Site Investigation Report

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

December 5, 2018

5403 Patton Dr., Suite 215, Lisle, Illinois 60532

Tel. 630-724-0098 Web Site: http://www.HydrodynamicsConsultants.com

December 5, 2018

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 Site Investigation Report for your review and approval.

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

1. Installation of 8 additional soil borings and groundwater monitoring wells to fully define the degree and extent of soil and groundwater contamination.
2. Implementation of quarterly groundwater and soil vapor sampling to verify if contaminant concentrations from this site are generally stable or decreasing.
3. 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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1.0 EXECUTIVE SUMMARY

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

In 2008, HDC was retained to complete 4 soil borings (named SB1 through SB4) in the potential source area. A preliminary sampling report was submitted to the WDNR in 2008. These results are included in this report.

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

On September 16, 2018, HDC, Inc. crew members used GeoProbe systems to collect soil samples (NSB1-NSB12) from in and around the subject property. On the same day a sub-slab vapor sample from SV3 was completed. Ground water sampling (MW1-MW6) and the remainder of the sub-slab vapor sampling (SV1, SV2, SV4, and SV5) took place during a second site visit on September 19, 2018. All sampling protocols and procedures submitted in the SIWP by HDC and reviewed by WDNR were strictly followed.

The analytical results of the soil, groundwater, and sub-slab vapor have been tabulated in Tables 1, 2, and 3, receptively. Please note that only the chlorinated volatile organic compounds (cVOCs) are used by the drycleaning plant and so cVOCs are considered our Contaminants of Concern (or Chemicals of Concern, COCs) and listed in the tables. The complete laboratory analytical reports have been attached in Appendix VI. Figures 3 (Soil), 4 (Groundwater), and 5 (Sub-Slab Vapor) illustrate the locations of any cVOCs that have exceedances to the WDNR's screening levels (with weight units in milligrams, mg)

Based on the analytical results, the contaminants of concern (COCs) found at this site are tetrachloroethene (PCE) and its degraded compounds, such as trichloroethene (TCE), cis-1,2-dichloroethene (cDCE), and/or vinyl chloride (VC).

Up to 320 mg/Kg of PCE has been found in soil samples which exceed the Soil to Groundwater Pathway Residual Contaminant Level (RCL) of 0.0045 mg/kg and non-Industrial Direct Contact RCL of 30.7 mg/kg. Up to 3.97 mg/Kg of TCE has been found in soil samples which exceed the Soil to Groundwater Pathway RCL of 0.0036 mg/kg and non-Industrial Direct Contact RCL of 1.26 mg/kg. No other cVOC was found in the soil samples with concentrations higher than the RCLs.

Groundwater samples confirmed that up to 160 µg/L of PCE, 70 µg/L of TCE, and 38 µg/L of VC are present which exceeded the Enforcement Standards (ES) and Preventive Action Limits (PAL) published in Wisconsin Administrative Code, Chapter NR 140. Also, up to 26 µg/L of cDCE was found in the groundwater samples that exceeded the Preventive Action Limits.

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As a result of the sub-slab vapor sampling, PCE (up to 1.2 mg/m³) and TCE (up to 0.0042 mg/m³) have been found with concentrations exceeding both the residential and commercial Indoor Air Vapor Action Levels. However, all the cVOCs found in the vapor samples are below the US EPA's Vapor Risk Screening Levels (VRSL) for sub-slab vapor samples which are applicable to the sample results.

Based on the site investigation results, HDC recommends the following steps be taken for this site:

1. Installation of 8 additional soil borings and converted them to monitoring wells to fully define the degree and extent of the soil and groundwater contamination;
2. Completion of 4 quarterly groundwater sampling/monitoring events in all the monitoring wells, including the new and existing wells, for a period of one year;
3. Completion of 4 quarterly sub-slab vapor sampling/monitoring events in all the 5 vapor sampling ports (SV1 to SV5) installed on the concrete floor for a period of one year;
4. Preparation of annual monitoring report to summarize the cVOC attenuation trends.

If the contaminant concentrations have been 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) filing notifications to the adjoining properties that may be affected by the released cVOCs, and (3) 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
   Email Mike_Wan@HydrodynamicsConsultants.com

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

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 landscape 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

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 mg/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 believes that the contamination is 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.

On August 7, 2018 the Wisconsin DNR approved HDC's Site Investigation Work Plan (SIWP), which was submitted in order to gain approval to conduct an Additional Site Investigation. The site investigation focused on:

- Gathering information needed to define the nature, degree and extent of chlorinated volatile organic compound contamination from the drycleaning operation at this site;
- Defined the source or sources of the contamination;
- Established cleanup goals for cVOCs in the soil, groundwater, and soil gas to protect the public health, safety, welfare, and environment.

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.

3.0 SITE INVESTIGATION PLAN, METHODOLOGIES, AND IMPLEMENTATION

3.1 Site Investigation Outline

To satisfy the requirements of the WDNR and the approved SIWP, HDC conducted the following during the site investigation at the subject property:

- 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.

- Acquired access permits from the neighboring stores and properties.

- Mobilized crews for drilling, sampling, and testing to the project site to conduct the field work.

- Completed 12 soil borings 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.

- Continuously retrieved soil samples 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 36 representative soil samples, three from each soil boring, for laboratory analysis of VOCs. Each soil sample was collected in accordance with SW-846 Method 5035 using a purge-and-trap soil sampler. A bulk soil sample was 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 SW-846 Method 8260B.

- An additional 2 soil samples were collected from outside the potential contamination plume. These soil samples were analyzed for fractional organic carbon contents (foc) in accordance with ASTM D 2974-87, entitled "Standard Test Methods for Moisture, Ash and Organic Matter of Peat and Other Organic Soils". The foc content helped determine the attenuation capacity of local soil to the VOCs at this site.

- Converted 6 soil borings to 6 groundwater monitoring wells to a depth of 15 feet or to a depth of at least five feet below the water table. These wells were constructed with a 10'-long 1"-diameter PVC screen in the bottom and a 5'-long case above, installed inside a 2"-diameter boring drilled with the GeoProbe. The well annular space was packed with coarse silica sand from the bottom to about 1' above the screen section. Fine sand pack filter (about 1' to 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 a steel manhole and cemented on the ground surface above the bentonite seal. Upon completion, all wells were developed by purging the wells dry with designated new bailers.

- Performed the 1st of the 4 rounds of groundwater monitoring and sampling on a quarterly basis for a period of one year. Each quarterly sampling includes collection and submission of 8 representative groundwater samples for laboratory analysis (6 samples from the 6 monitoring wells, 1 for duplicate, and 1 for trip bank). The groundwater samples are collected using a PVC bailer designated to each well and immediately preserved in 4-ml glass vials with HCL preservation. The groundwater samples submitted are analyzed for VOCs utilizing SW-846 Method 8260B. Proper well purging is completed before the sampling.

- Completed the 1st of 4 rounds of water table depth measurements from the monitoring wells and surveyed the ground surface to determine the groundwater table slope or flow directions.

- Performed 1 Slug test in one 2"-diameter well (MW1) to determine the hydraulic conductivities for water-saturated subsurface soil formations.

- Conducted a water-supply well survey by contacting the local municipalities and related parties to determine if there is any private or community well in the vicinity of the subject drycleaner facility and to determine if the released cVOCs could potentially impact any water supply wells.

- Collected 6 representative soil vapor samples (5 from the soil vapor sampling ports, SV1 to SV5, and one duplicate from SV3 inside the subject building and the adjoining building to the east to determine if soil vapor intrusion is a risk concern at this site. Six-liter Summa canisters were used for the soil vapor collection. Procedures mandated in the RR-800, "Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin" were followed.

- Prepared this Site Investigation Report in accordance with WDNR's NR716.

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 is also aided with the review of public records and an interview with the current storeowner or occupant. The previous reports, if any, were a guide to the additional soil and groundwater sampling.

Based on the above studies, the following areas of concern have been identified at the subject drycleaner facility and warrant further investigation:

- Area around current drycleaning machine, since the dry cleaning activity around the machine is presumed to be the main potential source for PCE release at the subject facility.
- Previous perc-based drycleaning machine locations, if any, are also major potential contamination sources;
- Locations near floor drains, sumps, or pipelines, if any;
- The waste solvent storage areas;
- The back door area where drycleaning solvent is/was delivered and waste solvent/filter are/were removed; and
- Areas identified by previous site investigations.

Our soil sampling locations (see Figure 2, Site Map) have been strategically selected based on the above conditions. The locations were also reviewed and approved by the WDNR's project manager. Below are the 12 soil boring locations (NSB1 to NSB12) and the rationales:

NSB1 – to delineate the potential contamination plume to the west near the property line.

NSB2 – to delineate the potential contamination plume to the south near the property line.

NSB3 – to delineate the potential contamination plume to the east in the neighboring property.

NSB4 – to delineate the potential contamination plume to the north near the property line.

NSB5 – to confirm the contamination degree in close proximity to the drycleaning machine where drycleaning solvent, tetrachloroethene (PCE or perc) and its degraded products were previously discovered (to characterize the source areas).

NSB6 – to confirm the contamination degree in close proximity to the drycleaning machine where drycleaning solvent, tetrachloroethene (PCE or perc) and its degraded products were previously discovered (to characterize the source areas).

NSB7 – to confirm the concentrations of contamination to the west of the drycleaning machine where drycleaning solvent, tetrachloroethene (PCE or perc) and its degraded products was previously discovered.

NSB8 – to delineate the potential contamination plume to the southwest.

NSB9 – to confirm the concentrations of contamination in close proximity to the outdoor disposal area and next to the waste storage drum area.

NSB10 – to confirm the concentrations of contamination west of the drycleaning machine where drycleaning solvent, tetrachloroethene (PCE or perc) and its degraded products were previously discovered.

NSB11 – to confirm the concentrations of contamination in close proximity to the drycleaning machine where drycleaning solvent, tetrachloroethene (PCE or perc) and its degraded products were previously discovered.

NSB12 – to delineate the potential contamination plume to the northeast inside the building.

Soil boring locations illustrated in Figure 3, were designed to provide adequate coverage for the potentially contaminated areas to ensure that the source and extent of VOC contamination are 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 utilities location 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 2, Site Map). Soil sample locations may have been moved 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) in the soil samples.

However, due to the cost concern, 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 most contaminated segment based on PID readings, odor, visual observation, etc. in order to define the highest level of contamination in the soil boring.

- 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 3 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 allowed 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.

All VOC samples are collected, stored, and handled in accordance with the 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 4ºC.

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

During sampling activity, five sub-slab vapor samples were 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 5a, Sub-Slab Vapor Sampling Diagram):

- 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 ¾”-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.
- Sealing the surface 1.5” depth of the annular space in the sampling hole with modeling clay, and push the modeling clay tightly 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.
- Construct a small water dam with modeling clay on the concrete surface around the sampling port and pouring water inside the dam to ensure no leakage around the sampling tube and the sampling port. If leakage is present corrections are made.
- Sampling Device (6-liter Summa canister and flow regulator provided by a certified lab) Preparation: (a) check to make sure the canister valve is tightly closed, (b) remove cap from the canister air inlet using a 9/16 wrench and use the cap to seal the inlet of the flow regulator, (c) attach the flow control regulator to the Summa canister and tighten it, (d) quickly open and close the canister valve ½ turn, and watch to observe that the pressure gauge stays at its preselected pressure (around 30” Hg) without dropping. If a pressure drop is observed, re-tighten the connections and cap.
- A 3-way valve that has one inlet and two outlets is tightly connected to a ¼” OD and 1/8” ID Teflon tubing on each end. The 3-way valve can turn on one outlet while turning off the other outlet simultaneously.
- The inlet end of the 3 way valve is connected to the sampling tube inserted in the sampling port inside the concrete floor. One of the two outlets 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.
- The 3-way valve is first turned on to the purging pump outlet to purge 3 times volume of the sampling train (including volume of tubing and the sampling port cavity, up to about 1 liters or 5 minutes) prior to sampling.
- Turn the 3-way valve off the purging pump and turn on the inlet to the Summa canister to allow soil vapor to be sucked into the pre-vacuumed Summar canister from the sub-slab.
- Paper towels are placed over the sampling train and Isopropyl Alcohol tracer fluid is now 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 observe the vacuum pressure drop on the gauge from about -30” Hg to about -5” Hg.
- A sample of soil vapor is drawn through a sampling train comprised of components that regulate the rate and duration of sampling into the pre-evacuated Summa canister provide by the laboratory.

- Turn off the canister valve when the pressure gauge reaches below -5" Hg and replace and tighten the canister cap (it may take about 60 minutes for each sample withdrawing process 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.

Figure 5a is the diagram that illustrates the sub-slab vapor sampling. The sub-slab soil vapor sampling locations are illustrated in Figure 5, Sub-slab Vapor cVOC Distribution Map.

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

SV3: It was placed in the source area to assess the concentrations of cVOCs in source under the concrete floor.

SV4: It was placed in the adjoining hair cutters store to assess the degree and extent of cVOCs under the concrete floor to the west. The location of the sampling port was moved slightly to the south to avoid damaging to the new hardwood floor installed in the main salon area. It was moved to a corner where the sampling port could be hidden from the public.

SV1, SV2, and SV5: They were placed in the adjoining restaurant property to assess the degree and extent of cVOCs under the concrete floor to the east. The location of the sampling port was moved slightly to avoid damaging to the new granite floor installed in the main dining hall area. SV1 and SV5 were moved to corners where the sampling ports could be hidden from the public, while SV2 was placed in the narrow partial basement section.

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 wells were designed as following:

MW5 and MW6: They were placed in the source area to assess the concentrations of cVOCs in source area in the subsurface glacial till formation.

MW1: It was placed to the west of the source area to assess the degree and extent of cVOCs in subsurface glacial till formation to the west.

MW2: It was placed to the south of the source area to assess the degree and extent of cVOCs in subsurface glacial till formation to the south.

MW3: It was placed to the east of the source area in the adjoining restaurant property to assess the degree and extent of cVOCs in subsurface glacial till formation to the east.

MW4: It was placed to the north of the source area to assess the degree and extent of cVOCs in subsurface glacial till formation to the north.

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:

- Prior to groundwater sampling, the wells are measured with a water level indicator, and then purged with a designated disposal bailer for 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 4ºC. 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
- 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 on-site 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 SITE INVESTIGATION RESULTS

On September 16, 2018, HDC, Inc. crew members used a GeoProbe system to collect soil samples (NSB1-NSB12) from in and around the subject property. On the same day a soil vapor sample from SV3 was completed. Ground water sampling (MW1-MW6) and the remainder of the soil vapor sampling (SV1, SV2, SV4, and SV5) took place during a second site visit on September 19, 2018. Please refer to the attached site map (Figure 2) for sampling locations.

4.1 Soil Sampling Results

A total of 36 representative soil samples (3 samples from each boring) were collected and analyzed for VOCs in accordance with USEPA Publication SW-846, Method 5035/8260. The soil analytical results obtained are tabulated in Table 1. Please note that only the Contaminants of Concern (COC) identified in the previous sections are listed in the table. The soil COC distribution is illustrated in Figure 3. The previous soil sampling results collected in 2008 were also included in this report. 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 in the table.

Tetrachloroethene (PCE): up to 320 mg/Kg of PCE was detected from various borings. The concentrations exceeded the Soil to Groundwater Pathway RCL (0.0045 mg/kg) and Direct Contact (30.7 mg/kg) for non-industrial properties.

Trichloroethene (TCE): up to 3.97 mg/Kg of TCE was detected from various borings. The concentrations exceeded the Soil to Groundwater Pathway RCL (0.0036 mg/kg) and Direct Contact (1.26 mg/kg) for non-industrial properties.

The soil sampling results confirmed that the soil to ground pathway RCL and soil direct contact pathway RCL have been exceeded at this site.

The contaminants are distributed from the surface (1') to the depth of 8' near the source areas around the drycleaning machine. Minor PCE contamination was detected at 16' in NSB2 (0.038 mg/kg) and NSB1 (0.017 mg/kg) which are away from the source areas.

4.2 Groundwater Sampling Results

A total of 8 groundwater samples, including 1 duplicate and 1 trip blank, were analyzed for VOCs in accordance with USEPA 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. By comparing to the Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard and Chapter NR 140 Preventive Action Limits, the following

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compounds are deemed as the contaminants of concern based on the groundwater sampling results.

Tetrachloroethene (PCE): up to 160 µg/L of PCE was detected from various wells, which exceeded the groundwater Enforcement Standard (5 µg/l) and Preventive Action Limit as defined in the NR 140.

Trichloroethene (TCE): up to 70 µg/L of TCE was detected from various wells, which exceeded the groundwater Enforcement Standard (5 µg/l) and Preventive Action Limit as defined in the NR 140.

Cis-1,2-Dichloroethene (cDCE): up to 26 µg/L of DCE was detected from various wells, which exceeded the Preventive Action Limit as defined in the NR 140.

Vinyl Chloride (VC): up to 38 µg/L of VC was detected from various wells, which exceeded the groundwater Enforcement Standard (0.2 µg/l) and Preventive Action Limit as defined in the NR 140.

The groundwater sampling results confirmed that the groundwater quality have been impacted by the released PCE and its degraded compounds of TCE and VC at this site.

No contaminant was found in MW1 or its duplicated sample, MW1-D. No contaminant was detected in the trip blank sample, MW-TB, either.

4.3 Vapor Sampling Results

A total of 6 sub-slab vapor samples, including 1 duplicate (SV3-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. Please note that only the Contaminants of Concern (COC) with elevated concentrations are listed in the table. 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 1.2 mg/m³ of PCE was detected from various vapor sampling ports, exceeding both the residential and commercial Indoor Air Vapor Action Levels. However, they are all below the VRSL which is applicable to the sub-slab samples in our case.

Trichloroethene (TCE): up to 0.0042 mg/m³ of TCE remain at various sampling ports with concentrations exceeding residential Indoor Air Vapor Action Levels. However, they are all below the VRSL which is applicable to the sub-slab samples in our case.

The sub-slab sampling results confirmed that the sub-slab Vapor Risk Screening Levels have not been exceeded at this site, although 1.2 mg/ m^3 of PCE was detected under the concrete floor in the neighboring restaurant's partial basement.

As part of the quality control, isopropyl alcohol that was spread on the paper towels covering the sampling train during the vapor sampling was also analyzed with the samples. No abnormally high concentration of isopropyl alcohol was found in the analytical results. So the quality of the soil gas samples is reliable.

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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 September 19, 2018, we conducted a water-table survey for the monitoring wells MW1 through MW6. 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 6. Groundwater flow trend is generally to the west or 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 Number	Relative Elevation of the Top of Casing	Water Depth(ft.)	Water Table Elevation (ft.)
MW1	98.49	8.72	89.77
MW2	99.12	8.97	90.15
MW3	100.76	10.23	90.53
MW4	98.88	8.44	90.44
MW5	99.95	9.61	90.34
MW6	100	9.76	90.24

5.3 Groundwater Table Gradient

Based on this water table contour map acquired on September 19, 2018, the hydraulic gradient (i) can be obtained as follows:

Hydraulic head drop from **MW3** to **MW1** along the groundwater flow direction is 90.53' – 89.77' = 0.76 feet. The distance between these two wells is 130', as measured parallel to the groundwater flow direction.

Therefore, the hydraulic gradient (i) =0.76/130 = 0.00585 ft/ft.

According to the above discussions, the groundwater present beneath the subject property would flow southwesterly, with a hydraulic gradient of 0.00585 ft./ft., or 0.585%.

This groundwater table slope is reasonable based on the local topography.

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 (y_t) vs. the time elapsed (T_t) 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 x 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 were 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.

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	1.39×10^{-2}	1202

The hydraulic conductivity of 1.39×10^{-2} cm/sec may be too high and not representative to this site conditions since clay or silty clay is the predominant formation encountered in the borings at this site. 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 (f_{oc})

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 (*f*oc), 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 following Table 6.

Table 6 Fractional Organic Content

Sample ID	Depth (ft.)	TOC (wt.%)	f_{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 *f*oc 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 using as retardant to the cVOCs released from this site. This high f_{oc} implies that high absorption capacity to the contaminants is present in the soil. Biodegradation may have been present to break down the PCE to cDCE, TCE, VC, and final non-toxic compounds, due to the high fractional organic carbons in the soil.

6.0 POTENTIAL RECEPTORS AND RISK ASSESSMENTS

This site investigation has revealed that contamination associated with the release of PCE and its degraded compounds are present in the soil and groundwater with concentrations above the regulatory requirements. Soil vapor sample results are all below the US EPA's sub-slab Vapor Risk Screening Levels, although 1.2 mg/ m^3 of PCE were found in the sub-slab vapor sample collected below the partial basement concrete floor in the neighboring restaurant.

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

Site features such as 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. 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 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 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 the 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 below the USEPA's sub-slab Vapor Risk Screen Levels (VRSL), the cVOCs do not post potential indoor intrusion risks. Based on this, it is HDC's opinion that the vapor intrusion can be excluded from further consideration at the subject property and the property to the east. However, if the concentrations are found higher than the VRSLs, sub-slab vapor mitigation systems (such as sub-slab depressurization systems) can be installed to eliminate this pathway.

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In Summary, risks to the public health, welfare, or 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

Since soil and groundwater contamination levels are found in excess of regulatory standards at this site, to ensure the released cVOCs will remain at this site without risks to the public health, welfare, or the environment, HDC proposes to install 8 additional soil borings and monitoring wells to further delineate the contamination plume to the south, north, and west of the property in the public right of ways (see Figure 7). Since 0.017 mg/kg of PCE was found in NSB1 at 16' depth, we recommend all future borings and wells be installed to a depth of 20' below the ground surface.

Quarterly groundwater and sub-slab soil vapor monitoring/sampling from the new and existing monitoring wells and soil vapor sampling ports will help to determine whether any risk is present from the released cVOCs to the public health, welfare, or environment.

In conclusion, Hydrodynamics Consultants, Inc. believes that for the WDNR to consider this case for closure with conditions, the following steps should be completed:

5. Installation of 8 additional soil borings and converting them to monitoring wells to fully define the degree and extent of the soil and groundwater contamination;
6. Completion of 4 quarterly groundwater sampling/monitoring events in all the monitoring wells, including the new and existing wells, for a period of one year;
7. Completion of 4 quarterly sub-slab vapor sampling/monitoring events in all the 5 vapor sampling ports (SV1 to SV5) installed on the concrete floor for a period of one year;
8. Preparation of annual monitoring report to summarize the cVOC attenuation trends.

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) filing notifications to the adjoining properties that may be affected by the released cVOCs, and (3) enrolling the site in the GIS Registry system after the proper documents are recorded in the Milwaukee County Register's 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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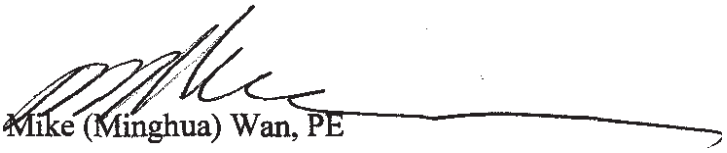
8.0 CONCLUDING REMARKS

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 warrantee 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.

Prepared by:



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TABLES

Table 1 Soil VOC Analytical Results

Sample ID:	SB1-A	SB1-B	SB2-A	SB2-B	SB3-A	SB3-B	SB4-A	SB4-B	NR 720 RCLs*		
Date:	8/19/2008								Groundwater Pathway RCL	Non-Industrial Direct Contact RCL	Industrial Direct Contact RCL
Sampling Depth (ft)	1	6	1	6	1	6	1	6			
Depth to GW (ft)											
VOCs									**mg/Kg**	**mg/Kg**	**mg/Kg**
cis-1,2-Dichloroethene	< 1.43	< 0.025	< 0.625	< 0.0266	< 0.312	< 0.0298	< 0.412	< 0.0278	*0.0412*	*156*	*2040*
Tetrachloroethene	**320**	**0.685**	**178**	**3.99**	**103**	**6.85**	**25**	**10.8**	***0.0045***	***30.7***	***153***
Trichloroethene	**3.97**	< 0.025	**2.31**	**0.0505 J**	< 0.312	< 0.0298	< 0.412	< 0.0278	***0.0036***	***1.26***	*8.81*
Vinyl chloride	< 1.43	< 0.025	< 0.625	< 0.0266	< 0.312	< 0.0298	< 0.412	< 0.0278	*0.0001*	*0.067*	*2.03*

Notes:

* RCL = Residual Contaminant Level per WDNR Remediation and Redeveopment Program

NR 720 RCLs are generic standards for the groundwater pathway for VOCs.

NS = No Standard

J - Analyte detected below reporting limit

All values in mg/Kg or ppm

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

Table 1 Soil VOC Analytical Results

Sample ID:	NSB1-A	NSB1-B	NSB1-C	NSB2-A	NSB2-B	NSB2-C	NR 720 RCLs*		
Date:	9/16/2018						Groundwater Pathway RCL	Non-Industrial Direct Contact RCL	Industrial Direct Contact RCL
Sampling Depth (ft)	2	8	16	2	8	16			
Depth to GW (ft)	8			8					
VOCs							**mg/Kg**	**mg/Kg**	**mg/Kg**
cis-1,2-Dichloroethene	< 0.0048	< 0.0047	< 0.0046	< 0.0048	< 0.0038	< 0.0042	*0.0412*	*156*	*2040*
Tetrachloroethene	< 0.0048	0.00055 J	**0.017**	< 0.0048	0.00047 J	**0.038**	***0.0045***	*30.7*	*153*
Trichloroethene	< 0.0048	< 0.0047	< 0.0046	< 0.0048	< 0.0038	< 0.0042	*0.0036*	*1.26*	*8.81*
Vinyl chloride	< 0.0048	< 0.0047	< 0.0046	< 0.0048	< 0.0038	< 0.0042	*0.0001*	*0.067*	*2.03*

Notes:

* RCL = Residual Contaminant Level per WDNR Remediation and Redeveopment Program

NR 720 RCLs are generic standards for the groundwater pathway for VOCs.

NS = No Standard

J - Analyte detected below reporting limit

All values in mg/Kg or ppm

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

Table 1 Soil VOC Analytical Results

Sample ID:	NSB3-A	NSB3-B	NSB3-C	NSB4-A	NSB4-B	NSB4-C	NR 720 RCLs*		
Date:	9/16/2018						Groundwater Pathway RCL	Non-Industrial Direct Contact RCL	Industrial Direct Contact RCL
Sampling Depth (ft)	2	8	16	2	8	16			
Depth to GW (ft)	10			8					
VOCs							**mg/Kg**	**mg/Kg**	**mg/Kg**
cis-1,2-Dichloroethene	< 0.0055	< 0.0042	< 0.0041	< 0.0049	< 0.0046	< 0.004	*0.0412*	*156*	*2040*
Tetrachloroethene	0.0017 J	0.00089 J	0.00097 J	0.0026 J	< 0.0046	< 0.004	*0.0045*	*30.7*	*153*
Trichloroethene	< 0.0055	< 0.0042	< 0.0041	< 0.0049	< 0.0046	< 0.004	*0.0036*	*1.26*	*8.81*
Vinyl chloride	< 0.0055	< 0.0042	< 0.0041	< 0.0049	< 0.0046	< 0.004	*0.0001*	*0.067*	*2.03*

Notes:

RCL = Residual Contaminant Level per WDNR Remediation and Redeveopment Program

NR 720 RCLs are generic standards for the groundwater pathway for VOCs.

NS = No Standard

J - Analyte detected below reporting limit

All values in mg/Kg or ppm

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

Table 1 Soil VOC Analytical Results

Sample ID:	NSB5-A	NSB5-B	NSB5-C	NSB6-A	NSB6-B	NSB6-C	NR 720 RCLs*		
Date:	9/16/2018						Groundwater Pathway RCL	Non-Industrial Direct Contact RCL	Industrial Direct Contact RCL
Sampling Depth (ft)	2	8	16	2	8	15			
Depth to GW (ft)	9			9					
VOCs							**mg/Kg**	**mg/Kg**	**mg/Kg**
cis-1,2-Dichloroethene	< 0.0045	< 0.27	< 0.0042	< 0.29	0.0043 J	< 0.006	*0.0412*	*156*	*2040*
Tetrachloroethene	**0.21**	**2.1**	< 0.0042	**6.3**	**1.5**	0.0014 J	***0.0045***	*30.7*	*153*
Trichloroethene	< 0.0045	**0.053 J**	< 0.0042	**0.75**	**0.06**	< 0.006	***0.0036***	*1.26*	*8.81*
Vinyl chloride	< 0.0045	< 0.27	< 0.0042	< 0.29	0.0027 J	< 0.006	*0.0001*	*0.067*	*2.03*

Notes:

* RCL = Residual Contaminant Level per WDNR Remediation and Redeveopment Program

NR 720 RCLs are generic standards for the groundwater pathway for VOCs.

NS = No Standard

J - Analyte detected below reporting limit

All values in mg/Kg or ppm

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

Table 1 Soil VOC Analytical Results

Sample ID:	NSB7-A	NSB7-B	NSB7-C	NSB8-A	NSB8-B	NSB8-C	NR 720 RCLs*		
Date:	9/16/2018						Groundwater Pathway RCL	Non-Industrial Direct Contact RCL	Industrial Direct Contact RCL
Sampling Depth (ft)	2	8	16	2	8	16			
Depth to GW (ft)	6			8					
VOCs							**mg/Kg**	**mg/Kg**	**mg/Kg**
cis-1,2-Dichloroethene	< 0.0042	< 0.0045	< 0.0049	< 0.0043	< 0.0052	< 0.0046	*0.0412*	*156*	*2040*
Tetrachloroethene	0.0042 J	< 0.011	< 0.0049	< 0.0043	< 0.0052	< 0.0046	*0.0045*	*30.7*	*153*
Trichloroethene	< 0.0042	< 0.0045	< 0.0049	< 0.0043	0.0022 J	< 0.0046	*0.0036*	*1.26*	*8.81*
Vinyl chloride	< 0.0042	< 0.0045	< 0.0049	< 0.0043	< 0.0052	< 0.0046	*0.0001*	*0.067*	*2.03*

Notes:

* RCL = Residual Contaminant Level per WDNR Remediation and Redeveopment Program

NR 720 RCLs are generic standards for the groundwater pathway for VOCs.

NS = No Standard

J - Analyte detected below reporting limit

All values in mg/Kg or ppm

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

Table 1 Soil VOC Analytical Results

Sample ID:	NSB9-A	NSB9-B	NSB9-C	NSB10-A	NSB10-B	NSB10-C	NR 720 RCLs*		
Date:	9/16/2018						Groundwater Pathway RCL	Non-Industrial Direct Contact RCL	Industrial Direct Contact RCL
Sampling Depth (ft)	2	8	16	2	6	15			
Depth to GW (ft)	8			6					
VOCs							**mg/Kg**	**mg/Kg**	**mg/Kg**
cis-1,2-Dichloroethene	< 0.005	0.008	< 0.0041	< 0.0048	< 0.0046	< 0.0043	*0.0412*	*156*	*2040*
Tetrachloroethene	**0.014**	< 0.0052	< 0.0041	**1.4**	**0.16**	< 0.0043	***0.0045***	*30.7*	*153*
Trichloroethene	< 0.005	**0.0049 J**	< 0.0041	**0.019**	**0.013**	< 0.0043	***0.0036***	*1.26*	*8.81*
Vinyl chloride	< 0.005	< 0.0052	< 0.0041	< 0.0048	< 0.0046	< 0.0043	*0.0001*	*0.067*	*2.03*

Notes:

* RCL = Residual Contaminant Level per WDNR Remediation and Redeveopment Program

NR 720 RCLs are generic standards for the groundwater pathway for VOCs.

NS = No Standard

J - Analyte detected below reporting limit

All values in mg/Kg or ppm

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

Table 1 Soil VOC Analytical Results

Sample ID:	NSB11-A	NSB11-B	NSB11-C	NSB12-A	NSB12-B	NSB12-C	NR 720 RCLs*		
Date:	9/16/2018						Groundwater Pathway RCL	Non-Industrial Direct Contact RCL	Industrial Direct Contact RCL
Sampling Depth (ft)	2	6	15	2	6	15			
Depth to GW (ft)	6			6					
VOCs							**mg/Kg**	**mg/Kg**	**mg/Kg**
cis-1,2-Dichloroethene	< 0.0048	< 0.0046	< 0.0049	< 0.0042	< 0.0047	< 0.0037	*0.0412*	*156*	*2040*
Tetrachloroethene	**0.067**	**0.22**	< 0.0049	< 0.0042	**0.027**	< 0.0037	***0.0045***	*30.7*	*153*
Trichloroethene	< 0.0048	< 0.0046	< 0.0049	< 0.0042	< 0.0047	< 0.0037	*0.0036*	*1.26*	*8.81*
Vinyl chloride	< 0.0048	< 0.0046	< 0.0049	< 0.0042	< 0.0047	< 0.0037	*0.0001*	*0.067*	*2.03*

Notes:

* RCL = Residual Contaminant Level per WDNR Remediation and Redeveopment Program

NR 720 RCLs are generic standards for the groundwater pathway for VOCs.

