.182	0.975	1.54	8.26		1	WG1055587
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	1.32	6.48		1	WG1055587
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	WG1055587
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	WG1055587
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	WG1055587
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	WG1055587
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	WG1055587
m&p-Xylene	1330-20-7	106	0.315	1.37	28.1	122		1	WG1055587
o-Xylene	95-47-6	106	0.211	0.915	0.494	2.14		1	WG1055587
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.6				WG1055587

- Cp
- Tc
- Ss
- Cn
- Sr
- Qc
- Gl
- Al
- Sc

AMBIENT 1

SAMPLE RESULTS - 05

ONE LAB. NATIONWIDE.



Collected date/time: 12/14/17 14:15

L958119

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	6.81	16.2		1	WG1055587
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1055587
Benzene	71-43-2	78.10	0.153	0.489	0.345	1.10		1	WG1055587
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1055587
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1055587
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1055587
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1055587
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1055587
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1055587
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1055587
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1055587
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1055587
Chloroform	67-66-3	119	0.191	0.930	ND	ND		1	WG1055587
Chloromethane	74-87-3	50.50	0.181	0.374	0.417	0.862		1	WG1055587
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1055587
Cyclohexane	110-82-7	84.20	0.178	0.613	ND	ND		1	WG1055587
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1055587
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1055587
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1055587
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1055587
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1055587
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1055587
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1055587
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1055587
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1055587
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1055587
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1055587
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1055587
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1055587
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1055587
Ethanol	64-17-5	46.10	0.277	0.522	41.9	79.1		1	WG1055587
Ethylbenzene	100-41-4	106	0.169	0.733	ND	ND		1	WG1055587
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1055587
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	0.312	1.75		1	WG1055587
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.387	1.91		1	WG1055587
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1055587
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1055587
Heptane	142-82-5	100	0.209	0.855	ND	ND		1	WG1055587
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1055587
n-Hexane	110-54-3	86.20	0.152	0.536	0.330	1.16		1	WG1055587
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1055587
Methylene Chloride	75-09-2	84.90	0.155	0.538	0.412	1.43	B	1	WG1055587
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1055587
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	0.231	0.682		1	WG1055587
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	2.12	8.66		1	WG1055587
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1055587
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1055587
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1055587
2-Propanol	67-63-0	60.10	0.294	0.723	12.9	31.8		1	WG1055587
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1055587
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1055587
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1055587
Tetrachloroethylene	127-18-4	166	0.166	1.13	1.03	7.00		1	WG1055587
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1055587
Toluene	108-88-3	92.10	0.166	0.625	0.722	2.72		1	WG1055587
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1055587

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

AMBIENT 1

SAMPLE RESULTS - 05

ONE LAB. NATIONWIDE.



Collected date/time: 12/14/17 14:15

L958119

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	WG1055587
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	WG1055587
Trichloroethylene	79-01-6	131	0.182	0.975	ND	ND		1	WG1055587
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	ND	ND		1	WG1055587
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	WG1055587
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	0.184	0.858		1	WG1055587
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	WG1055587
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	WG1055587
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	WG1055587
m&p-Xylene	1330-20-7	106	0.315	1.37	5.81	25.2		1	WG1055587
o-Xylene	95-47-6	106	0.211	0.915	ND	ND		1	WG1055587
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.1				WG1055587

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3274449-3 12/20/17 09:04

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	0.116	J	0.0569	0.190
Allyl Chloride	U		0.0546	0.182
Benzene	U		0.0460	0.153
Benzyl Chloride	U		0.0598	0.199
Bromodichloromethane	U		0.0436	0.145
Bromoform	U		0.0786	0.262
Bromomethane	U		0.0609	0.203
1,3-Butadiene	U		0.0563	0.188
Carbon disulfide	U		0.0544	0.181
Carbon tetrachloride	U		0.0585	0.195
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.163
Chloroform	U		0.0574	0.191
Chloromethane	U		0.0544	0.181
2-Chlorotoluene	U		0.0605	0.202
Cyclohexane	U		0.0534	0.178
Dibromochloromethane	U		0.0494	0.165
1,2-Dibromoethane	U		0.0185	0.0617
1,2-Dichlorobenzene	U		0.0603	0.201
1,3-Dichlorobenzene	U		0.0597	0.199
1,4-Dichlorobenzene	U		0.0557	0.186
1,2-Dichloroethane	U		0.0616	0.205
1,1-Dichloroethane	U		0.0514	0.171
1,1-Dichloroethene	U		0.0490	0.163
cis-1,2-Dichloroethene	U		0.0389	0.130
trans-1,2-Dichloroethene	U		0.0464	0.155
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.196
trans-1,3-Dichloropropene	U		0.0435	0.145
1,4-Dioxane	U		0.0554	0.185
Ethylbenzene	U		0.0506	0.169
4-Ethyltoluene	U		0.0666	0.222
Trichlorofluoromethane	U		0.0673	0.224
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.229
1,2-Dichlorotetrafluoroethane	U		0.0458	0.153
Heptane	U		0.0626	0.209
Hexachloro-1,3-butadiene	U		0.0656	0.219
n-Hexane	U		0.0457	0.152
Isopropylbenzene	U		0.0563	0.188

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

L958119-01.02.03.04.05

Method Blank (MB)

