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Additional Site Investigation Report

Prepared For
Westwood Cleaners
(WDNR BRRTS#02-41-552537)
8731 West North Avenue
Wauwatosa, Wisconsin 53226

August 27, 2020



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August 27, 2020

Jennifer Dorman, Environmental Program Associate Wisconsin Department of Natural Resources 2300 Martin Luther King Drive Milwaukee, WI 53212

Re: WDNR BRRTS #02-41-552537

Westwood Dry Cleaners 8731 W. North Ave Wauwatosa, WI 53226

Dear Ms. Dorman:

Hydrodynamics Consultants, Inc. (HDC) is pleased to submit this Additional Site Investigation Report for your review and approval.

Based on this Additional Site Investigation Report, Hydrodynamics Consultants, Inc. believes that for the WDNR to consider this case for conditional closure, the following steps are warranted:

- 1. Continue the quarterly vapor and groundwater monitoring for another 3 quarters to determine the VOC concentration attenuation trend;
- 2. If the contaminant concentrations are found stable or decreasing during the one-year quarterly monitoring, the residual contamination should be addressed by continuing obligations. However, if adverse results are found from the quarterly monitoring, remedial actions can be further evaluated at that time.

Please contact me at Mike_Wan@HydrodynamicsConsultants.com or 630-724-0098 for any questions.

Certifications

I, Mike (Minghua) Wan, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in Wis. Adm. Code."

Mike (Minghua) Wan, PE

Maple Testing Services, Inc. D/B/A Hydrodynamics Consultants, Inc.



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TABLE OF CONTENTS

Certifications	
1.0 EXECUTIVE SUMMARY	5
2.0 INTRODUCTION	
2.1 Location and Project Information	
2.2 Site Location Map	
2.3 Site Physiographical and Geological Information.	7
2.3.1 Topography/Geology	7
2.3.2 <i>Hydrogeology</i>	8
2.4 Background Information	8
3.0 ADDITIONAL SITE INVESTIGATION PLAN, METHODOLOGIES, AND IMPLEMENTATION.	10
3.1 Additional Site Investigation Outline	10
3.2 Soil Sampling	
3.2.1 Selection of Soil Boring Locations	11
3.2.2 Soil Sampling Point Determination from Soil Cores	
3.2.3 Soil Sample Collection	
3.3 Sub-Slab Soil Gas/Vapor Sampling	
3.3.1 Selection of Sub-Slab Soil Gas/Vapor Sampling Locations	
3.3.2 Sub-Slab Soil Gas/Vapor Sample Collection	
3.4 Groundwater Monitoring Well Installation and Sampling	
3.4.1 Monitoring Well Installation	
3.4.2 Groundwater Sampling	
3.5 Sample Handling	
3.6 Quality Assurance/Quality Control	
3.7 Decontamination and Waste Soil Handling	
4.0 ADDITIONAL SITE INVESTIGATION RESULTS	1) 20
4.1 Soil Sampling Results	
4.2 Groundwater Sampling Results	
4.3 Vapor Sampling Results	
5.0 SITE-SPECIFIC CONDITION ASSESSMENT	
5.1 Site Geology and Hydrogeology	
5.2 Groundwater Flow Direction	
5.3 Groundwater Table Gradient	
5.4 Determination of Hydraulic Conductivity	
5.5 Determination of Site-Specific Fractional Organic Carbon (foc)	
6.0 POTENTIAL RECEPTORS AND RISK ASSESSMENTS	
6.1 Potential Receptors & Risks for Groundwater or Soil to Groundwater Pathways	
6.2 Potential Receptors & Risks for Soil Contact Pathway	
6.3 Potential Receptors and Risks for Soil Vapor Inhalation Pathway	
7.0 CONCLUSIONS AND RECOMMENDATIONS	
8.0. CONCLUDING REMARKS	30



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TABLES

Table 1	Soil Analytical Results
Table 2	Groundwater Analytical Results
Table 3	Sub-Slab Vapor Analytical Results
Table 4	Relative Water Table Elevations
Table 5	Hydraulic Conductivity from Slug Test
Table 6	Fractional Organic Content

FIGURES

IRES	
Figure 1	Site Vicinity Map
Figure 1a	Site Utility Location Map
Figure 2	Site Map
Figure 3	Soil cVOC Distribution & Iso-concentration Plume Map
Figure 3a	Soil cVOC Distribution & Geological Cross Section Map
Figure 4	Groundwater cVOC Distribution Map
Figure 4a	Groundwater cVOC Distribution & Geological Cross Section Map
Figure 4b	Groundwater Table Contour Map (8-10-2020)
Figure 5	Vapor cVOC Distribution Map
Figure 5a	Soil & Soil Vapor VOC & Geological Cross Section Map
Figure 5b	Sub-Slab Soil Gas/cVOC Sampling Diagram

APPENDIXES

Appendix I	Additional Site Investigation Photos
Appendix II	Slug Test Results (from previous report)
Appendix III	Soil Borings Logs with Field PID Readings
Appendix IV	Monitoring Well Construction and Development Logs
Appendix V	Sample Chain-of-Custody and Laboratory Analytical Results
Appendix VI	Drilling Permit in Public Alley



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1.0 EXECUTIVE SUMMARY

Hydrodynamics Consultants, Inc. (HDC) has been retained by the owner to complete this additional site investigation at and around the Westwood Cleaners site, located at 8371 West North Ave. Wauwatosa, WI 53226.

In August 19, 2008, HDC performed limited soil boring and testing at the subject property. Four (4) soil borings were advanced to a depth of 16' deep each, and two soil samples were collected from each boring for laboratory analysis of chlorinated volatile organic compounds (cVOCs). The analytical results indicated up to 320,000 ug/Kg of tetrachloroethene (PCE or perc) and up to 3,970 ug/Kg of trichloroethene (TCE) were present in the samples at the site.

Based on the findings, HDC submitted a Site Investigation Work Plan (SIWP). On July 31, 2018, the WDNR received HDC's revised SIWP and approved it on August 7, 2018.

From September 16 to 19, 2018, HDC performed a Site Investigation (SI) at this site. Twelve new soil borings (NSB1-NSB12) were completed to a depth of 16' each. Three representative soil samples were collected from each boring. Low levels of PCE, TCE, and vinyl chloride (VC) were detected from these borings. The soil sample cVOC results and distribution are illustrated in Figure 3. The soil cVOC plume cross section is illustrated in Figure 3a. Six of the soil borings were converted to monitoring wells (MW1 to MW6). These wells were 1"- to 2"-diameter PVC wells constructed to a depth approximately 15' below the ground surface. Five sub-slab soil vapor ports (SV1 - SV5) were installed at this site. One soil vapor sample was collected from each of these ports during the site investigation. Up to 1,200 ug/m³ of PCE and 100 ug/m³ of TCE were found in the soil vapor samples. The highest level of PCE was found in the basement of the adjoining restaurant building at SV2. The sub-slab soil vapor sampling results and distribution are illustrated in Figure 5 with their cross section in Figure 5a.

From September 19, 2018 to July 13, 2019, groundwater samples were collected from all of the existing monitoring wells on a quarterly basis for a period of one year. The quarterly groundwater sampling results confirmed that up to 4,300 ug/L of PCE, 120 ug/L of TCE, 23 ug/L of cis-1,2-dichloroethene (cDCE), and 20 ug/L of VC were present in MW2, MW5, and MW6. The groundwater table depth is about 7.81' to 10.06' below the groundwater surface.

Since VOC concentrations in groundwater monitoring well MW2, installed near the property line, contained 53 ug/L of PCE in the last monitoring event dated July 13, 2019, further groundwater-impact extent evaluation to the south and southwest of the property was proposed by HDC. The WDNR approved HDC's Change Order #1, Additional Site Investigation Work Plan on February 3, 2020. The Change Order #1 included installation of 3 additional soil borings, 3 monitoring wells, and to complete quarterly soil vapor and groundwater monitoring for a period of one year.

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From July 28, 2020 to August 10, 2020, HDC completed the additional site investigation and the first quarterly soil vapor and groundwater sampling at this site. The tasks accomplished and sampling results are summarized as flowing:

- 1. Three additional soil borings (NSB13-NSB15) were installed to the depth of 16' below the ground surface. Three soil samples were collected from these new borings and analyzed for VOCs. The soil analytical results confirmed that the soil VOC concentrations are all below the NR 720 Residual Contaminant Level (RCLs) for the groundwater pathway for VOCs.
- 2. Three additional monitoring wells (NMW7-NMW9) were installed to the depth of 15' each with 10'-screens and 5'-casings, to the south and southwest of the site.
- 3. All the existing and new monitoring wells were sampled for VOCs, and the analytical results confirmed cVOCs were present in the existing monitoring wells, MW2, MW5, and MW6, with the same order of contaminant concentrations as the levels we previously found. Low level of PCE (10 ug/L) was also found in a new monitoring well, MW8, with concentration higher than the WDNR's Enforcement Standard of 5 ug/L. This monitoring well is located in the down-gradient direction (southwest) to the site.
- 4. Two new sub-slab soil vapor sampling ports (SV6 and SV7) were installed in the building, and soil vapor samples were collected from all of the vapor sampling ports (SV1 to SV7) for analysis of VOCs with US EPA Method TO-15. The analytical results confirmed that soil vapor PCE (up to 38,000 ug/m³) and TCE (630 ug/m³) concentrations in the source area (around SV-7) have exceeded the US EPA's Vapor Risk Screening Levels (VRSLs: 6,000 ug/m³ for PCE and 290 ug/m³ for TCE).

This report will summarize the additional site investigation and first quarterly soil vapor and groundwater sampling results. The previous site investigation and monitoring results are incorporated in this report, especially in the figures. For details of the previous results, please refer to previous reports filed with the Wisconsin DNR.

HDC recommends continuing the soil vapor and groundwater monitoring for an additional 3 quarters. If the contaminant concentrations are found to be generally steady or decreasing, the site may apply for conditional case closure with the following conditions: (1) maintaining the concrete floor inside the current Westwood Cleaners store as an engineered barrier to minimize any direct contact from the impacted soil below, (2) installation of a sub-slab depressurization system that can effectively vent out the soil vapor under the concrete floor in the source area (around SV7); (3) filing notifications to the adjoining properties that may be affected by the released cVOCs, and (4) enrolling the site in the GIS Registry system after the proper documents are recorded in the Milwaukee County Register of Deeds Office. However, if risks are found through the quarterly monitoring program, further site evaluation will be conducted to determine the proper remediation alternatives.

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2.0 INTRODUCTION

2.1 Location and Project Information

1. Site Owner:

Dong Sin 8371 West North Avenue Wauwatosa, WI 53226

2. Site Address:

8371 West North Avenue Wauwatosa, WI 53226

3. Site Location (Figure 1):

NE ¼ of the NW ¼ of Section 21, T07N, R21E, Milwaukee County, Wisconsin.

4. Environmental Consultant:

Mike Wan, PE, Project Manager
Hydrodynamics Consultants, Inc.
5403 Patton Drive, Suite 215
Lisle, IL 60532
Tel. 630-724-0098
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5. WDNR BRRS#:

02-41-552537

6. WDNR Project Manager:

Binyoti Amungwafor Wisconsin Department of Natural Resources 2300 Martin Luther King Drive, Milwaukee, WI 53212 Tel. 414-263-8607 Email: Binyoti.Amingwafor@Wisconsin.gov

2.2 Site Location Map

Please see attached Figure 1, Site Vicinity Map

2.3 Site Physiographical and Geological Information

2.3.1 Topography/Geology

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The general topography of land is flat with an elevation of approximately 705 feet above mean sea level (MSL). The local ground surface slopes gently toward the west or southwest.

No bedrock is encountered in the borings. According to the Glacial Deposit Map compiled by Wisconsin Geological & Natural History Survey in 1976, the site is located on the End Moraine deposit. The thickness of the glacial deposit is between 50' and 100' according to the Glacial Depth to Bedrock Map compiled by L.C. Trotta and R. D. Otter in 1973.

The closest surface water body is the Menomonee River which is approximately 1,600 feet to the west or southwest of the subject property.

The subsurface soil encountered in the soil borings is predominantly clay to silty clay from the surface down to the end of the borings at 16' below the ground surface, with thin lenses of silty fine sand/gravel being present in some borings.

2.3.2 Hydrogeology

The site is located in the City of Wauwatosa where the ground surface is mostly covered with asphalt pavement or concrete. Surface water drains to the municipal storm water system through the manhole sumps in the parking lots and storm water grills along the edges of streets. Surface water may recharge to the groundwater table via infiltration in landscaped areas or open fields where no surface barrier is present. The subject property is mostly covered with asphalt pavement or concrete slabs except for the lawn covered area to the west of the strip mall building. The groundwater study conducted through the monitoring wells at this site discovered that the local groundwater flows generally to the west or southwest, with high hydraulic conductivity as detailed in later sections of this report. The regional groundwater table may slightly slope to the southwest and discharge into the Menomonee River system located about 1,600 ft. southwest of the site. This water surface elevation at Menomonee River channel is about 656' above the mean sea level (or about 49' below the concrete floor at Westwood Cleaners.

2.4 Background Information

The subject property is located on the southeast corner of the intersection of West North Avenue and North Ludington Avenue in the City of Wauwatosa, WI (See Site Vicinity Map, Figure 1).

According to our inquiry, the subject dry-cleaning plant has been operating there since 1985. Drycleaning solvent, tetrachloroethene or perchloroethene (perc or PCE) has been used and stored at this site since 1985. Prior to 1985, no known record indicates that the site had been involved with any hazardous materials. Therefore, PCE and its degraded compounds (such as trichloroethene (TCE), cis-1,2-dichloroethene (cDCE), and vinyl chloride (VC) (called chlorinated volatile organic compounds, cVOCs) are the only contaminants of concern (COCs) for this site. Based on our observation and inquiries of the owner, the subsurface contamination of PCE may have been from historical spills or incidental releases during the past drycleaning operation. Further PCE release is unlikely because the drycleaning facility has installed secondary containments under the



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drycleaning machine and attention has been paid to proper storage and handling of the drycleaning generated wastes.

Hydrodynamics Consultants, Inc. (HDC) completed a preliminary site investigation on August 19, 2008. HDC performed limited soil boring and testing at the subject property to confirm the site conditions. Four (4) soil borings (SB1 to SB4) were advanced to a depth of 16' each boring and two soil samples were collected from each boring for laboratory analysis of volatile organic compounds (VOCs). The analytical results indicated the drycleaning solvent, tetrachloroethene and its degraded products are present at the site. Based on the laboratory analysis from samples collected from these 4 borings, up to $320,000~\mu g/Kg$ of PCE was present in the borings (See Figure 3, Soil cVOC Distribution Map).

A Potential Claim Notification was completed and sent to the Department of Nature Resources (DNR) on August 28, 2008. Jennifer Feyerherm, Grant Manager of the WDNR sent the owner, Mr. Song Sin a letter on July 20, 2016, stating the site is qualified for reimbursement from the Wisconsin Drycleaners Environmental Response Fund (DERF).

Based on the initial site inspection, HDC believed that the contamination was related to unknown incidental spills or releases of perchloroethene near the drycleaning machine and waste drums. Other similar incidents may also have taken place near the back door through which the drycleaning solvent was delivered and waste solvent drums were removed. The drycleaner owner has implemented secondary storage containers under the potential source containers in order to minimize the impact of any incidental releases or spills. It appears that this dry-cleaner operation is in compliance with all the regulatory requirements.

The surrounding properties or store spaces have been used for commercial purposes without known involvement of any hazardous materials, except for petroleum products. Based on the ERRTS databases, a gasoline filling station is present on the northwest corner of the intersection of North Avenue and Ludington Avenue (8806 W North Avenue, WDNR BRRTS#: 03-41-100572). The gasoline station site was conditionally closed with proper GIS Registry. The property at 8901 West North Avenue, on the southwest corner of the intersection of North Avenue and Ludington Avenue (WDNR BRRTS#: 03-41-563748), was also used as a gasoline filling station. Petroleum release was found in that property. No further information was readily available for review.

There is no known risk at this time from the released cVOCs to the public health, safety, welfare, or the environment.

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3.0 ADDITIONAL SITE INVESTIGATION PLAN, METHODOLOGIES, AND IMPLEMENTATION

3.1 Additional Site Investigation Outline

To satisfy the requirements of the WDNR and the approved ASIWP, HDC proposed and conducted the following:

- Contacted the diggers hotline to request the public utility companies to mark all their utility lines at and around the property, including the property to the east and the surrounding public right of ways;
- Mobilized crews for drilling, sampling, and testing to the project site to conduct the field work.
- Completed 3 additional soil borings (NSB13, NSB14, NSB15) to a depth of 16 feet (each) below the ground surface. Each boring was logged in accordance with the Unified Soil Classification System ("USCS") to document the subsurface strata, variation of soil color, compositions and visual evidence of drycleaning solvent contamination.
- Retrieved soil cores from each of the above soil borings, and collected soil samples at 2'-intervals for screening with a photo-ionization detector (PID) for VOC concentrations.
- Selected 9 representative soil samples, three from each new soil boring, for laboratory analysis of VOCs. Each soil sample was collected in accordance with US EPA SW-846 Method 5035 using a purge-and-trap soil sampler. A bulk soil sample was also packed into a 4-ounce glass jar for the determination of the sample's dry weight. All soil samples submitted were analyzed for volatile organic compounds (VOCs) utilizing US EPA SW-846 Method 8260B.
- Converted the 3 new soil borings into 3 groundwater monitoring wells (MW7, MW8, and MW9), to a depth of 15 feet below ground surface, which is more than five feet below the water table. Each well was completed with a 10'-long 1"-diameter PVC screen in the bottom and a 5'-long case above. These wells were installed inside 2"-diameter borings drilled with the GeoProbe. The well annular space was packed with coarse silica sand from the bottom to about 1' above the screen section. A fine sand pack filter (about 2' thick) was added above the coarse sand pack, and then the annular space was sealed with bentonite to near the surface. The monitoring wells were flush-mounted with steel manholes cemented at the ground surface. Upon completion, all wells were developed.
- Performed the first round (1/4) of the quarterly groundwater monitoring and sampling. Eleven (11) representative groundwater samples were submitted for laboratory analysis (9 samples from the 9 monitoring wells, 1 for duplicate, and 1 for trip bank). The groundwater

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samples were collected using a PVC bailer designated to each well and immediately preserved in 4-ml glass vials containing HCl. The groundwater samples submitted were analyzed for VOCs utilizing US EPA SW-846 Method 8260B. Proper well development/purging was completed before the sampling.

- Completed the 1st round of water table depth measurement from the monitoring wells and surveyed the ground surface to determine the groundwater table slope or flow directions.
- Installed 2 additional soil vapor ports (SV6 and SV7) in designated locations.
- Performed the 1st round of the quarterly soil vapor monitoring and sampling. Eight (8) representative soil vapor samples (7 from all the soil vapor sampling ports and one duplicate from the source areas) inside the subject building and the adjoining building to the east to determine were completed. Six-liter Summa canisters were used for the soil vapor collection. RR-800, "Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin" procedures were followed.
- Prepared this Additional Site Investigation Report. Remedial goals will be established and options for remedial actions will be evaluated in accordance with Wis. Admin. Code § NR 722 after all quarterly monitoring is completed.

The locations of the new borings/monitoring wells and soil vapor sampling ports are illustrated in Figure 2. The soil cVOC concentrations and distributions are illustrated in Figures 3 and 3a, the groundwater analytical results are illustrated in Figure 4 and 4a, while the soil vapor sampling results are provided in Figures 5 and 5a.

3.2 Soil Sampling

3.2.1 Selection of Soil Boring Locations

Prior to the emplacement of soil borings and monitoring wells, HDC visually and physically inspected the subject facility to identify the areas of concern that are present. The site inspection was also aided with the review of public records and an interview with the current storeowner or occupant. Previous reports, if any, were also a guide to the additional soil and groundwater sampling locations.

Based on HDC's additional site investigation plan approved by the WDNR, the new borings/monitoring wells have been strategically placed as follows:

NSB13/MW7: It was designed and installed to delineate the potential cVOC contamination plume to the south in the public alley.

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NSB14/MW8: It was designed and installed to delineate the potential cVOC contamination plume to the southwest in the public alley.

NSB15/MW9: It was designed and installed to delineate the potential cVOC contamination plume to the southwest in the parking lot within the property line.

Soil boring locations illustrated in Figure 3, were designed to provide adequate coverage of the potentially contaminated areas to ensure that the source and extent of VOC contamination is properly investigated, and the contamination plume is reasonably defined, and the natural and/or potential man-made pathways, which mainly consist of the current and/or former underground utilities conduits and sanitary/storm sewer pipes, are adequately investigated in the study.

Soil sample collection locations were reviewed with the property owners or tenants prior to subsurface activities to determine the location of private utilities and other obstructions. A one-call service for locating utilities was contacted in order to mark all the utility lines at and along adjoining streets at the site. Utility line placement information has been added to appropriate maps (see Figure 1a, Utility Location Map). Soil sample locations may have been moved around during the soil boring process from the initially planned locations due to various conditions, including but not limited to underground utility lines, surface structures, and/or subsurface refusal encountered while drilling.

Procedures used to collect the samples are summarized in the subsections below.

3.2.2 Soil Sampling Point Determination from Soil Cores

During soil sampling activities in the field, each 4'-section soil core is continuously retrieved, screened, logged, and described, with representative soil samples being collected at a depth interval of every two feet. All of the soil samples are sealed in Ziploc bags, then screened and measured with a photo-ionization detector (PID, MiniRAE2000 which is equipped with a 10.6 eV lamp and calibrated with the 100-ppm benzene equivalent of isobutylene) in the field for the presence and concentrations of volatile organic compounds (VOCs).

However, due to cost concerns, not every soil sample collected is submitted for laboratory analysis. Rather, the soil sampling points, from which the representative soil samples are selected for laboratory analysis, are determined using the following criteria:

- The first soil sample is selected for analysis within the upper 3 feet to evaluate the soil direct contact pathway and the surface soil conditions.
- The second soil sample is selected for analysis at the potentially highest contaminated segment based on PID readings, odor, visual observation, etc. in order to define the highest level of contamination in the soil boring.

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- The third soil sample is collected at a depth representing the lower boundary of the contamination plume in a vertical plane. This lower boundary of the contamination plume is identified in the field by PID reading or other observations. This soil sample is collected to help delineate the vertical soil contamination.

For the soil borings placed in the source area, additional soil samples may be collected to delineate the vertical distribution of the contaminants of concern (COCs).

3.2.3 Soil Sample Collection

During the soil sampling process, each soil boring is advanced with a truck-mounted (outside) or a portable (inside) GeoProbe system, and is continuously sampled with a 4-foot stainless-steel sampling tube lined with a four-foot long plastic liner.

Upon retrieval, the plastic liner along with the soil core is immediately taken out of the sampling tube and is cut open for soil sampling. To minimize the loss of the contaminants through volatilization, the following procedure is followed in soil sampling activities in chronological order:

After the plastic liner is cut open, the entire soil core is screened with the PID to determine the highest VOC concentration segment of the soil core where it is then immediately sampled using purge-and-trap samplers (plastic syringes) for a total of four discrete soil samples on the same segment. Each discrete soil sample is collected into three 40-ml glass vials with 2 containing a sodium bisulfate preservative and 1 containing a methanol preservative. Said glass vials are provided by the laboratory and are deemed clean. Upon collection, soil samples are immediately preserved in an ice chilled cooler. One 4-ounce glass jar is also packed with the same sample for testing of the moisture content and other parameters.

In addition to the highest PID reading segments, soil samples are also taken at every 2-feet interval of the entire length of the four-foot soil core for head-space screening with PID. These PID screening samples are placed in air-tight plastic bags. Prior to taking the PID readings, we allow enough time for each soil sample to stabilize. PID measurements are performed using the standard headspace method in which the soil organic vapors that built up in the top 3/4 empty headspace are directly measured with a MiniRAE2000 PID meter. The PID meter is calibrated daily to read in 100 ppm benzene equivalent of Isobutylene in a detection range from 0.1 ppm to 9,999 ppm.

The entire four-foot long soil core is then carefully inspected for odor and visual signs of contamination, and a description of the subsurface strata, variation of soil color, compositions, etc. is noted.

Based on the combined results of the field PID measurements and visual inspection/observation of the soil core brought up by the GeoProbe, HDC selects representative soil samples for laboratory analyses from each soil boring.

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All VOC samples are collected, stored, and handled in accordance with the US EPA's SW-846 Method 5035.

Proper decontamination procedures are followed during the soil sampling activities. The sampling tubes are washed and rinsed prior to and between each sampling activity. A new plastic liner is used for each soil boring advancement. A new pair of gloves is used for the collection of each soil sample.

The Chain of Custody documentation is strictly adhered to during the field sampling activities and during the holding and delivery of the soil samples from the field to a NELAP NIHA-LAP accredited laboratory (Stat Analytical Corporation in Chicago, Illinois) for analysis.

During the field sampling activities, a waterproof pen is used to mark each soil sample container. The information marked on the sample containers includes, but is not limited to, the sample date & time, the sample identification & depth, the sample location, and any other applicable data.

All samples are generally picked up by an analytical laboratory the same day of sampling or the next working day. Before they are picked up, they are stored in a cooler with ice packs. The cooler is stored in our refrigerator, which is set up to 4°C.

A trip blank (MW-TB) and one duplicate sample (MW1-D) are included with the sampling.

Upon completion of the soil boring activities, each soil boring is filled with bentonite, and then patched with concrete or asphalt to match the original surface finish.

3.3 Sub-Slab Soil Gas/Vapor Sampling

3.3.1 Selection of Sub-Slab Soil Gas/Vapor Sampling Locations

Sub-Slab Soil Gas/Vapor sampling ports were placed at and around the Westwood site in an attempt to assess the indoor sub-slab vapor quality.

Prior and additional sub-slab soil vapor sampling locations are illustrated in Figure 5, Sub-slab Vapor cVOC Distribution Map.

The locations of the new sub-slab vapor sampling ports were determined as such:

SV6: It was placed in the restroom near a sanitary sewer service line to assess the concentrations of cVOCs along the sewer line under the concrete floor.

SV7: It was placed in the source area to assess the concentrations of cVOCs under the concrete floor.

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In addition, manholes and floor drains in the source areas were also check with a PID to determine whether soil vapor (VOC) has entered the sewer systems.

3.3.2 Sub-Slab Soil Gas/Vapor Sample Collection

During sampling activity, sub-slab vapor samples are collected, pursuant to Publication RR-800 (January 2018), Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin, and RR986 (Sub-Slab Sampling Procedures), to assess the indoor sub-slab vapor quality. Based on the site-specific conditions, the following air sampling procedures are applied for each sub-slab indoor sampling port (see Figure 5b, Sub-Slab Vapor Sampling Diagram, and Additional Site Investigation Photos):

Construction of Sampling Port:

- Drilling a ³/₄"-diameter sub-slab penetration hole through the concrete floor inside the building at the designated location where drilling is accessible.
- Expanding the surface 2" depth of the ³/₄"-diameter penetration hole with a 1"-diameter drill bit, and thoroughly cleaning the entire hole with vacuum and brush.
- Properly insert a vapor sampling assembly into the sub-slab sampling hole. The vapor sampling assembly includes a ½"-diameter copper tube connector that connects a Teflon tube (1/8" ID and 1/4" OD) on each end, with a 1"-diameter stainless steel sleeve mounted on the top of the tube connector. The 1"-diameter stainless sleeve retains the vapor assembly into the hole at 2" depth inside the concrete floor (See Figure 6).
- Sealing the surface 1.5" depth of the annular space in the sampling hole with modeling clay, and push the modeling clay tightly against the concrete wall and around the Teflon tube in the center.
- Extending the Teflon tube from the vapor sample assembly to above the concrete floor for vapor sampling with a coupler and shut-off valve.

Sampling Port Water Dam Test:

To ensure there is no air leakage from the sampling port, a water dam test will be used and described as following:

- The floor around the sampling port is carefully cleaned;
- A 1.5"-diameter and 1.5" tall PVC coupler ring is placed around the sampling port with the sampling outlet tubing extruding about 2" above the ground;
- Modeling clay is used to seal between the bottom of the PVC ring and the concrete floor to create a water dam around the sampling port;
- Bottled water is poured inside the dam and we watch for a water level change. If the water level inside the dam drops, re-seal the port and re-test, until it is stable for 5 minutes.

Sampling Device and Shut-In Test

The sampling device is a 6-liter Summa canister and attached air flow regulator prepared by a certified lab. The shut-in test for the device provided by the lab is as following:

• Check to make sure the canister valve (C) is tightly closed, the air flow regulator is tightly connected on the canister, and the air inlet cap on the regulator has a tight fit;

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• Quickly open and close the canister valve for ½ turn, and watch to make sure the pressure gauge stays at its preselected pressure (around 30" Hg) without dropping for 30 seconds. If a pressure drop is observed, re-tighten the connections and cap, and re-test it until it is tight.

Sampling Train Assembly

- A 3-way valve (A) that has one inlet and two outlets is tightly connected with a ¼" OD and 1/8" ID Teflon tube on each of the three ends. The 3-way valve can turn on one outlet while turning off the other outlets simultaneously.
- The inlet end of the 3-way valve is connected to a shut off valve which is attached to the sampling tube inserted in the sampling port inside the concrete floor. One of the two outlets on the 3-way valve is connected to the inlet of the Summa canister while the other outlet is connected to a purging pump (with PID instrument) to purge the vapor sampling train and test the subsurface vapor VOCs.

Sampling Train Shut-In Test

- Check to make sure the canister valve (C) is tightly closed;
- Remove inlet cap from the canister and connect the inlet to one of the outlets of the 3-way valve (A);
- Turn off the vapor sampling port valve (B) and turn on the 3-way valve to allow flow to the canister inlet;
- Quickly open and close the canister valve; ½ turn, and watch to make sure the pressure gauge stays at its preselected pressure (around 30" Hg) without dropping. If a pressure dropping is observed, re-tighten the connections and cap until they are tight without leakage.

Sampling Train Purging and PID Reading

- Turn on the outlet valve connected to the sampling port to allow soil vapor flow from the sub-slab space;
- The 3-way valve is first turned on to the purging pump outlet to purge 3 times the volume of the sampling train (including volume of tubing and the sampling port cavity, up to about 1 liter or 5 minutes) prior to sampling;
- Read the VOC concentrations while purging with the photo-ionization detector;
- Turn the 3-way valve to the canister inlet direction before removing the purging pump.

Sub-slab Soil Vapor Sampling

- Turn the 3-way valve to connect the inlet for the Summa canister to allow soil vapor to be sucked into the pre-vacuumed Summa canister from the sub-slab;
- Paper towels are placed over the sampling train and Isopropyl Alcohol tracer fluid is spread over the towels covering the sampling train during the sampling to ensure no leakage into the sampling train.
- Turn on the Summa canister valve to withdraw soil vapor from the sub-slab space and observe the vacuum pressure drop on the gauge from about -30" Hg to about -5" Hg.

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- Turn off the canister valve when the pressure gauge reaches below -5" Hg and replace and tighten the canister cap (the withdrawing process may take about 60 minutes for each sample to fill a 6-liter Summa canister).
- Record the final canister pressure and flow controller number on the canister sample tag, including sample ID and other information.
- The sample is then sent to the laboratory for analysis of VOCs using Method TO-15, including isopropyl alcohol content as its QA/QC parameter.
- The sampling port is sealed and covered for next sampling.

3.4 Groundwater Monitoring Well Installation and Sampling

3.4.1 Monitoring Well Installation

Monitoring wells were placed at and around the Westwood site in an attempt to determine the groundwater contamination degree and extent. The additional wells locations were described in Section 3.2.1.

The locations of monitoring wells were slightly adjusted during the field installation to accommodate the surface conditions.

Generally, monitoring wells are constructed with 1"-diameter 10-foot PVC screen and 5-foot PVC riser. The annular space of the well is first filled with coarse silica sand to a depth of about 1 foot above the well screen, topped with about 1 to 2 feet of fine sand filter, and then bentonite seal above. The wells are covered with flush-mounted steel manholes and grouted onto the surface above the bentonite seal. Upon completion, the groundwater monitoring wells are developed by purging the standing water in the well until they are mostly dry.

Monitoring Wells Variance:

The monitoring wells are 15'-deep groundwater table observation/sampling wells installed in the glacial till formation located inside and around the Westwood Cleaners facility. Due to space limitations, access to sampling locations with large drilling equipment is unattainable; therefore, variance is sought to construct the monitoring wells with 1"-diameter screens and casings installed inside boreholes drilled with 2"-diameter probes.

WDNR project manager approved the requested variance from Wis. *Admin Code*, § NR 141.19 which requires permanent monitoring wells be installed in borings with a diameter of at least 4" larger than the diameter of the well casing.

3.4.2 Groundwater Sampling

During groundwater sampling, the following procedures are adhered to:

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- Prior to groundwater sampling, the wells are measured with a water level indicator, and then purged with a designated disposal bailer for about 3 times of the well volume or until they are mostly dry.
- When sufficiently recharged, a groundwater sample is then retrieved with designated PVC bailer equipped with a Teflon ball check valve at the bottom, from the well.
- Each groundwater sample retrieved is dispensed trough a small PVC tube inserted in the bottom of the bailer into two 40-ml glass vials containing HCL preserve.
- The sample containers are closed with Teflon-lined lids.
- After the vials are filled with water samples, we check to see if the vials are free of bubbles by holding the vials upside down. If bubbles are found, a new groundwater sample is collected from the well.
- Upon completion, groundwater samples are immediately stored in an ice-chilled cooler.

Proper decontamination procedures are followed during the groundwater sampling activities. A new PVC bailer is used in each groundwater sampling activity. A new pair of gloves is used for collecting each groundwater sample. The water table indicator and tolls are cleaned with soaped water and rinsed thoroughly before each use.

The Chain of Custody documentation is strictly adhered to during the groundwater sampling activities and during the delivery of the groundwater samples from the field to the laboratory.

During the field sampling activities, a waterproof pen is used to mark each groundwater sample container. The information marked on the sample containers includes, but is not limited to, the sample date and time, the sample identification, the sample locations, and any other applicable data.

All samples are generally picked up by an analytical laboratory on the next working day. Before they are picked up, they are stored in a cooler with ice packs. The cooler is stored in our refrigerator, which is set to 4°C. Collected groundwater samples are analyzed by Stat Analytical Corporation which is a laboratory accredited by WDNR.

A trip blank (TB), a duplicate sample (D), and a temperature blank are included with each groundwater sampling event. However, these samples are only analyzed when required.

3.5 Sample Handling

The collected samples are labeled, packaged, and shipped in accordance with procedures outlined above.

3.6 Quality Assurance/Quality Control

Quality control (QC) samples may be collected to evaluate the field sampling and decontamination methods, and the overall reproducibility of the laboratory analytical results. Specifically, QC samples may be collected at the following frequencies:

- Trip Blank 1 per shipment or cooler for water samples
- Field duplicate samples 1 per 10 investigative samples for groundwater samples

18

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• Matrix spike/matrix spike duplicate samples - 1 per 20 non-air investigative samples

Trip blanks are submitted for laboratory analysis to assess for potential contamination during handling, shipment, and storage of the investigative samples. Trip blanks are filled by the analytical laboratory with organic-free water and are kept with the investigative water samples throughout the field event. Field duplicate samples are collected for each investigative matrix (soil gas, sub-slab vapor, ambient air, indoor air, groundwater, and/or soil) as associated investigative samples. Field duplicate samples are processed, stored, packaged, and analyzed by the same methods as the investigative samples.

The HDC project manager, Mr. Mike Wan, PE, is responsible for ensuring that sample quality and integrity are maintained and that sample labels and documentation procedures are correct and accurate.

3.7 Decontamination and Waste Soil Handling

Dedicated sampling equipment is primarily used during the collection of soil and groundwater samples. Used sampling equipment and personal protective equipment (PPE) is double-bagged and disposed of as dry, industrial waste.

Non-disposable equipment (such as the stainless-steel tube coring devices, water table measurement and slug test equipment) is decontaminated between sampling/usages. They are cleaned with environment-friendly detergent water and rinsed with tap water. Decontamination water use is kept to a minimum, and typically 5-10 gallons of rinsate water is generated. The decontamination water is disposed of onsite by evaporation over a hard surface.

The site investigation-generated soil cutting was stored inside a 55-gallon plastic drum and to be disposed of by US Ecology in Michigan.



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4.0 ADDITIONAL SITE INVESTIGATION RESULTS

On July 28, 2020, HDC, Inc. crew members used a GeoProbe system to collect soil samples (NSB13-NSB15) from in and around the subject property. The three new soils borings were converted into 3 groundwater monitoring wells (MW7, MW8, and MW9). Groundwater samples were collected from MW1 to MW6 on July 28, 2020, and from MW7 to MW9 on August 10, 2020. Furthermore, 2 additional soil vapor ports (SV6 and SV7) were installed and sampled on July 28, 2020. Please refer to the attached site map (Figure 2) for sampling locations.

4.1 Soil Sampling Results

A total of 9 additional soil samples (3 samples from each boring) were collected and analyzed for VOCs in accordance with US EPA Publication SW-846, Method 5035/8260. The soil analytical results obtained are tabulated in Table 1. The cVOC concentrations in all of the 9 soil samples are below the NR 720 Residual Contaminant Levels (RCL). So, soil contaminant exceedance was not detected in samples NSB13, NSB14, and NSB15.

Based on the previous and the additional soil sampling results, the soil COC distribution at this site is illustrated in Figure 3. When compared to the NR 720 Residual Contaminant Levels (RCL), the following compounds are present in the soil samples as our contaminants of concern. Please note that only the cVOCs with elevated concentrations are listed below.

Tetrachloroethene (PCE): up to 320,000 μ g/Kg of PCE was detected from various borings. The concentrations exceeded the Soil to Groundwater Pathway RCL (4.5 μ g/Kg) and Direct Contact (30,700 μ g/Kg) for non-industrial properties.

Trichloroethene (TCE): up to 3,970 μ g/Kg of TCE was detected from various borings. The concentrations exceeded the Soil to Groundwater Pathway RCL (3.6 μ g/Kg) and Direct Contact (1,260 μ g/Kg) for non-industrial properties.

The soil sampling results confirmed that the soil to groundwater pathway Residual Contaminant Level (RCL) and soil direct contact pathway RCL have been exceeded at this site.

The contaminants are distributed from the surface (1') to a depth of 8' near the source areas around the drycleaning machine. Minor PCE contamination was detected at 16' in NSB2 (38 $\mu g/Kg$) and NSB1 (17 $\mu g/Kg$) which are away from the source areas.

The soil cVOC distributions were illustrated in Figures 3 (horizontal distribution) and 3a (cross section). The soil cVOC iso-concentration map for Soil Direct Contact and Soil to Groundwater is also illustrated in Figure 3.

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4.2 Groundwater Sampling Results

A total of 11 new groundwater samples, including 1 duplicate and 1 trip blank, were analyzed for VOCs in accordance with US EPA Publication SW-846, Method 5035/8260B. The groundwater analytical results obtained are tabulated in Table 2. The groundwater COC distribution in the wells is illustrated in Figure 4. When compared to the Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard and Chapter NR 140 Preventive Action Limits (PALs), the following compounds are deemed as the contaminants of concern based on the new groundwater sampling results (1st quarter, 1/4).

Tetrachloroethene (PCE): up to 1,700 μ g/L of PCE was detected from MW2, MW5, MW6, and MW8 with concentrations exceeded the groundwater Enforcement Standard (5 μ g/L) and Preventive Action Limit as defined in the NR 140.

Trichloroethene (TCE): up to 120 μ g/L of TCE was detected from MW2, MW5, and MW6 with concentrations exceeded the groundwater Enforcement Standard (5 μ g/L) and Preventive Action Limit as defined in the NR 140.

Cis-1,2-Dichloroethene (cDCE): up to 23 μ g/L of cDCE was detected from MW2, MW5, MW6, and MW8 with concentrations exceeded the Preventive Action Limit (7 μ g/L) as defined in the NR 140.

Vinyl Chloride (VC): up to 6.1 μ g/L of VC was detected from MW6, which exceeded the groundwater Enforcement Standard (0.2 μ g/L) and Preventive Action Limit as defined in the NR 140.

No contaminant was found in MW1, MW3, MW4, MW7 or its duplicated sample MW7-D, and MW9. No contaminant was detected in the trip blank sample either.

The groundwater sampling results confirmed that the groundwater quality have been impacted by the released PCE and its degraded compounds of TCE, cDCE, and VC at this site. The groundwater cVOC plume is illustrated in Figures 4 (horizontal distribution) and 4a (cross section).

4.3 Vapor Sampling Results

Based on existing soil VOC results, HDC proposed and collected soil vapor samples from 7 vapor ports (existing SV1 to SV5, and new SV6 and SV7, in Figure 5) in the subject property and the adjoining restaurant to the east and the hair salon to the west. HDC has provided a map which shows a 100-foot radius from the soil contamination plume (Please see Figure 1, Site Vicinity Map).



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A total of 8 sub-slab vapor samples, including 1 duplicate (SV7-D), were collected and analyzed for VOCs using US EPA Method TO-15, in accordance with RR-800, "Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin" procedures. The vapor analytical results obtained are tabulated in Table 3. The sub-slab vapor COC distribution is illustrated in Figure 5. HDC compared the analytical results to the US EPA's Indoor Air Vapor Action Levels (VAL) and Sub-Slab Vapor Risk Screening Levels (VRSL), and the following exceedances were present.

Tetrachloroethene (PCE): up to 38,000 $\mu g/m^3$ of PCE was detected from vapor sampling port SV7, exceeding both the residential and commercial Indoor Air Vapor Action Levels, and both the residential and commercial Vapor Risk Screening Levels (VRSL). The VRSL of 6,000 $\mu g/m^3$ for PCE is applicable for this site.

Trichloroethene (TCE): up to 630 μ g/m³ of TCE was found from vapor sampling port SV7 with concentration exceeding both the residential and commercial Indoor Air Vapor Action Levels, and both the residential and commercial Vapor Risk Screening Levels (VRSL). The VRSL of 290 μ g/m³ for TCE is applicable for this site.

The sub-slab vapor sampling results confirmed that the sub-slab Vapor Risk Screening Levels have been exceeded at this site in the source areas. The soil vapor cVOC plume is illustrated in Figure 5 (horizontal distribution), while the vertical soil vapor cVOC distribution is shown in Figure 5a.

As part of the soil vapor monitoring process, HDC checked VOC concentrations in manholes at and around the property. The sanitary and storm manholes located in the parking lots and public right of ways around the property were checked with a photo-ionization detector (PID) which is calibrated with 100 ppm equivalent of isobutylene. Floor drains in the building in Westwood Cleaners and Super Cuts, as well as in the neighboring restaurant were also checked with the PID for VOCs. The air in the manholes and drains was measured by inserting the tip of the PID into the manholes and drains and waiting for the VOC readings. Based on our field measurements, no detectable VOC was found.



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5.0 SITE-SPECIFIC CONDITION ASSESSMENT

5.1 Site Geology and Hydrogeology

The site is located on glacial till with 50 to 100 ft. deep clayey glacial deposits below the ground surface. Soils encountered at this site are predominantly clay to silty clay with some isolated sandy lenses from the surface down to the end of the borings at 16' depth. Bedrock was not encountered in any of the soil borings.