NS = No Standard

J - Analyte detected below reporting limit

All values in mg/Kg or ppm

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

Table 2 Groundwater VOC Analytical Results

Sample ID:	MW1	MW1-D	MW2	MW3	MW4	MW5	MW6	MW-TB	Groundwater Quality Standards	
Date:	9/19//2018							9/18/2018	NR 140 ES	NR 140 PAL
Depth to Water (ft):	8	8	8	9	8	6	6			
VOCs									µg/L	µg/L
cis-1,2-Dichloroethene	< 5	< 5	0.69	< 5	< 5	**26**	**8.6**	< 5	*70*	***7***
Tetrachloroethene	< 5	< 5	**6.3**	< 5	< 5	**160**	**110**	< 5	***5***	***0.5***
Trichloroethene	< 5	< 5	< 5	< 5	< 5	**70**	**11**	< 5	***5***	***0.5***
Vinyl chloride	< 2	< 2	< 2	< 2	< 2	**38**	**3.3**	< 2	***0.2***	***0.02***

Notes:

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

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

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

NS = No Standard

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

J - Analyte detected below reporting limit

All values in µg/L

Table 3 Vapor VOC Analytical Results

Sample ID:	SV3	SV3-D	SV1	SV2	SV4	SV5	Indoor Air Vapor Action Levels (VAL)*		Sub-Slab Vapor Risk Screening Levels (VRSL)*	
Sampling Date:	9/16//2018		9/19/2018				**Residential**	**Small Commercial**	**Residential**	**Small Commercial**
VOCs							**mg/m³**	**mg/m³**	**mg/m³**	**mg/m³**
cis-1,2-Dichloroethene	< 0.0029	< 0.0066	< 0.0027	< 0.0029	< 0.0030	< 0.0056	*NS*	*NS*	*NS*	*NS*
Tetrachloroethene	**0.3**	**0.3**	0.017	**1.2**	0.052	0.063	***0.0417***	***0.175***	*1.39*	*5.84*
Trichloroethene	**0.0042**	**0.0036 J**	< 0.0037	0.10	< 0.0041	< 0.0077	***0.00209***	*0.00876*	*0.0695*	*0.292*
Vinyl chloride	< 0.0018	< 0.0041	< 0.0017	< 0.0018	< 0.0019	< 0.0035	*0.00168*	*0.0279*	*0.0559*	*0.929*

Notes:

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

J - Analyte detected below reporting limit

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

All values in mg/m³

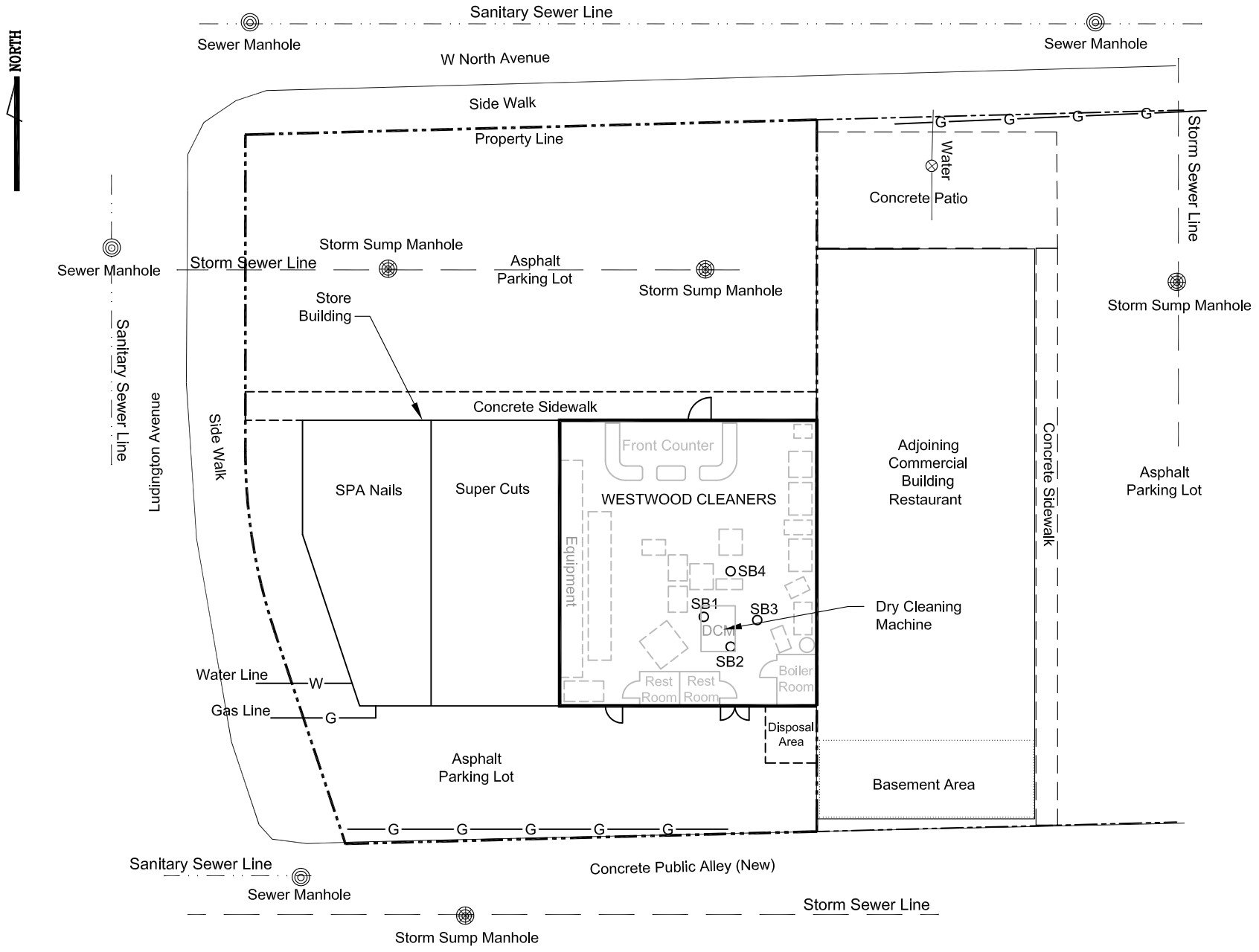
NS = No Standard

NV = Not Volatile

FIGURES

Figure 1 Site Vicinity Map

WDNR BRRTS #02-41-552537/Milwaukee County
Westwood Cleaners
8751 W. North Avenue, Wauwatosa, WI 53226



SITE NAME	Westwood Dry Cleaners (#02-41-552537)	FIGURE NO.	2
FIGURE NAME	Site Map with Utility Lines		
ADDRESS	8731 West North Avenue, Wauwatosa, WI 53226		

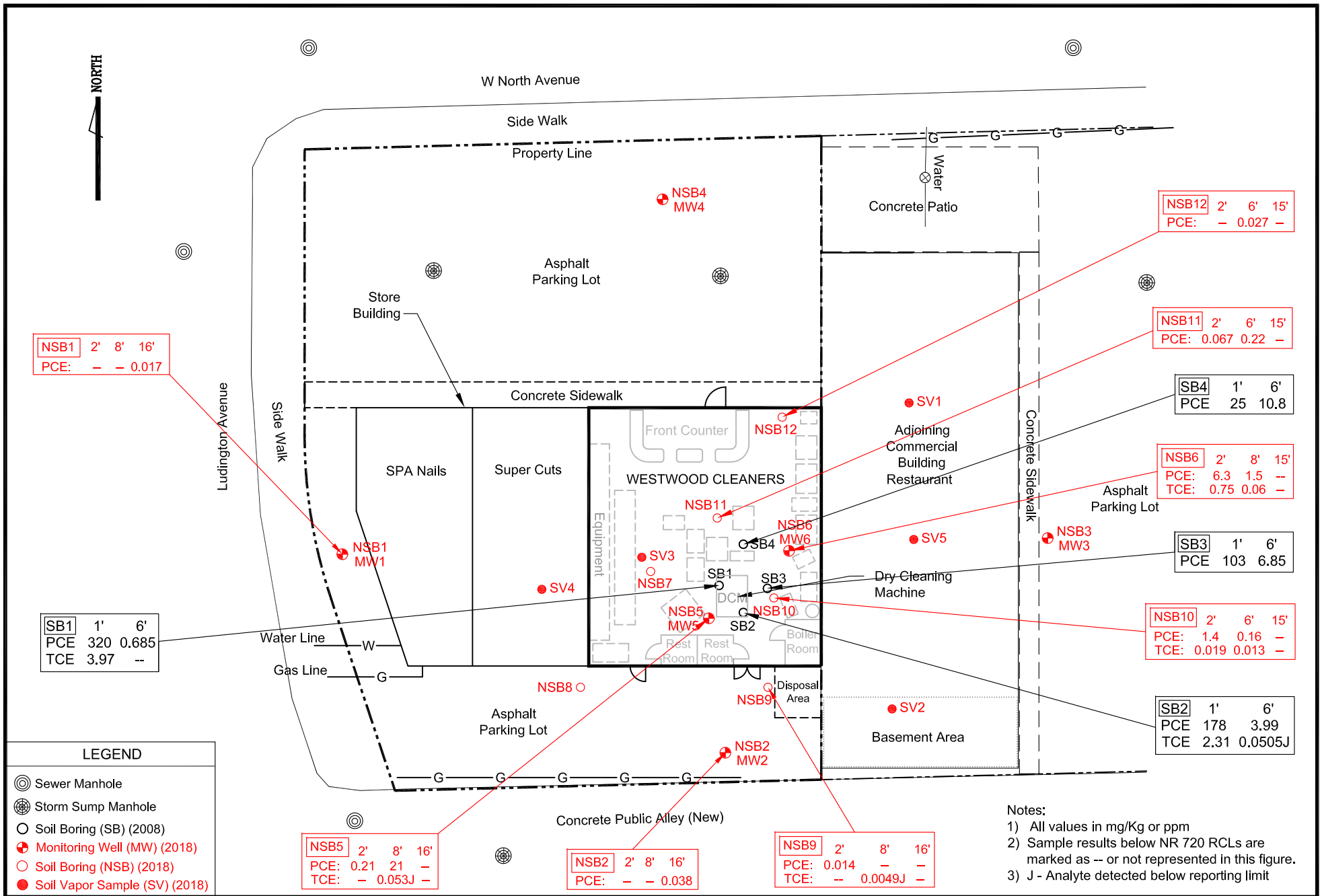
SCALE

0 25' 50'

HYDRODYNAMICS CONSULTANTS, INC.

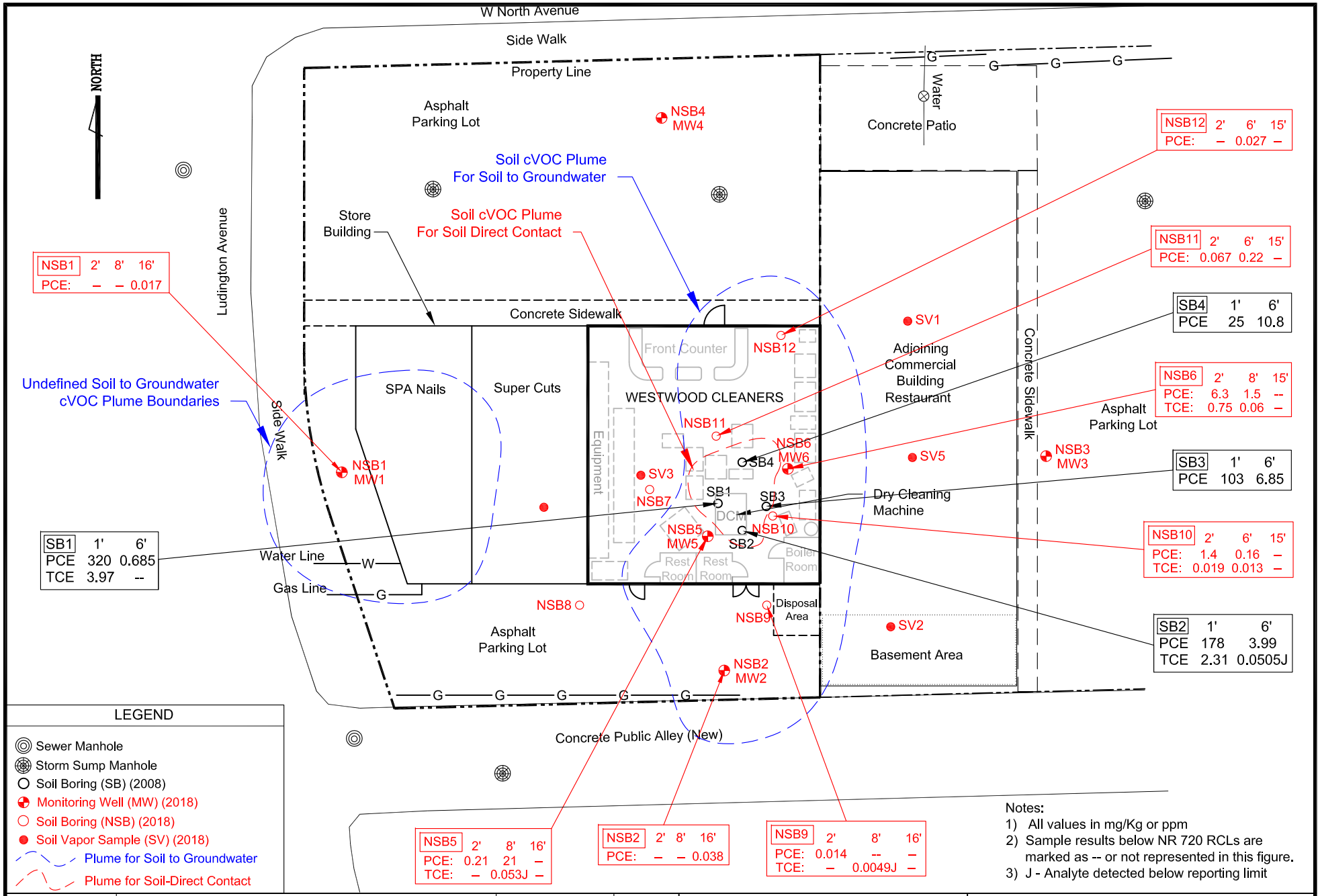
5403 Patton Dr. Unit 215, Lisle, IL 60532

Tel: (630) 724-0098, HydrodynamicsConsultants.com



SITE NAME	Westwood Dry Cleaners (#02-41-552537)	FIGURE NO.	3
FIGURE NAME	Soil cVOC Distribution Map	SCALE	0 25' 50'
ADDRESS	8731 West North Avenue, Wauwatosa, WI 53226		

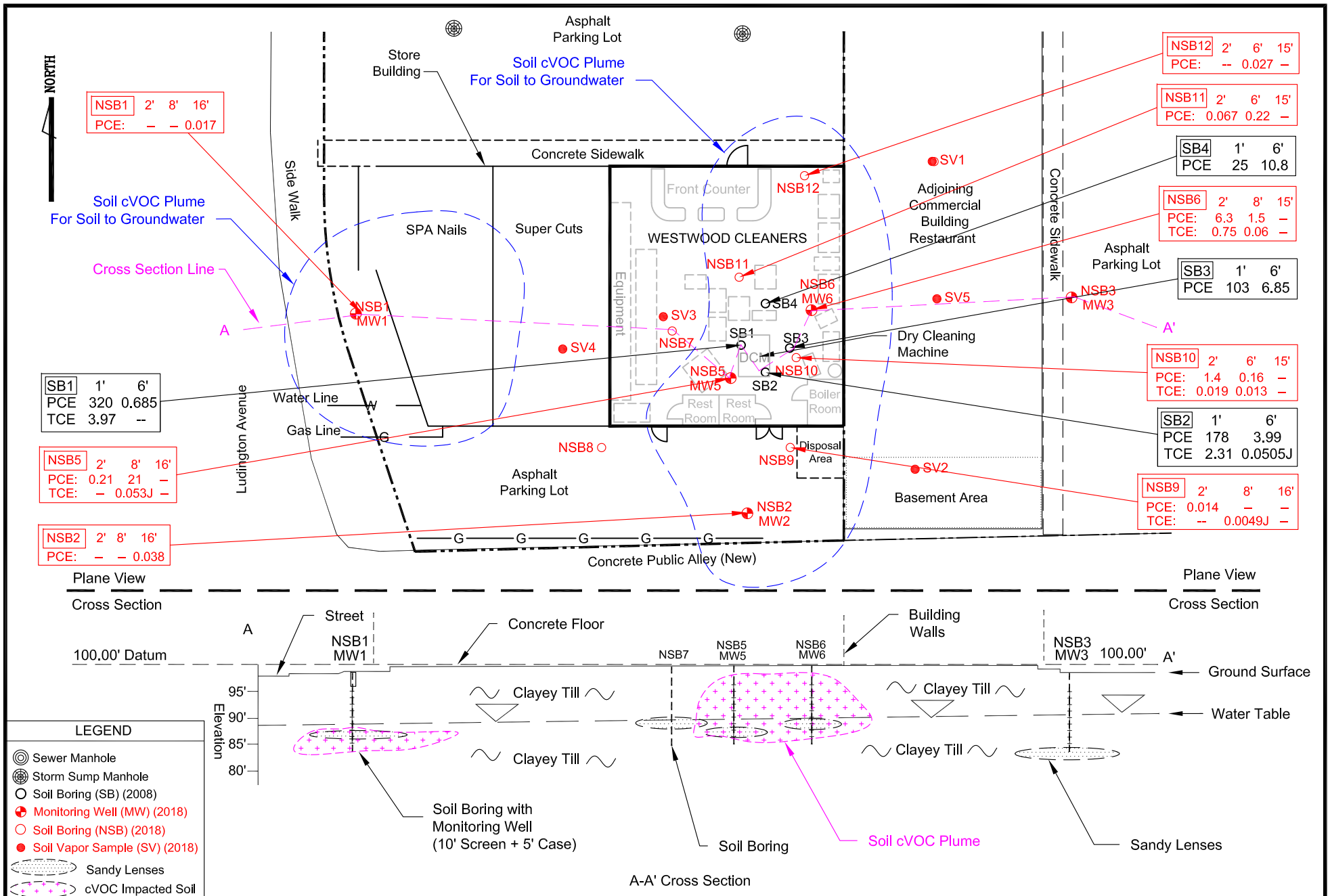
HYDRODYNAMICS CONSULTANTS, INC.
5403 Patton Dr. Unit 215, Lisle, IL 60532
Tel: (630) 724-0098, HydrodynamicsConsultants.com



SITE NAME	Westwood Dry Cleaners (#02-41-552537)	FIGURE NO.	3a
FIGURE NAME	Soil cVOC Isoconcentration Plume Map		
ADDRESS	8731 West North Avenue, Wauwatosa, WI 53226		

SCALE
0 25' 50'

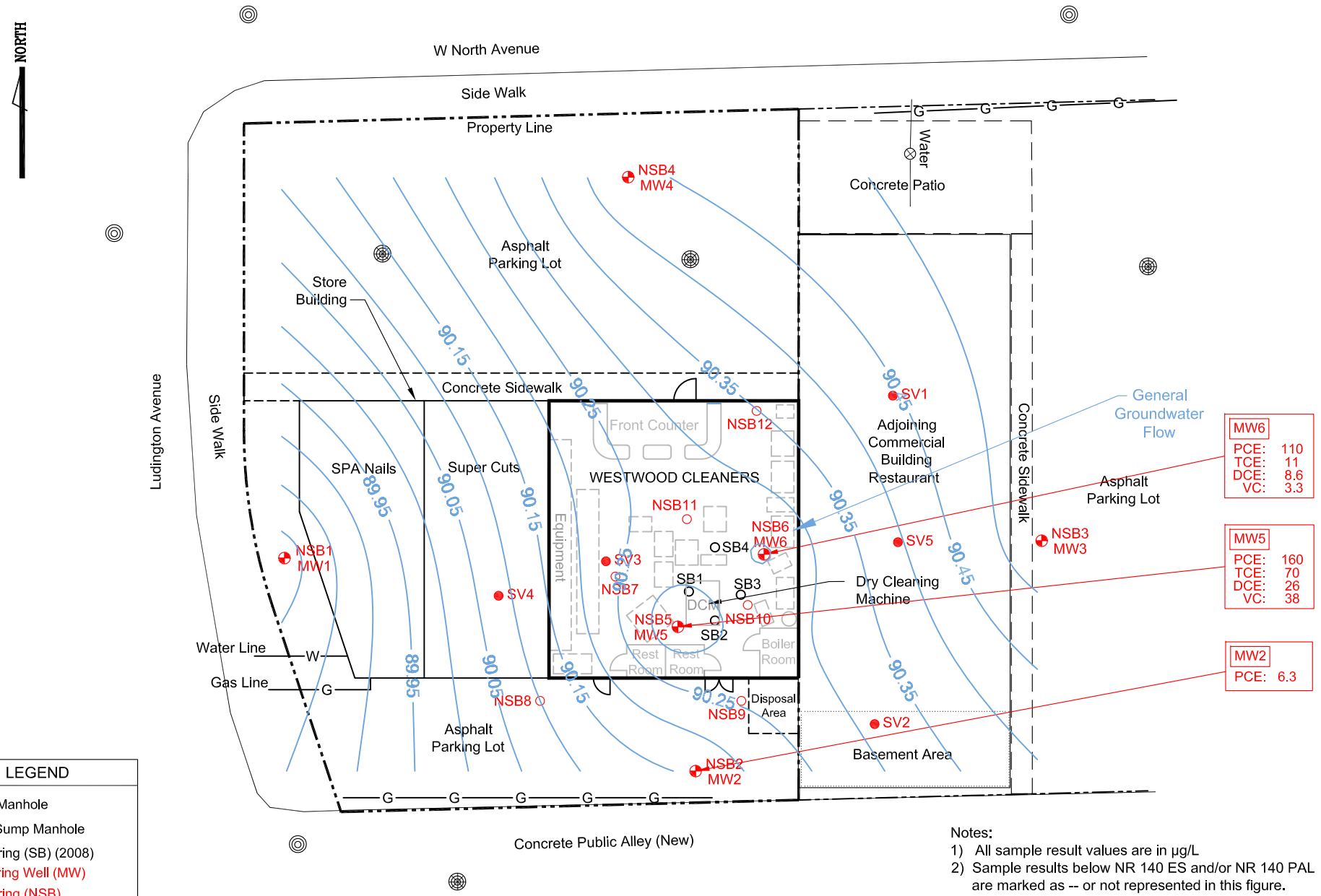
HYDRODYNAMICS CONSULTANTS, INC.
5403 Patton Dr. Unit 215, Lisle, IL 60532
Tel: (630) 724-0098, HydrodynamicsConsultants.com



SITE NAME	Westwood Dry Cleaners (#02-41-552537)	FIGURE NO.	3b
FIGURE NAME	Soil cVOC & Geological Cross Section		
ADDRESS	8731 West North Avenue, Wauwatosa, WI 53226		

SCALE
0 25' 50'

HYDRODYNAMICS CONSULTANTS, INC.
5403 Patton Dr. Unit 215, Lisle, IL 60532
Tel: (630) 724-0098, HydrodynamicsConsultants.com

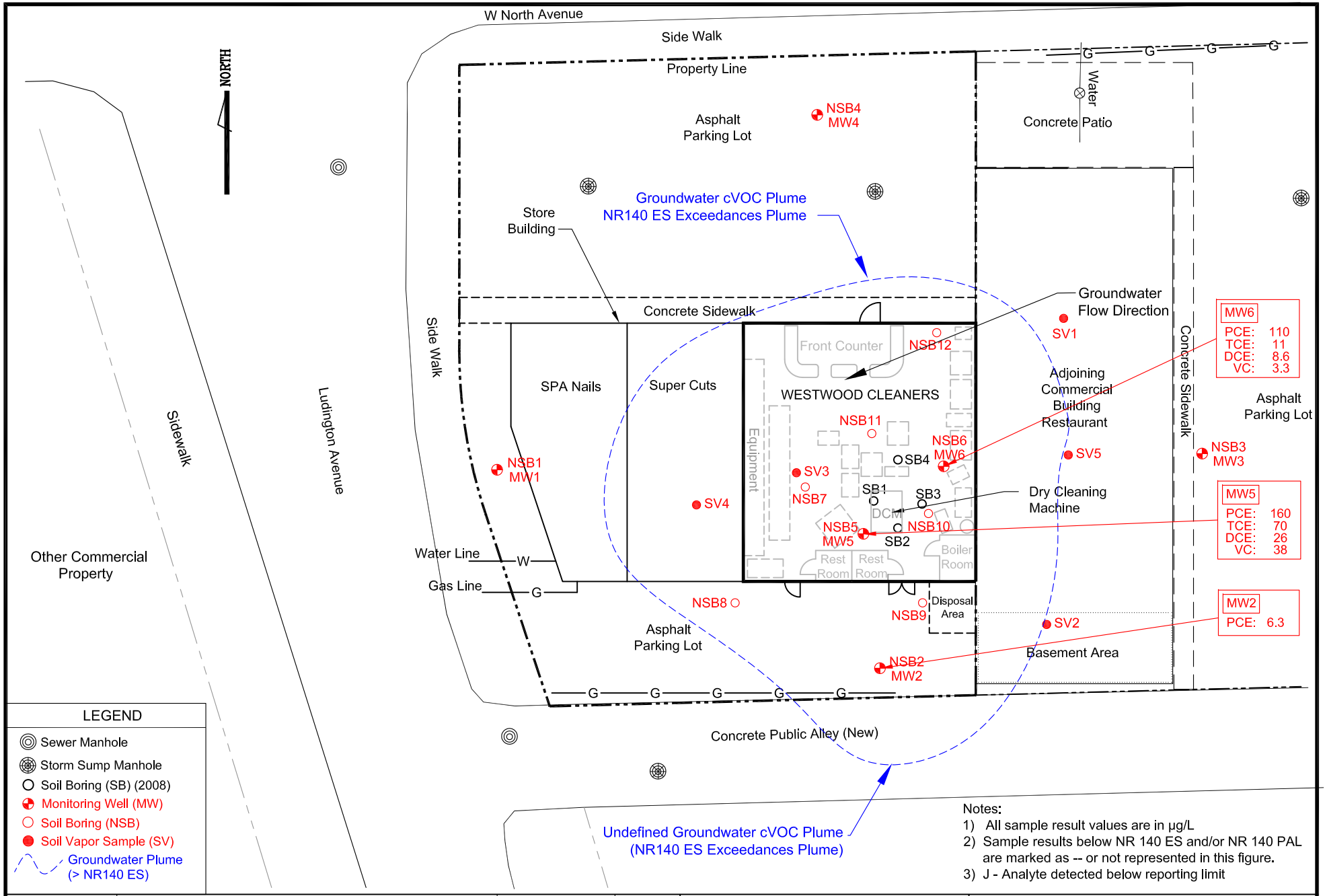


Notes:
1) All sample result values are in µg/L
2) Sample results below NR 140 ES and/or NR 140 PAL are marked as -- or not represented in this figure.
3) J - Analyte detected below reporting limit

SITE NAME	Westwood Dry Cleaners (#02-41-552537)	FIGURE NO.	4
FIGURE NAME	Groundwater cVOC Distribution Map		
ADDRESS	8731 West North Avenue, Wauwatosa, WI 53226		

SCALE
0 25' 50'

HYDRODYNAMICS CONSULTANTS, INC.
5403 Patton Dr. Unit 215, Lisle, IL 60532
Tel: (630) 724-0098, HydrodynamicsConsultants.com



SITE NAME	Westwood Dry Cleaners (#02-41-552537)	FIGURE NO.	4a
FIGURE NAME	Groundwater cVOC Distribution Map		
ADDRESS	8731 West North Avenue, Wauwatosa, WI 53226		

SCALE

0 25' 50'

HYDRODYNAMICS CONSULTANTS, INC.

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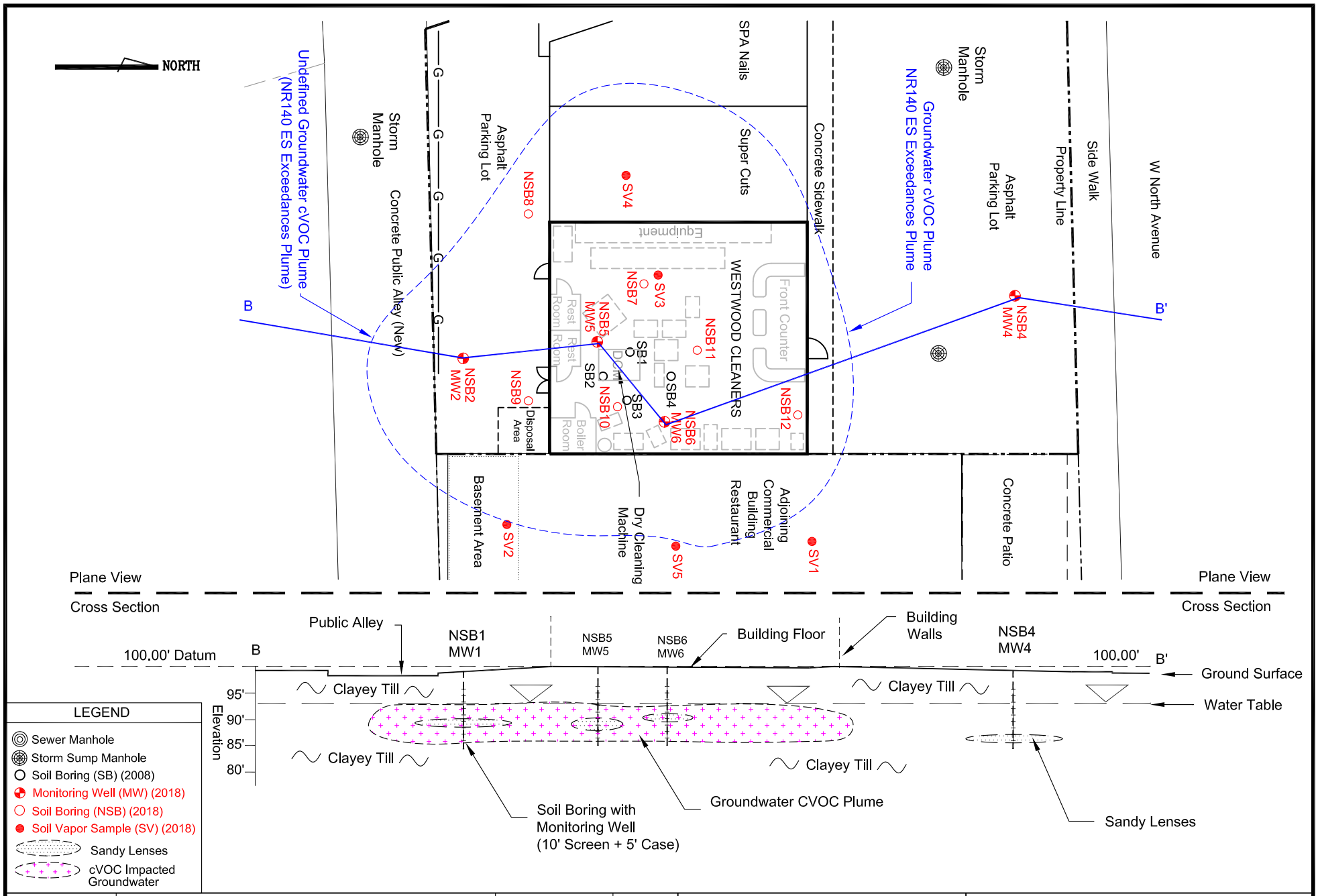
Tel: (630) 724-0098, HydrodynamicsConsultants.com



SITE NAME	Westwood Dry Cleaners (#02-41-552537)	FIGURE NO.	4b
FIGURE NAME	B-B' Groundwater cVOC & Geological Cross Section		
ADDRESS	8731 West North Avenue, Wauwatosa, WI 53226		

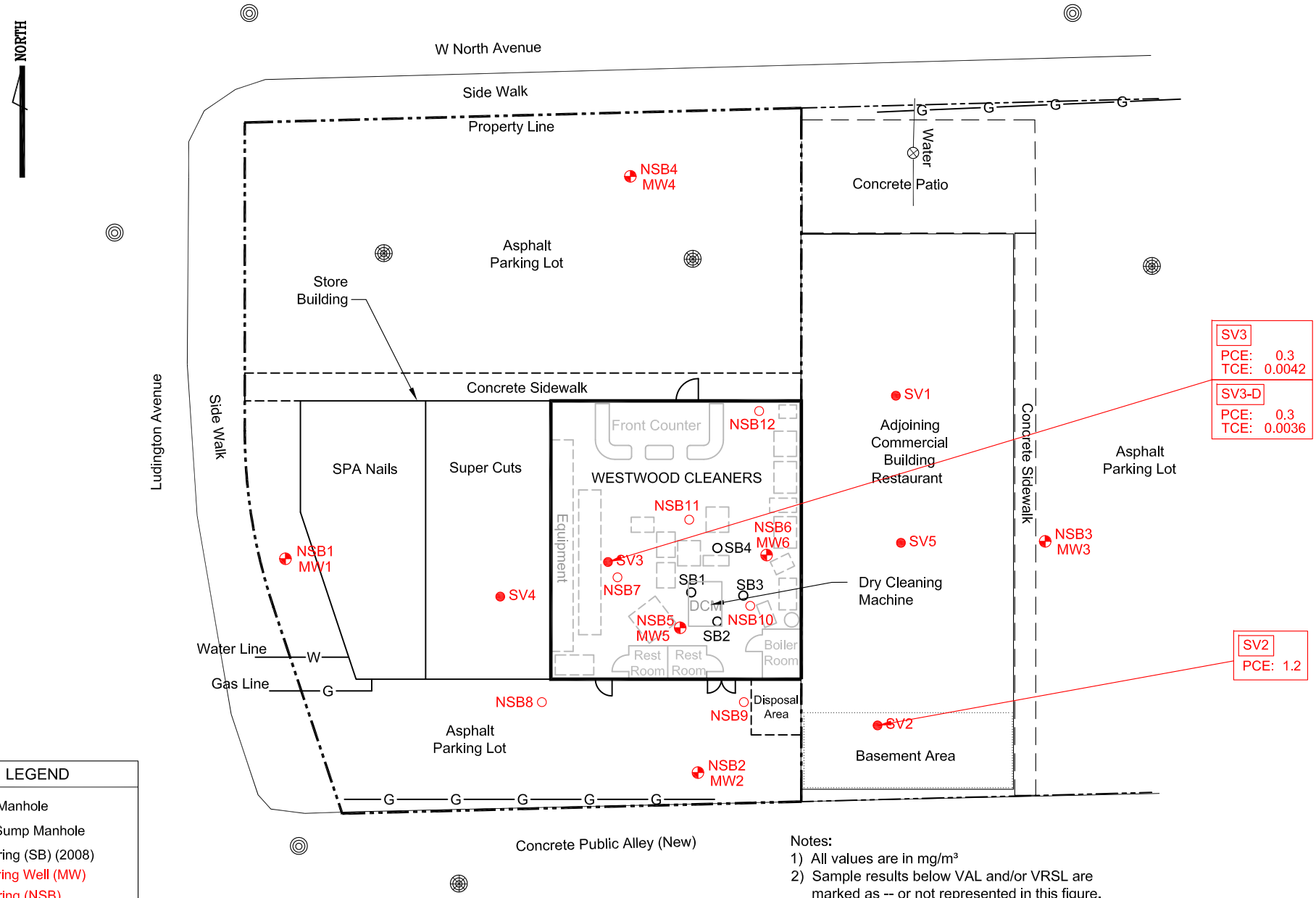
SCALE

0 25' 50'

HYDRODYNAMICS CONSULTANTS, INC.

5403 Patton Dr. Unit 215, Lisle, IL 60532

Tel: (630) 724-0098, HydrodynamicsConsultants.com



LEGEND

- Sewer Manhole
- Storm Sump Manhole
- Soil Boring (SB) (2008)
- Monitoring Well (MW)
- Soil Boring (NSB)
- Soil Vapor Sample (SV)

Notes:

1) All values are in mg/m³
2) Sample results below VAL and/or VRSL are marked as -- or not represented in this figure.
3) All the results are below the Sub-Slab VRSL for Small Commercial Property

SITE NAME	Westwood Dry Cleaners (#02-41-552537)	FIGURE NO.	5
FIGURE NAME	Sub-Slab Vapor cVOC Distribution Map		
ADDRESS	8731 West North Avenue, Wauwatosa, WI 53226		

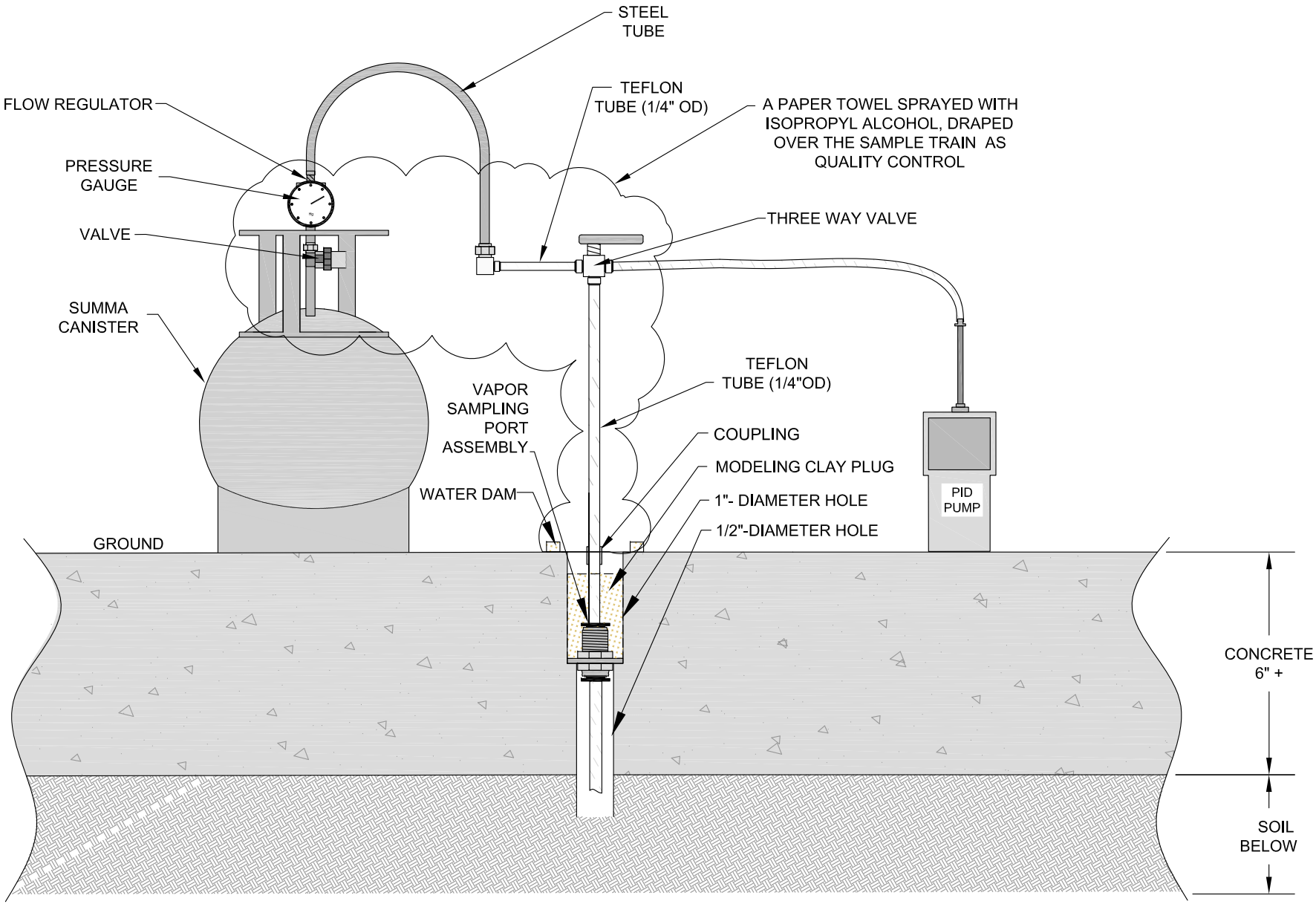
SCALE

0 25' 50'

HYDRODYNAMICS CONSULTANTS, INC.