(MB) R3274449-3 12/20/17 09:04

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Methylene Chloride	0.0807	J	0.0465	0.155
Methyl Butyl Ketone	U		0.0682	0.227
2-Butanone (MEK)	U		0.0493	0.164
4-Methyl-2-pentanone (MIBK)	U		0.0650	0.217
Methyl Methacrylate	U		0.0773	0.258
MTBE	U		0.0505	0.168
Naphthalene	U		0.154	0.513
2-Propanol	0.206	J	0.0882	0.294
Propene	U		0.0932	0.311
Styrene	U		0.0465	0.155
1,1,2,2-Tetrachloroethane	U		0.0576	0.192
Tetrachloroethylene	U		0.0497	0.166
Tetrahydrofuran	U		0.0508	0.169
Toluene	U		0.0499	0.166
1,2,4-Trichlorobenzene	U		0.148	0.493
1,1,1-Trichloroethane	U		0.0665	0.222
1,1,2-Trichloroethane	U		0.0287	0.0957
Trichloroethylene	U		0.0545	0.182
1,2,4-Trimethylbenzene	U		0.0483	0.161
1,3,5-Trimethylbenzene	U		0.0631	0.210
2,2,4-Trimethylpentane	U		0.0456	0.152
Vinyl chloride	U		0.0457	0.152
Vinyl Bromide	U		0.0727	0.242
Vinyl acetate	U		0.0639	0.213
m&p-Xylene	U		0.0946	0.315
o-Xylene	U		0.0633	0.211
Ethanol	U		0.0832	0.277
(S) 1,4-Bromofluorobenzene	96.6			60.0-140

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3274449-1 12/20/17 07:31 • (LCSD) R3274449-2 12/20/17 08:17

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.91	3.84	104	102	52.0-158			1.99	25
Propene	3.75	4.07	4.00	108	107	54.0-155			1.56	25
Dichlorodifluoromethane	3.75	3.72	3.74	99.2	99.6	69.0-143			0.390	25
1,2-Dichlorotetrafluoroethane	3.75	4.32	4.30	115	115	70.0-130			0.371	25
Chloromethane	3.75	3.82	3.77	102	101	70.0-130			1.35	25



Volatile Organic Compounds (MS) by Method TO-15

L958119-01.02.03.04.05

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3274449-1 12/20/17 07:31 - (LCSD) R3274449-2 12/20/17 08:17

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	3.97	3.80	106	101	70.0-130			4.42	25
1,3-Butadiene	3.75	4.16	3.97	111	106	70.0-130			4.69	25
Bromomethane	3.75	3.98	4.25	106	113	70.0-130			6.54	25
Chloroethane	3.75	4.05	4.08	108	109	70.0-130			0.742	25
Trichlorofluoromethane	3.75	4.27	4.29	114	114	70.0-130			0.366	25
1,1,2-Trichlorotrifluoroethane	3.75	4.21	4.20	112	112	70.0-130			0.260	25
1,1-Dichloroethene	3.75	4.18	4.18	111	111	70.0-130			0.0488	25
1,1-Dichloroethane	3.75	4.18	4.18	111	112	70.0-130			0.196	25
Acetone	3.75	4.40	4.28	117	114	70.0-130			2.84	25
2-Propanol	3.75	4.37	4.33	116	115	66.0-150			0.953	25
Carbon disulfide	3.75	4.16	4.13	111	110	70.0-130			0.924	25
Methylene Chloride	3.75	4.06	4.05	108	108	70.0-130			0.341	25
MTBE	3.75	4.16	4.18	111	111	70.0-130			0.438	25
trans-1,2-Dichloroethene	3.75	4.18	4.17	112	111	70.0-130			0.323	25
n-Hexane	3.75	4.12	4.12	110	110	70.0-130			0.0963	25
Vinyl acetate	3.75	4.32	4.44	115	118	70.0-130			2.76	25
Methyl Ethyl Ketone	3.75	4.16	4.20	111	112	70.0-130			0.935	25
cis-1,2-Dichloroethene	3.75	4.18	4.15	111	111	70.0-130			0.581	25
Chloroform	3.75	4.22	4.20	113	112	70.0-130			0.453	25
Cyclohexane	3.75	4.15	4.16	111	111	70.0-130			0.274	25
1,1,1-Trichloroethane	3.75	4.24	4.22	113	113	70.0-130			0.459	25
Carbon tetrachloride	3.75	4.23	4.24	113	113	70.0-130			0.240	25
Benzene	3.75	4.17	4.14	111	110	70.0-130			0.707	25
1,2-Dichloroethane	3.75	4.30	4.27	115	114	70.0-130			0.727	25
Heptane	3.75	4.11	4.02	110	107	70.0-130			2.19	25
Trichloroethylene	3.75	4.20	4.18	112	112	70.0-130			0.479	25
1,2-Dichloropropane	3.75	4.26	4.17	114	111	70.0-130			2.33	25
1,4-Dioxane	3.75	4.21	4.15	112	111	70.0-152			1.48	25
Bromodichloromethane	3.75	4.21	4.22	112	113	70.0-130			0.352	25
cis-1,3-Dichloropropene	3.75	4.19	4.22	112	112	70.0-130			0.671	25
4-Methyl-2-pentanone (MIBK)	3.75	4.23	4.21	113	112	70.0-142			0.561	25
Toluene	3.75	4.20	4.23	112	113	70.0-130			0.655	25
trans-1,3-Dichloropropene	3.75	4.30	4.24	115	113	70.0-130			1.43	25
1,1,2-Trichloroethane	3.75	4.20	4.20	112	112	70.0-130			0.169	25
Tetrachloroethylene	3.75	4.30	4.33	115	115	70.0-130			0.639	25
Methyl Butyl Ketone	3.75	4.58	4.49	122	120	70.0-150			2.04	25
Dibromochloromethane	3.75	4.62	4.61	123	123	70.0-130			0.350	25
1,2-Dibromoethane	3.75	4.60	4.58	123	122	70.0-130			0.351	25
Chlorobenzene	3.75	4.69	4.66	125	124	70.0-130			0.632	25
Ethylbenzene	3.75	4.33	4.30	116	115	70.0-130			0.855	25