Groundwater table was encountered in the subsurface soil from about 8' to about 10' below the ground surface. The groundwater table hydrogeology, flow direction, gradient, and hydraulic conductivity are assessed as follow.

5.2 Groundwater Flow Direction

Prior to any groundwater disturbance, on August 10, 2020, we conducted a water-table survey for monitoring wells MW1 through MW9. The top of the well casing of monitoring well MW6 was chosen as a survey reference point and assumed to be 100.00 feet site datum elevation. The relative elevation of the top of well casing for each well was then determined by level shooting, and the distances between wells were directly measured using a wheel measure. The relative water-table elevation survey data can be summarized in Table 4.

A water table contour map for the relative water-table elevations is constructed as shown in Figure 4b. Groundwater flow trend is generally to the southwest at this site. It may discharge to the Menomonee River basin located approximately 1,600' southwest of the site. According to Google Earth map, the water surface elevation at the Menomonee River is about 40' below the water table found at Westwood Cleaners site.

Table 4 Relative Water Table Elevations

Well	Relative Elevation of	Water	Water Table
Number	the Top of Casing	Depth(ft.)	Elevation (ft.)
MW1	98.49	10.12	88.37
MW2	99.12	9.6	89.52
MW3	100.76	9.75	91.01
MW4	98.88	8.95	89.93
MW5	99.95	9.42	90.53
MW6	100	9.68	90.32
MW7	98.85	9.72	89.13
MW8	98.48	9.52	88.96
MW9	98.2	9.59	88.61

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5.3 Groundwater Table Gradient

Based on this water table contour map acquired on August 10, 2020, the highest hydraulic gradient (i) drop on site can be obtained as follows:

Hydraulic head drop from **MW3** to **MW1** along the groundwater flow direction is 91.01' – 88.37' = 2.64 feet. The distance between these two wells is 130', as measured parallel to the groundwater flow direction.

Therefore, the hydraulic gradient (i) =2.64/130 = 0.02 ft/ft.

According to the above discussions, the groundwater present beneath the subject property would flow southwesterly, with a hydraulic gradient of 0.02 ft./ft., or 2%. This high hydraulic gradient may be attributed to the insufficient recharge of the wells after the wells were purged in July 28, 2020.

5.4 Determination of Hydraulic Conductivity

On September 19, 2018, we conducted a slug test in one of the monitoring wells, MW1, which is a 2"- diameter well installed with 4.5"-diameter augers. The initial water table depth was recorded, and then a pressure transducer connected to a computer was lowered in the bottom of the well. Upon equilibrium of the water table as monitored in the computer screen with a software provided by Solinst, a long PVC bailer (slug) is slowly submerged in the well water. Upon reaching equilibrium of the water table, the bailer (slug) is quickly removed from inside the well. The water table inside the well then kept rising (recovery). The drawdown (yt) vs. the time elapsed (Tt) was continuously recorded in the field using the data logger until sufficient data points are obtained or the water table is fully recovered. The following are parameters used:

MW1:

Static depth to the water table: 8.721 feet.

Total volume of water removed: $Rc^2x3.14 \times 0.8838$ ft. = 0.019 cubic feet.

Initial drawdown: 0.8838 feet (0.269 m).

Since the rate at which the water level rises is primarily controlled by the formation's transmissivity or conductivity, the hydraulic conductivity can be obtained by plotting the above data using commercial computer software named "Super Slug" acquired from Scientific Software Group. The hydraulic conductivity interpretation was displayed in Appendix II, which is obtained using the Bouwer and Rice theory. The following input data was used to obtain the hydraulic conductivity:

 $R_w = 0.05625$ meter (4.5"), representing radius of borehole, or radial distance of undisturbed portion of aquifer from centerline of borehole.

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 $R_c = 0.025$ meter, representing radius of well casing.

 $L_w = 1.912$ m, representing length between the initial water table to the bottom of well.

Le = 1.912 m, representing length of screened, perforated or open section of well.

H = 10 m, initial aquifer thickness, representing length between the initial water table to the bottom of aquifer. Ten meters are assumed that can provide sufficient accuracy.

The hydraulic conductivity from the slug test for the water-bearing unit is listed in Table 5.

Table 5 Hydraulic Conductivity from Slug Test

Well Tested	Hydraulic Conductivity						
Units	(cm/sec)	(cm/day)					
MW3	1.39 x10 ⁻²	1202					

The hydraulic conductivity of 1.39×10^{-2} cm/sec may be too high and not representative to this sites condition since clay or silty clay is the predominant formation encountered in the borings at this location. The slug test results may have been distorted by the local sandy/gravelly lenses present in the soil boring (NSB1) at MW1.

5.5 Determination of Site-Specific Fractional Organic Carbon (foc)

Soil samples were collected from the potentially uncontaminated soil for testing of total organic carbon (TOC), or organic matter, which then converted to fractional organic carbon (foc), with ASTM Method D2974-00. Fractional organic carbon can effectively attenuate the released cVOCs and change the soil-water participation coefficient. The test results are listed in the following table.

Table 6 Fractional Organic Content

Sample ID	Depth (ft.)	TOC (wt.%)	$f_{\rm oc}$ (wt.%)
NSB4-A	2'	2.99	1.73
NSB4-B	8'	4.62	2.8
Value used			1.73

The TOC results are converted into foc by a factor of 0.58. Since the foc at NSB4-B is much higher than at NSB4-A, to be conservative, we selected 1.73% by wt. as representative of the local soil organic carbon content.

Soil samples at NSB4-A and NSB4-B were also analyzed for VOCs. No contamination was found in the soil, and so the fractional organic carbon results are valid for use as retardant to the



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cVOCs released from this site. This high f_{oc} implies that a high absorption capacity of the contaminants is present in the soil. Biodegradation may have been present, which aided the breakdown of PCE to cDCE, TCE, VC, and final non-toxic compounds, due to the high fractional organic carbons in the soil.

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6.0 POTENTIAL RECEPTORS AND RISK ASSESSMENTS

This site investigation has revealed that contamination associated with the release of PCE and its degraded compounds is present in the soil and groundwater with concentrations above the regulatory requirements. Soil contact, soil to groundwater and groundwater ingestion are potential risks to the human health. Soil vapor sample results from SV7 in the source areas are above the Wisconsin DNR's sub-slab Vapor Risk Screening Levels. Soil vapor inhalation is a risk to the tenants inside the Westwood Cleaners store space.

6.1 Potential Receptors & Risks for Groundwater or Soil to Groundwater Pathways

Site features such as the pavement and building foundation will serve as a barrier to limit leaching of underlying soil, and a groundwater use restriction can be enacted by prohibiting construction of water supply wells within the property and in the potentially-impacted surrounding properties. The receptors from the local use of the groundwater can be eliminated.

Potable water in the area is supplied by the City of Wauwatosa which acquires its water source from Milwaukee Water Works that withdraws water from Lake Michigan. According to the Wisconsin DNR water well construction databases, only one private water supply well is located within a 1,200' radius from the site. That private well was constructed in 1948 at 2437 North 88 Street, which is about 1,000' north/northwest from this site. This private well is no longer in use based on the database of active water wells listed by the City of Wauwatosa. Public water wells are located at 10000 and 10122 West North Avenue which are within a 1-mile distance to the west of the site. The closest public water well is about 4,000' west of the site across the Menomonee River Valley near North Avenue. Since the groundwater from this site may have been intercepted by the surface water body at Menomonee River, these public water wells are unlikely to be receptors of the cVOCs discovered at this site.

6.2 Potential Receptors & Risks for Soil Contact Pathway

Soil with cVOC concentrations above the soil contact pathway is located within the Westwood Cleaners store (see Figure 3 and 3a). Since the store is covered with a concrete floor, contact with the subfloor soil in unlikely. The concrete floor can be maintained as an engineered barrier to prevent any future soil contact pathway. However, it should be stipulated that any construction work performed under the concrete floor should be properly protected from any contact with the contaminated soils. Any soil waste generated from said construction should be properly handled.

6.3 Potential Receptors and Risks for Soil Vapor Inhalation Pathway

According to the vapor sampling results, which prove that cVOC levels are higher than the US EPA's sub-slab Vapor Risk Screening Levels (VRSL), the cVOCs do post potential indoor intrusion risks in the source areas around SV7. Based on this, it is HDC's opinion that the vapor

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intrusion can be excluded from further consideration at the subject property and the property to the east by installation of sub-slab depressurization system in the source areas. This sub-slab depressurization system can be installed if the further quarterly monitoring results warrant.

In summary, risks to the public health, welfare, or the environment from the cVOCs released in soil, groundwater, or soil vapor can be eliminated by implementation of engineering controls or institutional measures.

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7.0 CONCLUSIONS AND RECOMMENDATIONS

HDC completed the additional site investigation and the first quarterly soil vapor and groundwater sampling at this site. Through these tasks, the following results have been achieved:

- Three additional soil borings (NSB13-NSB15) were installed to the depth of 16' below the ground surface. Three soil samples were collected from these new borings and analyzed for VOCs. The soil analytical results confirmed that the soil VOC concentrations are all below the NR 720 Residual Contaminant Level (RCLs) for the groundwater pathway for VOCs.
- Three additional monitoring wells (NMW7-NMW9) were installed to the depth of 15' each with 10'-screens and 5'-casings, to the south and southwest of the site.
- All the existing and new monitoring wells were sampled for VOCs, and the analytical results confirmed cVOCs were present in existing monitoring wells, MW2, MW5, and MW6, with similar orders of contaminant concentrations. Low level of PCE (10 ug/L) was also found in a new monitoring well, MW8, with concentration higher than the Enforcement Standard of 5 ug/L. This monitoring well is located in the down-gradient direction (southwest) to the site.
- Two new sub-slab soil vapor sampling ports (SV6 and SV7) were installed in the building, and soil vapor samples were collected from all the vapor sampling ports (SV1 to SV7) for analysis of VOCs with US EPA Method TO-15. The analytical results confirmed that soil vapor PCE (up to 38,000 ug/m³) and TCE (630 ug/m³) concentrations in the source area (around SV-7) have exceeded the US EPA's Vapor Risk Screening Levels (VRSLs: 6,000 ug/m³ for PCE and 290 ug/m³ for TCE).

Based on the above results, HDC recommends continuing the soil vapor and groundwater monitoring for an additional 3 quarters. If the contaminant concentrations are found to be generally steady or decreasing, the site may apply for conditional case closure with the following conditions: (1) maintaining the concrete floor inside the current Westwood Cleaners store as an engineered barrier to eliminate any direct contact from the impacted soil below, (2) installation of a sub-slab depressurization system that can effectively vent out the soil vapor under the concrete floor in the source area (around SV7); (3) filing notifications to the adjoining properties that may be affected by the released cVOCs through groundwater migration or vapor intrusions, and (4) enrolling the site in the GIS Registry system after the proper documents are recorded in the Milwaukee County Register of Deeds Office. However, if risks are found through the quarterly monitoring program, further site evaluation will be conducted to determine the proper remediation alternatives.



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8.0 CONCLUDING REMARKS

The environmental assessment detailed in this report has been performed in accordance with generally accepted methods and practices of the environmental profession. The findings obtained in this project are believed to be reliable to the extent possible for the information gathered and for the scope and intent of the work mutually agreed upon by the client and HDC. HDC does not make any warranty or guarantee, expressly or implied, to conditions that could not be considered in our report, because the conditions were not readily available, hidden, or not disclosed to our inquiries and investigations.

HDC appreciates the opportunity to be of service to you on this project. If you have any questions concerning this report, please feel free to contact my office.

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D/B/A Hydrodynamics Consultants, Inc.

TABLES

Table 1 Soil VOC Analytical Results

Sample ID:	NSB13-A	NSB13-B	NSB13-C	NSB14-A	NSB14-B	NSB14-C	NSB15-A	NSB15-B	NSB15-C		NR 720 RCLs*		
Date:					7/28/2020					Groundwater	Groundwater Non-Industrial Industri		
Sampling Depth (ft)	2	8	16	2	8	16	2	8	16	Pathway	Direct Contact	Direct Contact	
Depth to GW (ft)		9.72			9.52			9.59		RCL	RCL	RCL	
VOCs											μg/Kg	μg/Kg	
Acetone	< 82	< 71	< 63	< 79	< 70	< 72	< 64	< 84	< 62	μg/Kg NS	63400000	100000000	
Benzene	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	5.1	1600	7070	
Bromodichloromethane	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	0.3	418	1830	
Bromoform	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	2.3	25400	113000	
Bromomethane	< 11	< 9.4	< 8.4	< 10	< 9.3	< 9.6	< 8.5	< 11	< 8.2	NS	9600	43000	
2-Butanone	< 82	< 71	< 63	< 79	< 70	< 72	< 64	< 84	< 62	NS	NS	NS	
Carbon disulfide	< 55	< 47	< 42	< 52	< 46	< 48	< 43	< 56	< 41	NS	NS	NS	
Carbon tetrachloride	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	3.9	854	4250	
Chlorobenzene	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	NS	370000	761000	
Chloroethane	< 11	< 9.4	< 8.4	< 10	< 9.3	< 9.6	< 8.5	< 11	< 8.2	226.6	NS	NS	
Chloroform	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	3.3	454	1.980	
Chloromethane	< 11	< 9.4	< 8.4	< 10	< 9.3	< 9.6	< 8.5	< 11	< 8.2	15.5	159000	669000	
Dibromochloromethane	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	32	8280	38900	
1,1-Dichloroethane	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	483.6	5060	22200	
1,2-Dichloroethane	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	2.8	608	3030	
1,1-Dichloroethene	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	5	342000	1190000	
cis-1,2-Dichloroethene	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	41.2	156000	2040000	
trans-1,2-Dichloroethene	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	58.8	211000	976000	
1,2-Dichloropropane	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	3.3	406	1780	
cis-1,3-Dichloropropene	< 2.2	< 1.9	< 1.7	< 2.1	< 1.9	< 1.9	< 1.7	< 2.2	< 1.6	NS	NS	NS	
trans-1,3-Dichloropropene	< 2.2	< 1.9	< 1.7	< 2.1	< 1.9	< 1.9	< 1.7	< 2.2	< 1.6	NS	NS	NS	
Ethylbenzene	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	1.57	7470	37000	
2-Hexanone	< 22	< 19	< 17	< 21	< 19	< 19	< 17	< 22	< 16	NS	NS	NS	
4-Methyl-2-pentanone	< 22	< 19	< 17	< 21	< 19	< 19	< 17	< 22	< 16	NS	NS	NS	
Methylene chloride	< 11	< 9.4	< 8.4	< 10	< 9.3	< 9.6	< 8.5	< 11	< 8.2	2.6	61800	1150000	
Methyl tert-butyl ether	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	27	59400	293000	
Styrene	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	NS	NS	NS	
1,1,2,2-Tetrachloroethane	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	0.2	810	12300	
Tetrachloroethene	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	4.5	30700	153000	
Toluene	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	1107.2	818000	818000	
1,1,1-Trichloroethane	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	140.2	640000	640000	
1,1,2-Trichloroethane	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	3.2	1480	7340	
Trichloroethene	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	3.6	1260	8810	
Vinyl chloride	< 5.5	< 4.7	< 4.2	< 5.2	< 4.6	< 4.8	< 4.3	< 5.6	< 4.1	0.1	67	2030	
Xylene - total	< 16	< 14	< 13	< 16	< 14	< 14	< 13	< 17	< 12	3940	258000	258000	

Notes

NS = No Standard

J - Analyte detected below reporting limit

All values in µg/Kg

Bold fonts/Shaded boxes indicate the levels exceed the Quality Standards.

^{*} RCL = Residual Contaminant Level per WDNR Remediation and Redeveopment Program NR 720 RCLs are generic standards for the groundwater pathway for VOCs.

Table 2 - 1st Quarterly Groundwater VOC Analytical Results

Sample ID:	MW1-1/4	MW2-1/4	MW3-1/4	MW4-1/4	MW5-1/4	MW6-1/4	Trip Blank	Groundwater (Quality Standards
Date:		•		7/28/2020		•		NR 140	NR 140
Depth to Water (ft):	10.12	9.6	9.75	8.95	9.42	9.68		ES	PAL
VOCs					•			μg/L	μg/L
Acetone	<20	<20	<20	<20	<20	<20	<20	9000	1800
Benzene	<5	<5	<5	<5	<5	<5	<5	5	0.5
Bromodichloromethane	<5	<5	<5	<5	<5	<5	<5	0.6	0.06
Bromoform	<1	<1	<1	<1	<1	<1	<1	4.4	0.44
Bromomethane	<5	<5	<5	<5	<5	<5	<5	10	1
2-Butanone	<20	<20	<20	<20	<20	<20	<20	NS	NS
Carbon disulfide	<10	<10	<10	<10	<10	<10	<10	1000	NS
Carbon tetrachloride	<5	<5	<5	<5	<5	<5	<5	5	0.5
Chlorobenzene	<5	<5	<5	<5	<5	<5	<5	NS	NS
Chloroethane	<10	<10	<10	<10	<10	<10	<10	400	80
Chloroform	<1	<1	<1	<1	<1	<1	<1	6	0.6
Chloromethane	<10	<10	<10	<10	<10	<10	<10	30	3
Dibromochloromethane	<5	<5	<5	<5	<5	<5	<5	60	6
1.1-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	850	85
1.2-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	5	0.5
1.1-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	7	0.7
cis-1,2-Dichloroethene	<5	10	<5	<5	19	7.1	<5	70	7
trans-1,2-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	100	20
1,2-Dichloropropane	<5	<5	<5	<5	<5	<5	<5	5	0.5
cis-1,3-Dichloropropene	<1	<1	<1	<1	<1	<1	<1	0.4	0.04
trans-1,3-Dichloropropene	<1	<1	<1	<1	<1	<1	<1	0.4	0.04
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	700	140
2-Hexanone	<20	<20	<20	<20	<20	<20	<20	NS	NS
4-Methyl-2-pentanone	<20	<20	<20	<20	<20	<20	<20	NS	NS
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	5	0.5
Methyl tert-butyl ether	<5	<5	<5	<5	<5	<5	<5	60	12
Styrene	<5	<5	<5	<5	<5	<5	<5	100	10
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5	0.2	0.02
Tetrachloroethene	<5	99	<5	<5	1700	550	<5	5	0.5
Toluene	<5	<5	<5	<5	<5	<5	<5	800	160
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	200	40
1,1,2-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	5	0.5
Trichloroethene	<5	89	<5	<5	120	38	<5	5	0.5
Vinyl chloride	<2	<2	<2	<2	6.1	<2	<2	0.2	0.02
Xylene - total Notes:	<15	<15	<15	<15	<15	<15	<15	2000	400

NR 140 ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard NR 140 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit NS = No Standard,

Sample ID with " - D" and "TB" refer to duplicate and trip blank, respectively

J - Analyte detected below reporting limit All values in mg/L or ppm

Bold fonts/Shaded boxes indicate the levels exceed the Quality Standards.

Table 2 - 1st Quarterly Groundwater VOC Analytical Results

Sample ID:	MW7-1/4	MW7-1/4D	MW7-1/4D MW8-1/4 MW9-1/4			Quality Standards
Date:		8/10/	NR 140	NR 140		
Depth to Water (ft):	9.72	9.72	9.52	9.59	ES	PAL
VOCs				1	μg/L	μg/L
Acetone	<20	<20	<20	<20	9000	1800
Benzene	<5	<5	<5	<5	5	0.5
Bromodichloromethane	<5	<5	<5	<5	0.6	0.06
Bromoform	<1	<1	<1	<1	4.4	0.44
Bromomethane	<5	<5	<5	<5	10	1
2-Butanone	<20	<20	<20	<20	NS	NS
Carbon disulfide	<10	<10	<10	<10	1000	NS
Carbon tetrachloride	<5	<5	<5	<5	5	0.5
Chlorobenzene	<5	<5	<5	<5	NS	NS
Chloroethane	<10	<10	<10	<10	400	80
Chloroform	<1	<1	<1	<1	6	0.6
Chloromethane	<10	<10	<10	<10	30	3
Dibromochloromethane	<5	<5	<5	<5	60	6
1,1-Dichloroethane	<5	<5	<5	<5	850	85
1.2-Dichloroethane	<5	<5	<5	<5	5	0.5
1,1-Dichloroethene	<5	<5	<5	<5	7	0.7
cis-1,2-Dichloroethene	<5	<5	23	<5	70	7
trans-1,2-Dichloroethene	<5	<5	<5	<5	100	20
1,2-Dichloropropane	<5	<5	<5	<5	5	0.5
cis-1,3-Dichloropropene	<1	<1	<1	<1	0.4	0.04
trans-1,3-Dichloropropene	<1	<1	<1	<1	0.4	0.04
Ethylbenzene	<5	<5	<5	<5	700	140
2-Hexanone	<20	<20	<20	<20	NS	NS
4-Methyl-2-pentanone	<20	<20	<20	<20	NS	NS
Methylene chloride	<5	<5	<5	<5	5	0.5
Methyl tert-butyl ether	<5	<5	<5	<5	60	12
Styrene	<5	<5	<5	<5	100	10
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	0.2	0.02
Tetrachloroethene	<5	<5	10	<5	5	0.5
Toluene	<5	<5	<5	<5	800	160
1,1,1-Trichloroethane	<5	<5	<5	<5	200	40
1,1,2-Trichloroethane	<5	<5	<5	<5	5	0.5
Trichloroethene	<5	<5	<5	<5	5	0.5
Vinyl chloride	<2	<2	<2	<2	0.2	0.02
Xylene - total	<15	<15	<15	<15	2000	400

Notes:

NR 140 ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard

NR 140 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit

NS = No Standard,

Sample ID with " - D" and "TB" refer to duplicate and trip blank, respectively

Table 3 - 1st Quarterly Soil Gas VOC Analytical Results

Sample ID:	SV1-1/4	SV2-1/4	SV3-1/4	SV4-1/4	SV5-1/4	SV6-1/4	SV7-1/4	SV7-1/4D	Indoor Air Vapor A	Action Levels (VAL)*	Vapor Risk Screen	ning Levels (VRSL)*
Date:				7/28/	2020	•	1		Residential	Commercial	Residential	Commercial
VOCs									μg/m³	μg/m³	μg/m³	μg/m³
1,1,1-Trichloroethane	< 3.4	< 8.5	< 8.4	< 8.5	< 3.4	< 3.9	< 43	< 47	5210	21900	174000	730000
1,1,2-Trichloroethane	< 3.4	< 8.5	< 8.4	< 8.5	< 3.4	< 3.9	< 43	< 47	0.209	0.876	6.95	29.2
1,1-Dichloroethane	< 2.5	< 6.2	< 6.1	< 6.2	< 2.5	< 2.8	< 31	< 34	17.5	76.7	585	2560
1,1-Dichloroethene	< 2.5	< 6.2	< 6.1	< 6.2	< 2.5	< 2.8	< 31	< 34	209	876	6950	29200
1,2,4-Trichlorobenzene	< 4.6	< 12	< 11	< 12	< 4.7	< 5.3	< 58	< 64	2.09	8.76	69.5	292
1,2-Dibromoethane	< 4.6	< 12	< 11	< 12	< 4.7	< 5.3	< 58	< 64	0.0468	0.204	1.56	6.81
1,2-Dichlorobenzene	< 3.7	< 9.2	< 9.2	< 9.3	< 3.8	< 4.2	< 46	< 51	209	876	6950	29200
1,2-Dichloroethane	< 2.5	< 6.2	< 6.1	< 6.2	< 2.5	< 2.8	< 31	< 34	1.08	4.72	36	157
1,2-Dichloropropane	< 2.8	< 6.9	< 6.9	< 7.0	< 2.8	< 3.2	< 35	< 38	4.17	17.5	139	584
1,4-Dichlorobenzene	< 3.7	< 9.2	< 9.2	< 9.3	< 3.8	< 4.2	< 46	< 51	2.55	11.1	85.1	372
1,4-Dioxane	< 5.6	< 14	< 14	< 14	< 5.6	< 6.4	< 70	< 77	5.62	24.5	187	818
2-Butanone	< 4.6	35	< 11	< 12	6.8	< 5.3	< 58	< 64	NV	NV	NV	NV
Acetone	170	180	45	160	190	200	< 190	410	32200	135000	1070000	4510000
Benzene	2.3	8.8	< 4.6	< 4.7	< 1.9	< 2.1	< 23	< 26	3.6	15.7	120	524
Bromodichloromethane	< 4	< 10	< 9.9	< 10	< 4.1	< 4.6	< 50	< 55	0.759	3.31	25.3	110
Bromoform	< 16	< 40	< 40	< 40	< 16	< 18	< 200	< 220	25.5	111	851	3720
Bromomethane	< 5.9	< 15	< 14	< 15	< 6	< 6.7	< 74	< 81	5.21	21.9	174	730
Carbon disulfide	6.9	11	< 4.8	8	4.3	2.4	< 24	< 26	730	3070	24300	102000
Carbon tetrachloride	< 4	< 10	< 9.9	< 10	< 4.1	< 4.6	< 50	< 55	4.68	20.4	156	681
Chlorobenzene	< 2.8	< 6.9	< 6.9	< 7	< 2.8	< 3.2	< 35	< 38	52.1	219	1740	7300
Chloroform	5.1	< 7.7	< 7.6	< 7.8	< 4	< 3.5	< 39	< 43	1.22	5.33	40.7	178
cis-1,2-Dichloroethene	< 2.5	< 6.2	< 6.1	< 6.2	< 2.5	< 2.8	< 31	< 34	NS	NS	NS	NS
cis-1,3-Dichloropropene	< 2.8	< 6.9	< 6.9	< 7	< 2.8	< 3.2	< 35	< 38	NS	NS	NS	NS
Dibromochloromethane	< 5.2	< 13	< 13	< 13	< 5.3	< 6	< 66	< 72	NS	NS	NS	NS
Dichlorodifluoromethane	< 3.1	< 7.7	< 7.6	< 7.8	< 3.1	< 3.5	< 39	< 43	104	438	3480	14600
Ethylbenzene	7.2	< 6.9	< 6.9	8.8	4.2	6	< 35	< 38	11.2	49.1	374	1640
Isopropyl Alcohol	4400	460	850	5500	4700	4500	4500	29000	209	876	6950	29200
m,p-Xylene	29	< 13	< 13	35	18	25	< 66	< 72	104	438	3480	14600
Methyl tert-butyl ether	< 2.2	< 5.4	< 5.3	< 5.4	< 2.2	< 2.5	< 27	< 30	108	472	3600	15700
Methylene chloride	< 21	< 53	< 53	< 54	< 22	< 24	< 270	< 290	626	2630	20900	87600
Naphthalene	5.7	< 7.7	< 7.6	9.4	3.3	5.2	< 39	< 43	0.826	3.61	27.5	120
o-Xylene	11	< 6.9	< 6.9	13	6.8	9.2	< 35	< 38	104	438	3480	14600
Styrene	11	< 6.9	< 6.9	13	4.3	10	< 35	< 38	1040	4380	34800	146000
Tetrachloroethene	35	1900	790	460	93	160	37000	38000	41.7	175	1390	5840
Toluene	29	14	< 6.1	32	21	23	< 31	62	5210	21900	174000	730000
trans-1,2-Dichloroethene	< 2.5	< 6.2	< 6.1	< 6.2	< 2.5	< 2.8	< 31	< 34	NS	NS	NS	NS
trans-1,3-Dichloropropene	< 2.8	< 6.9	< 6.9	< 7	< 2.8	< 3.2	< 35	< 38	NS	NS	NS	NS
Trichloroethene	< 3.4	80	14	< 8.5	< 3.4	< 3.9	500	630	2.09	8.76	69.5	292
Trichlorofluoromethane	< 3.4	< 8.5	< 8.4	< 8.5	< 3.4	< 3.9	< 43	< 47	NS	NS	NS	NS
Vinyl acetate	< 22	< 54	< 53	< 54	< 22	< 25	< 270	< 300	209	876	6950	29200
Vinyl chloride	< 1.5	< 3.8	< 3.8	< 3.9	< 1.6	< 1.8	< 19	< 21	1.68	27.9	55.9	929
Xylenes, Total	40	< 20	< 20	49	25	34	< 100	< 110	104	438	3480	14600

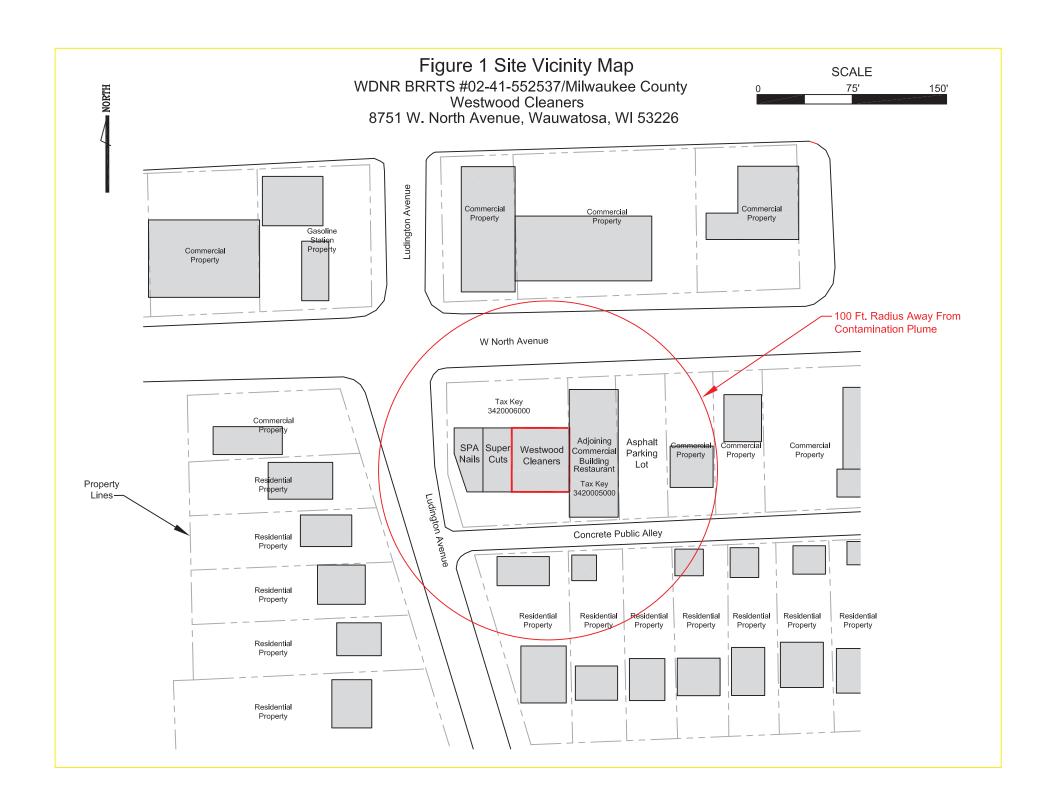
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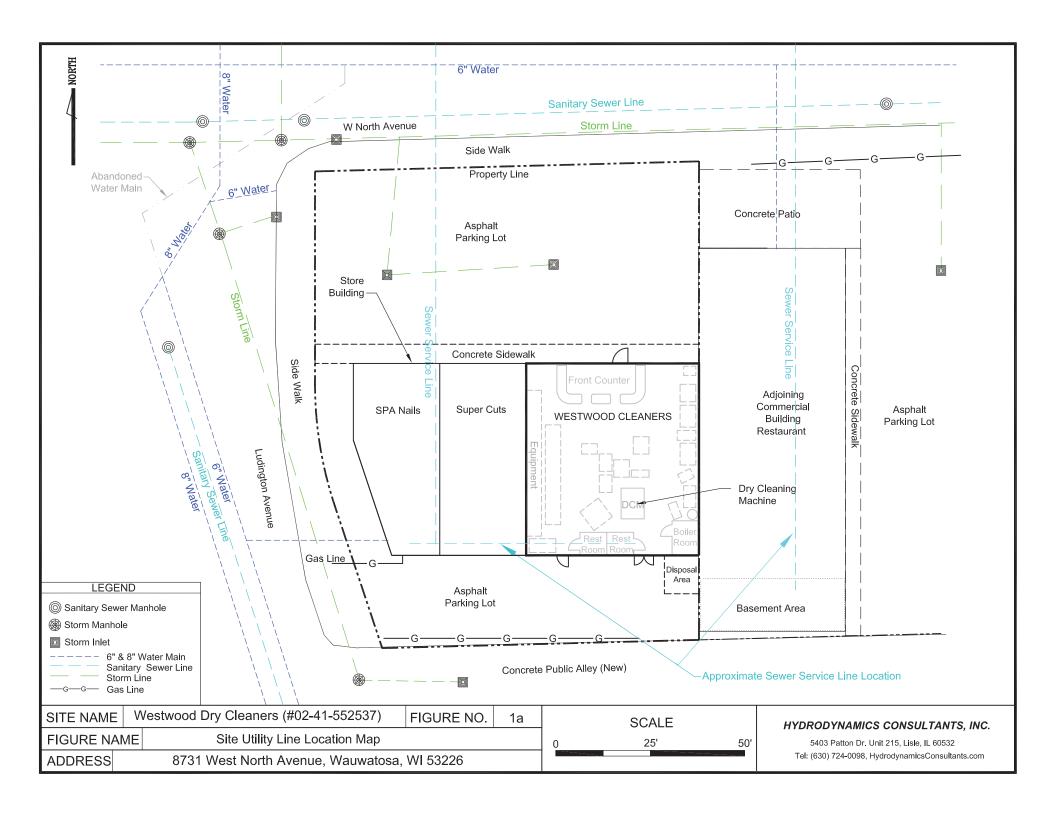
Bold fonts/Shaded boxes indicate the levels exceed the Quality Standards.

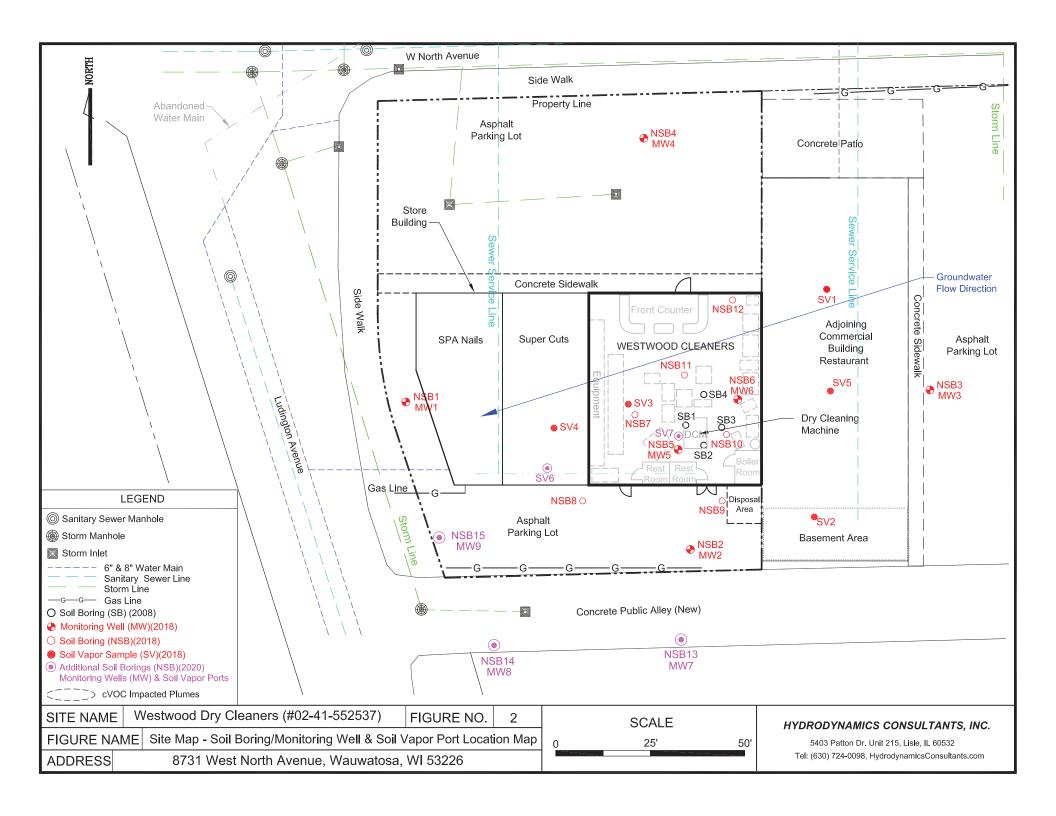
^{*} US EPA Vapor Intrusion Screening Levels (VISL) Calculator (Default Results)

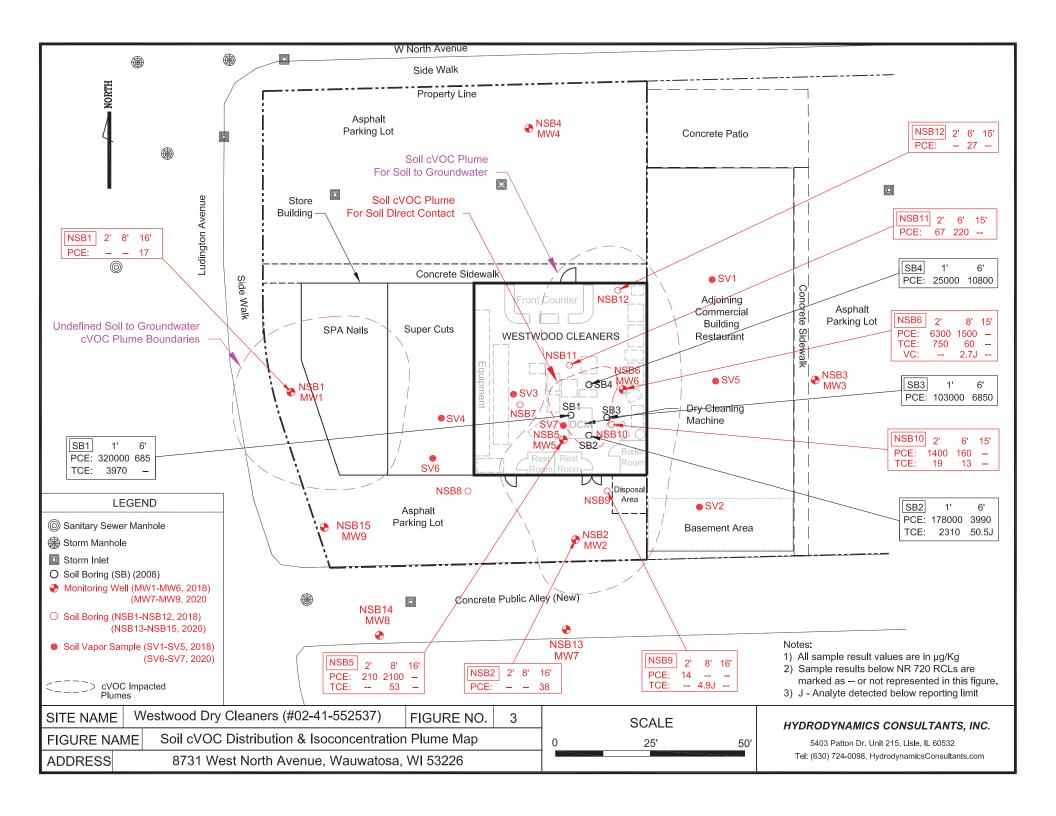
J - Analyte detected below reporting limit