5403 Patton Dr. Unit 215, Lisle, IL 60532

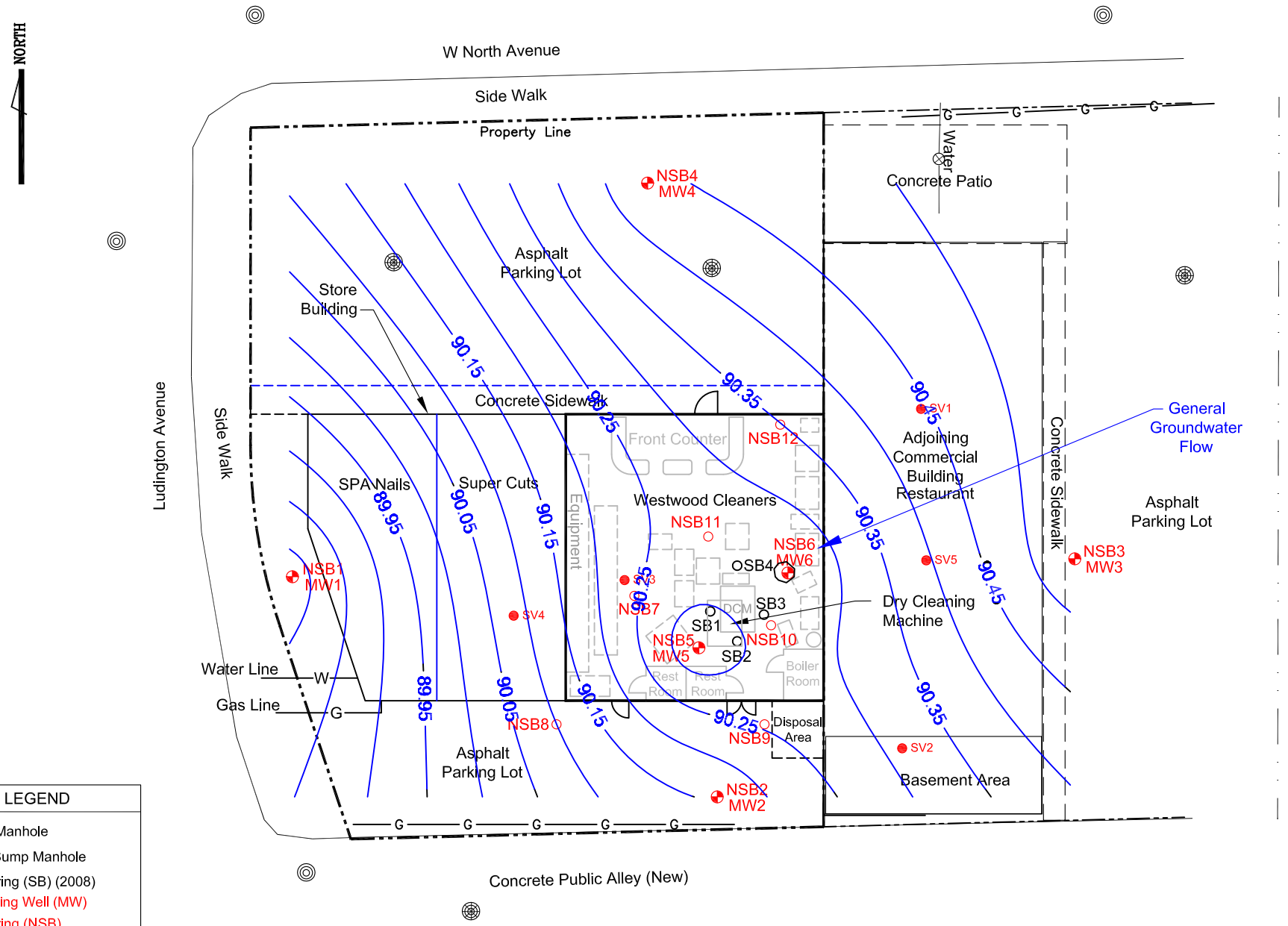
Tel: (630) 724-0098, HydrodynamicsConsultants.com



SITE NAME	North Suburban Cleaners	FIGURE NO.	5a
FIGURE NAME	Sub-Slab Soil Gas Sampling Diagram		
ADDRESS	7620-7622 Dempster St. Morton Grove, IL 60053		

NOT TO SCALE

HYDRODYNAMICS CONSULTANTS, INC.
5403 Patton Dr. Unit 215, Lisle, IL 60532
Tel: (630) 724-0098



LEGEND
Sewer Manhole
Storm Sump Manhole
Soil Boring (SB) (2008)
Monitoring Well (MW)
Soil Boring (NSB)
Soil Vapor Sample (SV)

SITE NAME	Westwood Dry Cleaners (#02-41-552537)	FIGURE NO.	6
FIGURE NAME	Groundwater Table Contour Map		
ADDRESS	8731 West North Avenue, Wauwatosa, WI 53226		

SCALE

0 25' 50'

HYDRODYNAMICS CONSULTANTS, INC.

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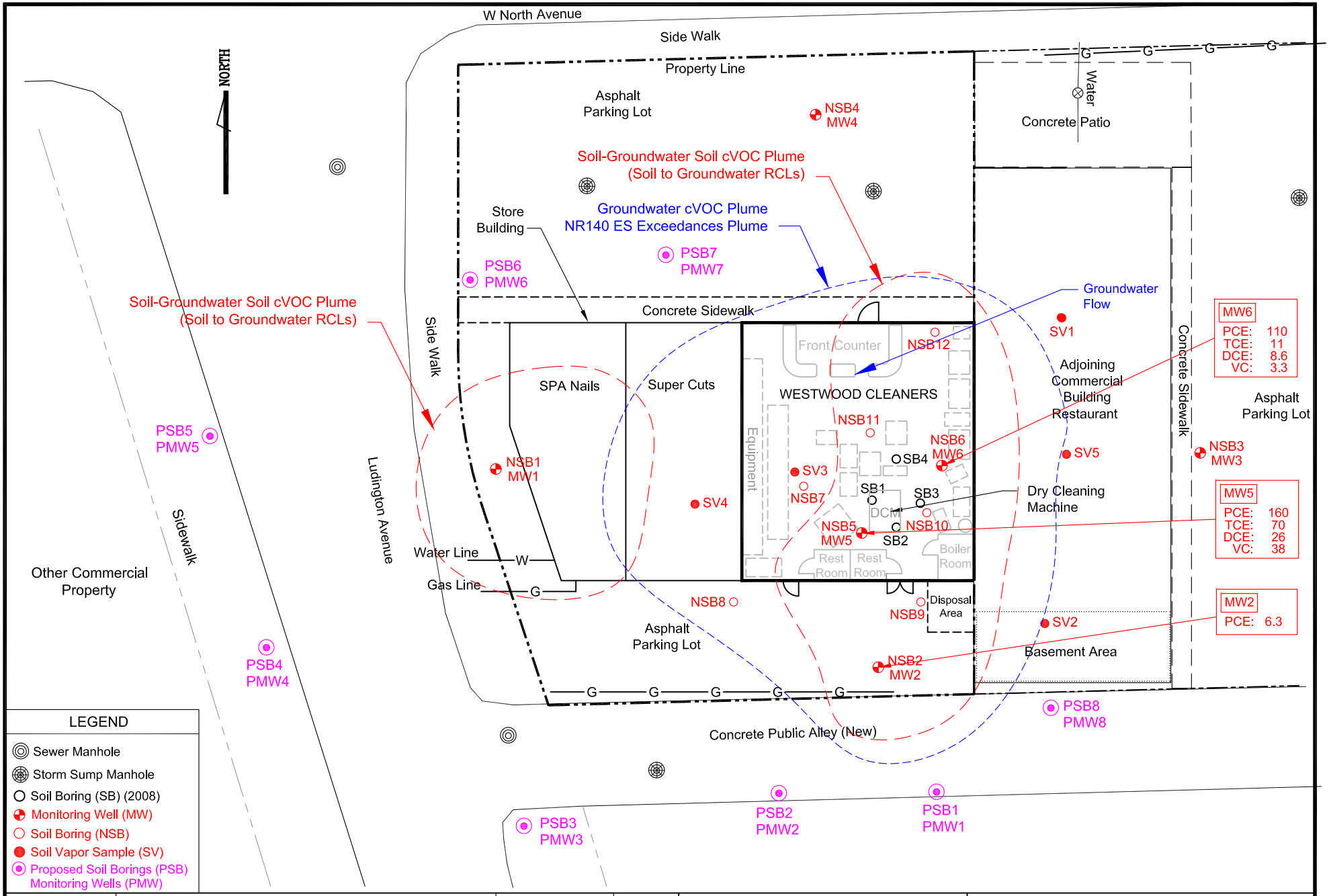
Tel: (630) 724-0098, HydrodynamicsConsultants.com



SITE NAME	Westwood Dry Cleaners (#02-41-552537)	FIGURE NO.	7
FIGURE NAME	Proposed Additional Soil Boring and Monitoring Well Location Map		
ADDRESS	8731 West North Avenue, Wauwatosa, WI 53226		

SCALE

0 25' 50'

HYDRODYNAMICS CONSULTANTS, INC.

5403 Patton Dr. Unit 215, Lisle, IL 60532

Tel: (630) 724-0098, HydrodynamicsConsultants.com

APPENDIX I
SITE INVESTIGATION PHOTOS

Site Investigation Photos

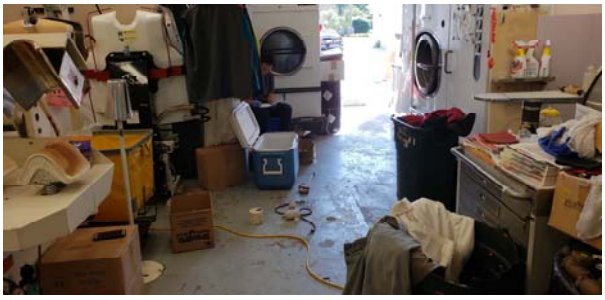
North Side of the Strip Mall Building

South and West Sides of the Strip Mall Building

Front View (North Side) of the Drycleaning Store

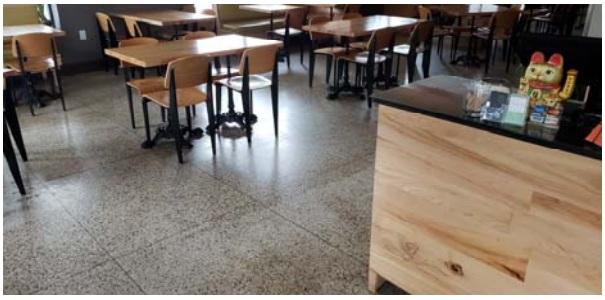
Back View (South Side) of the Drycleaning Store

Interior of Westwood Cleaners



Interior of Westwood Cleaners

Parking Lot in the Neighboring Restaurant Property



Interior View of the Neighboring Restaurant Property

Sub-Slab Vapor Sampling Port Installation

Sub-Slab Vapor Sampling Port Installation

Installation of Modeling Clay Sealing in Vapor Sampling Port

Connecting Vapor Sampling Train

Sub-Slab Vapor Sampling Train Assembled & Ready for Spraying of Isopropyl Alcohol

Sub-Slab Vapor Sampling Train Covered with Paper Towels Sprayed with Isopropyl Alcohol

Concrete Coring for Soil Borings/Wells

Boring with Probes

Indoor Soil Boring with Probing

Soil Core Head-Space VOC Testing with PID

Installation of Soil Borings with Probing

Installation of Monitoring Wells

Placement of Pressure Transducer/Data Logger for Slug Test

Connecting the Data Logger to Computer to Record the Water Level Change inside the Well after One Large Bailer of Water was Suddenly Removed from the Well

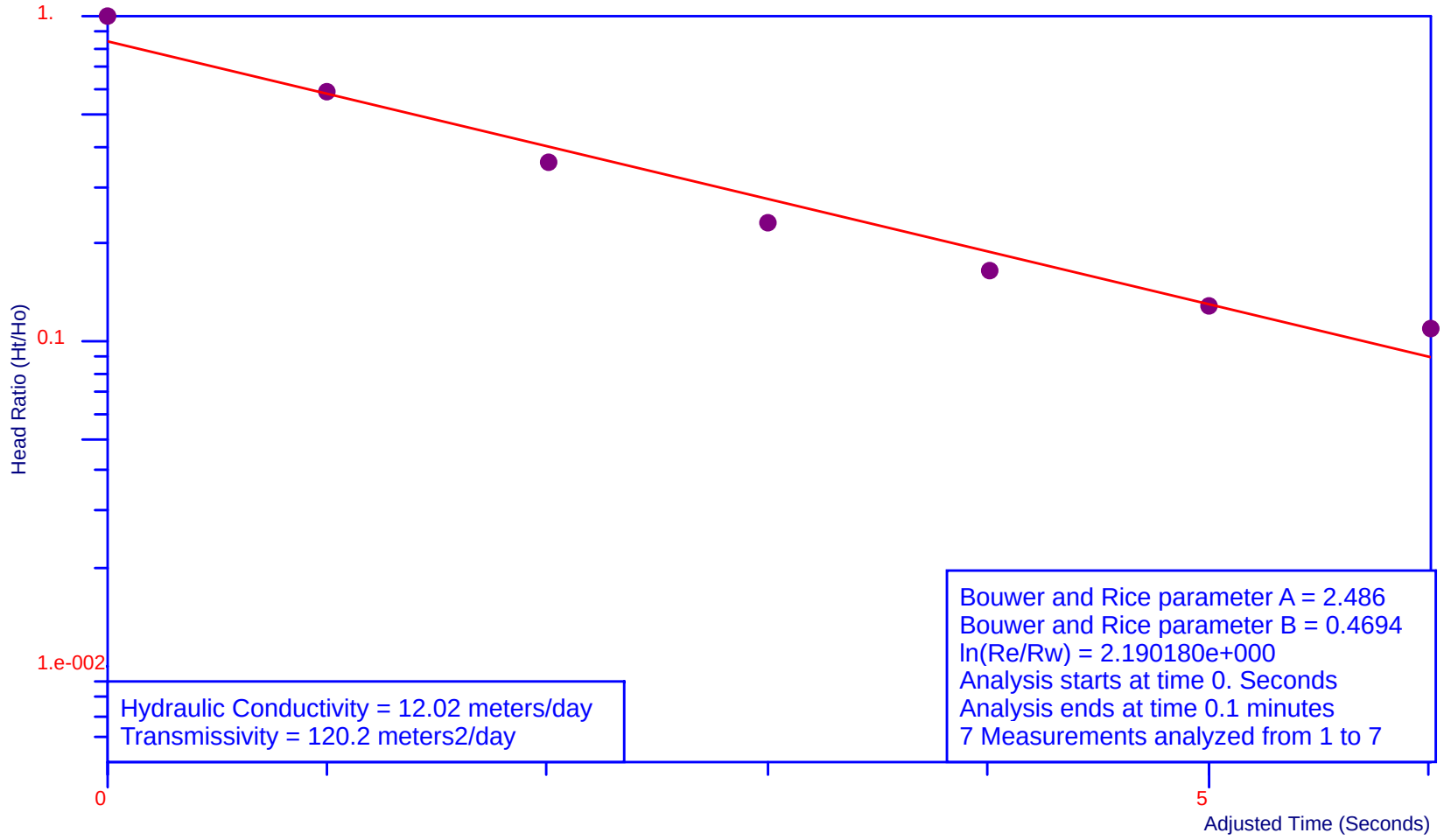
APPENDIX II
SLUG TEST RESULTS

Slug Test Results at MW1 9/19/2018

Bouwer and Rice Graph

Westwood Cleaners 8731 West North Avenue

MW1



Analysis by Starpoint Software

Ho is 0.2694 Meters at 0. Seconds

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:	MW1
Aquifer Thickness:	10. Meters
Screen Length:	1.912 Meters
Casing Radius:	2.5e-002 Meters
Effective 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

Slug Test Interpretations

The hydraulic conductivity (K) is obtained using the time-drawdown (or water table recovery) data recorded in the transducer placed in the bottom of the testing well during the slug tests, after a slug (submerged in well water) is suddenly removed from the well. The following Bouwer and Rice formula are used for the K calculation:

$$\ln(Re/Rw) = [1.1/\ln(Lw/Rw) + C/(Le/Rw]^{-1}$$

$$K = Rc^2\{\ln(Re/Rw)\}/[2Le\ln(y0/yt)] \text{ m/second}$$

The slug test time-drawdown (or recovery) data together with site-specific well data are input in a commercial software, Super Slug to plot and generate the hydraulic conductivity from that well. The site-specific data include the following:

R_w = xx meter, Radius of borehole.

R_c = xx meter, Radius of well casing.

L_w = xx meter, Length between the initial water table to the bottom of well.

Le = xx meter, Length of screen of well under water table. (=L_w in this case)

H = xx m, assumed initial aquifer thickness. Because the partial penetration thickness is much smaller than the full thickness of the aquifer, 10 meter assumption can provide sufficiently accuracy for K value.

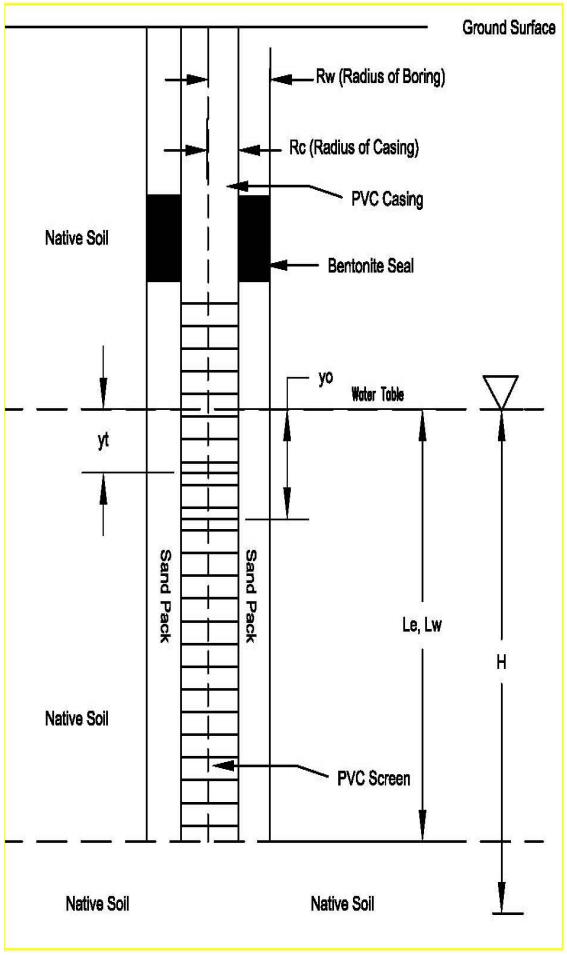
Y0 = initial drawdown (xx meter).

Yt = drawdown at time t (from slug test measurements).

C = Constant.

Re = Effective radius.

Illustration of Well Diagram



APPENDIX III
SOIL BORINGS LOGS WITH FIELD PID READINGS

SOIL BORING LOG INFORMATION

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:	Finish Date:	Drilling Method:
Firm: Hydrodynamics Consultants, Inc.	9/16/2018	9/16/2018	GeoProbe

WI Unique Well No.:	DNR Well ID No.:	Well Name:	Final Static Water Level:	Surface Elevation: 98.49 *
			8.72 Feet SD	*(100 ft. Site Datum (SD)* = 750 ft. MSL)*

Local Grid Origin ☐ Estimated ☑ or Boring Location ☐		Local Grid Location:
State Plan _____ N, _____ E	Lat 43 ° 03 ' 36.9N "	☐ N ☐ E
NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21	Long 88 ° 01 ' 19.30W "	____ Feet ☐ S ____ Feet ☐ W

Facility ID:	County:	County Code:	Civil Town/City/or Village:
241836100	Milwaukee	41	Wauwatosa

Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment Description	USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	80	0	Grass				Concrete (0-1.0')	
		1	Black topsoil, medium stiff, moist	TO				
NSB1-A		2					1" PVC Case (0-5.0')	0
		3	Brown clay, medium stiff, moist	CL			Bentonite (1-3.0')	
	92	4					Fine Sand (3-4.0')	0
		5						
		6						0.4
		7					1" PVC Screen (5-15.0')	
NSB1-B	95	8					▼	1.4
		9						
		10					Sand Pack (4'-16')	1
		11						
	95	12						1.1
		13	Silty gray sand & gravels, wet	GM				
		14	Silty gray clay, medium stiff, wet	CL				0.1
		15						
NSB1-C		16	End of Boring					0.1
		17						
		18						

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

Signature: Mike (Minghua) Wan, PE

Firm: Hydrodynamics Consultants, Inc.

SOIL BORING LOG INFORMATION

Project Name:	License/Permit/Monitoring No.:	Boring/Well Log Number:
Westwood Cleaners, BRRTS # 02-41-552537		NSB2/MW2

Boring Drilled By: Yinong Han	Start Date:	Finish Date:	Drilling Method:
Firm: Hydrodynamics Consultants, Inc.	9/16/2018	9/16/2018	GeoProbe

WI Unique Well No.:	DNR Well ID No.:	Well Name:	Final Static Water Level:	Surface Elevation: 99.12 *
			8.97 Feet SD	*(100 ft. Site Datum (SD)* = 750 ft. MSL)*

Local Grid Origin ☐ Estimated ☑ or Boring Location ☐		Local Grid Location:
State Plan _____ N, _____ E	Lat 43 ° 03 ' 36.9N "	☐ N ☐ E
NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21	Long 88 ° 01 ' 19.30W "	____ Feet ☐ S ____ Feet ☐ W

Facility ID:	County:	County Code:	Civil Town/City/or Village:
241836100	Milwaukee	41	Wauwatosa

Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment Description	USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	90	0	Asphalt & gravels				Concrete (0-1.0')	
		1	Brown clay, medium stiff, moist	CL				
NSB2-A		2					1" PVC Case (0-5.0')	0
		3					Bentonite (1-3.0')	
	90	4					Fine Sand (3-4.0')	0
		5						
		6						0
		7					1" PVC Screen (5-15.0')	
NSB2-B	98	8	Moist to wet				▼	0
		9	Silty gray clay, medium stiff, wet	CL				
		10					Sand Pack (4'-16')	0
		11	Silty gray sand & gravels, wet	GM				
	100	12	Silty gray clay, medium stiff, wet	CL				0
		13						
		14						0
		15						
NSB2-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: Mike (Minghua) Wan, PE

Firm: Hydrodynamics Consultants, Inc.

SOIL BORING LOG INFORMATION

Project Name:	License/Permit/Monitoring No.:	Boring/Well Log Number:
Westwood Cleaners, BRRTS # 02-41-552537		NSB3/MW3

Boring Drilled By: Yinong Han	Start Date:	Finish Date:	Drilling Method:
Firm: Hydrodynamics Consultants, Inc.	9/16/2018	9/16/2018	GeoProbe

WI Unique Well No.:	DNR Well ID No.:	Well Name:	Final Static Water Level:	Surface Elevation: 100.76 *
			10.23 Feet SD	*(100 ft. Site Datum (SD)* = 750 ft. MSL)*

Local Grid Origin ☐ Estimated ☑ or Boring Location ☐		Local Grid Location:
State Plan _____ N, _____ E	Lat 43 ° 03 ' 36.9N "	☐ N ☐ E
NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21	Long 88 ° 01 ' 19.30W "	____ Feet ☐ S ____ Feet ☐ W

Facility ID:	County:	County Code:	Civil Town/City/or Village:
241836100	Milwaukee	41	Wauwatosa

Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment Description	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, moist	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, medium stiff, wet	CL				0
		9	Moist to wet					
		10					▼	0
		11					Sand Pack (4'-16')	
	95	12						0
		13						
		14						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 form is true and correct to the best of my knowledge.

Signature: Mike (Minghua) Wan, PE

Firm: Hydrodynamics Consultants, Inc.

SOIL BORING LOG INFORMATION

Project Name:	License/Permit/Monitoring No.:	Boring/Well Log Number:
Westwood Cleaners, BRRTS # 02-41-552537		NSB4/MW4

Boring Drilled By: Yinong Han	Start Date:	Finish Date:	Drilling Method:
Firm: Hydrodynamics Consultants, Inc.	9/16/2018	9/16/2018	GeoProbe

WI Unique Well No.:	DNR Well ID No.:	Well Name:	Final Static Water Level:	Surface Elevation: 98.88 *
			8.44 Feet SD	*(100 ft. Site Datum (SD)* = 750 ft. MSL)*

Local Grid Origin ☐ Estimated ☑ or Boring Location ☐
State Plan _____ N, _____ E
NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21

Lat 43 ° 03 ' 36.9N "
Long 88 ° 01 ' 19.30W "

Local Grid Location:
☐ N ☐ E
____ Feet ☐ S ____ Feet ☐ W

Facility ID:	County:	County Code:	Civil Town/City/or Village:
241836100	Milwaukee	41	Wauwatosa

Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment Description	USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	88	0	Asphalt & gravels	PA			Concrete (0-1.0')	
		1	Brown clay, medium stiff, moist	CL				
NSB4-A		2					1" PVC Case (0-5.0')	0
		3					Bentonite (1-3.0')	
	95	4					Fine Sand (3-4.0')	0
		5						
		6						0
		7					1" PVC Screen (5-15.0')	
NSB4-B	95	8	Moist to wet				▼	0
		9						
		10					Sand Pack (4'-16')	0
		11						
	98	12	Silty gray clay, medium stiff, wet	CL				0
		13						
		14	Silty gray fine sand, wet	SM				0
		15						
NSB4-C		16	Silty gray clay, medium stiff, wet. End of Boring	CL				0
		17						
		18						

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

Signature: Mike (Minghua) Wan, PE

Firm: Hydrodynamics Consultants, Inc.

SOIL BORING LOG INFORMATION

Project Name:	License/Permit/Monitoring No.:	Boring/Well Log Number:
Westwood Cleaners, BRRTS # 02-41-552537		NSB5/MW5

Boring Drilled By: Yinong Han	Start Date:	Finish Date:	Drilling Method:
Firm: Hydrodynamics Consultants, Inc.	9/16/2018	9/16/2018	GeoProbe

WI Unique Well No.:	DNR Well ID No.:	Well Name:	Final Static Water Level:	Surface Elevation: 99.95 *
			9.61 Feet SD	*(100 ft. Site Datum (SD)* = 750 ft. MSL)*

Local Grid Origin ☐ Estimated ☑ or Boring Location ☐
State Plan _____ N, _____ E
NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21

Lat 43 ° 03 ' 36.9N "
Long 88 ° 01 ' 19.30W "

Local Grid Location:
☐ N ☐ E
____ Feet ☐ S ____ Feet ☐ W

Facility ID:	County:	County Code:	Civil Town/City/or Village:
241836100	Milwaukee	41	Wauwatosa

Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment Description	USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	92	0	Concrete & gravels	CO			Concrete (0-1.0')	
		1	Brown clay, medium stiff, moist	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 stiff, wet	CL				
	100	12						0.4
		13	Silty gray fine sand, wet	SM				
		14						0
		15						
NSB5-C		16	Silty gray clay, medium stiff, wet. End of Boring	CL				0
		17						
		18						

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

Signature: Mike (Minghua) Wan, PE

Firm: Hydrodynamics Consultants, Inc.

SOIL BORING LOG INFORMATION

Project Name:	License/Permit/Monitoring No.:	Boring/Well Log Number:
Westwood Cleaners, BRRTS # 02-41-552537		NSB6/MW6

Boring Drilled By: Yinong Han	Start Date:	Finish Date:	Drilling Method:
Firm: Hydrodynamics Consultants, Inc.	9/16/2018	9/16/2018	GeoProbe

WI Unique Well No.:	DNR Well ID No.:	Well Name:	Final Static Water Level:	Surface Elevation: 100.00 *
			9.76 Feet SD	*(100 ft. Site Datum (SD)* = 750 ft. MSL)*

Local Grid Origin ☐ Estimated ☑ or Boring Location ☐
State Plan _____ N, _____ E
NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21

Lat 43 ° 03 ' 36.9N "
Long 88 ° 01 ' 19.30W "

Local Grid Location:
☐ N ☐ E
____ Feet ☐ S ____ Feet ☐ W

Facility ID:	County:	County Code:	Civil Town/City/or Village:
241836100	Milwaukee	41	Wauwatosa

Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment Description	USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	90	0	Concrete & gravels	CO			Concrete (0-1.0')	
		1	Brown clay, medium stiff, moist	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					3.3
		7					1" PVC Screen (5-15.0')	
NSB6-B	95	8						2.5
		9					▼	
		10	Silty gray fine sand, wet	SM			Sand Pack (4'-16')	2.2
		11						
	100	12	Silty gray clay, medium stiff, wet	CL				0.2
		13						
		14						0
		15						
NSB6-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: Mike (Minghua) Wan, PE

Firm: Hydrodynamics Consultants, Inc.

SOIL BORING LOG INFORMATION

Project Name:	License/Permit/Monitoring No.:	Boring/Well Log Number:
Westwood Cleaners, BRRTS # 02-41-552537		NSB7

Boring Drilled By: Yinong Han	Start Date:	Finish Date:	Drilling Method:
Firm: Hydrodynamics Consultants, Inc.	9/16/2018	9/16/2018	GeoProbe

WI Unique Well No.:	DNR Well ID No.:	Well Name:	Final Static Water Level:	Surface Elevation: _____ *
			6 Feet SD	*(100 ft. Site Datum (SD)* = 750 ft. MSL)*

Local Grid Origin ☐ Estimated ☑ or Boring Location ☐		Local Grid Location:
State Plan _____ N, _____ E	Lat 43 ° 03 ' 36.9N "	☐ N ☐ E
NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21	Long 88 ° 01 ' 19.30W "	____ Feet ☐ S ____ Feet ☐ W

Facility ID:	County:	County Code:	Civil Town/City/or Village:
241836100	Milwaukee	41	Wauwatosa

Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment Description	USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	89	0 -	Concrete & gravels	CO				
		1 -						
NSB7-A		2 -	Brown clay, medium stiff, moist	CL				1.4
		3 -						
	95	4 -						1.6
		5 -						
		6 -	Moist to wet				▼	1.7
		7 -						
NSB7-B	100	8 -						2
		9 -						
		10 -	Silty gray fine sand, wet	SM				0.6
		11 -						
	100	12 -	Silty gray clay, medium stiff, 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: Mike (Minghua) Wan, PE

Firm: Hydrodynamics Consultants, Inc.

SOIL BORING LOG INFORMATION

Project Name:	License/Permit/Monitoring No.:	Boring/Well Log Number:
Westwood Cleaners, BRRTS # 02-41-552537		NSB8

Boring Drilled By: Yinong Han	Start Date:	Finish Date:	Drilling Method:
Firm: Hydrodynamics Consultants, Inc.	9/16/2018	9/16/2018	GeoProbe

WI Unique Well No.:	DNR Well ID No.:	Well Name:	Final Static Water Level; 8 Feet SD	Surface Elevation: * (100 ft. Site Datum (SD)* = 750 ft. MSL)

Local Grid Origin ☐ Estimated ☑ or Boring Location ☐		Local Grid Location:
State Plan _____ N, _____ E	Lat 43 ° 03 ' 36.9N "	☐ N ☐ E
NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21	Long 88 ° 01 ' 19.30W "	____ Feet ☐ S ____ Feet ☐ W

Facility ID:	County:	County Code:	Civil Town/City/or Village:
241836100	Milwaukee	41	Wauwatosa

Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment Description	USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	86	0	Asphalt & gravels	PA				
		1	Brown clay, medium stiff, moist	CL				
NSB8-A		2						0.5
		3						
	90	4						0.6
		5						
		6						1.1
		7						
NSB8-B	90	8	Moist to wet				▼	1.7
		9						
		10	Silty gray fine sand, wet	SM				0.4
		11						
	98	12						0.2
		13						
		14						0
		15						
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: Mike (Minghua) Wan, PE

Firm: Hydrodynamics Consultants, Inc.

SOIL BORING LOG INFORMATION

Project Name:	License/Permit/Monitoring No.:	Boring/Well Log Number:
Westwood Cleaners, BRRTS # 02-41-552537		NSB9

Boring Drilled By: Yinong Han	Start Date:	Finish Date:	Drilling Method:
Firm: Hydrodynamics Consultants, Inc.	9/16/2018	9/16/2018	GeoProbe

WI Unique Well No.:	DNR Well ID No.:	Well Name:	Final Static Water Level:	Surface Elevation: *
			8 Feet SD	*(100 ft. Site Datum (SD)* = 750 ft. MSL)*

Local Grid Origin ☐ Estimated ☑ or Boring Location ☐		Local Grid Location:
State Plan _____ N, _____ E	Lat 43 ° 03 ' 36.9N "	☐ N ☐ E
NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21	Long 88 ° 01 ' 19.30W "	____ Feet ☐ S ____ Feet ☐ W

Facility ID:	County:	County Code:	Civil Town/City/or Village:
241836100	Milwaukee	41	Wauwatosa

Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment Description	USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	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 stiff, 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: Mike (Minghua) Wan, PE

Firm: Hydrodynamics Consultants, Inc.

SOIL BORING LOG INFORMATION

Project Name:	License/Permit/Monitoring No.:	Boring/Well Log Number:
Westwood Cleaners, BRRTS # 02-41-552537		NSB10

Boring Drilled By: Yinong Han	Start Date:	Finish Date:	Drilling Method:
Firm: Hydrodynamics Consultants, Inc.	9/16/2018	9/16/2018	GeoProbe

WI Unique Well No.:	DNR Well ID No.:	Well Name:	Final Static Water Level:	Surface Elevation: *
			6 Feet SD	*(100 ft. Site Datum (SD)* = 750 ft. MSL)*

Local Grid Origin ☐ Estimated ☑ or Boring Location ☐		Local Grid Location:
State Plan _____ N, _____ E	Lat 43 ° 03 ' 36.9N "	☐ N ☐ E
NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21	Long 88 ° 01 ' 19.30W "	____ Feet ☐ S ____ Feet ☐ W

Facility ID:	County:	County Code:	Civil Town/City/or Village:
241836100	Milwaukee	41	Wauwatosa

Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment Description	USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	89	0	Concrete & gravels	CO				
		1	Brown clay, medium stiff, moist	CL				
NSB10-A		2						0.3
		3						
	93	4						0.5
		5						
NSB10-B		6	Moist to wet				▼	0.7
		7						
	100	8						0.1
		9						
		10	Silty gray fine sand, wet	SM				0.2
		11						
	100	12	Silty gray clay, medium stiff, wet	CL				0.5
		13						
		14						0
		15						
NSB10-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: Mike (Minghua) Wan, PE

Firm: Hydrodynamics Consultants, Inc.