1 Cp

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Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3274449-1 12/20/17 07:31 • (LCSD) R3274449-2 12/20/17 08:17

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
m&p-Xylene	7.50	8.61	8.53	115	114	70.0-130			0.843	25
o-Xylene	3.75	4.29	4.28	114	114	70.0-130			0.298	25
Styrene	3.75	4.32	4.31	115	115	70.0-130			0.316	25
Bromoform	3.75	4.50	4.45	120	119	70.0-130			1.01	25
1,1,2,2-Tetrachloroethane	3.75	4.32	4.32	115	115	70.0-130			0.0153	25
4-Ethyltoluene	3.75	4.46	4.47	119	119	70.0-130			0.256	25
1,3,5-Trimethylbenzene	3.75	4.46	4.44	119	118	70.0-130			0.363	25
1,2,4-Trimethylbenzene	3.75	4.42	4.42	118	118	70.0-130			0.140	25
1,3-Dichlorobenzene	3.75	4.52	4.54	121	121	70.0-130			0.391	25
1,4-Dichlorobenzene	3.75	4.69	4.69	125	125	70.0-130			0.0286	25
Benzyl Chloride	3.75	4.70	4.68	125	125	70.0-144			0.300	25
1,2-Dichlorobenzene	3.75	4.50	4.50	120	120	70.0-130			0.0510	25
1,2,4-Trichlorobenzene	3.75	4.49	4.46	120	119	70.0-155			0.634	25
Hexachloro-1,3-butadiene	3.75	4.25	4.23	113	113	70.0-145			0.510	25
Naphthalene	3.75	4.29	4.26	114	114	70.0-155			0.693	25
Allyl Chloride	3.75	4.01	4.01	107	107	70.0-130			0.0854	25
2-Chlorotoluene	3.75	4.42	4.43	118	118	70.0-130			0.182	25
Methyl Methacrylate	3.75	4.17	4.14	111	110	70.0-130			0.808	25
Tetrahydrofuran	3.75	4.07	4.09	109	109	70.0-140			0.419	25
2,2,4-Trimethylpentane	3.75	4.11	4.11	110	109	70.0-130			0.172	25
Vinyl Bromide	3.75	4.12	4.14	110	111	70.0-130			0.632	25
Isopropylbenzene	3.75	4.35	4.33	116	116	70.0-130			0.367	25
(S) 1,4-Bromofluorobenzene				98.9	99.3	60.0-140				

1 Cp

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Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

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Qualifier	Description
-----------	-------------

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey-NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio-VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ** Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:
 General Engineering Company
 916 Silver Lake Dr
 Portage WI 53901

Billing Information:
 GEC
 Same

Analysis

Chain of Custody Page ___ of ___



12045 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5636
 Phone: 800-767-5859
 Fax: 615-758-5859

Report to:
 Lynn Bradley

Email to:
 lbradley@generalengineering.com

Project Description:
 Vandeurzen

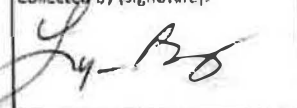
City/State Collected:
 De Pere WI

Phone: 608-742-2187
 Fax: 608-742-2588
 Client Project #
 Vandeurzen

Lab Project #

Collected by (print):
 Lynn Bradley

P.O. #
 Vandeurzen

Collected by (signature):


Site/Facility ID #

Rush? (Lab MUST Be Notified)

___ Same Day 200%
 ___ Next Day 100%
 ___ Two Day 50%
 ___ Three Day 25%

Date Results Needed

Email? ___ No Yes
 Canister Pressure/Vacuum
 FAX? ___ No ___ Yes

L# 958119
 M230

Tab


Acctnum: SYNENWV-AIR
 Template: T119815
 Prelogin: P628819
 TSR: John V. Hawkins
 PB: DE 11/30/17

Shipped Via: Ground

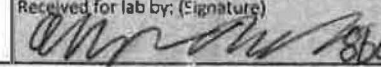
Sample ID	Sample Description	Can #	Date	Time	Initial	Final
VP-1	Vapor Point 1	8784	12/14/17	14:10	LB	
VP-2	Vapor Point 2	6519	12/14/17	14:10		
VP-4	Vapor Point 4	5491	12/14/17	14:06		
VP-5	Vapor Point 5	6312	12/14/17	14:20		
Ambiant 1	Vandeurzen Ambient	6557	12/14/17	14:25		
Ambiant 2	Rockstroh Ambient	5099	12/14/17	14:20		

Remarks:


446 3264 1873

Relinquished by: (Signature)  Date: 12/14/17 Time:

Relinquished by: (Signature) Date: Time: Received by: (Signature)

Relinquished by: (Signature) Date: Time: Received for lab by: (Signature)  Date: 12/16/17 Time: 8:45