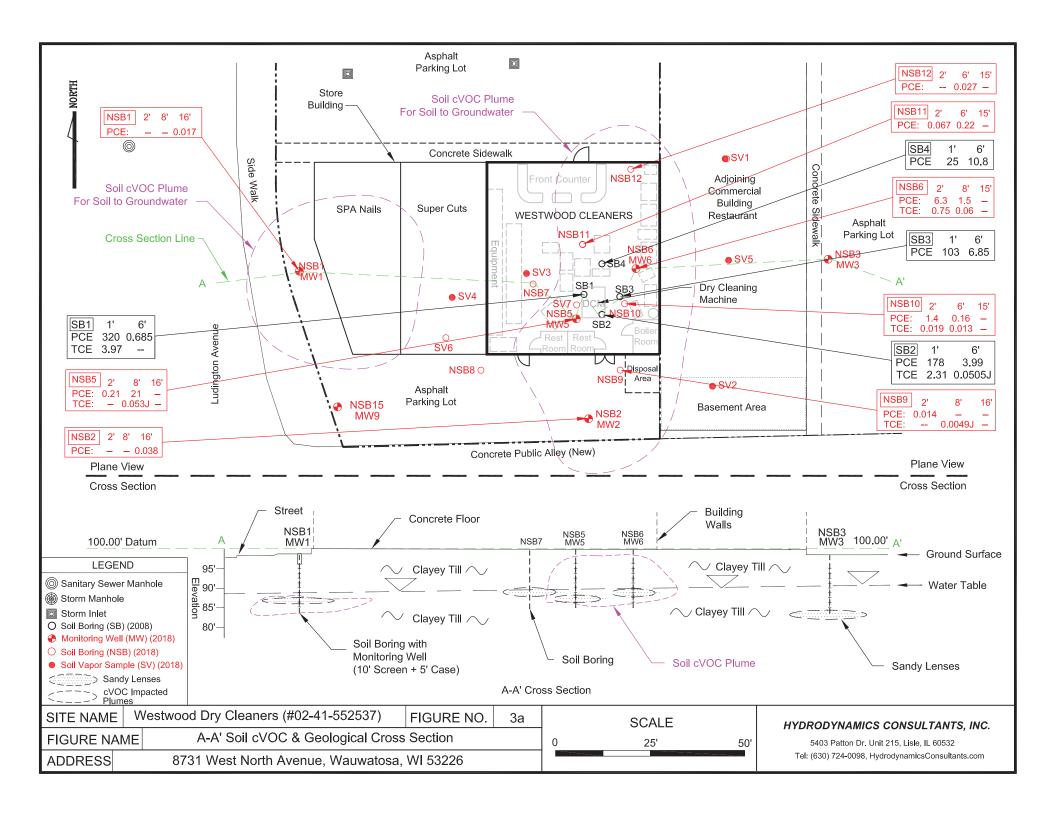
FIGURES

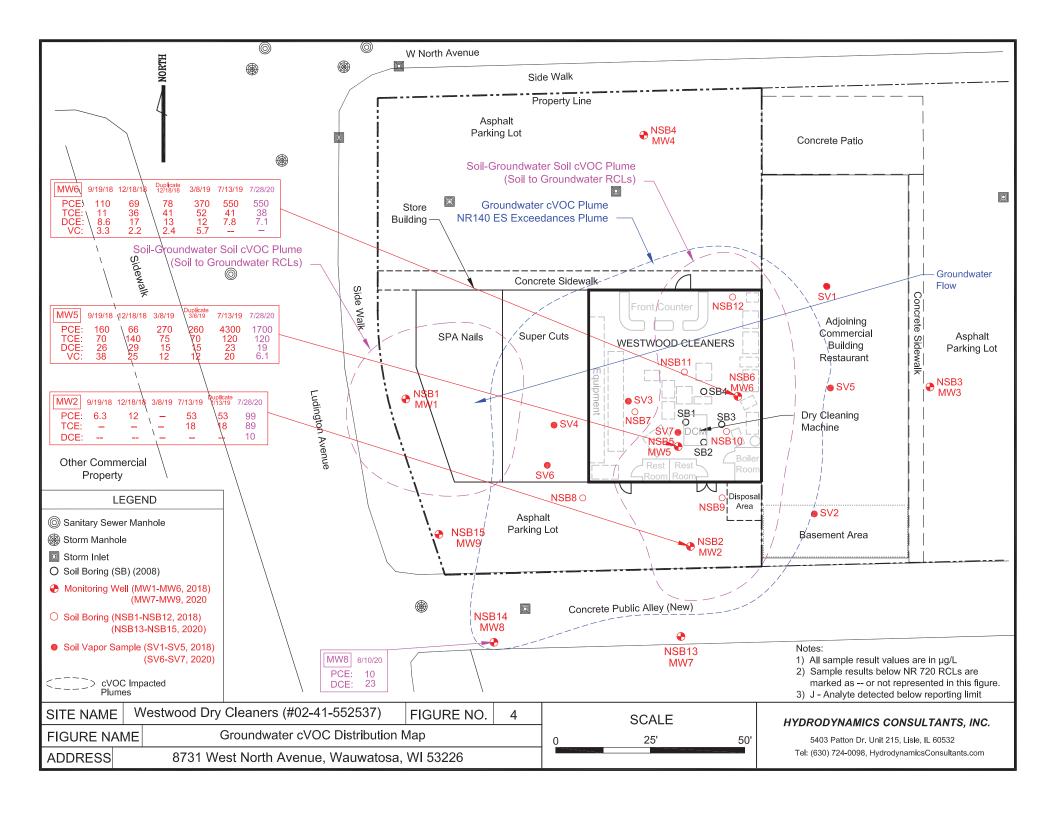


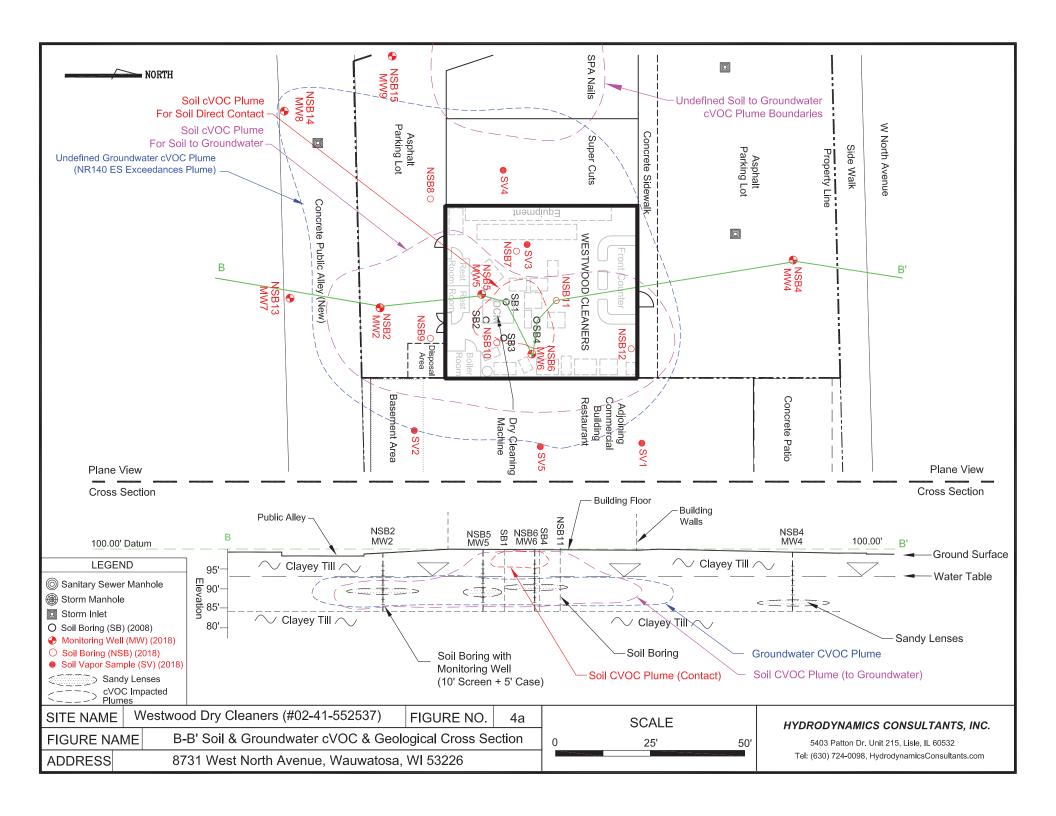


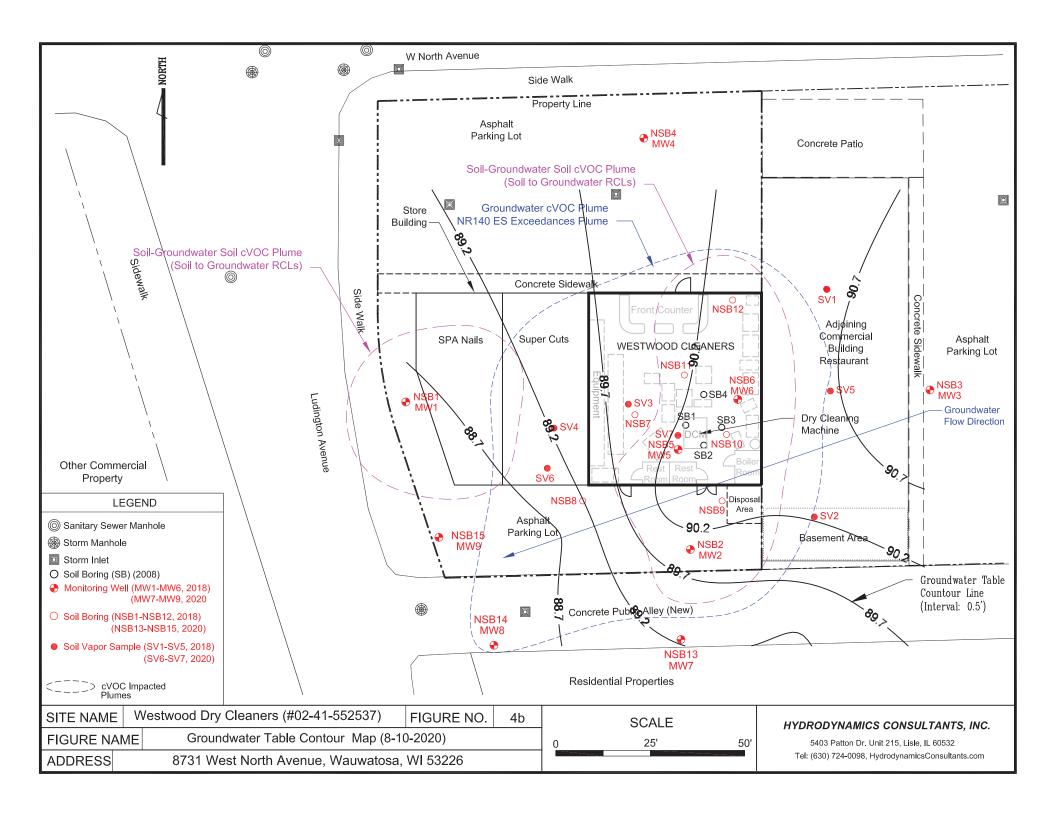


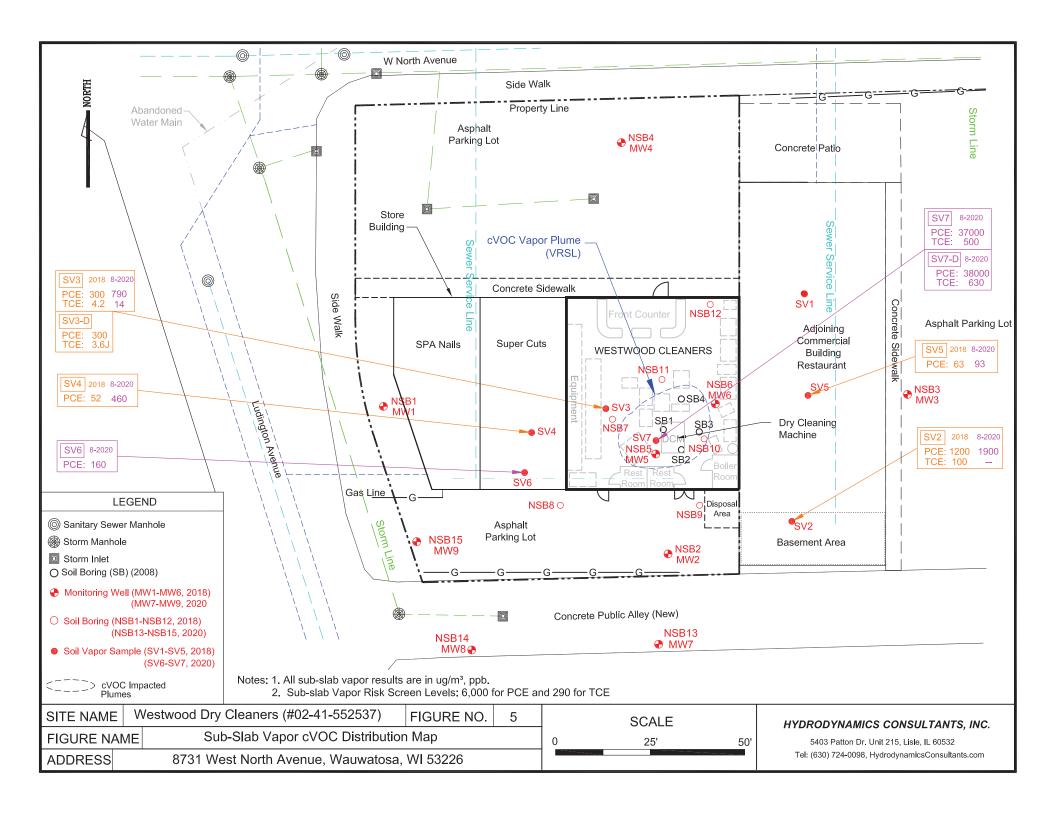


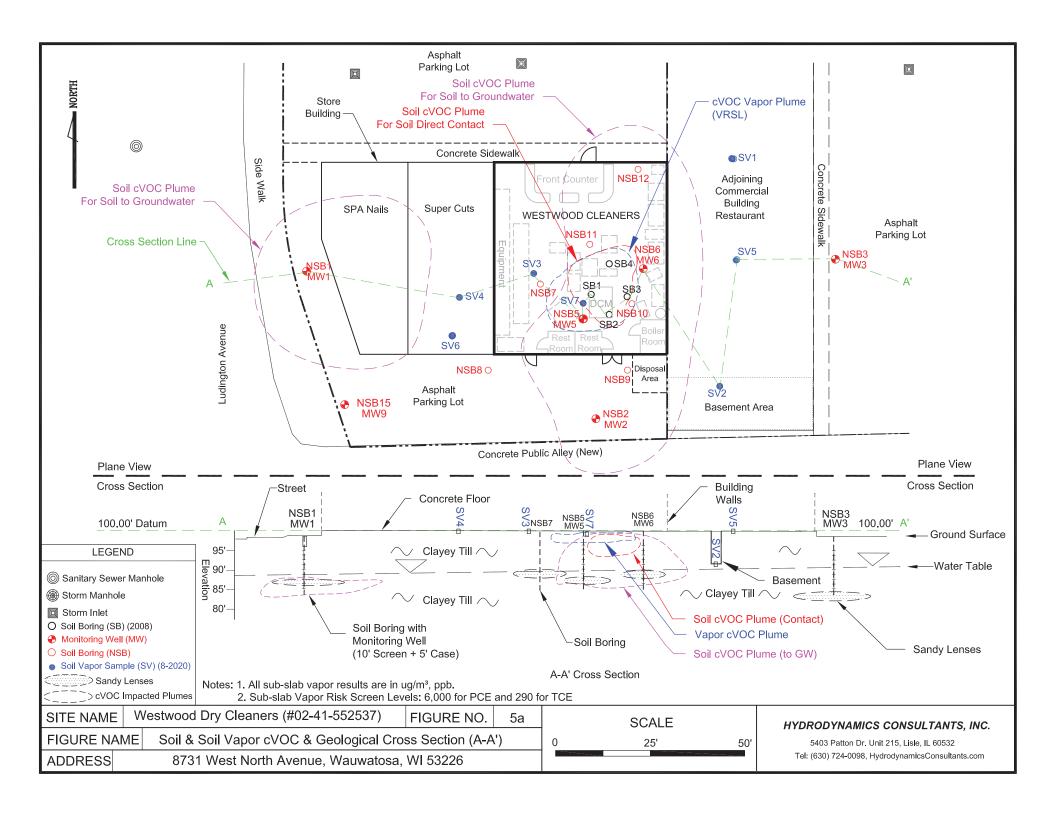


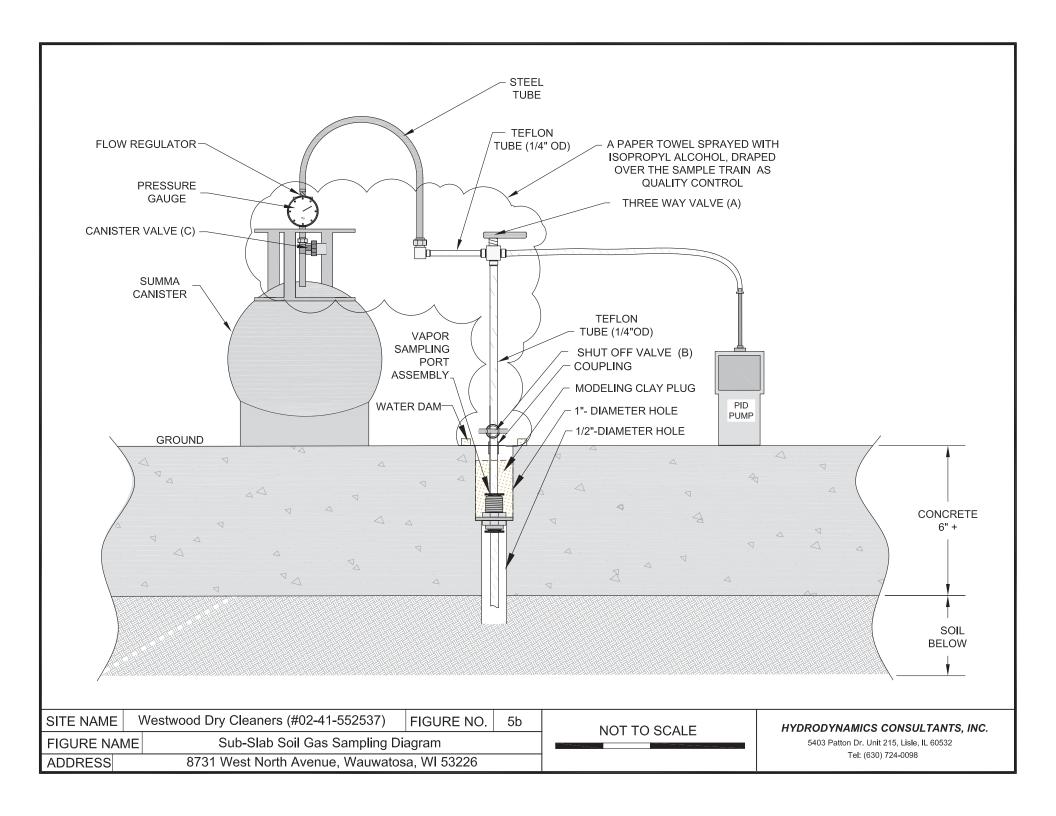












APPENDIX I ADDITIONAL SITE INVESTIGATION PHOTOS

Photos for Additional Site Investigation



Soil Boring and Monitoring Well Installation



Well Development/Purging



Installation of Soil Vapor Sampling Port on Concrete Floor



Finished New Soil Vapor Sampling Port



Water Dam Test for Vapor Port Leakage Check



Purge and Sampling for Sub-Slab Vapor

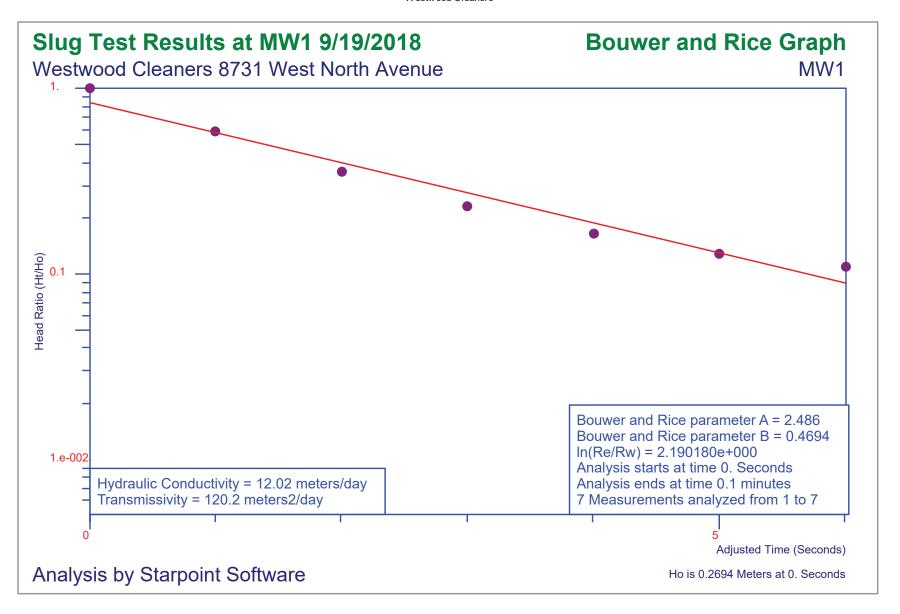


Spray Isopropyl Alcohol on the Paper Towers over the Sampling Train for Potential Leakage Check (QC)



Sampling in the Basement of the Restaurant Building Next to a Sump Manhole

APPENDIX II SLUG TEST RESULTS (FROM PREVIOUS REPORT)



Bouwer and Rice Automatic Parameter Estimation

Slug Test Results at MW1

Site Name: Westwood Cleaners
Location: 8731 West North Avenue

Test Date: 9/19/2018

Well Label:MW1Aquifer Thickness:10. MetersScreen Length:1.912 MetersCasing Radius:2.5e-002 MetersEffective Radius:5.7e-002 Meters

Bouwer and Rice Parameter A 2.486
Bouwer and Rice Parameter B 0.4694
Radius of Influence of Test 0.5094 Meters

Trial	Adjusted Time (minutes)	Head (Meters)	Head Ratio	Hyd. Con. (meters/day)	Flow to Well (Meters3/Day)
1	0.	0.2694	1.		
2	1.667e-002	0.16	0.5938	16.12	14.15
3	3.333e-002	9.708e-002	0.3604	15.78	8.404
4	5.e-002	6.242e-002	0.2317	15.07	5.162
5	6.667e-002	4.428e-002	0.1644	13.96	3.391
6	8.333e-002	3.488e-002	0.1295	12.65	2.419
7	0.1	2.943e-002	0.1092	11.41	1.842

Arithmetic Means:

Hydraulic Conductivity 14.17 meters/day Transmissivity 141.7 meters2/day

Geometric Means:

Hydraulic Conductivity 14.06 meters/day Transmissivity 140.6 meters2/day

Sensitivity Analysis:

Hydraulic Conductivity 14.7 meters/day
Transmissivity 147. meters2/day

APPENDIX III SOIL BORINGS LOGS WITH FIELD PID READINGS

Project Name:				License/Permit/Monitoring No.:				Boring/Well Log Number:				
Westwood Cleaners, BRRTS # 02-41-552537										NSB1/MW1		
Boring Drilled By: Yinong Han						Start	Date:	Fin	ish Date:	Drilling Me	thod:	
Firm:	Hydrody	namics (Consultants, Inc.			9/16	5/2018	9/	16/2018	be		
WI Uniq	ue Well	No.:	DNR Well ID No.:	Wel	l Name:	Final Static Water Level:			Surface Ele	Surface Elevation: 98.49 *		
						8.72 Feet SD			(100 ft. Site 1	$Datum (SD)^* = 750$	ft. MSL)	
			imated 🗹 or Boring Loca						Local Grid	Location:		
State Plan	n		N,	E		Lat <u>43</u>	3° 03' 3	6.9N "			□ E	
<u>NE</u> 1/4	of NW	1/4 of S	Sec <u>21</u> , T <u>07</u> N, R <u>2</u>	1		Long 8	8 ° <u>01</u> ' <u>19</u>	<u>0.30W</u> "	Feet [☐ S Feet	\square W	
Facility I	D:		County:		County Co	de:	Civil Tow	n/City/o	r Village:			
24	41836100		Milwaukee		41			ı	Wauwato	sa		
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sedi	ment Desc	cription		USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)	
	80	0 -	Grass					\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	2	Concrete (0-1.0')		
		1 -	Black topsoil, medium	stiff, mo	oist		ТО	(1477/11477)		III DV IG G		
NSB1-A		2 -								1" PVC Case (0-5.0') Bentonite	0	
		3 -	Brown clay, medium s	stiff, mois	st		CL			(1-3.0') Fine Sand		
	92	4 -							+ + + + +	(3-4.0')	0	
		5 -							+ + + + + + + + + + + + + + + + + + + +		0.4	
		6 -							+ + + + + + + + + + + + + + + + + + + +	1" PVC Screen	0.4	
NSB1-B	95	8 -							+ + + + + +	(5-15.0')	1.4	
		9 -							+ + + + + + + + + + + + + + + + + + + +	•		
		10 -							+ + + + + + + + + + + + + + + + + + + +	Sand Pack (4'-16')	1	
		11 -							+ + + + + + + + + + + + + + + + + + + +			
	95	12 -							+ + + + + + + + + + + + + + + + + + + +		1.1	
		13 -	Silty gray sand & grav	els, wet			GM		+ + + + + + + + + + + + + + + + + + + +			
		14 -	Silty gray clay, mediu	m stiff, w	vet		CL		+ + + + + + + + + + + + + + + + + + + +		0.1	
		15 -							+ + + + + + + + + + + + + + + + + + + +			
NSB1-C		16 -	End of Boring						+ + + + +		0.1	
		17 -										

I hereby cer	tify that the information on this for	orm is true and correct to the b	est of my knowledge.
Signature:	mll.	Firm:	
	Mike (Minghua) Wan, PE		Hydrodynamics Consultants, Inc.

Project N	lame:				License	/Permit/M	[onitoring]	No.:	Boring	g/Well Log Num	ber:
Westwood Cleaners, BRRTS # 02-41-552537									NSB2/MW2		
Boring Drilled By: Yinong Han				•	Start	Date:	Fin	ish Date:	Drilling Me	thod:	
Firm:	Hydrody	namics (Consultants, Inc.			9/16	/2018	9/	16/2018 GeoProb		be
WI Uniq	ue Well	No.:	DNR Well ID No.:	Wel	l Name:	Final Static Water Level:			Surface Elevation: 99.12 *		
						8.97 Feet SD			(100 ft. Site 1	$Datum (SD)^* = 750$	ft. MSL)
			imated 🗹 or Boring Loca						Local Grid	Location:	
State PlanN,E					Lat <u>43</u>	3° 03' 3	6.9N "			□ E	
<u>NE</u> 1/4	of NW	1/4 of	Sec <u>21</u> , T <u>07</u> N, R <u>2</u>	1		Long 8	8° <u>01</u> ' <u>19</u>	<u>0.30W</u> "	Feet [☐ S Feet	\square W
Facility I			County:		County Co	de:	Civil Tow	n/City/o	r Village:		
24	41836100		Milwaukee		41			1	Wauwato	osa	
Sample Number	Recovery (%)	Boring Depth (ft)	Søil/Sedi	iment Desc	eription		USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	90	0 -	Asphalt & gravels							Concrete (0-1.0')	
		1 -	Brown clay, medium s	stiff, mois	st		CL				
NSB2-A		2 -								1" PVC Case (0-5.0') Bentonite	0
		3 -								(1-3.0') Fine Sand	
	90	4 -							+ + + + + +	(3-4.0')	0
		5 -							+ + + + + +		0
		7 -							+ + + + + + + + + + + + + + + + + + + +	1" PVC Screen	U
NSB2-B	98	8 -	Moist to wet						+ + + + + +	(5-15.0')	0
		9 -	Silty gray clay, mediu	m stiff, w	vet		CL		+ + + + + + + + + + + + + + + + + + + +	•	
		10 -							+ + + + + + + + + + + + + + + + + + + +	Sand Pack (4'-16')	0
		11 -	Silty gray sand & grav	els, wet			GM	10505050 0,40,40 10505050	+ + + + + + + + + + + + + + + + + + + +		
	100	12 -	Silty gray clay, mediu	m stiff, w	vet		CL		+ + + + + + + + + + + + + + + + + + + +		0
		13 -							+ + + + + +		
		14 -							+ + + + + + + + + + + + + + + + + + + +		0
		15 -							+ + + + + + + + + + + + + + + + + + + +		
NSB2-C		16 -	End of Boring						+ + + + +		0
		17 -									
		10									

I hereby cer	rtify that the information on t	his form is true and correct to the bo	est of my knowledge.
Signature:	mll,	Firm:	
	Mike (Minghua) Wan, PE		Hydrodynamics Consultants, Inc.

Project N	lame:				License	/Permit/M	Ionitoring	No.:	Boring	g/Well Log Num	ber:	
Westwood Cleaners, BRRTS # 02-41-552537									NSB3/MW3			
Boring Drilled By: Yinong Han						Start	t Date:	Fin	ish Date:	Drilling Me	thod:	
Firm:	Hydrody	namics C	Consultants, Inc.			9/16	5/2018	9/	16/2018 GeoProbe			
WI Uniq	ue Well	No.:	DNR Well ID No.:	Well	l Name:	Final Static Water Level:			Surface Elevation: 100.76 *			
						10.23 Feet SD (2)			(100 ft. Site 1	(100 ft. Site Datum (SD)* = 750 ft. MSL)		
			imated 🗹 or Boring Loca						Local Grid			
State Plan	n		N,	E		Lat <u>43</u>	3° 03' 3	<u>6.9N</u> "			□ E	
		1/4 of S	Sec <u>21</u> , T <u>07</u> N, R <u>2</u>	1			8° 01' 19		Feet [S Feet	\square W	
Facility I	D:		County:		County Co	de:	Civil Tow	n/City/o	r Village:			
24	4183610		Milwaukee		41				Wauwato	sa		
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sedi	ment Desc	ription		USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)	
	98	0 -	Asphalt & gravels				PA			Concrete (0-1.0')		
		1 -	Gravel Fill				GW					
NSB3-A		2 -	Brown silty clay, mois	it			CL			1" PVC Case (0-5.0')	0	
		3 -								Bentonite (1-3.0')		
	85	4 -							+ + +	Fine Sand (3-4.0')	0	
		5 -							+ + + + + + + + + + + + + + + + + + + +			
		6 -							+ + + + + + + + + + + + + + + + + + + +		0	
		7 -							+ + + + + + + + + + + + + + + + + + + +	1" PVC Screen (5-15.0')		
NSB3-B	90	8 -	Silty brown clay, medi	ium stiff,	wet		CL		+ + + + + + + + + + + + + + + + + + + +		0	
		9 -	Moist to wet						+ + + + + +			
		10 -							+ + + + + + + + + + + + + + + + + + + +	G ID 1	0	
		11 -							+ + + + + + + + + + + + + + + + + + + +	Sand Pack (4'-16')		
	95	12 -							+ + + + + + + + + + + + + + + + + + + +		0	
		13 -							+ + + + + + + *			
		14 -						LINUNUNUNUNU	+ + + + + + + + + + + + + + + + + + + +		0	
		15 -	Silty fine sand, loose,	wet			SM		+ + + + + + + + + + + + + + + + + + + +			
NSB3-C		16 -	End of Boring						+ + + + +		0	
		17 -										
		18 -										
I hereby	certify	that the	information on this fo	orm is tri	ue and cori	ect to the	e best of	my knov	wledge			

,			J	8
Signature:	mlle	Firm:		
	Mike (Minghua) Wan, PE		Hydrodynamic	s Consultants, Inc.

Project Name:				License/Permit/Monitoring No.:				Boring/Well Log Number:			
Westwoo	d Cleane	rs, BRR	ΓS # 02-41-552537							NSB4/MW4	
Boring D	rilled By	Y: Yir	ong Han			Start	Date:	Fin	ish Date:	Drilling Me	thod:
Firm:	Hydrody	namics (Consultants, Inc.			9/16	5/2018	9/	16/2018	GeoProl	be
WI Uniq	ue Well	No.:	DNR Well ID No.:	Wel	l Name:	Final St	tatic Water	Level:	Surface Elevation: 98.88 *		
						8.44 Feet SD			(100 ft. Site 1	$Datum (SD)^* = 750$	ft. MSL)
			imated 🗾 or Boring Loca						Local Grid	Location:	
State Plan	n		N,	E		Lat <u>43</u>	3° 03' 3	<u>6.9N</u> "			□Е
<u>NE</u> 1/4 of <u>NW</u> 1/4 of Sec <u>21</u> , T <u>07</u> N, R <u>21</u>					Long 8	8 ° <u>01</u> ' <u>19</u>	<u>0.30W</u> "	Feet [☐ S Feet	\square W	
Facility I			County:		County Co	de:	Civil Tow	n/City/o	r Village:		
24	41836100		Milwaukee		41			1	Wauwato	sa	
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sedi	ment Desc	cription		USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	88	0 -	Asphalt & gravels				PA			Concrete (0-1.0')	
		1 -	Brown clay, medium s	tiff, mois	st		CL			1" PVC Case	
NSB4-A		2 -								(0-5.0') Bentonite	0
	0.5	3 -								(1-3.0') Fine Sand	0
	95	5 -							+ + + + + +	(3-4.0')	0
		6 -							+ + + + + +		0
		7 -							+ + + + + + + + + + + + + + + + + + + +	1" PVC Screen (5-15.0')	
NSB4-B	95	8 -	Moist to wet						+ + + + + + + + + + + + + + + + + + + +	(5-15.0)	0
		9 -							+ + + + + + + + + + + + + + + + + + + +		
		10 -							+ + + + + +	Sand Pack (4'-16')	0
		11 -							+ + + + + + + + + + + + + + + + + + + +		
	98	12 -	Silty gray clay, mediu	m stiff, w	vet		CL		+ + + + + + + + + + + + + + + + + + + +		0
		13 -	Cile of 1	4			CD. #	(/////////////////////////////////////	+ + + + + + + + + + + + + + + + + + + +		0
		14 -	Silty gray fine sand, w	et			SM		+ + + + + + + + + + + + + + + + + + + +		0
NSB4-C		16 -	Silty gray clay, mediu	m stiff, w	vet. End of I	Boring	CL		+ + + + + + + + + + + + + + + + + + + +		0
		17 -		,		J		<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	+ + + + +		
		18 -									

I hereby certif	y that the information on this form is tru	e and correct to the be	est of my knowledge.
Signature:	milli.	Firm:	
AKI.	like (Minghua) Wan, PE		Hydrodynamics Consultants, Inc.

Project N	lame:				License	/Permit/M	Ionitoring	No.:	Boring	g/Well Log Num	ber:
Westwood Cleaners, BRRTS # 02-41-552537										NSB5/MW5	
Boring Drilled By: Yinong Han						Start	t Date:	Fin	ish Date:	Drilling Me	thod:
Firm:	Hydrody	namics (Consultants, Inc.			9/16	5/2018	9/	16/2018 GeoProbe		
WI Uniq	ue Well	No.:	DNR Well ID No.:	Wel	l Name:	Final St	tatic Water	Level:	Surface Elevation: 99.95 *		
						9.61	9.61 Feet SD (100 ft. Site Datum (SD)* :				ft. MSL)
			imated 🗹 or Boring Loca						Local Grid	Location:	
State Plan	n		N,	E		Lat <u>43</u>	3° 03' 3	6.9N "			□ E
<u>NE</u> 1/4	of NW	1/4 of	Sec 21 , T 07 N, R 2	1		Long 8	8 ° <u>01</u> ' <u>1</u> 9	<u>9.30W</u> "	Feet [S Feet	\square W
Facility I	D:		County:		County Co	de:	Civil Tow	n/City/o	r Village:		
24	4183610		Milwaukee		41				Wauwato	sa	
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sedi	ment Desc	eription		USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	92	0 -	Concrete & gravels				СО	b		Concrete (0-1.0')	
		1 -	Brown clay, medium s	tiff, mois	st		CL				
NSB5-A		2 -								1" PVC Case (0-5.0')	0.5
		3 -								Bentonite (1-3.0')	
	95	4 -							+ + +	Fine Sand (3-4.0')	0.4
		5 -							+ + + + +		
		6 -	Moist to wet						+ + + + + +		1
		7 -							+ + + + + + + + + + + + + + + + + + + +	1" PVC Screen (5-15.0')	
NSB5-B	100	8 -							+ + + + + + + + + + + + + + + + + + + +		2.8
		9 -							+ + + + + + +	•	
		10 -							+ + + + + + + + + + + + + + + + + + + +	Sand Pack (4'-16')	0.9
		11 -	Silty gray clay, medium	m stiff, w	vet		CL		+ + + + + + + + + + + + + + + + + + + +		
	100	12 -							+ + + + + + + + + + + + + + + + + + + +		0.4
		13 -	Silty gray fine sand, w	et			SM		+ + + + + + + + + + + + + + + + + + + +		
		14 -							+ + + + + + + + + + + + + + + + + + + +		0
		15 -							+ + + + + + + + + + + + + + + + + + + +		
NSB5-C		16 -	Silty gray clay, medium	m stiff, w	vet. End of I	Boring	CL		+ + + + + +		0
		17 -									
		18 -									
I hereby	cortify	that the	information on this fo	rm is tr	ue and corr	ect to the	a best of	my knov	vladga	<u> </u>	_

I merecy ce	and the intermediation on this torn	ii ib ti de dila collect to tile oct	of my knowledge.
Signature:	mll.	Firm:	
	Mike (Minghua) Wan, PE		Hydrodynamics Consultants, Inc

Project N	lame:				License	/Permit/M	Ionitoring	No.:	Boring	g/Well Log Num	ber:
Westwood Cleaners, BRRTS # 02-41-552537										NSB6/MW6	
Boring D	rilled By	Y: Yin	ong Han			Start	t Date:	Fin	ish Date:	Drilling Me	thod:
Firm:	Hydrody	namics C	Consultants, Inc.						16/2018 GeoProb		be
WI Unio	que Well	No.:	DNR Well ID No.:	Wel	l Name:	Final Static Water Level:			Surface Ele	vation: <u>100.00</u>	*
						9.76	Feet SD		(100 ft. Site I	$Datum (SD)^* = 750$	ft. MSL)
	_		mated 🗸 or Boring Locat						Local Grid		
			N,				3° 03' 3				Е
		1/4 of S	Sec 21 , T 07 N, R 21	_	1		8 ° <u>01</u> ' <u>19</u>			S Feet	\square W
Facility I			County:		County Co		Civil Tow	n/City/o	_		
	41836100		Milwaukee		41			I	Wauwato	osa	
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sedin	nent Desc	cription		USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	90	0 -	Concrete & gravels				СО	b		Concrete (0-1.0')	
		1 -	Brown clay, medium st	iff, mois	st		CL				
NSB6-A		2 -								1" PVC Case (0-5.0')	6.4
		3 -								Bentonite (1-3.0')	
	93	4 -							+ + + +	Fine Sand (3-4.0')	6.7
		5 -							+ + + + + +		
		6 -	Moist to wet						+ + + + + + + + + + + + + + + + + + + +	1" PVC Screen	3.3
	0.5	7 -							+ + + + + + +	(5-15.0')	
NSB6-B	95	8 -							+ + + + + + + + + + + + + + + + + + + +	_	2.5
		10 -	Silty gray fine sand, we	·t			SM		+ + + + + + + + + + + + + + + + + + + +	Sand Pack	2.2
		11 -	Sitty gray Time saina, we						+ + + + + + + + + + + + + + + + + + + +	(4'-16')	2.2
	100	12 -	Silty gray clay, medium	n stiff, w	vet		CL	rurururur //////////	+ + + + + + + + + + + + + + + + + + + +		0.2
		13 -							+ + + + + + + + + + + + + + + + + + + +		
		14 -							+ + + + + + + + + + + + + + + + + + + +		0
		15 -							+ + + + + + + + + + + + + + + + + + + +		
NSB6-C		16 -	End of Boring						+ + + + + + + + + + + + + + + + + + + +		0
		17 -						<u> </u>	<u> </u>		
		18 -									

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

Signature:

Hydrodynamics Consultants, Inc.

Project N	lame:			Licen	se/Permit/N	Ionitoring	No.:	Boring/Well Log Number:			
Westwoo	d Cleane	rs, BRRT	S# 02-41-552537						NSB7		
Boring D	rilled By	Y: Yin	ong Han		Star	t Date:	Fin	ish Date:	Drilling Me	thod:	
Firm:	Hydrody	namics C	consultants, Inc.		9/16	5/2018	9/	16/2018	GeoProl	be	
WI Uniq	ue Well	No.:	DNR Well ID No.:	Well Name:	Final S	tatic Water	r Level:	Surface Ele	vation:	*	
					6	Feet SD		(100 ft. Site 1	Datum (SD)* = 750	ft. MSL)	
	_		mated or Boring Location					Local Grid			
			N,F			3° 03' 3				□ E	
		_ 1/4 of S	Sec <u>21</u> , T <u>07</u> N, R <u>21</u>	I a		88 ° 01 ' 19			S Feet	\square W	
Facility I	บ: 41836100	1	County: Milwaukee	County	Code: 41	Civil Tov	vn/City/o	r village: Wauwato			
			Minwaukee		71			vv au vv au	isa —	û	
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment	Description		USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)	
	89	0 -	Concrete & gravels			СО	4 4 4				
		1 -					, b , a,				
NSB7-A		2 -	Brown clay, medium stiff, r	noist		CL				1.4	
		3 -									
	95	4 -								1.6	
		5 -							_		
		6 -	Moist to wet							1.7	
NSB7-B	100	7 -								2	
NOD/ D	100	9 -								2	
		10 -	Silty gray fine sand, wet			SM				0.6	
		11 -									
	100	12 -	Silty gray clay, medium stif	f, wet		CL				0.4	
		13 -									
		14 -								0.2	
		15 -									
NSB7-C		16 -	End of Boring							0	
		17 -									
		18 -									

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

Signature:

Hydrodynamics Consultants, Inc.

Project N	Project Name:					License/Permit/Monitoring No.:				Boring/Well Log Number:		
Westwoo	d Cleane	rs, BRR	ΓS # 02-41-552537							NSB8		
Boring D	rilled By	Yi Yii	ong Han		•	Start	t Date:	Fin	ish Date:	Drilling Me	thod:	
Firm:	Hydrody	namics (Consultants, Inc.			9/16	5/2018	9/	16/2018	GeoProl	be	
WI Uniq	ue Well	No.:	DNR Well ID No.:	Wel	l Name:	Final St	tatic Water	Level;	Surface Ele	vation:	*	
						8	Feet SD		(100 ft. Site 1	Datum (SD)* = 750	ft. MSL)	
			imated 🗸 or Boring Loca						Local Grid			
			N,				3° 03' 3				□ E	
		1/4 of	Sec <u>21</u> , T <u>07</u> N, R <u>2</u>	1	1		88 ° 01 ' 19		Feet [S Feet	\square W	
Facility I		_	County:		County Co		Civil Tow	n/City/o	Ü			
	41836100		Milwaukee		41			ı	Wauwato	osa		
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sedi	ment Desc	cription		USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)	
	86	0 -	Asphalt & gravels				PA					
		1 -	Brown clay, medium s	tiff, mois	st		CL					
NSB8-A		2 -									0.5	
	00	3 -									0.6	
	90	5 -									0.6	
		6 -									1.1	
		7 -										
NSB8-B	90	8 -	Moist to wet							•	1.7	
		9 -										
		10 -	Silty gray fine sand, w	ret			SM				0.4	
		11 -										
	98	12 -									0.2	
		13 -									0	
		14 -									0	
NSB8-C		16 -	End of Boring								0	
		17 -										
		18 -										

I hereby certify that the information on this form is true and correct to the best of my knowledge.									
Signature:	mll,	Firm:							
	Mike (Minghua) Wan, PE		Hydrodynamics Consultants, Inc.						

Project N	lame:			License/Permit/Monitoring No.:				No.:	Boring/Well Log Number:			
Westwoo	d Cleane	rs, BRRT	S# 02-41-552537							NSB9		
Boring D	rilled By	Y: Yin	ong Han			Start	Date:	Fin	ish Date:	Drilling Me	thod:	
Firm:	Hydrody	namics C	consultants, Inc.			9/16	/2018	9/	16/2018	GeoProl	be	
WI Uniq	ue Well	No.:	DNR Well ID No.:	Well Name:		Final St	atic Water	Level:	Surface Ele	vation:	*	
						8	Feet SD		(100 ft. Site 1	$Datum (SD)^* = 750$	ft. MSL)	
	_		mated or Boring Location						Local Grid			
			N, I	C			3° <u>03' 3</u>				□ E	
		_ 1/4 of S	Sec <u>21</u> , T <u>07</u> N, R <u>21</u>				8° 01' 19			S Feet	⊔ w	
Facility I	บ: 41836100	1	County: Milwaukee	County	y Coc 41	ie:	Civil Tow	n/City/o	r village: Wauwato			
			Milwaukee		71				vv au vv au	isa —	û	
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment	Description			USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)	
											Ь	
	85	0 -	Asphalt & gravels				PA					
		1 -	Brown clay, medium stiff,	moist			CL					
NSB9-A		2 -									0.9	
		3 -										
	88	4 -									0.5	
		5 -										
		6 -									0.5	
		7 -										
NSB9-B	92	8 -	Moist to wet							•	0.1	
		9 -										
		10 -	Silty gray fine sand, wet				SM				0.9	
		11 -										
	95	12 -	Silty gray clay, medium sti	ff, wet			CL				0.2	
		13 -										
		14 -									0	
		15 -										
NSB9-C		16 -	End of Boring								0	
		17 -										
		18 -										

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

Signature:

Hydrodynamics Consultants, Inc.