SOIL BORING LOG INFORMATION

Project Name:	License/Permit/Monitoring No.:	Boring/Well Log Number:
Westwood Cleaners, BRRTS # 02-41-552537		NSB11

Boring Drilled By: Yinong Han	Start Date:	Finish Date:	Drilling Method:
Firm: Hydrodynamics Consultants, Inc.	9/16/2018	9/16/2018	GeoProbe

WI Unique Well No.:	DNR Well ID No.:	Well Name:	Final Static Water Level:	Surface Elevation: *
			6 Feet SD	*(100 ft. Site Datum (SD)* = 750 ft. MSL)*

Local Grid Origin ☐ Estimated ☑ or Boring Location ☐		Local Grid Location:
State Plan _____ N, _____ E	Lat 43 ° 03 ' 36.9N "	☐ N ☐ E
NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21	Long 88 ° 01 ' 19.30W "	____ Feet ☐ S ____ Feet ☐ W

Facility ID:	County:	County Code:	Civil Town/City/or Village:
241836100	Milwaukee	41	Wauwatosa

Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment Description	USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	90	0	Concrete & gravels	CO				
		1	Brown clay, medium stiff, moist	CL				
NSB11-A		2						0.1
		3						
	95	4						0.1
		5						
NSB11-B		6	Moist to wet				▼	0.5
		7						
	100	8						0.1
		9						
		10	Silty gray fine sand, wet	SM				0.1
		11						
	100	12	Silty gray clay, medium stiff, wet	CL				0.1
		13						
		14						0
		15						
NSB11-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: Mike (Minghua) Wan, PE

Firm: Hydrodynamics Consultants, Inc.

SOIL BORING LOG INFORMATION

Project Name:	License/Permit/Monitoring No.:	Boring/Well Log Number:
Westwood Cleaners, BRRTS # 02-41-552537		NSB12

Boring Drilled By: Yinong Han	Start Date:	Finish Date:	Drilling Method:
Firm: Hydrodynamics Consultants, Inc.	9/16/2018	9/16/2018	GeoProbe

WI Unique Well No.:	DNR Well ID No.:	Well Name:	Final Static Water Level:	Surface Elevation: *
			6 Feet SD	*(100 ft. Site Datum (SD)* = 750 ft. MSL)*

Local Grid Origin ☐ Estimated ☑ or Boring Location ☐		Local Grid Location:
State Plan _____ N, _____ E	Lat 43 ° 03 ' 36.9N "	☐ N ☐ E
NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21	Long 88 ° 01 ' 19.30W "	____ Feet ☐ S ____ Feet ☐ W

Facility ID:	County:	County Code:	Civil Town/City/or Village:
241836100	Milwaukee	41	Wauwatosa

Sample Number	Recovery (%)	Boring Depth (ft)	Soil/Sediment Description	USCS	Graphic Log	Well Diagram	Well Information	PID (ppm)
	89	0	Concrete & gravels	CO				
		1						
NSB12-A		2	Brown clay, medium stiff, moist	CL				0
		3						
	96	4						0
		5						
NSB12-B		6	Moist to wet				▼	0
		7						
	100	8						0
		9						
		10	Silty gray fine sand, wet	SM				0
		11						
	100	12	Silty gray clay, medium stiff, wet	CL				0
		13						
		14						0
		15						
NSB12-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: Mike (Minghua) Wan, PE

Firm: Hydrodynamics Consultants, Inc.

APPENDIX IV
MONITORING WELL CONSTRUCTION AND DEVELOPMENT LOGS

GROUNDWATER MONITORING WELL INFORMATION FORM

Project Name:	Facility ID:	License/Permit/Monitoring No.:	Date:	Elevation:	Completed By (Name and Firm)
Westwood Cleaners, BRRTS # 02-41-552537	241836100		10/31/2018	100 ft. Site Datum = 750 ft. MSL	Mike Wan / Hydrodynamics Consultants, Inc.

WI Unique Well No.	Well Name	DNR Well ID Number	Well Location	Dir. N	Dir. S	Dir. E	Dir. W	Date Established	Well Casing Diam. (in.)	Well Casing Type	Elevations Top of Well Casing (ft.)	Elevations Ground Surface (ft.)	Reference MSL (√)	Reference Site Datum (√)	Depths Screen Top (ft.)	Depths Initial Groundwater (ft.)	Depths Well Depth (ft.)	Screen Length (ft.)	Well Type	Well Status	Enf. Stds.	Gradient	Distance to Waste (ft.)
	MW1							9/6/2018	2	PVC	98.49	98.59		√	5	8.72	15	10	11/mw	Active		Down	75
	MW2							9/6/2018	1	PVC	99.12	99.22		√	5	8.97	15	10	11/mw	Active		Side	25
	MW3							9/6/2018	1	PVC	100.76	100.86		√	5	10.23	15	10	11/mw	Active		Up	70
	MW4							9/6/2018	1	PVC	98.88	98.98		√	5	8.44	15	10	11/mw	Active		Side	85
	MW5							9/6/2018	1	PVC	99.95	100.05		√	5	9.61	15	10	11/mw	Active		Down	5
	MW6							9/6/2018	1	PVC	100	100.1		√	5	9.76	15	10	11/mw	Active		Up	20

Location Coordinates Are:
☐ State Plane Coordinate ☐ Local Grid
☐ Northern
☐ Central
☐ Southern

Grid Origin Location: (check if estimated: ☑)

Lat 43 ° 03 ' 36.9N " **Long** 88 ° 01 ' 19.30W "

State Plane _____ **ft. N,** _____ **ft. E S/C/N Zone**

Remarks:

MONITORING WELL CONSTRUCTION

Project Name: Westwood Cleaners, BRRTS # 02-41-552537	**Local Grid Location:** ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W	**Well Name:** MW1	**Elevation:** 100 ft. Site Datum* = 705 ft. MSL
License/Permit/Monitoring No.:	**Local Grid Origin** ☐ **Estimated** ☑ **or Well Location** ☐ **Lat** 43 ° 03 ' 36.9N " **Long** 88 ° 01 ' 19.30W "	**Wis. Unique Well No.:** _ _ _ _ _ _ _	**DNR Well ID No.:** _ _ _
Facility ID: 241836100	**State Plan** _____ **N,** _____ **E**	**Date Well Installed:** 9/16/18	
Type of Well: Well Code 11 / MW	**Section Location of Waste/Source:** ☑ **E** NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21 ☐ **W**	**Well Installed By: Name (first, last) and Firm:** Yinong Han, Hydrodynamics Consultants, Inc.	
Distance from Waste/Source: ≈ 75 ft. **Enf. Stds. Apply:** ☐	**Location of Well Relative to Waste/Source:** u ☐ Upgrade s ☐ Sidegradient d ☑ Downgradient n ☐ Not Known	**Gov. Lot Number:** _____	

*Note: All elevations are site datum**

A. Land surface, elevation 98.59 ft.

B. Protective pipe, top elevation 98.49 ft.

C. Well Casing, top elevation 98.29 ft.

D. Surface seal, bottom 97.49 ft.

E. Bentonite seal, top 97.49 ft.

F. Fine sand, top 95.49 ft.

G. Filter pack, top 94.49 ft.

H. Screen joint, top 93.49 ft.

I. Well bottom 83.49 ft.

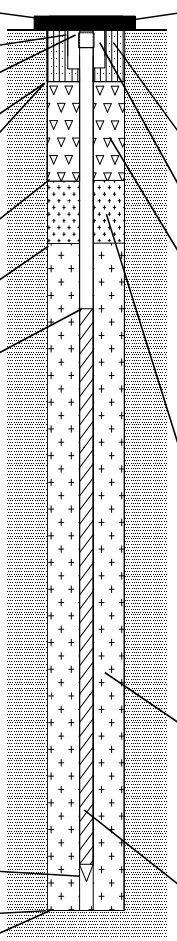
J. Filter pack, bottom 82.49 ft.

K. Borehole, bottom 82.49 ft.

L. Borehole, diameter 4.50 in.

M. O.D. well casing 2.25 in.

N. I.D. well casing 2.00 in.



12. USCS classification of soil near screen:
☐ GP ☑ GM ☐ GC ☐ GW ☐ SW ☐ SP
☐ SM ☐ SC ☐ ML ☐ MH ☑ CL ☐ CH
Bedrock ☐

13. Sieve analysis preformed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0; Hollow Stem Auger ☐ 4 1; Other ☒ GeoProbe

15. Drilling fluid used: Water ☐ 0 2; Air ☐ 0 1; Drilling Mud ☐ 0 3; None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

17. Source of water (attach analysis, if required):

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 6 in.
b. Length: 9 in.
c. Material: Steel ☐ 0 4; Other ☒ HD PVC
d. Additional protection? ☐ Yes ☒ No
If yes, describe:

3. Surface seal: Bentonite ☐ 3 0; Concrete ☒ 0 1; Other ☐

4. Material between well casing and protective pipe: Bentonite ☐ 3 0; Other ☒ None

5. Bentonite seal (Annular space seal): a. Bentonite granules ☐ 3 3; Bentonite chips ☒ 3 2; Other ☒
b. ☒ 1/4 in. ☐ 3/8 in. ☐ 1/2 in.
c. Water Added

6. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3
b. _____ lbs/gal mud weight...Bentonite-sand slurry ☐ 3 5
c. _____ lbs/gal mud weight……...Bentonite slurry ☐ 3 1
d. _____ % Bentonite…….Bentonite-cement grout ☐ 5 0
e. _____ ft³ volume added for any of the above
f. How installed: Tremie ☐ 0 1; Tremie pumped ☐ 0 2; Gravity ☒ 0 8

7. Fine sand material: Manufacturer, product name & mesh size
a. NSF, Silica Sand/Bluestone - 100 Mesh
b. Volume added: _____ ft³

8. Filter pack material: Manufacturer, product name & mesh size
a. NSF, Silica Sand/Bluestone - 20-40 meshes
b. Volume added: _____ ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3; Flush threaded PVC schedule 80 ☐ 2 4; Other ☐

10. Screen Material: PVC
a. Screen type: Factory Cut ☒ 1 1; Continous Slot ☐ 0 1; Other ☐
b. Manufacturer Johnson
c. Slot size: 0.01 in.
d. Slotted Length: 10 ft.

11. Backfill material (below filter pack): None ☐ 1 4; Other ☒ Silica Sand

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.

MONITORING WELL DEVELOPMENT

Project Name:	County Name:	Well Name:	
Westwood Cleaners, BRRTS # 02-41-552537	Milwaukee	MW1	
License/Permit/Monitoring No.:	**County Code:**	**Wis. Unique Well No.:**	**DNR Well ID No.:**
	41	_ _ _ _ _ _	_ _ _

1. Can this well be purged dry? ☐ Yes ☐ No

2. Well development method

surged with bailer and bailed	☒	4 1
surged with bailer and pumped	☐	6 1
surged with block and bailed	☐	4 2
surged with block and pumped	☐	6 2
surged with block, bailed and pumped	☐	7 0
compressed air	☐	2 0
bailed only	☐	1 0
pumped only	☐	5 1
pumped slowly	☐	5 0
Other: _____	☐	

3. Time spent developing well ≈ 30 min.

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.

7. Volume of water removed from well 4 gal.

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

9. Source of water added _____

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

	Before Development	After Development
11. Depth of Water (from top of well casing)	8.72 ft.	12.72 ft.
Date	9/19/2018	9/19/2018
Time	10:10 ☑ AM ☐ PM	10:40 ☑ AM ☐ PM
12. Sediment in well bottom	_____ in.	_____ in.
13. Water clarity	Clear ☐ 1 0 Turbid ☐ 1 5	Clear ☐ 2 0 Turbid ☐ 2 5
	(Describe)	(Describe)
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Mike Last Name: Wan
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 **Street:** 8731 West North Avenue **City/State/Zip:** Wauwatosa, Wisconsin 53226	**Signature:** **Print Name:** Mike (Minghua) Wan, PE **Firm:** Hydrodynamics Consultants, Inc.

MONITORING WELL CONSTRUCTION

Project Name: Westwood Cleaners, BRRTS # 02-41-552537	**Local Grid Location:** ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W	**Well Name:** MW2	**Elevation:** 100 ft. Site Datum* = 705 ft. MSL
License/Permit/Monitoring No.:	**Local Grid Origin** ☐ **Estimated** ☑ **or Well Location** ☐ **Lat** 43 ° 03 ' 36.9N " **Long** 88 ° 01 ' 19.30W "	**Wis. Unique Well No.:** _ _ _ _ _ _ _	**DNR Well ID No.:** _ _ _
Facility ID: 241836100	**State Plan** _____ **N,** _____ **E**	**Date Well Installed:** 9/16/18	
Type of Well: Well Code 11 / MW	**Section Location of Waste/Source:** ☑ **E** NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21 ☐ **W**	**Well Installed By: Name (first, last) and Firm:** Yinong Han, Hydrodynamics Consultants, Inc.	
Distance from Waste/Source: ≈ 25 ft. **Enf. Stds. Apply:** ☐	**Location of Well Relative to Waste/Source:** u ☐ Upgrade s ☑ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number:** _____	

*Note: All elevations are site datum**

A. Land surface, elevation 99.22 ft.

B. Protective pipe, top elevation 99.12 ft.

C. Well Casing, top elevation 98.92 ft.

D. Surface seal, bottom 98.12 ft.

E. Bentonite seal, top 98.12 ft.

F. Fine sand, top 96.12 ft.

G. Filter pack, top 95.12 ft.

H. Screen joint, top 94.12 ft.

I. Well bottom 84.12 ft.

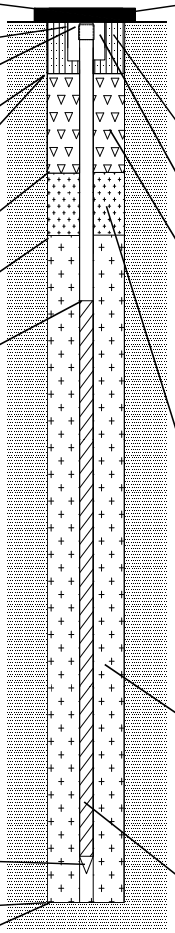
J. Filter pack, bottom 83.12 ft.

K. Borehole, bottom 83.12 ft.

L. Borehole, diameter 2.00 in.

M. O.D. well casing 1.25 in.

N. I.D. well casing 1.00 in.



12. USCS classification of soil near screen:
☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP
☐ SM ☐ SC ☐ ML ☐ MH ☑ CL ☐ CH
Bedrock ☐

13. Sieve analysis preformed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0 | Hollow Stem Auger ☐ 4 1 | Other ☒ GeoProbe

15. Drilling fluid used: Water ☐ 0 2 | Air ☐ 0 1 | Drilling Mud ☐ 0 3 | None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

17. Source of water (attach analysis, if required):

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 6 in.
b. Length: 9 in.
c. Material: Steel ☐ 0 4 | Other ☒ HD PVC
d. Additional protection? ☐ Yes ☒ No
If yes, describe:

3. Surface seal: Bentonite ☐ 3 0 | Concrete ☒ 0 1 | Other ☐

4. Material between well casing and protective pipe: Bentonite ☐ 3 0 | Other ☒ None

5. Bentonite seal (Annular space seal): a. Bentonite granules ☐ 3 3 | Bentonite chips ☒ 3 2 | Other ☒
b. ☒ 1/4 in. ☐ 3/8 in. ☐ 1/2 in.
c. Water Added

6. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3
b. _____ lbs/gal mud weight...Bentonite-sand slurry ☐ 3 5
c. _____ lbs/gal mud weight……...Bentonite slurry ☐ 3 1
d. _____ % Bentonite…….Bentonite-cement grout ☐ 5 0
e. _____ ft³ volume added for any of the above
f. How installed: Tremie ☐ 0 1 | Tremie pumped ☐ 0 2 | Gravity ☒ 0 8

7. Fine sand material: Manufacturer, product name & mesh size
a. NSF, Silica Sand/Bluestone - 100 Mesh
b. Volume added: _____ ft³

8. Filter pack material: Manufacturer, product name & mesh size
a. NSF, Silica Sand/Bluestone - 20-40 meshes
b. Volume added: _____ ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3 | Flush threaded PVC schedule 80 ☐ 2 4 | Other ☐

10. Screen Material: PVC
a. Screen type: Factory Cut ☒ 1 1 | Continous Slot ☐ 0 1 | Other ☐
b. Manufacturer Johnson
c. Slot size: 0.01 in.
d. Slotted Length: 10 ft.

11. Backfill material (below filter pack): None ☐ 1 4 | Other ☒ Silica Sand

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.

MONITORING WELL DEVELOPMENT

Project Name:	County Name:	Well Name:	
Westwood Cleaners, BRRTS # 02-41-552537	Milwaukee	MW2	
License/Permit/Monitoring No.:	**County Code:** 41	**Wis. Unique Well No.:** _ _ _ _ _ _	**DNR Well ID No.:** _ _ _

1. Can this well be purged dry? ☐ Yes ☐ No

2. Well development method

surged with bailer and bailed	☒	4 1
surged with bailer and pumped	☐	6 1
surged with block and bailed	☐	4 2
surged with block and pumped	☐	6 2
surged with block, bailed and pumped	☐	7 0
compressed air	☐	2 0
bailed only	☐	1 0
pumped only	☐	5 1
pumped slowly	☐	5 0
Other: _____	☐	

3. Time spent developing well: ≈ 30 min.

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.

7. Volume of water removed from well: 0.5 gal.

8. Volume of water added (if any): _____ gal.

9. Source of water added: _____

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

	Before Development	After Development
11. Depth of Water (from top of well casing)	8.97 ft.	12.97 ft.
Date	9/19/2018	9/19/2018
Time	☑ AM 10:40 ☐ PM	☑ AM 11:10 ☐ PM
12. Sediment in well bottom	_____ in.	_____ in.
13. Water clarity	Clear ☐ 1 0 Turbid ☐ 1 5	Clear ☐ 2 0 Turbid ☐ 2 5
	(Describe)	(Describe)
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Mike Last Name: Wan
Firm: Hydrodynamics Consultants, Inc.

17. Additional comments on development:

The well was basically dried.

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 **Street:** 8731 West North Avenue **City/State/Zip:** Wauwatosa, Wisconsin 53226	**Signature:** **Print Name:** Mike (Minghua) Wan, PE **Firm:** Hydrodynamics Consultants, Inc.

MONITORING WELL CONSTRUCTION

Project Name: Westwood Cleaners, BRRTS # 02-41-552537	**Local Grid Location:** ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W	**Well Name:** MW3	**Elevation:** 100 ft. Site Datum* = 705 ft. MSL
License/Permit/Monitoring No.:	**Local Grid Origin** ☐ **Estimated** ☑ **or Well Location** ☐ **Lat** 43 ° 03 ' 36.9N " **Long** 88 ° 01 ' 19.30W "	**Wis. Unique Well No.:** _ _ _ _ _ _ _	**DNR Well ID No.:** _ _ _
Facility ID: 241836100	**State Plan** _____ **N,** _____ **E**	**Date Well Installed:** 9/16/18	
Type of Well: Well Code 11 / MW	**Section Location of Waste/Source:** ☑ **E** NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21 ☐ **W**	**Well Installed By: Name (first, last) and Firm:** Yinong Han, Hydrodynamics Consultants, Inc.	
Distance from Waste/Source: ≈ 70 ft. **Enf. Stds. Apply:** ☐	**Location of Well Relative to Waste/Source:** u ☑ Upgrade s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number:** _____	

*Note: All elevations are site datum**

A. Land surface, elevation 100.86 ft.

B. Protective pipe, top elevation 100.76 ft.

C. Well Casing, top elevation 100.56 ft.

D. Surface seal, bottom 99.76 ft.

E. Bentonite seal, top 99.76 ft.

F. Fine sand, top 97.76 ft.

G. Filter pack, top 96.76 ft.

H. Screen joint, top 95.76 ft.

I. Well bottom 84.76 ft.

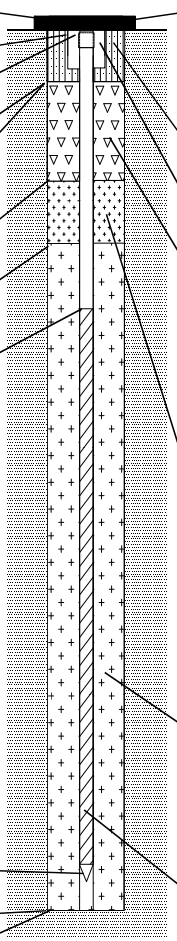
J. Filter pack, bottom 84.76 ft.

K. Borehole, bottom 84.76 ft.

L. Borehole, diameter 2.00 in.

M. O.D. well casing 1.25 in.

N. I.D. well casing 1.00 in.



12. USCS classification of soil near screen:
☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP
☐ SM ☐ SC ☐ ML ☐ MH ☑ CL ☐ CH
Bedrock ☐

13. Sieve analysis preformed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 5 0 | Hollow Stem Auger ☐ 4 1 | Other ☒ GeoProbe

15. Drilling fluid used: Water ☐ 0 2 | Air ☐ 0 1 | Drilling Mud ☐ 0 3 | None ☒ 9 9

16. Drilling additives used? ☐ Yes ☒ No

17. Source of water (attach analysis, if required):

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 6 in.
b. Length: 9 in.
c. Material: Steel ☐ 0 4 | Other ☒ HD PVC
d. Additional protection? ☐ Yes ☒ No
If yes, describe:

3. Surface seal: Bentonite ☐ 3 0 | Concrete ☒ 0 1 | Other ☐

4. Material between well casing and protective pipe: Bentonite ☐ 3 0 | Other ☒ None

5. Bentonite seal (Annular space seal): a. Bentonite granules ☐ 3 3 | Bentonite chips ☒ 3 2 | Other ☒
b. ☒ 1/4 in. ☐ 3/8 in. ☐ 1/2 in.
c. Water Added

6. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3
b. _____ lbs/gal mud weight...Bentonite-sand slurry ☐ 3 5
c. _____ lbs/gal mud weight……...Bentonite slurry ☐ 3 1
d. _____ % Bentonite…….Bentonite-cement grout ☐ 5 0
e. _____ ft³ volume added for any of the above
f. How installed: Tremie ☐ 0 1 | Tremie pumped ☐ 0 2 | Gravity ☒ 0 8

7. Fine sand material: Manufacturer, product name & mesh size
a. NSF, Silica Sand/Bluestone - 100 Mesh
b. Volume added: _____ ft³

8. Filter pack material: Manufacturer, product name & mesh size
a. NSF, Silica Sand/Bluestone - 20-40 meshes
b. Volume added: _____ ft³

9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3 | Flush threaded PVC schedule 80 ☐ 2 4 | Other ☐

10. Screen Material: PVC
a. Screen type: Factory Cut ☒ 1 1 | Continous Slot ☐ 0 1 | Other ☐
b. Manufacturer Johnson
c. Slot size: 0.01 in.
d. Slotted Length: 10 ft.

11. Backfill material (below filter pack): None ☐ 1 4 | Other ☒ Silica Sand

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.

MONITORING WELL DEVELOPMENT

Project Name:	County Name:	Well Name:	
Westwood Cleaners, BRRTS # 02-41-552537	Milwaukee	MW3	
License/Permit/Monitoring No.:	**County Code:** 41	**Wis. Unique Well No.:** _ _ _ _ _ _	**DNR Well ID No.:** _ _ _

1. Can this well be purged dry? ☐ Yes ☐ No

2. Well development method

surged with bailer and bailed	☒	4 1
surged with bailer and pumped	☐	6 1
surged with block and bailed	☐	4 2
surged with block and pumped	☐	6 2
surged with block, bailed and pumped	☐	7 0
compressed air	☐	2 0
bailed only	☐	1 0
pumped only	☐	5 1
pumped slowly	☐	5 0
Other: _____	☐	

3. Time spent developing well ≈ 30 min.

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.

7. Volume of water removed from well 0.5 gal.

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

9. Source of water added _____

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

	Before Development	After Development
11. Depth of Water (from top of well casing)	10.23 ft.	14.23 ft.
Date	9/19/2018	9/19/2018
Time	☑ AM 10:55 ☐ PM	☐ AM 11:25 ☑ PM
12. Sediment in well bottom	_____ in.	_____ in.
13. Water clarity	Clear ☐ 1 0 Turbid ☐ 1 5 (Describe)	Clear ☐ 2 0 Turbid ☐ 2 5 (Describe)

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

14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Mike Last Name: Wan
Firm: Hydrodynamics Consultants, Inc.

17. Additional comments on development:

The well was basically dried.

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 **Street:** 8731 West North Avenue **City/State/Zip:** Wauwatosa, Wisconsin 53226	**Signature:** **Print Name:** Mike (Minghua) Wan, PE **Firm:** Hydrodynamics Consultants, Inc.

MONITORING WELL CONSTRUCTION

Project Name: Westwood Cleaners, BRRTS # 02-41-552537	**Local Grid Location:** ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W	**Well Name:** MW4	**Elevation:** 100 ft. Site Datum* = 705 ft. MSL
License/Permit/Monitoring No.:	**Local Grid Origin** ☐ **Estimated** ☑ **or Well Location** ☐ **Lat** 43 ° 03 ' 36.9N " **Long** 88 ° 01 ' 19.30W "	**Wis. Unique Well No.:** _ _ _ _ _ _ _	**DNR Well ID No.:** _ _ _
Facility ID: 241836100	**State Plan** _____ **N,** _____ **E**	**Date Well Installed:** 9/16/18	
Type of Well: Well Code 11 / MW	**Section Location of Waste/Source:** ☑ **E** NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21 ☐ **W**	**Well Installed By: Name (first, last) and Firm:** Yinong Han, Hydrodynamics Consultants, Inc.	
Distance from Waste/Source: ≈ 85 ft. **Enf. Stds. Apply:** ☐	**Location of Well Relative to Waste/Source:** u ☐ Upgrade s ☑ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number:** _____	

*Note: All elevations are site datum**

A. Land surface, elevation 98.98 ft.

B. Protective pipe, top elevation 98.88 ft.

C. Well Casing, top elevation 98.68 ft.

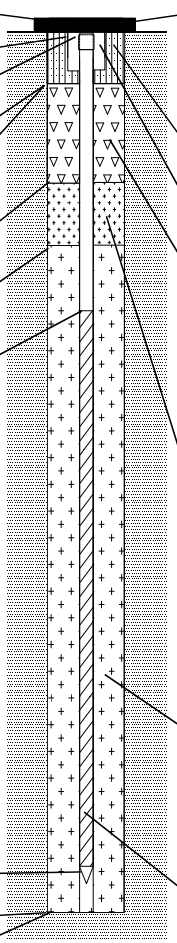
D. Surface seal, bottom 97.88 ft.

E. Bentonite seal, top 97.88 ft.

F. Fine sand, top 95.88 ft.

G. Filter pack, top 94.88 ft.

H. Screen joint, top 93.88 ft.



12. USCS classification of soil near screen:
☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP
☐ SM ☐ SC ☐ ML ☐ MH ☑ CL ☐ CH
Bedrock ☐

13. Sieve analysis preformed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50 | Hollow Stem Auger ☐ 41 | Other ☒ GeoProbe

15. Drilling fluid used: Water ☐ 02 | Air ☐ 01 | Drilling Mud ☐ 03 | None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

17. Source of water (attach analysis, if required):

I. Well bottom 83.88 ft.

J. Filter pack, bottom 82.88 ft.

K. Borehole, bottom 82.88 ft.

L. Borehole, diameter 2.00 in.

M. O.D. well casing 1.25 in.

N. I.D. well casing 1.00 in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 6 in.
b. Length: 9 in.
c. Material: Steel ☐ 04 | HD PVC | Other ☒
d. Additional protection? ☐ Yes ☒ No
If yes, describe:

3. Surface seal: Bentonite ☐ 30 | Concrete ☒ 01 | Other ☐

4. Material between well casing and protective pipe: Bentonite ☐ 30 | None | Other ☒

5. Bentonite seal (Annular space seal): a. Bentonite granules ☐ 33 | b. ☒ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32 | c. Water Added | Other ☒

6. Annular space seal: a. Granular/Chipped Bentonite ☐ 33
b. _____ lbs/gal mud weight...Bentonite-sand slurry ☐ 35
c. _____ lbs/gal mud weight……...Bentonite slurry ☐ 31
d. _____ % Bentonite…….Bentonite-cement grout ☐ 50
e. _____ ft³ volume added for any of the above
f. How installed: Tremie ☐ 01 | Tremie pumped ☐ 02 | Gravity ☒ 08

7. Fine sand material: Manufacturer, product name & mesh size
a. NSF, Silica Sand/Bluestone - 100 Mesh
b. Volume added: _____ ft³

8. Filter pack material: Manufacturer, product name & mesh size
a. NSF, Silica Sand/Bluestone - 20-40 meshes
b. Volume added: _____ ft³

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

10. Screen Material: PVC
a. Screen type: Factory Cut ☒ 11 | Continous Slot ☐ 01 | Other ☐
b. Manufacturer Johnson
c. Slot size: 0.01 in.
d. Slotted Length: 10 ft.

11. Backfill material (below 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.

MONITORING WELL DEVELOPMENT

Project Name:	County Name:	Well Name:	
Westwood Cleaners, BRRTS # 02-41-552537	Milwaukee	MW4	
License/Permit/Monitoring No.:	**County Code:** 41	**Wis. Unique Well No.:** _ _ _ _ _ _	**DNR Well ID No.:** _ _ _

1. Can this well be purged dry? ☐ Yes ☐ No

2. Well development method

surged with bailer and bailed	☒	4 1
surged with bailer and pumped	☐	6 1
surged with block and bailed	☐	4 2
surged with block and pumped	☐	6 2
surged with block, bailed and pumped	☐	7 0
compressed air	☐	2 0
bailed only	☐	1 0
pumped only	☐	5 1
pumped slowly	☐	5 0
Other: _____	☐	

3. Time spent developing well: ≈ 30 min.

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.

7. Volume of water removed from well: 0.5 gal.

8. Volume of water added (if any): _____ gal.

9. Source of water added: _____

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

	Before Development	After Development
11. Depth of Water (from top of well casing)	8.44 ft.	12.44 ft.
Date	9/19/2018	9/19/2018
Time	☑ AM 11:30 ☐ PM	☐ AM 12:00 ☑ PM
12. Sediment in well bottom	_____ in.	_____ in.
13. Water clarity	Clear ☐ 1 0 Turbid ☐ 1 5	Clear ☐ 2 0 Turbid ☐ 2 5
	(Describe)	(Describe)

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

14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Mike Last Name: Wan
Firm: Hydrodynamics Consultants, Inc.

17. Additional comments on development:

The well was basically dried.

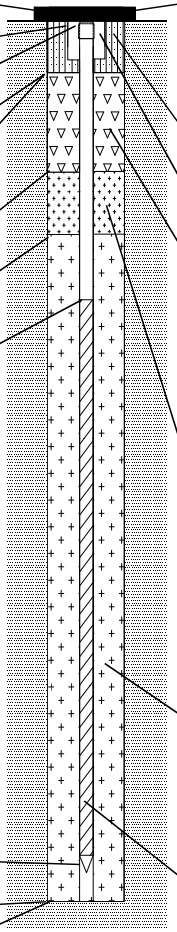
Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the information on this form is true and correct to the best of my knowledge.
First: Mr. Dong **Last:** Sin **Facility/Firm:** Westwood Cleaners **Street:** 8731 West North Avenue **City/State/Zip:** Wauwatosa, Wisconsin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

MONITORING WELL CONSTRUCTION

Project Name: Westwood Cleaners, BRRTS # 02-41-552537	**Local Grid Location:** ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W	**Well Name:** MW5	**Elevation:** 100 ft. Site Datum* = 705 ft. MSL
License/Permit/Monitoring No.:	**Local Grid Origin** ☐ **Estimated** ☑ **or Well Location** ☐ **Lat** 43 ° 03 ' 36.9N " **Long** 88 ° 01 ' 19.30W "	**Wis. Unique Well No.:** _ _ _ _ _ _ _	**DNR Well ID No.:** _ _ _
Facility ID: 241836100	**State Plan** _____ **N,** _____ **E**	**Date Well Installed:** 9/16/18	
Type of Well: Well Code 11 / MW	**Section Location of Waste/Source:** ☑ **E** NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21 ☐ **W**	**Well Installed By: Name (first, last) and Firm:** Yinong Han, Hydrodynamics Consultants, Inc.	
Distance from Waste/Source: ≈ 5 ft. **Enf. Stds. Apply:** ☐	**Location of Well Relative to Waste/Source:** u ☐ Upgrade s ☐ Sidegradient d ☑ Downgradient n ☐ Not Known	**Gov. Lot Number:** _____	

*Note: All elevations are site datum**

A. Land surface, elevation 100.05 ft.
B. Protective pipe, top elevation 99.95 ft.
C. Well Casing, top elevation 99.75 ft.
D. Surface seal, bottom 98.95 ft.
E. Bentonite seal, top 98.95 ft.
F. Fine sand, top 96.95 ft.
G. Filter pack, top 95.95 ft.
H. Screen joint, top 94.95 ft.



I. Well bottom 84.95 ft.
J. Filter pack, bottom 83.95 ft.
K. Borehole, bottom 83.95 ft.
L. Borehole, diameter 2.00 in.
M. O.D. well casing 1.25 in.
N. I.D. well casing 1.00 in.

12. USCS classification of soil near screen:
☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP
☐ SM ☐ SC ☐ ML ☐ MH ☑ CL ☐ CH
Bedrock ☐
13. Sieve analysis preformed? ☐ Yes ☒ No
14. Drilling method used: Rotary ☐ 5 0 | Hollow Stem Auger ☐ 4 1 | Other ☒ GeoProbe
15. Drilling fluid used: Water ☐ 0 2 | Air ☐ 0 1 | Drilling Mud ☐ 0 3 | None ☒ 9 9
16. Drilling additives used? ☐ Yes ☒ No
17. Source of water (attach analysis, if required):

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 6 in.
b. Length: 9 in.
c. Material: Steel ☐ 0 4 | Other ☒ HD PVC
d. Additional protection? ☐ Yes ☒ No
If yes, describe:
3. Surface seal: Bentonite ☐ 3 0 | Concrete ☒ 0 1 | Other ☐
4. Material between well casing and protective pipe: Bentonite ☐ 3 0 | Other ☒ None
5. Bentonite seal (Annular space seal): a. Bentonite granules ☐ 3 3 | b. ☒ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 3 2 | c. Water Added Other ☒
6. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3
b. _____ lbs/gal mud weight...Bentonite-sand slurry ☐ 3 5
c. _____ lbs/gal mud weight……...Bentonite slurry ☐ 3 1
d. _____ % Bentonite…….Bentonite-cement grout ☐ 5 0
e. _____ ft³ volume added for any of the above
f. How installed: Tremie ☐ 0 1 | Tremie pumped ☐ 0 2 | Gravity ☒ 0 8
7. Fine sand material: Manufacturer, product name & mesh size
a. NSF, Silica Sand/Bluestone - 100 Mesh
b. Volume added: _____ ft³
8. Filter pack material: Manufacturer, product name & mesh size
a. NSF, Silica Sand/Bluestone - 20-40 meshes
b. Volume added: _____ ft³
9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3 | Flush threaded PVC schedule 80 ☐ 2 4 | Other ☐
10. Screen Material: PVC
a. Screen type: Factory Cut ☒ 1 1 | Continous Slot ☐ 0 1 | Other ☐
b. Manufacturer Johnson
c. Slot size: 0.01 in.
d. Slotted Length: 10 ft.
11. Backfill material (below filter pack): None ☐ 1 4 | Other ☒ Silica Sand

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.