Hold #

Condition: (lab use only) 

Temp: °C Bottles Received: 6
 AMP

COC Seal Intact: ___ Y ___ N ___ NA

pH Checked: ___ NCF: ___

ESC LAB SCIENCES Cooler Receipt Form


Client: <i>SP Nonow -</i>	SDG#	<i>958109</i>		
Cooler Received/Opened On: <i>12/16/17</i>	Temperature:	<i>AMB</i>		
Received by : Christian Kacar				
Signature: <i>[Handwritten Signature]</i>				
Receipt Check List		NP	Yes	No
COC Seal Present / Intact?		<input checked="" type="checkbox"/>		
COC Signed / Accurate?			<input checked="" type="checkbox"/>	
Bottles arrive intact?			<input checked="" type="checkbox"/>	
Correct bottles used?			<input checked="" type="checkbox"/>	
Sufficient volume sent?			<input checked="" type="checkbox"/>	
If Applicable				
VOA Zero headspace?				
Preservation Correct / Checked?				

Synergy Environmental Lab, LLC

Sample Delivery Group: L958119
Samples Received: 12/16/2017
Project Number: VANDEURZEN
Description: Vandeurzen

Report To: Mike Ricker
1990 Prospect Court
Appleton, WI 54914

Entire Report Reviewed By:



John Hawkins
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

February 08, 2018

Synergy Environmental Lab, LLC

Sample Delivery Group: L967398

Samples Received: 02/02/2018

Project Number:

Description:

Report To: Mike Ricker
1990 Prospect Court
Appleton, WI 54914

Entire Report Reviewed By:



Jason Romer
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



	Collected by	Collected date/time	Received date/time		
AMBIENT 2 L967398-01 Air		01/27/18 00:00	02/02/18 08:45		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1070101	1	02/05/18 14:15	02/05/18 14:15	AMC

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

AMBIENT 2

Collected date/time: 01/27/18 00:00

SAMPLE RESULTS - 01

L967398

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	10.9	25.8		1	WG1070101
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1070101
Benzene	71-43-2	78.10	0.153	0.489	0.321	1.03		1	WG1070101
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1070101
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1070101
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1070101
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1070101
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1070101
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1070101
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1070101
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1070101
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1070101
Chloroform	67-66-3	119	0.191	0.930	ND	ND		1	WG1070101
Chloromethane	74-87-3	50.50	0.181	0.374	0.422	0.871		1	WG1070101
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1070101
Cyclohexane	110-82-7	84.20	0.178	0.613	ND	ND		1	WG1070101
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1070101
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1070101
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1070101
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1070101
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1070101
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1070101
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1070101
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1070101
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1070101
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1070101
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1070101
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1070101
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1070101
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1070101
Ethanol	64-17-5	46.10	0.277	0.522	36.4	68.7		1	WG1070101
Ethylbenzene	100-41-4	106	0.169	0.733	0.485	2.10		1	WG1070101
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1070101
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	ND	ND		1	WG1070101
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.300	1.48		1	WG1070101
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1070101
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1070101
Heptane	142-82-5	100	0.209	0.855	0.317	1.30		1	WG1070101
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	0.245	2.62		1	WG1070101
n-Hexane	110-54-3	86.20	0.152	0.536	0.575	2.03		1	WG1070101
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1070101
Methylene Chloride	75-09-2	84.90	0.155	0.538	1.86	6.46		1	WG1070101
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1070101
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	2.79	8.22		1	WG1070101
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1070101
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1070101
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1070101
Naphthalene	91-20-3	128	0.513	2.69	0.941	4.93	B	1	WG1070101
2-Propanol	67-63-0	60.10	0.294	0.723	1.97	4.83		1	WG1070101
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1070101
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1070101
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1070101
Tetrachloroethylene	127-18-4	166	0.166	1.13	ND	ND		1	WG1070101
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1070101
Toluene	108-88-3	92.10	0.166	0.625	2.50	9.44		1	WG1070101
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	0.532	3.94		1	WG1070101

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

AMBIENT 2

SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE.



Collected date/time: 01/27/18 00:00

L967398

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	WG1070101
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	WG1070101
Trichloroethylene	79-01-6	131	0.182	0.975	ND	ND		1	WG1070101
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	0.516	2.53		1	WG1070101
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	WG1070101
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	1.09	5.09		1	WG1070101
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	WG1070101
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	WG1070101
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	WG1070101
m&p-Xylene	1330-20-7	106	0.315	1.37	2.00	8.66		1	WG1070101
o-Xylene	95-47-6	106	0.211	0.915	0.608	2.64		1	WG1070101
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.2				WG1070101

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

L967398-01

Method Blank (MB)