Project N	Project Name:					/Permit/N	Ionitoring	No.:	Boring/Well Log Number:			
Westwoo	d Cleanei	rs, BRRT	S # 02-41-552537							NSB10		
Boring Di	rilled By	Yind	ong Han			Start	t Date:	Fin	ish Date:	Drilling Me	ethod:	
Firm:	Hydrodyı	namics C	onsultants, Inc.			9/16	5/2018	9/	16/2018	GeoPro	be	
WI Uniq	ue Well	No.:	DNR Well ID No.:	Wel	l Name:	Final St	tatic Water	r Level:			*	
						6	Feet SD			$Datum (SD)^* = 750$	ft. MSL)	
			mated or Boring Locat						Local Grid		_	
			N,				3° 03' 3				□ E	
		1/4 of S	ec <u>21</u> , T <u>07</u> N, R <u>21</u>				88 ° 01 ' 19		Feet	S Feet	\square W	
Facility II			County:		County Co		Civil Tow	vn/City/o	_			
	11836100		Milwaukee		41			Ι	Wauwato	osa		
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sedi	ment Desc	cription		USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)	
	89	0 -	Concrete & gravels				СО	4 , ,				
		1 -	Brown clay, medium s	own clay, medium stiff, moist								
NSB10-A		2 -									0.3	
	02	3 -									0.5	
	93	4 - 5 -									0.5	
NSB10-B		6 -	Moist to wet							•	0.7	
		7 -								•	0.7	
	100	8 -									0.1	
		9 -										
		10 -	Silty gray fine sand, w	et			SM				0.2	
		11 -										
	100	12 -	Silty gray clay, mediun	m stiff, w	vet		CL				0.5	
		13 -										
		14 -									0	
NSB10-C		15 -	End of Boring								0	
110010-0		17 -	Did of Borning									
		18 -										

I hereby cer	rtify that the information on this t	form is true and correct to the be	st of my knowledge.
Signature:	mall -	Firm:	
_	Mike (Minghua) Wan, PE		Hydrodynamics Consultants, Inc

Project N	ame:				License	/Permit/M	lonitoring	No.:	Boring/Well Log Number:			
_		rs, BRRT	S # 02-41-552537							NSB11		
Boring Di			ong Han			Start	Date:	Fin	ish Date:	Drilling Me	ethod:	
Firm:	Hydrody	namics Co	onsultants, Inc.			9/16	/2018	9/	16/2018	GeoProl		
WI Uniq	ue Well	No.:	DNR Well ID No.:	Wel	ll Name:	Final St	tatic Water	Level:	Surface Ele	vation:	*	
						6	Feet SD		(100 ft. Site 1	$Datum (SD)^* = 750$	ft. MSL)	
	_		nated 🛂 or Boring Loca						Local Grid	Location:		
State Plan	,		N,				3° 03' 3				□ E	
		1/4 of S	ec 21 , T 07 N, R 21				8° 01' 19			S Feet	\square W	
Facility II			County:		County Co		Civil Tov	n/City/o	_			
	4183610 0		Milwaukee		41				Wauwato	sa		
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sedi	ment Desc	cription		USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)	
	90	0 -	Concrete & gravels				СО	<u> </u>				
		1 -	Brown clay, medium s	tiff, moi	st		CL					
NSB11-A		2 -									0.1	
		3 -										
	95	4 -									0.1	
NSB11-B		5 -	Moist to wet							_	0.5	
NSBII-B		6 - 7 -	Moist to wet							•	0.3	
	100	8 -									0.1	
		9 -										
		10 -	Silty gray fine sand, w	et			SM				0.1	
		11 -										
	100	12 -	Silty gray clay, mediu	m stiff, v	vet		CL				0.1	
		13 -										
		14 -									0	
		15 -										
NSB11-C		16 -	End of Boring								0	
		17 -										

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

Signature:

Firm:

Hydrodynamics Consultants, Inc.

Project N	ame:				License	/Permit/M	lonitoring	No.:	Boring/Well Log Number:			
Westwoo	d Cleaner	s, BRRT	S # 02-41-552537							NSB12		
Boring Di	rilled By	: Yinc	ong Han			Start	Date:	Fin	ish Date:	Drilling Me	ethod:	
Firm:	Hydrody	namics Co	onsultants, Inc.			9/16	/2018	9/	16/2018	GeoPro	be	
WI Uniq	ue Well	No.:	DNR Well ID No.:	Wel	l Name:	Final St	tatic Water	Level:	Surface Ele	vation:	*	
						6	Feet SD			$Datum (SD)^* = 750$	ft. MSL)	
	_		natedor Boring Locat						Local Grid		_	
			N,				3° 03' 3				Е	
		1/4 of S	ec <u>21</u> , T <u>07</u> N, R <u>21</u>		I		8° 01' 19			S Feet	\square W	
Facility II			County:		County Co		Civil Tow	n/City/o				
	11836100		Milwaukee		41			<u> </u>	Wauwato)sa 		
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sedi	ment Desc	cription		USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)	
	89	0 -	Concrete & gravels				СО	b				
		1 -						, b , ,, , b , ,,				
NSB12-A		2 -	Brown clay, medium s	tiff, moi	st		CL				0	
		3 -										
	96	4 -									0	
NSB12-B		5 - 6 -	Moist to wet								0	
NSB12-B		7 -	ivioist to wet							•	U	
	100	8 -									0	
		9 -										
		10 -	Silty gray fine sand, w	et			SM				0	
		11 -										
	100	12 -	Silty gray clay, mediun	n stiff, v	vet		CL				0	
		13 -										
		14 -									0	
NSB12-C		15 -	End of Boring								0	
INSDIZ-C		17 -	End of Dolling								U	
		18 -										

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

Signature:

Firm:

Hydrodynamics Consultants, Inc.

Project N	ame:				License	/Permit/M	Ionitoring	No.:	Boring/Well Log Number:			
Westwoo	d Cleanei	rs, BRRT	S # 02-41-552537							NSB13/MW7		
Boring Di	rilled By	Ying	ong Han			Start	t Date:	Fin	ish Date:	Drilling Me	thod:	
Firm:	Hydrodyı	namics Co	onsultants, Inc.			7/28	3/2020	7/2	28/2020	GeoProl	oe .	
WI Uniq	ue Well	No.:	DNR Well ID No.:	Wel	l Name:	Final St	tatic Water	Level:	Surface Ele	vation:	*	
						8	Feet SD			$Datum (SD)^* = 750.$	ft. MSL)	
	_		nated 🔟 or Boring Locat						Local Grid			
			N,				3° 03' 3				□ E	
NE 1/4 Facility II		1/4 of S	ec <u>21</u> , T <u>07</u> N, R <u>21</u> County:		County Co		88 ° <u>01 ' 19</u> Civil Tov			S Feet	⊔ w	
· ·	u: 41836100	1	Milwaukee		41		CIVII 10W	/II/City/oi	Wauwato	169		
			1711177 Marice					ပ	· · · · · · · · · · · · · · · · · · ·	754	(ii	
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sedin	nent Desc	cription		USCS	Graphic Log	Well Diagram	Well Information	РІО (ррт)	
	70	0 -	Concrete & gravels				СО	A 4 4		Concrete (0-1.0')		
		1 -						, b				
NSB13-A		2 -	Silty gray clay, mediun	n stiff, n	noist		CL			1" PVC Case (0-5.0')	0	
		3 -								Bentonite (1-3.0')		
	90	4 -							+ + +	Fine Sand (3-4.0')	0	
		5 -	Silty brown clay, media	um stiff,	, moist				+ + + + + + + + + + + + + + + + + + + +			
		6 -							+ + + + + + + + + + + + + + + + + + + +	11 DVG G	0	
		7 -							+ + + + + + + + + + + + + + + + + + + +	1" PVC Screen (5-15.0')		
NSB13-B	85	8 -	Wet						+ + + + + + + + + + + + + + + + + + + +	•	0	
		9 -	Cil	_4			CM	DADADADADADAD	+ + + + + + + + + + + + + + + + + + + +	Sand Pack	0	
		10 -	Silty fine gray sand, we	ei.			SM		+ + + + + + + + + + + + + + + + + + + +	(4'-16')	0	
	85	12 -							+ + + + + + + + + + + + + + + + + + + +		0	
		13 -							+ + + + + + + + + + + + + + + + + + + +			
		14 -	Silty gray clay, stiff, w	et			CL		+ + + + + + + + + + + + + + + + + + + +		0	
		15 -							+ + + + + + + + + + + + + + + + + + + +			
NSB13-C		16 -	End of Boring						+ + + + + + + + + + + + + + + + + + + +		0	
		17 -						v/////////////////////////////////////	<u> </u>			
		18 -										

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

Signature:

Firm:

Hydrodynamics Consultants, Inc.

Project N	ame:				License	/Permit/M	Ionitoring	No.:	Boring/Well Log Number:			
Westwoo	d Cleaner	s, BRRT	S # 02-41-552537						,	NSB14/MW8		
Boring Di	rilled By	Yind	ong Han			Start	t Date:	Fin	ish Date:	Drilling Me	thod:	
Firm:	Hydrodyı	namics Co	onsultants, Inc.			7/28	3/2020	7/2	28/2020	GeoProl	be	
WI Uniq	ue Well	No.:	DNR Well ID No.:	Wel	l Name:	Final St	tatic Water	Level:	Surface Ele	vation:	*	
						8	Feet SD		(100 ft. Site 1	$Datum (SD)^* = 750$	ft. MSL)	
	_		natedor Boring Locat						Local Grid Location:			
			N,				3° 03' 3				□ E	
		1/4 of S	ec <u>21</u> , T <u>07</u> N, R <u>21</u>				88° 01' 19			S Feet	$\sqcup \mathbf{w}$	
Facility II			County:		County Co		Civil Tow	n/City/o	_			
	1836100		Milwaukee		41			T	Wauwato	osa	ā	
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sedi	ment Desc	eription		USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)	
	75	0 -	Concrete & gravels				СО	<u> </u>		Concrete (0-1.0')		
		1 -						, b , a, , , , , , , , , , , , , , , , ,				
NSB14-A		2 -	Silty gray clay, mediur	n stiff, n	noist		CL			1" PVC Case (0-5.0')	0	
		3 -								Bentonite (1-3.0')		
	90	4 -							+ + +	Fine Sand (3-4.0')	0	
		5 -							+ + + + + + + + + + + + + + + + + + + +			
		6 -	Silty brown clay, medi	um stiff,	, moist				+ + + + + + + + + + + + + + + + + + + +	III DVG G	0	
		7 -							+ + + + + + + + + + + + + + + + + + + +	1" PVC Screen (5-15.0')		
NSB14-B	85	8 -	Wet						+ + + + + + + + + + + + + + + + + + + +		0	
		9 -						UNUKUNUNUKU	+ + + + + + + + + + + + + + + + + + + +	Sand Pack		
		10 -	Silty gray sand with gr	avel, we	t		SM		+ + + + + + + + + + + + + + + + + + + +	(4'-16')	0	
	85	11 - 12 -							+ + + + + + + + + + + + + + + + + + + +		0	
	0.5	13 -							+ + + + + + + + + + + + + + + + + + + +		O	
		14 -	Silty gray clay, stiff, w	ret			CL		+ + + + + + + + + + + + + + + + + + + +		0	
		15 -							+ + + + + + + + + + + + + + + + + + + +			
NSB14-C		16 -	End of Boring						+ + + + + + + + + + + + + + + + + + + +		0	
		17 -						<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	X + ' + ' + ^T +			
		18 -										

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

Signature:

Firm:

Hydrodynamics Consultants, Inc.

Project N	ame:				License	/Permit/N	Ionitoring	No.:	Boring/Well Log Number:			
Westwoo	d Cleane	rs, BRRT	S # 02-41-552537							NSB15/MW9		
Boring D	rilled By	: Yind	ong Han			Start	t Date:	Fin	ish Date:	Drilling Me	thod:	
Firm:	Hydrody	namics Co	onsultants, Inc.			7/28	3/2020	7/2	28/2020	GeoProl	be	
WI Uniq	ue Well	No.:	DNR Well ID No.:	Wel	l Name:	Final St	tatic Water	Level:	Surface Ele	vation:	*	
						8	Feet SD		(100 ft. Site	Datum (SD)* = 750	ft. MSL)	
	_		nated 🗹 or Boring Locati						Local Grid		_	
			N,				3° 03' 3				□ E	
		1/4 of S	ec <u>21</u> , T <u>07</u> N, R <u>21</u>		G . G		88° 01' 19			S Feet	⊔ W	
Facility II	บ: 41836100		County: Milwaukee		County Co		Civil Tow	n/City/o	r village: Wauwate	000		
			Milwaukee		71				wauwau	osa –	Î	
Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sedim	ient Desc	cription		USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)	
	70	0 -	Asphalt & gravels				СО			Concrete (0-1.0')		
		1 -						18871888988				
NSB15-A		2 -	Silty gray clay, medium	stiff, n	noist		CL			1" PVC Case (0-5.0')	0	
		3 -								Bentonite (1-3.0')		
	95	4 -							+ + + +	Fine Sand (3-4.0')	0	
		5 -							+ + + + + +			
		6 -							+ + + + + + + + + + + + + + + + + + + +	1" PVC Screen	0	
NCD15 D	00	7 -	W						+ + + + + + + + + + + + + + + + + + + +	(5-15.0')	0	
NSB15-B	90	8 - 9 -	Wet						+ + + + + + + + + + + + + + + + + + + +		0	
		10 -	Fine gray sand, wet				SM		+ + + + + + + + + + + + + + + + + + + +	Sand Pack	0	
		11 -							+ + + + + + + + + + + + + + + + + + + +	(4'-16')		
	85	12 -							+ + + + + + + + + + + + + + + + + + + +		0	
		13 -	Silty gray clay, stiff, we	et			CL		+ + + + + + + + + + + + + + + + + + + +			
		14 -							+ + + + + + + + + + + + + + + + + + + +		0	
		15 -							+ + + + + + + + + + + + + + + + + + + +			
NSB15-C		16 -	End of Boring						+ + + + + + + + + + + + + + + + + + + +		0	
		17 -										
		18 -										

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

Signature:

Firm:

Hydrodynamics Consultants, Inc.

APPENDIX IV MONITORING WELL CONSTRUCTION AND DEVELOPMENT LOGS

MONITORING WELL CONSTRUCTION

Project Name:		Local Grid Location:			Well Name:	Elevation:
Westwood Cleaners, BRRTS # 02-41-552537	7	Feet	_		MW1	100 ft. Site Datum* = 705 ft. MSL
License/Permit/Monitoring No.:		Local Grid Origin	Estimated or We	ll Location 🔲	Wis. Unique Well No.:	DNR Well ID No.:
Facility ID: 241836100		State Plan Section Location of Was	N,	E	Date Well Installed: 9/16	/18
Type of Well:			4 of Sec <u>21</u> , T <u>07</u>		Well Installed By: Name (
Well Code 11 / MW	ı	Location of Well Relati		Gov. Lot Number:	Yinong	
Distance from Waste/Source: Enf. Stds	s. Apply:	u 🔲 Upgrade	s Sidegradient			
≈ 75 ft.		d 🗹 Downgradient	n L Not Known		Hydrodynamics C	onsultants, Inc.
Note: All elevations are site datum* A. Land surface, elevation	98.59 f	ft.		1. Cap and lock?		¥ Yes □ No
D. Dontontino nino dell'altrino	00.40			2. Protective cover pip		
B. Protective pipe, top elevation	98.49 f	it.		a. Inside diameteb. Length:	r:	6 in. 9 in.
C. Well Casing, top elevation	98.29 f	ft.		c. Material:		Steel 0 4
		/ √ √ ∀	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	••	HD PVC	Other
D. Surface seal, bottom	97.49 f	ft.	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	d. Additional prot	ection?	☐ Yes 🗷 No
				If yes, describe:		
E. Bentonite seal, top	97.49 f	ft.		3. Surface seal:		Bentonite □ 3 0
		+ + +	+			Concrete 🚨 0 1
F. Fine sand, top	95.49 f	ft. + + + + + + + + + + + + + + + + + + +	J+ 1	4.36 - 1.11 -	11	Other 🗆
G Filter neek ten	04.40 4	+	+ + + 1	4. Material between we	ell casing and protective pipe None	Bentonite 3 0 Other
G. Filter pack, top	94.49	ft. ' + +	+ + +	5. Bentonite seal (A		ntonite granules 3 3
H. Screen joint, top	93.49 f	ft. +	+ + +			Bentonite chips X 3 2
_			+ +	c.	Water Added	Other 🗷
12. USCS classification of soil near screen:		+ + +	+ + +	6. Annular space seal:	a. Granular/Ch	ipped Bentonite 🗆 3 3
	W L SP	***************************************	+ + +		lbs/gal mud weightBenton	
□sm □sc □ml □mh □c	L LCH	+	+ + +		lbs/gal mud weightBo	
Bedrock□	137 M 71-3	+ +	+ +	d	% BentoniteBentonite	
] Yes 🗷 ↑ Rotary 🗆		\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	f. How installed:	ft ³ volume added for any of	Tremie 0 1
Hollow Stem	-	:::::::::::::::::::::::::::::::::::::::	+ +	1. How instance.		Tremie pumped 0 2
GeoProbe	Other 🛣	+ +	+ + +			Gravity X 08
15. Drilling fluid used: Water □ 02	Air 🗆	0 1	++	7. Fine sand material: I	Manufacturer, product name	& mesh size
Drilling Mud □ 03	None 🛣	99 +++	+ + +	a. NSF, Silic	a Sand/Bluestone - 100 Mesl	h
16. Drilling additives used? □	Yes 🛎 1	No + ++	+ 1	b. Volume added	:	ft³
17. Source of water (attach analysis, if required	ed):	+ +	+ + +	•	Manufacturer, product name	
		+	*		Sand/Bluestone - 20-40 mesl	
I. Well bottom	92.40 4	+ +	++	b. Volume added		tt ³ VC schedule 40 2 3
i. Well bottom	83.49 f	ft	1++	9. Well casing:		VC schedule 80 \square 24
J. Filter pack, bottom	82.49 f	ft]+,1			Other 🗆
K. Borehole, bottom	82.49 f	ft.	•	Screen Material: a. Screen type:	PVC	Factory Cut 🐮 11
	<u> </u>			a. Screen type.		Continous Slot 0 1
L. Borehole, diameter	4.50 i	in.		h Manufastana	I-bassa.	Other
M. O.D. well casing	2.25 i	in.		b. Manufacturerc. Slot size:	Johnson	0.01 in.
		·		d. Slotted Length	:	10 ft.
N. I.D. well casing	2.00 i	in.		11. Backfill material (b		None 14
				<u></u>	Silica Sand	Other 🛎

I hereby certify that the information on this form is true and correct to the	e best of my knowledge.
Signature:	Firm:
Mike (Minghua) Wan, PE	Hydrodynamics Consultants, Inc.

MONITORING WELL DEVELOPMENT

Project Name:	County Na	ame:		Well Name:		
Westwood Cleaners, BRRTS # 02-41-552537	Milwaukee			MW1		
License/Permit/Monitoring No.:	County Co	ode:		Wis. Unique Well No.:	DNR Well ID No.:	
			41			
Can this well be purged dry?	Yes	□No	1	Before Development	After Development	
1. Can and wen be parged ary.	_ 103		11. Depth of Water	8.72 ft.	12.72 ft.	
2. Well development method			(from top of well casing)			
surged with bailer and bailed	X 41					
surged with bailer and pumped	□ 61		Date	09/19/2018	09/19/2018	
surged with block and bailed	□ 42					
surged with block and pumped	□ 62		Time	10:10 🗾 AM	10:40 🗾 AM	
surged with block, bailed and pumped	□ 70			PM	PM	
compressed air	□ 20					
bailed only	□ 10		12. Sediment in well	in.	in.	
pumped only	□ 51		bottom			
pumped slowly	□ 50					
Other:			13. Water clarity	Clear 🔲 10	Clear 🔲 20	
				Turbid L 15	Turbid 🔲 25	
3. Time spent developing well	≈ 30	min.		(Describe)	(Describe)	
4. Depth of well (from top of well casing)	15	ft.				
5. Inside Diameter of well	2	in.				
6. Volume of water in filter pack and well casing		gal.	Fill in if drilling fluids w	vere used and well is at solid was	ste facility:	
7. Volume of water removed from well	4	gal.	14. Total suspended solids	mg/l	mg/l	
8. Volume of water added (if any)		gal.	sonds			
o. Volume of water added (if any)			15. COD	mg/l	mg/l	
9. Source of water added						
10. Analysis preformed on water added? (If yes, attach results)	☐ Yes	X No	16. Well developed by: N First Name: Mike Firm: Hydrodynamic:	Name (first, last) and Firm Last Name s Consultants, Inc.	: Wan	

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the information on this form is true and correct to the best of my knowledge.
First: Mr. Dong Last: Sin	Signature:
Facility/Firm: Westwood Cleaners Street: 8731 West North Avenue	Print Name: Mike (Minghua) Wan, PE
City/State/Zip: Wauwatosa, Wisconsin 53226	Firm: Hydrodynamics Consultants, Inc.

MONITORING WELL CONSTRUCTION

Project Name:	Local Grid Location:	Well Name:	Elevation:
Westwood Cleaners, BRRTS # 02-41-552537	□ N □E	MW2	100 ft. Site Datum* = 705 ft. MSL
Licence/Doumit/Monitories - No	Feet S Feet W	With Time SSURES	
License/Permit/Monitoring No.:	Local Grid Origin	· · ·	DNR Well ID No.:
Facility ID:	State Plan N, E	Date Well Installed:	
241836100		Date Well Histalieu. 9/16.	/18
Type of Well:	-	Well Installed By: Name (
Well Code 11 / MW	Location of Well Relative to Waste/Source: Gov. Lot Nu		
Distance from Waste/Source: Enf. Stds. Apply:		Hydrodynamics C	oncultants Inc
≈ 25 ft.	d Downgradient n Not Known	ITydrodynamics C	onsultants, Inc.
Note: All elevations are site datum*			
A. Land surface, elevation 99.22	ft 1. Cap and loc	k?	¥ Yes □ No
	2. Protective c		
B. Protective pipe, top elevation 99.12	ft. a. Inside	diameter:	6 in.
	b. Lengtl	h:	9 in.
C. Well Casing, top elevation 98.92	$\underline{}$ ft. $\nabla \nabla \nabla$		Steel 0 4
D.C. C. 11.44		HD PVC	Other 🗷
D. Surface seal, bottom 98.12	_ft. d. Addition	onal protection?	□ Yes 🖪 No
E. Bentonite seal, top 98.12	ft. 3. Surface seal		Bentonite □ 3 0
	-"	•	Concrete 🗷 0 1
F. Fine sand, top 96.12	ft. + +		Other
	4. Material bet	ween well casing and protective pipe	Bentonite 30
G. Filter pack, top 95.12	_ft.	None	Other 🛎
H.G	+ / + +		ntonite granules 3 3
H. Screen joint, top 94.12	-		Bentonite chips 3 2 Other
12. USCS classification of soil near screen:	c. 6. Annular spa		ipped Bentonite 3 3
□GP □GM □GC □GW □SW □SI		lbs/gal mud weightBenton	
□sm □sc □ml □mh □cl □ci	H	lbs/gal mud weightBe	
Bedrock□		% BentoniteBentonite-	-cement grout \Box 5 0
13. Sieve analysis preformed?		ft³ volume added for any of	
14. Drilling method used: Rotary	+ + / +		Tremie 0 1
Hollow Stem Auger ☐ GeoProbe Other X			Tremie pumped 0 2 Gravity * 0 8
15. Drilling fluid used: Water 0 2 Air 0	+ + / +	aterial: Manufacturer, product name	•
Drilling Mud □ 0 3 None		SF, Silica Sand/Bluestone - 100 Mesh	
16. Drilling additives used? ☐ Yes 🛎		ne added:	ft³
17. Source of water (attach analysis, if required):	::::::::::::::::::::::::::::::::::::	material: Manufacturer, product name	
		F, Silica Sand/Bluestone - 20-40 mesh	
I W 11	, †, P/†, †\	ne added:	tt ³ VC schedule 40 2 3
I. Well bottom 84.12	_ft. 9. Well casing		VC schedule 40 ■ 23 VC schedule 80 □ 24
J. Filter pack, bottom 83.12	ft.	riush thicaded r	Other \Box
33.12	10. Screen Ma	terial: PVC	
K. Borehole, bottom 83.12	ft. a. Screen	ı type:	Factory Cut 🛎 11
	_		Continous Slot \Box 0 1
L. Borehole, diameter 2.00	in		Other
M O D and leaving	b. Manut		0.01
M. O.D. well casing 1.25	_ in.		0.01 in. 10 ft.
N. I.D. well casing 1.00		d Length: aterial (below filter pack):	None 1 1 4
1.00		Silica Sand	Other 🛎
			_

Signature: Firm:	
Wike (Minghua) Wan, PE	Hydrodynamics Consultants, Inc.

Project Name:	County Name:		Well Name:		
Westwood Cleaners, BRRTS # 02-41-552537	Milwaukee		MW2		
License/Permit/Monitoring No.:	County Co	de:		Wis. Unique Well No.:	DNR Well ID No.:
			41		
1. Can this well be purged dry?	Yes	☐ No		Before Development	After Development
			11. Depth of Water	8.97 ft.	12.97 ft.
2. Well development method			(from top of well casing)		
surged with bailer and bailed	X 4 1				
surged with bailer and pumped	□ 61		Date	09/19/2018	09/19/2018
surged with block and bailed	□ 42				
surged with block and pumped	□ 62		Time	✓ AM	✓ AM
surged with block, bailed and pumped	□ 70			10:40 PM	11:10 PM
compressed air	□ 20				
bailed only	□ 10		12. Sediment in well	in.	in.
pumped only	□ 51		bottom		
pumped slowly	□ 5 0				
Other:			13. Water clarity	Clear 📙 10	Clear 🔲 20
				Turbid 📙 15	Turbid 2 5
3. Time spent developing well	≈ 30	min.		(Describe)	(Describe)
4. Depth of well (from top of well casing)	15	ft.			
5. Inside Diameter of well	1	in.			
6. Volume of water in filter pack and well casing		gal.	Fill in if drilling fluids w	ere used and well is at solid was	te facility:
7. Volume of water removed from well	0.5	gal.	14. Total suspended solids	mg/l	mg/l
8. Volume of water added (if any)		gal.	Solids		
9. Source of water added			15. COD	mg/l	mg/l
10. Analysis preformed on water added? (If yes, attach results)	☐ Yes	⊠ No	16. Well developed by: N First Name: Mike Firm: Hydrodynamics	Jame (first, last) and Firm Last Name: Consultants, Inc.	Wan

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Pa	rty I hereby certify that the information on this form is true and correct to the best of my knowledge.
First: Mr. Dong Last: Sin Facility/Firm: Westwood Cleaners	Signature:
Street: 8731 West North Avenue	Print Name: Mike (Minghua) Wan, PE
City/State/Zip: Wauwatosa, Wisconsin 53226	Firm: Hydrodynamics Consultants, Inc.

MONITORING WELL CONSTRUCTION

Project Name:	Local Grid Location:		Well Name:	Elevation:
110ject Paine.	Local Grid Location:	□E	Well Ivallie.	
Westwood Cleaners, BRRTS # 02-41-552537		□w	MW3	100 ft. Site Datum* = 705 ft. MSL
License/Permit/Monitoring No.:		or Well Location	Wis. Unique Well No.:	DNR Well ID No.:
Zaconso, i crimina magarita	Lat 43 ° 03 ' 36.9N " Long		Wist Chique Wen 110	DIVIN WEIGHT TWO.
Facility ID:	State Plan N,	E	Date Well Installed:	
241836100	Section Location of Waste/Source:	E	9/16	5/18
Type of Well:	NE 1/4 of NW 1/4 of Sec 21 , T		Well Installed By: Name (
Well Code 11 / MW	Location of Well Relative to Waste/Sour		Yinong	
Distance from Waste/Source: Enf. Stds. Apply:			1	
≈ 70 ft.	d Downgradient n Not Know		Hydrodynamics C	Consultants, Inc.
	•	•	•	
Note: All elevations are site datum*				
A. Land surface, elevation 100.86	ft.	1. Cap and lock?		🗶 Yes 🗌 No
		2. Protective cover pip	e:	
B. Protective pipe, top elevation 100.76	_ft.	a. Inside diamete	er:	6 in.
		b. Length:		9 in.
C. Well Casing, top elevation 100.56	_ft.	c. Material:	n	Steel 0 4
D.C. C. 11 44 2076		1 4 11%	HD PVC	Other 🗷
D. Surface seal, bottom 99.76	_ft. / \ \ \ \ \ \	d. Additional pro If yes, describe:	tection?	□ Yes 🖪 No
E. Bentonite seal, top 99.76	ft.	3. Surface seal:		Bentonite 3 0
27.70	-".	\		Concrete 🛎 0 1
F. Fine sand, top 97.76	ft. + + +			Other \Box
		4. Material between w	ell casing and protective pipe	
G. Filter pack, top 96.76	ft. + + + + + + + + + + + + + + + + + + +		None	Other 🗶
	- + + + + + 1	5. Bentonite seal (A	nnular space seal): a. Be	entonite granules 3 3
H. Screen joint, top 95.76	ft. + + + + + + + + + + + + + + + + + + +	b. X 1/4 in.	☐ 3/8 in. ☐ 1/2 in.	Bentonite chips 🛎 3 2
		c	Water Added	Other 🕷
12. USCS classification of soil near screen:	+ + + + + + + + + + + + + + + + + + + +	6. Annular space seal:		nipped Bentonite 3 3
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	T // T T	b	lbs/gal mud weightBenton	
□sm □sc □ml □mh □cl □cf	H [, ,] , , , , , , , , , , , , , , , ,	C	lbs/gal mud weightBo	
Bedrock□		d	% BentoniteBentonite	-
13. Sieve analysis preformed?		e	ft ³ volume added for any of	
14. Drilling method used: Rotary □	======================================	f. How installed:		Tremie 0 1
Hollow Stem Auger				Tremie pumped 0 2
GeoProbe Other &		\	N. C	Gravity 🗷 08
15. Drilling fluid used: Water □ 0 2 Air □ Drilling Mud □ 0 3 None X			Manufacturer, product name	
Drilling Mud		b. Volume added	ca Sand/Bluestone - 100 Mesl	n ft ³
17. Source of water (attach analysis, if required):	T + T + T + T + T + T + T + T + T + T +		: Manufacturer, product name	
17. Source of water (attach analysis, if required).	++ + +		Sand/Bluestone - 20-40 mesl	
		b. Volume added		ft ³
I. Well bottom 84.76	ft	9. Well casing:		VC schedule 40 🗶 23
- VIII contain	-**	y. Wen casing.		VC schedule 80 \square 24
J. Filter pack, bottom 84.76	ft.			Other 🗆
· ·		10. Screen Material:	PVC	_
K. Borehole, bottom 84.76	ft.	a. Screen type:		Factory Cut 🗱 11
	_			Continous Slot \Box 0 1
L. Borehole, diameter 2.00	in.			Other
	_	b. Manufacturer	Johnson	
M. O.D. well casing 1.25	_in.	c. Slot size:		0.01 in.
		d. Slotted Lengtl	n:	10 ft.
N. I.D. well casing 1.00	_ in.	11. Backfill material (• .	None 14
			Silica Sand	Other 🕙

Signature: Firm:	
Mike (Minghua) Wan, PE	Hydrodynamics Consultants, Inc.

Project Name:	County Name:		Well Name:		
Westwood Cleaners, BRRTS # 02-41-552537	Milwaukee		MW3		
License/Permit/Monitoring No.:	County Co	ode:		Wis. Unique Well No.:	DNR Well ID No.:
			41		
1. Can this well be purged dry?	Yes	□No		Before Development	After Development
1 5 7			11. Depth of Water	10.23 ft.	14.23 ft.
2. Well development method			(from top of well casing)		
surged with bailer and bailed	X 41				
surged with bailer and pumped	□ 61		Date	09/19/2018	09/19/2018
surged with block and bailed	□ 42				
surged with block and pumped	□ 62		Time	✓ AM	☐ AM
surged with block, bailed and pumped	□ 70			10:55	11:25 🔽 PM
compressed air	□ 20				
bailed only	□ 10		12. Sediment in well	in.	in.
pumped only	□ 5 1		bottom		
pumped slowly	□ 5 0				
Other:			13. Water clarity	Clear L 10	Clear 2 0
				Turbid 📙 15	Turbid 2 5
3. Time spent developing well	≈ 30	min.		(Describe)	(Describe)
4. Depth of well (from top of well casing)	15	ft.			
5. Inside Diameter of well	1	in.			
6. Volume of water in filter pack and well casing		gal.	Fill in if drilling fluids w	ere used and well is at solid was	te facility:
7. Volume of water removed from well	0.5	gal.	14. Total suspended	mg/l	mg/l
8. Volume of water added (if any)		gal.	solids		
(~	15. COD	mg/l	mg/l
9. Source of water added					
			16. Well developed by: N	Name (first, last) and Firm	
10. Analysis preformed on water added?	☐ Yes	⋈ No	First Name: Mike	Last Name:	Wan
(If yes, attach results)	1		Firm: Hydrodynamics	s Consultants, Inc.	

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the information on this form is true and correct to the best of
Traine and Address of Facility Contact/Owner/Responsible Farty	my knowledge.
First: Mr. Dong Last: Sin	Signature:
Facility/Firm: Westwood Cleaners	mlle_
Street: 8731 West North Avenue	Print Name: Mike (Minghua) Wan, PE
City/State/Zip: Wauwatosa, Wisconsin 53226	Firm: Hydrodynamics Consultants, Inc.

MONITORING WELL CONSTRUCTION

Project Name:	Local Grid Location:			Well Name:	Elevation:
Troject Ivanic.		□n □	7	Well Ivallie.	
Westwood Cleaners, BRRTS # 02-41-552537		S Feet		MW4	100 ft. Site Datum* = 705 ft. MSL
License/Permit/Monitoring No.:	Local Grid Origin			Wis. Unique Well No.:	DNR Well ID No.:
,	~ <u>~</u>	36.9N " Long 88 °			
Facility ID:	State Plan	N,	E	Date Well Installed:	
241836100	Section Location of W		✓ E	9/16	/18
Type of Well:		1/4 of Sec <u>21</u> , T <u>07</u>		Well Installed By: Name (first, last) and Firm:
Well Code 11 / MW	Location of Well Rel	ative to Waste/Source:	Gov. Lot Number:	Yinong	
Distance from Waste/Source: Enf. Stds. Ap	ply: u Upgrade	s 🗹 Sidegradient		1	
≈ 85 ft.	d 🔲 Downgradie	nt n Not Known		Hydrodynamics C	onsultants, Inc.
Note: All elevations are site datum*					**
A. Land surface, elevation 98.9	98 ft.		1. Cap and lock?		🗷 Yes 🗌 No
D.D. et al. et a		19 W	2. Protective cover pip		
B. Protective pipe, top elevation 98.8	38 ft.		a. Inside diamete	r:	6 in.
C. Well Casing, top elevation 98.6	/ / V		b. Length:c. Material:		9 in. Steel 0 4
c. Well Cashig, top elevation 98.0	$ \frac{58}{\sqrt{100}} $ ft.		C. Material.	HD PVC	Other 🗷
D. Surface seal, bottom 97.8	88 ft. /		d. Additional prot		☐ Yes 🗷 No
			If yes, describe:		
E. Bentonite seal, top 97.8	88 ft.		3. Surface seal:		Bentonite □ 3 0
		1 + 1			Concrete 🛎 0 1
F. Fine sand, top 95.8	38 ft. +	+ + +			Other 🗆
	+	+ + + + 1	4. Material between we	ell casing and protective pipe	Bentonite □ 3 0
G. Filter pack, top 94.8	88 ft.	+ + + + + + + + + + + + + + + + + + + +		None	Other 🗶
	+	+ + +	5. Bentonite seal (A		ntonite granules 3 3
H. Screen joint, top 93.8	88 ft. + ₊	+ + + +	b. X 1/4 in. □		Bentonite chips 🚨 3 2
		+ + +	c	Water Added	Other 🗷
12. USCS classification of soil near screen: GP GM GC GW SW SW		+ + + + + + + + + + + + + + + + + + + +	6. Annular space seal:		ipped Bentonite 3 3
	_ sp сн	+ + +	b	lbs/gal mud weightBenton	
Bedrock□	1	+ + +	c. d.	% BentoniteBentonite	
	№ No +	+	e.	ft ³ volume added for any of	-
J 1	ry □ 5 0 ++	+ + +	f. How installed:	' voidille daded for ally or	Tremie 0 1
Hollow Stem Aug	700000000	+ + + +			Tremie pumped □ 02
_	er X	+ + + + + + + + + + + + + + + + + + + +			Gravity 🕷 08
15. Drilling fluid used: Water □ 0 2 A	ir □ 0 1 ++	+ + +	7. Fine sand material:	Manufacturer, product name	& mesh size
E	ne 🗶 99	+ + + +	a. NSF, Silic	a Sand/Bluestone - 100 Mesl	h
16. Drilling additives used? ☐ Yes	№ No	+ + +	b. Volume added	:	ft³
17. Source of water (attach analysis, if required):	***************************************	+ + + +	*	Manufacturer, product name	
	100000000000000000000000000000000000000	+ + +		Sand/Bluestone - 20-40 mesh	
	+	+ + + + + + + + + + + + + + + + + + + +	b. Volume added		ft³
I. Well bottom 83.8	38 ft.	+M++	9. Well casing:		VC schedule 40 🗷 23
I Filten mools hottom	100			Flush threaded P	VC schedule 80 \(\subseteq 24
J. Filter pack, bottom 82.8	88 ft.		10 Saran Matarial:	PVC	Other 🗆
K. Borehole, bottom 82.8	18 ft		Screen Material: a. Screen type:	FVC	Factory Cut 🗶 11
K. Boreliote, bottom	88 ft.		a. Screen type.		Continous Slot \Box 01
L. Borehole, diameter 2.0	0 in.				Other
			b. Manufacturer	Johnson	
M. O.D. well casing	5 in.		c. Slot size:		0.01 in.
			d. Slotted Length	1:	10 ft.
N. I.D. well casing 1.0	<u>0</u> in.		11. Backfill material (b	pelow filter pack):	None 1 4
				Silica Sand	Other 🕙

I hereby certify that the information on this form is true and correct to the best of my knowledge.				
Signature:	Firm:			
Mike (Minghua) Wan, PE	Hydrodynamics Consultants, Inc.			

Project Name:	County Name:		Well Name:		
Westwood Cleaners, BRRTS # 02-41-552537	Milwaukee		MW4		
License/Permit/Monitoring No.:	County Co	de:		Wis. Unique Well No.:	DNR Well ID No.:
			41		
	_				
1. Can this well be purged dry?	☐ Yes	☐ No		Before Development	After Development
			11. Depth of Water	8.44 ft.	12.44 ft.
2. Well development method			(from top of well casing)		
surged with bailer and bailed	X 4 1				
surged with bailer and pumped	□ 61		Date	09/19/2018	09/19/2018
surged with block and bailed	□ 42				
surged with block and pumped	□ 62		Time	✓ AM	☐ AM
surged with block, bailed and pumped	□ 70			11:30 PM	12:00 PM
compressed air	□ 20				
bailed only	□ 10		12. Sediment in well	in.	in.
pumped only	□ 51		bottom		
pumped slowly	□ 50				
Other:			13. Water clarity	Clear 📙 10	Clear 20
	_			Turbid 📙 15	Turbid 2 5
3. Time spent developing well	≈ 30	min.		(Describe)	(Describe)
4. Depth of well (from top of well casing)	15	ft.			
5. Inside Diameter of well	1	in.			
6. Volume of water in filter pack and well casing		gal.	Fill in if drilling fluids w	ere used and well is at solid was	te facility:
7. Volume of water removed from well	0.5	gal.	14. Total suspended solids	mg/l	mg/l
8. Volume of water added (if any)		gal.	sonds		
9. Source of water added			15. COD	mg/l	mg/l
10. Analysis preformed on water added? (If yes, attach results)	☐ Yes	⊠ No	16. Well developed by: N First Name: Mike Firm: Hydrodynamics	Jame (first, last) and Firm Last Name: Consultants, Inc.	Wan

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the information on this form is true and correct to the best of my knowledge.
First: Mr. Dong Last: Sin	Signature:
Facility/Firm: Westwood Cleaners	muc
Street: 8731 West North Avenue	Print Name: Wike (Minghua) Wan, PE
City/State/Zip: Wauwatosa, Wisconsin 53226	Firm: Hydrodynamics Consultants, Inc.

MONITORING WELL CONSTRUCTION

Project Name:	Local Grid Location:		Well Name:	Elevation:
Troject Name.	Local Grid Location:	□ E	Wen Ivanie.	
Westwood Cleaners, BRRTS # 02-41-552537		et \square W	MW5	100 ft. Site Datum* = 705 ft. MSL
License/Permit/Monitoring No.:		or Well Location	Wis. Unique Well No.:	DNR Well ID No.:
Ziconso/1 cr may .violitor mg i (vii	Lat 43 ° 03 ' 36.9N " Long	_	visi onique ven ron	Divit well ID ivo.
Facility ID:	State Plan N,	E	Date Well Installed:	
241836100	Section Location of Waste/Source:	E	9/16	/18
Type of Well:	NE 1/4 of NW 1/4 of Sec 21 ,		Well Installed By: Name (
Well Code 11 / MW	Location of Well Relative to Waste/Son		Yinong	
Distance from Waste/Source: Enf. Stds. Apply			1	
≈ 5 ft. \Box	d ☑ Downgradient n ☐ Not Kno		Hydrodynamics C	Consultants, Inc.
	-	·		
Note: All elevations are site datum*				
A. Land surface, elevation 100.05	ft.	1. Cap and lock?		🗷 Yes 🗌 No
		Protective cover pip		
B. Protective pipe, top elevation 99.95	_ft.	a. Inside diamete	er:	6 in.
		b. Length:		9 in.
C. Well Casing, top elevation 99.75	_ft.	c. Material:		Steel 0 4
			HD PVC	Other 🛎
D. Surface seal, bottom 98.95	_ft. /	d. Additional prot	tection?	☐ Yes 🗷 No
		If yes, describe:		
E. Bentonite seal, top 98.95	_ft. /	3. Surface seal:		Bentonite 3 0
				Concrete 🗷 01
F. Fine sand, top 96.95	_ft.	\ \ 		Other 🗆
C.F.	+ + +	4. Material between w	ell casing and protective pipe	
G. Filter pack, top 95.95	_ft.	5.70	None	Other 🗷
H.C		5. Bentonite seal (A		ntonite granules 3 3
H. Screen joint, top 94.95	ft. ´			Bentonite chips 2 3 2
12. USCS classification of soil near screen:		C.	Water Added	Other Dipped Bentonite 3 3
GP GM GC GW SW SW	**************************************	6. Annular space seal:	a. Granular/Ch	
□sm □sc □ml □mh □cl □c	T 1/17 T	b	lbs/gal mud weightBenton	
Bedrock□	+ + + + + +	c	% BentoniteBentonite	
13. Sieve analysis preformed?	N No + + + + +	d.	ft ³ volume added for any of	-
14. Drilling method used: Rotary		f. How installed:	• volume added for any or	Tremie 0 1
Hollow Stem Auger	3 + F 1 1 1 1 1 1 1 1 1	1. How instance.		Tremie pumped 0 2
GeoProbe Other				Gravity 🕷 08
	J 0 1	7 Fine sand material: 1	Manufacturer, product name	,
Drilling Mud □ 0.3 None			a Sand/Bluestone - 100 Mesl	
16. Drilling additives used? ☐ Yes		b. Volume added		ft ³
17. Source of water (attach analysis, if required):	+ + + + + + + + + + + + + + + + + + + +		Manufacturer, product name	•
, , ,	+ + + + + + +		Sand/Bluestone - 20-40 mesl	
		b. Volume added		ft³
I. Well bottom 84.95	ft+ + _ + _ + _ + _ + +	9. Well casing:	Flush threaded P	VC schedule 40 🗶 23
	- + + + V + +			VC schedule 80 □ 24
J. Filter pack, bottom 83.95	ft.			Other 🗆
		10. Screen Material:	PVC	
K. Borehole, bottom 83.95	ft.	a. Screen type:		Factory Cut 🐮 11
	_			Continous Slot □ 01
L. Borehole, diameter 2.00	in.			Other \square
		b. Manufacturer	Johnson	
M. O.D. well casing 1.25	in.	c. Slot size:		0.01 in.
		d. Slotted Length	1:	10 ft.
N. I.D. well casing 1.00	in.	11. Backfill material (b	pelow filter pack):	None □ 14
			Silica Sand	Other *

I hereby certify that the information on this form is true and correct to the best of my knowledge.				
Signature:	Firm:			
Mike (Minghua) Wan, PE	Hydrodynamics Consultants, Inc.			