MONITORING WELL DEVELOPMENT

Project Name:	County Name:	Well Name:	
Westwood Cleaners, BRRTS # 02-41-552537	Milwaukee	MW5	
License/Permit/Monitoring No.:	**County Code:** 41	**Wis. Unique Well No.:** _ _ _ _ _ _	**DNR Well ID No.:** _ _ _

1. Can this well be purged dry? ☐ Yes ☐ No

2. Well development method

surged with bailer and bailed	☒	4 1
surged with bailer and pumped	☐	6 1
surged with block and bailed	☐	4 2
surged with block and pumped	☐	6 2
surged with block, bailed and pumped	☐	7 0
compressed air	☐	2 0
bailed only	☐	1 0
pumped only	☐	5 1
pumped slowly	☐	5 0
Other: _____	☐	

3. Time spent developing well: ≈ 30 min.

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.

7. Volume of water removed from well: 0.5 gal.

8. Volume of water added (if any): _____ gal.

9. Source of water added: _____

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

	Before Development	After Development
11. Depth of Water (from top of well casing)	9.61 ft.	13.61 ft.
Date	9/19/2018	9/19/2018
Time	12:05 ☐ AM ☑ PM	12:35 ☐ AM ☑ PM
12. Sediment in well bottom	_____ in.	_____ in.
13. Water clarity	Clear ☐ 1 0 Turbid ☐ 1 5	Clear ☐ 2 0 Turbid ☐ 2 5
	(Describe)	(Describe)

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

14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Mike Last Name: Wan
Firm: Hydrodynamics Consultants, Inc.

17. Additional comments on development:

The well was basically dried.

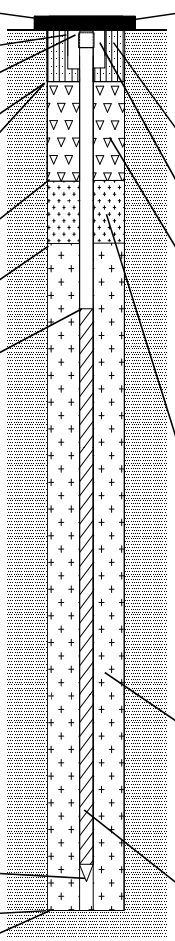
Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the information on this form is true and correct to the best of my knowledge.
First: Mr. Dong **Last:** Sin **Facility/Firm:** Westwood Cleaners **Street:** 8731 West North Avenue **City/State/Zip:** Wauwatosa, Wisconsin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

MONITORING WELL CONSTRUCTION

Project Name: Westwood Cleaners, BRRTS # 02-41-552537	**Local Grid Location:** ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W	**Well Name:** MW6	**Elevation:** 100 ft. Site Datum* = 705 ft. MSL
License/Permit/Monitoring No.:	**Local Grid Origin** ☐ **Estimated** ☑ **or Well Location** ☐ **Lat** 43 ° 03 ' 36.9N " **Long** 88 ° 01 ' 19.30W "	**Wis. Unique Well No.:** _ _ _ _ _ _ _	**DNR Well ID No.:** _ _ _
Facility ID: 241836100	**State Plan** _____ **N,** _____ **E**	**Date Well Installed:** 9/16/18	
Type of Well: Well Code 11 / MW	**Section Location of Waste/Source:** ☑ **E** NE 1/4 of NW 1/4 of Sec 21 , T 07 N, R 21 ☐ **W**	**Well Installed By: Name (first, last) and Firm:** Yinong Han, Hydrodynamics Consultants, Inc.	
Distance from Waste/Source: ≈ 20 ft. **Enf. Stds. Apply:** ☐	**Location of Well Relative to Waste/Source:** u ☑ Upgrade s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number:** _____	

*Note: All elevations are site datum**

A. Land surface, elevation 100.05 ft.
B. Protective pipe, top elevation 99.95 ft.
C. Well Casing, top elevation 99.75 ft.
D. Surface seal, bottom 98.95 ft.
E. Bentonite seal, top 98.95 ft.
F. Fine sand, top 96.95 ft.
G. Filter pack, top 95.95 ft.
H. Screen joint, top 94.95 ft.



I. Well bottom 84.95 ft.
J. Filter pack, bottom 83.95 ft.
K. Borehole, bottom 83.95 ft.
L. Borehole, diameter 2.00 in.
M. O.D. well casing 1.25 in.
N. I.D. well casing 1.00 in.

12. USCS classification of soil near screen:
☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP
☐ SM ☐ SC ☐ ML ☐ MH ☑ CL ☐ CH
Bedrock ☐

13. Sieve analysis preformed? ☐ Yes ☒ No
14. Drilling method used: Rotary ☐ 5 0; Hollow Stem Auger ☐ 4 1; Other ☒ GeoProbe
15. Drilling fluid used: Water ☐ 0 2; Air ☐ 0 1; Drilling Mud ☐ 0 3; None ☒ 9 9
16. Drilling additives used? ☐ Yes ☒ No
17. Source of water (attach analysis, if required):

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 6 in.
b. Length: 9 in.
c. Material: Steel ☐ 0 4; Other ☒ HD PVC
d. Additional protection? ☐ Yes ☒ No
If yes, describe:
3. Surface seal: Bentonite ☐ 3 0; Concrete ☒ 0 1; Other ☐
4. Material between well casing and protective pipe: Bentonite ☐ 3 0; Other ☒ None
5. Bentonite seal (Annular space seal): a. Bentonite granules ☐ 3 3; b. ☒ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 3 2; c. Water Added Other ☒
6. Annular space seal: a. Granular/Chipped Bentonite ☐ 3 3; b. _____ lbs/gal mud weight...Bentonite-sand slurry ☐ 3 5; c. _____ lbs/gal mud weight……...Bentonite slurry ☐ 3 1; d. _____ % Bentonite…….Bentonite-cement grout ☐ 5 0; e. _____ ft³ volume added for any of the above
f. How installed: Tremie ☐ 0 1; Tremie pumped ☐ 0 2; Gravity ☒ 0 8
7. Fine sand material: Manufacturer, product name & mesh size
a. NSF, Silica Sand/Bluestone - 100 Mesh
b. Volume added: _____ ft³
8. Filter pack material: Manufacturer, product name & mesh size
a. NSF, Silica Sand/Bluestone - 20-40 meshes
b. Volume added: _____ ft³
9. Well casing: Flush threaded PVC schedule 40 ☒ 2 3; Flush threaded PVC schedule 80 ☐ 2 4; Other ☐
10. Screen Material: PVC
a. Screen type: Factory Cut ☒ 1 1; Continous Slot ☐ 0 1; Other ☐
b. Manufacturer Johnson
c. Slot size: 0.01 in.
d. Slotted Length: 10 ft.
11. Backfill material (below filter pack): None ☐ 1 4; Other ☒ Silica Sand

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

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

MONITORING WELL DEVELOPMENT

Project Name:	County Name:	Well Name:	
Westwood Cleaners, BRRTS # 02-41-552537	Milwaukee	MW6	
License/Permit/Monitoring No.:	**County Code:** 41	**Wis. Unique Well No.:** _ _ _ _ _ _	**DNR Well ID No.:** _ _ _

1. Can this well be purged dry? ☐ Yes ☐ No

2. Well development method

surged with bailer and bailed	☒	4 1
surged with bailer and pumped	☐	6 1
surged with block and bailed	☐	4 2
surged with block and pumped	☐	6 2
surged with block, bailed and pumped	☐	7 0
compressed air	☐	2 0
bailed only	☐	1 0
pumped only	☐	5 1
pumped slowly	☐	5 0
Other: _____	☐	

3. Time spent developing well ≈ 30 min.

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.

7. Volume of water removed from well 0.5 gal.

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

9. Source of water added _____

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

	Before Development	After Development
11. Depth of Water (from top of well casing)	9.76 ft.	13.76 ft.
Date	9/19/2018	9/19/2018
Time	12:50 ☐ AM ☑ PM	1:20 ☐ AM ☑ PM
12. Sediment in well bottom	_____ in.	_____ in.
13. Water clarity	Clear ☐ 1 0 Turbid ☐ 1 5	Clear ☐ 2 0 Turbid ☐ 2 5
	(Describe)	(Describe)
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Mike Last Name: Wan
Firm: Hydrodynamics Consultants, Inc.

17. Additional comments on development:

The well was basically dried.

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 **Street:** 8731 West North Avenue **City/State/Zip:** Wauwatosa, Wisconsin 53226	**Signature:** **Print Name:** Mike (Minghua) Wan, PE **Firm:** Hydrodynamics Consultants, Inc.

APPENDIX V
WELL/BOREHOLE ABANDONMENT REPORTS

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

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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

☐ **Verification Only of Fill and Seal**

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

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Milwaukee	__ __ __ __ __	

Latitude / Longitude (see instructions): 43° 03' 36.9" N / 88° 01' 19.30W" W
Format Code: ☐ DD ☑ DDM
Method Code: ☐ GPS008 ☑ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
NE	NW	21	07 N	☑ E ☐ W

or Gov't Lot #

Well Street Address: 8731 West North Avenue

Well City, Village or Town	Well ZIP Code
Wauwatosa	53226

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Sampling Complete	__ __ __ __ __ __

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 9/16/2018

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☑ Other (specify): Geoprobe (Direct Push)

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
16	

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

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

If yes, to what depth (feet)?	Depth to Water (feet)
	6

2. Facility / Owner Information

Facility Name: Westwood Cleaners
Facility ID (FID or PWS): 241836100
License/Permit/Monitoring #: BRRTS # 02-41-552537 / NSB7
Original Well Owner: Mr. Dong Sin
Present Well Owner: Mr. Dong Sin
Mailing Address of Present Owner: 8731 West North Avenue

City of Present Owner	State	ZIP Code
Wauwatosa	WI	53226

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

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

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

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

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

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Cement	Surface	6in		
Bentonite	6in	16ft		

6. Comments

All boreholes were filled with bentonite and sealed at the surface to match existing conditions.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Hydrodynamics Consultants, Inc.		9/16/2018

Street or Route	Telephone Number
5403 Patton Dr. Unit 215	(630)

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Lisle	IL	60532	Mike Wan	11/9/2018

DNR Use Only

Date Received	Noted By

Comments

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

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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

☐ **Verification Only of Fill and Seal**

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

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Milwaukee	__ __ __ __ __	

Latitude / Longitude (see instructions): 43° 03' 36.9" N / 88° 01' 19.30W" W
Format Code: ☐ DD ☑ DDM
Method Code: ☐ GPS008 ☑ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
NE	NW	21	07 N	☑ E ☐ W

or Gov't Lot #

Well Street Address: 8731 West North Avenue

Well City, Village or Town	Well ZIP Code
Wauwatosa	53226

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Sampling Complete	__ __ __ __ __ __

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 9/16/2018

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☑ Other (specify): Geoprobe (Direct Push)

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
16	

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

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

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

2. Facility / Owner Information

Facility Name: Westwood Cleaners

Facility ID (FID or PWS): 241836100

License/Permit/Monitoring #: BRRTS # 02-41-552537 / NSB8

Original Well Owner: Mr. Dong Sin

Present Well Owner: Mr. Dong Sin

Mailing Address of Present Owner: 8731 West North Avenue

City of Present Owner	State	ZIP Code
Wauwatosa	WI	53226

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

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

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

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

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

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt	Surface	4in		
Bentonite	4in	16ft		

6. Comments

All boreholes were filled with bentonite and sealed at the surface to match existing conditions.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Hydrodynamics Consultants, Inc.		9/16/2018

Street or Route	Telephone Number
5403 Patton Dr. Unit 215	(630)

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Lisle	IL	60532	Mike Wan	11/9/2018

DNR Use Only

Date Received	Noted By

Comments

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

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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

☐ **Verification Only of Fill and Seal**

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

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Milwaukee	__ __ __ __ __	

Latitude / Longitude (see instructions)	Format Code	Method Code
43° 03' 36.9" N	☐ DD	☐ GPS008
88° 01' 19.30W" W	☑ DDM	☑ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
NE	NW	21	07 N	☑ E ☐ W
or Gov't Lot #				

Well Street Address: 8731 West North Avenue

Well City, Village or Town	Well ZIP Code
Wauwatosa	53226

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Sampling Complete	__ __ __ __ __ __ __

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 9/16/2018

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☑ Other (specify): Geoprobe (Direst Push)

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
16	

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

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

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

2. Facility / Owner Information

Facility Name: Westwood Cleaners

Facility ID (FID or PWS): 241836100

License/Permit/Monitoring #: BRRTS # 02-41-552537 / NSB9

Original Well Owner: Mr. Dong Sin

Present Well Owner: Mr. Dong Sin

Mailing Address of Present Owner: 8731 West North Avenue

City of Present Owner	State	ZIP Code
Wauwatosa	WI	53226

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

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

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

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

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

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt	Surface	4in		
Bentonite	4in	16ft		

6. Comments

All boreholes were filled with bentonite and sealed at the surface to match existing conditions.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Hydrodynamics Consultants, Inc.		9/16/2018

Street or Route	Telephone Number
5403 Patton Dr. Unit 215	(630)

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Lisle	IL	60532	Mike Wan	11/9/2018

DNR Use Only

Date Received	Noted By

Comments:

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

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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

☐ **Verification Only of Fill and Seal**

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

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Milwaukee	__ __ __ __ __	

Latitude / Longitude (see instructions): 43° 03' 36.9" N / 88° 01' 19.30W" W
Format Code: ☐ DD ☑ DDM
Method Code: ☐ GPS008 ☑ SCR002 ☐ OTH001

¼ / ¼ NE	¼ NW	Section	Township	Range
or Gov't Lot #		21	07 N	21 ☑ E ☐ W

Well Street Address: 8731 West North Avenue

Well City, Village or Town	Well ZIP Code
Wauwatosa	53226

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Sampling Complete	__ __ __ __ __ __

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 9/16/2018

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☑ Other (specify): Geoprobe (Direct Push)

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
16	

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

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

If yes, to what depth (feet)?	Depth to Water (feet)
	6

2. Facility / Owner Information

Facility Name: Westwood Cleaners
Facility ID (FID or PWS): 241836100
License/Permit/Monitoring #: BRRTS # 02-41-552537 / NSB10
Original Well Owner: Mr. Dong Sin
Present Well Owner: Mr. Dong Sin
Mailing Address of Present Owner: 8731 West North Avenue

City of Present Owner	State	ZIP Code
Wauwatosa	WI	53226

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

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

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

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

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

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Cement	Surface	6in		
Bentonite	6in	16ft		

6. Comments

All boreholes were filled with bentonite and sealed at the surface to match existing conditions.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Hydrodynamics Consultants, Inc.		9/16/2018

Street or Route	Telephone Number
5403 Patton Dr. Unit 215	(630)

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Lisle	IL	60532	Mike Wan	11/9/2018

DNR Use Only

Date Received	Noted By

Comments:

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

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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

☐ **Verification Only of Fill and Seal**

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

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Milwaukee	__ __ __ __ __	

Latitude / Longitude (see instructions): 43° 03' 36.9" N / 88° 01' 19.30W" W
Format Code: ☐ DD ☑ DDM
Method Code: ☐ GPS008 ☑ SCR002 ☐ OTH001

¼ / ¼ NE	¼ NW	Section	Township	Range
or Gov't Lot #		21	07 N	21 ☑ E ☐ W

Well Street Address: 8731 West North Avenue

Well City, Village or Town	Well ZIP Code
Wauwatosa	53226

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Sampling Complete	__ __ __ __ __ __

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 9/16/2018

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☑ Other (specify): Geoprobe (Direst Push)

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
16	

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

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

If yes, to what depth (feet)?	Depth to Water (feet)
	6

2. Facility / Owner Information

Facility Name: Westwood Cleaners
Facility ID (FID or PWS): 241836100
License/Permit/Monitoring #: BRRTS # 02-41-552537 / NSB11
Original Well Owner: Mr. Dong Sin
Present Well Owner: Mr. Dong Sin
Mailing Address of Present Owner: 8731 West North Avenue

City of Present Owner	State	ZIP Code
Wauwatosa	WI	53226

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

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

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

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

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

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Cement	Surface	6in		
Bentonite	6in	16ft		

6. Comments

All boreholes were filled with bentonite and sealed at the surface to match existing conditions.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Hydrodynamics Consultants, Inc.		9/16/2018

Street or Route	Telephone Number
5403 Patton Dr. Unit 215	(630)

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Lisle	IL	60532	Mike Wan	11/9/2018

DNR Use Only

Date Received	Noted By

Comments:

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

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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

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

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Milwaukee	__ __ __ __ __	

Latitude / Longitude (see instructions): 43° 03' 36.9" N / 88° 01' 19.30W" W
Format Code: ☐ DD ☑ DDM
Method Code: ☐ GPS008 ☑ SCR002 ☐ OTH001

¼ / ¼ NE	¼ NW	Section	Township	Range
or Gov't Lot #		21	07 N	21 ☑ E ☐ W

Well Street Address: 8731 West North Avenue

Well City, Village or Town	Well ZIP Code
Wauwatosa	53226

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Sampling Complete	__ __ __ __ __ __

3. Filled & Sealed Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☑ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 9/16/2018

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☑ Other (specify): Geoprobe (Direct Push)

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
16	

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

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

If yes, to what depth (feet)?	Depth to Water (feet)
	6

2. Facility / Owner Information

Facility Name: Westwood Cleaners
Facility ID (FID or PWS): 241836100
License/Permit/Monitoring #: BRRTS # 02-41-552537 / NSB12
Original Well Owner: Mr. Dong Sin
Present Well Owner: Mr. Dong Sin
Mailing Address of Present Owner: 8731 West North Avenue

City of Present Owner	State	ZIP Code
Wauwatosa	WI	53226

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

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

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

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

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

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Cement	Surface	6in		
Bentonite	6in	16ft		

6. Comments

All boreholes were filled with bentonite and sealed at the surface to match existing conditions.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Hydrodynamics Consultants, Inc.		9/16/2018

Street or Route	Telephone Number
5403 Patton Dr. Unit 215	(630)

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Lisle	IL	60532	Mike Wan	11/9/2018

DNR Use Only

Date Received	Noted By

Comments:

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

STAT Analysis Corporation
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

September 29, 2018

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

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

Analytical Report for STAT Work Order: 18090542 Revision 0

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

Dear Dr. Yong Yu:

STAT Analysis received 36 samples for the referenced project on 9/17/2018 4:28:00 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,

Craig Chawla
Project Manager

STAT Analysis Corporation

Date: September 29, 2018

Client: Hydrodynamics Consultant, Inc.
Project: Westwood Cleaners, 8731 West North Ave., Wauwatos
Work Order: 18090542 Revision 0

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
18090542-001A	NSB1-A		9/16/2018 9:38:00 AM	9/17/2018
18090542-001B	NSB1-A		9/16/2018 9:38:00 AM	9/17/2018
18090542-002A	NSB1-B		9/16/2018 9:53:00 AM	9/17/2018
18090542-002B	NSB1-B		9/16/2018 9:53:00 AM	9/17/2018
18090542-003A	NSB1-C		9/16/2018 10:09:00 AM	9/17/2018
18090542-003B	NSB1-C		9/16/2018 10:09:00 AM	9/17/2018
18090542-004A	NSB2-A		9/16/2018 10:26:00 AM	9/17/2018
18090542-004B	NSB2-A		9/16/2018 10:26:00 AM	9/17/2018
18090542-005A	NSB2-B		9/16/2018 10:43:00 AM	9/17/2018
18090542-005B	NSB2-B		9/16/2018 10:43:00 AM	9/17/2018
18090542-006A	NSB2-C		9/16/2018 10:59:00 AM	9/17/2018
18090542-006B	NSB2-C		9/16/2018 10:59:00 AM	9/17/2018
18090542-007A	NSB3-A		9/16/2018 11:15:00 AM	9/17/2018
18090542-007B	NSB3-A		9/16/2018 11:15:00 AM	9/17/2018
18090542-008A	NSB3-B		9/16/2018 11:31:00 AM	9/17/2018
18090542-008B	NSB3-B		9/16/2018 11:31:00 AM	9/17/2018
18090542-009A	NSB3-C		9/16/2018 11:47:00 AM	9/17/2018
18090542-009B	NSB3-C		9/16/2018 11:47:00 AM	9/17/2018
18090542-010A	NSB4-A		9/16/2018 12:05:00 PM	9/17/2018
18090542-010B	NSB4-A		9/16/2018 12:05:00 PM	9/17/2018
18090542-011A	NSB4-B		9/16/2018 12:21:00 PM	9/17/2018
18090542-011B	NSB4-B		9/16/2018 12:21:00 PM	9/17/2018
18090542-012A	NSB4-C		9/16/2018 12:38:00 PM	9/17/2018
18090542-012B	NSB4-C		9/16/2018 12:38:00 PM	9/17/2018
18090542-013A	NSB5-A		9/16/2018 12:55:00 PM	9/17/2018
18090542-013B	NSB5-A		9/16/2018 12:55:00 PM	9/17/2018
18090542-014A	NSB5-B		9/16/2018 1:10:00 PM	9/17/2018
18090542-014B	NSB5-B		9/16/2018 1:10:00 PM	9/17/2018
18090542-015A	NSB5-C		9/16/2018 1:26:00 PM	9/17/2018
18090542-015B	NSB5-C		9/16/2018 1:26:00 PM	9/17/2018
18090542-016A	NSB6-A		9/16/2018 1:45:00 PM	9/17/2018
18090542-016B	NSB6-A		9/16/2018 1:45:00 PM	9/17/2018
18090542-017A	NSB6-B		9/16/2018 2:01:00 PM	9/17/2018
18090542-017B	NSB6-B		9/16/2018 2:01:00 PM	9/17/2018
18090542-018A	NSB6-C		9/16/2018 2:18:00 PM	9/17/2018
18090542-018B	NSB6-C		9/16/2018 2:18:00 PM	9/17/2018
18090542-019A	NSB7-A		9/16/2018 2:35:00 PM	9/17/2018
18090542-019B	NSB7-A		9/16/2018 2:35:00 PM	9/17/2018

Client: Hydrodynamics Consultant, Inc.
Project: Westwood Cleaners, 8731 West North Ave., Wauwatos
Work Order: 18090542 Revision 0

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
18090542-020A	NSB7-B		9/16/2018 2:50:00 PM	9/17/2018
18090542-020B	NSB7-B		9/16/2018 2:50:00 PM	9/17/2018
18090542-021A	NSB7-C		9/16/2018 3:06:00 PM	9/17/2018
18090542-021B	NSB7-C		9/16/2018 3:06:00 PM	9/17/2018
18090542-022A	NSB8-A		9/16/2018 3:25:00 PM	9/17/2018
18090542-022B	NSB8-A		9/16/2018 3:25:00 PM	9/17/2018
18090542-023A	NSB8-B		9/16/2018 3:40:00 PM	9/17/2018
18090542-023B	NSB8-B		9/16/2018 3:40:00 PM	9/17/2018
18090542-024A	NSB8-C		9/16/2018 3:56:00 PM	9/17/2018
18090542-024B	NSB8-C		9/16/2018 3:56:00 PM	9/17/2018
18090542-025A	NSB9-A		9/16/2018 4:15:00 PM	9/17/2018
18090542-025B	NSB9-A		9/16/2018 4:15:00 PM	9/17/2018
18090542-026A	NSB9-B		9/16/2018 4:30:00 PM	9/17/2018
18090542-026B	NSB9-B		9/16/2018 4:30:00 PM	9/17/2018
18090542-027A	NSB9-C		9/16/2018 4:46:00 PM	9/17/2018
18090542-027B	NSB9-C		9/16/2018 4:46:00 PM	9/17/2018
18090542-028A	NSB10-A		9/16/2018 5:03:00 PM	9/17/2018
18090542-028B	NSB10-A		9/16/2018 5:03:00 PM	9/17/2018
18090542-029A	NSB10-B		9/16/2018 5:17:00 PM	9/17/2018
18090542-029B	NSB10-B		9/16/2018 5:17:00 PM	9/17/2018
18090542-030A	NSB10-C		9/16/2018 5:33:00 PM	9/17/2018
18090542-030B	NSB10-C		9/16/2018 5:33:00 PM	9/17/2018
18090542-031A	NSB11-A		9/16/2018 5:50:00 PM	9/17/2018
18090542-031B	NSB11-A		9/16/2018 5:50:00 PM	9/17/2018
18090542-032A	NSB11-B		9/16/2018 6:06:00 PM	9/17/2018
18090542-032B	NSB11-B		9/16/2018 6:06:00 PM	9/17/2018
18090542-033A	NSB11-C		9/16/2018 6:21:00 PM	9/17/2018
18090542-033B	NSB11-C		9/16/2018 6:21:00 PM	9/17/2018
18090542-034A	NSB12-A		9/16/2018 6:38:00 PM	9/17/2018
18090542-034B	NSB12-A		9/16/2018 6:38:00 PM	9/17/2018
18090542-035A	NSB12-B		9/16/2018 6:53:00 PM	9/17/2018
18090542-035B	NSB12-B		9/16/2018 6:53:00 PM	9/17/2018
18090542-036A	NSB12-C		9/16/2018 7:10:00 PM	9/17/2018
18090542-036B	NSB12-C		9/16/2018 7:10:00 PM	9/17/2018

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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-001

Client Sample ID: NSB1-A
Collection Date: 9/16/2018 9:38:00 AM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **MJK**	
Acetone	0.039	0.072	0.0023	J	mg/Kg-dry	1	9/19/2018
Benzene	0.0030	0.0048	0.00019	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0048	0.00038		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0048	0.00038		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0097	0.00048		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.072	0.0014		mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.00086	0.048	0.00019	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0048	0.00029		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0097	0.00038		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0097	0.00029		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0048	0.00038		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0048	0.00029		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0048	0.00057		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0048	0.00038		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0019	0.00019		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0019	0.00029		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.0019	0.0048	0.000097	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.019	0.00076		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.019	0.00029		mg/Kg-dry	1	9/19/2018
Methylene chloride	0.0010	0.0097	0.00076	J	mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/19/2018
Toluene	0.0058	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0048	0.00048		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0048	0.00038		mg/Kg-dry	1	9/19/2018
Xylenes, Total	0.0025	0.014	0.00038	J	mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	16.1	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-002

Client Sample ID: NSB1-B
Collection Date: 9/16/2018 9:53:00 AM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **AET**	
Acetone	0.017	0.071	0.0022	J	mg/Kg-dry	1	9/19/2018
Benzene	0.00082	0.0047	0.00019	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0047	0.00038		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0047	0.00038		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0095	0.00047		mg/Kg-dry	1	9/19/2018
2-Butanone	0.0045	0.071	0.0014	J	mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.00072	0.047	0.00019	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0047	0.00028		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0095	0.00038		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0095	0.00028		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0047	0.00038		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0047	0.00028		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0047	0.00057		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0047	0.00028		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0047	0.00028		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0047	0.00028		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0047	0.00038		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0019	0.00019		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0019	0.00028		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.00040	0.0047	0.000095	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.019	0.00076		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.019	0.00028		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.0095	0.00076		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	0.00055	0.0047	0.00028	J	mg/Kg-dry	1	9/19/2018
Toluene	0.0012	0.0047	0.00019	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0047	0.00047		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0047	0.00038		mg/Kg-dry	1	9/19/2018
Xylenes, Total	0.00089	0.014	0.00038	J	mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	16.8	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-003

Client Sample ID: NSB1-C
Collection Date: 9/16/2018 10:09:00 AM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **AET**	
Acetone	0.034	0.069	0.0021	J	mg/Kg-dry	1	9/19/2018
Benzene	0.00067	0.0046	0.00018	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0046	0.00037		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0046	0.00037		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0092	0.00046		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.069	0.0014		mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.00092	0.046	0.00018	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0046	0.00028		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0092	0.00037		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0092	0.00028		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0046	0.00037		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0046	0.00028		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0046	0.00055		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0046	0.00028		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0046	0.00028		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0046	0.00028		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0046	0.00037		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0018	0.00018		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0018	0.00028		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.00031	0.0046	0.000092	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.018	0.00074		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.018	0.00028		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.0092	0.00074		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	0.017	0.0046	0.00028		mg/Kg-dry	1	9/19/2018
Toluene	0.00092	0.0046	0.00018	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0046	0.00046		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0046	0.00037		mg/Kg-dry	1	9/19/2018
Xylenes, Total	0.00048	0.014	0.00037	J	mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	11.8	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-004

Client Sample ID: NSB2-A
Collection Date: 9/16/2018 10:26:00 AM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **AET**	
Acetone	0.012	0.073	0.0022	J	mg/Kg-dry	1	9/19/2018
Benzene	0.00043	0.0048	0.00019	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0048	0.00039		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0048	0.00039		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0097	0.00048		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.073	0.0015		mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.00019	0.048	0.00019	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0048	0.00029		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0097	0.00039		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0097	0.00029		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0048	0.00039		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0048	0.00029		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0048	0.00058		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0048	0.00039		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0019	0.00019		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0019	0.00029		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.00015	0.0048	0.000097	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.019	0.00078		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.019	0.00029		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.0097	0.00078		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/19/2018
Toluene	0.00052	0.0048	0.00019	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0048	0.00048		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0048	0.00019		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0048	0.00039		mg/Kg-dry	1	9/19/2018
Xylenes, Total	ND	0.015	0.00039		mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	14.9	0.2	0.1	*	wt%	1	9/19/2018

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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-005

Client Sample ID: NSB2-B
Collection Date: 9/16/2018 10:43:00 AM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **AET**	
Acetone	0.016	0.058	0.0018	J	mg/Kg-dry	1	9/19/2018
Benzene	0.00077	0.0038	0.00015	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0038	0.00031		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0038	0.00031		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0077	0.00038		mg/Kg-dry	1	9/19/2018
2-Butanone	0.0037	0.058	0.0012	J	mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.00032	0.038	0.00015	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0038	0.00023		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0038	0.00015		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0077	0.00031		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0038	0.00015		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0077	0.00023		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0038	0.00031		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0038	0.00023		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0038	0.00046		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0038	0.00023		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0038	0.00023		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0038	0.00023		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0038	0.00031		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0015	0.00015		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0015	0.00023		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.00018	0.0038	0.000077	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.015	0.00061		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.015	0.00023		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.0077	0.00061		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0038	0.00015		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0038	0.00015		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0038	0.00015		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	0.00047	0.0038	0.00023	J	mg/Kg-dry	1	9/19/2018
Toluene	0.00063	0.0038	0.00015	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0038	0.00015		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0038	0.00038		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0038	0.00015		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0038	0.00031		mg/Kg-dry	1	9/19/2018
Xylenes, Total	ND	0.012	0.00031		mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	10.2	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-006

Client Sample ID: NSB2-C
Collection Date: 9/16/2018 10:59:00 AM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **AET**	
Acetone	0.013	0.062	0.0019	J	mg/Kg-dry	1	9/19/2018
Benzene	0.0052	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0042	0.00033		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0042	0.00033		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0083	0.00042		mg/Kg-dry	1	9/19/2018
2-Butanone	0.0028	0.062	0.0012	J	mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.00064	0.042	0.00017	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0083	0.00033		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0083	0.00025		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0042	0.00033		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0042	0.0005		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0042	0.00033		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0017	0.00017		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0017	0.00025		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.0024	0.0042	0.000083	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.017	0.00067		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.017	0.00025		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.0083	0.00067		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	0.038	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
Toluene	0.0087	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0042	0.00042		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0042	0.00033		mg/Kg-dry	1	9/19/2018
Xylenes, Total	0.0047	0.012	0.00033	J	mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	14.2	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-007

Client Sample ID: NSB3-A
Collection Date: 9/16/2018 11:15:00 AM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **AET**	
Acetone	0.031	0.083	0.0025	J	mg/Kg-dry	1	9/19/2018
Benzene	0.00045	0.0055	0.00022	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0055	0.00044		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0055	0.00044		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.011	0.00055		mg/Kg-dry	1	9/19/2018
2-Butanone	0.0053	0.083	0.0017	J	mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.00077	0.055	0.00022	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0055	0.00033		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0055	0.00022		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.011	0.00044		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0055	0.00022		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.011	0.00033		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0055	0.00044		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0055	0.00033		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0055	0.00066		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0055	0.00033		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0055	0.00033		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0055	0.00033		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0055	0.00044		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0022	0.00022		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0022	0.00033		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.00030	0.0055	0.00011	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.022	0.00088		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.022	0.00033		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.011	0.00088		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0055	0.00022		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0055	0.00022		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0055	0.00022		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	0.0017	0.0055	0.00033	J	mg/Kg-dry	1	9/19/2018
Toluene	0.00076	0.0055	0.00022	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0055	0.00022		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0055	0.00055		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0055	0.00022		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0055	0.00044		mg/Kg-dry	1	9/19/2018
Xylenes, Total	0.00049	0.017	0.00044	J	mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	7.5	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-008

Client Sample ID: NSB3-B
Collection Date: 9/16/2018 11:31:00 AM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **ERP**	
Acetone	0.0065	0.063	0.0019	J	mg/Kg-dry	1	9/19/2018
Benzene	0.0012	0.0042	0.00017	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0042	0.00034		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0042	0.00034		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0084	0.00042		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.063	0.0013		mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.00035	0.042	0.00017	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0084	0.00034		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0084	0.00025		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0042	0.00034		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0042	0.00051		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0042	0.00034		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0017	0.00017		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0017	0.00025		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.00067	0.0042	0.000084	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.017	0.00067		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.017	0.00025		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.0084	0.00067		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	0.00089	0.0042	0.00025	J	mg/Kg-dry	1	9/19/2018
Toluene	0.0020	0.0042	0.00017	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0042	0.00042		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0042	0.00034		mg/Kg-dry	1	9/19/2018
Xylenes, Total	0.0013	0.013	0.00034	J	mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	16.8	0.2	0.1	*	wt%	1	9/19/2018

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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-009

Client Sample ID: NSB3-C
Collection Date: 9/16/2018 11:47:00 AM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **AET**	
Acetone	0.011	0.062	0.0019	J	mg/Kg-dry	1	9/19/2018
Benzene	0.0024	0.0041	0.00016	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0041	0.00033		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0041	0.00033		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0082	0.00041		mg/Kg-dry	1	9/19/2018
2-Butanone	0.0032	0.062	0.0012	J	mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.00035	0.041	0.00016	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0041	0.00025		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0041	0.00016		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0082	0.00033		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0041	0.00016		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0082	0.00025		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0041	0.00033		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0041	0.00025		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0041	0.00049		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0041	0.00025		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0041	0.00025		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0041	0.00025		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0041	0.00033		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0016	0.00016		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0016	0.00025		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.00070	0.0041	0.000082	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.016	0.00066		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.016	0.00025		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.0082	0.00066		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0041	0.00016		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0041	0.00016		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0041	0.00016		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	0.00097	0.0041	0.00025	J	mg/Kg-dry	1	9/19/2018
Toluene	0.0032	0.0041	0.00016	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0041	0.00016		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0041	0.00041		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0041	0.00016		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0041	0.00033		mg/Kg-dry	1	9/19/2018
Xylenes, Total	0.0013	0.012	0.00033	J	mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	14.2	0.2	0.1	*	wt%	1	9/19/2018

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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-010

Client Sample ID: NSB4-A
Collection Date: 9/16/2018 12:05:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**			Prep Date: **9/18/2018**		Analyst: **AET**
Acetone	0.093	0.074	0.0023		mg/Kg-dry	1	9/19/2018
Benzene	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0049	0.00039		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0049	0.00039		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0098	0.00049		mg/Kg-dry	1	9/19/2018
2-Butanone	0.0069	0.074	0.0015	J	mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.00035	0.049	0.0002	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0049	0.00029		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0098	0.00039		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0098	0.00029		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0049	0.00039		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0049	0.00029		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0049	0.00059		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0049	0.00029		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0049	0.00029		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0049	0.00029		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0049	0.00039		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0020	0.0002		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0020	0.00029		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.00015	0.0049	0.000098	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.020	0.00079		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.020	0.00029		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.0098	0.00079		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	0.0026	0.0049	0.00029	J	mg/Kg-dry	1	9/19/2018
Toluene	0.00033	0.0049	0.0002	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0049	0.00049		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0049	0.00039		mg/Kg-dry	1	9/19/2018
Xylenes, Total	ND	0.015	0.00039		mg/Kg-dry	1	9/19/2018
Organic Matter / Carbon		**D2974**			Prep Date: **9/19/2018**		Analyst: **VA**
Organic Matter	2.99	0.01		*	wt%	1	9/20/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-010