(MB) R3284183-3 02/05/18 13:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Acetone	U		0.0569	0.190
Allyl Chloride	U		0.0546	0.182
Benzene	U		0.0460	0.153
Benzyl Chloride	U		0.0598	0.199
Bromodichloromethane	U		0.0436	0.145
Bromoform	U		0.0786	0.262
Bromomethane	U		0.0609	0.203
1,3-Butadiene	U		0.0563	0.188
Carbon disulfide	U		0.0544	0.181
Carbon tetrachloride	U		0.0585	0.195
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.163
Chloroform	U		0.0574	0.191
Chloromethane	U		0.0544	0.181
2-Chlorotoluene	U		0.0605	0.202
Cyclohexane	U		0.0534	0.178
Dibromochloromethane	U		0.0494	0.165
1,2-Dibromoethane	U		0.0185	0.0617
1,2-Dichlorobenzene	U		0.0603	0.201
1,3-Dichlorobenzene	U		0.0597	0.199
1,4-Dichlorobenzene	U		0.0557	0.186
1,2-Dichloroethane	U		0.0616	0.205
1,1-Dichloroethane	U		0.0514	0.171
1,1-Dichloroethene	U		0.0490	0.163
cis-1,2-Dichloroethene	U		0.0389	0.130
trans-1,2-Dichloroethene	U		0.0464	0.155
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.196
trans-1,3-Dichloropropene	U		0.0435	0.145
1,4-Dioxane	U		0.0554	0.185
Ethylbenzene	U		0.0506	0.169
4-Ethyltoluene	U		0.0666	0.222
Trichlorofluoromethane	U		0.0673	0.224
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.229
1,2-Dichlorotetrafluoroethane	U		0.0458	0.153
Heptane	U		0.0626	0.209
Hexachloro-1,3-butadiene	U		0.0656	0.219
n-Hexane	U		0.0457	0.152
Isopropylbenzene	U		0.0563	0.188

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

L967398-01

Method Blank (MB)

(MB) R3284183-3 02/05/18 13:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Methylene Chloride	U		0.0465	0.155
Methyl Butyl Ketone	U		0.0682	0.227
2-Butanone (MEK)	U		0.0493	0.164
4-Methyl-2-pentanone (MIBK)	U		0.0650	0.217
Methyl Methacrylate	U		0.0773	0.258
MTBE	U		0.0505	0.168
Naphthalene	0.242	J	0.154	0.513
2-Propanol	U		0.0882	0.294
Propene	U		0.0932	0.311
Styrene	U		0.0465	0.155
1,1,2,2-Tetrachloroethane	U		0.0576	0.192
Tetrachloroethylene	U		0.0497	0.166
Tetrahydrofuran	U		0.0508	0.169
Toluene	U		0.0499	0.166
1,2,4-Trichlorobenzene	U		0.148	0.493
1,1,1-Trichloroethane	U		0.0665	0.222
1,1,2-Trichloroethane	U		0.0287	0.0957
Trichloroethylene	U		0.0545	0.182
1,2,4-Trimethylbenzene	U		0.0483	0.161
1,3,5-Trimethylbenzene	U		0.0631	0.210
2,2,4-Trimethylpentane	U		0.0456	0.152
Vinyl chloride	U		0.0457	0.152
Vinyl Bromide	U		0.0727	0.242
Vinyl acetate	U		0.0639	0.213
m&p-Xylene	U		0.0946	0.315
o-Xylene	U		0.0633	0.211
Ethanol	U		0.0832	0.277
(S) 1,4-Bromofluorobenzene	97.3			60.0-140

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284183-1 02/05/18 11:46 • (LCSD) R3284183-2 02/05/18 12:30

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Ethanol	3.75	3.36	3.47	89.6	92.5	52.0-158			3.22	25
Propene	3.75	3.44	3.27	91.6	87.3	54.0-155			4.82	25
Dichlorodifluoromethane	3.75	3.55	3.37	94.7	89.9	69.0-143			5.26	25
1,2-Dichlorotetrafluoroethane	3.75	3.63	3.53	96.8	94.2	70.0-130			2.68	25
Chloromethane	3.75	3.42	3.37	91.2	89.9	70.0-130			1.42	25



Volatile Organic Compounds (MS) by Method TO-15

L967398-01

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284183-1 02/05/18 11:46 • (LCSD) R3284183-2 02/05/18 12:30