Project Name:	County Na	ime:		Well Name:	
Westwood Cleaners, BRRTS # 02-41-552537	Milwaukee		MW5		
License/Permit/Monitoring No.:	County Co	de:		Wis. Unique Well No.:	DNR Well ID No.:
			41		
1. Can this well be purged dry?	Yes	☐ No		Before Development	After Development
			11. Depth of Water	9.61 ft.	13.61 ft.
2. Well development method			(from top of well casing)		
surged with bailer and bailed	X 4 1				
surged with bailer and pumped	□ 61		Date	09/19/2018	09/19/2018
surged with block and bailed	□ 42				
surged with block and pumped	□ 62		Time	☐ AM	☐ AM
surged with block, bailed and pumped	□ 70			12:05 PM	12:35 PM
compressed air	□ 20				
bailed only	□ 10		12. Sediment in well	in.	in.
pumped only	□ 51		bottom		
pumped slowly	□ 5 0				
Other:			13. Water clarity	Clear 📙 10	Clear 🔲 20
				Turbid 📙 15	Turbid 2 5
3. Time spent developing well	≈ 30	min.		(Describe)	(Describe)
4. Depth of well (from top of well casing)	15	ft.			
5. Inside Diameter of well	1	in.			
6. Volume of water in filter pack and well casing		gal.	Fill in if drilling fluids w	ere used and well is at solid was	te facility:
7. Volume of water removed from well	0.5	gal.	14. Total suspended solids	mg/l	mg/l
8. Volume of water added (if any)		gal.	Solids		
9. Source of water added			15. COD	mg/l	mg/l
10. Analysis preformed on water added? (If yes, attach results)	☐ Yes	⊠ No	16. Well developed by: N First Name: Mike Firm: Hydrodynamics	Jame (first, last) and Firm Last Name: Consultants, Inc.	Wan

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the information on this form is true and correct to the best of my knowledge.
First: Mr. Dong Last: Sin Facility/Firm: Westwood Cleaners	Signature:
Street: 8731 West North Avenue	Print Name: Wike (Minghua) Wan, PE
City/State/Zip: Wauwatosa, Wisconsin 53226	Firm: Hydrodynamics Consultants, Inc.

MONITORING WELL CONSTRUCTION

Project Name:	Local Grid Location:		Well Name:	Elevation:
Troject Panie.	Local Grid Location:	□E	well Ivallie.	
Westwood Cleaners, BRRTS # 02-41-552537	Feet S Feet		MW6	100 ft. Site Datum* = 705 ft. MSL
License/Permit/Monitoring No.:		Well Location	Wis. Unique Well No.:	DNR Well ID No.:
	Lat 43 ° 03 ' 36.9N " Long			
Facility ID:	State Plan N,	E	Date Well Installed:	
241836100	Section Location of Waste/Source:	✓ E	9/16	/18
Type of Well:	NE 1/4 of NW 1/4 of Sec 21 , T		Well Installed By: Name (first, last) and Firm:
Well Code 11 / MW	Location of Well Relative to Waste/Sourc		Yinong	
Distance from Waste/Source: Enf. Stds. Apply	: u ☑ Upgrade s ☐ Sidegradie	nt		
≈ 20 ft.	d L Downgradient n Not Know	1	Hydrodynamics C	onsultants, Inc.
Note: All elevations are site datum*				W
A. Land surface, elevation 100.05	ft.	1. Cap and lock?		🗶 Yes 🗌 No
D. D		2. Protective cover pip		
B. Protective pipe, top elevation 99.95	_ft.	a. Inside diamet	er:	6 in.
C. Well Casing, top elevation 99.75		b. Length:c. Material:		9 in. Steel 0 4
c. wen casing, top elevation 99.73	_ft.	C. Material.	HD PVC	Other 🗷
D. Surface seal, bottom 98.95	ft.	d. Additional pro		☐ Yes 🗷 No
<u></u>		\ If yes, describe:		
E. Bentonite seal, top 98.95	ft.	3. Surface seal:		Bentonite □ 3 0
				Concrete 🚨 0 1
F. Fine sand, top 96.95	ft. + + +			Other \square
		4. Material between w	ell casing and protective pipe	e: Bentonite 3 0
G. Filter pack, top 95.95	ft		None	Other 🕷
	+ + + + + + + + + + + + + + + + + + + +	5. Bentonite seal (A		entonite granules 3 3
H. Screen joint, top 94.95	_ft.	b. 🔀 1/4 in. 🛚		Bentonite chips 🚨 3 2
		c.	Water Added	Other 🗷
12. USCS classification of soil near screen: ☐GP ☐GM ☐GC ☐GW ☐SW ☐ S	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	6. Annular space seal:		nipped Bentonite 3 3
│	I I I I I I I I I I I I I I I I I I I	b	lbs/gal mud weightBenton	
Bedrock□	+ + + + +	C	lbs/gal mud weightBo	
13. Sieve analysis preformed? ☐ Yes	h	d	% BentoniteBentonite ft ³ volume added for any of	-
14. Drilling method used: Rotary [::::::::::::::::::::::::::::::::::::::	f. How installed:	Tit volume added for any of	Tremie 0 1
Hollow Stem Auger [1. How instance.		Tremie pumped □ 02
GeoProbe Other				Gravity 🕷 08
15. Drilling fluid used: Water □ 0 2 Air [□ 0 1	7. Fine sand material:	Manufacturer, product name	•
Drilling Mud □ 0 3 None \$	1 99	a. NSF, Silie	ca Sand/Bluestone - 100 Mesl	h
16. Drilling additives used? ☐ Yes	No + + + + + + + + + + + + + + + + + + +	b. Volume added	d:	ft³
17. Source of water (attach analysis, if required):	+ + + + + + + + + + + + + + + + + + + +	8. Filter pack material	: Manufacturer, product name	
		a. NSF, Silica	Sand/Bluestone - 20-40 mesl	nes
	+ + + +	b. Volume adde		ft³
I. Well bottom 84.95	_ftft.	9. Well casing:		VC schedule 40 🗱 23
			Flush threaded P	VC schedule 80 24
J. Filter pack, bottom 83.95	_ft	10.0	DVC	Other
V Doughola hattam 92.05		10. Screen Material:	PVC	Factory Cut 🐮 11
K. Borehole, bottom 83.95	ft. ^	a. Screen type:		Factory Cut 4 1 1 Continous Slot \square 0 1
L. Borehole, diameter 2.00	in			Other \Box
2.00	in.	b. Manufacturer	Johnson	
M. O.D. well casing 1.25	in.	c. Slot size:	- James II	0.01 in.
	_	d. Slotted Lengt	h:	10 ft.
N. I.D. well casing 1.00	in.	11. Backfill material (None □ 14
	_		Silica Sand	Other *

I hereby certify that the information on this form is true and correct to the best of my knowledge.			
Signature:	Firm:		
Mike (Minghua) Wan, PE	Hydrodynamics Consultants, Inc.		

Project Name:	County Na	me:		Well Name:		
Westwood Cleaners, BRRTS # 02-41-552537			Milwaukee	MW6		
License/Permit/Monitoring No.:	County Coo	de:		Wis. Unique Well No.:	DNR Well ID No.:	
			41			
Can this well be purged dry?	□Yes	□No	I	Before Development	After Development	
1. Can this wen be purged try:	— 1 cs	NO	11. Depth of Water	9.76 ft.	13.76 ft.	
2. Well development method			(from top of well casing)			
surged with bailer and bailed	X 41					
surged with bailer and pumped	□ 61		Date	09/19/2018	09/19/2018	
surged with block and bailed	□ 42					
surged with block and pumped	□ 62		Time	☐ AM	☐ AM	
surged with block, bailed and pumped	□ 7 0			12:50 PM	1:20 PM	
compressed air	□ 20					
bailed only	\Box 10		12. Sediment in well	<u>in.</u>	in.	
pumped only	□ 51		bottom			
pumped slowly	5 0					
Other:	_ 🗆 📗		13. Water clarity	Clear 10	Clear 20	
0.77	•			Turbid L 15	Turbid 2 5	
3. Time spent developing well	≈ 30	min.		(Describe)	(Describe)	
4. Depth of well (from top of well casing)	15	ft.				
5. Inside Diameter of well	1	in.				
6. Volume of water in filter pack and well casing	-	gal.	Fill in if drilling fluids we	ere used and well is at solid wast	e facility:	
7. Volume of water removed from well	0.5	gal.	14. Total suspended	mg/l	mg/l	
			solids			
8. Volume of water added (if any)		gal.	15 000	n.	a.	
9. Source of water added			15. COD	mg/l	mg/l	
			16. Well developed by: N	Iame (first, last) and Firm		
10. Analysis preformed on water added?	☐ Yes	■ No	First Name: Mike	Last Name:	Wan	
(If yes, attach results)	T.		Firm: Hydrodynamics	Consultants, Inc.		

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the information on this form is true and correct to the best of my knowledge.
First: Mr. Dong Last: Sin Facility/Firm: Westwood Cleaners	Signature:
Street: 8731 West North Avenue	Print Name: Mike (Minghua) Wan, PE
City/State/Zip: Wauwatosa, Wisconsin 53226	Firm: Hydrodynamics Consultants, Inc.

MONITORING WELL CONSTRUCTION

Project Name:		Local Grid Location:			Well Name:	Elevation:
Westwood Cleaners, BRRTS # 02-41-5525	537		_		MW7	100 ft. Site Datum* = 705 ft. MSL
License/Permit/Monitoring No.:		Feet State Local Grid Origin	S Feet Ly Estimated 7 or We		Wis. Unique Well No.:	DNR Well ID No.:
g		Lat 43 ° 03 ' 36	_	_	1	
Facility ID:		State Plan	N,	E	Date Well Installed:	
241836100		Section Location of Was	te/Source:	✓ E	7/28	3/20
Type of Well:		<u>NE</u> 1/4 of <u>NW</u> 1/4	of Sec 21, T 07	N, R <u>21</u>	Well Installed By: Name	(first, last) and Firm:
Well Code <u>11</u> / <u>MW</u>		Location of Well Relativ	_	Gov. Lot Number:	Yinong	g Han
Distance from Waste/Source: Enf. St ≈ 20 ft.	ds. Apply:	u 🗹 Upgrade d 🔲 Downgradient	s Sidegradient n Not Known		Hydrodynamics (Consultants, Inc.
					I	
Note: All elevations are site datum*	00.05	e. —		1. Com on 4.15 -1-9		¥ Yes □ No
A. Land surface, elevation	98.95	ft.		 Cap and lock? Protective cover pip 	e·	₱ ies □ No
B. Protective pipe, top elevation	98.85	ft.		a. Inside diamete		6 in.
-		7 ∀		b. Length:		9 in.
C. Well Casing, top elevation	98.65	ft.		c. Material:		Steel 0 4
_		V V V V V V V V V V			HD PVC	Other 🗷
D. Surface seal, bottom	97.85	ft.		d. Additional pro	ection?	☐ Yes 🗷 No
				If yes, describe:		
E. Bentonite seal, top	97.85	ft. /	\\\	3. Surface seal:		Bentonite 3 0
F. Fine sand, top	95.85	ft. + †	+ +			Concrete E 0 1 Other
T. The said, top	93.63	". * * * * * * * * * * * * * * * * * * *	7+1+1	4 Material between w	ell casing and protective pipe	
G. Filter pack, top	94.85	ft. + +	+ + + + + + + + + + + + + + + + + + + +	i. Material between w	None	Other 🛎
-		+++	+ +	5. Bentonite seal (A	nnular space seal): a. Be	entonite granules 3 3
H. Screen joint, top	93.85	ft. + + +	+ + + + + + + + + + + + + + + + + + + +	b. X 1/4 in.	☐ 3/8 in. ☐ 1/2 in.	Bentonite chips 🗶 3 2
		+ + /	+ +	c	Water Added	Other 🗷
12. USCS classification of soil near screen:		+ + /	+ + + - \	6. Annular space seal:		nipped Bentonite 3 3
	SW L SP		+ + +	b	lbs/gal mud weightBentor	
SM SC ML MH ✓ Bedrock	CL LCH	+ + +	+ +	c	lbs/gal mud weightB	
	☐ Yes 🗷]	No. + +	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	d	% BentoniteBentonite ft³ volume added for any of	- C
14. Drilling method used:	Rotary 🗆	:::::::::::::::::::::::::::::::::::::::	+	f. How installed:	' volume added for any or	Tremie 0 1
	m Auger 🗆	+ + V	+ + +			Tremie pumped □ 02
GeoProbe	Other 🗶	+ +	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			Gravity 🗶 08
15. Drilling fluid used: Water 0 2	Air 🗆	0 1	+	7. Fine sand material:	Manufacturer, product name	& mesh size
Drilling Mud □ 0 3	None 🛣		1+ +		a Sand/Bluestone - 100 Mes	h
	☐ Yes 🔀]	No + +	+ +		:	_ ft ³
17. Source of water (attach analysis, if require	red):	+ + /	+ + +	-	Manufacturer, product name	
			*		Sand/Bluestone - 20-40 mes	
I. Well bottom	83.85	ft	+ +	b. Volume added 9. Well casing:		ft ³ 2VC schedule 40 X 2 3
-	05.05	+ 1	1+ +	y. Well cashig.		PVC schedule $80 \square 24$
J. Filter pack, bottom	82.85	ft.				Other 🗆
				10. Screen Material:	PVC	
K. Borehole, bottom	82.85	ft.		a. Screen type:		Factory Cut 🐔 11
						Continous Slot 0 1
L. Borehole, diameter	2.00 i	in.		b. Manufacturer	Johnson	Other
M. O.D. well casing	1.25 i	in.		c. Slot size:	JOHNSON	0.01 in.
<u> </u>	1.20			d. Slotted Length	1:	10 ft.
N. I.D. well casing	1.00 i	in.		11. Backfill material (None 14
					Silica Sand	Other 🕙

I hereby certify that the information on this form is true and correct to the best of my knowledge.			
Signature:	Firm:		
Mike (Minghua) Wan, PE	Hydrodynamics Consultants, Inc.		

Project Name:	County Na	me:		Well Name:	
Westwood Cleaners, BRRTS # 02-41-552537	Milwaukee		MW7		
License/Permit/Monitoring No.:	County Co	de:		Wis. Unique Well No.:	DNR Well ID No.:
			41		
1. Can this well be purged dry?	\square_{Yes}	☐ No		Before Development	After Development
			11. Depth of Water	9.72 ft.	13.72 ft.
2. Well development method			(from top of well casing)		
surged with bailer and bailed	X 4 1				
surged with bailer and pumped	□ 61		Date	07/28/2020	07/28/2020
surged with block and bailed	□ 42				
surged with block and pumped	□ 62		Time	☐ AM	☐ AM
surged with block, bailed and pumped	□ 70			1:30 PM	2:00 PM
compressed air	□ 20				
bailed only	□ 10		12. Sediment in well	in.	in.
pumped only	□ 5 1		bottom		
pumped slowly	□ 5 0				
Other:			13. Water clarity	Clear 🔲 10	Clear 20
				Turbid 📙 15	Turbid 2 5
3. Time spent developing well	≈ 30	min.		(Describe)	(Describe)
4. Depth of well (from top of well casing)	15	ft.			
5. Inside Diameter of well	1	in.			
6. Volume of water in filter pack and well casing		gal.	Fill in if drilling fluids w	ere used and well is at solid was	ste facility:
7. Volume of water removed from well	0.5	gal.	14. Total suspended solids	mg/l	mg/l
8. Volume of water added (if any)		gal.	solids		
9. Source of water added			15. COD	mg/l	mg/l
10. Analysis preformed on water added? (If yes, attach results)	☐ Yes	₩ No	16. Well developed by: N First Name: Mike Firm: Hydrodynamics	Name (first, last) and Firm Last Name: s Consultants, Inc.	Wan

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the information on this form is true and correct to the best of my knowledge.
First: Mr. Dong Last: Sin	Signature:
Facility/Firm: Westwood Cleaners	mlle
Street: 8731 West North Avenue	Print Name: Mike (Minghua) Wan, PE
City/State/Zip: Wauwatosa, Wisconsin 53226	Firm: Hydrodynamics Consultants, Inc.

MONITORING WELL CONSTRUCTION

Project Name:	Local Grid Location:	Well Name:	Elevation:
Westwood Cleaners, BRRTS # 02-41-552537	□ N □E	MW8	100 ft. Site Datum* = 705 ft. MSL
License/Doumit/Monitorie - N.	Feet S Feet W	With Harter W. D.N.	
License/Permit/Monitoring No.:	Local Grid Origin Estimated or Well Location Local Grid Origin State 13 ° 03 ' 36 9N '' Long 88 ° 01 ' 19 30W	Wis. Unique Well No.:	DNR Well ID No.:
Facility ID:	Lat <u>43 ° 03 ' 36.9N "</u> Long <u>88 ° 01 ' 19.30W '</u> State Plan N, E		
241836100	Section Location of Waste/Source:	Date Well Installed:	3/20
Type of Well:	NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21 W	Well Installed By: Name	
Well Code <u>11 / MW</u>	Location of Well Relative to Waste/Source: Gov. Lot Numb		
Distance from Waste/Source: Enf. Stds. Apply:	u 🗹 Upgrade s 🗌 Sidegradient		
≈ 20 ft.	d U Downgradient n Not Known	_ Hydrodynamics (onsultants, Inc.
Notes All Joseph and Johnson			
Note: All elevations are site datum* A. Land surface, elevation 98.58	ft. 1. Cap and lock?		▼ Yes □ No
76.36	2. Protective cove	r pipe:	E 163 E 110
B. Protective pipe, top elevation 98.48	ft. a. Inside dia		6 in.
	∇ ∇ ∇ ∇ b. Length:		9 in.
C. Well Casing, top elevation 98.28	ft. $\nabla \nabla \nabla$		Steel 0 4
D 0 0 11		HD PVC	Other 🕷
D. Surface seal, bottom 97.48	ft. d. Additional	•	☐ Yes 🗷 No
E. Bentonite seal, top 97.48	ft. If yes, descri	oe:	Bentonite 3 0
E. Benomie scar, top 77.46	The state scale of the state of		Concrete 🛎 01
F. Fine sand, top 95.48	ft. + + +		Other \Box
	4. Material between	en well casing and protective pipe	
G. Filter pack, top 94.48		None	Other 🗶
	+ / + +	•	entonite granules 3 3
H. Screen joint, top 93.48		. □ 3/8 in. □ 1/2 in.	Bentonite chips 3 2
12. USCS classification of soil near screen:	c. 6. Annular space s		Other 🗷
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐		lbs/gal mud weightBentor	* *
□sm □sc □ml □mh □cl □ch		lbs/gal mud weightB	
Bedrock□	+ + + + + d.	% BentoniteBentonite	
13. Sieve analysis preformed? ☐ Yes 🗷	No	ft3 volume added for any of	the above
14. Drilling method used: Rotary □	+ + L + + L + + + + + + + + + + + + + +		Tremie □ 01
Hollow Stem Auger	\		Tremie pumped 0 2
GeoProbe Other X 15. Drilling fluid used: Water □ 0 2 Air □		. 1 34	Gravity 🕷 08
Drilling Mud 0 3 None X		ial: Manufacturer, product name Silica Sand/Bluestone - 100 Mes	
16. Drilling additives used? ☐ Yes 🚨		dded:	ft³
17. Source of water (attach analysis, if required):		erial: Manufacturer, product name	e & mesh size
	a. NSF, S	lica Sand/Bluestone - 20-40 mes	hes
	b. Volume a		ft³
I. Well bottom 83.48	ft. 9. Well casing:		VC schedule 40 🗶 23
I Eikannaala kattana		Flush threaded F	VC schedule 80 \(\simeq 24
J. Filter pack, bottom 82.48	ft. 10. Screen Materi	al: PVC	Other 🗆
K. Borehole, bottom 82.48	ft. a. Screen tyl		Factory Cut 🗶 11
<u></u>	-		Continous Slot 0 1
L. Borehole, diameter 2.00	in.		Other 🗆
	b. Manufact	ırer Johnson	
M. O.D. well casing 1.25	in. c. Slot size:		0.01 in.
N. I.	d. Slotted Lo	-	10 ft.
N. I.D. well casing 1.00	in. 11. Backfill mater	ial (below filter pack): Silica Sand	None 14 Other
		Silica Saliu	Outer E

I hereby certify that the information on this form is true and correct to the best of my knowledge.			
Signature:	Firm:		
Mike (Minghua) Wan, PE	Hydrodynamics Consultants, Inc.		

Project Name:	County Name:			Well Name:				
Westwood Cleaners, BRRTS # 02-41-552537			Milwaukee	1	MW8			
License/Permit/Monitoring No.:	County Co	de:		Wis. Unique Well No.:	DNR Well ID No.:			
			41					
1. Can this well be purged dry?	\square_{Yes}	☐ No		Before Development	After Development			
			11. Depth of Water	9.52 ft.	13.52 ft.			
2. Well development method			(from top of well casing)					
surged with bailer and bailed	X 4 1							
surged with bailer and pumped	□ 61		Date	07/28/2020	07/28/2020			
surged with block and bailed	□ 42							
surged with block and pumped	□ 62		Time	☐ AM	☐ AM			
surged with block, bailed and pumped	□ 70			3:00 PM	3:30 PM			
compressed air	□ 20							
bailed only	□ 10		12. Sediment in well	in.	in.			
pumped only	□ 5 1		bottom					
pumped slowly	□ 5 0							
Other:			13. Water clarity	Clear 🔲 10	Clear 20			
				Turbid 📙 15	Turbid 2 5			
3. Time spent developing well	≈ 30	min.		(Describe)	(Describe)			
4. Depth of well (from top of well casing)	15	ft.						
5. Inside Diameter of well	1	in.						
6. Volume of water in filter pack and well casing		gal.	Fill in if drilling fluids w	ere used and well is at solid was	ste facility:			
7. Volume of water removed from well	0.5	gal.	14. Total suspended solids	mg/l	mg/l			
8. Volume of water added (if any)		gal.	solids					
9. Source of water added			15. COD	mg/l	mg/l			
10. Analysis preformed on water added? (If yes, attach results)	☐ Yes	■ No	16. Well developed by: N First Name: Mike Firm: Hydrodynamics	Name (first, last) and Firm Last Name: S Consultants, Inc.	Wan			

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the information on this form is true and correct to the best of my knowledge.
First: Mr. Dong Last: Sin	Signature:
Facility/Firm: Westwood Cleaners	mlle
Street: 8731 West North Avenue	Print Name: Mike (Minghua) Wan, PE
City/State/Zip: Wauwatosa, Wisconsin 53226	Firm: Hydrodynamics Consultants, Inc.

MONITORING WELL CONSTRUCTION

Project Name:	Local Grid Location:		Well Name:	Elevation:
Troject Panie.	Local Grid Location:	□ E	WEII IVAIIIC.	
Westwood Cleaners, BRRTS # 02-41-552537		Feet W	MW9	100 ft. Site Datum* = 705 ft. MSL
License/Permit/Monitoring No.:		or Well Location	Wis. Unique Well No.:	DNR Well ID No.:
6	Lat 43 ° 03 ' 36.9N " Lo	_	,	
Facility ID:	State Plan N,	<u>E</u>	Date Well Installed:	
241836100	Section Location of Waste/Source:		7/28	/20
Type of Well:	<u>NE</u> 1/4 of <u>NW</u> 1/4 of Sec <u>21</u>	_	Well Installed By: Name (first, last) and Firm:
Well Code 11 / MW	Location of Well Relative to Waste/S	Î	Yinong	
Distance from Waste/Source: Enf. Stds. Apply				
≈ 20 ft.	d 🔲 Downgradient n 🔲 Not K	Known ———	Hydrodynamics C	onsultants, Inc.
Note: All elevations are site datum*				***
A. Land surface, elevation 98.3	ft.	1. Cap and lock?		🕱 Yes 🗌 No
D. D		2. Protective cover pip		
B. Protective pipe, top elevation 98.2	_ft.	a. Inside diamete	r:	6 in.
C. Well Casing, top elevation 98		b. Length: c. Material:		9 in. Steel 0 4
c. wen casing, top elevation 98		C. Material.	HD PVC	Other 🗷
D. Surface seal, bottom 97.2	ft. $\nabla \nabla \nabla$	d. Additional prot		☐ Yes 🗷 No
77.2		If yes, describe:		
E. Bentonite seal, top 97.2	ft.	3. Surface seal:		Bentonite □ 3 0
	-	\ \		Concrete 🚨 0 1
F. Fine sand, top 95.2	ft. + + + + + +			Other 🗆
	+ + +	4. Material between we	ell casing and protective pipe	e: Bentonite 3 0
G. Filter pack, top 94.2	_ ft.		None	Other 🗶
		5. Bentonite seal (A	nnular space seal): a. Be	ntonite granules 3 3
H. Screen joint, top 93.2	_ft.	b. X 1/4 in. □	3/8 in. □ 1/2 in.	Bentonite chips 🚨 3 2
		c	Water Added	Other 🛎
12. USCS classification of soil near screen:	_	6. Annular space seal:		ipped Bentonite 3 3
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	T / T T		lbs/gal mud weightBenton	
□sm □sc □ml □mh □cl □c	H + + + +	\	lbs/gal mud weightBe	
Bedrock□	++++++++	d	% BentoniteBentonite	-
13. Sieve analysis preformed? ☐ Yes ■ 14. Drilling method used: Rotary □		6.	ft³ volume added for any of	
14. Drilling method used: Rotary [Hollow Stem Auger [3 + V + V + B + B + B + V + B + B + B + B	f. How installed:		Tremie \square 0 1 Tremie pumped \square 0 2
GeoProbe Other				Tremie pumped ☐ 0 2 Gravity ※ 0 8
	01	7 Fine cand material: 1	Manufacturer, product name	,
Drilling Mud □ 0.3 None \$			a Sand/Bluestone - 100 Mesl	
16. Drilling additives used? ☐ Yes		b. Volume added		ft ³
17. Source of water (attach analysis, if required):	+ + + + + + + + + + + + + + + + + + + +		Manufacturer, product name	•
3 7 1	+ + + + + + + + + + + + + + + + + + + +		Sand/Bluestone - 20-40 mesh	
		b. Volume added		ft ³
I. Well bottom 83.2	ft	9. Well casing:		VC schedule 40 🗱 23
	++++++	\		VC schedule 80 24
J. Filter pack, bottom 82.2	ft.			Other \square
	_	10. Screen Material:	PVC	_
K. Borehole, bottom 82.2	_ ft	a. Screen type:		Factory Cut 🗱 11
				Continous Slot 0 1
L. Borehole, diameter 2.00	in.			Other
		b. Manufacturer	Johnson	
M. O.D. well casing 1.25	_in.	c. Slot size:		0.01 in.
		d. Slotted Length		10 ft.
N. I.D. well casing 1.00	in.	11. Backfill material (b	* '	None 14
			Silica Sand	Other 🕙

I hereby certify that the information on this form is true and correct to the best of my knowledge.						
Signature:	Firm:					
Mike (Minghua) Wan, PE	Hydrodynamics Consultants, Inc.					
,,						

Westwood Cleaners, BRRTS # 02-41-552537 License/Permit/Monitoring No.: County Code	Milwau :: 41	kee	Wis. Unique Well No.:	1W9
License/Permit/Monitoring No.: County Code			Wis, Unique Well No.:	1
	41			DNR Well ID No.:
1. Can this well be purged dry?	□ No		Before Development	After Development
		11. Depth of Water	9.59 ft.	13.59 ft.
2. Well development method		(from top of well casing)		
surged with bailer and bailed 4 1				
surged with bailer and pumped		Date	07/28/2020	07/28/2020
surged with block and bailed 4 2				100
surged with block and pumped \Box 6 2		Time	☐ AM	∐ AM
surged with block, bailed and pumped 7 0			4:00 PM	4:30 PM
compressed air 2 0				
bailed only		12. Sediment in well	in.	in.
pumped only 5 1		bottom		
pumped slowly 5 0				
Other:		13. Water clarity	Clear 1 0	Clear 20
2. T'			Turbid L 15	Turbid 25
3. Time spent developing well ≈ 30	min.		(Describe)	(Describe)
4. Depth of well (from top of well casing) 15	_ft.			
5. Inside Diameter of well 1	_in.			
6. Volume of water in filter pack and well casing	gal.	Fill in if drilling fluids we	re used and well is at solid wast	te facility:
7. Volume of water removed from well 0.5	gal.	14. Total suspended solids	mg/l	mg/l
8. Volume of water added (if any)	gal.	Sonus		
9. Source of water added	_	15. COD	mg/l	mg/l
	- -	16. Well developed by: N	ame (first, last) and Firm	
10. Analysis preformed on water added? ☐ Yes	⋈ No	First Name: Mike	Last Name:	Wan
(If yes, attach results)		Firm: Hydrodynamics	Consultants, Inc.	

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the information on this form is true and correct to the best of my knowledge.
First: Mr. Dong Last: Sin	Signature:
Facility/Firm: Westwood Cleaners	mlle
Street: 8731 West North Avenue	Print Name: Mike (Minghua) Wan, PE
City/State/Zip: Wauwatosa, Wisconsin 53226	Firm: Hydrodynamics Consultants, Inc.

APPENDIX V SAMPLE CHAIN-OF-CUSTODY AND LABORATORY ANALYTICAL RESULTS

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

August 04, 2020

Hydrodynamics Consultants, Inc. 5403 Patton Drive Lisle, IL 60532

Telephone: (630) 724-0098 Fax: (800) 881-2051

Analytical Report for STAT Work Order: 20071082 Revision 0

RE: Westwood Cleaners, 8731 W. North Avenue, Wauwatosa, WI

Dear Hydrodynamics Consultants, Inc.:

STAT Analysis received 8 samples for the referenced project on 7/29/2020 3:00:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAP standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

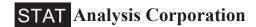
All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Justice Kwatchg Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples as received and tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.



Date: August 04, 2020

Client: Hydrodynamics Consultants, Inc.

Project: Westwood Cleaners, 8731 W. North Avenue, Wauwato Work Order Sample Summary

Work Order: 20071082 Revision 0

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
20071082-001A	SV1-1/4		7/28/2020 3:35:00 PM	7/29/2020
20071082-002A	SV2-1/4		7/28/2020 4:00:00 PM	7/29/2020
20071082-003A	SV3-1/4		7/28/2020 10:40:00 AM	7/29/2020
20071082-004A	SV4-1/4		7/28/2020 11:20:00 AM	7/29/2020
20071082-005A	SV5-1/4		7/28/2020 3:30:00 PM	7/29/2020
20071082-006A	SV6-1/4		7/28/2020 11:10:00 AM	7/29/2020
20071082-007A	SV7-1/4		7/28/2020 8:40:00 AM	7/29/2020
20071082-008A	SV7-1/4D		7/28/2020 10:50:00 AM	7/29/2020

STAT Analysis Corporation

7 maryolo Corporation

CLIENT: Hydrodynamics Consultants, Inc.

Project: Westwood Cleaners, 8731 W. North Avenue, Wauwatosa, W CASE NARRATIVE

Date: August 04, 2020

Work Order: 20071082 Revision 0

TO-15 results that are reported in mg/m³ are calculated based on a temperature of 25°C, atmospheric pressure of 760 mm Hg, and the molecular weight of the analyte.

The TO-15 Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) analyzed 7/30/2020 had recovery of 2-Butanone outside of control limits (136%/136% (LCS/LCSD) recovery, QC limits 70-130%).

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

Client: Hydrodynamics Consultants, Inc.

Work Order: 20071082 Revision 0 Client Sample ID: SV1-1/4

Project: Westwood Cleaners, 8731 W. North Avenue, Wau

Lab ID: 20071082-001 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC	/MS TO-15			Pre	o Date: 7/30/2020	Analyst: MAS
1,1,1-Trichloroethane	ND	0.0034		mg/m³	2	7/30/2020
1,1,2-Trichloroethane	ND	0.0034		mg/m³	2	7/30/2020
1,1-Dichloroethane	ND	0.0025		mg/m³	2	7/30/2020
1,1-Dichloroethene	ND	0.0025		mg/m³	2	7/30/2020
1,2,4-Trichlorobenzene	ND	0.0046		mg/m³	2	7/30/2020
1,2-Dibromoethane	ND	0.0046		mg/m³	2	7/30/2020
1,2-Dichlorobenzene	ND	0.0037		mg/m³	2	7/30/2020
1,2-Dichloroethane	ND	0.0025		mg/m³	2	7/30/2020
1,2-Dichloropropane	ND	0.0028		mg/m³	2	7/30/2020
1,4-Dichlorobenzene	ND	0.0037		mg/m³	2	7/30/2020
1,4-Dioxane	ND	0.0056		mg/m³	2	7/30/2020
2-Butanone	ND	0.0046		mg/m³	2	7/30/2020
Acetone	0.17	0.015	*	mg/m³	2	7/30/2020
Benzene	0.0023	0.0019		mg/m³	2	7/30/2020
Bromodichloromethane	ND	0.0040		mg/m³	2	7/30/2020
Bromoform	ND	0.016		mg/m³	2	7/30/2020
Bromomethane	ND	0.0059		mg/m³	2	7/30/2020
Carbon disulfide	0.0069	0.0019		mg/m³	2	7/30/2020
Carbon tetrachloride	ND	0.0040		mg/m³	2	7/30/2020
Chlorobenzene	ND	0.0028		mg/m³	2	7/30/2020
Chloroform	0.0051	0.0031		mg/m³	2	7/30/2020
cis-1,2-Dichloroethene	ND	0.0025		mg/m³	2	7/30/2020
cis-1,3-Dichloropropene	ND	0.0028		mg/m³	2	7/30/2020
Dibromochloromethane	ND	0.0052		mg/m³	2	7/30/2020
Dichlorodifluoromethane	ND	0.0031		mg/m³	2	7/30/2020
Ethylbenzene	0.0072	0.0028		mg/m³	2	7/30/2020
Isopropyl Alcohol	4.4	0.39		mg/m³	100	7/31/2020
m,p-Xylene	0.029	0.0052		mg/m³	2	7/30/2020
Methyl tert-butyl ether	ND	0.0022		mg/m³	2	7/30/2020
Methylene chloride	ND	0.021		mg/m³	2	7/30/2020
Naphthalene	0.0057	0.0031		mg/m³	2	7/30/2020
o-Xylene	0.011	0.0028		mg/m³	2	7/30/2020
Styrene	0.011	0.0028		mg/m³	2	7/30/2020
Tetrachloroethene	0.035	0.0043		mg/m³	2	7/30/2020
Toluene	0.029	0.0025		mg/m³	2	7/30/2020
trans-1,2-Dichloroethene	ND	0.0025		mg/m³	2	7/30/2020
trans-1,3-Dichloropropene	ND	0.0028		mg/m³	2	7/30/2020
Trichloroethene	ND	0.0034		mg/m³	2	7/30/2020

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

Work Order:

Client: Hydrodynamics Consultants, Inc.

20071082 Revision 0 Client Sample ID: SV1-1/4

Project: Westwood Cleaners, 8731 W. North Avenue, Wau

Lab ID: 20071082-001 Matrix: Air

DF **Analyses** Result **RL** Qualifier Units **Date Analyzed** Volatile Organic Compounds in Air by GC/MS **TO-15** Prep Date: 7/30/2020 Analyst: MAS Trichlorofluoromethane ND 0.0034 7/30/2020 mg/m³ 2 2 Vinyl acetate ND 0.022 mg/m³ 7/30/2020 Vinyl chloride ND 0.0015 mg/m³ 2 7/30/2020 Xylenes, Total 0.040 0.0080 2 7/30/2020 mg/m³

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

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RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

Date Printed:

ANALYTICAL RESULTS

August 04, 2020

Client: Hydrodynamics Consultants, Inc. Client Sample ID: SV2-1/4

20071082 Revision 0 Work Order: Collection Date: 7/28/2020 4:00:00 PM

Westwood Cleaners, 8731 W. North Avenue, Wau **Project:** Matrix: Air

Lab ID: 20071082-002

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GO	:/MS TO-15			Pre	p Date: 7/30/2020	Analyst: MAS
1,1,1-Trichloroethane	ND	0.0085		mg/m³	5	7/31/2020
1,1,2-Trichloroethane	ND	0.0085		mg/m³	5	7/31/2020
1,1-Dichloroethane	ND	0.0062		mg/m³	5	7/31/2020
1,1-Dichloroethene	ND	0.0062		mg/m³	5	7/31/2020
1,2,4-Trichlorobenzene	ND	0.012		mg/m³	5	7/31/2020
1,2-Dibromoethane	ND	0.012		mg/m³	5	7/31/2020
1,2-Dichlorobenzene	ND	0.0092		mg/m³	5	7/31/2020
1,2-Dichloroethane	ND	0.0062		mg/m³	5	7/31/2020
1,2-Dichloropropane	ND	0.0069		mg/m³	5	7/31/2020
1,4-Dichlorobenzene	ND	0.0092		mg/m³	5	7/31/2020
1,4-Dioxane	ND	0.014		mg/m³	5	7/31/2020
2-Butanone	0.035	0.012		mg/m³	5	7/31/2020
Acetone	0.18	0.037	*	mg/m³	5	7/31/2020
Benzene	0.0088	0.0046		mg/m³	5	7/31/2020
Bromodichloromethane	ND	0.010		mg/m³	5	7/31/2020
Bromoform	ND	0.040		mg/m³	5	7/31/2020
Bromomethane	ND	0.015		mg/m³	5	7/31/2020
Carbon disulfide	0.011	0.0048		mg/m³	5	7/31/2020
Carbon tetrachloride	ND	0.010		mg/m³	5	7/31/2020
Chlorobenzene	ND	0.0069		mg/m³	5	7/31/2020
Chloroform	ND	0.0077		mg/m³	5	7/31/2020
cis-1,2-Dichloroethene	ND	0.0062		mg/m³	5	7/31/2020
cis-1,3-Dichloropropene	ND	0.0069		mg/m³	5	7/31/2020
Dibromochloromethane	ND	0.013		mg/m³	5	7/31/2020
Dichlorodifluoromethane	ND	0.0077		mg/m³	5	7/31/2020
Ethylbenzene	ND	0.0069		mg/m³	5	7/31/2020
Isopropyl Alcohol	0.46	0.019		mg/m³	5	7/31/2020
m,p-Xylene	ND	0.013		mg/m³	5	7/31/2020
Methyl tert-butyl ether	ND	0.0054		mg/m³	5	7/31/2020
Methylene chloride	ND	0.053		mg/m³	5	7/31/2020
Naphthalene	ND	0.0077		mg/m³	5	7/31/2020
o-Xylene	ND	0.0069		mg/m³	5	7/31/2020
Styrene	ND	0.0069		mg/m³	5	7/31/2020
Tetrachloroethene	1.9	0.011		mg/m³	5	7/31/2020
Toluene	0.014	0.0062		mg/m³	5	7/31/2020
trans-1,2-Dichloroethene	ND	0.0062		mg/m³	5	7/31/2020
trans-1,3-Dichloropropene	ND	0.0069		mg/m³	5	7/31/2020
Trichloroethene	0.080	0.0085		mg/m³	5	7/31/2020

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

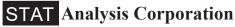
* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

Client: Hydrodynamics Consultants, Inc.

20071082 Revision 0 Client Sample ID: SV2-1/4

Work Order: 20071082 Revision 0
Project: Collection Date: 7/28/2020 4:00:00 PM
Westwood Cleaners, 8731 W. North Avenue, Wau

Lab ID: 20071082-002 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS	TO-15			Prep	Date: 7/30/2 0	020 Analyst: MAS
Trichlorofluoromethane	ND	0.0085		mg/m³	5	7/31/2020
Vinyl acetate	ND	0.054		mg/m³	5	7/31/2020
Vinyl chloride	ND	0.0038		mg/m³	5	7/31/2020
Xylenes, Total	ND	0.020		mg/m³	5	7/31/2020

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

Client: Hydrodynamics Consultants, Inc.

Work Order: 20071082 Revision 0 Client Sample ID: SV3-1/4

Project: Westwood Cleaners, 8731 W. North Avenue, Wau

Matrix: Air

Lab ID: 20071082-003

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/I	MS TO-15			Pre	p Date: 7/30/2020	Analyst: MAS
1,1,1-Trichloroethane	ND	0.0084		mg/m³	5	7/31/2020
1,1,2-Trichloroethane	ND	0.0084		mg/m³	5	7/31/2020
1,1-Dichloroethane	ND	0.0061		mg/m³	5	7/31/2020
1,1-Dichloroethene	ND	0.0061		mg/m³	5	7/31/2020
1,2,4-Trichlorobenzene	ND	0.011		mg/m³	5	7/31/2020
1,2-Dibromoethane	ND	0.011		mg/m³	5	7/31/2020
1,2-Dichlorobenzene	ND	0.0092		mg/m³	5	7/31/2020
1,2-Dichloroethane	ND	0.0061		mg/m³	5	7/31/2020
1,2-Dichloropropane	ND	0.0069		mg/m³	5	7/31/2020
1,4-Dichlorobenzene	ND	0.0092		mg/m³	5	7/31/2020
1,4-Dioxane	ND	0.014		mg/m³	5	7/31/2020
2-Butanone	ND	0.011		mg/m³	5	7/31/2020
Acetone	0.045	0.037	*	mg/m³	5	7/31/2020
Benzene	ND	0.0046		mg/m³	5	7/31/2020
Bromodichloromethane	ND	0.0099		mg/m³	5	7/31/2020
Bromoform	ND	0.040		mg/m³	5	7/31/2020
Bromomethane	ND	0.014		mg/m³	5	7/31/2020
Carbon disulfide	ND	0.0048		mg/m³	5	7/31/2020
Carbon tetrachloride	ND	0.0099		mg/m³	5	7/31/2020
Chlorobenzene	ND	0.0069		mg/m³	5	7/31/2020
Chloroform	ND	0.0076		mg/m³	5	7/31/2020
cis-1,2-Dichloroethene	ND	0.0061		mg/m³	5	7/31/2020
cis-1,3-Dichloropropene	ND	0.0069		mg/m³	5	7/31/2020
Dibromochloromethane	ND	0.013		mg/m³	5	7/31/2020
Dichlorodifluoromethane	ND	0.0076		mg/m³	5	7/31/2020
Ethylbenzene	ND	0.0069		mg/m³	5	7/31/2020
Isopropyl Alcohol	0.85	0.019		mg/m³	5	7/31/2020
m,p-Xylene	ND	0.013		mg/m³	5	7/31/2020
Methyl tert-butyl ether	ND	0.0053		mg/m³	5	7/31/2020
Methylene chloride	ND	0.053		mg/m³	5	7/31/2020
Naphthalene	ND	0.0076		mg/m³	5	7/31/2020
o-Xylene	ND	0.0069		mg/m³	5	7/31/2020
Styrene	ND	0.0069		mg/m³	5	7/31/2020
Tetrachloroethene	0.79	0.011		mg/m³	5	7/31/2020
Toluene	ND	0.0061		mg/m³	5	7/31/2020
trans-1,2-Dichloroethene	ND	0.0061		mg/m³	5	7/31/2020
trans-1,3-Dichloropropene	ND	0.0069		mg/m³	5	7/31/2020
Trichloroethene	0.014	0.0084		mg/m³	5	7/31/2020

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

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E - Value above quantitation range



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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

Client: Hydrodynamics Consultants, Inc.

20071082 Revision 0 Client Sample ID: SV3-1/4

Work Order: 20071082 Revision 0
Project: Collection Date: 7/28/2020 10:40:00 AM
Westwood Cleaners, 8731 W. North Avenue, Wau

Lab ID: Westwood Cleaners, 8731 W. North Avenue, Watt Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS	S TO-15			Pre	Date: 7/30	/2020 Analyst: MAS
Trichlorofluoromethane	ND	0.0084		mg/m³	5	7/31/2020
Vinyl acetate	ND	0.053		mg/m³	5	7/31/2020
Vinyl chloride	ND	0.0038		mg/m³	5	7/31/2020
Xylenes, Total	ND	0.020		mg/m³	5	7/31/2020

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

Date Printed:

ANALYTICAL RESULTS

Client: Hydrodynamics Consultants, Inc.

August 04, 2020

Work Order: 20071082 Revision 0 Client Sample ID: SV4-1/4

Project: Westwood Cleaners, 8731 W. North Avenue, Wau

Matrix: Air

Lab ID: 20071082-004

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed				
Volatile Organic Compounds in Air by GC/	MS TO-15			Pre	p Date: 7/30/2020	Analyst: MAS				
1,1,1-Trichloroethane	ND	0.0085		mg/m³	5	7/31/2020				
1,1,2-Trichloroethane	ND	0.0085		mg/m³	5	7/31/2020				
1,1-Dichloroethane	ND	0.0062		mg/m³	5	7/31/2020				
1,1-Dichloroethene	ND	0.0062		mg/m³	5	7/31/2020				
1,2,4-Trichlorobenzene	ND	0.012		mg/m³	5	7/31/2020				
1,2-Dibromoethane	ND	0.012		mg/m³	5	7/31/2020				
1,2-Dichlorobenzene	ND	0.0093		mg/m³	5	7/31/2020				
1,2-Dichloroethane	ND	0.0062		mg/m³	5	7/31/2020				
1,2-Dichloropropane	ND	0.0070		mg/m³	5	7/31/2020				
1,4-Dichlorobenzene	ND	0.0093		mg/m³	5	7/31/2020				
1,4-Dioxane	ND	0.014		mg/m³	5	7/31/2020				
2-Butanone	ND	0.012		mg/m³	5	7/31/2020				
Acetone	0.16	0.037	*	mg/m³	5	7/31/2020				
Benzene	ND	0.0047		mg/m³	5	7/31/2020				
Bromodichloromethane	ND	0.010		mg/m³	5	7/31/2020				
Bromoform	ND	0.040		mg/m³	5	7/31/2020				
Bromomethane	ND	0.015		mg/m³	5	7/31/2020				
Carbon disulfide	0.0080	0.0048		mg/m³	5	7/31/2020				
Carbon tetrachloride	ND	0.010		mg/m³	5	7/31/2020				
Chlorobenzene	ND	0.0070		mg/m³	5	7/31/2020				
Chloroform	ND	0.0078		mg/m³	5	7/31/2020				
cis-1,2-Dichloroethene	ND	0.0062		mg/m³	5	7/31/2020				
cis-1,3-Dichloropropene	ND	0.0070		mg/m³	5	7/31/2020				
Dibromochloromethane	ND	0.013		mg/m³	5	7/31/2020				
Dichlorodifluoromethane	ND	0.0078		mg/m³	5	7/31/2020				
Ethylbenzene	0.0088	0.0070		mg/m³	5	7/31/2020				
Isopropyl Alcohol	5.5	0.39		mg/m³	100	7/31/2020				
m,p-Xylene	0.035	0.013		mg/m³	5	7/31/2020				
Methyl tert-butyl ether	ND	0.0054		mg/m³	5	7/31/2020				
Methylene chloride	ND	0.054		mg/m³	5	7/31/2020				
Naphthalene	0.0094	0.0078		mg/m³	5	7/31/2020				
o-Xylene	0.013	0.0070		mg/m³	5	7/31/2020				
Styrene	0.013	0.0070		mg/m³	5	7/31/2020				
Tetrachloroethene	0.46	0.011		mg/m³	5	7/31/2020				
Toluene	0.032	0.0062		mg/m³	5	7/31/2020				
trans-1,2-Dichloroethene	ND	0.0062		mg/m³	5	7/31/2020				
trans-1,3-Dichloropropene	ND	0.0070		mg/m³	5	7/31/2020				
Trichloroethene	ND	0.0085		mg/m³	5	7/31/2020				

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

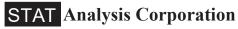
* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

Client: Hydrodynamics Consultants, Inc.

20071082 Revision 0 Client Sample ID: SV4-1/4

Work Order: 20071082 Revision 0
Project: Collection Date: 7/28/2020 11:20:00 AM
Westwood Cleaners, 8731 W. North Avenue, Wau

Lab ID: Westwood Cleaners, 8751 W. North Avenue, Wat Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed					
Volatile Organic Compounds in Air by GC/MS	S TO-15			Pre	Date: 7/30/2	020 Analyst: MAS					
Trichlorofluoromethane	ND	0.0085		mg/m³	5	7/31/2020					
Vinyl acetate	ND	0.054		mg/m³	5	7/31/2020					
Vinyl chloride	ND	0.0039		mg/m³	5	7/31/2020					
Xylenes, Total	0.049	0.020		ma/m³	5	7/31/2020					

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

Client: Hydrodynamics Consultants, Inc.

Work Order: 20071082 Revision 0 Client Sample ID: SV5-1/4

Project: Westwood Cleaners, 8731 W. North Avenue, Wau

Collection Date: 7/28/2020 3:30:00 PM

Matrix: Air

Lab ID: 20071082-005

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC	/MS TO-15			Pre	o Date: 7/30/2020	Analyst: MAS
1,1,1-Trichloroethane	ND	0.0034		mg/m³	2	7/30/2020
1,1,2-Trichloroethane	ND	0.0034		mg/m³	2	7/30/2020
1,1-Dichloroethane	ND	0.0025		mg/m³	2	7/30/2020
1,1-Dichloroethene	ND	0.0025		mg/m³	2	7/30/2020
1,2,4-Trichlorobenzene	ND	0.0047		mg/m³	2	7/30/2020
1,2-Dibromoethane	ND	0.0047		mg/m³	2	7/30/2020
1,2-Dichlorobenzene	ND	0.0038		mg/m³	2	7/30/2020
1,2-Dichloroethane	ND	0.0025		mg/m³	2	7/30/2020
1,2-Dichloropropane	ND	0.0028		mg/m³	2	7/30/2020
1,4-Dichlorobenzene	ND	0.0038		mg/m³	2	7/30/2020
1,4-Dioxane	ND	0.0056		mg/m³	2	7/30/2020
2-Butanone	0.0068	0.0047		mg/m³	2	7/30/2020
Acetone	0.19	0.015	*	mg/m³	2	7/30/2020
Benzene	ND	0.0019		mg/m³	2	7/30/2020
Bromodichloromethane	ND	0.0041		mg/m³	2	7/30/2020
Bromoform	ND	0.016		mg/m³	2	7/30/2020
Bromomethane	ND	0.0060		mg/m³	2	7/30/2020
Carbon disulfide	0.0043	0.0020		mg/m³	2	7/30/2020
Carbon tetrachloride	ND	0.0041		mg/m³	2	7/30/2020
Chlorobenzene	ND	0.0028		mg/m³	2	7/30/2020
Chloroform	0.0040	0.0031		mg/m³	2	7/30/2020
cis-1,2-Dichloroethene	ND	0.0025		mg/m³	2	7/30/2020
cis-1,3-Dichloropropene	ND	0.0028		mg/m³	2	7/30/2020
Dibromochloromethane	ND	0.0053		mg/m³	2	7/30/2020
Dichlorodifluoromethane	ND	0.0031		mg/m³	2	7/30/2020
Ethylbenzene	0.0042	0.0028		mg/m³	2	7/30/2020
Isopropyl Alcohol	4.7	0.39		mg/m³	100	7/31/2020
m,p-Xylene	0.018	0.0053		mg/m³	2	7/30/2020
Methyl tert-butyl ether	ND	0.0022		mg/m³	2	7/30/2020
Methylene chloride	ND	0.022		mg/m³	2	7/30/2020
Naphthalene	0.0033	0.0031		mg/m³	2	7/30/2020
o-Xylene	0.0068	0.0028		mg/m³	2	7/30/2020
Styrene	0.0043	0.0028		mg/m³	2	7/30/2020
Tetrachloroethene	0.093	0.0044		mg/m³	2	7/30/2020
Toluene	0.021	0.0025		mg/m³	2	7/30/2020
trans-1,2-Dichloroethene	ND	0.0025		mg/m³	2	7/30/2020
trans-1,3-Dichloropropene	ND	0.0028		mg/m³	2	7/30/2020
Trichloroethene	ND	0.0034		mg/m³	2	7/30/2020

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

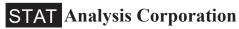
* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

Work Order:

Client: Hydrodynamics Consultants, Inc.

20071082 Revision 0 Client Sample ID: SV5-1/4

Project: Westwood Cleaners, 8731 W. North Avenue, Wau

Lab ID: 20071082-005 Matrix: Air

Analyses Result **RL** Qualifier Units DF **Date Analyzed** Volatile Organic Compounds in Air by GC/MS **TO-15** Prep Date: 7/30/2020 Analyst: MAS Trichlorofluoromethane ND 0.0034 7/30/2020 mg/m³ 2 2 Vinyl acetate ND 0.022 mg/m³ 7/30/2020 Vinyl chloride ND 0.0016 mg/m³ 2 7/30/2020 Xylenes, Total 0.025 2 7/30/2020 0.0082 mg/m³

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

Client: Hydrodynamics Consultants, Inc.

Work Order: 20071082 Revision 0 Client Sample ID: SV6-1/4

Project: Westwood Cleaners, 8731 W. North Avenue, Wau

Lab ID: 20071082-006 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC	/MS TO-15			Pre	p Date: 7/30/2020	Analyst: MAS
1,1,1-Trichloroethane	ND	0.0039		mg/m³	2	7/31/2020
1,1,2-Trichloroethane	ND	0.0039		mg/m³	2	7/31/2020
1,1-Dichloroethane	ND	0.0028		mg/m³	2	7/31/2020
1,1-Dichloroethene	ND	0.0028		mg/m³	2	7/31/2020
1,2,4-Trichlorobenzene	ND	0.0053		mg/m³	2	7/31/2020
1,2-Dibromoethane	ND	0.0053		mg/m³	2	7/31/2020
1,2-Dichlorobenzene	ND	0.0042		mg/m³	2	7/31/2020
1,2-Dichloroethane	ND	0.0028		mg/m³	2	7/31/2020
1,2-Dichloropropane	ND	0.0032		mg/m³	2	7/31/2020
1,4-Dichlorobenzene	ND	0.0042		mg/m³	2	7/31/2020
1,4-Dioxane	ND	0.0064		mg/m³	2	7/31/2020
2-Butanone	ND	0.0053		mg/m³	2	7/31/2020
Acetone	0.20	0.017	*	mg/m³	2	7/31/2020
Benzene	ND	0.0021		mg/m³	2	7/31/2020
Bromodichloromethane	ND	0.0046		mg/m³	2	7/31/2020
Bromoform	ND	0.018		mg/m³	2	7/31/2020
Bromomethane	ND	0.0067		mg/m³	2	7/31/2020
Carbon disulfide	0.0024	0.0022		mg/m³	2	7/31/2020
Carbon tetrachloride	ND	0.0046		mg/m³	2	7/31/2020
Chlorobenzene	ND	0.0032		mg/m³	2	7/31/2020
Chloroform	ND	0.0035		mg/m³	2	7/31/2020
cis-1,2-Dichloroethene	ND	0.0028		mg/m³	2	7/31/2020
cis-1,3-Dichloropropene	ND	0.0032		mg/m³	2	7/31/2020
Dibromochloromethane	ND	0.0060		mg/m³	2	7/31/2020
Dichlorodifluoromethane	ND	0.0035		mg/m³	2	7/31/2020
Ethylbenzene	0.0060	0.0032		mg/m³	2	7/31/2020
Isopropyl Alcohol	4.5	0.11		mg/m³	25	7/31/2020
m,p-Xylene	0.025	0.0060		mg/m³	2	7/31/2020
Methyl tert-butyl ether	ND	0.0025		mg/m³	2	7/31/2020
Methylene chloride	ND	0.024		mg/m³	2	7/31/2020
Naphthalene	0.0052	0.0035		mg/m³	2	7/31/2020
o-Xylene	0.0092	0.0032		mg/m³	2	7/31/2020
Styrene	0.010	0.0032		mg/m³	2	7/31/2020
Tetrachloroethene	0.16	0.0050		mg/m³	2	7/31/2020
Toluene	0.023	0.0028		mg/m³	2	7/31/2020
trans-1,2-Dichloroethene	ND	0.0028		mg/m³	2	7/31/2020
trans-1,3-Dichloropropene	ND	0.0032		mg/m³	2	7/31/2020
Trichloroethene	ND	0.0039		mg/m³	2	7/31/2020

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

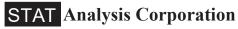
* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

Client: Hydrodynamics Consultants, Inc.

20071082 Revision 0 Client Sample ID: SV6-1/4

Project: Westwood Cleaners, 8731 W. North Avenue, Wau

Matrix: Air

Lab ID: 20071082-006

Work Order:

Analyses	Result	RL Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS	S TO-15		Prep	Date: 7/30/2020	Analyst: MAS
Trichlorofluoromethane	ND	0.0039	mg/m³	2	7/31/2020
Vinyl acetate	ND	0.025	mg/m³	2	7/31/2020
Vinyl chloride	ND	0.0018	mg/m³	2	7/31/2020
Xylenes, Total	0.034	0.0092	mg/m³	2	7/31/2020

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

Client: Hydrodynamics Consultants, Inc.

Client Sample ID: SV7-1/4 20071082 Revision 0 Work Order:

Collection Date: 7/28/2020 8:40:00 AM Westwood Cleaners, 8731 W. North Avenue, Wau **Project:**

Matrix: Air Lab ID: 20071082-007

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed				
Volatile Organic Compounds in Air by GC/MS	S TO-15			Prep	Date: 7/30/2020	Analyst: MAS				
1,1,1-Trichloroethane	ND	0.043		mg/m³	25	7/31/2020				
1,1,2-Trichloroethane	ND	0.043		mg/m³	25	7/31/2020				
1,1-Dichloroethane	ND	0.031		mg/m³	25	7/31/2020				
1,1-Dichloroethene	ND	0.031		mg/m³	25	7/31/2020				
1,2,4-Trichlorobenzene	ND	0.058		mg/m³	25	7/31/2020				
1,2-Dibromoethane	ND	0.058		mg/m³	25	7/31/2020				
1,2-Dichlorobenzene	ND	0.046		mg/m³	25	7/31/2020				
1,2-Dichloroethane	ND	0.031		mg/m³	25	7/31/2020				
1,2-Dichloropropane	ND	0.035		mg/m³	25	7/31/2020				
1,4-Dichlorobenzene	ND	0.046		mg/m³	25	7/31/2020				
1,4-Dioxane	ND	0.070		mg/m³	25	7/31/2020				
2-Butanone	ND	0.058		mg/m³	25	7/31/2020				
Acetone	ND	0.19	*	mg/m³	25	7/31/2020				
Benzene	ND	0.023		mg/m³	25	7/31/2020				
Bromodichloromethane	ND	0.050		mg/m³	25	7/31/2020				
Bromoform	ND	0.20		mg/m³	25	7/31/2020				
Bromomethane	ND	0.074		mg/m³	25	7/31/2020				
Carbon disulfide	ND	0.024		mg/m³	25	7/31/2020				
Carbon tetrachloride	ND	0.050		mg/m³	25	7/31/2020				
Chlorobenzene	ND	0.035		mg/m³	25	7/31/2020				
Chloroform	ND	0.039		mg/m³	25	7/31/2020				
cis-1,2-Dichloroethene	ND	0.031		mg/m³	25	7/31/2020				
cis-1,3-Dichloropropene	ND	0.035		mg/m³	25	7/31/2020				
Dibromochloromethane	ND	0.066		mg/m³	25	7/31/2020				
Dichlorodifluoromethane	ND	0.039		mg/m³	25	7/31/2020				
Ethylbenzene	ND	0.035		mg/m³	25	7/31/2020				
Isopropyl Alcohol	4.5	0.97		mg/m³	250	7/31/2020				
m,p-Xylene	ND	0.066		mg/m³	25	7/31/2020				
Methyl tert-butyl ether	ND	0.027		mg/m³	25	7/31/2020				
Methylene chloride	ND	0.27		mg/m³	25	7/31/2020				
Naphthalene	ND	0.039		mg/m³	25	7/31/2020				
o-Xylene	ND	0.035		mg/m³	25	7/31/2020				
Styrene	ND	0.035		mg/m³	25	7/31/2020				
Tetrachloroethene	37	0.54		mg/m³	250	7/31/2020				
Toluene	ND	0.031		mg/m³	25	7/31/2020				
trans-1,2-Dichloroethene	ND	0.031		mg/m³	25	7/31/2020				
trans-1,3-Dichloropropene	ND	0.035		mg/m³	25	7/31/2020				
Trichloroethene	0.50	0.043		mg/m³	25	7/31/2020				

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

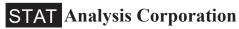
* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

Client: Hydrodynamics Consultants, Inc.

20071082 Revision 0 Client Sample ID: SV7-1/4

Project: Westwood Cleaners, 8731 W. North Avenue, Wau

Matrix: Air

Lab ID: 20071082-007

Work Order:

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS	S TO-15			Prep	Date: 7/30/2020	Analyst: MAS
Trichlorofluoromethane	ND	0.043		mg/m³	25	7/31/2020
Vinyl acetate	ND	0.27		mg/m³	25	7/31/2020
Vinyl chloride	ND	0.019		mg/m³	25	7/31/2020
Xylenes, Total	ND	0.10		mg/m³	25	7/31/2020

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Matrix: Air

Date Printed: August 04, 2020

Client: Hydrodynamics Consultants, Inc.

20071082 Revision 0 Client Sample ID: SV7-1/4D

Project: Westwood Cleaners, 8731 W. North Avenue, Wau

Lab ID: 20071082-008

Work Order:

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS	S TO-15			Prep	Date: 7/30/2020	Analyst: MAS
1,1,1-Trichloroethane	ND	0.047		mg/m³	25	7/31/2020
1,1,2-Trichloroethane	ND	0.047		mg/m³	25	7/31/2020
1,1-Dichloroethane	ND	0.034		mg/m³	25	7/31/2020
1,1-Dichloroethene	ND	0.034		mg/m³	25	7/31/2020
1,2,4-Trichlorobenzene	ND	0.064		mg/m³	25	7/31/2020
1,2-Dibromoethane	ND	0.064		mg/m³	25	7/31/2020
1,2-Dichlorobenzene	ND	0.051		mg/m³	25	7/31/2020
1,2-Dichloroethane	ND	0.034		mg/m³	25	7/31/2020
1,2-Dichloropropane	ND	0.038		mg/m³	25	7/31/2020
1,4-Dichlorobenzene	ND	0.051		mg/m³	25	7/31/2020
1,4-Dioxane	ND	0.077		mg/m³	25	7/31/2020
2-Butanone	ND	0.064		mg/m³	25	7/31/2020
Acetone	0.41	0.20	*	mg/m³	25	7/31/2020
Benzene	ND	0.026		mg/m³	25	7/31/2020
Bromodichloromethane	ND	0.055		mg/m³	25	7/31/2020
Bromoform	ND	0.22		mg/m³	25	7/31/2020
Bromomethane	ND	0.081		mg/m³	25	7/31/2020
Carbon disulfide	ND	0.026		mg/m³	25	7/31/2020
Carbon tetrachloride	ND	0.055		mg/m³	25	7/31/2020
Chlorobenzene	ND	0.038		mg/m³	25	7/31/2020
Chloroform	ND	0.043		mg/m³	25	7/31/2020
cis-1,2-Dichloroethene	ND	0.034		mg/m³	25	7/31/2020
cis-1,3-Dichloropropene	ND	0.038		mg/m³	25	7/31/2020
Dibromochloromethane	ND	0.072		mg/m³	25	7/31/2020
Dichlorodifluoromethane	ND	0.043		mg/m³	25	7/31/2020
Ethylbenzene	ND	0.038		mg/m³	25	7/31/2020
Isopropyl Alcohol	29	2.7		mg/m³	625	7/31/2020
m,p-Xylene	ND	0.072		mg/m³	25	7/31/2020
Methyl tert-butyl ether	ND	0.030		mg/m³	25	7/31/2020
Methylene chloride	ND	0.29		mg/m³	25	7/31/2020
Naphthalene	ND	0.043		mg/m³	25	7/31/2020
o-Xylene	ND	0.038		mg/m³	25	7/31/2020
Styrene	ND	0.038		mg/m³	25	7/31/2020
Tetrachloroethene	38	1.5		mg/m³	625	7/31/2020
Toluene	0.062	0.034		mg/m³	25	7/31/2020
trans-1,2-Dichloroethene	ND	0.034		mg/m³	25	7/31/2020
trans-1,3-Dichloropropene	ND	0.038		mg/m³	25	7/31/2020
Trichloroethene	0.63	0.047		mg/m³	25	7/31/2020

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

Work Order:

Client: Hydrodynamics Consultants, Inc.

20071082 Revision 0 Client Sample ID: SV7-1/4D

Project: Westwood Cleaners, 8731 W. North Avenue, Wau

Lab ID: 20071082-008 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed				
Volatile Organic Compounds in Air by GC/MS	S TO-15			Prep	Date: 7/30/2020	Analyst: MAS				
Trichlorofluoromethane	ND	0.047		mg/m³	25	7/31/2020				
Vinyl acetate	ND	0.30		mg/m³	25	7/31/2020				
Vinyl chloride	ND	0.021		mg/m³	25	7/31/2020				
Xylenes, Total	ND	0.11		mg/m³	25	7/31/2020				

ND - Not Detected at the Reporting Limit

Qualifiers: J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Page 20 of 21

STAT Analysis Corporation
2201 West Campbell Park Drive, Chicago, Illinois 60612-3547 Phone: (312) 733-0551 Fax: (312) 733-2386 e-mail address: STATinfo@STATAnalysis.com A I H A accredited 10248, N V L A P accredited 101202-0

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Company: Hydrodynamics Consult	ant, Inc.							P.C). No	o.:		П														
Project Number:			Client T	rack	cing l	No.:									,		7,	7,	Ζ,	7	//	7	7	7,	77,	$\overline{}$
Project Name: Westwood Cleaners								Que	ote N	No.:					/,	//	//	/,	/,	/	//	//	//,	/,	//	/
Location/Address: 8731 W. North Aven	ue, Wauw	ratosa, V	۷I										,	/,	/,	//	//	/,	/,	/	//	//	//,	/,	//	
Sampler(s): Mike Wan												_	/,	/	/,	//	//	/,	/	/	//	//	//.	/		
Report To: Mike Wan			Phone:	(6	30)	724-	-0098				j	/,	Hoth	101	/,	/,	//	/,	/,	/	//	//	//	/	Turn Arou	ınd:
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Sample Receipt Checklist

Shipping container/cooler in good condition? Yes No Not Present No	Client Name HYDRODYNAMICS Work Order Number 20071082			Date and Tim		7/29/2020 3:00:00 PM
Shipping container/cooler in good condition? Ves No Not Present No		7/2 Date	9120	Reviewed by:		7/30/2020 Date
Custody seals intact on shippping container/cooler? Yes	Matrix:	Carrier name	STAT Analysis			
Custody seals intact on sample bottles? Chain of custody present? Chain of custody signed when relinquished and received? Yes	Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present]
Chain of custody present? Chain of custody signed when relinquished and received? Chain of custody signed when relinquished and received? Chain of custody agrees with sample labels/containers? Yes	Custody seals intact on shippping container/cooler?		Yes	No 🗌	Not Present]
Chain of custody signed when relinquished and received? Yes	Custody seals intact on sample bottles?		Yes	No 🗌	Not Present	1
Chain of custody agrees with sample labels/containers? Yes V No Samples in proper container/bottle? Sample containers intact? Yes V No Sample containers intact? Sufficient sample volume for indicated test? Yes V No Sufficient sample volume for indicated test? Yes V No Temperature for compliance? Yes V No Temperature Ambient *C Water - VOA vials have zero headspace? No VOA vials submitted Yes No Checked by: Water - Samples pH checked? Water - Samples properly preserved? Yes No Checked by: Water - Samples properly preserved? Any No response must be detailed in the comments section below. Client / Person contacted: Contacted by: Contacted by:	Chain of custody present?		Yes 🗸	No 🗌		
Samples in proper container/bottle? Sample containers intact? Yes V No Sufficient sample volume for indicated test? Yes V No Sufficient sample volume for indicated test? Yes V No Sufficient sample volume for indicated test? Yes V No Sufficient samples received within holding time? Yes V No Temperature Ambient *C Water - VOA vials have zero headspace? No VOA vials submitted Yes No Schecked by: Water - Samples pH checked? Yes No Checked by: Water - Samples properly preserved? Yes No PH Adjusted? Any No response must be detailed in the comments section below. Comments: Client / Person contacted: Contacted by:	Chain of custody signed when relinquished and receive	ved?	Yes 🗸	No 🗌		
Sample containers intact? Sufficient sample volume for indicated test? Yes V No All samples received within holding time? Container or Temp Blank temperature in compliance? Water - VOA vials have zero headspace? No VOA vials submitted Yes No Checked by: Water - Samples properly preserved? Water - Samples properly preserved? Any No response must be detailed in the comments section below. Comments: Client / Person contacted: Date contacted: Contacted by:	Chain of custody agrees with sample labels/container	s?	Yes 🗸	No 🗆		
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Water - VOA vials have zero headspace? No VOA vials submitted Yes No Checked by: Water - Samples pH checked? Yes No pH Adjusted? Water - Samples properly preserved? Yes No pH Adjusted? Any No response must be detailed in the comments section below. Comments: Client / Person contacted: Contacted by:	Container or Temp Blank temperature in compliance?	,	Yes 🗸	No 🗌	Temperat	ure Ambient °C
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Any No response must be detailed in the comments section below. Comments: Client / Person	uder until make i se de la desta de la Santa la desta de la desta		Yes 🔳	No 🕮	Checked by:	
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Client / Person Contacted: Contacted by:	Any No response must be detailed in the comments s	section below.				=======
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Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

August 03, 2020

Hydrodynamics Consultants, Inc. 5403 Patton Drive Lisle, IL 60532

Telephone: (630) 724-0098 Fax: (800) 881-2051

Analytical Report for STAT Work Order: 20071083 Revision 0

RE: Westwood Cleaners, 8731 W. North Avenue, Wauwatosa, WI

Dear Hydrodynamics Consultants, Inc.:

STAT Analysis received 7 samples for the referenced project on 7/29/2020 3:00:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements specifed in WI DNR Chapter NR 149 (Certification Number 399099910). Analyses were performed in accordance with methods as referenced on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. A listing of accredited methods/parameters can also be provided.

For sample results requiring adjustment for dilutions, the detection and reporting limits are adjusted for the corresponding dilution factor. Analytical results expressed on a dry weight basis have units of mg/Kg-dry or $\mu g/Kg$ -dry on the analytical report. Corresponding reporting limits are adjusted for dry weight.

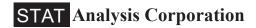
Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Sebastian Slazyk

Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples as received and tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.



Date: August 03, 2020

Client: Hydrodynamics Consultants, Inc.

Project: Westwood Cleaners, 8731 W. North Avenue, Wauwato Work Order Sample Summary

Work Order: 20071083 Revision 0

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
20071083-001A	MW1-1/4		7/28/2020 12:05:00 PM	7/29/2020
20071083-002A	MW2-1/4		7/28/2020 12:15:00 PM	7/29/2020
20071083-003A	MW3-1/4		7/28/2020 12:25:00 PM	7/29/2020
20071083-004A	MW4-1/4		7/28/2020 12:40:00 PM	7/29/2020
20071083-005A	MW5-1/4		7/28/2020 12:55:00 PM	7/29/2020
20071083-006A	MW6-1/4		7/28/2020 1:15:00 PM	7/29/2020
20071083-007A	Trip Blank		7/28/2020	7/29/2020

Timuly sis corporation

CLIENT: Hydrodynamics Consultants, Inc.

Project: Westwood Cleaners, 8731 W. North Avenue, Wauwatosa, W CASE NARRATIVE

Date: August 03, 2020

Work Order: 20071083 Revision 0

Sample MW2-1/4 (20071083-002) had recovery of VOC surrogate 4-Bromofluorobenzene outside of control limits (62.8% recovery, QC Limits: 79-114%). Recovery of all other surrogates were within control limits.

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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 03, 2020

ANALYTICAL RESULTS

Date Printed: August 03, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071083 Revision 0

Project: Westwood Cleaners, 8731 W. North Avenue, Wauwat

Lab ID: 20071083-001

Client Sample ID: MW1-1/4

Collection Date: 7/28/2020 12:05:00 PM

Matrix: AQUEOUS

Analyses	Result	LOQ	LOD	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SI	V8260B	(SW5030B)	Prep Date:			Analyst: BAL
Acetone	ND	0.020	0.0031		mg/L	1	7/30/2020
Benzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromoform	ND	0.0010	0.0003		mg/L	1	7/30/2020
Bromomethane	ND	0.0050	0.002		mg/L	1	7/30/2020
2-Butanone	ND	0.020	0.0016		mg/L	1	7/30/2020
Carbon disulfide	ND	0.010	0.0003		mg/L	1	7/30/2020
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	7/30/2020
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Chloroethane	ND	0.010	0.0005		mg/L	1	7/30/2020
Chloroform	ND	0.0010	0.0001		mg/L	1	7/30/2020
Chloromethane	ND	0.010	0.0003		mg/L	1	7/30/2020
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	7/30/2020
cis-1,2-Dichloroethene	ND	0.0050	0.0002		mg/L	1	7/30/2020
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	7/30/2020
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	7/30/2020
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	7/30/2020
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	7/30/2020
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	7/30/2020
2-Hexanone	ND	0.020	0.0002		mg/L	1	7/30/2020
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	7/30/2020
Methylene chloride	ND	0.0050	0.0002		mg/L	1	7/30/2020
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	7/30/2020
Styrene	ND	0.0050	0.0003		mg/L	1	7/30/2020
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Tetrachloroethene	ND	0.0050	0.0003		mg/L	1	7/30/2020
Toluene	ND	0.0050	0.0004		mg/L	1	7/30/2020
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Trichloroethene	ND	0.0050	0.0003		mg/L	1	7/30/2020
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	7/30/2020
Xylenes, Total	ND	0.015	0.001		mg/L	1	7/30/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 03, 2020

ANALYTICAL RESULTS

Date Printed: August 03, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071083 Revision 0

Project: Westwood Cleaners, 8731 W. North Avenue, Wauwat

Lab ID: 20071083-002

Client Sample ID: MW2-1/4

Collection Date: 7/28/2020 12:15:00 PM

Matrix: AQUEOUS

Analyses	Result	LOQ	LOD	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SI	W8260B	(SW5030B)	Prep Date:			Analyst: BAL
Acetone	ND	0.020	0.0031		mg/L	1	7/30/2020
Benzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromoform	ND	0.0010	0.0003		mg/L	1	7/30/2020
Bromomethane	ND	0.0050	0.002		mg/L	1	7/30/2020
2-Butanone	ND	0.020	0.0016		mg/L	1	7/30/2020
Carbon disulfide	ND	0.010	0.0003		mg/L	1	7/30/2020
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	7/30/2020
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Chloroethane	ND	0.010	0.0005		mg/L	1	7/30/2020
Chloroform	ND	0.0010	0.0001		mg/L	1	7/30/2020
Chloromethane	ND	0.010	0.0003		mg/L	1	7/30/2020
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	7/30/2020
cis-1,2-Dichloroethene	0.010	0.0050	0.0002		mg/L	1	7/30/2020
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	7/30/2020
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	7/30/2020
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	7/30/2020
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	7/30/2020
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	7/30/2020
2-Hexanone	ND	0.020	0.0002		mg/L	1	7/30/2020
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	7/30/2020
Methylene chloride	ND	0.0050	0.0002		mg/L	1	7/30/2020
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	7/30/2020
Styrene	ND	0.0050	0.0003		mg/L	1	7/30/2020
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Tetrachloroethene	0.099	0.050	0.003		mg/L	10	7/31/2020
Toluene	ND	0.0050	0.0004		mg/L	1	7/30/2020
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Trichloroethene	0.089	0.0050	0.0003		mg/L	1	7/30/2020
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	7/30/2020
Xylenes, Total	ND	0.015	0.001		mg/L	1	7/30/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

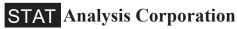
* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 03, 2020

ANALYTICAL RESULTS

Date Printed: August 03, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071083 Revision 0

Project: Westwood Cleaners, 8731 W. North Avenue, Wauwat

Lab ID: 20071083-003

Client Sample ID: MW3-1/4

Collection Date: 7/28/2020 12:25:00 PM

Matrix: AQUEOUS

Analyses	Result	LOQ	LOD	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SV	V8260B	(SW5030B)	Prep Date:			Analyst: BAL
Acetone	ND	0.020	0.0031		mg/L	1	7/30/2020
Benzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromoform	ND	0.0010	0.0003		mg/L	1	7/30/2020
Bromomethane	ND	0.0050	0.002		mg/L	1	7/30/2020
2-Butanone	ND	0.020	0.0016		mg/L	1	7/30/2020
Carbon disulfide	ND	0.010	0.0003		mg/L	1	7/30/2020
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	7/30/2020
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Chloroethane	ND	0.010	0.0005		mg/L	1	7/30/2020
Chloroform	ND	0.0010	0.0001		mg/L	1	7/30/2020
Chloromethane	ND	0.010	0.0003		mg/L	1	7/30/2020
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	7/30/2020
cis-1,2-Dichloroethene	ND	0.0050	0.0002		mg/L	1	7/30/2020
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	7/30/2020
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	7/30/2020
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	7/30/2020
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	7/30/2020
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	7/30/2020
2-Hexanone	ND	0.020	0.0002		mg/L	1	7/30/2020
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	7/30/2020
Methylene chloride	ND	0.0050	0.0002		mg/L	1	7/30/2020
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	7/30/2020
Styrene	ND	0.0050	0.0003		mg/L	1	7/30/2020
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Tetrachloroethene	ND	0.0050	0.0003		mg/L	1	7/30/2020
Toluene	ND	0.0050	0.0004		mg/L	1	7/30/2020
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Trichloroethene	ND	0.0050	0.0003		mg/L	1	7/30/2020
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	7/30/2020
Xylenes, Total	ND	0.015	0.001		mg/L	1	7/30/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

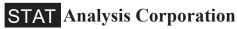
* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 03, 2020

ANALYTICAL RESULTS

Date Printed: August 03, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071083 Revision 0

Project: Westwood Cleaners, 8731 W. North Avenue, Wauwat

Lab ID: 20071083-004

Client Sample ID: MW4-1/4

Collection Date: 7/28/2020 12:40:00 PM

Matrix: AQUEOUS

Analyses	Result	LOQ	LOD	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SV	V8260B	(SW5030B)	Prep Date:			Analyst: BAL
Acetone	ND	0.020	0.0031		mg/L	1	7/30/2020
Benzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromoform	ND	0.0010	0.0003		mg/L	1	7/30/2020
Bromomethane	ND	0.0050	0.002		mg/L	1	7/30/2020
2-Butanone	ND	0.020	0.0016		mg/L	1	7/30/2020
Carbon disulfide	ND	0.010	0.0003		mg/L	1	7/30/2020
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	7/30/2020
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Chloroethane	ND	0.010	0.0005		mg/L	1	7/30/2020
Chloroform	ND	0.0010	0.0001		mg/L	1	7/30/2020
Chloromethane	ND	0.010	0.0003		mg/L	1	7/30/2020
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	7/30/2020
cis-1,2-Dichloroethene	ND	0.0050	0.0002		mg/L	1	7/30/2020
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	7/30/2020
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	7/30/2020
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	7/30/2020
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	7/30/2020
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	7/30/2020
2-Hexanone	ND	0.020	0.0002		mg/L	1	7/30/2020
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	7/30/2020
Methylene chloride	ND	0.0050	0.0002		mg/L	1	7/30/2020
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	7/30/2020
Styrene	ND	0.0050	0.0003		mg/L	1	7/30/2020
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Tetrachloroethene	ND	0.0050	0.0003		mg/L	1	7/30/2020
Toluene	ND	0.0050	0.0004		mg/L	1	7/30/2020
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Trichloroethene	ND	0.0050	0.0003		mg/L	1	7/30/2020
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	7/30/2020
Xylenes, Total	ND	0.015	0.001		mg/L	1	7/30/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 03, 2020

ANALYTICAL RESULTS

Date Printed: August 03, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071083 Revision 0

Project: Westwood Cleaners, 8731 W. North Avenue, Wauwat

Lab ID: 20071083-005

Client Sample ID: MW5-1/4

Collection Date: 7/28/2020 12:55:00 PM

Matrix: AQUEOUS

Analyses	Result	LOQ	LOD	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SV	V8260B	(SW5030B)	Prep Date:			Analyst: BAL
Acetone	ND	0.020	0.0031		mg/L	1	7/30/2020
Benzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromoform	ND	0.0010	0.0003		mg/L	1	7/30/2020
Bromomethane	ND	0.0050	0.002		mg/L	1	7/30/2020
2-Butanone	ND	0.020	0.0016		mg/L	1	7/30/2020
Carbon disulfide	ND	0.010	0.0003		mg/L	1	7/30/2020
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	7/30/2020
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Chloroethane	ND	0.010	0.0005		mg/L	1	7/30/2020
Chloroform	ND	0.0010	0.0001		mg/L	1	7/30/2020
Chloromethane	ND	0.010	0.0003		mg/L	1	7/30/2020
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	7/30/2020
cis-1,2-Dichloroethene	0.019	0.0050	0.0002		mg/L	1	7/30/2020
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	7/30/2020
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	7/30/2020
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	7/30/2020
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	7/30/2020
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	7/30/2020
2-Hexanone	ND	0.020	0.0002		mg/L	1	7/30/2020
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	7/30/2020
Methylene chloride	ND	0.0050	0.0002		mg/L	1	7/30/2020
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	7/30/2020
Styrene	ND	0.0050	0.0003		mg/L	1	7/30/2020
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Tetrachloroethene	1.7	0.050	0.003		mg/L	10	7/31/2020
Toluene	ND	0.0050	0.0004		mg/L	1	7/30/2020
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Trichloroethene	0.12	0.0050	0.0003		mg/L	1	7/30/2020
Vinyl chloride	0.0061	0.0020	0.0003		mg/L	1	7/30/2020
Xylenes, Total	ND	0.015	0.001		mg/L	1	7/30/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 03, 2020

ANALYTICAL RESULTS

Date Printed: August 03, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071083 Revision 0

Project: Westwood Cleaners, 8731 W. North Avenue, Wauwat

Lab ID: 20071083-006

Client Sample ID: MW6-1/4

Collection Date: 7/28/2020 1:15:00 PM

Matrix: AQUEOUS

Analyses	Result	LOQ	LOD	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SI	W8260B	(SW5030B)	Prep Date:			Analyst: BAL
Acetone	ND	0.020	0.0031		mg/L	1	7/30/2020
Benzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromoform	ND	0.0010	0.0003		mg/L	1	7/30/2020
Bromomethane	ND	0.0050	0.002		mg/L	1	7/30/2020
2-Butanone	ND	0.020	0.0016		mg/L	1	7/30/2020
Carbon disulfide	ND	0.010	0.0003		mg/L	1	7/30/2020
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	7/30/2020
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Chloroethane	ND	0.010	0.0005		mg/L	1	7/30/2020
Chloroform	ND	0.0010	0.0001		mg/L	1	7/30/2020
Chloromethane	ND	0.010	0.0003		mg/L	1	7/30/2020
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	7/30/2020
cis-1,2-Dichloroethene	0.0071	0.0050	0.0002		mg/L	1	7/30/2020
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	7/30/2020
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	7/30/2020
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	7/30/2020
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	7/30/2020
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	7/30/2020
2-Hexanone	ND	0.020	0.0002		mg/L	1	7/30/2020
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	7/30/2020
Methylene chloride	ND	0.0050	0.0002		mg/L	1	7/30/2020
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	7/30/2020
Styrene	ND	0.0050	0.0003		mg/L	1	7/30/2020
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Tetrachloroethene	0.55	0.050	0.003		mg/L	10	7/31/2020
Toluene	ND	0.0050	0.0004		mg/L	1	7/30/2020
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Trichloroethene	0.038	0.0050	0.0003		mg/L	1	7/30/2020
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	7/30/2020
Xylenes, Total	ND	0.015	0.001		mg/L	1	7/30/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

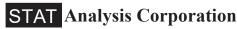
* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 03, 2020

ANALYTICAL RESULTS

Date Printed: August 03, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071083 Revision 0

Project: Westwood Cleaners, 8731 W. North Avenue, Wauwat

Lab ID: 20071083-007

Client Sample ID: Trip Blank

Collection Date: 7/28/2020

Matrix: AQUEOUS

Analyses	Result	LOQ	LOD	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	;	SW8260B	(SW5030B)	Prep D	ate:		Analyst: BAL
Acetone	ND	0.020	0.0031		mg/L	1	7/30/2020
Benzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
Bromoform	ND	0.0010	0.0003		mg/L	1	7/30/2020
Bromomethane	ND	0.0050	0.002		mg/L	1	7/30/2020
2-Butanone	ND	0.020	0.0016		mg/L	1	7/30/2020
Carbon disulfide	ND	0.010	0.0003		mg/L	1	7/30/2020
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	7/30/2020
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	7/30/2020
Chloroethane	ND	0.010	0.0005		mg/L	1	7/30/2020
Chloroform	ND	0.0010	0.0001		mg/L	1	7/30/2020
Chloromethane	ND	0.010	0.0003		mg/L	1	7/30/2020
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	7/30/2020
cis-1,2-Dichloroethene	ND	0.0050	0.0002		mg/L	1	7/30/2020
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	7/30/2020
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	7/30/2020
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	7/30/2020
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	7/30/2020
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	7/30/2020
2-Hexanone	ND	0.020	0.0002		mg/L	1	7/30/2020
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	7/30/2020
Methylene chloride	ND	0.0050	0.0002		mg/L	1	7/30/2020
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	7/30/2020
Styrene	ND	0.0050	0.0003		mg/L	1	7/30/2020
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Tetrachloroethene	ND	0.0050	0.0003		mg/L	1	7/30/2020
Toluene	ND	0.0050	0.0004		mg/L	1	7/30/2020
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	7/30/2020
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	7/30/2020
Trichloroethene	ND	0.0050	0.0003		mg/L	1	7/30/2020
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	7/30/2020
Xylenes, Total	ND	0.015	0.001		mg/L	1	7/30/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

STAT Analysis Corporation

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e-mail address: STATinfo@STATAnalysis.com A 1 H A accredited 10248, N V L A P accredited 101202-0

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Sample Receipt Checklist

Client Name HYDRODYNAMICS		Date and Tin	ne Received:	7/00/0000 0 00 00 00
Work Order Number 20071083				7/29/2020 3:00:00 PM
	, ,	Received by:	EAA	
Checklist completed by: & & 7/ Signature Date	29/20	Reviewed by	:_ADU	7 30 20 Date
Matrix: Carrier name	STAT Analysis			
Shipping container/cooler in good condition?	Yes 🗸	No 🗌	Not Present	
Custody seals intact on shippping container/cooler?	Yes	No 🗌	Not Present 🗸	
Custody seals intact on sample bottles?	Yes	No 🗆	Not Present 🗸	
Chain of custody present?	Yes 🗸	No 🗌		
Chain of custody signed when relinquished and received?	Yes 🗸	No 🗆		
Chain of custody agrees with sample labels/containers?	Yes 🗸	No 🗌		
Samples in proper container/bottle?	Yes 🗸	No 🗌		
Sample containers intact?	Yes 🗸	No 🗌		
Sufficient sample volume for indicated test?	Yes 🗸	No 🗆		
All samples received within holding time?	Yes 🗸	No 🗆		
Container of Temp Blank temperature in compliance?	Yes 🗸	No 🗌	Temperature	e 3.4 °C
Water - VOA vials have zero headspace? No VOA vials subr	mitted	Yes 🗸	No 🗆	
Water - Samples pH checked?	Yes 🔳	No 🗏	Checked by:	
Water - Samples properly preserved?	Yes	No 🗏	pH Adjusted?	
Any No response must be detailed in the server at the little of the server at the serv				
Any No response must be detailed in the comments section below.				
Comments:				
Client / Person Date contacted:		Conta	cted by:	
			-	
Response:				

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

August 04, 2020

Hydrodynamics Consultants, Inc. 5403 Patton Drive Lisle, IL 60532

Telephone: (630) 724-0098 Fax: (800) 881-2051

Analytical Report for STAT Work Order: 20071084 Revision 0

RE: Westwood Cleaners, 8731 West North Ave., Wauwatosa, WI 53226

Dear Hydrodynamics Consultants, Inc.:

STAT Analysis received 9 samples for the referenced project on 7/29/2020 3:00:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements specifed in WI DNR Chapter NR 149 (Certification Number 399099910). Analyses were performed in accordance with methods as referenced on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. A listing of accredited methods/parameters can also be provided.

For sample results requiring adjustment for dilutions, the detection and reporting limits are adjusted for the corresponding dilution factor. Analytical results expressed on a dry weight basis have units of mg/Kg-dry or $\mu g/Kg$ -dry on the analytical report. Corresponding reporting limits are adjusted for dry weight.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Justice Kwateng Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples as received and tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.

Date: August 04, 2020

Client: Hydrodynamics Consultants, Inc.

Project: Westwood Cleaners, 8731 West North Ave., Wauwatos Work Order Sample Summary

Work Order: 20071084 Revision 0

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
20071084-001A	NSB13-A		7/28/2020 11:50:00 AM	7/29/2020
20071084-001B	NSB13-A		7/28/2020 11:50:00 AM	7/29/2020
20071084-002A	NSB13-B		7/28/2020 12:26:00 PM	7/29/2020
20071084-002B	NSB13-B		7/28/2020 12:26:00 PM	7/29/2020
20071084-003A	NSB13-C		7/28/2020 12:59:00 PM	7/29/2020
20071084-003B	NSB13-C		7/28/2020 12:59:00 PM	7/29/2020
20071084-004A	NSB14-A		7/28/2020 1:46:00 PM	7/29/2020
20071084-004B	NSB14-A		7/28/2020 1:46:00 PM	7/29/2020
20071084-005A	NSB14-B		7/28/2020 2:10:00 PM	7/29/2020
20071084-005B	NSB14-B		7/28/2020 2:10:00 PM	7/29/2020
20071084-006A	NSB14-C		7/28/2020 2:31:00 PM	7/29/2020
20071084-006B	NSB14-C		7/28/2020 2:31:00 PM	7/29/2020
20071084-007A	NSB15-A		7/28/2020 3:03:00 PM	7/29/2020
20071084-007B	NSB15-A		7/28/2020 3:03:00 PM	7/29/2020
20071084-008A	NSB15-B		7/28/2020 3:21:00 PM	7/29/2020
20071084-008B	NSB15-B		7/28/2020 3:21:00 PM	7/29/2020
20071084-009A	NSB15-C		7/28/2020 3:40:00 PM	7/29/2020
20071084-009B	NSB15-C		7/28/2020 3:40:00 PM	7/29/2020

CLIENT: Hydrodynamics Consultants, Inc.

Project: Westwood Cleaners, 8731 West North Ave., Wauwatosa, WI CASE NARRATIVE

Date: August 04, 2020

Work Order: 20071084 Revision 0

Sample NSB15-C (20071084-009) had recovery of VOC surrogate 1,2-Dichloroethane-d4 outside of control limits (144% recovery, QC Limits: 71-143%). Recovery of all other surrogates were within control limits.

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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071084 Revision 0

Westwood Cleaners, 8731 West North Ave., Wauwato **Project:**

Lab ID: 20071084-001 Client Sample ID: NSB13-A

Collection Date: 7/28/2020 11:50:00 AM

Matrix: SOIL

Analyses	Result	LOQ	LOD	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		N5035/826	0B	Prep I	Date: 7/30/2	020	Analyst: CBG
Acetone	ND	0.082	0.0025		mg/Kg-dry	1	7/31/2020
Benzene	ND	0.0055	0.00022		mg/Kg-dry	1	7/31/2020
Bromodichloromethane	ND	0.0055	0.00044		mg/Kg-dry	1	7/31/2020
Bromoform	ND	0.0055	0.00044		mg/Kg-dry	1	7/31/2020
Bromomethane	ND	0.011	0.00055		mg/Kg-dry	1	7/31/2020
2-Butanone	ND	0.082	0.0016		mg/Kg-dry	1	7/31/2020
Carbon disulfide	ND	0.055	0.00022		mg/Kg-dry	1	7/31/2020
Carbon tetrachloride	ND	0.0055	0.00033		mg/Kg-dry	1	7/31/2020
Chlorobenzene	ND	0.0055	0.00022		mg/Kg-dry	1	7/31/2020
Chloroethane	ND	0.011	0.00044		mg/Kg-dry	1	7/31/2020
Chloroform	ND	0.0055	0.00022		mg/Kg-dry	1	7/31/2020
Chloromethane	ND	0.011	0.00033		mg/Kg-dry	1	7/31/2020
Dibromochloromethane	ND	0.0055	0.00044		mg/Kg-dry	1	7/31/2020
1,1-Dichloroethane	ND	0.0055	0.00033		mg/Kg-dry	1	7/31/2020
1,2-Dichloroethane	ND	0.0055	0.00066		mg/Kg-dry	1	7/31/2020
1,1-Dichloroethene	ND	0.0055	0.00033		mg/Kg-dry	1	7/31/2020
cis-1,2-Dichloroethene	ND	0.0055	0.00033		mg/Kg-dry	1	7/31/2020
trans-1,2-Dichloroethene	ND	0.0055	0.00033		mg/Kg-dry	1	7/31/2020
1,2-Dichloropropane	ND	0.0055	0.00044		mg/Kg-dry	1	7/31/2020
cis-1,3-Dichloropropene	ND	0.0022	0.00022		mg/Kg-dry	1	7/31/2020
trans-1,3-Dichloropropene	ND	0.0022	0.00033		mg/Kg-dry	1	7/31/2020
Ethylbenzene	ND	0.0055	0.00011		mg/Kg-dry	1	7/31/2020
2-Hexanone	ND	0.022	0.00088		mg/Kg-dry	1	7/31/2020
4-Methyl-2-pentanone	ND	0.022	0.00033		mg/Kg-dry	1	7/31/2020
Methylene chloride	ND	0.011	0.00088		mg/Kg-dry	1	7/31/2020
Methyl tert-butyl ether	ND	0.0055	0.00022		mg/Kg-dry	1	7/31/2020
Styrene	ND	0.0055	0.00022		mg/Kg-dry	1	7/31/2020
1,1,2,2-Tetrachloroethane	ND	0.0055	0.00022		mg/Kg-dry	1	7/31/2020
Tetrachloroethene	ND	0.0055	0.00033		mg/Kg-dry	1	7/31/2020
Toluene	ND	0.0055	0.00022		mg/Kg-dry	1	7/31/2020
1,1,1-Trichloroethane	ND	0.0055	0.00022		mg/Kg-dry	1	7/31/2020
1,1,2-Trichloroethane	ND	0.0055	0.00055		mg/Kg-dry	1	7/31/2020
Trichloroethene	ND	0.0055	0.00022		mg/Kg-dry	1	7/31/2020
Vinyl chloride	ND	0.0055	0.00044		mg/Kg-dry	1	7/31/2020
Xylenes, Total	ND	0.016	0.00044		mg/Kg-dry	1	7/31/2020
Percent Moisture	D2	2974		Prep Date: 7/30/2020 Analyst: RV		Analyst: RW	
Percent Moisture	18.4	0.2	0.1	*	wt%	1	7/31/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071084 Revision 0

Project: Westwood Cleaners, 8731 West North Ave., Wauwato

Lab ID: 20071084-002

Client Sample ID: NSB13-B

Collection Date: 7/28/2020 12:26:00 PM

Matrix: SOIL

Analyses	Result	LOQ	LOD	Qualifier Units	DF	Date Analyzed		
Volatile Organic Compounds by GC/MS	SV	N5035/826	60B	Prep Date: 7/30/ 2	Prep Date: 7/30/2020			
Acetone	ND	0.071	0.0022	mg/Kg-dry	1	7/31/2020		
Benzene	ND	0.0047	0.00019	mg/Kg-dry	1	7/31/2020		
Bromodichloromethane	ND	0.0047	0.00038	mg/Kg-dry	1	7/31/2020		
Bromoform	ND	0.0047	0.00038	mg/Kg-dry	1	7/31/2020		
Bromomethane	ND	0.0094	0.00047	mg/Kg-dry	1	7/31/2020		
2-Butanone	ND	0.071	0.0014	mg/Kg-dry	1	7/31/2020		
Carbon disulfide	ND	0.047	0.00019	mg/Kg-dry	1	7/31/2020		
Carbon tetrachloride	ND	0.0047	0.00028	mg/Kg-dry	1	7/31/2020		
Chlorobenzene	ND	0.0047	0.00019	mg/Kg-dry	1	7/31/2020		
Chloroethane	ND	0.0094	0.00038	mg/Kg-dry	1	7/31/2020		
Chloroform	ND	0.0047	0.00019	mg/Kg-dry	1	7/31/2020		
Chloromethane	ND	0.0094	0.00028	mg/Kg-dry	1	7/31/2020		
Dibromochloromethane	ND	0.0047	0.00038	mg/Kg-dry	1	7/31/2020		
1,1-Dichloroethane	ND	0.0047	0.00028	mg/Kg-dry	1	7/31/2020		
1,2-Dichloroethane	ND	0.0047	0.00057	mg/Kg-dry	1	7/31/2020		
1,1-Dichloroethene	ND	0.0047	0.00028	mg/Kg-dry	1	7/31/2020		
cis-1,2-Dichloroethene	ND	0.0047	0.00028	mg/Kg-dry	1	7/31/2020		
trans-1,2-Dichloroethene	ND	0.0047	0.00028	mg/Kg-dry	1	7/31/2020		
1,2-Dichloropropane	ND	0.0047	0.00038	mg/Kg-dry	1	7/31/2020		
cis-1,3-Dichloropropene	ND	0.0019	0.00019	mg/Kg-dry	1	7/31/2020		
trans-1,3-Dichloropropene	ND	0.0019	0.00028	mg/Kg-dry	1	7/31/2020		
Ethylbenzene	ND	0.0047	0.000094	mg/Kg-dry	1	7/31/2020		
2-Hexanone	ND	0.019	0.00075	mg/Kg-dry	1	7/31/2020		
4-Methyl-2-pentanone	ND	0.019	0.00028	mg/Kg-dry	1	7/31/2020		
Methylene chloride	ND	0.0094	0.00075	mg/Kg-dry	1	7/31/2020		
Methyl tert-butyl ether	ND	0.0047	0.00019	mg/Kg-dry	1	7/31/2020		
Styrene	ND	0.0047	0.00019	mg/Kg-dry	1	7/31/2020		
1,1,2,2-Tetrachloroethane	ND	0.0047	0.00019	mg/Kg-dry	1	7/31/2020		
Tetrachloroethene	ND	0.0047	0.00028	mg/Kg-dry	1	7/31/2020		
Toluene	ND	0.0047	0.00019	mg/Kg-dry	1	7/31/2020		
1,1,1-Trichloroethane	ND	0.0047	0.00019	mg/Kg-dry	1	7/31/2020		
1,1,2-Trichloroethane	ND	0.0047	0.00047	mg/Kg-dry	1	7/31/2020		
Trichloroethene	ND	0.0047	0.00019	mg/Kg-dry	1	7/31/2020		
Vinyl chloride	ND	0.0047	0.00038	mg/Kg-dry	1	7/31/2020		
Xylenes, Total	ND	0.014	0.00038	mg/Kg-dry	1	7/31/2020		
Percent Moisture	D2	2974		Prep Date: 7/30/ 2	2020	Analyst: RW		
Percent Moisture	18.0	0.2	0.1	* wt%	1	7/31/2020		

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071084 Revision 0

Westwood Cleaners, 8731 West North Ave., Wauwato **Project:**

Lab ID: 20071084-003 Client Sample ID: NSB13-C

Collection Date: 7/28/2020 12:59:00 PM

Matrix: SOIL

Analyses	Result	LOQ	LOD	Qualifier Units	DF	Date Analyzed		
Volatile Organic Compounds by GC/MS		N5035/826	60B	Prep Date: 7/30/2	Prep Date: 7/30/2020			
Acetone	ND	0.063	0.0019	mg/Kg-dry	1	7/31/2020		
Benzene	ND	0.0042	0.00017	mg/Kg-dry	1	7/31/2020		
Bromodichloromethane	ND	0.0042	0.00034	mg/Kg-dry	1	7/31/2020		
Bromoform	ND	0.0042	0.00034	mg/Kg-dry	1	7/31/2020		
Bromomethane	ND	0.0084	0.00042	mg/Kg-dry	1	7/31/2020		
2-Butanone	ND	0.063	0.0013	mg/Kg-dry	1	7/31/2020		
Carbon disulfide	ND	0.042	0.00017	mg/Kg-dry	1	7/31/2020		
Carbon tetrachloride	ND	0.0042	0.00025	mg/Kg-dry	1	7/31/2020		
Chlorobenzene	ND	0.0042	0.00017	mg/Kg-dry	1	7/31/2020		
Chloroethane	ND	0.0084	0.00034	mg/Kg-dry	1	7/31/2020		
Chloroform	ND	0.0042	0.00017	mg/Kg-dry	1	7/31/2020		
Chloromethane	ND	0.0084	0.00025	mg/Kg-dry	1	7/31/2020		
Dibromochloromethane	ND	0.0042	0.00034	mg/Kg-dry	1	7/31/2020		
1,1-Dichloroethane	ND	0.0042	0.00025	mg/Kg-dry	1	7/31/2020		
1,2-Dichloroethane	ND	0.0042	0.00051	mg/Kg-dry	1	7/31/2020		
1,1-Dichloroethene	ND	0.0042	0.00025	mg/Kg-dry	1	7/31/2020		
cis-1,2-Dichloroethene	ND	0.0042	0.00025	mg/Kg-dry	1	7/31/2020		
trans-1,2-Dichloroethene	ND	0.0042	0.00025	mg/Kg-dry	1	7/31/2020		
1,2-Dichloropropane	ND	0.0042	0.00034	mg/Kg-dry	1	7/31/2020		
cis-1,3-Dichloropropene	ND	0.0017	0.00017	mg/Kg-dry	1	7/31/2020		
trans-1,3-Dichloropropene	ND	0.0017	0.00025	mg/Kg-dry	1	7/31/2020		
Ethylbenzene	ND	0.0042	0.000084	mg/Kg-dry	1	7/31/2020		
2-Hexanone	ND	0.017	0.00067	mg/Kg-dry	1	7/31/2020		
4-Methyl-2-pentanone	ND	0.017	0.00025	mg/Kg-dry	1	7/31/2020		
Methylene chloride	ND	0.0084	0.00067	mg/Kg-dry	1	7/31/2020		
Methyl tert-butyl ether	ND	0.0042	0.00017	mg/Kg-dry	1	7/31/2020		
Styrene	ND	0.0042	0.00017	mg/Kg-dry	1	7/31/2020		
1,1,2,2-Tetrachloroethane	ND	0.0042	0.00017	mg/Kg-dry	1	7/31/2020		
Tetrachloroethene	ND	0.0042	0.00025	mg/Kg-dry	1	7/31/2020		
Toluene	ND	0.0042	0.00017	mg/Kg-dry	1	7/31/2020		
1,1,1-Trichloroethane	ND	0.0042	0.00017	mg/Kg-dry	1	7/31/2020		
1,1,2-Trichloroethane	ND	0.0042	0.00042	mg/Kg-dry	1	7/31/2020		
Trichloroethene	ND	0.0042	0.00017	mg/Kg-dry	1	7/31/2020		
Vinyl chloride	ND	0.0042	0.00034	mg/Kg-dry	1	7/31/2020		
Xylenes, Total	ND	0.013	0.00034	mg/Kg-dry	1	7/31/2020		
Percent Moisture	D2	2974		Prep Date: 7/30/2	2020	Analyst: RW		
Percent Moisture	9.0	0.2	0.1	* wt%	1	7/31/2020		

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071084 Revision 0

Project: Westwood Cleaners, 8731 West North Ave., Wauwato

Lab ID: 20071084-004

Client Sample ID: NSB14-A

Collection Date: 7/28/2020 1:46:00 PM

Matrix: SOIL

Analyses	Result	LOQ	LOD	Qualifier Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SI	N5035/826	0B	Prep Date: 7/30/2	Analyst: CBG	
Acetone	ND	0.079	0.0024	mg/Kg-dry	1	7/31/2020
Benzene	ND	0.0052	0.00021	mg/Kg-dry	1	7/31/2020
Bromodichloromethane	ND	0.0052	0.00042	mg/Kg-dry	1	7/31/2020
Bromoform	ND	0.0052	0.00042	mg/Kg-dry	1	7/31/2020
Bromomethane	ND	0.010	0.00052	mg/Kg-dry	1	7/31/2020
2-Butanone	ND	0.079	0.0016	mg/Kg-dry	1	7/31/2020
Carbon disulfide	ND	0.052	0.00021	mg/Kg-dry	1	7/31/2020
Carbon tetrachloride	ND	0.0052	0.00031	mg/Kg-dry	1	7/31/2020
Chlorobenzene	ND	0.0052	0.00021	mg/Kg-dry	1	7/31/2020
Chloroethane	ND	0.010	0.00042	mg/Kg-dry	1	7/31/2020
Chloroform	ND	0.0052	0.00021	mg/Kg-dry	1	7/31/2020
Chloromethane	ND	0.010	0.00031	mg/Kg-dry	1	7/31/2020
Dibromochloromethane	ND	0.0052	0.00042	mg/Kg-dry	1	7/31/2020
1,1-Dichloroethane	ND	0.0052	0.00031	mg/Kg-dry	1	7/31/2020
1,2-Dichloroethane	ND	0.0052	0.00063	mg/Kg-dry	1	7/31/2020
1,1-Dichloroethene	ND	0.0052	0.00031	mg/Kg-dry	1	7/31/2020
cis-1,2-Dichloroethene	ND	0.0052	0.00031	mg/Kg-dry	1	7/31/2020
trans-1,2-Dichloroethene	ND	0.0052	0.00031	mg/Kg-dry	1	7/31/2020
1,2-Dichloropropane	ND	0.0052	0.00042	mg/Kg-dry	1	7/31/2020
cis-1,3-Dichloropropene	ND	0.0021	0.00021	mg/Kg-dry	1	7/31/2020
trans-1,3-Dichloropropene	ND	0.0021	0.00031	mg/Kg-dry	1	7/31/2020
Ethylbenzene	ND	0.0052	0.0001	mg/Kg-dry	1	7/31/2020
2-Hexanone	ND	0.021	0.00084	mg/Kg-dry	1	7/31/2020
4-Methyl-2-pentanone	ND	0.021	0.00031	mg/Kg-dry	1	7/31/2020
Methylene chloride	ND	0.010	0.00084	mg/Kg-dry	1	7/31/2020
Methyl tert-butyl ether	ND	0.0052	0.00021	mg/Kg-dry	1	7/31/2020
Styrene	ND	0.0052	0.00021	mg/Kg-dry	1	7/31/2020
1,1,2,2-Tetrachloroethane	ND	0.0052	0.00021	mg/Kg-dry	1	7/31/2020
Tetrachloroethene	ND	0.0052	0.00031	mg/Kg-dry	1	7/31/2020
Toluene	ND	0.0052	0.00021	mg/Kg-dry	1	7/31/2020
1,1,1-Trichloroethane	ND	0.0052	0.00021	mg/Kg-dry	1	7/31/2020
1,1,2-Trichloroethane	ND	0.0052	0.00052	mg/Kg-dry	1	7/31/2020
Trichloroethene	ND	0.0052	0.00021	mg/Kg-dry	1	7/31/2020
Vinyl chloride	ND	0.0052	0.00042	mg/Kg-dry	1	7/31/2020
Xylenes, Total	ND	0.016	0.00042	mg/Kg-dry	1	7/31/2020
Percent Moisture	D	2974		Prep Date: 7/30/2	020	Analyst: RW
Percent Moisture	15.0	0.2	0.1	* wt%	1	7/31/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071084 Revision 0

Project: Westwood Cleaners, 8731 West North Ave., Wauwato

Lab ID: 20071084-005

Client Sample ID: NSB14-B

Collection Date: 7/28/2020 2:10:00 PM

Matrix: SOIL

Analyses	Result	LOQ	LOD	Qualifier Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SV	V5035/826	60B	Prep Date: 7/30/2	2020	Analyst: CBG
Acetone	ND	0.070	0.0021	mg/Kg-dry	1	7/31/2020
Benzene	ND	0.0046	0.00019	mg/Kg-dry	1	7/31/2020
Bromodichloromethane	ND	0.0046	0.00037	mg/Kg-dry	1	7/31/2020
Bromoform	ND	0.0046	0.00037	mg/Kg-dry	1	7/31/2020
Bromomethane	ND	0.0093	0.00046	mg/Kg-dry	1	7/31/2020
2-Butanone	ND	0.070	0.0014	mg/Kg-dry	1	7/31/2020
Carbon disulfide	ND	0.046	0.00019	mg/Kg-dry	1	7/31/2020
Carbon tetrachloride	ND	0.0046	0.00028	mg/Kg-dry	1	7/31/2020
Chlorobenzene	ND	0.0046	0.00019	mg/Kg-dry	1	7/31/2020
Chloroethane	ND	0.0093	0.00037	mg/Kg-dry	1	7/31/2020
Chloroform	ND	0.0046	0.00019	mg/Kg-dry	1	7/31/2020
Chloromethane	ND	0.0093	0.00028	mg/Kg-dry	1	7/31/2020
Dibromochloromethane	ND	0.0046	0.00037	mg/Kg-dry	1	7/31/2020
1,1-Dichloroethane	ND	0.0046	0.00028	mg/Kg-dry	1	7/31/2020
1,2-Dichloroethane	ND	0.0046	0.00056	mg/Kg-dry	1	7/31/2020
1,1-Dichloroethene	ND	0.0046	0.00028	mg/Kg-dry	1	7/31/2020
cis-1,2-Dichloroethene	ND	0.0046	0.00028	mg/Kg-dry	1	7/31/2020
trans-1,2-Dichloroethene	ND	0.0046	0.00028	mg/Kg-dry	1	7/31/2020
1,2-Dichloropropane	ND	0.0046	0.00037	mg/Kg-dry	1	7/31/2020
cis-1,3-Dichloropropene	ND	0.0019	0.00019	mg/Kg-dry	1	7/31/2020
trans-1,3-Dichloropropene	ND	0.0019	0.00028	mg/Kg-dry	1	7/31/2020
Ethylbenzene	ND	0.0046	0.000093	mg/Kg-dry	1	7/31/2020
2-Hexanone	ND	0.019	0.00074	mg/Kg-dry	1	7/31/2020
4-Methyl-2-pentanone	ND	0.019	0.00028	mg/Kg-dry	1	7/31/2020
Methylene chloride	ND	0.0093	0.00074	mg/Kg-dry	1	7/31/2020
Methyl tert-butyl ether	ND	0.0046	0.00019	mg/Kg-dry	1	7/31/2020
Styrene	ND	0.0046	0.00019	mg/Kg-dry	1	7/31/2020
1,1,2,2-Tetrachloroethane	ND	0.0046	0.00019	mg/Kg-dry	1	7/31/2020
Tetrachloroethene	ND	0.0046	0.00028	mg/Kg-dry	1	7/31/2020
Toluene	ND	0.0046	0.00019	mg/Kg-dry	1	7/31/2020
1,1,1-Trichloroethane	ND	0.0046	0.00019	mg/Kg-dry	1	7/31/2020
1,1,2-Trichloroethane	ND	0.0046	0.00046	mg/Kg-dry	1	7/31/2020
Trichloroethene	ND	0.0046	0.00019	mg/Kg-dry	1	7/31/2020
Vinyl chloride	ND	0.0046	0.00037	mg/Kg-dry	1	7/31/2020
Xylenes, Total	ND	0.014	0.00037	mg/Kg-dry	1	7/31/2020
Percent Moisture	D2	974		Prep Date: 7/30/2	2020	Analyst: RW
Percent Moisture	19.1	0.2	0.1	* wt%	1	7/31/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071084 Revision 0

Westwood Cleaners, 8731 West North Ave., Wauwato **Project:**

20071084-006 Lab ID:

Client Sample ID: NSB14-C

Collection Date: 7/28/2020 2:31:00 PM

Matrix: SOIL

Analyses	Result	LOQ	LOD	Qualifier Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		N5035/826	60B	Prep Date: 7/30/ 2	2020	Analyst: CBG
Acetone	ND	0.072	0.0022	mg/Kg-dry	1	7/31/2020
Benzene	ND	0.0048	0.00019	mg/Kg-dry	1	7/31/2020
Bromodichloromethane	ND	0.0048	0.00038	mg/Kg-dry	1	7/31/2020
Bromoform	ND	0.0048	0.00038	mg/Kg-dry	1	7/31/2020
Bromomethane	ND	0.0096	0.00048	mg/Kg-dry	1	7/31/2020
2-Butanone	ND	0.072	0.0014	mg/Kg-dry	1	7/31/2020
Carbon disulfide	ND	0.048	0.00019	mg/Kg-dry	1	7/31/2020
Carbon tetrachloride	ND	0.0048	0.00029	mg/Kg-dry	1	7/31/2020
Chlorobenzene	ND	0.0048	0.00019	mg/Kg-dry	1	7/31/2020
Chloroethane	ND	0.0096	0.00038	mg/Kg-dry	1	7/31/2020
Chloroform	ND	0.0048	0.00019	mg/Kg-dry	1	7/31/2020
Chloromethane	ND	0.0096	0.00029	mg/Kg-dry	1	7/31/2020
Dibromochloromethane	ND	0.0048	0.00038	mg/Kg-dry	1	7/31/2020
1,1-Dichloroethane	ND	0.0048	0.00029	mg/Kg-dry	1	7/31/2020
1,2-Dichloroethane	ND	0.0048	0.00058	mg/Kg-dry	1	7/31/2020
1,1-Dichloroethene	ND	0.0048	0.00029	mg/Kg-dry	1	7/31/2020
cis-1,2-Dichloroethene	ND	0.0048	0.00029	mg/Kg-dry	1	7/31/2020
trans-1,2-Dichloroethene	ND	0.0048	0.00029	mg/Kg-dry	1	7/31/2020
1,2-Dichloropropane	ND	0.0048	0.00038	mg/Kg-dry	1	7/31/2020
cis-1,3-Dichloropropene	ND	0.0019	0.00019	mg/Kg-dry	1	7/31/2020
trans-1,3-Dichloropropene	ND	0.0019	0.00029	mg/Kg-dry	1	7/31/2020
Ethylbenzene	ND	0.0048	0.000096	mg/Kg-dry	1	7/31/2020
2-Hexanone	ND	0.019	0.00077	mg/Kg-dry	1	7/31/2020
4-Methyl-2-pentanone	ND	0.019	0.00029	mg/Kg-dry	1	7/31/2020
Methylene chloride	ND	0.0096	0.00077	mg/Kg-dry	1	7/31/2020
Methyl tert-butyl ether	ND	0.0048	0.00019	mg/Kg-dry	1	7/31/2020
Styrene	ND	0.0048	0.00019	mg/Kg-dry	1	7/31/2020
1,1,2,2-Tetrachloroethane	ND	0.0048	0.00019	mg/Kg-dry	1	7/31/2020
Tetrachloroethene	ND	0.0048	0.00029	mg/Kg-dry	1	7/31/2020
Toluene	ND	0.0048	0.00019	mg/Kg-dry	1	7/31/2020
1,1,1-Trichloroethane	ND	0.0048	0.00019	mg/Kg-dry	1	7/31/2020
1,1,2-Trichloroethane	ND	0.0048	0.00048	mg/Kg-dry	1	7/31/2020
Trichloroethene	ND	0.0048	0.00019	mg/Kg-dry	1	7/31/2020
Vinyl chloride	ND	0.0048	0.00038	mg/Kg-dry	1	7/31/2020
Xylenes, Total	ND	0.014	0.00038	mg/Kg-dry	1	7/31/2020
Percent Moisture	D2	2974		Prep Date: 7/30/2	2020	Analyst: RW
Percent Moisture	18.4	0.2	0.1	* wt%	1	7/31/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

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E - Value above quantitation range

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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071084 Revision 0

Project: Westwood Cleaners, 8731 West North Ave., Wauwato

Lab ID: 20071084-007

Client Sample ID: NSB15-A

Collection Date: 7/28/2020 3:03:00 PM

Matrix: SOIL

Analyses	Result	LOQ	LOD	Qualifier Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SV	N5035/826	60B	Prep Date: 7/30/2	2020	Analyst: CBG
Acetone	ND	0.064	0.002	mg/Kg-dry	1	7/31/2020
Benzene	ND	0.0043	0.00017	mg/Kg-dry	1	7/31/2020
Bromodichloromethane	ND	0.0043	0.00034	mg/Kg-dry	1	7/31/2020
Bromoform	ND	0.0043	0.00034	mg/Kg-dry	1	7/31/2020
Bromomethane	ND	0.0085	0.00043	mg/Kg-dry	1	7/31/2020
2-Butanone	ND	0.064	0.0013	mg/Kg-dry	1	7/31/2020
Carbon disulfide	ND	0.043	0.00017	mg/Kg-dry	1	7/31/2020
Carbon tetrachloride	ND	0.0043	0.00026	mg/Kg-dry	1	7/31/2020
Chlorobenzene	ND	0.0043	0.00017	mg/Kg-dry	1	7/31/2020
Chloroethane	ND	0.0085	0.00034	mg/Kg-dry	1	7/31/2020
Chloroform	ND	0.0043	0.00017	mg/Kg-dry	1	7/31/2020
Chloromethane	ND	0.0085	0.00026	mg/Kg-dry	1	7/31/2020
Dibromochloromethane	ND	0.0043	0.00034	mg/Kg-dry	1	7/31/2020
1,1-Dichloroethane	ND	0.0043	0.00026	mg/Kg-dry	1	7/31/2020
1,2-Dichloroethane	ND	0.0043	0.00051	mg/Kg-dry	1	7/31/2020
1,1-Dichloroethene	ND	0.0043	0.00026	mg/Kg-dry	1	7/31/2020
cis-1,2-Dichloroethene	ND	0.0043	0.00026	mg/Kg-dry	1	7/31/2020
trans-1,2-Dichloroethene	ND	0.0043	0.00026	mg/Kg-dry	1	7/31/2020
1,2-Dichloropropane	ND	0.0043	0.00034	mg/Kg-dry	1	7/31/2020
cis-1,3-Dichloropropene	ND	0.0017	0.00017	mg/Kg-dry	1	7/31/2020
trans-1,3-Dichloropropene	ND	0.0017	0.00026	mg/Kg-dry	1	7/31/2020
Ethylbenzene	ND	0.0043	0.000085	mg/Kg-dry	1	7/31/2020
2-Hexanone	ND	0.017	0.00068	mg/Kg-dry	1	7/31/2020
4-Methyl-2-pentanone	ND	0.017	0.00026	mg/Kg-dry	1	7/31/2020
Methylene chloride	ND	0.0085	0.00068	mg/Kg-dry	1	7/31/2020
Methyl tert-butyl ether	ND	0.0043	0.00017	mg/Kg-dry	1	7/31/2020
Styrene	ND	0.0043	0.00017	mg/Kg-dry	1	7/31/2020
1,1,2,2-Tetrachloroethane	ND	0.0043	0.00017	mg/Kg-dry	1	7/31/2020
Tetrachloroethene	ND	0.0043	0.00026	mg/Kg-dry	1	7/31/2020
Toluene	ND	0.0043	0.00017	mg/Kg-dry	1	7/31/2020
1,1,1-Trichloroethane	ND	0.0043	0.00017	mg/Kg-dry	1	7/31/2020
1,1,2-Trichloroethane	ND	0.0043	0.00043	mg/Kg-dry	1	7/31/2020
Trichloroethene	ND	0.0043	0.00017	mg/Kg-dry	1	7/31/2020
Vinyl chloride	ND	0.0043	0.00034	mg/Kg-dry	1	7/31/2020
Xylenes, Total	ND	0.013	0.00034	mg/Kg-dry	1	7/31/2020
Percent Moisture	D2	2974		Prep Date: 7/30/2	2020	Analyst: RW
Percent Moisture	14.8	0.2	0.1	* wt%	1	7/31/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071084 Revision 0

Project: Westwood Cleaners, 8731 West North Ave., Wauwato

Lab ID: 20071084-008

Client Sample ID: NSB15-B

Collection Date: 7/28/2020 3:21:00 PM

Matrix: SOIL

Analyses	Result	LOQ	LOD	Qualifier Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SI	N5035/826	 0B	Prep Date: 7/3	30/2020	Analyst: CBG
Acetone	ND	0.084	0.0026	mg/Kg-dr	7/31/2020	
Benzene	ND	0.0056	0.00022	mg/Kg-dr	y 1	7/31/2020
Bromodichloromethane	ND	0.0056	0.00045	mg/Kg-dr	y 1	7/31/2020
Bromoform	ND	0.0056	0.00045	mg/Kg-dr	y 1	7/31/2020
Bromomethane	ND	0.011	0.00056	mg/Kg-dr	y 1	7/31/2020
2-Butanone	ND	0.084	0.0017	mg/Kg-dr	y 1	7/31/2020
Carbon disulfide	ND	0.056	0.00022	mg/Kg-dr	y 1	7/31/2020
Carbon tetrachloride	ND	0.0056	0.00034	mg/Kg-dr	y 1	7/31/2020
Chlorobenzene	ND	0.0056	0.00022	mg/Kg-dr	y 1	7/31/2020
Chloroethane	ND	0.011	0.00045	mg/Kg-dr	y 1	7/31/2020
Chloroform	ND	0.0056	0.00022	mg/Kg-dr	y 1	7/31/2020
Chloromethane	ND	0.011	0.00034	mg/Kg-dr	y 1	7/31/2020
Dibromochloromethane	ND	0.0056	0.00045	mg/Kg-dr	y 1	7/31/2020
1,1-Dichloroethane	ND	0.0056	0.00034	mg/Kg-dr	y 1	7/31/2020
1,2-Dichloroethane	ND	0.0056	0.00067	mg/Kg-dr	y 1	7/31/2020
1,1-Dichloroethene	ND	0.0056	0.00034	mg/Kg-dr	y 1	7/31/2020
cis-1,2-Dichloroethene	ND	0.0056	0.00034	mg/Kg-dr	y 1	7/31/2020
trans-1,2-Dichloroethene	ND	0.0056	0.00034	mg/Kg-dr	y 1	7/31/2020
1,2-Dichloropropane	ND	0.0056	0.00045	mg/Kg-dr	y 1	7/31/2020
cis-1,3-Dichloropropene	ND	0.0022	0.00022	mg/Kg-dr	y 1	7/31/2020
trans-1,3-Dichloropropene	ND	0.0022	0.00034	mg/Kg-dr	y 1	7/31/2020
Ethylbenzene	ND	0.0056	0.00011	mg/Kg-dr	y 1	7/31/2020
2-Hexanone	ND	0.022	0.0009	mg/Kg-dr	y 1	7/31/2020
4-Methyl-2-pentanone	ND	0.022	0.00034	mg/Kg-dr	y 1	7/31/2020
Methylene chloride	ND	0.011	0.0009	mg/Kg-dr	y 1	7/31/2020
Methyl tert-butyl ether	ND	0.0056	0.00022	mg/Kg-dr	y 1	7/31/2020
Styrene	ND	0.0056	0.00022	mg/Kg-dr	y 1	7/31/2020
1,1,2,2-Tetrachloroethane	ND	0.0056	0.00022	mg/Kg-dr	y 1	7/31/2020
Tetrachloroethene	ND	0.0056	0.00034	mg/Kg-dr	y 1	7/31/2020
Toluene	ND	0.0056	0.00022	mg/Kg-dr	y 1	7/31/2020
1,1,1-Trichloroethane	ND	0.0056	0.00022	mg/Kg-dr	y 1	7/31/2020
1,1,2-Trichloroethane	ND	0.0056	0.00056	mg/Kg-dr	y 1	7/31/2020
Trichloroethene	ND	0.0056	0.00022	mg/Kg-dr	y 1	7/31/2020
Vinyl chloride	ND	0.0056	0.00045	mg/Kg-dr	y 1	7/31/2020
Xylenes, Total	ND	0.017	0.00045	mg/Kg-dr	y 1	7/31/2020
Percent Moisture	D2	2974		Prep Date: 7/3	80/2020	Analyst: RW
Percent Moisture	18.1	0.2	0.1	* wt%	1	7/31/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

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Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 04, 2020

ANALYTICAL RESULTS

Date Printed: August 04, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20071084 Revision 0

Project: Westwood Cleaners, 8731 West North Ave., Wauwato

Lab ID: 20071084-009

Client Sample ID: NSB15-C

Collection Date: 7/28/2020 3:40:00 PM

Matrix: SOIL

Analyses	Result	LOQ	LOD	Qualifier I	J nits	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SV	V5035/826	60B	Prep Da	te: 7/30/202	0	Analyst: JDT
Acetone	ND	0.062	0.0019	mg	/Kg-dry	7/31/2020	
Benzene	ND	0.0041	0.00016	mg	/Kg-dry	1	7/31/2020
Bromodichloromethane	ND	0.0041	0.00033	mg	/Kg-dry	1	7/31/2020
Bromoform	ND	0.0041	0.00033	mg	/Kg-dry	1	7/31/2020
Bromomethane	ND	0.0082	0.00041	mg	/Kg-dry	1	7/31/2020
2-Butanone	ND	0.062	0.0012	mg	/Kg-dry	1	7/31/2020
Carbon disulfide	ND	0.041	0.00016	mg	/Kg-dry	1	7/31/2020
Carbon tetrachloride	ND	0.0041	0.00025	mg	/Kg-dry	1	7/31/2020
Chlorobenzene	ND	0.0041	0.00016	mg	/Kg-dry	1	7/31/2020
Chloroethane	ND	0.0082	0.00033	mg	/Kg-dry	1	7/31/2020
Chloroform	ND	0.0041	0.00016	mg	/Kg-dry	1	7/31/2020
Chloromethane	ND	0.0082	0.00025	mg	/Kg-dry	1	7/31/2020
Dibromochloromethane	ND	0.0041	0.00033	mg	/Kg-dry	1	7/31/2020
1,1-Dichloroethane	ND	0.0041	0.00025	mg	/Kg-dry	1	7/31/2020
1,2-Dichloroethane	ND	0.0041	0.00049	mg	/Kg-dry	1	7/31/2020
1,1-Dichloroethene	ND	0.0041	0.00025	mg	/Kg-dry	1	7/31/2020
cis-1,2-Dichloroethene	ND	0.0041	0.00025	mg	/Kg-dry	1	7/31/2020
trans-1,2-Dichloroethene	ND	0.0041	0.00025	mg	/Kg-dry	1	7/31/2020
1,2-Dichloropropane	ND	0.0041	0.00033	mg	/Kg-dry	1	7/31/2020
cis-1,3-Dichloropropene	ND	0.0016	0.00016	mg	/Kg-dry	1	7/31/2020
trans-1,3-Dichloropropene	ND	0.0016	0.00025	mg	/Kg-dry	1	7/31/2020
Ethylbenzene	ND	0.0041	0.000082	mg	/Kg-dry	1	7/31/2020
2-Hexanone	ND	0.016	0.00066	mg	/Kg-dry	1	7/31/2020
4-Methyl-2-pentanone	ND	0.016	0.00025	mg	/Kg-dry	1	7/31/2020
Methylene chloride	ND	0.0082	0.00066	mg	/Kg-dry	1	7/31/2020
Methyl tert-butyl ether	ND	0.0041	0.00016	mg	/Kg-dry	1	7/31/2020
Styrene	ND	0.0041	0.00016	mg	/Kg-dry	1	7/31/2020
1,1,2,2-Tetrachloroethane	ND	0.0041	0.00016	mg	/Kg-dry	1	7/31/2020
Tetrachloroethene	ND	0.0041	0.00025	mg	/Kg-dry	1	7/31/2020
Toluene	ND	0.0041	0.00016	mg	/Kg-dry	1	7/31/2020
1,1,1-Trichloroethane	ND	0.0041	0.00016	mg	/Kg-dry	1	7/31/2020
1,1,2-Trichloroethane	ND	0.0041	0.00041	mg	/Kg-dry	1	7/31/2020
Trichloroethene	ND	0.0041	0.00016	mg	/Kg-dry	1	7/31/2020
Vinyl chloride	ND	0.0041	0.00033	mg	/Kg-dry	1	7/31/2020
Xylenes, Total	ND	0.012	0.00033	mg	/Kg-dry	1	7/31/2020
Percent Moisture	D2	2974		-	te: 7/30/202	0	Analyst: RW
Percent Moisture	8.4	0.2	0.1	*	wt%	1	7/31/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

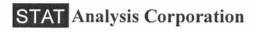
R - RPD outside accepted recovery limits

E - Value above quantitation range

2201 West Campbell Park Drive, Chicago, Illinois 60612-3547 Phone: (312) 733-0551 Fax: (312) 733-2386 e-mail address: STATinfo@STATAnalysis.com A I H A accredited 10248, N V L A P accredited 101202-0

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Project Name:	Westwood	Cleane	rs					Quo	ote N	lo.:					/,	/,	/,	/	/	/	//	//	//	//	//
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NSB13-C	7/28/20	12:59	S			Yes	4	X																	23
NSB14-A	7/28/20	13:46	S			Yes	4	X																	04
NSB14-B		14:10	S			Yes	4	X																	05
NSB14-C	7/28/20	14:31	S			Yes	4	X																	06
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Page 13 of 14



Sample Receipt Checklist

Client Name HYDRODYNAMICS	Date and Time Received: 7/29/2020 3:00:00 PI					
Work Order Number 20071084	Received by: EAA					
Checklist completed by: Signature Outline Out	Reviewed by: A-A 7/30/2026 Initials Date					
Matrix: Carrier name <u>STAT Analysis</u>						
Shipping container/cooler in good condition? Yes ✓	No Not Present					
Custody seals intact on shippping container/cooler?	No ☐ Not Present ☑					
Custody seals intact on sample bottles?	No ☐ Not Present ☑					
Chain of custody present? Yes ✓	No 🗆					
Chain of custody signed when relinquished and received? Yes	No 🗆					
Chain of custody agrees with sample labels/containers?	No 🗆					
Samples in proper container/bottle? Yes ✓	No 🗆					
Sample containers intact? Yes ✓	No 🗆					
Sufficient sample volume for indicated test?	No 🗆					
All samples received within holding time?	No 🗆					
Container or Temp Blank temperature in compliance?	No Temperature 3.4 °C					
Water - VOA vials have zero headspace? No VOA vials submitted	Yes 🔳 No 🔲					
Water - Samples pH checked?	No Checked by:					
Water - Samples properly preserved? Yes	No PH Adjusted?					
Any No response must be detailed in the comments section below.						
Comments:						
Client / Person Date contacted:	Contacted by:					
Response:						

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

August 17, 2020

Hydrodynamics Consultants, Inc. 5403 Patton Drive Lisle, IL 60532

Telephone: (630) 724-0098 Fax: (800) 881-2051

Analytical Report for STAT Work Order: 20080363 Revision 0

RE: Westwood Cleaners, 8731 West North Ave., Wauwatosa, WI 53226

Dear Hydrodynamics Consultants, Inc.:

STAT Analysis received 4 samples for the referenced project on 8/11/2020 4:00:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements specifed in WI DNR Chapter NR 149 (Certification Number 399099910). Analyses were performed in accordance with methods as referenced on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. A listing of accredited methods/parameters can also be provided.

For sample results requiring adjustment for dilutions, the detection and reporting limits are adjusted for the corresponding dilution factor. Analytical results expressed on a dry weight basis have units of mg/Kg-dry or µg/Kg-dry on the analytical report. Corresponding reporting limits are adjusted for dry weight.

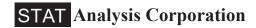
Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Sebastian Slazyk

Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples as received and tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.



Date: August 17, 2020

Client: Hydrodynamics Consultants, Inc.

Project: Westwood Cleaners, 8731 West North Ave., Wauwatos Work Order Sample Summary

Work Order: 20080363 Revision 0

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
20080363-001A	MW 7-1/4		8/10/2020 12:55:00 PM	8/11/2020
20080363-002A	MW 7-1/4D		8/10/2020 1:03:00 PM	8/11/2020
20080363-003A	MW 8-1/4		8/10/2020 1:11:00 PM	8/11/2020
20080363-004A	MW 9-1/4		8/10/2020 1:20:00 PM	8/11/2020

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 17, 2020

ANALYTICAL RESULTS

Date Printed: August 17, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20080363 Revision 0

Project: Westwood Cleaners, 8731 West North Ave., Wauwato

Lab ID: 20080363-001

Client Sample ID: MW 7-1/4

Collection Date: 8/10/2020 12:55:00 PM

Matrix: AQUEOUS

Analyses	Result	LOQ	LOD	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SI	W8260B	(SW5030B)	Prep l	Date:		Analyst: JDT
Acetone	ND	0.020	0.0031		mg/L	1	8/11/2020
Benzene	ND	0.0050	0.0002		mg/L	1	8/11/2020
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
Bromoform	ND	0.0010	0.0003		mg/L	1	8/11/2020
Bromomethane	ND	0.0050	0.002		mg/L	1	8/11/2020
2-Butanone	ND	0.020	0.0016		mg/L	1	8/11/2020
Carbon disulfide	ND	0.010	0.0003		mg/L	1	8/11/2020
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	8/11/2020
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	8/11/2020
Chloroethane	ND	0.010	0.0005		mg/L	1	8/11/2020
Chloroform	ND	0.0010	0.0001		mg/L	1	8/11/2020
Chloromethane	ND	0.010	0.0003		mg/L	1	8/11/2020
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	8/11/2020
cis-1,2-Dichloroethene	ND	0.0050	0.0002		mg/L	1	8/11/2020
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	8/11/2020
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	8/11/2020
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	8/11/2020
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	8/11/2020
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	8/11/2020
2-Hexanone	ND	0.020	0.0002		mg/L	1	8/11/2020
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	8/11/2020
Methylene chloride	ND	0.0050	0.0002		mg/L	1	8/11/2020
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	8/11/2020
Styrene	ND	0.0050	0.0003		mg/L	1	8/11/2020
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	8/11/2020
Tetrachloroethene	ND	0.0050	0.0003		mg/L	1	8/11/2020
Toluene	ND	0.0050	0.0004		mg/L	1	8/11/2020
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	8/11/2020
Trichloroethene	ND	0.0050	0.0003		mg/L	1	8/11/2020
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	8/11/2020
Xylenes, Total	ND	0.015	0.001		mg/L	1	8/11/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

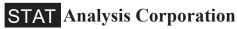
* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 17, 2020

ANALYTICAL RESULTS

Date Printed: August 17, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20080363 Revision 0

Project: Westwood Cleaners, 8731 West North Ave., Wauwato

Lab ID: 20080363-002

Client Sample ID: MW 7-1/4D

Collection Date: 8/10/2020 1:03:00 PM

Matrix: AQUEOUS

Analyses	Result	LOQ	LOD	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SI	V8260B	(SW5030B)	Prep [Date:		Analyst: JDT
Acetone	ND	0.020	0.0031		mg/L	1	8/11/2020
Benzene	ND	0.0050	0.0002		mg/L	1	8/11/2020
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
Bromoform	ND	0.0010	0.0003		mg/L	1	8/11/2020
Bromomethane	ND	0.0050	0.002		mg/L	1	8/11/2020
2-Butanone	ND	0.020	0.0016		mg/L	1	8/11/2020
Carbon disulfide	ND	0.010	0.0003		mg/L	1	8/11/2020
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	8/11/2020
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	8/11/2020
Chloroethane	ND	0.010	0.0005		mg/L	1	8/11/2020
Chloroform	ND	0.0010	0.0001		mg/L	1	8/11/2020
Chloromethane	ND	0.010	0.0003		mg/L	1	8/11/2020
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	8/11/2020
cis-1,2-Dichloroethene	ND	0.0050	0.0002		mg/L	1	8/11/2020
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	8/11/2020
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	8/11/2020
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	8/11/2020
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	8/11/2020
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	8/11/2020
2-Hexanone	ND	0.020	0.0002		mg/L	1	8/11/2020
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	8/11/2020
Methylene chloride	ND	0.0050	0.0002		mg/L	1	8/11/2020
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	8/11/2020
Styrene	ND	0.0050	0.0003		mg/L	1	8/11/2020
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	8/11/2020
Tetrachloroethene	ND	0.0050	0.0003		mg/L	1	8/11/2020
Toluene	ND	0.0050	0.0004		mg/L	1	8/11/2020
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	8/11/2020
Trichloroethene	ND	0.0050	0.0003		mg/L	1	8/11/2020
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	8/11/2020
Xylenes, Total	ND	0.015	0.001		mg/L	1	8/11/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 17, 2020

ANALYTICAL RESULTS

Date Printed: August 17, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20080363 Revision 0

Project: Westwood Cleaners, 8731 West North Ave., Wauwato

Lab ID: 20080363-003

Client Sample ID: MW 8-1/4

Collection Date: 8/10/2020 1:11:00 PM

Matrix: AQUEOUS

Analyses	Result	LOQ	LOD	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SV	V8260B	(SW5030B)	Prep I	Date:		Analyst: JDT
Acetone	ND	0.020	0.0031	•	mg/L	1	8/11/2020
Benzene	ND	0.0050	0.0002		mg/L	1	8/11/2020
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
Bromoform	ND	0.0010	0.0003		mg/L	1	8/11/2020
Bromomethane	ND	0.0050	0.002		mg/L	1	8/11/2020
2-Butanone	ND	0.020	0.0016		mg/L	1	8/11/2020
Carbon disulfide	ND	0.010	0.0003		mg/L	1	8/11/2020
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	8/11/2020
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	8/11/2020
Chloroethane	ND	0.010	0.0005		mg/L	1	8/11/2020
Chloroform	ND	0.0010	0.0001		mg/L	1	8/11/2020
Chloromethane	ND	0.010	0.0003		mg/L	1	8/11/2020
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	8/11/2020
cis-1,2-Dichloroethene	0.023	0.0050	0.0002		mg/L	1	8/11/2020
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	8/11/2020
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	8/11/2020
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	8/11/2020
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	8/11/2020
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	8/11/2020
2-Hexanone	ND	0.020	0.0002		mg/L	1	8/11/2020
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	8/11/2020
Methylene chloride	ND	0.0050	0.0002		mg/L	1	8/11/2020
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	8/11/2020
Styrene	ND	0.0050	0.0003		mg/L	1	8/11/2020
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	8/11/2020
Tetrachloroethene	ND	0.0050	0.0003		mg/L	1	8/11/2020
Toluene	ND	0.0050	0.0004		mg/L	1	8/11/2020
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	8/11/2020
Trichloroethene	0.010	0.0050	0.0003		mg/L	1	8/11/2020
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	8/11/2020
Xylenes, Total	ND	0.015	0.001		mg/L	1	8/11/2020

ND - Not Detected at the LOD

Qualifiers:

J - Analyte detected below LOQ

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

* - Non-accredited parameter

LOD/LOQ - Limit of Detection / Limit Of Qantitation for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: WI DNR 399099910; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

Date Reported: August 17, 2020

ANALYTICAL RESULTS

Date Printed: August 17, 2020

CLIENT: Hydrodynamics Consultants, Inc.

Work Order: 20080363 Revision 0

Project: Westwood Cleaners, 8731 West North Ave., Wauwato

Lab ID: 20080363-004

Client Sample ID: MW 9-1/4

Collection Date: 8/10/2020 1:20:00 PM

Matrix: AQUEOUS

Analyses	Result	LOQ	LOD	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	SI	N8260B	(SW5030B)	Prep l	Date:		Analyst: JDT
Acetone	ND	0.020	0.0031		mg/L	1	8/11/2020
Benzene	ND	0.0050	0.0002		mg/L	1	8/11/2020
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
Bromoform	ND	0.0010	0.0003		mg/L	1	8/11/2020
Bromomethane	ND	0.0050	0.002		mg/L	1	8/11/2020
2-Butanone	ND	0.020	0.0016		mg/L	1	8/11/2020
Carbon disulfide	ND	0.010	0.0003		mg/L	1	8/11/2020
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	8/11/2020
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	8/11/2020
Chloroethane	ND	0.010	0.0005		mg/L	1	8/11/2020
Chloroform	ND	0.0010	0.0001		mg/L	1	8/11/2020
Chloromethane	ND	0.010	0.0003		mg/L	1	8/11/2020
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	8/11/2020
cis-1,2-Dichloroethene	ND	0.0050	0.0002		mg/L	1	8/11/2020
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	8/11/2020
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	8/11/2020
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	8/11/2020
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	8/11/2020
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	8/11/2020
2-Hexanone	ND	0.020	0.0002		mg/L	1	8/11/2020
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	8/11/2020
Methylene chloride	ND	0.0050	0.0002		mg/L	1	8/11/2020
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	8/11/2020
Styrene	ND	0.0050	0.0003		mg/L	1	8/11/2020
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	8/11/2020
Tetrachloroethene	ND	0.0050	0.0003		mg/L	1	8/11/2020
Toluene	ND	0.0050	0.0004		mg/L	1	8/11/2020
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	8/11/2020
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2201 West Campbell Park Drive, Chicago, Illinois 60612-3547 Phone: (312) 733-0551 Fax: (312) 733-2386 e-mail address: STATinfo@STATAnalysis.com A1HA accredited 10248, NVLAP accredited 101202-0

20080363

					CHA	AIN	OF CU	ST	ODY	RI	ECO	RD			N	0:_						_ P	age:_	1	of1	
Company: Hydrod	dynamics	Consult	ant, Inc.					P.C). No	.:																
Project Number:			Client 7	rack	cing 1	No.:										/	/	/	7	7	/	7,	7/	7	//	$\overline{}$
Project Name:	Westwood	Cleane	ers					Que	ote N	lo.:					/	/	/	/	/	/	/	/,	//	/	//	/
Location/Address: 8731 Wes	st North A	ve., Wai	uwatosa	, WI	5322	6		1						/	/	/	/	/	/	/	/	/,	//	//	//	
Sampler(s):	Yinon	g Han						Г					/	/	/	/	/	/	/	/	/	/,	//	//		
Report To: Yong Yu	1		Phone:	(6	30) 7	24-	0098					/	/	/	/	/	/	/	/	/	/	/,	//	//	Turn Arou	ınd:
QC Level: 1 2 3	4		Fax:	(8	00) 8	381-	2051	1			/	/	/	/	/	/	/	/	/	/	/	/,	/_			
Regulatory Program: NPEDS/MWRD	RCRA S	DWA S	RP TAC	O Ot	her:					/	/	/	/	/	/	/		/	/	/	/	/,		R	esults Need	led:
Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab.	Preserv.	No. of Containers		100°		//	//	//	/	/	/	//	/	//	/,	//	Re	marks		am Lab No.	_
MW 7-1/4	8/10/20	12:55	W			Yes	3	X			\bigcap		\Box	\Box			\bigcap							\neg	001	
MW 7-1/4D	8/10/20	13:03	W		-	Yes		X																	002	,
MW 8-1/4	8/10/20	13:11	W			Yes		X																	003	
MW 9-1/4	8/10/20	13:20	W			Yes		X																	004	
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Relingquished By: (Signature)	Am	Date	Time: &	/11/	20	1	1:36	Lat	ora	tory	Use	:		S	amp	le V	erifi	cati	on:		Work	Orde	r No.:			\neg
Received By: (Signature)	horte	✓ Date	Time:	111	120	11	136	1	ntain						Yes			No					080	36	3	
Relingquished By: (Signature)	horts		Time:8		20	4	000	- Saı	mpes	Leak	ing				Yes			No			Preser	vation				\neg
Received By: (Signature)	_		Time: 08	11/	202	0	1600	- Re	frige	ated	(Tem	p: 4	6.	C)	Yes			No			A = N	one	B = HV	O C	= NaOH	
Relingquished By: (Signature)		Date	/Time:	1				- Sai	mple	Labe	ls Ma	tch S	ample	e ID	Yes			No			D=H	SO,	E = HC	F =	= 5035/EnCo	ore

Page 7 of 8

F101

Sample Receipt Checklist

Client Name HYDRODYNAMICS		Date and Tim	e Received:	8/11/2020 4:00:00 PM
Work Order Number 20080363	0	Received by:	DIL	
Checklist completed by: Signature Signature Carrier name:	,	Reviewed by:	A. A	8/12/7020 Date
Cantol Maine.	O 17 (1 7 (maryolo			
Shipping container/cooler in good condition?	Yes 🗸	No 🗌	Not Present	
Custody seals intact on shippping container/cooler?	Yes \square	No 🗆	Not Present 🗹	
Custody seals intact on sample bottles?	Yes	No 🗆	Not Present 🗹	₩ -
Chain of custody present?	Yes 🗸	No 🗌		
Chain of custody signed when relinquished and received?	Yes 🗸	No 🗌		
Chain of custody agrees with sample labels/containers?	Yes 🗸	No 🗆		
Samples in proper container/bottle?	Yes 🗸	No 🗆		
Sample containers intact?	Yes 🗸	No 🗆		
Sufficient sample volume for indicated test?	Yes 🗸	No 🗆		
All samples received within holding time?	Yes 🗸	No 🗆		
Container or Temp Blank temperature in compliance?	Yes 🗸	No 🗌	Temperature	4.6 °C
Water - VOA vials have zero headspace? No VOA vials sub-	mitted	Yes 🗹	No 🗆	
Water - Samples pH checked?	Yes	No 🗏	Checked by:	
Water - Samples properly preserved?	Yes 🗐	No 🗏	pH Adjusted?	
Any No response must be detailed in the comments section below.				
Comments:				
Client / Person Date contacted:		Conta	cted by:	1
Response:				
	2001100 8200			

APPENDIX VI DRILLING PERMIT IN PUBLIC ALLEY



HYDRODYNAMICS CONSULTANTS, INC.

Environmental Engineering, Consulting, and Contracting

June 11, 2020

Paul Fassbender, Engineering Dept.

City of Wauwatosa,

Email: <u>pfassbender@wauwatosa.net</u> *Office: 414-479-8928 Cell: 414-531-6657*

Re: Permit Request for Soil Boring/Monitoring Well Installation in Public Alley

WDNR BRRTS #02-41-552537

Westwood Dry Cleaners 8731 W. North Ave Wauwatosa, WI 53226

Dear Mr. Fassbender:

Hydrodynamics consultants, Inc. has been retained my Westwood Cleaners to perform a site investigation at the property located at 8731 West North Avenue, Wauwatosa, WI 53226. Over the last year or so we have been testing the soil, soil gas, and groundwater beneath the property and the nearby properties for tetrachloroethylene (PCE, a drycleaning solvent) and its degraded compound contamination.

At this time under the direction of the Wisconsin Department of Natural Resources (WDNR) we have been asked to sample and monitor the groundwater beyond the site property line to the south in the public alley.

We need to install two monitoring wells in a public alley. These wells will be 1"-diameter PVC installed in 4"-diameter borings, with flush mounting steel cover. These wells would need to remain in place for two years or so.

Once quarterly monitoring of the groundwater it complete, the wells will be filled and sealed to match the exciting surroundings as required by the WDNR regulations.

I have attached a site map for your review together with the City's Permit form. The wells in question are labeled NSB13/MW7 and NSB14/MW8. They are located in the south portion of the map.

Please contact me at Mike_Wan@HydrodynamicsConsultants.com or 630-724-0098 for any questions. Also, please let me know how we can pay for the deposit, check mailing or credit card will be fine to us.

Best Regards,

Maple Testing Services, Inc. D/B/A Hydrodynamics Consultants, Inc.

1. Permit Application

Mike (Minghua) Wan, PE

2. Boring/Monitoring Well Location Map

5403 Patton Drive, Suite 215, Lisle, Illinois 60532

Tel.: 630-724-0098 Fax: 800-881-2051

PERMITS WILL TAKE A MINIMUM OF 3 WORKING DAYS TO PROCESS

APPLICATION DATE: 6/11/2020

APPROXIMATE START DATE: 6/23/2020

revised: 9-23-05

CITY OF WAUWATOSA

APPLICATION FOR

STREET OCCUPANCY PERMIT (CITY R.O.W. EXCAVATION/CONSTRUCTION)

ORDINANCE: 12.04 (CONSTRUCTION IN CITY RIGHT-OF-WAY)

CONTRACTOR'S ADDRESS: 5403 Patton Drive, Suite 215, Lisle, IL 60532 LOCATION OF PROPOSED WORK: In Public Alley to the South of the Strip Mall Building at 8731 W. North Avenue, Wauwatosa, WI (a) EXCAVATE (ATTACH SKETCH OF PROPOSED WORK) GAS PIPE SANITARY SEWER BORING/MONITORING WELL TELECOMMUNICATIONS WATER PIPE DRAIN SYSTEM BELECTRIC CABLE STORM SEWER OTHER SEE REVERSE SIDE FOR LOCATING, INSPECTION AND CONSTRUCTION REQUIREMENTS RESPONSIBILITY FOR DAMAGE CLAIMS: The applicant and/or Contractor and/or Owner shall indemnify and save harmless the City, its officers and employees, from all suits, actions, claims, or judgements of any character because of any injuries or damages received or sustained by any person, persons, or property on account of any work done pursuant to the provisions of this street occupancy permit, or in consequence of any neglect in safeguarding the work. PERMIT/INSPECTION FEE \$ 225	CONTRACTOR: Hydrodynamics Consul	tants, Inc.	PHONE NO.: 630-724-0098							
(a) EXCAVATE (ATTACH SKETCH OF PROPOSED WORK) GAS PIPE SANITARY SEWER BORING/MONITORING WELL TELECOMMUNICATIONS WATER PIPE DRAIN SYSTEM ELECTRIC CABLE STORM SEWER OTHER SEE REVERSE SIDE FOR LOCATING, INSPECTION AND CONSTRUCTION REQUIREMENTS RESPONSIBILITY FOR DAMAGE CLAIMS: The applicant and/or Contractor and/or Owner shall indemnify and save harmless the City, its officers and employees, from all suits, actions, claims, or judgements of any character because of any injuries or damages received or sustained by any person, persons, or property on account of any work done pursuant to the provisions of this street occupancy permit, or in consequence of any neglect in safeguarding the work. PERMIT/INSPECTION FEE \$ 225 01-321-4200-000 DEPOSIT \$ 225 22-000-2401-100 TOTAL FEE \$ 225 22-000-2401-100 PERMIT NUMBER: SIGNED: Mike Wan DATE: 6-22-2020 PERMIT APPLICATION: APPROVED DENIED DATE: REMARKS / SPECIAL CONDITIONS: Traffic control shall be Manual on Uniform Traffic Control Devices Compliant. THE WORK PROVIDED FOR IN THIS PERMIT HAS BEEN COMPLETED IN A SATISFACTORY MANNER.	CONTRACTOR'S ADDRESS: 5403 Par	tton Drive, Suite 215, Lisle	, IL 60532							
GAS PIPE SANITARY SEWER DRAIN SYSTEM TELECOMMUNICATIONS WATER PIPE DRAIN SYSTEM ELECTRIC CABLE STORM SEWER OTHER SEE REVERSE SIDE FOR LOCATING, INSPECTION AND CONSTRUCTION REQUIREMENTS RESPONSIBILITY FOR DAMAGE CLAIMS: The applicant and/or Contractor and/or Owner shall indemnify and save harmless the City, its officers and employees, from all suits, actions, claims, or judgements of any character because of any injuries or damages received or sustained by any person, or property on account of any work done pursuant to the provisions of this street occupancy permit, or in consequence of any neglect in safeguarding the work. PERMIT/INSPECTION FEE \$ 225	LOCATION OF PROPOSED WORK: In Public Alley to the South of the Strip Mall Building at 8731 W. North Avenue, Wauwatosa, WI									
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PERMIT/INSPECTION FEE \$ 225										
FOR CITY USE ONLY: PERMIT NUMBER: DATE: DENIED DENIED DENIED DENIED DENIED DATE: REMARKS / SPECIAL CONDITIONS: Traffic control shall be Manual on Uniform Traffic Control Devices Compliant. THE WORK PROVIDED FOR IN THIS PERMIT HAS BEEN COMPLETED IN A SATISFACTORY MANNER.	DEPOSIT \$ 225		granted this permit. Holder of this permit agrees to comply with all requirements listed on front and back of permit form. This permit is good for 60 days from the date of							
PERMIT APPLICATION: APPROVED DENIED DENIED BY: REMARKS / SPECIAL CONDITIONS: Traffic control shall be Manual on Uniform Traffic Control Devices Compliant. THE WORK PROVIDED FOR IN THIS PERMIT HAS BEEN COMPLETED IN A SATISFACTORY MANNER.	TOTAL FEE \$ 225									
PERMIT APPLICATION: APPROVED DENIED DATE: BY: DATE: REMARKS / SPECIAL CONDITIONS: Traffic control shall be Manual on Uniform Traffic Control Devices Compliant. THE WORK PROVIDED FOR IN THIS PERMIT HAS BEEN COMPLETED IN A SATISFACTORY MANNER.										
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THE WORK PROVIDED FOR IN THIS PERMIT HAS INSPECTOR: BEEN COMPLETED IN A SATISFACTORY MANNER.	PERMIT APPLICATION:	APPROVED	DENIED							
THE WORK PROVIDED FOR IN THIS PERMIT HAS INSPECTOR: BEEN COMPLETED IN A SATISFACTORY MANNER.	BY:		DATE:							
BEEN COMPLETED IN A SATISFACTORY MANNER.	REMARKS / SPECIAL CONDITIONS:	Traffic control shall	be Manual on Uniform Traffic Control Devices Compliant.							
			INSPECTOR:							
	BEEN COMPLETED IN A SATISFAC	CTORY MANNER.	DATE:							

KEEP A COPY OF THIS PERMIT ON THE JOB SITE AT ALL TIMES

NOTES: LOCATION MARKING WILL BE VALID THREE WORKING DAYS AFTER APPROVAL DATE AND WILL EXPIRE TEN DAYS AFTER THE APPROXIMATE START DATE LISTED AT THE TOP OF THIS FORM. REMARKING OF CITY OF WAUWATOSA FACILITIES MAY BE OBTAINED BY CALLING CITY ENGINEER'S OFFICE AT (414) 479-8927. THIS PERMIT IS NOT VALID BETWEEN THE DATES OF NOVEMBER 15 AND APRIL 15 OF ANY GIVEN YEAR WITHOUT SPECIFIC WRITTEN APPROVAL FROM THE CITY OF WAUWATOSA DIRECTOR OF PUBLIC WORKS OR HIS AGENT.

LOCATION REQUIREMENTS

Call Digger's Hotline at 259-1181 a minimum of three (3) working days before starting work.

Location markings shall be valid for ten (10) days. After that time frame call Digger's Hotline for relocation of utilities. Contractor shall be as specific as possible as to the type and location of construction for hotlining.

DRIVE APPROACHES

Comply with the requirements of the drive approach check list.

CONSTRUCTION REQUIREMENTS

<u>Permit applicant is responsible for damages</u> to City of Wauwatosa facilities and provide a one-year quarantee on paving and lawn restoration.

<u>Facilities placed on or in city property must be removed or relocated at city request.</u> Owners of affected facilities will not be entitled to compensation for such requests.

Directional Boring

All water mains and services crossed by directional boring shall be "day-lighted" prior to boring. All sewer mains and services in the vicinity of directional boring shall be televised both before and after boring. Copies of tapes shall be given to the City of Wauwatosa Engineering Dept. before construction begins and within 5 days of construction completion for review. City engineering staff may waive televising requirements on a case by case basis depending upon location and depth of sewers and boring. Contractor is responsible for verifying sewer locations and depths in field.

<u>Full-depth saw cuts are required on all pavements.</u> Cuts shall be a minimum of 1 foot wider than excavation on each side of the trench. The minimum dimensions of pavement replacement shall be 6 feet for <u>transverse</u> cuts and 4 feet for <u>longitudinal</u> cuts. Extend the width of repair to any existing joint (either in exposed concrete or reflected through bituminous resurfaced roadways) where any saw cut would fall less than 3 feet from a joint.

On guaranteed streets, paved within the last five years, the repair shall extend to existing joints on all sides, thereby replacing an entire slab.

On guaranteed streets, paved from six to ten years ago, the repair shall be such that the portion

Use slurry, backfill for all excavations.

of pavement replaced or left is a minimum of $\frac{1}{2}$ slab.

<u>Maintain two (2) way traffic at all times.</u> Where the excavation will be left open overnight, cover excavations at intersections and driveways with a braced plate designed for vehicular loads.

Replace all pavements in kind. Use 7-bag high early strength air entrained concrete for all concrete surfaces and base courses. Arterial streets may require 9-bag mix. Place concrete base courses to match the thickness (7" minimum) of the existing base course. Surface with a two course hot asphalt mix to match existing surface grade (3" minimum).

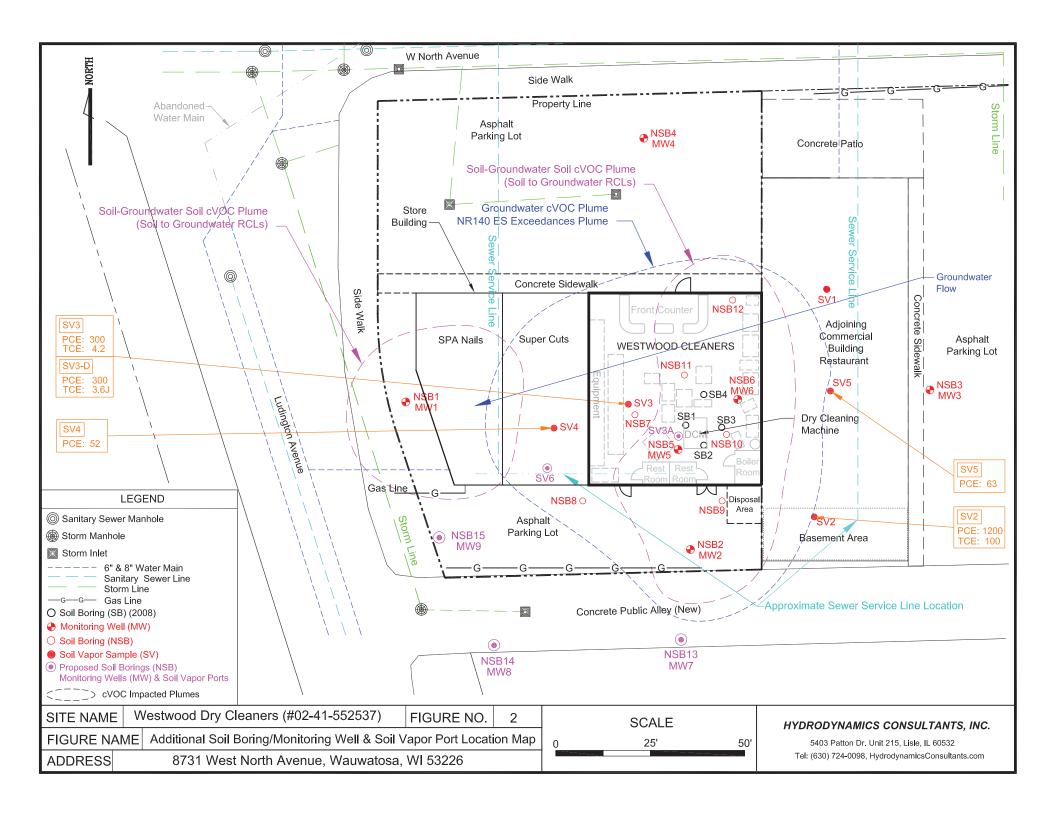
On major and arterial streets, place 1 $\frac{1}{4}$ " dia. x 18" long coated dowel bars drilled and grouted into the existing concrete pavement at 30" on-center along the transverse joints and at $\frac{1}{2}$ the depth of the slab. Use $\frac{1}{2}$ " dia. X 18" long deformed (#4) tie bars drilled and grouted into the existing concrete pavement at 30" on-center along the longitudinal joints and at $\frac{1}{2}$ the depth of the slab.

Concrete stamps are required indicating; contractor name, year, and stating "City of Wauwatosa."

<u>Do not cut, trim, or damage any tree or shrub</u> to facilitate the installation or maintenance of the permitted facility, unless authorized by the owner of such tree or shrub. In case of conflict call Forestry Dept. at 471-8420 or 531-0405.

<u>Follow erosion control practices</u> meeting the requirements of the Wisconsin Construction Site Best Management Practice Handbook shall be utilized.

Replace lawn disturbed by work with class "A" weed free nursery sod over a minimum of 4" screened and fertilized topsoil. The holder of this permit shall maintain and water the sod until established for one full year.



PERMITS WILL TAKE A MINIMUM OF 3 WORKING DAYS TO PROCESS

APPLICATION DATE: 6/11/2020

APPROXIMATE START DATE: 6/23/2020

CITY OF WAUWATOSA

APPLICATION FOR

STREET OCCUPANCY PERMIT (CITY R.O.W. EXCAVATION/CONSTRUCTION)

ORDINANCE: 12.04 (CONSTRUCTION IN CITY RIGHT-OF-WAY)

CONTRACTOR: Hydrodynamics Consult	ants, Inc.	PHONE NO.: 630-724-0098						
CONTRACTOR'S ADDRESS: 5403 Pat	ton Drive, Suite 215, Lisle	, IL 60532						
LOCATION OF PROPOSED WORK: In Public Alley to the South of the Strip Mall Building at 8731 W. North Avenue, Wauwatosa, W								
(a) EXC	CAVATE (ATTACH SK	ETCH OF PROPOSED WORK)						
GAS PIPE	SANITARY SE	WER BORING/MONITORING WELL						
☐ TELECOMMUNICATIONS		☐ DRAIN SYSTEM						
ELECTRIC CABLE	STORM SEWE	R OTHER						
SEE REVERSE SIDE F	OR LOCATING, INSP	ECTION AND CONSTRUCTION REQUIREMENTS						
its officers and employees, from all suits,	actions, claims, or judg perty on account of any	d/or Contractor and/or Owner shall indemnify and save harmless the City, ements of any character because of any injuries or damages received or work done pursuant to the provisions of this street occupancy permit, or						
PERMIT/INSPECTION FEE \$ 225 DEPOSIT \$ 225 TOTAL FEE \$ 225	01-321-4200-000	I agree to comply with the laws and requirements of the City of Wauwatosa if granted this permit. Holder of this permit agrees to comply with all requirements listed on front and back of permit form. This permit is good for 60 days from the date of approval, unless otherwise specified. SIGNED: Mike Wan						
FOR CITY USE ONLY:	PERMIT NUM	DATE: 6-22-2020 Applicant Applicant						
PERMIT APPLICATION: BY: REMARKS / SPECIAL CONDITIONS: - 501/ 1802 Mg / MON. TOWN OF ADJ HIGHT TO GRASS BEGINNO - CONTACT (ZW)	Traffic control shall were locamons aneas with p	DENIED DATE: 7-13-20 be Manual on Uniform Traffic Control Devices Compliant. TO BE DETERMINED ON SONTH AIT, FAVENENT AINT WITH CITY INSPECT OF PRIOR TO WORLD FASSIBENDER CHIM-537-6657)						
THE WORK PROVIDED FOR IN TH BEEN COMPLETED IN A SATISFAC	IIS PERMIT HAS	INSPECTOR:						

KEEP A COPY OF THIS PERMIT ON THE JOB SITE AT ALL TIMES

NOTES: LOCATION MARKING WILL BE VALID THREE WORKING DAYS AFTER APPROVAL DATE AND WILL EXPIRE TEN DAYS AFTER THE APPROXIMATE START DATE LISTED AT THE TOP OF THIS FORM. REMARKING OF CITY OF WAUWATOSA FACILITIES MAY BE OBTAINED BY CALLING CITY ENGINEER'S OFFICE AT (414) 479-8927. THIS PERMIT IS NOT VALID BETWEEN THE DATES OF NOVEMBER 15 AND APRIL 15 OF ANY GIVEN YEAR WITHOUT SPECIFIC WRITTEN APPROVAL FROM THE CITY OF WAUWATOSA DIRECTOR OF PUBLIC WORKS OR HIS AGENT.

LOCATION REQUIREMENTS

Call Digger's Hotline at 259-1181 a minimum of three (3) working days before starting work.

Location markings shall be valid for ten (10) days. After that time frame call Digger's Hotline for relocation of utilities. Contractor shall be as specific as possible as to the type and location of construction for hotlining.

DRIVE APPROACHES

Comply with the requirements of the drive approach check list.

CONSTRUCTION REQUIREMENTS

<u>Permit applicant is responsible for damages</u> to City of Wauwatosa facilities and provide a one-year guarantee on paving and lawn restoration.

<u>Facilities placed on or in city property must be removed or relocated at city request.</u> Owners of affected facilities will not be entitled to compensation for such requests.

Directional Boring

All water mains and services crossed by directional boring shall be "day-lighted" prior to boring. All sewer mains and services in the vicinity of directional boring shall be televised both before and after boring. Copies of tapes shall be given to the City of Wauwatosa Engineering Dept. before construction begins and within 5 days of construction completion for review. City engineering staff may waive televising requirements on a case by case basis depending upon location and depth of sewers and boring. Contractor is responsible for verifying sewer locations and depths in field.

<u>Full-depth saw cuts are required on all pavements.</u> Cuts shall be a minimum of 1 foot wider than excavation on each side of the trench. The minimum dimensions of pavement replacement shall be 6 feet for <u>transverse</u> cuts and 4 feet for <u>longitudinal</u> cuts. Extend the width of repair to any existing joint (either in exposed concrete or reflected through bituminous resurfaced roadways) where any saw cut would fall less than 3 feet from a joint.

On guaranteed streets, paved within the last five years, the repair shall extend to existing joints on all sides, thereby replacing an entire slab.

On guaranteed streets, paved from six to ten years ago, the repair shall be such that the portion

Use slurry, backfill for all excavations.

of pavement replaced or left is a minimum of ½ slab.

Maintain two (2) way traffic at all times. Where the excavation will be left open overnight, cover excavations at intersections and driveways with a braced plate designed for vehicular loads.

Replace all pavements in kind. Use 7-bag high early strength air entrained concrete for all concrete surfaces and base courses. Arterial streets may require 9-bag mix. Place concrete base courses to match the thickness (7" minimum) of the existing base course. Surface with a two course hot asphalt mix to match existing surface grade (3" minimum).

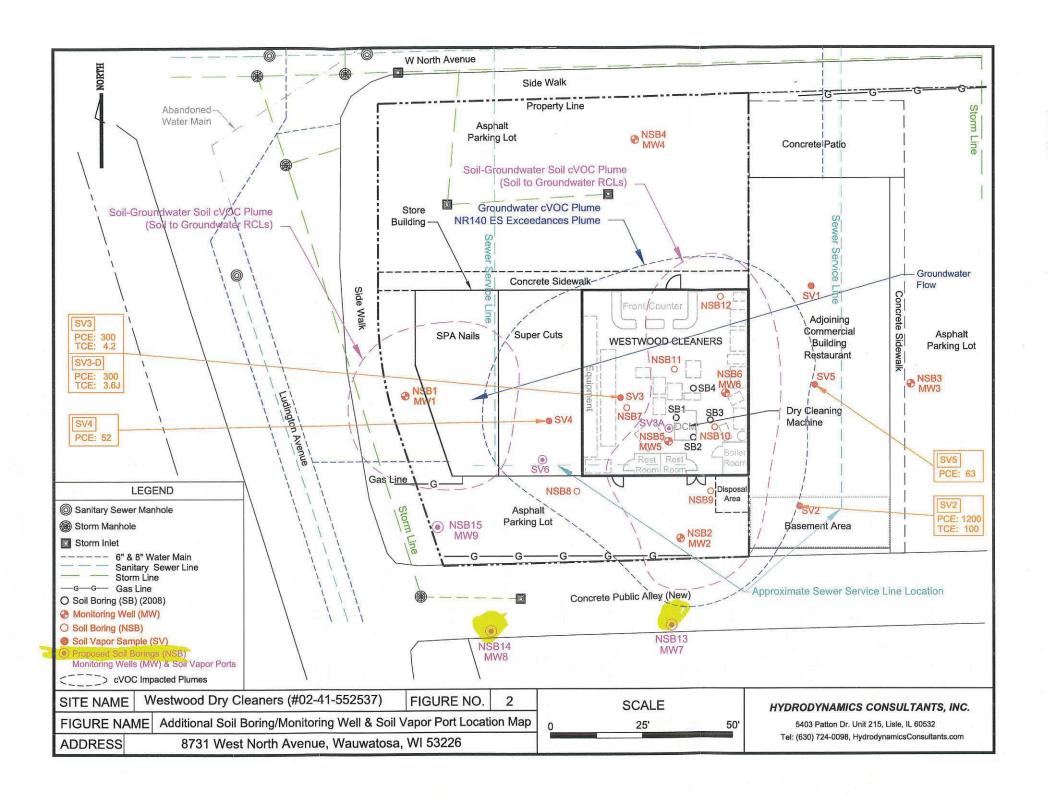
On major and arterial streets, place 1 $\frac{1}{4}$ " dia. x 18" long coated dowel bars drilled and grouted into the existing concrete pavement at 30" on-center along the transverse joints and at $\frac{1}{2}$ the depth of the slab. Use $\frac{1}{2}$ " dia. X 18" long deformed (#4) tie bars drilled and grouted into the existing concrete pavement at 30" on-center along the longitudinal joints and at $\frac{1}{2}$ the depth of the slab.

Concrete stamps are required indicating; contractor name, year, and stating "City of Wauwatosa."

<u>Do not cut, trim, or damage any tree or shrub</u> to facilitate the installation or maintenance of the permitted facility, unless authorized by the owner of such tree or shrub. In case of conflict call Forestry Dept. at 471-8420 or 531-0405.

<u>Follow erosion control practices</u> meeting the requirements of the Wisconsin Construction Site Best Management Practice Handbook shall be utilized.

Replace lawn disturbed by work with class "A" weed free nursery sod over a minimum of 4" screened and fertilized topsoil. The holder of this permit shall maintain and water the sod until established for one full year.



City of Wauwatosa Development Department 7725 W North Ave Wauwatosa, WI 53382 414-479-8907

000093-0006 Paul F.

07/13/2020 10:16AM

MISCELLANEOUS

STREET OCCUPANCY PERMIT (STOCPT) 2020 Item: STOCPT

1.0 @ 75.00

STREET OCCUPANCY PERMIT

(STOCPT)

75.00

75.00

MISCELLANEOUS

STREET OCCUPANCY INSPECTION (STOCIN) 2020 Item: STOCIN

2.0 @ 75.00

STREET OCCUPANCY INSPECTION (STOCIN)

150,00

150.00

Subtotal Total 225.00 225.00

CHECK

225.00

Check Number004115

Change due

0.00

Paid by: Maple Testing Services, Inc.



Comments: Street Occupancy Permit # 20-0-61

Thank you for your payment. For questions, please contact the Development department at 414-479-8907.

CUSTOMER COPY