Client Sample ID: NSB4-A
Collection Date: 9/16/2018 12:05:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Percent Moisture	**D2974**			Prep Date: **9/18/2018**			Analyst: **VA**
Percent Moisture	18.1	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
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HT - Sample received past holding time
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RL/MDL - Reporting Limit / Method Detection Limit for the analysis
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-011

Client Sample ID: NSB4-B
Collection Date: 9/16/2018 12:21:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **ERP**	
Acetone	0.016	0.069	0.0021	J	mg/Kg-dry	1	9/19/2018
Benzene	0.00050	0.0046	0.00018	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0046	0.00037		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0046	0.00037		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0091	0.00046		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.069	0.0014		mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.00032	0.046	0.00018	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0046	0.00027		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0091	0.00037		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0091	0.00027		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0046	0.00037		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0046	0.00027		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0046	0.00055		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0046	0.00037		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0018	0.00018		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0018	0.00027		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.00014	0.0046	0.000091	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.018	0.00073		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.018	0.00027		mg/Kg-dry	1	9/19/2018
Methylene chloride	0.0038	0.0091	0.00073	J	mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/19/2018
Toluene	0.00035	0.0046	0.00018	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0046	0.00046		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0046	0.00018		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0046	0.00037		mg/Kg-dry	1	9/19/2018
Xylenes, Total	ND	0.014	0.00037		mg/Kg-dry	1	9/19/2018
Organic Matter / Carbon		**D2974**		Prep Date: **9/19/2018**		Analyst: **VA**	
Organic Matter	4.62	0.01		*	wt%	1	9/20/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-011

Client Sample ID: NSB4-B
Collection Date: 9/16/2018 12:21:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Percent Moisture	**D2974**			Prep Date: **9/18/2018**			Analyst: **VA**
Percent Moisture	16.3	0.2	0.1	*	wt%	1	9/19/2018

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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-012

Client Sample ID: NSB4-C
Collection Date: 9/16/2018 12:38:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **ERP**	
Acetone	0.0077	0.060	0.0018	J	mg/Kg-dry	1	9/19/2018
Benzene	0.00031	0.0040	0.00016	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0040	0.00032		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0040	0.00032		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0080	0.0004		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.060	0.0012		mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.00021	0.040	0.00016	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0040	0.00024		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0040	0.00016		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0080	0.00032		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0040	0.00016		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0080	0.00024		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0040	0.00032		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0040	0.00024		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0040	0.00048		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0040	0.00024		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0040	0.00024		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0040	0.00024		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0040	0.00032		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0016	0.00016		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0016	0.00024		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.00019	0.0040	0.00008	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.016	0.00064		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.016	0.00024		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.0080	0.00064		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0040	0.00016		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0040	0.00016		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0040	0.00016		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	ND	0.0040	0.00024		mg/Kg-dry	1	9/19/2018
Toluene	0.00043	0.0040	0.00016	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0040	0.00016		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0040	0.0004		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0040	0.00016		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0040	0.00032		mg/Kg-dry	1	9/19/2018
Xylenes, Total	ND	0.012	0.00032		mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	8.7	0.2	0.1	*	wt%	1	9/19/2018

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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-013

Client Sample ID: NSB5-A
Collection Date: 9/16/2018 12:55:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **MJK**	
Acetone	0.017	0.068	0.0021	J	mg/Kg-dry	1	9/19/2018
Benzene	0.0039	0.0045	0.00018	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0045	0.00036		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0045	0.00036		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0091	0.00045		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.068	0.0014		mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.00028	0.045	0.00018	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0045	0.00027		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0091	0.00036		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0091	0.00027		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0045	0.00036		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0045	0.00027		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0045	0.00055		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0045	0.00027		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0045	0.00027		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0045	0.00027		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0045	0.00036		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0018	0.00018		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0018	0.00027		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.0018	0.0045	0.000091	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.018	0.00073		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.018	0.00027		mg/Kg-dry	1	9/19/2018
Methylene chloride	0.00088	0.0091	0.00073	J	mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	0.21	0.0045	0.00027		mg/Kg-dry	1	9/19/2018
Toluene	0.0067	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0045	0.00045		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0045	0.00036		mg/Kg-dry	1	9/19/2018
Xylenes, Total	0.0042	0.014	0.00036	J	mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	15.5	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-014

Client Sample ID: NSB5-B
Collection Date: 9/16/2018 1:10:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**			Prep Date: **9/18/2018**		Analyst: **ERP**
Acetone	ND	4.0	0.12		mg/Kg-dry	50	9/20/2018
Benzene	ND	0.27	0.011		mg/Kg-dry	50	9/20/2018
Bromodichloromethane	ND	0.27	0.022		mg/Kg-dry	50	9/20/2018
Bromoform	ND	0.27	0.022		mg/Kg-dry	50	9/20/2018
Bromomethane	ND	0.54	0.027		mg/Kg-dry	50	9/20/2018
2-Butanone	ND	4.0	0.081		mg/Kg-dry	50	9/20/2018
Carbon disulfide	ND	2.7	0.011		mg/Kg-dry	50	9/20/2018
Carbon tetrachloride	ND	0.27	0.016		mg/Kg-dry	50	9/20/2018
Chlorobenzene	ND	0.27	0.011		mg/Kg-dry	50	9/20/2018
Chloroethane	ND	0.54	0.022		mg/Kg-dry	50	9/20/2018
Chloroform	ND	0.27	0.011		mg/Kg-dry	50	9/20/2018
Chloromethane	ND	0.54	0.016		mg/Kg-dry	50	9/20/2018
Dibromochloromethane	ND	0.27	0.022		mg/Kg-dry	50	9/20/2018
1,1-Dichloroethane	ND	0.27	0.016		mg/Kg-dry	50	9/20/2018
1,2-Dichloroethane	ND	0.27	0.032		mg/Kg-dry	50	9/20/2018
1,1-Dichloroethene	ND	0.27	0.016		mg/Kg-dry	50	9/20/2018
cis-1,2-Dichloroethene	ND	0.27	0.016		mg/Kg-dry	50	9/20/2018
trans-1,2-Dichloroethene	ND	0.27	0.016		mg/Kg-dry	50	9/20/2018
1,2-Dichloropropane	ND	0.27	0.022		mg/Kg-dry	50	9/20/2018
cis-1,3-Dichloropropene	ND	0.11	0.011		mg/Kg-dry	50	9/20/2018
trans-1,3-Dichloropropene	ND	0.11	0.016		mg/Kg-dry	50	9/20/2018
Ethylbenzene	ND	0.27	0.0054		mg/Kg-dry	50	9/20/2018
2-Hexanone	ND	1.1	0.043		mg/Kg-dry	50	9/20/2018
4-Methyl-2-pentanone	ND	1.1	0.016		mg/Kg-dry	50	9/20/2018
Methylene chloride	ND	0.54	0.043		mg/Kg-dry	50	9/20/2018
Methyl tert-butyl ether	ND	0.27	0.011		mg/Kg-dry	50	9/20/2018
Styrene	ND	0.27	0.011		mg/Kg-dry	50	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.27	0.011		mg/Kg-dry	50	9/20/2018
Tetrachloroethene	2.1	0.27	0.016		mg/Kg-dry	50	9/20/2018
Toluene	ND	0.27	0.011		mg/Kg-dry	50	9/20/2018
1,1,1-Trichloroethane	ND	0.27	0.011		mg/Kg-dry	50	9/20/2018
1,1,2-Trichloroethane	ND	0.27	0.027		mg/Kg-dry	50	9/20/2018
Trichloroethene	0.053	0.27	0.011	J	mg/Kg-dry	50	9/20/2018
Vinyl chloride	ND	0.27	0.022		mg/Kg-dry	50	9/20/2018
Xylenes, Total	ND	0.81	0.022		mg/Kg-dry	50	9/20/2018
Percent Moisture		**D2974**			Prep Date: **9/18/2018**		Analyst: **VA**
Percent Moisture	21.5	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-015

Client Sample ID: NSB5-C
Collection Date: 9/16/2018 1:26:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **MJK**	
Acetone	0.014	0.063	0.0019	J	mg/Kg-dry	1	9/19/2018
Benzene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0042	0.00034		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0042	0.00034		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0084	0.00042		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.063	0.0013		mg/Kg-dry	1	9/19/2018
Carbon disulfide	ND	0.042	0.00017		mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0084	0.00034		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0084	0.00025		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0042	0.00034		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0042	0.00051		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0042	0.00034		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0017	0.00017		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0017	0.00025		mg/Kg-dry	1	9/19/2018
Ethylbenzene	ND	0.0042	0.000084		mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.017	0.00067		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.017	0.00025		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.0084	0.00067		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
Toluene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0042	0.00042		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0042	0.00034		mg/Kg-dry	1	9/19/2018
Xylenes, Total	ND	0.013	0.00034		mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	16.9	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-016

Client Sample ID: NSB6-A
Collection Date: 9/16/2018 1:45:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**			Prep Date: **9/18/2018**		Analyst: **ERP**
Acetone	ND	4.3	0.13		mg/Kg-dry	50	9/20/2018
Benzene	ND	0.29	0.011		mg/Kg-dry	50	9/20/2018
Bromodichloromethane	ND	0.29	0.023		mg/Kg-dry	50	9/20/2018
Bromoform	ND	0.29	0.023		mg/Kg-dry	50	9/20/2018
Bromomethane	ND	0.57	0.029		mg/Kg-dry	50	9/20/2018
2-Butanone	ND	4.3	0.086		mg/Kg-dry	50	9/20/2018
Carbon disulfide	0.011	2.9	0.011	J	mg/Kg-dry	50	9/20/2018
Carbon tetrachloride	ND	0.29	0.017		mg/Kg-dry	50	9/20/2018
Chlorobenzene	ND	0.29	0.011		mg/Kg-dry	50	9/20/2018
Chloroethane	ND	0.57	0.023		mg/Kg-dry	50	9/20/2018
Chloroform	ND	0.29	0.011		mg/Kg-dry	50	9/20/2018
Chloromethane	ND	0.57	0.017		mg/Kg-dry	50	9/20/2018
Dibromochloromethane	ND	0.29	0.023		mg/Kg-dry	50	9/20/2018
1,1-Dichloroethane	ND	0.29	0.017		mg/Kg-dry	50	9/20/2018
1,2-Dichloroethane	ND	0.29	0.034		mg/Kg-dry	50	9/20/2018
1,1-Dichloroethene	ND	0.29	0.017		mg/Kg-dry	50	9/20/2018
cis-1,2-Dichloroethene	ND	0.29	0.017		mg/Kg-dry	50	9/20/2018
trans-1,2-Dichloroethene	ND	0.29	0.017		mg/Kg-dry	50	9/20/2018
1,2-Dichloropropane	ND	0.29	0.023		mg/Kg-dry	50	9/20/2018
cis-1,3-Dichloropropene	ND	0.11	0.011		mg/Kg-dry	50	9/20/2018
trans-1,3-Dichloropropene	ND	0.11	0.017		mg/Kg-dry	50	9/20/2018
Ethylbenzene	ND	0.29	0.0057		mg/Kg-dry	50	9/20/2018
2-Hexanone	ND	1.1	0.046		mg/Kg-dry	50	9/20/2018
4-Methyl-2-pentanone	ND	1.1	0.017		mg/Kg-dry	50	9/20/2018
Methylene chloride	ND	0.57	0.046		mg/Kg-dry	50	9/20/2018
Methyl tert-butyl ether	ND	0.29	0.011		mg/Kg-dry	50	9/20/2018
Styrene	ND	0.29	0.011		mg/Kg-dry	50	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.29	0.011		mg/Kg-dry	50	9/20/2018
Tetrachloroethene	6.3	0.29	0.017		mg/Kg-dry	50	9/20/2018
Toluene	ND	0.29	0.011		mg/Kg-dry	50	9/20/2018
1,1,1-Trichloroethane	ND	0.29	0.011		mg/Kg-dry	50	9/20/2018
1,1,2-Trichloroethane	ND	0.29	0.029		mg/Kg-dry	50	9/20/2018
Trichloroethene	0.75	0.29	0.011		mg/Kg-dry	50	9/20/2018
Vinyl chloride	ND	0.29	0.023		mg/Kg-dry	50	9/20/2018
Xylenes, Total	ND	0.86	0.023		mg/Kg-dry	50	9/20/2018
Percent Moisture		**D2974**			Prep Date: **9/18/2018**		Analyst: **VA**
Percent Moisture	19.1	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-017

Client Sample ID: NSB6-B
Collection Date: 9/16/2018 2:01:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **MJK**	
Acetone	0.016	0.071	0.0022	J	mg/Kg-dry	1	9/19/2018
Benzene	0.00067	0.0047	0.00019	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0047	0.00038		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0047	0.00038		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0094	0.00047		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.071	0.0014		mg/Kg-dry	1	9/19/2018
Carbon disulfide	ND	0.047	0.00019		mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0047	0.00028		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0094	0.00038		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0094	0.00028		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0047	0.00038		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0047	0.00028		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0047	0.00057		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0047	0.00028		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	0.0043	0.0047	0.00028	J	mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	0.00078	0.0047	0.00028	J	mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0047	0.00038		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0019	0.00019		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0019	0.00028		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.00031	0.0047	0.000094	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.019	0.00075		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.019	0.00028		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.0094	0.00075		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	1.5	0.25	0.015		mg/Kg-dry	50	9/22/2018
Toluene	0.0010	0.0047	0.00019	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0047	0.00047		mg/Kg-dry	1	9/19/2018
Trichloroethene	0.060	0.0047	0.00019		mg/Kg-dry	1	9/19/2018
Vinyl chloride	0.0027	0.0047	0.00038	J	mg/Kg-dry	1	9/19/2018
Xylenes, Total	ND	0.014	0.00038		mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	19.3	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-018

Client Sample ID: NSB6-C
Collection Date: 9/16/2018 2:18:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW8260B**		Prep Date: **9/20/2018**			Analyst: **ERP**
Acetone	0.019	0.090	0.0028	J	mg/Kg-dry	1	9/20/2018
Benzene	ND	0.0060	0.00024		mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0060	0.00048		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0060	0.00048		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.012	0.0006		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.090	0.0018		mg/Kg-dry	1	9/20/2018
Carbon disulfide	0.00054	0.060	0.00024	J	mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0060	0.00036		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0060	0.00024		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.012	0.00048		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0060	0.00024		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.012	0.00036		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0060	0.00048		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0060	0.00036		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0060	0.00072		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0060	0.00036		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	ND	0.0060	0.00036		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0060	0.00036		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0060	0.00048		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0024	0.00024		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0024	0.00036		mg/Kg-dry	1	9/20/2018
Ethylbenzene	ND	0.0060	0.00012		mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.024	0.00096		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.024	0.00036		mg/Kg-dry	1	9/20/2018
Methylene chloride	ND	0.012	0.00096		mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0060	0.00024		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0060	0.00024		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0060	0.00024		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	0.0014	0.0060	0.00036	J	mg/Kg-dry	1	9/20/2018
Toluene	ND	0.0060	0.00024		mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0060	0.00024		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0060	0.0006		mg/Kg-dry	1	9/20/2018
Trichloroethene	ND	0.0060	0.00024		mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0060	0.00048		mg/Kg-dry	1	9/20/2018
Xylenes, Total	ND	0.018	0.00048		mg/Kg-dry	1	9/20/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**			Analyst: **VA**
Percent Moisture	9.6	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-019

Client Sample ID: NSB7-A
Collection Date: 9/16/2018 2:35:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**			Prep Date: **9/18/2018**		Analyst: **MJK**
Acetone	0.077	0.062	0.0019		mg/Kg-dry	1	9/19/2018
Benzene	0.00051	0.0042	0.00017	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0042	0.00033		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0042	0.00033		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0083	0.00042		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.062	0.0012		mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.0017	0.042	0.00017	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0083	0.00033		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0083	0.00025		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0042	0.00033		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0042	0.0005		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0042	0.00033		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0017	0.00017		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0017	0.00025		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.00037	0.0042	0.000083	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.017	0.00066		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.017	0.00025		mg/Kg-dry	1	9/19/2018
Methylene chloride	0.0026	0.0083	0.00066	J	mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	0.0042	0.0042	0.00025	J	mg/Kg-dry	1	9/19/2018
Toluene	0.0011	0.0042	0.00017	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0042	0.00042		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0042	0.00017		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0042	0.00033		mg/Kg-dry	1	9/19/2018
Xylenes, Total	0.00056	0.012	0.00033	J	mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**			Prep Date: **9/18/2018**		Analyst: **VA**
Percent Moisture	13.5	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-020

Client Sample ID: NSB7-B
Collection Date: 9/16/2018 2:50:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **MJK**	
Acetone	0.050	0.067	0.0021	J	mg/Kg-dry	1	9/19/2018
Benzene	0.0010	0.0045	0.00018	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0045	0.00036		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0045	0.00036		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0090	0.00045		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.067	0.0013		mg/Kg-dry	1	9/19/2018
Carbon disulfide	0.0040	0.045	0.00018	J	mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0045	0.00027		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0090	0.00036		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0090	0.00027		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0045	0.00036		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0045	0.00027		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0045	0.00054		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0045	0.00027		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0045	0.00027		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0045	0.00027		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0045	0.00036		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0018	0.00018		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0018	0.00027		mg/Kg-dry	1	9/19/2018
Ethylbenzene	ND	0.0045	0.00009		mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.018	0.00072		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.018	0.00027		mg/Kg-dry	1	9/19/2018
Methylene chloride	0.0034	0.0090	0.00072	J	mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	0.011	0.0045	0.00027		mg/Kg-dry	1	9/19/2018
Toluene	0.0020	0.0045	0.00018	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0045	0.00045		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0045	0.00018		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0045	0.00036		mg/Kg-dry	1	9/19/2018
Xylenes, Total	0.00085	0.013	0.00036	J	mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	18.4	0.2	0.1	*	wt%	1	9/19/2018

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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-021

Client Sample ID: NSB7-C
Collection Date: 9/16/2018 3:06:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**			Analyst: **MJK**
Acetone	0.0081	0.074	0.0023	J	mg/Kg-dry	1	9/19/2018
Benzene	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0049	0.00039		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0049	0.00039		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0098	0.00049		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.074	0.0015		mg/Kg-dry	1	9/19/2018
Carbon disulfide	ND	0.049	0.0002		mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0049	0.0003		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0098	0.00039		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0098	0.0003		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0049	0.00039		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0049	0.0003		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0049	0.00059		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0049	0.0003		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0049	0.0003		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0049	0.0003		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0049	0.00039		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0020	0.0002		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0020	0.0003		mg/Kg-dry	1	9/19/2018
Ethylbenzene	ND	0.0049	0.000098		mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.020	0.00079		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.020	0.0003		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.0098	0.00079		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	ND	0.0049	0.0003		mg/Kg-dry	1	9/19/2018
Toluene	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0049	0.00049		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0049	0.0002		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0049	0.00039		mg/Kg-dry	1	9/19/2018
Xylenes, Total	ND	0.015	0.00039		mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**			Analyst: **VA**
Percent Moisture	10.5	0.2	0.1	*	wt%	1	9/19/2018

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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-022

Client Sample ID: NSB8-A
Collection Date: 9/16/2018 3:25:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**			Analyst: **MJK**
Acetone	0.031	0.065	0.002	J	mg/Kg-dry	1	9/19/2018
Benzene	0.00089	0.0043	0.00017	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0043	0.00034		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0043	0.00034		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.0086	0.00043		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.065	0.0013		mg/Kg-dry	1	9/19/2018
Carbon disulfide	ND	0.043	0.00017		mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0043	0.00026		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0043	0.00017		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.0086	0.00034		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0043	0.00017		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.0086	0.00026		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0043	0.00034		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0043	0.00026		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0043	0.00052		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0043	0.00026		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0043	0.00026		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0043	0.00026		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0043	0.00034		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0017	0.00017		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0017	0.00026		mg/Kg-dry	1	9/19/2018
Ethylbenzene	0.00052	0.0043	0.000086	J	mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.017	0.00069		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.017	0.00026		mg/Kg-dry	1	9/19/2018
Methylene chloride	0.0024	0.0086	0.00069	J	mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0043	0.00017		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0043	0.00017		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0043	0.00017		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	ND	0.0043	0.00026		mg/Kg-dry	1	9/19/2018
Toluene	0.0015	0.0043	0.00017	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0043	0.00017		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0043	0.00043		mg/Kg-dry	1	9/19/2018
Trichloroethene	ND	0.0043	0.00017		mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0043	0.00034		mg/Kg-dry	1	9/19/2018
Xylenes, Total	ND	0.013	0.00034		mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**			Analyst: **VA**
Percent Moisture	15.6	0.2	0.1	*	wt%	1	9/19/2018

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Date Reported: September 29, 2018
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ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-023

Client Sample ID: NSB8-B
Collection Date: 9/16/2018 3:40:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **MJK**	
Acetone	ND	0.078	0.0024		mg/Kg-dry	1	9/19/2018
Benzene	0.00061	0.0052	0.00021	J	mg/Kg-dry	1	9/19/2018
Bromodichloromethane	ND	0.0052	0.00042		mg/Kg-dry	1	9/19/2018
Bromoform	ND	0.0052	0.00042		mg/Kg-dry	1	9/19/2018
Bromomethane	ND	0.010	0.00052		mg/Kg-dry	1	9/19/2018
2-Butanone	ND	0.078	0.0016		mg/Kg-dry	1	9/19/2018
Carbon disulfide	ND	0.052	0.00021		mg/Kg-dry	1	9/19/2018
Carbon tetrachloride	ND	0.0052	0.00031		mg/Kg-dry	1	9/19/2018
Chlorobenzene	ND	0.0052	0.00021		mg/Kg-dry	1	9/19/2018
Chloroethane	ND	0.010	0.00042		mg/Kg-dry	1	9/19/2018
Chloroform	ND	0.0052	0.00021		mg/Kg-dry	1	9/19/2018
Chloromethane	ND	0.010	0.00031		mg/Kg-dry	1	9/19/2018
Dibromochloromethane	ND	0.0052	0.00042		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethane	ND	0.0052	0.00031		mg/Kg-dry	1	9/19/2018
1,2-Dichloroethane	ND	0.0052	0.00062		mg/Kg-dry	1	9/19/2018
1,1-Dichloroethene	ND	0.0052	0.00031		mg/Kg-dry	1	9/19/2018
cis-1,2-Dichloroethene	ND	0.0052	0.00031		mg/Kg-dry	1	9/19/2018
trans-1,2-Dichloroethene	ND	0.0052	0.00031		mg/Kg-dry	1	9/19/2018
1,2-Dichloropropane	ND	0.0052	0.00042		mg/Kg-dry	1	9/19/2018
cis-1,3-Dichloropropene	ND	0.0021	0.00021		mg/Kg-dry	1	9/19/2018
trans-1,3-Dichloropropene	ND	0.0021	0.00031		mg/Kg-dry	1	9/19/2018
Ethylbenzene	ND	0.0052	0.0001		mg/Kg-dry	1	9/19/2018
2-Hexanone	ND	0.021	0.00083		mg/Kg-dry	1	9/19/2018
4-Methyl-2-pentanone	ND	0.021	0.00031		mg/Kg-dry	1	9/19/2018
Methylene chloride	ND	0.010	0.00083		mg/Kg-dry	1	9/19/2018
Methyl tert-butyl ether	ND	0.0052	0.00021		mg/Kg-dry	1	9/19/2018
Styrene	ND	0.0052	0.00021		mg/Kg-dry	1	9/19/2018
1,1,2,2-Tetrachloroethane	ND	0.0052	0.00021		mg/Kg-dry	1	9/19/2018
Tetrachloroethene	ND	0.0052	0.00031		mg/Kg-dry	1	9/19/2018
Toluene	0.0011	0.0052	0.00021	J	mg/Kg-dry	1	9/19/2018
1,1,1-Trichloroethane	ND	0.0052	0.00021		mg/Kg-dry	1	9/19/2018
1,1,2-Trichloroethane	ND	0.0052	0.00052		mg/Kg-dry	1	9/19/2018
Trichloroethene	0.0022	0.0052	0.00021	J	mg/Kg-dry	1	9/19/2018
Vinyl chloride	ND	0.0052	0.00042		mg/Kg-dry	1	9/19/2018
Xylenes, Total	0.00064	0.016	0.00042	J	mg/Kg-dry	1	9/19/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	20.7	0.2	0.1	*	wt%	1	9/19/2018

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H - Holding time exceeded

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

Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-024

Client Sample ID: NSB8-C
Collection Date: 9/16/2018 3:56:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **MJK**	
Acetone	0.025	0.068	0.0021	J	mg/Kg-dry	1	9/20/2018
Benzene	0.00027	0.0046	0.00018	J	mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0046	0.00036		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0046	0.00036		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.0091	0.00046		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.068	0.0014		mg/Kg-dry	1	9/20/2018
Carbon disulfide	ND	0.046	0.00018		mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.0091	0.00036		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.0091	0.00027		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0046	0.00036		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0046	0.00055		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0046	0.00036		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0018	0.00018		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0018	0.00027		mg/Kg-dry	1	9/20/2018
Ethylbenzene	ND	0.0046	0.000091		mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.018	0.00073		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.018	0.00027		mg/Kg-dry	1	9/20/2018
Methylene chloride	0.0015	0.0091	0.00073	J	mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
Toluene	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0046	0.00046		mg/Kg-dry	1	9/20/2018
Trichloroethene	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0046	0.00036		mg/Kg-dry	1	9/20/2018
Xylenes, Total	ND	0.014	0.00036		mg/Kg-dry	1	9/20/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	14.6	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL/MDL - Reporting Limit / Method Detection 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: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-025

Client Sample ID: NSB9-A
Collection Date: 9/16/2018 4:15:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**			Analyst: **MJK**
Acetone	0.066	0.075	0.0023	J	mg/Kg-dry	1	9/20/2018
Benzene	ND	0.0050	0.0002		mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0050	0.0004		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0050	0.0004		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.010	0.0005		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.075	0.0015		mg/Kg-dry	1	9/20/2018
Carbon disulfide	ND	0.050	0.0002		mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0050	0.0003		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0050	0.0002		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.010	0.0004		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0050	0.0002		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.010	0.0003		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0050	0.0004		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0050	0.0003		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0050	0.0006		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0050	0.0003		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	ND	0.0050	0.0003		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0050	0.0003		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0050	0.0004		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0020	0.0002		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0020	0.0003		mg/Kg-dry	1	9/20/2018
Ethylbenzene	ND	0.0050	0.0001		mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.020	0.0008		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.020	0.0003		mg/Kg-dry	1	9/20/2018
Methylene chloride	0.0020	0.010	0.0008	J	mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0050	0.0002		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0050	0.0002		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0002		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	0.014	0.0050	0.0003		mg/Kg-dry	1	9/20/2018
Toluene	ND	0.0050	0.0002		mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0050	0.0005		mg/Kg-dry	1	9/20/2018
Trichloroethene	ND	0.0050	0.0002		mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0050	0.0004		mg/Kg-dry	1	9/20/2018
Xylenes, Total	ND	0.015	0.0004		mg/Kg-dry	1	9/20/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**			Analyst: **VA**
Percent Moisture	19.5	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-026

Client Sample ID: NSB9-B
Collection Date: 9/16/2018 4:30:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**			Prep Date: **9/18/2018**		Analyst: **MJK**
Acetone	ND	0.078	0.0024		mg/Kg-dry	1	9/20/2018
Benzene	0.00097	0.0052	0.00021	J	mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0052	0.00042		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0052	0.00042		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.010	0.00052		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.078	0.0016		mg/Kg-dry	1	9/20/2018
Carbon disulfide	ND	0.052	0.00021		mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0052	0.00031		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0052	0.00021		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.010	0.00042		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0052	0.00021		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.010	0.00031		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0052	0.00042		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0052	0.00031		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0052	0.00062		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0052	0.00031		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	0.0080	0.0052	0.00031		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0052	0.00031		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0052	0.00042		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0021	0.00021		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0021	0.00031		mg/Kg-dry	1	9/20/2018
Ethylbenzene	0.00067	0.0052	0.0001	J	mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.021	0.00083		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.021	0.00031		mg/Kg-dry	1	9/20/2018
Methylene chloride	0.0013	0.010	0.00083	J	mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0052	0.00021		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0052	0.00021		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0052	0.00021		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	ND	0.0052	0.00031		mg/Kg-dry	1	9/20/2018
Toluene	0.0017	0.0052	0.00021	J	mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0052	0.00021		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0052	0.00052		mg/Kg-dry	1	9/20/2018
Trichloroethene	0.0049	0.0052	0.00021	J	mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0052	0.00042		mg/Kg-dry	1	9/20/2018
Xylenes, Total	ND	0.016	0.00042		mg/Kg-dry	1	9/20/2018
Percent Moisture		**D2974**			Prep Date: **9/18/2018**		Analyst: **VA**
Percent Moisture	24.1	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-027

Client Sample ID: NSB9-C
Collection Date: 9/16/2018 4:46:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**			Analyst: **MJK**
Acetone	0.032	0.062	0.0019	J	mg/Kg-dry	1	9/20/2018
Benzene	0.0018	0.0041	0.00017	J	mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0041	0.00033		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0041	0.00033		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.0083	0.00041		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.062	0.0012		mg/Kg-dry	1	9/20/2018
Carbon disulfide	ND	0.041	0.00017		mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0041	0.00025		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0041	0.00017		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.0083	0.00033		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0041	0.00017		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.0083	0.00025		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0041	0.00033		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0041	0.00025		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0041	0.0005		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0041	0.00025		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	ND	0.0041	0.00025		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0041	0.00025		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0041	0.00033		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0017	0.00017		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0017	0.00025		mg/Kg-dry	1	9/20/2018
Ethylbenzene	0.00051	0.0041	0.000083	J	mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.017	0.00066		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.017	0.00025		mg/Kg-dry	1	9/20/2018
Methylene chloride	0.0012	0.0083	0.00066	J	mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0041	0.00017		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0041	0.00017		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0041	0.00017		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	ND	0.0041	0.00025		mg/Kg-dry	1	9/20/2018
Toluene	0.0023	0.0041	0.00017	J	mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0041	0.00017		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0041	0.00041		mg/Kg-dry	1	9/20/2018
Trichloroethene	ND	0.0041	0.00017		mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0041	0.00033		mg/Kg-dry	1	9/20/2018
Xylenes, Total	ND	0.012	0.00033		mg/Kg-dry	1	9/20/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**			Analyst: **VA**
Percent Moisture	10	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-028

Client Sample ID: NSB10-A
Collection Date: 9/16/2018 5:03:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**			Analyst: **MJK**
Acetone	0.10	0.072	0.0022		mg/Kg-dry	1	9/20/2018
Benzene	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0048	0.00039		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0048	0.00039		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.0096	0.00048		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.072	0.0014		mg/Kg-dry	1	9/20/2018
Carbon disulfide	ND	0.048	0.00019		mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0048	0.00029		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.0096	0.00039		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.0096	0.00029		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0048	0.00039		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0048	0.00029		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0048	0.00058		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0048	0.00039		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0019	0.00019		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0019	0.00029		mg/Kg-dry	1	9/20/2018
Ethylbenzene	ND	0.0048	0.000096		mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.019	0.00077		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.019	0.00029		mg/Kg-dry	1	9/20/2018
Methylene chloride	0.00092	0.0096	0.00077	J	mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	1.4	0.26	0.016		mg/Kg-dry	50	9/20/2018
Toluene	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0048	0.00048		mg/Kg-dry	1	9/20/2018
Trichloroethene	0.019	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0048	0.00039		mg/Kg-dry	1	9/20/2018
Xylenes, Total	ND	0.014	0.00039		mg/Kg-dry	1	9/20/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**			Analyst: **VA**
Percent Moisture	17.3	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-029

Client Sample ID: NSB10-B
Collection Date: 9/16/2018 5:17:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **MJK**	
Acetone	ND	0.068	0.0021		mg/Kg-dry	1	9/20/2018
Benzene	0.0018	0.0046	0.00018	J	mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0046	0.00036		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0046	0.00036		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.0091	0.00046		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.068	0.0014		mg/Kg-dry	1	9/20/2018
Carbon disulfide	ND	0.046	0.00018		mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.0091	0.00036		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.0091	0.00027		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0046	0.00036		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0046	0.00055		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0046	0.00036		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0018	0.00018		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0018	0.00027		mg/Kg-dry	1	9/20/2018
Ethylbenzene	ND	0.0046	0.000091		mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.018	0.00073		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.018	0.00027		mg/Kg-dry	1	9/20/2018
Methylene chloride	ND	0.0091	0.00073		mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	0.16	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
Toluene	0.0031	0.0046	0.00018	J	mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0046	0.00046		mg/Kg-dry	1	9/20/2018
Trichloroethene	0.013	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0046	0.00036		mg/Kg-dry	1	9/20/2018
Xylenes, Total	0.0013	0.014	0.00036	J	mg/Kg-dry	1	9/20/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	16.5	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-030

Client Sample ID: NSB10-C
Collection Date: 9/16/2018 5:33:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **9/18/2018**			Analyst: **MJK**
Acetone	ND	0.065	0.002		mg/Kg-dry	1	9/20/2018
Benzene	ND	0.0043	0.00017		mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0043	0.00035		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0043	0.00035		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.0087	0.00043		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.065	0.0013		mg/Kg-dry	1	9/20/2018
Carbon disulfide	ND	0.043	0.00017		mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0043	0.00026		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0043	0.00017		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.0087	0.00035		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0043	0.00017		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.0087	0.00026		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0043	0.00035		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0043	0.00026		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0043	0.00052		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0043	0.00026		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	ND	0.0043	0.00026		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0043	0.00026		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0043	0.00035		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0017	0.00017		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0017	0.00026		mg/Kg-dry	1	9/20/2018
Ethylbenzene	ND	0.0043	0.000087		mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.017	0.00069		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.017	0.00026		mg/Kg-dry	1	9/20/2018
Methylene chloride	ND	0.0087	0.00069		mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0043	0.00017		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0043	0.00017		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0043	0.00017		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	ND	0.0043	0.00026		mg/Kg-dry	1	9/20/2018
Toluene	ND	0.0043	0.00017		mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0043	0.00017		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0043	0.00043		mg/Kg-dry	1	9/20/2018
Trichloroethene	ND	0.0043	0.00017		mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0043	0.00035		mg/Kg-dry	1	9/20/2018
Xylenes, Total	ND	0.013	0.00035		mg/Kg-dry	1	9/20/2018
Percent Moisture	**D2974**			Prep Date: **9/18/2018**			Analyst: **VA**
Percent Moisture	7.9	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-031

Client Sample ID: NSB11-A
Collection Date: 9/16/2018 5:50:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**		Analyst: **MJK**	
Acetone	ND	0.073	0.0022		mg/Kg-dry	1	9/20/2018
Benzene	0.0020	0.0048	0.00019	J	mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0048	0.00039		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0048	0.00039		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.0097	0.00048		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.073	0.0015		mg/Kg-dry	1	9/20/2018
Carbon disulfide	ND	0.048	0.00019		mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0048	0.00029		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.0097	0.00039		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.0097	0.00029		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0048	0.00039		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0048	0.00029		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0048	0.00058		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0048	0.00029		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0048	0.00039		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0019	0.00019		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0019	0.00029		mg/Kg-dry	1	9/20/2018
Ethylbenzene	ND	0.0048	0.000097		mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.019	0.00077		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.019	0.00029		mg/Kg-dry	1	9/20/2018
Methylene chloride	ND	0.0097	0.00077		mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	0.067	0.0048	0.00029		mg/Kg-dry	1	9/20/2018
Toluene	0.0035	0.0048	0.00019	J	mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0048	0.00048		mg/Kg-dry	1	9/20/2018
Trichloroethene	ND	0.0048	0.00019		mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0048	0.00039		mg/Kg-dry	1	9/20/2018
Xylenes, Total	0.0016	0.015	0.00039	J	mg/Kg-dry	1	9/20/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**		Analyst: **VA**	
Percent Moisture	14.6	0.2	0.1	*	wt%	1	9/19/2018