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	3.47	3.48	92.5	92.8	70.0-130			0.314	25
1,3-Butadiene	3.75	3.51	3.49	93.6	93.0	70.0-130			0.672	25
Bromomethane	3.75	3.59	3.63	95.8	96.7	70.0-130			0.918	25
Chloroethane	3.75	3.52	3.43	93.9	91.4	70.0-130			2.76	25
Trichlorofluoromethane	3.75	3.66	3.64	97.7	97.1	70.0-130			0.593	25
1,1,2-Trichlorotrifluoroethane	3.75	3.67	3.67	97.9	97.9	70.0-130			0.0161	25
1,1-Dichloroethene	3.75	3.57	3.56	95.1	94.8	70.0-130			0.322	25
1,1-Dichloroethane	3.75	3.50	3.53	93.4	94.0	70.0-130			0.693	25
Acetone	3.75	3.61	3.63	96.2	96.8	70.0-130			0.669	25
2-Propanol	3.75	3.63	3.62	96.9	96.4	66.0-150			0.497	25
Carbon disulfide	3.75	3.41	3.40	91.0	90.6	70.0-130			0.436	25
Methylene Chloride	3.75	3.39	3.41	90.4	91.0	70.0-130			0.628	25
MTBE	3.75	3.57	3.61	95.2	96.2	70.0-130			1.09	25
trans-1,2-Dichloroethene	3.75	3.56	3.56	94.8	94.8	70.0-130			0.0132	25
n-Hexane	3.75	3.42	3.47	91.2	92.5	70.0-130			1.42	25
Vinyl acetate	3.75	3.82	3.74	102	99.8	70.0-130			2.08	25
Methyl Ethyl Ketone	3.75	3.66	3.71	97.7	99.0	70.0-130			1.40	25
cis-1,2-Dichloroethene	3.75	3.57	3.63	95.3	96.7	70.0-130			1.49	25
Chloroform	3.75	3.56	3.57	95.0	95.2	70.0-130			0.232	25
Cyclohexane	3.75	3.59	3.63	95.8	96.7	70.0-130			0.912	25
1,1,1-Trichloroethane	3.75	3.65	3.67	97.4	97.8	70.0-130			0.494	25
Carbon tetrachloride	3.75	3.65	3.66	97.4	97.7	70.0-130			0.252	25
Benzene	3.75	3.59	3.58	95.6	95.3	70.0-130			0.298	25
1,2-Dichloroethane	3.75	3.67	3.66	97.9	97.7	70.0-130			0.202	25
Heptane	3.75	3.51	3.46	93.6	92.3	70.0-130			1.43	25
Trichloroethylene	3.75	3.63	3.62	96.7	96.6	70.0-130			0.161	25
1,2-Dichloropropane	3.75	3.55	3.58	94.8	95.3	70.0-130			0.623	25
1,4-Dioxane	3.75	3.60	3.60	96.1	96.1	70.0-152			0.0162	25
Bromodichloromethane	3.75	3.62	3.59	96.5	95.6	70.0-130			0.883	25
cis-1,3-Dichloropropene	3.75	3.66	3.64	97.7	97.1	70.0-130			0.585	25
4-Methyl-2-pentanone (MIBK)	3.75	3.60	3.54	96.1	94.3	70.0-142			1.93	25
Toluene	3.75	3.66	3.66	97.7	97.7	70.0-130			0.0311	25
trans-1,3-Dichloropropene	3.75	3.75	3.69	100	98.4	70.0-130			1.69	25
1,1,2-Trichloroethane	3.75	3.69	3.69	98.4	98.4	70.0-130			0.0303	25
Tetrachloroethylene	3.75	3.91	3.88	104	103	70.0-130			0.806	25
Methyl Butyl Ketone	3.75	3.78	3.76	101	100	70.0-150			0.565	25
Dibromochloromethane	3.75	3.85	3.86	103	103	70.0-130			0.195	25
1,2-Dibromoethane	3.75	3.80	3.84	101	102	70.0-130			1.04	25
Chlorobenzene	3.75	3.81	3.80	101	101	70.0-130			0.178	25
Ethylbenzene	3.75	3.75	3.79	100	101	70.0-130			1.14	25

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

L967398-01

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3284183-1 02/05/18 11:46 • (LCSD) R3284183-2 02/05/18 12:30

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
m&p-Xylene	7.50	7.64	7.61	102	101	70.0-130			0.430	25
o-Xylene	3.75	3.78	3.84	101	102	70.0-130			1.54	25
Styrene	3.75	3.87	3.95	103	105	70.0-130			2.02	25
Bromoform	3.75	3.97	4.01	106	107	70.0-130			0.789	25
1,1,2,2-Tetrachloroethane	3.75	3.70	3.73	98.6	99.6	70.0-130			0.969	25
4-Ethyltoluene	3.75	3.78	3.80	101	101	70.0-130			0.687	25
1,3,5-Trimethylbenzene	3.75	3.80	3.85	101	103	70.0-130			1.33	25
1,2,4-Trimethylbenzene	3.75	3.68	3.86	98.1	103	70.0-130			4.74	25
1,3-Dichlorobenzene	3.75	3.87	3.94	103	105	70.0-130			1.58	25
1,4-Dichlorobenzene	3.75	3.97	4.08	106	109	70.0-130			2.60	25
Benzyl Chloride	3.75	3.89	3.93	104	105	70.0-144			1.03	25
1,2-Dichlorobenzene	3.75	3.80	3.89	101	104	70.0-130			2.33	25
1,2,4-Trichlorobenzene	3.75	4.12	4.20	110	112	70.0-155			1.92	25
Hexachloro-1,3-butadiene	3.75	4.03	4.09	107	109	70.0-145			1.55	25
Naphthalene	3.75	3.90	3.94	104	105	70.0-155			1.01	25
Allyl Chloride	3.75	3.51	3.50	93.7	93.4	70.0-130			0.269	25
2-Chlorotoluene	3.75	3.87	3.95	103	105	70.0-130			2.09	25
Methyl Methacrylate	3.75	3.61	3.62	96.3	96.6	70.0-130			0.322	25
Tetrahydrofuran	3.75	3.38	3.41	90.2	91.0	70.0-140			0.961	25
2,2,4-Trimethylpentane	3.75	3.50	3.47	93.4	92.7	70.0-130			0.740	25
Vinyl Bromide	3.75	3.62	3.62	96.4	96.4	70.0-130			0.0205	25
Isopropylbenzene	3.75	3.76	3.82	100	102	70.0-130			1.60	25
(S) 1,4-Bromofluorobenzene				97.6	98.7	60.0-140				

Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI


8 AI

9 Sc

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

ESC LAB SCIENCES Cooler Receipt Form

Client: <i>SYNLAB</i>	SDG#	<i>967398</i>		
Cooler Received/Opened On: <i>02/12/2018</i>	Temperature:	<i>AMB</i>		
Received By: Christian Kacar				
Signature: <i>[Signature]</i>				
Receipt Check List		NP	Yes	No
COC Seal Present / Intact?		<i>/</i>		
COC Signed / Accurate?			<i>/</i>	
Bottles arrive intact?			<i>/</i>	
Correct bottles used?			<i>/</i>	
Sufficient volume sent?			<i>/</i>	
If Applicable				
VOA Zero headspace?				
Preservation Correct / Checked?				

APPENDIX E
MONITORING WELL CONSTRUCTION
AND DEVELOPMENT FORMS

Route To: Solid Waste Haz. Waste Wastewater
Env. Response & Repair Underground Tanks Other

Facility / Project Name Vandeuzen Cleaners	Local Grid Location of Well Feet S _____ Feet W _____	Well Name RW-1
License /Permit /GEC No. 2-0614-154	Grid Origin Location	Wis. Unique No. N/A
Type Of Well Water Table Observation <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location of Waste / Source NE - SE, Sect 22, T23N, R20E	Date Well Installed 6/20/2017
Distance Well is From Waste/Source Boundary	Location to Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> downgradient n <input type="checkbox"/> Not Shown	Well Installed By: (Persons Name & Firm) Brian Youngwirth General Engineering
Is Well a Point of Enforcement Std. Application <input type="checkbox"/> Yes <input type="checkbox"/> No		

A. Protective pipe, top elevation _____ ft. MSL

B. Well casing, top elevation _____ ft. MSL

C. Land surface elevation _____ ft. MSL

D. Surface seal, bottom _____ ft. MSL

1. Cap and Lock? Yes No

2. Protective cover pipe:
a. Inside diameter: 9 in
b. Length: 1 ft
c. Material: Steel 4
Other
d. Additional protection? Yes No
If yes, describe: PVC Cap

3. Surface seal: Bentonite 30
Concrete 1
Other

4. Material between well casing and protective pipe:
Bentonite 30
Annular space seal
Other

5. Annular space seal a. Granular Bentonite 33
b. ___ Lbs/gal mud weight Bentonite-sand slurry 35
c. ___ Lbs/gal mud weight Bentonite slurry 31
d. ___ % Bentonite Bentonite-cement grout 50
e. ___ F13 volume added for any of the above
f. How installed: Tremie 1
Tremie pumped 2
Gravity 8

6. Bentonite seal: a. Bentonite Granules 33
b. 1/4 in. 3/8 in. 1/2 in. Bentonite pellets 32
None Other

7. Fine sand material: Manufacture, product name and mesh size
a. None _____
v. Volume added _____ ft³

8. Filter pack material: Manufacture, product name and mesh size
a. None _____
v. Volume added _____ ft³

9. Well casing: Flush threaded PVC schedule 40 23
Flush threaded PVC schedule 80 24
Other

10. screen Material:
a. Screen type: Factory Cut 11
Continuous slot 1
Other
b. Manufacture: Diedrich
c. Slot size: 0.01 in.
d. Slotted length: 8 ft.

11. Backfill Material: None 14
Other

12. USCS Classification of soil near screen:
GP GM GW SW SP
SM SC ML CL CH
Bedrock

13. Sieve analysis attached? Yes No

14. Drilling method used: Rotary 50
Hollow stem auger 41
Installed during excavation Other

15. Drilling fluid used: Water 02 Air 50
Drilling Mud 03 None 41

16. Drilling additives used? Yes No
Describe

17. Source of water (attach analysis)

E. Bentonite seal, top _____ ft. MSL or 0.5 ft.

F. Fine sand, top _____ ft. MSL or 0.0 ft.

G. Filter pack, top _____ ft. MSL or 0.0 ft.

H. Screen joint, top _____ ft. MSL or 2.0 ft.

I. Well bottom _____ ft. MSL or 10.0 ft.

J. Filter pack, bottom _____ ft. MSL or 10.0 ft.


K. Borehole, bottom _____ ft. MSL or 10.0 ft.

L. Borehole, diameter -0- in

M. O.D. Well casing 1.66 in

N. I.D. Well casing 1.278 in

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: 

Firm: General Engineering Company
916 Silver Lake Dr., P>O> Box 340
Portage, WI 53901

Route To: Solid Waste Haz. Waste Wastewater
 Env. Response & Repair Underground Tanks Other

Facility / Project Name Van Deurzen Dry Cleaners	County Name Brown	Well Name MW-1	
Facility License/ Permit No./GEC Project No. 2-0614-154	County Code 5	Wis. Unique Well Number n/a	DNR Well Number n/a

1. Can this well be purged dry? Yes No

2. Well development method
- surge with bailer and bailed 41
 - surged with bailer and pumped 61
 - surged with block and bailed 42
 - surged with block and pumped 62
 - surge with block, bailed and pumped 70
 - compressed air 20
 - bailed only 10
 - pumped only 51
 - pumped slowly 50
 - Other

3. Time spent developing well 60 min.

4. Depth of Well (from top of casing) 12.92 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 9.27 gal.

7. Volume of water removed from well 16 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added None

10. Analysis performed on water added? Yes No
(If yes, attach results)

	Before Development	After Development
11. Depth to water 10.19 ft. From top of well casing		a. - ft.
Date 7/16/14	b.	b. 7/16/14
Time 8:30	c. <input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.	c. 9:30 <input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.
12. Sediment in well bottom	inches	inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Cloudy</u>	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe)

Fill in if fluids were used and wells is at solid waste facility:

14. Total suspended solids N/A mg/l

15. COD N/A mg/l

16. Additional comments on development

Well dried up several times

Well developed by: Person's Name and Firm

Name: Brian Youngwirth

Firm General Engineering Company

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: 

Print Initials: BY

Firm: General Engineering Company

Route To:
 Solid Waste Haz. Waste Wastewater
 Env. Response & Repair Underground Tanks Other

Facility / Project Name Van Deurzen Dry Cleaners	County Name Brown	Well Name MW-3
Facility License/ Permit No./GEC Project No. 2-0614-154	County Code 5	Wis. Unique Well Number n/a
DNR Well Number n/a		

1. Can this well be purged dry? Yes No

2. Well development method
- surge with bailer and bailed 41
 - surged with bailer and pumped 61
 - surged with block and bailed 42
 - surged with block and pumped 62
 - surge with block, bailed and pumped 70
 - compressed air 20
 - bailed only 10
 - pumped only 51
 - pumped slowly 50
 - Other

3. Time spent developing well 60 min.

4. Depth of Well (from top of casing) 13.80 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 6.82 gal.

7. Volume of water removed from well 10 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added None

10. Analysis performed on water added? Yes No
(If yes, attach results)

Before Development	After Development
--------------------	-------------------

11. Depth to water 7.49 ft. a. - ft.

From top of well casing

Date 7/16/14 b. b. 7/16/14

Time 10:15 c. p.m. c. 11:15 p.m.
 a.m. a.m.

12. Sediment in well bottom Inches inches

13. Water clarity

Clear 10 Clear 10

Turbid 15 Turbid 15

(Describe) Cloudy (Describe)

Fill in if fluids were used and wells is at solid waste facility:

14. Total suspended solids N/A mg/l N/A mg/l

15. COD N/A mg/l N/A mg/l

16. Additional comments on development

Well dried up several times

Well developed by: Person's Name and Firm

Name: Brian Youngwirth

Firm: General Engineering Company

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: 

Print Initials: BYC

Firm: General Engineering Company

Route To:
 Solid Waste Haz. Waste Wastewater
 Env. Response & Repair Underground Tanks Other _____

Facility / Project Name Van Deurzen Dry Cleaners	County Name Brown	Well Name MW-4
Facility License/ Permit No./GEC Project No. 2-0614-154	County Code 5	Wis. Unique Well Number n/a
		DNR Well Number n/a

1. Can this well be purged dry? Yes No
2. Well development method
- surge with bailer and bailed 41
 - surged with bailer and pumped 61
 - surged with block and bailed 42
 - surged with block and pumped 62
 - surge with block, bailed and pumped 70
 - compressed air 20
 - bailed only 10
 - pumped only 51
 - pumped slowly 50
 - Other
3. Time spent developing well 45 min.
4. Depth of Well (from top of casing) 12.61 ft.
5. Inside diameter of well 2.00 in.
6. Volume of water in filter pack and well casing 6.38 gal.
7. Volume of water removed from well 16 gal.
8. Volume of water added (if any) 0 gal.
9. Source of water added None
10. Analysis performed on water added? Yes No
(If yes, attach results)

		Before Development	After Development
11. Depth to water	7.01 ft.	a. - ft.	
From top of well casing			
Date	7/16/14	b. 7/16/14	
Time	11:15	c. <input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.	c. 12:00 <input checked="" type="checkbox"/> p.m. <input type="checkbox"/> a.m.
12. Sediment in well bottom	inches	inches	
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Cloudy</u>	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe)	
Fill in if fluids were used and wells is at solid waste facility:			
14. Total suspended solids	N/A mg/l	N/A mg/l	
15. COD	N/A mg/l	N/A mg/l	

16. Additional comments on development

Well dried up several times

Well developed by: Person's Name and Firm

Name: Brian Youngwirth

Firm: General Engineering Company

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: 

Print Initials: BY

Firm: General Engineering Company

Route To:
 Solid Waste Haz. Waste Wastewater
 Env. Response & Repair Underground Tanks Other

Facility / Project Name Van Deurzen Dry Cleaners	County Name Brown	Well Name MW-5
Facility License/ Permit No./GEC Project No. 2-0614-154	County Code 5	Wis. Unique Well Number n/a
		DNR Well Number n/a

1. Can this well be purged dry? Yes No

2. Well development method

- surge with bailer and bailed 41
- surged with bailer and pumped 61
- surged with block and bailed 42
- surged with block and pumped 62
- surge with block, bailed and pumped 70
- compressed air 20
- bailed only 10
- pumped only 51
- pumped slowly 50
- Other

3. Time spent developing well 60 min.

4. Depth of Well (from top of casing) 13.05 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 7.88 gal.

7. Volume of water removed from well 0 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added None

10. Analysis performed on water added? Yes No
(If yes, attach results)

Before Development

11. Depth to water 8.66 ft.
From top of well casing

Date 7/16/14 b.

Time 12:00 c. p.m.
 a.m.

12. Sediment in well bottom inches

13. Water clarity

Clear 10
Turbid 15
(Describe)

Cloudy

After Development

a. - ft.

b. 7/16/14

c. 1:00 p.m.
 a.m.

inches

Clear 10
Turbid 15
(Describe)

Fill in if fluids were used and wells is at solid waste facility:

14. Total suspended solids N/A mg/l

N/A mg/l

15. COD N/A mg/l

N/A mg/l

16. Additional comments on development

Well dried up several times

Well developed by: Person's Name and Firm

Name: Brian Youngwirth

Firm: General Engineering Company

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: 

Print Initials: BY

Firm: General Engineering Company