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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-032

Client Sample ID: NSB11-B
Collection Date: 9/16/2018 6:06:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**			Prep Date: **9/18/2018**		Analyst: **MJK**
Acetone	ND	0.069	0.0021		mg/Kg-dry	1	9/20/2018
Benzene	0.0018	0.0046	0.00018	J	mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0046	0.00037		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0046	0.00037		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.0091	0.00046		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.069	0.0014		mg/Kg-dry	1	9/20/2018
Carbon disulfide	ND	0.046	0.00018		mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.0091	0.00037		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.0091	0.00027		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0046	0.00037		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0046	0.00055		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0046	0.00037		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0018	0.00018		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0018	0.00027		mg/Kg-dry	1	9/20/2018
Ethylbenzene	0.00084	0.0046	0.000091	J	mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.018	0.00073		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.018	0.00027		mg/Kg-dry	1	9/20/2018
Methylene chloride	ND	0.0091	0.00073		mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	0.22	0.0046	0.00027		mg/Kg-dry	1	9/20/2018
Toluene	0.0029	0.0046	0.00018	J	mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0046	0.00046		mg/Kg-dry	1	9/20/2018
Trichloroethene	ND	0.0046	0.00018		mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0046	0.00037		mg/Kg-dry	1	9/20/2018
Xylenes, Total	ND	0.014	0.00037		mg/Kg-dry	1	9/20/2018
Percent Moisture		**D2974**			Prep Date: **9/18/2018**		Analyst: **VA**
Percent Moisture	17.2	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-033

Client Sample ID: NSB11-C
Collection Date: 9/16/2018 6:21:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**			Prep Date: **9/18/2018**		Analyst: **MJK**
Acetone	ND	0.074	0.0023		mg/Kg-dry	1	9/20/2018
Benzene	0.0018	0.0049	0.0002	J	mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0049	0.00039		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0049	0.00039		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.0098	0.00049		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.074	0.0015		mg/Kg-dry	1	9/20/2018
Carbon disulfide	0.0011	0.049	0.0002	J	mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0049	0.00029		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0049	0.0002		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.0098	0.00039		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0049	0.0002		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.0098	0.00029		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0049	0.00039		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0049	0.00029		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0049	0.00059		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0049	0.00029		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	ND	0.0049	0.00029		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0049	0.00029		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0049	0.00039		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0020	0.0002		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0020	0.00029		mg/Kg-dry	1	9/20/2018
Ethylbenzene	0.00053	0.0049	0.000098	J	mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.020	0.00078		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.020	0.00029		mg/Kg-dry	1	9/20/2018
Methylene chloride	0.0016	0.0098	0.00078	J	mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0049	0.0002		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0049	0.0002		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0049	0.0002		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	ND	0.0049	0.00029		mg/Kg-dry	1	9/20/2018
Toluene	0.0025	0.0049	0.0002	J	mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0049	0.0002		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0049	0.00049		mg/Kg-dry	1	9/20/2018
Trichloroethene	ND	0.0049	0.0002		mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0049	0.00039		mg/Kg-dry	1	9/20/2018
Xylenes, Total	ND	0.015	0.00039		mg/Kg-dry	1	9/20/2018
Percent Moisture		**D2974**			Prep Date: **9/18/2018**		Analyst: **VA**
Percent Moisture	9.0	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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* - Non-accredited parameter
RL/MDL - Reporting Limit / Method Detection Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-034

Client Sample ID: NSB12-A
Collection Date: 9/16/2018 6:38:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**			Prep Date: **9/18/2018**		Analyst: **MJK**
Acetone	ND	0.062	0.0019		mg/Kg-dry	1	9/20/2018
Benzene	0.0013	0.0042	0.00017	J	mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0042	0.00033		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0042	0.00033		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.0083	0.00042		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.062	0.0012		mg/Kg-dry	1	9/20/2018
Carbon disulfide	0.00046	0.042	0.00017	J	mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0042	0.00025		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0042	0.00017		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.0083	0.00033		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0042	0.00017		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.0083	0.00025		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0042	0.00033		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0042	0.00025		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0042	0.0005		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0042	0.00033		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0017	0.00017		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0017	0.00025		mg/Kg-dry	1	9/20/2018
Ethylbenzene	ND	0.0042	0.000083		mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.017	0.00066		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.017	0.00025		mg/Kg-dry	1	9/20/2018
Methylene chloride	ND	0.0083	0.00066		mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0042	0.00017		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0042	0.00017		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0042	0.00017		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	ND	0.0042	0.00025		mg/Kg-dry	1	9/20/2018
Toluene	0.0021	0.0042	0.00017	J	mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0042	0.00017		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0042	0.00042		mg/Kg-dry	1	9/20/2018
Trichloroethene	ND	0.0042	0.00017		mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0042	0.00033		mg/Kg-dry	1	9/20/2018
Xylenes, Total	0.00090	0.012	0.00033	J	mg/Kg-dry	1	9/20/2018
Percent Moisture		**D2974**			Prep Date: **9/18/2018**		Analyst: **VA**
Percent Moisture	15.7	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-035

Client Sample ID: NSB12-B
Collection Date: 9/16/2018 6:53:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**			Prep Date: **9/18/2018**		Analyst: **MJK**
Acetone	ND	0.070	0.0022		mg/Kg-dry	1	9/20/2018
Benzene	0.0032	0.0047	0.00019	J	mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0047	0.00037		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0047	0.00037		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.0094	0.00047		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.070	0.0014		mg/Kg-dry	1	9/20/2018
Carbon disulfide	0.00077	0.047	0.00019	J	mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0047	0.00028		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0047	0.00019		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.0094	0.00037		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0047	0.00019		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.0094	0.00028		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0047	0.00037		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0047	0.00028		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0047	0.00056		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0047	0.00028		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	ND	0.0047	0.00028		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0047	0.00028		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0047	0.00037		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0019	0.00019		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0019	0.00028		mg/Kg-dry	1	9/20/2018
Ethylbenzene	0.0020	0.0047	0.000094	J	mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.019	0.00075		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.019	0.00028		mg/Kg-dry	1	9/20/2018
Methylene chloride	ND	0.0094	0.00075		mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0047	0.00019		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0047	0.00019		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0047	0.00019		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	0.027	0.0047	0.00028		mg/Kg-dry	1	9/20/2018
Toluene	0.0064	0.0047	0.00019		mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0047	0.00019		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0047	0.00047		mg/Kg-dry	1	9/20/2018
Trichloroethene	ND	0.0047	0.00019		mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0047	0.00037		mg/Kg-dry	1	9/20/2018
Xylenes, Total	0.0041	0.014	0.00037	J	mg/Kg-dry	1	9/20/2018
Percent Moisture		**D2974**			Prep Date: **9/18/2018**		Analyst: **VA**
Percent Moisture	18.5	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank
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Date Reported: September 29, 2018
Date Printed: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090542 Revision 0
Project: Westwood Cleaners, 8731 West North Ave., Wauwato
Lab ID: 18090542-036

Client Sample ID: NSB12-C
Collection Date: 9/16/2018 7:10:00 PM
Matrix: SOIL

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW5035/8260B**		Prep Date: **9/18/2018**			Analyst: **MJK**
Acetone	0.013	0.056	0.0017	J	mg/Kg-dry	1	9/20/2018
Benzene	ND	0.0037	0.00015		mg/Kg-dry	1	9/20/2018
Bromodichloromethane	ND	0.0037	0.0003		mg/Kg-dry	1	9/20/2018
Bromoform	ND	0.0037	0.0003		mg/Kg-dry	1	9/20/2018
Bromomethane	ND	0.0074	0.00037		mg/Kg-dry	1	9/20/2018
2-Butanone	ND	0.056	0.0011		mg/Kg-dry	1	9/20/2018
Carbon disulfide	ND	0.037	0.00015		mg/Kg-dry	1	9/20/2018
Carbon tetrachloride	ND	0.0037	0.00022		mg/Kg-dry	1	9/20/2018
Chlorobenzene	ND	0.0037	0.00015		mg/Kg-dry	1	9/20/2018
Chloroethane	ND	0.0074	0.0003		mg/Kg-dry	1	9/20/2018
Chloroform	ND	0.0037	0.00015		mg/Kg-dry	1	9/20/2018
Chloromethane	ND	0.0074	0.00022		mg/Kg-dry	1	9/20/2018
Dibromochloromethane	ND	0.0037	0.0003		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethane	ND	0.0037	0.00022		mg/Kg-dry	1	9/20/2018
1,2-Dichloroethane	ND	0.0037	0.00044		mg/Kg-dry	1	9/20/2018
1,1-Dichloroethene	ND	0.0037	0.00022		mg/Kg-dry	1	9/20/2018
cis-1,2-Dichloroethene	ND	0.0037	0.00022		mg/Kg-dry	1	9/20/2018
trans-1,2-Dichloroethene	ND	0.0037	0.00022		mg/Kg-dry	1	9/20/2018
1,2-Dichloropropane	ND	0.0037	0.0003		mg/Kg-dry	1	9/20/2018
cis-1,3-Dichloropropene	ND	0.0015	0.00015		mg/Kg-dry	1	9/20/2018
trans-1,3-Dichloropropene	ND	0.0015	0.00022		mg/Kg-dry	1	9/20/2018
Ethylbenzene	ND	0.0037	0.000074		mg/Kg-dry	1	9/20/2018
2-Hexanone	ND	0.015	0.00059		mg/Kg-dry	1	9/20/2018
4-Methyl-2-pentanone	ND	0.015	0.00022		mg/Kg-dry	1	9/20/2018
Methylene chloride	ND	0.0074	0.00059		mg/Kg-dry	1	9/20/2018
Methyl tert-butyl ether	ND	0.0037	0.00015		mg/Kg-dry	1	9/20/2018
Styrene	ND	0.0037	0.00015		mg/Kg-dry	1	9/20/2018
1,1,2,2-Tetrachloroethane	ND	0.0037	0.00015		mg/Kg-dry	1	9/20/2018
Tetrachloroethene	ND	0.0037	0.00022		mg/Kg-dry	1	9/20/2018
Toluene	ND	0.0037	0.00015		mg/Kg-dry	1	9/20/2018
1,1,1-Trichloroethane	ND	0.0037	0.00015		mg/Kg-dry	1	9/20/2018
1,1,2-Trichloroethane	ND	0.0037	0.00037		mg/Kg-dry	1	9/20/2018
Trichloroethene	ND	0.0037	0.00015		mg/Kg-dry	1	9/20/2018
Vinyl chloride	ND	0.0037	0.0003		mg/Kg-dry	1	9/20/2018
Xylenes, Total	ND	0.011	0.0003		mg/Kg-dry	1	9/20/2018
Percent Moisture		**D2974**		Prep Date: **9/18/2018**			Analyst: **VA**
Percent Moisture	8.8	0.2	0.1	*	wt%	1	9/19/2018

Qualifiers:
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CHAIN OF CUSTODY RECORD

No: _____ **Page:** 1 of 2

Company:	Hydrodynamics Consultant, Inc.
Project Number:	Client Tracking No.:
Project Name:	Westwood Cleaners
Location/Address:	8731 West North Ave., Wauwatosa, WI 53226
Sampler(s):	Yinong Han
Report To:	Yong Yu Phone: (630) 724-0098
QC Level: 1 2 3 4	Fax: (800) 881-2051
Regulatory Program:	NPEDS/MWRD RCRA SDWA SRP TACO Other:

P.O. No.:

Quote No.:

Turn Around:

Results Needed:

am pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	VOCs	TOCs	Remarks	Lab No.:
NSB1-A	9/16/18	9:38	S			Yes	4	X			001
NSB1-B	9/16/18	9:53	S			Yes	4	X			002
NSB1-C	9/16/18	10:09	S			Yes	4	X			003
NSB2-A	9/16/18	10:26	S			Yes	4	X			004
NSB2-B	9/16/18	10:43	S			Yes	4	X			005
NSB2-C	9/16/18	10:59	S			Yes	4	X			006
NSB3-A	9/16/18	11:15	S			Yes	4	X			007
NSB3-B	9/16/18	11:31	S			Yes	4	X			008
NSB3-C	9/16/18	11:47	S			Yes	4	X			009
NSB4-A	9/16/18	12:05	S			Yes	4	X	X		010
NSB4-B	9/16/18	12:21	S			Yes	4	X	X		011
NSB4-C	9/16/18	12:38	S			Yes	4	X			012
NSB5-A	9/16/18	12:55	S			Yes	4	X			013
NSB5-B	9/16/18	13:10	S			Yes	4	X			014
NSB5-C	9/16/18	13:26	S			Yes	4	X			015
NSB6-A	9/16/18	13:45	S			Yes	4	X			016
NSB6-B	9/16/18	14:01	S			Yes	4	X			017
NSB6-C	9/16/18	14:18	S			Yes	4	X			018

Relingquished By: (Signature)		Date/Time: 9/17/18 12:28
Received By: (Signature)		Date/Time: 9/17/18 12:28
Relingquished By: (Signature)		Date/Time: 9/17/18 1628
Received By: (Signature)		Date/Time: 9/17/18 16:28
Relingquished By: (Signature)		Date/Time:

Laboratory Use: **Sample Verification:**

- Container OK	Yes	✓	No	
- Sampes Leaking	Yes		No	✓
- Refrigerated (Temp: 3.6 °C)	Yes	✓	No	
- Sample Labels Match Sample ID	Yes	✓	No	

Work Order No.: 18090542

Preservation Code:

A = None B = HNO C = NaOH

D = H_2SO_4 E = HCl F = 5035/EnCore

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CHAIN OF CUSTODY RECORD

No: _____ **Page:** 2 of 2

Company:	Hydrodynamics Consultant, Inc.
Project Number:	Client Tracking No.:
Project Name:	Westwood Cleaners
Location/Address:	8731 West North Ave., Wauwatosa, WI 53226
Sampler(s):	Yinong Han
Report To:	Yong Yu Phone: (630) 724-0098
QC Level: 1 2 3 4	Fax: (800) 881-2051
Regulatory Program:	NPEDS/MWRD RCRA SDWA SRP TACO Other:

P.O. No.:

Quote No.:

Turn Around:

Results Needed:

am pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab.	Preserv.	No. of Containers	VOCs	Remarks	Lab No.:
NSB7-A	9/16/18	14:35	S			Yes	4	X		019
NSB7-B	9/16/18	14:50	S			Yes	4	X		020
NSB7-C	9/16/18	15:06	S			Yes	4	X		021
NSB8-A	9/16/18	15:25	S			Yes	4	X		022
NSB8-B	9/16/18	15:40	S			Yes	4	X		023
NSB8-C	9/16/18	15:56	S			Yes	4	X		024
NSB9-A	9/16/18	16:15	S			Yes	4	X		025
NSB9-B	9/16/18	16:30	S			Yes	4	X		026
NSB9-C	9/16/18	16:46	S			Yes	4	X		027
NSB10-A	9/16/18	17:03	S			Yes	4	X		028
NSB10-B	9/16/18	17:17	S			Yes	4	X		029
NSB10-C	9/16/18	17:33	S			Yes	4	X		030
NSB11-A	9/16/18	17:50	S			Yes	4	X		031
NSB11-B	9/16/18	18:06	S			Yes	4	X		032
NSB11-C	9/16/18	18:21	S			Yes	4	X		033
NSB12-A	9/16/18	18:38	S			Yes	4	X		034
NSB12-B	9/16/18	18:53	S			Yes	4	X		035
NSB12-C	9/16/18	19:10	S			Yes	4	X		036

Relingquished By: (Signature)	Yinong Han	Date/Time: 9/17/18 12:28
Received By: (Signature)		Date/Time: 9/17/18 12:28
Relingquished By: (Signature)		Date/Time: 9/17/18 16:28
Received By: (Signature)		Date/Time: 9/17/18 16:28
Relingquished By: (Signature)		Date/Time:

Laboratory Use: **Sample Verification:**

- Container OK	Yes	✓	No	
- Sampes Leaking	Yes		No	✓
- Refrigerated (Temp: 3.6 °C)	Yes	✓	No	
- Sample Labels Match Sample ID	Yes	✓	No	

Work Order No.: 18090542

Preservation Code:

A = None B = HNO C = NaOH

D = H_2SO_4 E = HCl F = 5035/EnCore

STAT Analysis Corporation

Sample Receipt Checklist

Client Name HYDRODYNAMICS | Date and Time Received: 9/17/2018 4:28:00 PM

Work Order Number 18090542 | Received by: EAA

Checklist completed by: [signature] Signature | 9/17/18 Date | Reviewed by: [initials] Initials | 9/17/18 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 or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 3.6 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☒	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 contacted: | Date contacted: | Contacted by:

Response:

STAT Analysis Corporation
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

September 29, 2018

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

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

Analytical Report for STAT Work Order: 18090548 Revision 0

RE: Westwood Cleaners, 8731 West North Aveue, Wauwatosa, WI 53226

Dear Dr. Yong Yu:

STAT Analysis received 2 samples for the referenced project on 9/17/2018 4:28:00 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,

Craig Chawla
Project Manager

STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
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September 29, 2018

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

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

Analytical Report for STAT Work Order: 18090701 Revision 0

RE: Westwood Cleaners, 8731 West North Avenue, Wauwatosa, WI, 53226

Dear Dr. Yong Yu:

STAT Analysis received 8 samples for the referenced project on 9/20/2018 2:30:00 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,

Craig Chawla
Project Manager

STAT Analysis Corporation

Date: September 29, 2018

Client: Hydrodynamics Consultant, Inc.
Project: Westwood Cleaners, 8731 West North Avenue, Wauwa
Work Order: 18090701 Revision 0

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
18090701-001A	MW1		9/19/2018 11:10:00 AM	9/20/2018
18090701-002A	MW1-D		9/19/2018 11:12:00 AM	9/20/2018
18090701-003A	MW2		9/19/2018 11:40:00 AM	9/20/2018
18090701-004A	MW3		9/19/2018 11:55:00 AM	9/20/2018
18090701-005A	MW4		9/19/2018 12:30:00 PM	9/20/2018
18090701-006A	MW5		9/19/2018 1:05:00 PM	9/20/2018
18090701-007A	MW6		9/19/2018 1:50:00 PM	9/20/2018
18090701-008A	MW-TB		9/18/2018 10:30:00 AM	9/20/2018

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Report Date: September 29, 2018
Print Date: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090701 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wauwato
Lab ID: 18090701-001A

Client Sample ID: MW1
Tag Number:
Collection Date: 9/19/2018 11:10:00 AM
Matrix: WATER

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW8260B (SW5030B)**		Prep Date:			Analyst: **MJK**
Acetone	ND	0.020	0.0031		mg/L	1	9/21/2018
Benzene	ND	0.0050	0.0002		mg/L	1	9/21/2018
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
Bromoform	ND	0.0050	0.0003		mg/L	1	9/21/2018
Bromomethane	ND	0.010	0.002		mg/L	1	9/21/2018
2-Butanone	ND	0.020	0.0016		mg/L	1	9/21/2018
Carbon disulfide	ND	0.010	0.0003		mg/L	1	9/21/2018
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	9/21/2018
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	9/21/2018
Chloroethane	ND	0.010	0.0005		mg/L	1	9/21/2018
Chloroform	ND	0.0050	0.0001		mg/L	1	9/21/2018
Chloromethane	ND	0.010	0.0003		mg/L	1	9/21/2018
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	9/21/2018
cis-1,2-Dichloroethene	ND	0.0050	0.0002		mg/L	1	9/21/2018
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	9/21/2018
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	9/21/2018
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	9/21/2018
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	9/21/2018
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	9/21/2018
2-Hexanone	ND	0.020	0.0002		mg/L	1	9/21/2018
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	9/21/2018
Methylene chloride	ND	0.0050	0.0002		mg/L	1	9/21/2018
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	9/21/2018
Styrene	ND	0.0050	0.0003		mg/L	1	9/21/2018
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	9/21/2018
Tetrachloroethene	ND	0.0050	0.0003		mg/L	1	9/21/2018
Toluene	ND	0.0050	0.0004		mg/L	1	9/21/2018
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	9/21/2018
Trichloroethene	ND	0.0050	0.0003		mg/L	1	9/21/2018
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	9/21/2018
Xylenes, Total	ND	0.015	0.001		mg/L	1	9/21/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL/MDL - Reporting Limit / Method Detection Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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Report Date: September 29, 2018
Print Date: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090701 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wauwato
Lab ID: 18090701-002A

Client Sample ID: MW1-D
Tag Number:
Collection Date: 9/19/2018 11:12:00 AM
Matrix: WATER

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW8260B (SW5030B)**		Prep Date:			Analyst: **MJK**
Acetone	ND	0.020	0.0031		mg/L	1	9/21/2018
Benzene	0.00022	0.0050	0.0002	J	mg/L	1	9/21/2018
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
Bromoform	ND	0.0050	0.0003		mg/L	1	9/21/2018
Bromomethane	ND	0.010	0.002		mg/L	1	9/21/2018
2-Butanone	ND	0.020	0.0016		mg/L	1	9/21/2018
Carbon disulfide	ND	0.010	0.0003		mg/L	1	9/21/2018
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	9/21/2018
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	9/21/2018
Chloroethane	ND	0.010	0.0005		mg/L	1	9/21/2018
Chloroform	ND	0.0050	0.0001		mg/L	1	9/21/2018
Chloromethane	ND	0.010	0.0003		mg/L	1	9/21/2018
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	9/21/2018
cis-1,2-Dichloroethene	ND	0.0050	0.0002		mg/L	1	9/21/2018
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	9/21/2018
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	9/21/2018
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	9/21/2018
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	9/21/2018
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	9/21/2018
2-Hexanone	ND	0.020	0.0002		mg/L	1	9/21/2018
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	9/21/2018
Methylene chloride	ND	0.0050	0.0002		mg/L	1	9/21/2018
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	9/21/2018
Styrene	ND	0.0050	0.0003		mg/L	1	9/21/2018
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	9/21/2018
Tetrachloroethene	ND	0.0050	0.0003		mg/L	1	9/21/2018
Toluene	ND	0.0050	0.0004		mg/L	1	9/21/2018
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	9/21/2018
Trichloroethene	ND	0.0050	0.0003		mg/L	1	9/21/2018
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	9/21/2018
Xylenes, Total	ND	0.015	0.001		mg/L	1	9/21/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
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RL/MDL - Reporting Limit / Method Detection Limit for the analysis
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Report Date: September 29, 2018
Print Date: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090701 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wauwato
Lab ID: 18090701-003A

Client Sample ID: MW2
Tag Number:
Collection Date: 9/19/2018 11:40:00 AM
Matrix: WATER

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW8260B (SW5030B)**		Prep Date:			Analyst: **MJK**
Acetone	ND	0.020	0.0031		mg/L	1	9/21/2018
Benzene	ND	0.0050	0.0002		mg/L	1	9/21/2018
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
Bromoform	ND	0.0050	0.0003		mg/L	1	9/21/2018
Bromomethane	ND	0.010	0.002		mg/L	1	9/21/2018
2-Butanone	ND	0.020	0.0016		mg/L	1	9/21/2018
Carbon disulfide	ND	0.010	0.0003		mg/L	1	9/21/2018
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	9/21/2018
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	9/21/2018
Chloroethane	ND	0.010	0.0005		mg/L	1	9/21/2018
Chloroform	0.0015	0.0050	0.0001	J	mg/L	1	9/21/2018
Chloromethane	ND	0.010	0.0003		mg/L	1	9/21/2018
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	9/21/2018
cis-1,2-Dichloroethene	0.00069	0.0050	0.0002	J	mg/L	1	9/21/2018
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	9/21/2018
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	9/21/2018
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	9/21/2018
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	9/21/2018
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	9/21/2018
2-Hexanone	ND	0.020	0.0002		mg/L	1	9/21/2018
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	9/21/2018
Methylene chloride	ND	0.0050	0.0002		mg/L	1	9/21/2018
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	9/21/2018
Styrene	ND	0.0050	0.0003		mg/L	1	9/21/2018
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	9/21/2018
Tetrachloroethene	0.0063	0.0050	0.0003		mg/L	1	9/21/2018
Toluene	0.00085	0.0050	0.0004	J	mg/L	1	9/21/2018
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	9/21/2018
Trichloroethene	ND	0.0050	0.0003		mg/L	1	9/21/2018
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	9/21/2018
Xylenes, Total	ND	0.015	0.001		mg/L	1	9/21/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
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Report Date: September 29, 2018
Print Date: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090701 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wauwato
Lab ID: 18090701-004A

Client Sample ID: MW3
Tag Number:
Collection Date: 9/19/2018 11:55:00 AM
Matrix: WATER

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW8260B (SW5030B)**		Prep Date:			Analyst: **MJK**
Acetone	ND	0.020	0.0031		mg/L	1	9/21/2018
Benzene	ND	0.0050	0.0002		mg/L	1	9/21/2018
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
Bromoform	ND	0.0050	0.0003		mg/L	1	9/21/2018
Bromomethane	ND	0.010	0.002		mg/L	1	9/21/2018
2-Butanone	ND	0.020	0.0016		mg/L	1	9/21/2018
Carbon disulfide	ND	0.010	0.0003		mg/L	1	9/21/2018
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	9/21/2018
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	9/21/2018
Chloroethane	ND	0.010	0.0005		mg/L	1	9/21/2018
Chloroform	ND	0.0050	0.0001		mg/L	1	9/21/2018
Chloromethane	ND	0.010	0.0003		mg/L	1	9/21/2018
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	9/21/2018
cis-1,2-Dichloroethene	ND	0.0050	0.0002		mg/L	1	9/21/2018
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	9/21/2018
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	9/21/2018
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	9/21/2018
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	9/21/2018
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	9/21/2018
2-Hexanone	ND	0.020	0.0002		mg/L	1	9/21/2018
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	9/21/2018
Methylene chloride	ND	0.0050	0.0002		mg/L	1	9/21/2018
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	9/21/2018
Styrene	ND	0.0050	0.0003		mg/L	1	9/21/2018
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	9/21/2018
Tetrachloroethene	ND	0.0050	0.0003		mg/L	1	9/21/2018
Toluene	ND	0.0050	0.0004		mg/L	1	9/21/2018
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	9/21/2018
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	9/21/2018
Trichloroethene	ND	0.0050	0.0003		mg/L	1	9/21/2018
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	9/21/2018
Xylenes, Total	ND	0.015	0.001		mg/L	1	9/21/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL/MDL - Reporting Limit / Method Detection Limit for the analysis
S - Spike Recovery outside accepted recovery limits
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Report Date: September 29, 2018
Print Date: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090701 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wauwato
Lab ID: 18090701-005A

Client Sample ID: MW4
Tag Number:
Collection Date: 9/19/2018 12:30:00 PM
Matrix: WATER

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW8260B (SW5030B)**		Prep Date:			Analyst: **MJK**
Acetone	ND	0.020	0.0031		mg/L	1	9/22/2018
Benzene	ND	0.0050	0.0002		mg/L	1	9/22/2018
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
Bromoform	ND	0.0050	0.0003		mg/L	1	9/22/2018
Bromomethane	ND	0.010	0.002		mg/L	1	9/22/2018
2-Butanone	ND	0.020	0.0016		mg/L	1	9/22/2018
Carbon disulfide	0.00038	0.010	0.0003	J	mg/L	1	9/22/2018
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	9/22/2018
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	9/22/2018
Chloroethane	ND	0.010	0.0005		mg/L	1	9/22/2018
Chloroform	ND	0.0050	0.0001		mg/L	1	9/22/2018
Chloromethane	ND	0.010	0.0003		mg/L	1	9/22/2018
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	9/22/2018
cis-1,2-Dichloroethene	ND	0.0050	0.0002		mg/L	1	9/22/2018
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	9/22/2018
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	9/22/2018
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	9/22/2018
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	9/22/2018
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	9/22/2018
2-Hexanone	ND	0.020	0.0002		mg/L	1	9/22/2018
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	9/22/2018
Methylene chloride	ND	0.0050	0.0002		mg/L	1	9/22/2018
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	9/22/2018
Styrene	ND	0.0050	0.0003		mg/L	1	9/22/2018
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	9/22/2018
Tetrachloroethene	ND	0.0050	0.0003		mg/L	1	9/22/2018
Toluene	ND	0.0050	0.0004		mg/L	1	9/22/2018
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	9/22/2018
Trichloroethene	ND	0.0050	0.0003		mg/L	1	9/22/2018
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	9/22/2018
Xylenes, Total	ND	0.015	0.001		mg/L	1	9/22/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL/MDL - Reporting Limit / Method Detection Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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

Report Date: September 29, 2018
Print Date: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090701 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wauwato
Lab ID: 18090701-006A

Client Sample ID: MW5
Tag Number:
Collection Date: 9/19/2018 1:05:00 PM
Matrix: WATER

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW8260B (SW5030B)**		Prep Date:			Analyst: **MJK**
Acetone	ND	0.020	0.0031		mg/L	1	9/22/2018
Benzene	ND	0.0050	0.0002		mg/L	1	9/22/2018
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
Bromoform	ND	0.0050	0.0003		mg/L	1	9/22/2018
Bromomethane	ND	0.010	0.002		mg/L	1	9/22/2018
2-Butanone	ND	0.020	0.0016		mg/L	1	9/22/2018
Carbon disulfide	0.00033	0.010	0.0003	J	mg/L	1	9/22/2018
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	9/22/2018
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	9/22/2018
Chloroethane	ND	0.010	0.0005		mg/L	1	9/22/2018
Chloroform	ND	0.0050	0.0001		mg/L	1	9/22/2018
Chloromethane	ND	0.010	0.0003		mg/L	1	9/22/2018
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	9/22/2018
cis-1,2-Dichloroethene	0.026	0.0050	0.0002		mg/L	1	9/22/2018
trans-1,2-Dichloroethene	0.0045	0.0050	0.0005	J	mg/L	1	9/22/2018
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	9/22/2018
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	9/22/2018
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	9/22/2018
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	9/22/2018
2-Hexanone	ND	0.020	0.0002		mg/L	1	9/22/2018
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	9/22/2018
Methylene chloride	ND	0.0050	0.0002		mg/L	1	9/22/2018
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	9/22/2018
Styrene	ND	0.0050	0.0003		mg/L	1	9/22/2018
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	9/22/2018
Tetrachloroethene	0.16	0.0050	0.0003		mg/L	1	9/22/2018
Toluene	ND	0.0050	0.0004		mg/L	1	9/22/2018
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	9/22/2018
Trichloroethene	0.070	0.0050	0.0003		mg/L	1	9/22/2018
Vinyl chloride	0.038	0.0020	0.0003		mg/L	1	9/22/2018
Xylenes, Total	ND	0.015	0.001		mg/L	1	9/22/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL/MDL - Reporting Limit / Method Detection 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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Report Date: September 29, 2018
Print Date: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090701 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wauwato
Lab ID: 18090701-007A

Client Sample ID: MW6
Tag Number:
Collection Date: 9/19/2018 1:50:00 PM
Matrix: WATER

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW8260B (SW5030B)**		Prep Date:			Analyst: **MJK**
Acetone	ND	0.020	0.0031		mg/L	1	9/22/2018
Benzene	ND	0.0050	0.0002		mg/L	1	9/22/2018
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
Bromoform	ND	0.0050	0.0003		mg/L	1	9/22/2018
Bromomethane	ND	0.010	0.002		mg/L	1	9/22/2018
2-Butanone	ND	0.020	0.0016		mg/L	1	9/22/2018
Carbon disulfide	ND	0.010	0.0003		mg/L	1	9/22/2018
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	9/22/2018
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	9/22/2018
Chloroethane	ND	0.010	0.0005		mg/L	1	9/22/2018
Chloroform	ND	0.0050	0.0001		mg/L	1	9/22/2018
Chloromethane	ND	0.010	0.0003		mg/L	1	9/22/2018
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	9/22/2018
cis-1,2-Dichloroethene	0.0086	0.0050	0.0002		mg/L	1	9/22/2018
trans-1,2-Dichloroethene	0.0015	0.0050	0.0005	J	mg/L	1	9/22/2018
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	9/22/2018
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	9/22/2018
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	9/22/2018
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	9/22/2018
2-Hexanone	ND	0.020	0.0002		mg/L	1	9/22/2018
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	9/22/2018
Methylene chloride	ND	0.0050	0.0002		mg/L	1	9/22/2018
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	9/22/2018
Styrene	ND	0.0050	0.0003		mg/L	1	9/22/2018
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	9/22/2018
Tetrachloroethene	0.11	0.0050	0.0003		mg/L	1	9/22/2018
Toluene	ND	0.0050	0.0004		mg/L	1	9/22/2018
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	9/22/2018
Trichloroethene	0.011	0.0050	0.0003		mg/L	1	9/22/2018
Vinyl chloride	0.0033	0.0020	0.0003		mg/L	1	9/22/2018
Xylenes, Total	ND	0.015	0.001		mg/L	1	9/22/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
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RL/MDL - Reporting Limit / Method Detection Limit for the analysis
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Report Date: September 29, 2018
Print Date: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090701 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wauwato
Lab ID: 18090701-008A

Client Sample ID: MW-TB
Tag Number:
Collection Date: 9/18/2018 10:30:00 AM
Matrix: WATER

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW8260B (SW5030B)**		Prep Date:			Analyst: **MJK**
Acetone	ND	0.020	0.0031		mg/L	1	9/22/2018
Benzene	ND	0.0050	0.0002		mg/L	1	9/22/2018
Bromodichloromethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
Bromoform	ND	0.0050	0.0003		mg/L	1	9/22/2018
Bromomethane	ND	0.010	0.002		mg/L	1	9/22/2018
2-Butanone	ND	0.020	0.0016		mg/L	1	9/22/2018
Carbon disulfide	ND	0.010	0.0003		mg/L	1	9/22/2018
Carbon tetrachloride	ND	0.0050	0.001		mg/L	1	9/22/2018
Chlorobenzene	ND	0.0050	0.0002		mg/L	1	9/22/2018
Chloroethane	ND	0.010	0.0005		mg/L	1	9/22/2018
Chloroform	0.00075	0.0050	0.0001	J	mg/L	1	9/22/2018
Chloromethane	ND	0.010	0.0003		mg/L	1	9/22/2018
Dibromochloromethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,1-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,2-Dichloroethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,1-Dichloroethene	ND	0.0050	0.0004		mg/L	1	9/22/2018
cis-1,2-Dichloroethene	ND	0.0050	0.0002		mg/L	1	9/22/2018
trans-1,2-Dichloroethene	ND	0.0050	0.0005		mg/L	1	9/22/2018
1,2-Dichloropropane	ND	0.0050	0.0001		mg/L	1	9/22/2018
cis-1,3-Dichloropropene	ND	0.0010	0.0002		mg/L	1	9/22/2018
trans-1,3-Dichloropropene	ND	0.0010	0.0001		mg/L	1	9/22/2018
Ethylbenzene	ND	0.0050	0.0003		mg/L	1	9/22/2018
2-Hexanone	ND	0.020	0.0002		mg/L	1	9/22/2018
4-Methyl-2-pentanone	ND	0.020	0.0007		mg/L	1	9/22/2018
Methylene chloride	ND	0.0050	0.0002		mg/L	1	9/22/2018
Methyl tert-butyl ether	ND	0.0050	0.0003		mg/L	1	9/22/2018
Styrene	ND	0.0050	0.0003		mg/L	1	9/22/2018
1,1,2,2-Tetrachloroethane	ND	0.0050	0.0001		mg/L	1	9/22/2018
Tetrachloroethene	ND	0.0050	0.0003		mg/L	1	9/22/2018
Toluene	ND	0.0050	0.0004		mg/L	1	9/22/2018
1,1,1-Trichloroethane	ND	0.0050	0.0002		mg/L	1	9/22/2018
1,1,2-Trichloroethane	ND	0.0050	0.0001		mg/L	1	9/22/2018
Trichloroethene	ND	0.0050	0.0003		mg/L	1	9/22/2018
Vinyl chloride	ND	0.0020	0.0003		mg/L	1	9/22/2018
Xylenes, Total	ND	0.015	0.001		mg/L	1	9/22/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
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RL/MDL - Reporting Limit / Method Detection Limit for the analysis
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CHAIN OF CUSTODY RECORD

No: _____ **Page:** _____ **of** _____

Company: Hydrodynamics Consultant, Inc.
Project Number: Client Tracking No.:
Project Name: Westwood Cleaners
Location/Address: 8731 West North Avenue, Wauwatosa, WI 53226
Sampler(s): Mike Wan
Report To: Mike Wan Phone: (630) 724-0098
QC Level: 1 2 3 4 Fax: (800) 881-2051
Regulatory Program: NPEDS/MWRD RCRA SDWA SRP TACO Other:

P.O. No.:
Quote No.:

Turn Around:
Results Needed:
am pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab.	Preserv.	No. of Containers	VOCs	Remarks	Lab No.:
MW1	9/19/2018	11:10	Water		X	HCL	2	X		001
MW1-D	9/19/2018	11:12								002
MW2	9/19/2018	11:40								003
MW3	9/19/2018	11:55								004
MW4	9/19/2018	12:30								005
MW5	9/19/2018	13:05								006
MW6	9/19/2018	13:50								007
MW-TB	9/18/2018	10:30								008

Relingquished By: (Signature)	Date/Time:	9/20/2018 11:26
Received By: (Signature)	Date/Time:	9/20/18 11:48
Relingquished By: (Signature)	Date/Time:	9/20/18 1430
Received By: (Signature)	Date/Time:	9/20/18 14:30
Relingquished By: (Signature)	Date/Time:	

Laboratory Use: **Sample Verification:**

- Container OK	Yes	✓	No	
- Sampes Leaking	Yes		No	✓
- Refrigerated (Temp: 3.2 °C)	Yes	✓	No	
- Sample Labels Match Sample ID	Yes	✓	No	

Work Order No.: 18090701

Preservation Code:
A = None B = HNO C = NaOH
D = H_2SO_4 E = HCl F = 5035/EnCore

STAT Analysis Corporation

Sample Receipt Checklist

Client Name HYDRODYNAMICS | Date and Time Received: 9/20/2018 2:30:00 PM

Work Order Number 18090701 | Received by: EAA

Checklist completed by: _____ 9/20/18 (Signature / Date) | Reviewed by: A. A 9/20/18 (Initials / 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 or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 3.2 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	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 contacted: | Date contacted: | Contacted by:

Response:

STAT Analysis Corporation

Date: September 29, 2018

Client: Hydrodynamics Consultant, Inc.
Project: Westwood Cleaners, 8731 West North Aveue, Wauwat
Work Order: 18090548 Revision 0

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
18090548-001A	SV3		9/16/2018 2:00:00 PM	9/17/2018
18090548-002A	SV3-D		9/16/2018 3:10:00 PM	9/17/2018

CLIENT: Hydrodynamics Consultant, Inc.
Project: Westwood Cleaners, 8731 West North Aveue, Wauwatosa,
Work Order: 18090548 Revision 0

CASE NARRATIVE

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 Continuing Calibration Verification (CCV) had recovery outside of control limits for the following elements:
Dichlorodifluoromethane: 56.5% recovery (QC Limits 70-130%)
Trichorofluoromethane: 50.4% recovery (QC Limits 70-130%)

The TO-15 Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) had recoveries of the following compounds outside of control limits:
Dichlorodifluoromethane: 52.4%/51.0% (LCS/LCSD) recovery (QC limits 70-130%)
Trichorofluoromethane: 58.0%/60.4% (LCS/LCSD) recovery (QC limits 70-130%)

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Report Date: September 29, 2018
Print Date: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090548 Revision 0
Project: Westwood Cleaners, 8731 West North Aveue, Wauwatos
Lab ID: 18090548-001A

Client Sample ID: SV3
Tag Number:
Collection Date: 9/16/2018 2:00:00 PM
Matrix: AIR

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS	**TO-15**			Prep Date: **9/18/2018**		Analyst: **AOA**	
1,1,1-Trichloroethane	ND	0.0039	0.00021		mg/m³	2	9/20/2018
1,1,2-Trichloroethane	ND	0.0039	0.00038		mg/m³	2	9/20/2018
1,1-Dichloroethane	ND	0.0029	0.00014		mg/m³	2	9/20/2018
1,1-Dichloroethene	ND	0.0029	0.00018		mg/m³	2	9/20/2018
1,2,4-Trichlorobenzene	ND	0.0054	0.0012		mg/m³	2	9/20/2018
1,2-Dibromoethane	ND	0.0054	0.00062		mg/m³	2	9/20/2018
1,2-Dichlorobenzene	ND	0.0043	0.00036		mg/m³	2	9/20/2018
1,2-Dichloroethane	ND	0.0029	0.00033		mg/m³	2	9/20/2018
1,2-Dichloropropane	ND	0.0032	0.00023		mg/m³	2	9/20/2018
1,4-Dichlorobenzene	ND	0.0043	0.00046		mg/m³	2	9/20/2018
1,4-Dioxane	ND	0.0065	0.00075		mg/m³	2	9/20/2018
2-Butanone	ND	0.0054	0.00048		mg/m³	2	9/20/2018
Acetone	0.034	0.017	0.0006	*	mg/m³	2	9/20/2018
Benzene	0.0025	0.0022	0.00016		mg/m³	2	9/20/2018
Bromodichloromethane	0.00096	0.0047	0.00033	J	mg/m³	2	9/20/2018
Bromoform	ND	0.019	0.00039		mg/m³	2	9/20/2018
Bromomethane	ND	0.0068	0.00033		mg/m³	2	9/20/2018
Carbon disulfide	0.019	0.0022	0.00056		mg/m³	2	9/20/2018
Carbon tetrachloride	ND	0.0047	0.00063		mg/m³	2	9/20/2018
Chlorobenzene	ND	0.0032	0.00021		mg/m³	2	9/20/2018
Chloroform	0.0023	0.0036	0.00019	J	mg/m³	2	9/20/2018
cis-1,2-Dichloroethene	ND	0.0029	0.00021		mg/m³	2	9/20/2018
cis-1,3-Dichloropropene	ND	0.0032	0.00038		mg/m³	2	9/20/2018
Dibromochloromethane	ND	0.0061	0.00049		mg/m³	2	9/20/2018
Dichlorodifluoromethane	0.00035	0.0036	0.00012	J	mg/m³	2	9/20/2018
Ethylbenzene	0.0047	0.0032	0.00024		mg/m³	2	9/20/2018
Isopropyl Alcohol	1.2	0.11	0.0087		mg/m³	25	9/25/2018
m,p-Xylene	0.017	0.0061	0.00046		mg/m³	2	9/20/2018
Methyl tert-butyl ether	ND	0.0025	0.00021		mg/m³	2	9/20/2018
Methylene chloride	0.0081	0.025	0.0013	J	mg/m³	2	9/20/2018
Naphthalene	ND	0.0036	0.0011		mg/m³	2	9/20/2018
o-Xylene	0.0069	0.0032	0.0002		mg/m³	2	9/20/2018
Styrene	0.0072	0.0032	0.00032		mg/m³	2	9/20/2018
Tetrachloroethene	0.30	0.0050	0.00035		mg/m³	2	9/20/2018
Toluene	0.022	0.0029	0.0003		mg/m³	2	9/20/2018
trans-1,2-Dichloroethene	ND	0.0029	0.0002		mg/m³	2	9/20/2018
trans-1,3-Dichloropropene	ND	0.0032	0.00044		mg/m³	2	9/20/2018
Trichloroethene	0.0042	0.0039	0.00029		mg/m³	2	9/20/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL/MDL - Reporting Limit / Method Detection Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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

Report Date: September 29, 2018
Print Date: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090548 Revision 0
Project: Westwood Cleaners, 8731 West North Aveue, Wauwatos
Lab ID: 18090548-001A

Client Sample ID: SV3
Tag Number:
Collection Date: 9/16/2018 2:00:00 PM
Matrix: AIR

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS TO-15				Prep Date: **9/18/2018**			Analyst: **AOA**
Trichlorofluoromethane	0.00081	0.0039	0.00025	J	mg/m³	2	9/20/2018
Vinyl acetate	ND	0.025	0.00034		mg/m³	2	9/20/2018
Vinyl chloride	ND	0.0018	0.00015		mg/m³	2	9/20/2018
Xylenes, Total	0.024	0.0093	0.00065		mg/m³	2	9/20/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
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Report Date: September 29, 2018
Print Date: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090548 Revision 0
Project: Westwood Cleaners, 8731 West North Aveue, Wauwatos
Lab ID: 18090548-002A

Client Sample ID: SV3-D
Tag Number:
Collection Date: 9/16/2018 3:10:00 PM
Matrix: AIR

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS	**TO-15**			Prep Date: **9/18/2018**		Analyst: **AOA**	
1,1,1-Trichloroethane	ND	0.0091	0.00047		mg/m³	5	9/20/2018
1,1,2-Trichloroethane	ND	0.0091	0.00087		mg/m³	5	9/20/2018
1,1-Dichloroethane	ND	0.0066	0.00032		mg/m³	5	9/20/2018
1,1-Dichloroethene	ND	0.0066	0.00041		mg/m³	5	9/20/2018
1,2,4-Trichlorobenzene	ND	0.012	0.0027		mg/m³	5	9/20/2018
1,2-Dibromoethane	ND	0.012	0.0014		mg/m³	5	9/20/2018
1,2-Dichlorobenzene	ND	0.0099	0.00083		mg/m³	5	9/20/2018
1,2-Dichloroethane	ND	0.0066	0.00077		mg/m³	5	9/20/2018
1,2-Dichloropropane	ND	0.0074	0.00052		mg/m³	5	9/20/2018
1,4-Dichlorobenzene	ND	0.0099	0.0011		mg/m³	5	9/20/2018
1,4-Dioxane	ND	0.015	0.0017		mg/m³	5	9/20/2018
2-Butanone	ND	0.012	0.0011		mg/m³	5	9/20/2018
Acetone	0.025	0.040	0.0014	J*	mg/m³	5	9/20/2018
Benzene	0.0029	0.0050	0.00038	J	mg/m³	5	9/20/2018
Bromodichloromethane	0.0011	0.011	0.00076	J	mg/m³	5	9/20/2018
Bromoform	ND	0.043	0.00091		mg/m³	5	9/20/2018
Bromomethane	ND	0.016	0.00075		mg/m³	5	9/20/2018
Carbon disulfide	ND	0.0051	0.0013		mg/m³	5	9/20/2018
Carbon tetrachloride	ND	0.011	0.0015		mg/m³	5	9/20/2018
Chlorobenzene	ND	0.0074	0.00048		mg/m³	5	9/20/2018
Chloroform	0.0020	0.0083	0.00044	J	mg/m³	5	9/20/2018
cis-1,2-Dichloroethene	ND	0.0066	0.00048		mg/m³	5	9/20/2018
cis-1,3-Dichloropropene	ND	0.0074	0.00088		mg/m³	5	9/20/2018
Dibromochloromethane	ND	0.014	0.0011		mg/m³	5	9/20/2018
Dichlorodifluoromethane	ND	0.0083	0.00027		mg/m³	5	9/20/2018
Ethylbenzene	0.0022	0.0074	0.00056	J	mg/m³	5	9/20/2018
Isopropyl Alcohol	0.90	0.021	0.0016		mg/m³	5	9/20/2018
m,p-Xylene	0.0086	0.014	0.0011	J	mg/m³	5	9/20/2018
Methyl tert-butyl ether	ND	0.0058	0.00049		mg/m³	5	9/20/2018
Methylene chloride	0.033	0.057	0.0031	J	mg/m³	5	9/20/2018
Naphthalene	ND	0.0083	0.0025		mg/m³	5	9/20/2018
o-Xylene	0.0036	0.0074	0.00046	J	mg/m³	5	9/20/2018
Styrene	0.0032	0.0074	0.00075	J	mg/m³	5	9/20/2018
Tetrachloroethene	0.30	0.012	0.00081		mg/m³	5	9/20/2018
Toluene	0.011	0.0066	0.0007		mg/m³	5	9/20/2018
trans-1,2-Dichloroethene	ND	0.0066	0.00045		mg/m³	5	9/20/2018
trans-1,3-Dichloropropene	ND	0.0074	0.001		mg/m³	5	9/20/2018
Trichloroethene	0.0036	0.0091	0.00068	J	mg/m³	5	9/20/2018

Qualifiers:
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Report Date: September 29, 2018
Print Date: September 29, 2018

ANALYTICAL RESULTS

CLIENT: Hydrodynamics Consultant, Inc.
Work Order: 18090548 Revision 0
Project: Westwood Cleaners, 8731 West North Aveue, Wauwatos
Lab ID: 18090548-002A

Client Sample ID: SV3-D
Tag Number:
Collection Date: 9/16/2018 3:10:00 PM
Matrix: AIR

Analyses	Result	RL	MDL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS TO-15				Prep Date: **9/18/2018**			Analyst: **AOA**
Trichlorofluoromethane	0.00093	0.0091	0.00059	J	mg/m³	5	9/20/2018
Vinyl acetate	ND	0.058	0.00078		mg/m³	5	9/20/2018
Vinyl chloride	ND	0.0041	0.00036		mg/m³	5	9/20/2018
Xylenes, Total	0.012	0.021	0.0015	J	mg/m³	5	9/20/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below reporting limit
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
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CHAIN OF CUSTODY RECORD

No: ______ **Page:** ____ **of** ____

Company: Hydrodynamics Consultant, Inc.
Project Number: Client Tracking No.:
Project Name: Westwood Cleaners
Location/Address: 8731 West North Avenue, Wauwatosa, WI 53226
Sampler(s): Mike Wan
Report To: Mike Wan Phone: (630) 724-0098
QC Level: 1____ 2____ 3____ 4____ Fax: (800) 881-2051
Regulatory Program: NPEDS/MWRD RCRA SDWA SRP TACO Other:______

P.O. No.:
Quote No.:

Turn Around:
Results Needed:
am pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab.	Preserv.	No. of Containers	VOCs	Isopropyl Alcohol	Remarks	Lab No.:
SV3	9/16/2018	2:00	Soil Vapor		X	N/A	1	X	X		001
SV3-D	9/16/2018	3:10	Soil Vapor		X	⁄	1	X	X		002

Relinquished By: (Signature) [signature]	Date/Time: 9/17/2018 12:28	
Received By: (Signature) [signature]	Date/Time: 9/17/18 12:28	
Relinquished By: (Signature) [signature]	Date/Time: 9/17/18 1628	
Received By: (Signature) [signature]	Date/Time: 9/17/18 16:28	
Relinquished By: (Signature)	Date/Time:	

Laboratory Use: **Sample Verification:**

	Yes	No
- Container OK	✓	
- Sampes Leaking		✓
- Refrigerated (Temp: Amb °C)	✗ *	✓
- Sample Labels Match Sample ID	✓	

Work Order No.: 18090548

Preservation Code:
A = None B = HNO C = NaOH
D = H_2SO_4 E = HCI F = 5035/EnCore

STAT Analysis Corporation

Sample Receipt Checklist

Client Name **HYDRODYNAMICS** Date and Time Received: **9/17/2018 4:28:00 PM**

Work Order Number **18090548** Received by: EAA

Checklist completed by: _____ 9/19/18 Reviewed by: BM 9/18/18
Signature Date Initials 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 or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature Ambient °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	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 contacted: Date contacted: Contacted by:

Response:

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October 03, 2018

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

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

Analytical Report for STAT Work Order: 18090717 Revision 0

RE: Westwood Cleaners, 8731 West North Avenue, Wauwatosa, WI 53226

Dear Dr. Yong Yu:

STAT Analysis received 4 samples for the referenced project on 9/20/2018 2:30:00 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 Kwateng
Project Manager

STAT Analysis Corporation

Date: October 03, 2018

Client: Hydrodynamics Consultant, Inc.
Project: Westwood Cleaners, 8731 West North Avenue, Wauwa
Work Order: 18090717 Revision 0

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
18090717-001A	SV1		9/19/2018 9:10:00 AM	9/20/2018
18090717-002A	SV2		9/19/2018 9:30:00 AM	9/20/2018
18090717-003A	SV4		9/19/2018 11:20:00 AM	9/20/2018
18090717-004A	SV5		9/19/2018 9:40:00 AM	9/20/2018

CLIENT: Hydrodynamics Consultant, Inc.
Project: Westwood Cleaners, 8731 West North Avenue, Wauwatosa,
Work Order: 18090717 Revision 0

CASE NARRATIVE

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 Continuing Calibration Verification (CCV) had recovery outside of control limits for the following elements:
Dichlorodifluoromethane: 57.8% recovery (QC Limits 70-130%)

The TO-15 Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) had recoveries of the following compounds outside of control limits:
Dichlorodifluoromethane: 52.2%/46.4% (LCS/LCSD) recovery (QC limits 70-130%)
Vinyl Acetate: 45.6%/44.0% (LCS/LCSD) recovery (QC limits 70-130%)

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Date Reported: October 03, 2018
Date Printed: October 03, 2018

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.
Work Order: 18090717 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wa
Lab ID: 18090717-001

Client Sample ID: SV1
Collection Date: 9/19/2018 9:10:00 AM
Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS TO-15				Prep Date: **9/21/2018**		Analyst: **AOA**
1,1,1-Trichloroethane	0.00054	0.0037	J	mg/m³	2	9/27/2018
1,1,2-Trichloroethane	ND	0.0037		mg/m³	2	9/27/2018
1,1-Dichloroethane	ND	0.0027		mg/m³	2	9/27/2018
1,1-Dichloroethene	ND	0.0027		mg/m³	2	9/27/2018
1,2,4-Trichlorobenzene	ND	0.0050		mg/m³	2	9/27/2018
1,2-Dibromoethane	ND	0.0050		mg/m³	2	9/27/2018
1,2-Dichlorobenzene	ND	0.0040		mg/m³	2	9/27/2018
1,2-Dichloroethane	0.0012	0.0027	J	mg/m³	2	9/27/2018
1,2-Dichloropropane	ND	0.0030		mg/m³	2	9/27/2018
1,4-Dichlorobenzene	ND	0.0040		mg/m³	2	9/27/2018
1,4-Dioxane	ND	0.0060		mg/m³	2	9/27/2018
2-Butanone	0.0049	0.0050	J	mg/m³	2	9/27/2018
Acetone	ND	0.016	*	mg/m³	2	9/27/2018
Benzene	0.0037	0.0020		mg/m³	2	9/27/2018
Bromodichloromethane	ND	0.0043		mg/m³	2	9/27/2018
Bromoform	ND	0.017		mg/m³	2	9/27/2018
Bromomethane	ND	0.0063		mg/m³	2	9/27/2018
Carbon disulfide	0.0070	0.0021		mg/m³	2	9/27/2018
Carbon tetrachloride	ND	0.0043		mg/m³	2	9/27/2018
Chlorobenzene	ND	0.0030		mg/m³	2	9/27/2018
Chloroform	0.0019	0.0033	J	mg/m³	2	9/27/2018
cis-1,2-Dichloroethene	ND	0.0027		mg/m³	2	9/27/2018
cis-1,3-Dichloropropene	ND	0.0030		mg/m³	2	9/27/2018
Dibromochloromethane	ND	0.0057		mg/m³	2	9/27/2018
Dichlorodifluoromethane	ND	0.0033		mg/m³	2	9/27/2018
Ethylbenzene	0.010	0.0030		mg/m³	2	9/27/2018
Isopropyl Alcohol	9.4	2.1		mg/m³	500	9/28/2018
m,p-Xylene	0.035	0.0057		mg/m³	2	9/27/2018
Methyl tert-butyl ether	ND	0.0023		mg/m³	2	9/27/2018
Methylene chloride	0.0073	0.023	J	mg/m³	2	9/27/2018
Naphthalene	ND	0.00099		mg/m³	2	9/27/2018
o-Xylene	0.013	0.0030		mg/m³	2	9/27/2018
Styrene	0.015	0.0030		mg/m³	2	9/27/2018
Tetrachloroethene	0.017	0.0047		mg/m³	2	9/27/2018
Toluene	0.057	0.0027		mg/m³	2	9/27/2018
trans-1,2-Dichloroethene	ND	0.0027		mg/m³	2	9/27/2018
trans-1,3-Dichloropropene	ND	0.0030		mg/m³	2	9/27/2018
Trichloroethene	ND	0.0037		mg/m³	2	9/27/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
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
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R - RPD outside accepted recovery limits
E - Value above quantitation range
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Date Reported: October 03, 2018
Date Printed: October 03, 2018

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.
Work Order: 18090717 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wa
Lab ID: 18090717-001

Client Sample ID: SV1
Collection Date: 9/19/2018 9:10:00 AM
Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS TO-15				Prep Date: **9/21/2018**		Analyst: **AOA**
Trichlorofluoromethane	0.00075	0.0037	J	mg/m³	2	9/27/2018
Vinyl acetate	ND	0.023		mg/m³	2	9/27/2018
Vinyl chloride	ND	0.0017		mg/m³	2	9/27/2018
Xylenes, Total	0.049	0.0086		mg/m³	2	9/27/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
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: October 03, 2018
Date Printed: October 03, 2018

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.
Work Order: 18090717 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wa
Lab ID: 18090717-002

Client Sample ID: SV2
Collection Date: 9/19/2018 9:30:00 AM
Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS TO-15				Prep Date: **9/21/2018**		Analyst: **AOA**
1,1,1-Trichloroethane	0.00040	0.0040	J	mg/m³	2	9/27/2018
1,1,2-Trichloroethane	ND	0.0040		mg/m³	2	9/27/2018
1,1-Dichloroethane	ND	0.0029		mg/m³	2	9/27/2018
1,1-Dichloroethene	ND	0.0029		mg/m³	2	9/27/2018
1,2,4-Trichlorobenzene	ND	0.0055		mg/m³	2	9/27/2018
1,2-Dibromoethane	ND	0.0055		mg/m³	2	9/27/2018
1,2-Dichlorobenzene	ND	0.0044		mg/m³	2	9/27/2018
1,2-Dichloroethane	ND	0.0029		mg/m³	2	9/27/2018
1,2-Dichloropropane	ND	0.0033		mg/m³	2	9/27/2018
1,4-Dichlorobenzene	ND	0.0044		mg/m³	2	9/27/2018
1,4-Dioxane	ND	0.0066		mg/m³	2	9/27/2018
2-Butanone	0.0065	0.0055		mg/m³	2	9/27/2018
Acetone	ND	0.018	*	mg/m³	2	9/27/2018
Benzene	0.0052	0.0022		mg/m³	2	9/27/2018
Bromodichloromethane	ND	0.0048		mg/m³	2	9/27/2018
Bromoform	ND	0.019		mg/m³	2	9/27/2018
Bromomethane	0.0010	0.0070	J	mg/m³	2	9/27/2018
Carbon disulfide	0.015	0.0023		mg/m³	2	9/27/2018
Carbon tetrachloride	ND	0.0048		mg/m³	2	9/27/2018
Chlorobenzene	ND	0.0033		mg/m³	2	9/27/2018
Chloroform	0.0084	0.0037		mg/m³	2	9/27/2018
cis-1,2-Dichloroethene	0.0012	0.0029	J	mg/m³	2	9/27/2018
cis-1,3-Dichloropropene	ND	0.0033		mg/m³	2	9/27/2018
Dibromochloromethane	ND	0.0062		mg/m³	2	9/27/2018
Dichlorodifluoromethane	ND	0.0037		mg/m³	2	9/27/2018
Ethylbenzene	0.012	0.0033		mg/m³	2	9/27/2018
Isopropyl Alcohol	8.7	2.3		mg/m³	500	9/28/2018
m,p-Xylene	0.040	0.0062		mg/m³	2	9/27/2018
Methyl tert-butyl ether	ND	0.0026		mg/m³	2	9/27/2018
Methylene chloride	0.0038	0.025	J	mg/m³	2	9/27/2018
Naphthalene	ND	0.0011		mg/m³	2	9/27/2018
o-Xylene	0.013	0.0033		mg/m³	2	9/27/2018
Styrene	0.015	0.0033		mg/m³	2	9/27/2018
Tetrachloroethene	1.2	0.0051		mg/m³	2	9/27/2018
Toluene	0.062	0.0029		mg/m³	2	9/27/2018
trans-1,2-Dichloroethene	ND	0.0029		mg/m³	2	9/27/2018
trans-1,3-Dichloropropene	ND	0.0033		mg/m³	2	9/27/2018
Trichloroethene	0.10	0.0040		mg/m³	2	9/27/2018

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Date Reported: October 03, 2018
Date Printed: October 03, 2018

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.
Work Order: 18090717 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wa
Lab ID: 18090717-002

Client Sample ID: SV2
Collection Date: 9/19/2018 9:30:00 AM
Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS TO-15				Prep Date: **9/21/2018**		Analyst: **AOA**
Trichlorofluoromethane	0.0010	0.0040	J	mg/m³	2	9/27/2018
Vinyl acetate	ND	0.026		mg/m³	2	9/27/2018
Vinyl chloride	ND	0.0018		mg/m³	2	9/27/2018
Xylenes, Total	0.054	0.0095		mg/m³	2	9/27/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
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
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E - Value above quantitation range
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Date Reported: October 03, 2018
Date Printed: October 03, 2018

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.
Work Order: 18090717 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wa
Lab ID: 18090717-003

Client Sample ID: SV4
Collection Date: 9/19/2018 11:20:00 AM
Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS	**TO-15**			Prep Date: **9/21/2018**		Analyst: **AOA**
1,1,1-Trichloroethane	ND	0.0041		mg/m³	2	9/27/2018
1,1,2-Trichloroethane	ND	0.0041		mg/m³	2	9/27/2018
1,1-Dichloroethane	ND	0.0030		mg/m³	2	9/27/2018
1,1-Dichloroethene	ND	0.0030		mg/m³	2	9/27/2018
1,2,4-Trichlorobenzene	ND	0.0056		mg/m³	2	9/27/2018
1,2-Dibromoethane	ND	0.0056		mg/m³	2	9/27/2018
1,2-Dichlorobenzene	ND	0.0044		mg/m³	2	9/27/2018
1,2-Dichloroethane	ND	0.0030		mg/m³	2	9/27/2018
1,2-Dichloropropane	ND	0.0033		mg/m³	2	9/27/2018
1,4-Dichlorobenzene	ND	0.0044		mg/m³	2	9/27/2018
1,4-Dioxane	ND	0.0067		mg/m³	2	9/27/2018
2-Butanone	0.0024	0.0056	J	mg/m³	2	9/27/2018
Acetone	0.13	0.018	*	mg/m³	2	9/27/2018
Benzene	0.0013	0.0022	J	mg/m³	2	9/27/2018
Bromodichloromethane	ND	0.0048		mg/m³	2	9/27/2018
Bromoform	ND	0.019		mg/m³	2	9/27/2018
Bromomethane	0.00057	0.0070	J	mg/m³	2	9/27/2018
Carbon disulfide	0.0055	0.0023		mg/m³	2	9/27/2018
Carbon tetrachloride	ND	0.0048		mg/m³	2	9/27/2018
Chlorobenzene	ND	0.0033		mg/m³	2	9/27/2018
Chloroform	ND	0.0037		mg/m³	2	9/27/2018
cis-1,2-Dichloroethene	ND	0.0030		mg/m³	2	9/27/2018
cis-1,3-Dichloropropene	ND	0.0033		mg/m³	2	9/27/2018
Dibromochloromethane	ND	0.0063		mg/m³	2	9/27/2018
Dichlorodifluoromethane	ND	0.0037		mg/m³	2	9/27/2018
Ethylbenzene	0.0047	0.0033		mg/m³	2	9/27/2018
Isopropyl Alcohol	2.6	0.12		mg/m³	25	9/27/2018
m,p-Xylene	0.017	0.0063		mg/m³	2	9/27/2018
Methyl tert-butyl ether	ND	0.0026		mg/m³	2	9/27/2018
Methylene chloride	ND	0.026		mg/m³	2	9/27/2018
Naphthalene	ND	0.0011		mg/m³	2	9/27/2018
o-Xylene	0.0069	0.0033		mg/m³	2	9/27/2018
Styrene	0.0085	0.0033		mg/m³	2	9/27/2018
Tetrachloroethene	0.052	0.0052		mg/m³	2	9/27/2018
Toluene	0.021	0.0030		mg/m³	2	9/27/2018
trans-1,2-Dichloroethene	ND	0.0030		mg/m³	2	9/27/2018
trans-1,3-Dichloropropene	ND	0.0033		mg/m³	2	9/27/2018
Trichloroethene	0.00040	0.0041	J	mg/m³	2	9/27/2018

Qualifiers:
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Date Reported: October 03, 2018
Date Printed: October 03, 2018

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.
Work Order: 18090717 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wa
Lab ID: 18090717-003

Client Sample ID: SV4
Collection Date: 9/19/2018 11:20:00 AM
Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS TO-15				Prep Date: **9/21/2018**		Analyst: **AOA**
Trichlorofluoromethane	0.0010	0.0041	J	mg/m³	2	9/27/2018
Vinyl acetate	ND	0.026		mg/m³	2	9/27/2018
Vinyl chloride	ND	0.0019		mg/m³	2	9/27/2018
Xylenes, Total	0.024	0.0096		mg/m³	2	9/27/2018

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Date Reported: October 03, 2018
Date Printed: October 03, 2018

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.
Work Order: 18090717 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wa
Lab ID: 18090717-004

Client Sample ID: SV5
Collection Date: 9/19/2018 9:40:00 AM
Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS	**TO-15**			Prep Date: **9/21/2018**		Analyst: **AOA**
1,1,1-Trichloroethane	ND	0.0077		mg/m³	4	9/27/2018
1,1,2-Trichloroethane	ND	0.0077		mg/m³	4	9/27/2018
1,1-Dichloroethane	ND	0.0056		mg/m³	4	9/27/2018
1,1-Dichloroethene	ND	0.0056		mg/m³	4	9/27/2018
1,2,4-Trichlorobenzene	ND	0.011		mg/m³	4	9/27/2018
1,2-Dibromoethane	ND	0.011		mg/m³	4	9/27/2018
1,2-Dichlorobenzene	ND	0.0084		mg/m³	4	9/27/2018
1,2-Dichloroethane	ND	0.0056		mg/m³	4	9/27/2018
1,2-Dichloropropane	ND	0.0063		mg/m³	4	9/27/2018
1,4-Dichlorobenzene	ND	0.0084		mg/m³	4	9/27/2018
1,4-Dioxane	ND	0.013		mg/m³	4	9/27/2018
2-Butanone	0.0058	0.011	J	mg/m³	4	9/27/2018
Acetone	0.12	0.034	*	mg/m³	4	9/27/2018
Benzene	0.0043	0.0042		mg/m³	4	9/27/2018
Bromodichloromethane	ND	0.0091		mg/m³	4	9/27/2018
Bromoform	ND	0.036		mg/m³	4	9/27/2018
Bromomethane	ND	0.013		mg/m³	4	9/27/2018
Carbon disulfide	0.0059	0.0044		mg/m³	4	9/27/2018
Carbon tetrachloride	ND	0.0091		mg/m³	4	9/27/2018
Chlorobenzene	ND	0.0063		mg/m³	4	9/27/2018
Chloroform	0.00069	0.0070	J	mg/m³	4	9/27/2018
cis-1,2-Dichloroethene	ND	0.0056		mg/m³	4	9/27/2018
cis-1,3-Dichloropropene	ND	0.0063		mg/m³	4	9/27/2018
Dibromochloromethane	ND	0.012		mg/m³	4	9/27/2018
Dichlorodifluoromethane	0.00069	0.0070	J	mg/m³	4	9/27/2018
Ethylbenzene	0.011	0.0063		mg/m³	4	9/27/2018
Isopropyl Alcohol	6.9	2.2		mg/m³	500	9/28/2018
m,p-Xylene	0.036	0.012		mg/m³	4	9/27/2018
Methyl tert-butyl ether	ND	0.0049		mg/m³	4	9/27/2018
Methylene chloride	ND	0.048		mg/m³	4	9/27/2018
Naphthalene	ND	0.0021		mg/m³	4	9/27/2018
o-Xylene	0.014	0.0063		mg/m³	4	9/27/2018
Styrene	0.013	0.0063		mg/m³	4	9/27/2018
Tetrachloroethene	0.063	0.0098		mg/m³	4	9/27/2018
Toluene	0.050	0.0056		mg/m³	4	9/27/2018
trans-1,2-Dichloroethene	ND	0.0056		mg/m³	4	9/27/2018
trans-1,3-Dichloropropene	ND	0.0063		mg/m³	4	9/27/2018
Trichloroethene	ND	0.0077		mg/m³	4	9/27/2018

Qualifiers:
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Date Reported: October 03, 2018
Date Printed: October 03, 2018

ANALYTICAL RESULTS

Client: Hydrodynamics Consultant, Inc.
Work Order: 18090717 Revision 0
Project: Westwood Cleaners, 8731 West North Avenue, Wa
Lab ID: 18090717-004

Client Sample ID: SV5
Collection Date: 9/19/2018 9:40:00 AM
Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds in Air by GC/MS TO-15				Prep Date: **9/21/2018**		Analyst: **AOA**
Trichlorofluoromethane	0.0012	0.0077	J	mg/m³	4	9/27/2018
Vinyl acetate	ND	0.049		mg/m³	4	9/27/2018
Vinyl chloride	ND	0.0035		mg/m³	4	9/27/2018
Xylenes, Total	0.049	0.018		mg/m³	4	9/27/2018

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
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CHAIN OF CUSTODY RECORD

No: _____ **Page:** _____ **of** _____

Company: Hydrodynamics Consultant, Inc.

Project Number: Client Tracking No.:

Project Name: Westwood Cleaners

Location/Address: 8731 West North Avenue, Wauwatosa, WI 53226

Sampler(s): Mike Wan

Report To: Mike Wan Phone: (630) 724-0098

QC Level: 1 2 3 4 Fax: (800) 881-2051

Regulatory Program: NPEDS/MWRD RCRA SDWA SRP TACO Other:

P.O. No.:

Quote No.:

Turn Around:

Results Needed: am pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab.	Preserv.	No. of Containers	VOCs 150 propyl Alcohol	Remarks	Lab No.:
SV1	9/19/2018	9:10	Soil Vapor		X	N/A	1	X X	70 minutes, -10" Hg left	001
SV2	〃	9:30	〃		〃		〃	〃	68 minutes, -5" Hg left	002
SV4	〃	11:20	〃		〃		〃	〃	60 minutes, -4" left	003
SV5	〃	9:40	〃		〃		〃	〃	60 minutes, -5" Hg left	004

Relingquished By: (Signature)	Date/Time:	9/20/2018 11:26
Received By: (Signature)	Date/Time:	9/20/18 11:26
Relingquished By: (Signature)	Date/Time:	9/20/18 1400
Received By: (Signature)	Date/Time:	9/20/18 14:30
Relingquished By: (Signature)	Date/Time:	

Laboratory Use:

Sample Verification:

- Container OK	Yes	No
- Sampes Leaking	Yes	No
- Refrigerated (Temp: Amb °C)	Yes	No
- Sample Labels Match Sample ID	Yes	No

Work Order No.: 18090717

Preservation Code:

A = None B = HNO C = NaOH

D = H_2SO_4 E = HCl F = 5035/EnCore

STAT Analysis Corporation

Sample Receipt Checklist

Client Name HYDRODYNAMICS | Date and Time Received: 9/20/2018 2:30:00 PM

Work Order Number 18090717 | Received by: EAA

Checklist completed by: _____ 9/20/18 (Signature / Date) | Reviewed by: L. L 9/21/18 (Initials / 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 or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature Ambient °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	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 contacted: | Date contacted: | Contacted by:

Response: