

## Exhibit B

2. Phase II ESA Prepared by  
PM Environmental – May 2019

May 13, 2019

Mr. Scot Storrie  
Penske Automotive Group, Inc.  
2555 Telegraph Road  
Bloomfield Hills, Michigan 48302

**Re: Reliance Letter for the Phase II Environmental Site Assessment of the Commercial Property Located at 130 Midland Avenue in Port Chester, New York PM Environmental, Inc. Project No. 19-3641-0-0002**

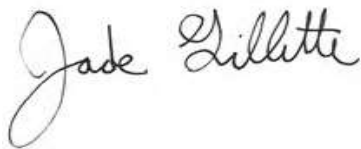
Dear Mr. Storrie:

PM Environmental, Incorporated (PM) completed a Phase II Environmental Site Assessment (ESA) of the above referenced property dated May 13, 2019. This Phase II ESA was conducted in general accordance with ASTM Standard Practice E1903-11 to assess the recognized environmental conditions (RECs) identified in PM's Phase I ESA dated May 3, 2019.

The Phase II ESA for the above referenced property represents the product of PM's professional expertise and judgment in the environmental consulting industry, and it is reasonable for **PENSKE AUTOMOTIVE GROUP, INC.** to rely on PM's Phase II ESA report.

If you have any questions related to this report please do not hesitate to contact our office at 800.313.2966.

Sincerely,  
**PM ENVIRONMENTAL, INC.**



Jade Gillette, EP  
Project Consultant



J. Adam Patton, CHMM  
National Manager - Site Investigation Services



Environmental & Engineering Services Nationwide



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INCENTIVES CONSULTING

## PHASE II ENVIRONMENTAL SITE ASSESSMENT

130 Midland Avenue | Port Chester, New York  
PM Project Number 19-3641-0-0002

*Prepared for:*

**Penske Automotive Group, Inc.**  
2555 Telegraph Road  
Bloomfield Hills, Michigan 48304

*Prepared by:*

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3340 Ranger Road  
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May 13, 2019

Mr. Scot Storrie  
Penske Automotive Group, Inc.  
2555 Telegraph Road  
Bloomfield Hills, Michigan 48304

**RE: Phase II Environmental Site Assessment  
For the Commercial Property  
Located at 130 Midland Avenue in Port Chester, New York  
PM Environmental, Inc. Project No. 19-3641-0-0002**

Dear Mr. Storrie:

PM Environmental, Inc. (PM) completed a Phase II Environmental Site Assessment (ESA) at the commercial property located at 130 Midland Avenue in Port Chester, Westchester County, New York. (hereafter referred to as the “subject property”; Figures 1 and 2) in general accordance with ASTM Standard Practice E1903-11. The Phase II ESA was conducted to assess recognized environmental conditions (RECs) identified in PM’s Phase I ESA dated May 3, 2019. This Phase II ESA report summarizes the activities conducted by PM on April 9 and 10, 2019, the geology encountered, and the sample analytical results.

**THIS PHASE II ESA REPORT WAS PERFORMED FOR THE EXCLUSIVE USE OF PENSKE AUTOMOTIVE GROUP, INC. WHO MAY RELY ON THE REPORT’S CONTENTS.**

## **INTRODUCTION AND BACKGROUND**

The subject property consists of one parcel containing approximately 6.23 acres with actual property addresses spanning from 122 to 130 Midland Avenue. The subject property is developed with a one-story, 59,359 square foot multi-tenant shopping center with the remainder of the property utilized as an asphalt paved parking lot (Figure 2). It is currently zoned M2-General Industrial and C1-Neighborhood Retail.

Standard and other historical sources documented that the subject property was initially developed prior to 1908 with the construction of a large industrial building labeled car barn, boiler room and power plant along with two residential dwellings located in the northeastern corner. The subject property was operated as the New York and Stamford Railway Company. An additional industrial building was constructed on the southeast side of the subject property between 1908 and 1915 and utilized as a railroad car barn and paint shop and the boiler room in the building on the northeast corner was converted to an electrical substation. Railroad spurs onto the subject property were added by 1919. By 1934, the two residential dwellings were removed and the building on the southeast corner was converted for use as bus storage and repair for the County Transportation System and the northeastern building was vacant. In 1950, this building was used as a nut and bolt manufacturing facility as well as automotive storage for Russell Burdsall and Ward Bolt and Nut. This use continued until between 1971 and 1974 when all former structures were demolished and the property became vacant land.

The current retail building was constructed on the subject property in 1983. Review of municipal records and local street directories documents that tenants of the subject building have generally

consisted of a grocery store, restaurants, wine and liquor store, dry cleaner, shoe store, and a card and gift shop since initial construction. As of the day of the site reconnaissance, only a pizza restaurant and wine and liquor store were operating. All remaining tenant units were unoccupied.

## **PHASE I ESA REPORT**

PM prepared a Phase I ESA for the subject property dated May 3, 2019, in conformance with the scope and limitations of ASTM Practice E1527-13 (i.e., the 'ASTM Standard').

The following onsite RECs were identified within the May 2019 Phase I ESA:

- Notations on Sanborn maps indicate that former structures on the subject property utilized fuel oil. No additional information was available documenting whether fuel oil was stored in above-ground storage tanks (ASTs) or underground storage tanks (USTs), or whether they were removed. The potential exists for contamination to be present on the subject from the former fuel oil use, and for an orphaned UST to be present.
- Review of the Sanborn map from 1934 indicated the presence of a gasoline tank along the southeastern portion of the subject property. PM was unable to determine whether the UST was removed from the property. The potential exists for orphan USTs to be present on the property and/or for a release to have occurred from the systems.
- Historic uses of the subject property include: railroad car repair and painting from at least 1908 until at least 1942; bus repair and storage from at least 1934 until at least 1942; and nut and bolt manufacturing from at least 1950 until at least 1971. In addition, exterior areas, which were unpaved, were utilized for equipment and machinery storage. Historical waste streams associated with these operations consist of general hazardous substances and/or petroleum products. This time period preceded major environmental regulations and current waste management and disposal procedures. The historical waste management practices associated with the former operations are unknown and may be a source of subsurface contamination.
- Review of historical records indicates two railroad spurs were present on the subject property from approximately 1919 to 1934. The spurs ran into the subject property from the northwest corner to the central portion of the property near the former buildings. In 1919 it indicates these tracks connected to a coal pile at the west side of the subject building. The potential exists for spills of hazardous substances and/or petroleum products to have occurred along the railroad spurs. Additionally, railroad spurs may be a source of subsurface contamination resulting from treated railroad ties and historic weed control.
- Local street directories and municipal records document that the tenant space identified as 130 Midland Avenue was occupied by a dry cleaner from 1983 until December 2018. Building records dating back to 1983 documented the use of perchloroethylene (AKA tetrachloroethene or PCE) at the facility which, if improperly managed and/or disposed of, can be a source of contamination. In addition, dry cleaning equipment remained present on the day of the site reconnaissance. The historical waste management practices associated with the former dry-cleaning operations are unknown, and may be a source of contamination to the subject property.

The following adjoining and/or nearby RECs were identified:

- The subject property is bordered to the west by railroad tracks. Review of historical records indicates the tracks have been present since at least 1908. The potential exists for spills of hazardous substances and/or petroleum products to have occurred along the historical railroad tracks. Additionally, railroads may be a source of subsurface contamination resulting from treated railroad ties and historic weed control.
- The south adjoining property (Dollar Cleaners located at 142 Midland Avenue) has been a generator of PCE since at least 1985. Based on the close proximity (directly adjoining) and length of operations, the potential exists that a release has occurred and migrated onto the subject property.

### **PREVIOUS SITE INVESTIGATIONS**

Other than PM's Phase I ESA dated May 3, 2019, no previous site investigations were identified by PM for the subject property. Previous reports may exist for the subject property; however, none were provided to PM by the client or owner of the subject property, and none were available with the appropriate state regulatory agencies.

### **CURRENT SITE INVESTIGATION**

On April 9 and 10, 2019, PM completed a scope of work that consisted of a geophysical survey using ground penetrating radar (GPR) to clear proposed soil boring locations and to determine whether potential orphan USTs are present; the advancement of twelve soil borings (SB-1 through SB-12); installation of nine temporary monitoring wells (TMW-1 through TMW-5, TMW-8 through TMW-10, and TMW-12); and the installation of two soil gas sample points (SSGS-1 and SSGS-2). In conjunction with the installation of the aforementioned points, PM collected eleven soil samples (SS-2 through SS-12), nine groundwater samples (TMW-1 through TMW-5, TMW-8 through TMW-10, and TMW-12), and two soil gas samples (SSGS-1 and SSGS-2) for analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), metals, or some combination thereof.

It should be noted that the potential presence of a gasoline UST along the southeastern portion of the subject property (i.e. based on a 1934 Sanborn Map; refer to Figure 2) was not identified as a REC until after the Phase II ESA field activities were completed. Therefore, that area was not assessed during the Phase II ESA.

The soil boring, temporary monitoring well, and soil gas sampling point locations are depicted on Figures 3 through 5.

### **Geophysical Survey**

On April 9, 2019, PM completed a geophysical survey investigation using GPR to determine whether potential orphan USTs are present (Figure 2) and to determine the orientation and location of public underground utilities, if any, located proximal to the proposed boring locations, prior to boring advancement. The GPR survey was completed using a GSSI® SIR-4000 radar control unit equipped with a 400-megahertz (MHz) antenna utilizing 2-dimensional scanning methods in a 2.0 foot surface grid pattern (i.e., in north-south and east-west directions), to a maximum depth of 4.0 feet below ground surface (bgs). In the event that surficial obstacles

prohibited scanning in a 2-foot surface grid pattern, a non-grid approach was taken in order to avoid obstacles and scan the accessible areas of the subject property.

No anomalies consistent with orphan USTs or UST system components were observed during the GPR survey, in the areas surveyed. However, as indicated above, the potential presence of a gasoline UST along the southeastern portion of the subject property (i.e. based on a 1934 Sanborn Map) was not identified as a REC until after the Phase II ESA field activities were completed. Therefore, that area was not included in the GPR survey area.

**Subsurface Investigation**

Prior to the commencement of field activities, Dig Safely New York, a utility locating service, was contacted to locate utilities on or adjacent to the subject property. Utilities were marked by the respective utility companies where they entered or were located adjacent to the subject property. In addition, PM cleared all soil boring locations of private utilities prior to installation with GPR.

The soil borings were advanced by Eco Drilling Environmental Services LLC of Toms River, New Jersey, to the desired depth using a stainless-steel hand auger or Geoprobe® drill rig. Eleven soil samples and nine groundwater samples were collected for laboratory analysis of VOCs, SVOCs, PCBs, metals, or some combination thereof. Two sub-slab soil gas samples were collected for laboratory analysis of VOCs via United States Environmental Protection Agency (USEPA) method TO-15.

The following table summarizes the sample locations, sample depths, analysis, objective, and sample selection justification. The soil boring, temporary monitoring well, and soil gas sample locations are depicted on Figures 3 through 5. Appendix A contains the soil boring/temporary monitoring well logs and soil gas sample point installation diagrams.

**Description of Soil Boring/Temporary Monitoring Well/Soil Gas Locations**

Location and Total Depth (feet bgs)	Sample Depth (feet bgs)	TMW Screen Depth and DTW (feet bgs)	Analysis	Objectives	Sample Selection (justification)
SB/TMW-1 (15.0)	<b>No Soil Sample</b>	<b>Screen</b> 5.0-15.0 <b>DTW</b> 6.5	VOCs	Assess dry cleaner operations at southern adjoining property	<b>Soil:</b> N/A <b>GW:</b> Sampled.
SB/TMW-2 (15.0)	<b>Soil</b> 4.0-5.0	<b>Screen</b> 5.0-15.0 <b>DTW</b> 13.0	VOCs, SVOCs and Metals	Assess potential former UST and former paint shop and car barn #3 operations	<b>Soil:</b> Sample was collected from the vadose zone at depth of highest suspected impact based on PID readings. <b>GW:</b> Sampled.
SB/TMW-3 (15.0)	<b>Soil</b> 2.0-3.0	<b>Screen</b> 5.0-15.0 <b>DTW</b> 13.0	VOCs, SVOCs and Metals	Assess potential former UST and former paint shop and car barn #3 operations	<b>Soil:</b> Sample was collected from the vadose zone at depth of highest suspected impact based on PID readings. <b>GW:</b> Sampled.

**Phase II Environmental Site Assessment for the Commercial Property  
Located at 130 Midland Avenue in Port Chester, New York  
PM Project No. 19-3641-0-0002; May 9, 2019**

<b>Location and Total Depth (feet bgs)</b>	<b>Sample Depth (feet bgs)</b>	<b>TMW Screen Depth and DTW (feet bgs)</b>	<b>Analysis</b>	<b>Objectives</b>	<b>Sample Selection (justification)</b>
SB/TMW-4 (15.0)	<b>Soil</b> 11.0-12.0	<b>Screen</b> 5.0-15.0 <b>DTW</b> 12.5	VOCs, SVOCs and Metals	Assess potential former UST and former paint shop and car barn #3 operations	<b>Soil:</b> Sample was collected from the vadose zone at depth of highest suspected impact based on PID readings. <b>GW:</b> Sampled.
SB/TMW-5 (15.0)	<b>Soil</b> 1.0-2.0	<b>Screen</b> 5.0-15.0 <b>DTW</b> 8.0	VOCs, SVOCs, PCBs, and Metals	Assess former electric sub-station and car barn #2 operations	<b>Soil:</b> Sample was collected from the shallow interval within the vadose zone based on the lack of field evidence of contamination. <b>GW:</b> Sampled.
SB-6 (10.0)	<b>Soil</b> 1.0-2.0	N/A	VOCs, SVOCs, PCBs, and Metals	Assess former electric sub-station and car barn #2 operations	<b>Soil:</b> Sample was collected from the shallow interval within the vadose zone based on the lack of field evidence of contamination. <b>GW:</b> N/A
SB-7 (10.0)	<b>Soil</b> 1.0-2.0	N/A	VOCs, SVOCs, PCBs, and Metals	Assess former electric sub-station and car barn #2 operations	<b>Soil:</b> Sample was collected from the shallow interval within the vadose zone based on the lack of field evidence of contamination. <b>GW:</b> N/A
SB/TMW-8 (12.0)	<b>Soil</b> 8.0-9.0	<b>Screen</b> 2.0-12.0 <b>DTW</b> 11.0	VOCs and SVOCs	Assess former heating oil UST	<b>Soil:</b> Sample was collected from the vadose zone at depth of highest suspected impact based on depth of typical UST invert. <b>GW:</b> Sampled.
SB/TMW-9 (15.0)	<b>Soil</b> 1.0-2.0	<b>Screen</b> 5.0-15.0 <b>DTW</b> 7.0	VOCs	Assess former dry cleaner operations	<b>Soil:</b> Sample was collected from the shallow interval within the vadose zone based on the lack of field evidence of contamination. <b>GW:</b> Sampled.
SB/TMW-10 (15.0)	<b>Soil</b> 1.0-2.0	<b>Screen</b> 5.0-15.0 <b>DTW</b> 11.0	VOCs	Assess former dry cleaner operations	<b>Soil:</b> Sample was collected from the shallow interval within the vadose zone based on the lack of field evidence of contamination. <b>GW:</b> Sampled.
SB-11 (15.0)	<b>Soil</b> 2.0-3.0	N/A	VOCs, PNAs, and Metals	Assess railroad tracks on western adjoining property	<b>Soil:</b> Sample was collected from the vadose zone at depth of highest suspected impact based on field observations of debris within boring. <b>GW:</b> N/A



Location and Total Depth (feet bgs)	Sample Depth (feet bgs)	TMW Screen Depth and DTW (feet bgs)	Analysis	Objectives	Sample Selection (justification)
SB/TMW-12 (15.0)	Soil 2.0-3.0	Screen 5.0-15.0 DTW 6.0	VOCs, PNAs, and Metals	Assess railroad tracks on western adjoining property and former railroad tracks on subject property	<b>Soil:</b> Sample was collected from the shallow interval within the vadose zone based on the lack of field evidence of contamination. <b>GW:</b> Sampled.
SSGS-1 (1.5)	Soil Gas 1.0 – 1.5	N/A	VOCs	Assess soil gas from former dry cleaner operations	<b>Soil Gas:</b> Sampled.
SSGS-2 (1.5)	Soil Gas 1.0 – 1.5	N/A	VOCs	Assess soil gas from former dry cleaner operations	<b>Soil Gas:</b> Sampled.

GW – Groundwater

bgs – below ground surface

VOCs – Volatile Organic Compounds

DTW – Depth to Water

N/A – Not Applicable

SVOCs – Semi-Volatile Organic Compounds

TMW – Temporary Monitoring Well

PID – Photoionization Detector

PNAs – Polynuclear Aromatics

### **Site Investigation Techniques**

The soil borings were advanced to the desired depth using a Geoprobe® drill rig. Soil sampling was performed for soil classification, verification of subsurface geologic conditions, and for investigating the potential and/or extent of soil and groundwater contamination at the subject property. Soil samples were generally collected on a continuous basis using a 5-foot long macro-core sampler. Soil boring/temporary monitoring well logs are included in Appendix A.

During drilling operations, the drilling equipment was cleaned to minimize the possibility of cross contamination. These procedures included cleaning equipment with a phosphate free solution (i.e. Alkanox®) and rinsing with distilled water after each sample collection. Drilling and sampling equipment was also cleaned in this manner prior to initiating field activities.

Soil samples (SS-2 through SS-12) were collected from one-foot sample intervals was screened using a PID to determine if VOCs were present. Soil from specific depths was placed in plastic bags and allowed to volatilize. The headspace within each bag was then monitored with the PID. The PID is able to detect trace levels of organic compounds in the air space within the plastic bag. Soil samples for analysis were placed in appropriately labeled containers with Teflon®-lined lids and/or sanitized glass jars, then placed in an ice-packed cooler and transported under chain-of-custody procedures for laboratory analysis within applicable holding times.

Temporary monitoring wells were installed at soil borings SB-1 through SB-5, SB-8 through SB-10, and SB-12 for groundwater sample collection. At these locations, a new well assembly, consisting of 0.010-inch slot, schedule 40, poly-vinyl chloride (PVC) screen and PVC casing were lowered into the borehole to intersect the water table. After the screen for the well was set to the desired depth, an artificial sand pack or natural sands were allowed to collapse around the well screen. Groundwater samples were collected from the temporary monitoring well with care taken to avoid the potential for cross contamination between the samples and to prevent loss of volatiles to the atmosphere.

The groundwater samples (TMW-1 through TMW-5, TMW-8 through TMW-10, and TMW-12) were collected using dedicated Teflon®-lined bailers. The groundwater samples were placed in appropriately labeled containers with Teflon®-lined lids, placed in an ice-packed cooler, and transported under chain-of-custody procedures for laboratory analysis within applicable holding times. Purge water was maintained separately and returned to the well.

Sub-slab soil gas samples were collected from the building utilizing a ½- inch diameter drill to install a Teflon®-lined sub-slab soil gas sample probe with air inlet approximately six inches below the bottom of the finished floor, estimated at 1.0 – 1.5 feet bgs. Teflon® tape and Portland cement were utilized to seal the annulus between sample probe and the surrounding concrete. Prior to purging of the sample probe, a helium shroud was constructed over the sample probe and filled with helium. During purging, the sample probe discharge was monitored for the presence of helium to evaluate for leaks between the surface and the annulus of the sample probe. Once it was determined that no leaks were present, the sample probe was purged and a composite sub-slab soil gas sample was collected. Soil gas samples were collected in 2.7-liter SUMMA canisters for laboratory analysis of VOCs. Soil gas sample rates were regulated with a flow of 200 mL/min for a minimum draw time of ten minutes.

The soil, groundwater, and soil gas samples were submitted to Alpha Analytical Laboratories, Inc. in Westborough, Massachusetts for chemical analysis. Soil, groundwater, and soil gas analytical results are summarized in Tables 1 through 3, while Figures 3 through Figure 5 depict the soil, groundwater, and soil gas analytical results on scaled site diagrams. The complete laboratory analytical reports are included in Appendix B.

Upon completion of the investigation, soil borings were abandoned by removing the temporary well materials, placing the soil cuttings back into the borehole, filling the void with bentonite chips, hydrating the chips, resurfacing and returning the area to its pre-drilling condition.

## **GEOLOGY/HYDROGEOLOGY**

Based on the soil boring logs, native site-specific stratigraphy generally consists of sand, silt, and gravel to 15.0 feet bgs, the maximum depth explored. Static water levels were measured in the temporary monitoring wells between 6.0 and 13.0 feet bgs.

The soil boring logs are included in Appendix A, which summarize site-specific geology, sample depths, and PID readings.

## **ANALYTICAL RESULTS**

The analytical results for the soil, groundwater, and soil gas samples collected by PM on April 9 – 10, 2019 were compared with the standards presented in the New York State Department of Environmental Conservation (NYSDEC) Table 375-6.8(a) Unrestricted Use Soil Clean Up Objectives (UU-SCOs) and Table 375-6.8(b) for Restricted Use Soil Clean Up Objectives – Commercial (RU(C)-SCOs). Analytical results for groundwater samples collected were compared to the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) New York State Ambient Water Quality Standards (NY AWQS) as supplemented by Table 2 last updated in June 2004 for General Aquifer (GA) designation. The analytical results for the soil gas samples were compared to the EPA Vapor Intrusion Screening Levels (VISL) for Commercial Target Sub-Slab and Near-Source Soil Gas Concentration with a Hazard Quotient of 1 last updated in May 2018.

The analytical results are generally summarized in the following table. The soil, groundwater, and soil gas analytical results are listed in more detail in Tables 1 through 3 and are depicted on Figures 3, 4 and 5.

**Summary of Soil, Groundwater and Soil Gas Exceedances**

<b>Location</b>	<b>Sample Depth (feet bgs)</b>	<b>Compound</b>	<b>Objectives</b>	<b>Exceedances</b>
TMW-1	<b>Groundwater</b> 6.5	None	Assess dry cleaner operations at southern adjoining property	<b>Groundwater:</b> No Exceedances
SB-2	<b>Soil</b> 4.0-5.0	B(a)A, B(a)P, B(b)F, B(k)F, Chrysene, D(a,h)A, I(cd)P, Pb, and Hg	Assess potential gasoline UST and former paint shop and car barn #3 operations	<b>Soil:</b> UU-SCOs and/or RU(C)-SCOs
TMW-2	<b>Groundwater</b> 13.0	Bis(2-ethylhexyl)phthalate	Assess potential gasoline UST and former paint shop and car barn #3 operations	<b>Groundwater:</b> TOGS-AWQS-GA
SB-3	<b>Soil</b> 2.0-3.0	B(b)F, I(cd)P, and Hg	Assess potential gasoline UST and former paint shop and car barn #3 operations	<b>Soil:</b> UU-SCOs
TMW-3	<b>Groundwater</b> 13.0	None	Assess potential gasoline UST and former paint shop and car barn #3 operations	<b>Groundwater:</b> No Exceedances
SB-4	<b>Soil</b> 11.0-12.0	1,2,4-TMB and Xylenes	Assess potential gasoline UST and former paint shop and car barn #3 operations	<b>Soil:</b> UU-SCOs
TMW-4	<b>Groundwater</b> 12.5	1,2,4,5-TMB, 1,2,4-TMB, 1,3,5-TMB, Ethylbenzene, Isopropylbenzene, n-Butylbenzene, n-Propylbenzene, Naphthalene, p-Isopropylbenzene, and p/m-Xylene	Assess potential gasoline UST and former paint shop and car barn #3 operations	<b>Groundwater:</b> TOGS-AWQS-GA
SB-5	<b>Soil</b> 1.0-2.0	B(a)A, B(b)F, Chrysene, I(cd)P, PCBs, Cd, Pb, and Hg	Assess former electric sub-station and car barn #2 operations	<b>Soil:</b> UU-SCOs

**Phase II Environmental Site Assessment for the Commercial Property  
Located at 130 Midland Avenue in Port Chester, New York  
PM Project No. 19-3641-0-0002; May 9, 2019**

<b>Location</b>	<b>Sample Depth (feet bgs)</b>	<b>Compound</b>	<b>Objectives</b>	<b>Exceedances</b>
TMW-5	<b>Groundwater</b> 8.0	B(a)A, B(a)P, B(b)F, B(k)F, Chrysene, and I(cd)P	Assess former electric sub-station and car barn #2 operations	<b>Groundwater:</b> TOGS-AWQS-GA
SB-6	<b>Soil</b> 1.0-2.0	B(a)A, B(a)P, B(b)F, Chrysene, I(cd)P, PCBs, Pb, and Hg	Assess former electric sub-station and car barn #2 operations	<b>Soil:</b> UU-SCOs and/or RU(C)-SCOs
SB-7	<b>Soil</b> 1.0-2.0	Acetone, B(a)A, B(a)P, B(b)F, Chrysene, I(cd)P, PCBs, Cd, Pb, and Hg	Assess former electric sub-station and car barn #2 operations	<b>Soil:</b> UU-SCOs and/or RU(C)-SCOs
SB-8	<b>Soil</b> 8.0-9.0	None	Assess former heating oil UST	<b>Soil:</b> No Exceedances
TMW-8	<b>Groundwater</b> 11.0	B(a)A, B(a)P, B(b)F, B(k)F, Chrysene, and I(cd)P	Assess former heating oil UST	<b>Groundwater:</b> TOGS-AWQS-GA
SB-9	<b>Soil</b> 1.0-2.0	cis-1,2-DCE and PCE	Assess former dry cleaner operations	<b>Soil:</b> UU-SCOs
TMW-9	<b>Groundwater</b> 7.0	None	Assess former dry cleaner operations	<b>Groundwater:</b> No Exceedances
SB-10	<b>Soil</b> 1.0-2.0	Acetone	Assess former dry cleaner operations	<b>Soil:</b> UU-SCOs
TMW-10	<b>Groundwater</b> 11.0	None	Assess former dry cleaner operations	<b>Groundwater:</b> No Exceedances
SB-11	<b>Soil</b> 2.0-3.0	Cd, Pb, and Hg	Assess railroad tracks on western adjoining property	<b>Soil:</b> UU-SCOs and/or RU(C)-SCOs
SB-12	<b>Soil</b> 2.0-3.0	B(a)A, B(a)P, B(b)F, Chrysene, I(cd)P, Cd, and Pb	Assess railroad tracks on western adjoining property and former railroad tracks on subject property	<b>Soil:</b> UU-SCOs and/or RU(C)-SCOs
TMW-12	<b>Groundwater</b> 6.0	B(a)A and B(a)P	Assess railroad tracks on western adjoining property and former railroad tracks on subject property	<b>Groundwater:</b> TOGS-AWQS-GA
SSGS-1	<b>Soil Gas</b> 1.0-1.5	PCE	Assess soil gas from former dry cleaner operations	<b>Soil Gas</b> EPA VISL

**Phase II Environmental Site Assessment for the Commercial Property  
Located at 130 Midland Avenue in Port Chester, New York  
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Location	Sample Depth (feet bgs)	Compound	Objectives	Exceedances
SSGS-2	Soil Gas 1.0-1.5	PCE	Assess soil gas from former dry cleaner operations	Soil Gas EPA VISL

bgs – below ground surface  
 B(b)F – Benzo(b)fluoranthene  
 I(cd)P – Indeno(1,2,3-cd)pyrene  
 1,2,4-TMB – 1,2,4-Trimethylbenzene  
 Pb – Lead  
 UU-SCOs – Unrestricted Use Soil Cleanup Objectives  
 RU(C)-SCOs – Restricted Use (Commercial) Soil Cleanup Objectives  
 TOGS-AWQS-GA – NYSDEC Division of Water Technical and Operational Guidance Series Ambient Water Quality Standards – General Aquifer Designation  
 EPA VISL – EPA Vapor Intrusion Screening Levels for Commercial Target Sub-Slab and Near-Source Soil Gas Concentration with a Hazard Quotient of 1 last updated in May 2018

B(a)A – Benzo(a)anthracene  
 B(k)F – Benzo(k)fluoranthene  
 1,2,4,5-TMB – 1,2,4,5-Tetramethylbenzene  
 1,3,5-TMB – 1,3,5-Trimethylbenzene  
 Hg – Mercury

B(a)P – Benzo(a)pyrene  
 D(a,h)A – Dibenzo(a,h)anthracene  
 Cd – Cadmium  
 PCE – Tetrachloroethene  
 PCBs – Polychlorinated Biphenyls

**Summary of Soil Analytical Results**

The soil analytical results are summarized on Figure 3 and in Table 1. The laboratory analytical reports are included as Appendix B.

Select VOCs were detected above their respective laboratory method detection limits (MDLs) in soil samples SS-2 through SS-12. Concentrations of 1,2,4-trimethylbenzene (SS-4), acetone (SS-7 and SS-10), cis-1,2-dichloroethene (SS-9), tetrachloroethene (SS-9), and total xylenes (SS-4) were reported in excess of UU-SCOs, while below RU(C)-SCOs. No other VOC concentrations in soil exceeded the most restrictive UU-SCOs.

Select SVOCs were detected above their respective laboratory MDLs in soil samples SS-2 through SS-7, SS-11, and SS-12. Additionally, concentrations of benzo(a)anthracene (SS-2, SS-5 through SS-7, and SS-12), benzo(a)pyrene (SS-2, SS-6, SS-7, and SS-12), benzo(b)fluoranthene (SS-2, SS-3, SS-5 through SS-7, and SS-12), benzo(k)fluoranthene (SS-2), chrysene (SS-2, SS-5 through SS-7, and SS-12), dibenzo(a,h)anthracene (SS-2), and indeno(1,2,3-cd)pyrene (SS-2, SS-3, SS-5 through SS-7) were reported in excess of UU-SCOs. Furthermore, the concentrations reported for benzo(a)anthracene (SS-2), benzo(a)pyrene (SS-2, SS-6, SS-7, and SS-12), and benzo(b)fluoranthene (SS-2) also exceeded RU(C)-SCOs. No other SVOC concentrations in soil exceeded the most restrictive UU-SCOs.

PCBs were detected above laboratory MDLs in soil samples SS-5 through SS-7. The PCB concentrations for these samples were reported in excess of UU-SCOs, while below RU(C)-SCOs

Select RCRA-8 metals were detected above their respective laboratory MDLs in soil samples SS-2 through SS-7, SS-11, and SS-12. Additionally, concentrations of cadmium (SS-5, SS-7, SS-11, and SS-12), lead (SS-2, SS-5 through SS-7, SS-11, and SS-12), and mercury (SS-2, SS-3, SS-5 through SS-7, and SS-11) were reported in excess of UU-SCOs. Furthermore, one concentration reported for cadmium (SS-11) also exceeded the RU(C)-SCO. No other RCRA-8 metal concentrations in soil exceeded the most restrictive UU-SCOs.

**Summary of Groundwater Analytical Results**

The groundwater analytical results are summarized on Figure 4 and in Table 2. The laboratory analytical reports are included as Appendix B.

Select VOCs were detected above their respective laboratory MDLs in groundwater samples TMW-1 through TMW-4, TMW-8 through TMW-10, and TMW-12. Groundwater sample TMW-4 reported 1,2,4,5-tetramethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethylbenzene, isopropylbenzene, n-butylbenzene, n-propylbenzene, and naphthalene at concentrations above the TOGS AWQS GA standards.

Select SVOCs were detected above their respective laboratory MDLs in groundwater samples TMW-2 through TMW-5, TMW-8, and TMW-12. Additionally, concentrations of benzo(a)anthracene (TMW-5, TMW-8, and TMW-12), benzo(a)pyrene (TMW-5 and TMW-8), benzo(b)fluoranthene (TMW-5, TMW-8, and TMW-12), benzo(k)fluoranthene (TMW-5 and TMW-8), bis(2-ethylhexyl)phthalate (TMW-2), chrysene (TMW-5 and TMW-8), and indeno(1,2,3-cd)pyrene (TMW-5 and TMW-8), and naphthalene (TMW-4) were reported in excess of TOGS AWQS GA standards.

**Soil Gas Analytical Results**

The soil gas analytical results are summarized on Figure 5 and in Table 3. The laboratory analytical reports are included as Appendix B.

Select VOCs were detected in sub-slab soil gas samples SSGS-1 and SSGS-2 at concentrations above the respective laboratory MDLs and below applicable screening levels. SSGS-1 and SSGS-2 each reported tetrachloroethene (PCE) concentrations in excess of the EPA-VISLs for Commercial Sub Slab Soil Gas Screening Concentrations. This indicates that a vapor encroachment condition exists in the former drycleaner tenant space of the subject property building.

**EXPOSURE PATHWAY EVALUATION**

The following exposure pathways were evaluated, including: groundwater ingestion, groundwater surface water interface, direct contact, and ambient and indoor air inhalation from contaminated soil and groundwater. Exposure pathways are eliminated when it is demonstrated that unacceptable exposures do not exist and that response activities are not required to prevent or mitigate unacceptable exposures.

The subject property is currently zoned with a nonresidential property use. Based upon the current zoning and likely nonresidential use of the subject property in the future, NYSDEC Restricted Use Soil Clean Up Objectives – Commercial Standards are appropriate.

Complete and/or Potentially Complete Exposure Pathway?		
Pathway	Yes/No	Justification
Groundwater Ingestion	No	<ul style="list-style-type: none"> <li>• No water wells exist at the subject property.</li> <li>• Subject property connected to municipal water.</li> </ul>

<b>Complete and/or Potentially Complete Exposure Pathway?</b>		
<b>Pathway</b>	<b>Yes/No</b>	<b>Justification</b>
Indoor Air Inhalation	<b>Yes</b>	<ul style="list-style-type: none"> <li>• Sub-slab soil gas samples reported tetrachloroethene concentrations in excess of the commercial EPA-VISL within currently vacated leasehold space that formerly contained a dry-cleaning operation.</li> <li>• Further evaluation of the vapor intrusion pathway is necessary for the former dry cleaner space as well as for the adjacent leasehold spaces, which are currently occupied by a pizzeria and a liquor store.</li> </ul>
Ambient Air Volatile/ Particulate Soil Inhalation	NA	<ul style="list-style-type: none"> <li>• This pathway was not evaluated.</li> </ul>
Direct Contact	<b>Yes</b>	<ul style="list-style-type: none"> <li>• Soil samples reported several concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(k)fluoranthene, and cadmium in excess of their respective RU(C)-SCOs.</li> <li>• Further investigation and subsequent remedial action are necessary for the areas of these exceedances, at a minimum.</li> </ul>
Surface Water	NA	<ul style="list-style-type: none"> <li>• Surface water is not present on or adjacent to the subject property.</li> </ul>

**BOLD** – Further evaluation recommended based upon a relevant human exposure pathway and exceedance of an applicable criterion (Section 5.0).

## **CONCLUSIONS AND RECOMMENDATIONS**

On April 9 and 10, 2019, PM completed a Phase II ESA scope of work that consisted of a geophysical survey using GPR to clear proposed soil boring locations and to determine whether potential orphan USTs are present; the advancement of twelve soil borings (SB-1 through SB-12); installation of nine temporary monitoring wells (TMW-1 through TMW-5, TMW-8 through TMW-10, and TMW-12); and the installation of two soil gas sample points (SSGS-1 and SSGS-2). In conjunction with the installation of the aforementioned points, PM collected eleven soil samples (SS-2 through SS-12), nine groundwater samples (TMW-1 through TMW-5, TMW-8 through TMW-10, and TMW-12), and two soil gas samples (SSGS-1 and SSGS-2) for analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polynuclear aromatics (PNAs), polychlorinated biphenyls (PCBs), metals, or some combination thereof.

The potential presence of a gasoline UST along the southeastern portion of the subject property (i.e. based on a 1934 Sanborn Map) was not identified as a REC until after the Phase II ESA field activities were completed. Therefore, that area was not assessed during the Phase II ESA.

No anomalies consistent with orphan USTs or UST system components were observed during the GPR survey, in the areas surveyed.

Soil analytical results identified concentrations of select VOCs (specifically 1,2,4-trimethylbenzene, acetone, cis-1,2-dichloroethene, tetrachloroethene, and total xylenes), SVOCs (specifically benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene), PCBs, and select metals (specifically cadmium, lead, and mercury) in excess of the most restrictive UU-SCO standards. Furthermore, concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and cadmium in select soil samples also exceeded RU(C)-SCOs.

Groundwater analytical results identified concentrations of select VOCs (specifically 1,2,4,5-tetramethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethylbenzene, isopropylbenzene, n-butylbenzene, n-propylbenzene, and naphthalene) and SVOCs (specifically benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, chrysene, and indeno(1,2,3-cd)pyrene, and naphthalene) in excess of the TOGS AWQS GA standards.

Soil gas analytical results identified concentrations of PCE in excess of its EPA-VISL for Commercial Sub Slab Soil Gas Screening Concentrations. This indicates that a vapor encroachment condition exists in the former drycleaner tenant space of the subject property building.

Based on the soil analytical results, there are concentrations of select VOCs, SVOCs, PCBs, and/or metals exceeding the most restrictive UU-SCOs in numerous areas across the subject property. Additionally, concentrations of select SVOCs in SS-2, SS-6, SS-7, and SS12 and a metal (cadmium) in SS-11 also exceeded RU(C)-SCOs. Therefore, PM recommends additional investigation to delineate the vertical and horizontal extents of these soil impacts at the subject property in order to determine an appropriate remedial strategy.

Based on the groundwater analytical results, numerous concentrations of select VOCs and SVOCs, many of which considered petroleum-related compounds, were reported in TMW-4 in excess of TOGS AWQS GA. Additionally, concentrations of select SVOCs were reported in excess of TOGS AWQS GA in TMW-2, TMW-5, TMW-8, and TMW-12. Therefore, PM recommends additional investigation to delineate the vertical and horizontal extents of these groundwater impacts at the subject property in order to determine an appropriate remedial strategy.

Based on the soil gas analytical results, concentrations of PCE exceeding the EPA-VISL have been identified in the sub-slab soil gas beneath the leasehold space at the subject property formerly occupied by a dry-cleaning operation. Therefore, PM recommends further investigation of soil and groundwater directly beneath the leasehold space in order to verify whether a release has occurred as well as a soil gas and indoor air investigation for the adjacent tenant spaces (currently occupied by a pizzeria restaurant and a liquor store) to determine if a vapor exposure pathway exists for either space, and/or whether vapor controls may be necessary.

In accordance with Title 6 of the Codes, Rules and Regulations of the State of New York (NYCRR) PART 613 and Section 1.1 of The *Technical Field Guidance, Spill Reporting and Initial Notification Requirements*, petroleum spills must be reported to the DEC by the spiller or by any person with knowledge of a spill, leak, or discharge. All reportable petroleum spills and most hazardous materials spills must be reported to the DEC hotline (1-800-457-7362) from within New York State; and (1-518-457-7362) from outside of New York State.

PM recommends that a Qualified Environmental Professional (QEP) be engaged to notify the NYSDEC of the suspected release and conduct a site characterization to evaluate the nature and extent of the impacts identified.

It should be noted that the potential presence of a gasoline UST along the southeastern portion of the subject property was not identified as a REC until after the GPR survey and Phase II field work were completed. Therefore, PM recommends that additional investigation be completed to determine if the gasoline UST identified in historical Sanborn maps, remains in place and/or if a



release occurred in association with the UST.

The remaining RECs associated with the subject property identified in PM's Phase I ESA dated May 3, 2019 have been assessed.

Sincerely,

**PM Environmental, Inc.**  
**REPORT PREPARED BY:**



Jade Gillette, EP  
Project Consultant

**REPORT REVIEWED BY:**



J. Adam Patton, CHMM  
National Manager - Site Investigation Services

## **FIGURES**

- Figure 1: Property Vicinity Map  
Figure 2: Generalized Diagram of the Subject Property and Adjoining Properties with Geophysical Survey Area  
Figure 3: Soil Boring/Temporary Monitoring Well/Soil Gas Sample Location Map with Soil Analytical Results  
Figure 4: Soil Boring/Temporary Monitoring Well/Soil Gas Sample Location Map with Groundwater Analytical Results  
Figure 5: Soil Boring/Temporary Monitoring Well/Soil Gas Sample Location Map with Soil Gas Analytical Results

## **TABLES**

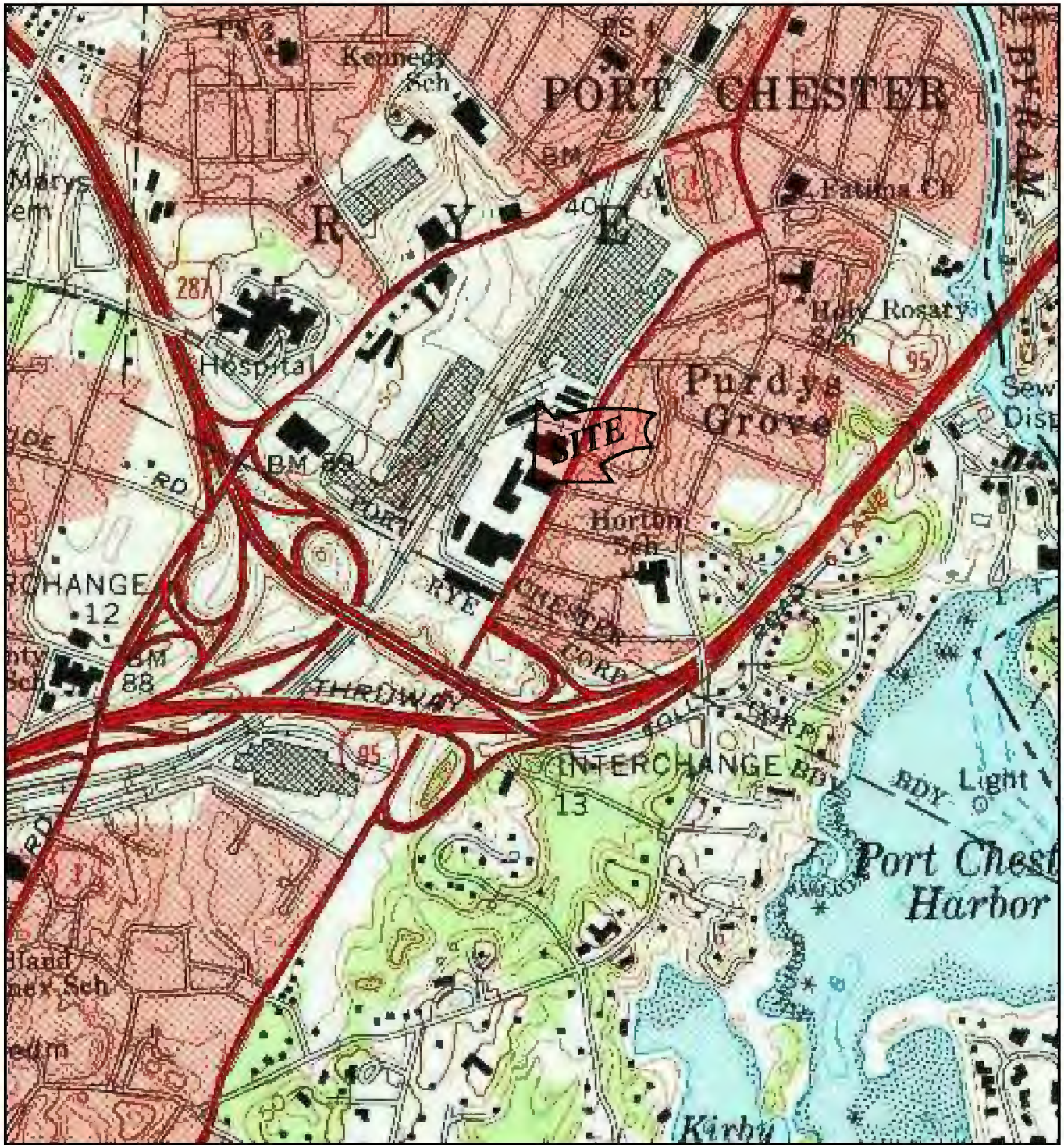
- Table 1: Summary of Soil Analytical Results – VOCs, SVOCs, PNAs, PCBs, and Metals  
Table 2: Summary of Groundwater Analytical Results – VOCs and SVOCs  
Table 3: Summary of Soil Gas Analytical Results – Volatile Organic Compounds

## **APPENDICES**

- Appendix A: Soil Boring/Temporary Monitoring Well Logs and Soil Gas Sample Point Diagrams  
Appendix B: Laboratory Analytical Reports

# Figures





# WESTCHESTER COUNTY

FIGURE 1

PROPERTY VICINITY MAP

UNITED STATES GEOLOGICAL SURVEY, 7.5 MINUTE SERIES

MAMARONECK, MI QUADRANGLE, 1967. PHOTO REVISED 1975.



PROJ: COMMERCIAL PROPERTY  
130 MIDLAND AVENUE  
PORT CHESTER, NY

THIS IS NOT A LEGAL SURVEY

VERIFY SCALE  
0 2,000'

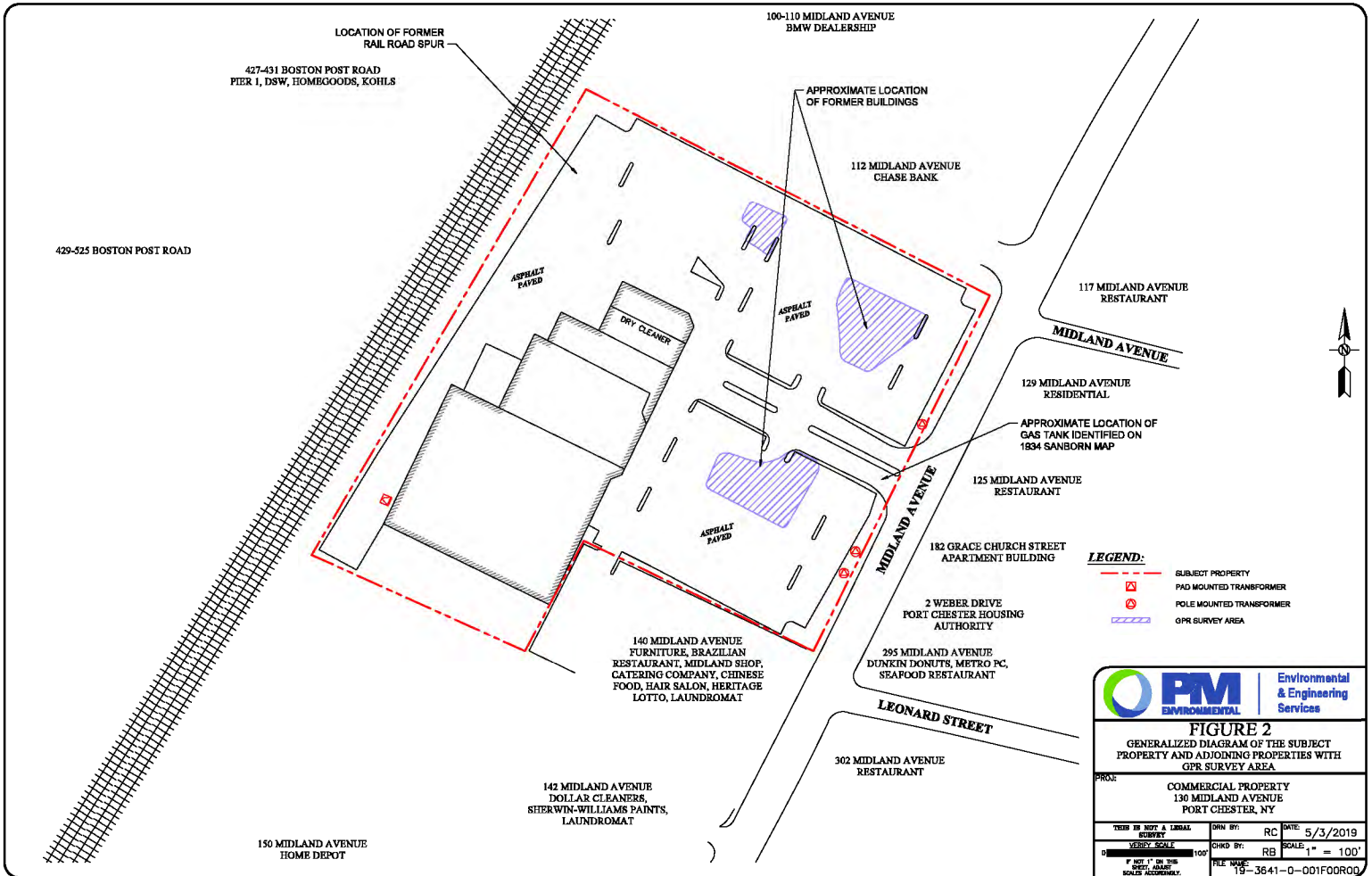
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: RC DATE: 3/25/2019

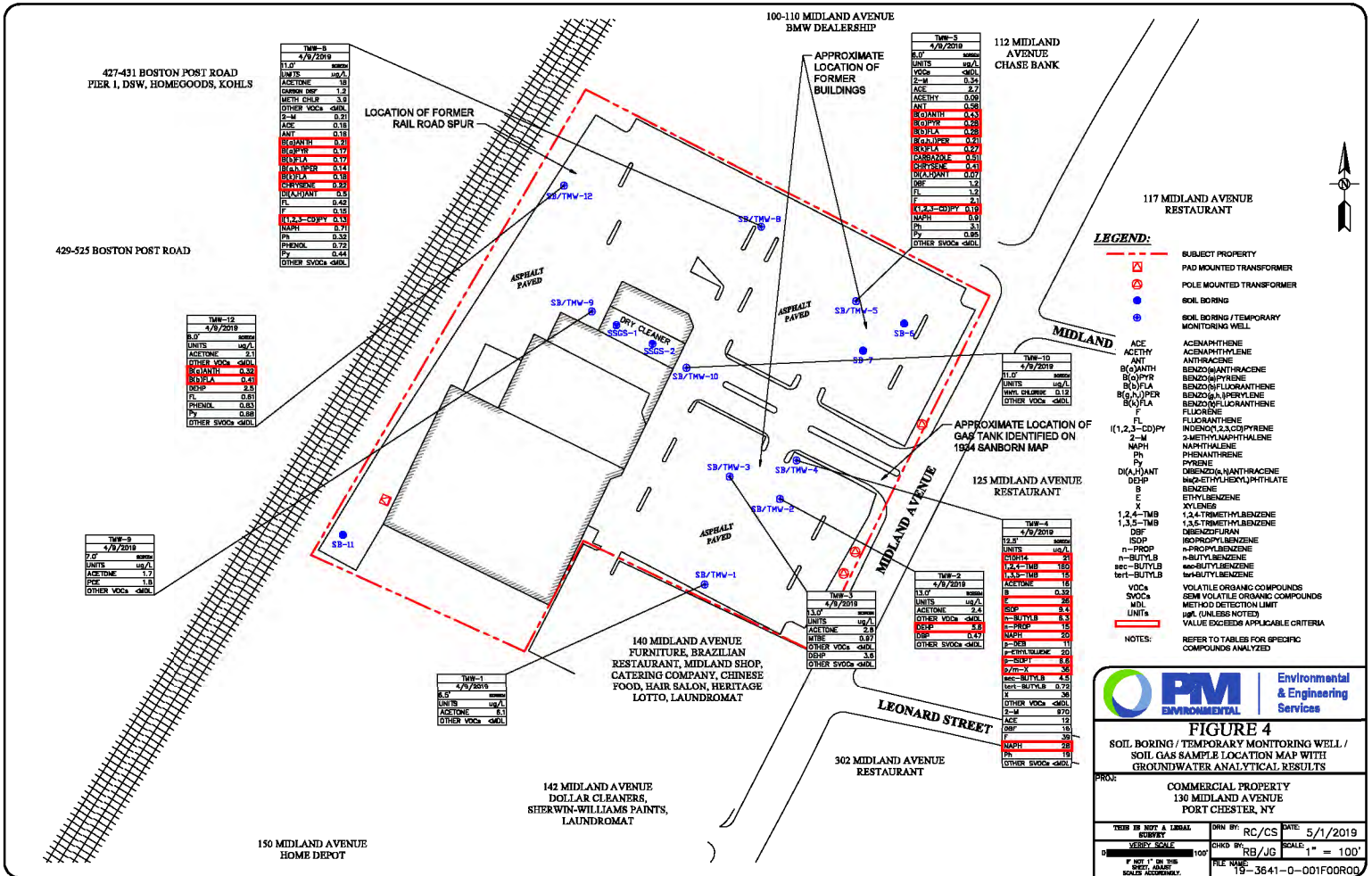
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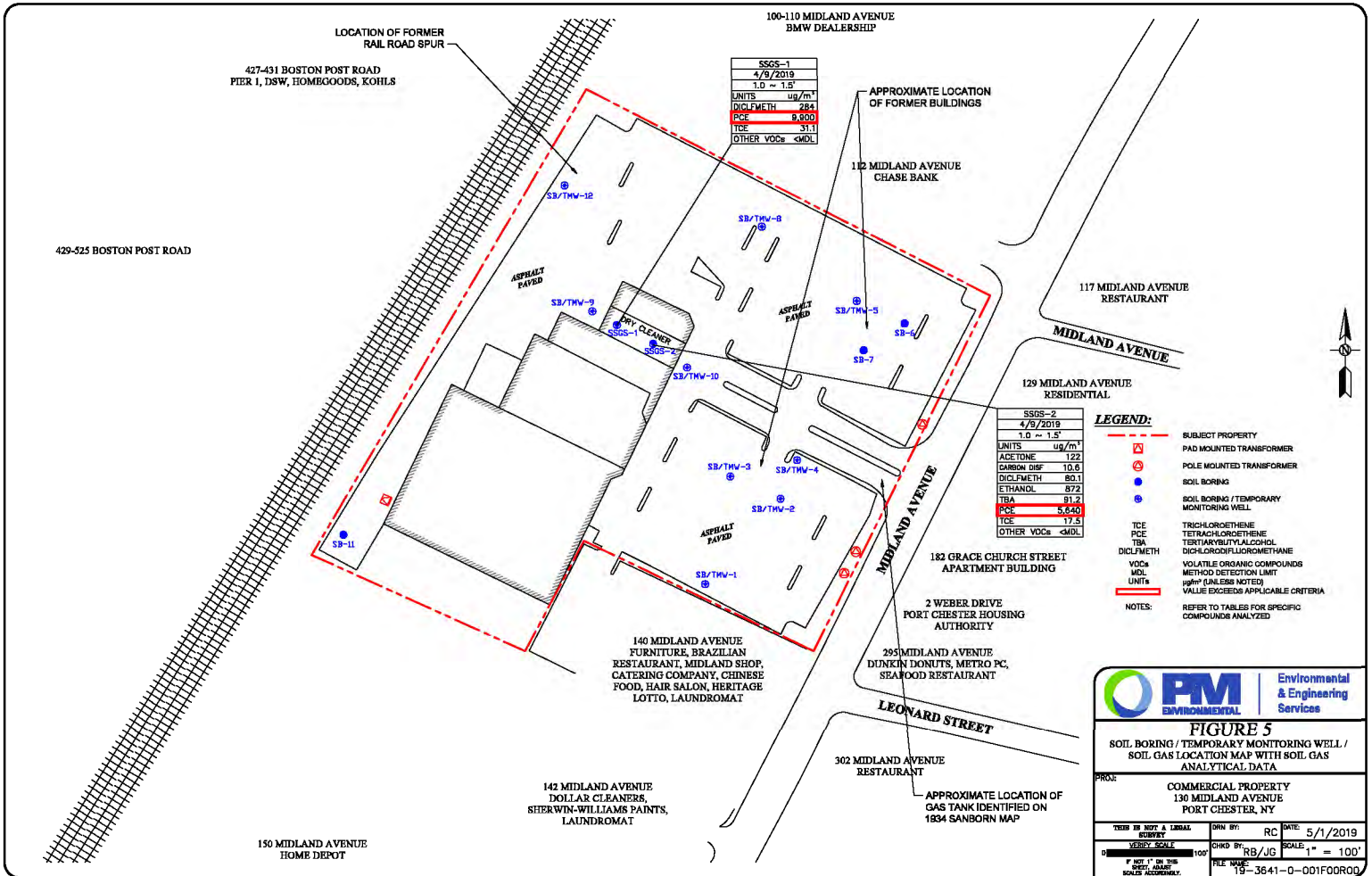
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# Tables



TABLE 1 - PAGE 1 OF 2  
 SUMMARY OF SOIL ANALYTICAL RESULTS  
 VOCs, SVOCs, PCBs AND METALS  
 130 MIDLAND AVENUE, PORT CHESTER, NEW YORK  
 PH PROJECT # 19-3641-0-9002

VOLATILE ORGANIC COMPOUNDS (VOCs), SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs), POLYCHLORINATED BI-PHENYLS (PCBs) and METALS (mg/Kg)			1,2,3-Trichlorobenzene	1,2,4,5-Tetrachlorobenzene	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene Total	1,3,5-Triethylbenzene	2-Buflorone	Aroclor	Benzene	Bromobenzene	m-1,2-Dichlorobenzene	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene	n-Butylbenzene	n-Propylbenzene	Naphthalene	p-Cetylbenzene	p-Ethylbenzene	p-Isopropylbenzene	p-Xylene	sec-Butylbenzene	tert-Butylbenzene	Toluene	trans-1,2-Dichloroethene	Toluene	Xylene Total	Other VOCs	
Sample ID	Sample Date	Sample Depth (feet bgs)	87-61-6	95-93-2	95-63-6	540-59-0	108-67-8	78-93-3	67-64-1	71-43-2	74-93-9	156-59-2	75-71-8	100-41-4	98-82-8	104-51-8	103-65-1	91-20-3	105-05-5	622-96-8	99-87-6	179601-23	135-98-8	98-06-6	127-18-4	108-88-3	156-60-5	78-01-6	1330-20-7	Various
SS-2	4/9/2019	4.0-5.0	<0.017	0.017	0.034	<0.0074	<0.01	<0.12	<0.26	<0.0089	<0.031	<0.0094	<0.049	0.019	0.0063	0.02	0.016	0.13	0.034	0.034	<0.0058	0.061	0.03	0.013	0.015	<0.029	<0.0074	<0.0074	0.061	<MDL
SS-3	4/9/2019	2.0-3.0	<0.019	<0.011	0.031	<0.0082	<0.012	<0.13	<0.29	<0.0099	<0.035	<0.01	<0.055	0.018	<0.0065	0.022	0.02	0.13	0.024	0.029	<0.0065	0.053	0.015	<0.007	0.014	<0.032	<0.0082	0.015	0.053	<MDL
SS-4	4/9/2019	11.0-12.0	<0.047	1.1	8.4	<0.02	0.47	<0.32	<0.7	<0.024	<0.085	<0.026	<0.13	0.42	0.26	0.38	0.52	0.7	0.17	0.72	0.41	0.57	0.25	0.039	<0.029	<0.08	<0.02	<0.02	0.87	<MDL
SS-5	4/10/2019	1.0-2.0	<0.018	<0.01	<0.018	<0.0078	<0.011	<0.12	<0.26	<0.0092	0.067	<0.0098	<0.05	0.087	<0.006	<0.0092	<0.0094	0.09	0.016	<0.021	<0.006	<0.031	<0.008	<0.0065	<0.011	<0.02	<0.0076	<0.0076	<0.016	<MDL
SS-6	4/10/2019	1.0-2.0	0.00059	0.00064	0.00036	<0.00013	0.00019	<0.0021	0.0005	0.0007	<0.00056	<0.00017	<0.00087	<0.00013	<0.0001	<0.00016	<0.00016	0.0021	0.0011	<0.00037	0.00014	<0.00014	<0.00011	<0.00019	<0.00052	<0.00013	<0.00013	<0.00028	<MDL	
SS-7	4/10/2019	1.0-2.0	<0.00043	<0.00028	<0.00045	<0.00018	<0.00026	0.0088	0.67	<0.00022	<0.00078	<0.00024	<0.0012	<0.00019	<0.00015	<0.00022	<0.00023	<0.00088	<0.00024	<0.00052	<0.00015	<0.00075	<0.0002	<0.00016	<0.00028	<0.00018	<0.00018	<0.00039	<MDL	
SS-8	4/10/2019	8.0-9.0	<0.00035	<0.00021	<0.00036	<0.00015	<0.00021	<0.0024	0.007	<0.00018	<0.00063	<0.00019	<0.001	<0.00015	<0.00012	<0.00018	<0.00019	<0.00071	<0.00019	<0.00042	<0.00012	<0.00061	<0.00016	<0.00013	<0.00021	<0.00059	<0.00015	<0.00015	<0.00032	<MDL
SS-9	4/9/2019	1.0-2.0	<0.019	<0.011	<0.02	0.29	<0.012	<0.13	<0.29	0.01	<0.035	0.27	<0.065	<0.0084	<0.0065	<0.01	<0.01	0.17	<0.01	<0.023	<0.0065	<0.034	<0.0087	<0.0071	2.9	<0.032	0.022	0.14	<0.017	<MDL
SS-10	4/9/2019	1.0-2.0	<0.0003	<0.00019	<0.00032	<0.00013	<0.00016	0.0072	0.84	<0.00018	<0.00056	<0.00019	0.0049	<0.00013	<0.0001	<0.00016	<0.00016	<0.00062	<0.00017	<0.00036	<0.0001	<0.00053	<0.00011	<0.00016	<0.00051	<0.00013	<0.00013	<0.00028	<MDL	
SS-11	4/9/2019	2.0-3.0	<0.00036	<0.0002	<0.00036	<0.00015	<0.00021	<0.0024	0.24	0.00022	<0.00062	<0.00019	<0.00098	0.00016	<0.00012	<0.00018	<0.00018	<0.0007	<0.00019	<0.00041	<0.00012	0.00062	<0.00016	<0.00013	<0.00021	0.00065	<0.00015	<0.00016	0.00062	<MDL
SS-12	4/9/2019	2.0-3.0	<0.00026	0.00085	<0.00028	<0.00011	<0.00016	0.0081	0.046	0.00042	<0.00048	<0.00014	<0.00075	0.00012	<0.00009	<0.00014	<0.00004	0.0006	<0.00014	<0.00032	<0.00009	<0.00046	<0.00012	<0.0001	<0.00016	0.00045	<0.00011	<0.00011	<0.00024	<MDL

New York State Department of Environmental Conservation (NYSDEC) Regulatory Standards

NY Table 376.4 (b) Restricted Use Soil Cleanup Commercial 12/14/06	NL	NL	150	NL	150	200	500	44	NL	500	NL	390	NL	500	500	500	500	NL	NL	NL	NL	500	500	150	500	500	200	500	Various
NY Table 376.4 (b) Unrestricted Use Soil Cleanup Objectives 12/14/06	NL	NL	3.6	NL	8.4	0.12	0.05	0.06	NL	0.25	NL	1	NL	12	12	12	12	NL	NL	NL	NL	11	5.9	1.3	0.7	0.19	0.47	0.26	Various

Screening Level Exceeded  
**BOLD** Value Exceeds Applicable Screening Level  
 mg/kg Milligram per kilogram  
 bgs Below Ground Surface (feet)  
 MDL Method Detection Limit  
 NL Not Listed  
 NA Not Analyzed



TABLE 2 - PAGE 1 OF 2  
 SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
 VOCs AND SVOCs  
 130 MIDLAND AVENUE, PORT CHESTER, NEW YORK  
 PM PROJECT # 19-3641-0-0002

VOLATILE ORGANIC COMPOUNDS (VOCs) and SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) (ug/L)			1,2,4,5-Tetramethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Acetone	Benzene	Carbon disulfide	Ethylbenzene	Isopropylbenzene	Methyl tert butyl ether	Methylene chloride	n-Butylbenzene	n-Propylbenzene	Naphthalene	p-Dichlorobenzene	p-Ethylbenzene	p-Isopropylbenzene	p,m-Xylene	sec-Butylbenzene	ter-Butylbenzene	Tetrachloroethene	Vinyl chloride	Xylenes, Total	Other VOCs		
CHEMICAL ABSTRACT NUMBER (CAS#)			95-93-2	95-63-6	108-67-8	67-64-1	71-43-2	75-15-0	100-41-4	98-82-8	1634-04-4	75-09-2	104-51-8	103-65-1	91-20-3	105-05-5	622-96-8	99-87-6	179601-23-1	135-98-8	98-06-6	127-18-4	75-01-4	1330-20-7	Various		
Sample ID	Sample Date	Sample Depth (feet bgs)	VOCs																								
TMW-1	4/9/2019	6.5	<0.54	<0.7	<0.7	6.1	<0.16	<1	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<MDL	
TMW-2	4/9/2019	13	<0.54	<0.7	<0.7	2.4	<0.16	<1	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<MDL
TMW-3	4/9/2019	13	<0.54	<0.7	<0.7	2.8	<0.16	<1	<0.7	<0.7	0.97	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<MDL
TMW-4	4/9/2019	12.5	<b>21</b>	<b>160</b>	<b>15</b>	16	0.32	<1	<b>26</b>	<b>9.4</b>	<0.7	<0.7	<b>6.3</b>	<b>15</b>	<b>20</b>	11	20	<b>6.6</b>	<b>36</b>	4.5	0.72	<0.18	<0.07	36	<MDL	<MDL	
TMW-5	4/10/2019	6	<0.54	<0.7	<0.7	<1.5	<0.16	<1	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<MDL
TMW-8	4/10/2019	11	<0.54	<0.7	<0.7	18	<0.16	1.2	<0.7	<0.7	<0.7	3.9	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<MDL
TMW-9	4/9/2019	7	<0.54	<0.7	<0.7	1.7	<0.16	<1	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<MDL
TMW-10	4/9/2019	11	<0.54	<0.7	<0.7	3.2	<0.16	<1	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<MDL
TMW-12	4/9/2019	6	<0.54	<0.7	<0.7	2.1	<0.16	<1	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<MDL
New York State Department of Environmental Conservation (NYSDEC) Regulatory Standards																											
NY TOGS Table 1			5	5	5	50	1	60	5	5	10	5	5	5	10	NL	NL	5	5	5	5	5	5	2	NL	Various	

Applicable Criteria Exceeded  
**BOLD** Value Exceeds Applicable Screening Level  
 ug/L Micrograms per Liter  
 bgs Below Ground Surface  
 MDL Method Detection Limit  
 NA Not Analyzed  
 NL Not Listed  
 TOGS Division of Water Technical and Operational Guidance Series (TOGS) (1.1-1)  
 New York State Ambient Water Quality Standards (NY AWQS)  
 Supplemented by Table 2, Explanation of Basis Codes in Table 1  
 As updated in June 1996, January 1999, April 2000, and June 2004.  
 For General Aquifer Designation

**TABLE 2**  
**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
**VOCs AND SVOCs**  
**130 MIDLAND AVENUE, PORT CHESTER, NEW YORK**  
**PM PROJECT # 19-3641-0-0002**

VOLATILE ORGANIC COMPOUNDS (VOCs) and SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs) (ug/L)			2-Methylparathalene	Aceophthalene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzo(e)fluoranthene	Carbazole	Chrysene	Di(benzofluor)anthracene	Dibenz(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Fluorene	Pyrene	Other SVOCs
CHEMICAL ABSTRACT NUMBER (CAS#)			91-57-6	83-32-9	209-96-8	120-12-7	56-56-3	50-32-8	209-99-2	191-24-2	207-08-9	117-81-7	86-74-8	218-01-9	84-74-2	53-70-3	132-64-9	206-44-0	86-73-7	193-39-5	91-20-3	85-01-8	106-95-2	129-00-0	Various
Sample ID	Sample Date	Sample Depth (feet bgs)	SVOCs																						
TMW-1	4/9/2019	6.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TMW-2	4/9/2019	13	<0.45	<0.44	<0.46	<0.33	<0.32	<0.41	<0.35	<0.3	<0.37	5.6	<0.49	<0.34	0.47	<0.32	<0.5	<0.26	<0.41	<0.4	<0.46	<0.33	<0.57	<0.28	<MDL
TMW-3	4/9/2019	13	<0.45	<0.44	<0.46	<0.33	<0.32	<0.41	<0.35	<0.3	<0.37	3.6	<0.49	<0.34	<0.39	<0.32	<0.5	<0.26	<0.41	<0.4	<0.46	<0.33	<0.57	<0.28	<MDL
TMW-4	4/9/2019	12.5	970	12	<4.6	<3.3	<3.2	<4.1	<3.5	<3	<3.7	<15	<4.9	<3.4	<3.9	<3.2	16	<2.6	39	<4	28	19	<5.7	<2.8	<MDL
TMW-5	4/10/2019	6	0.34	2.7	0.09	0.58	0.43	0.28	0.28	0.21	0.27	<1.5	0.51	0.41	<0.39	0.07	1.2	1.2	2.1	0.19	0.9	3.1	<0.57	0.95	<MDL
TMW-8	4/10/2019	11	0.21	0.16	<0.02	0.16	0.21	0.17	0.17	0.14	0.18	<1.5	<0.49	0.22	<0.39	0.05	<0.5	0.42	0.15	0.13	0.71	0.32	0.72	0.44	<MDL
TMW-9	4/9/2019	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TMW-10	4/9/2019	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TMW-12	4/9/2019	6	<0.45	<0.44	<0.46	<0.33	0.32	<0.41	0.41	<0.3	<0.37	2.5	<0.49	<0.34	<0.39	<0.32	<0.5	0.61	<0.41	<0.4	<0.46	<0.33	0.83	0.68	<MDL
New York State Department of Environmental Conservation (NYSDEC) Regulatory Standards			NL	20	NL	50	0.002	0	0.002	NL	0.002	5	NL	0.002	50	NL	NL	50	50	0.002	10	50	1	50	Various

NY TOGS Table 1  
 Applicable Criteria Exceeded  
**BOLD** Value Exceeds Applicable Screening Level  
 ug/L Micrograms per Liter  
 bgs Below Ground Surface  
 MDL Method Detection Limit  
 NA Not Analyzed  
 NL Not Listed  
 TOGS Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1)  
 New York State Ambient Water Quality Standards (NY AWQS)  
 Supplemented by Table 2, Explanation of Basis Codes in Table 1  
 As updated in June 1998, January 1999, April 2000, and June 2004.  
 For General Aquifer Designation

**TABLE 3**  
**SUMMARY OF SOIL GAS ANALYTICAL RESULTS**  
**VOCs**  
**130 MIDLAND AVENUE, PORT CHESTER, NEW YORK**  
**PM PROJECT # 19-3641-0-0002**

VOLATILE ORGANIC COMPOUNDS (VOCs) ( $\mu\text{g}/\text{m}^3$ )			Acetone	Carbon Disulfide	Dichlorodifluoromethane	Ethanol	Tertiary butyl Alcohol	Tetrachloroethene	Trichloroethene	Other VOCs	
Chemical Abstract Number (CAS#)			67-64-1	75-15-0	75-71-8	64-17-5	75-65-0	127-18-4	79-01-6	Various	
Sample ID	Sample Date	Sample Depth (feet bgs)	VOCs								
SSGS-1	4/9/2019	1.0-1.5	<47.7	<12.5	284	<188	<30.3	<b>9,900</b>	31.1	<MDL	
SSGS-2	4/9/2019	1.0-1.5	122	10.6	80.1	872	91.2	<b>5,640</b>	17.5	<MDL	
<b>U.S. Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL) Calculator Target Sub-Slab and Near-Source Soil Gas Concentration THQ = 1, May 2018</b>											
Commercial			4,510,000	102,000	14,600	NL	NL	<b>1,570</b>	99.7	Various	

  Screening Level Exceeded  
**BOLD** Value Exceeds Applicable Screening Level  
 $\mu\text{g}/\text{m}^3$  Micrograms per cubic meter  
 bgs Below Ground Surface  
 MDL Method Detection Limits

# Appendix A





# Well Log:

**Project No.:** 19-3641-0-001

**Well No.:** SB/TMW-1

**Project Name:** 130 MIDLAND AVENUE

**Date Drilled:** 4/9/2019

**Facility ID#:**

**Drill Rig:** 6610

**Logged By:** KA

**Sampling Method:** GRAB

SUBSURFACE PROFILE		SAMPLE			Well Completion Details
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	Ground Surface				<p>1" PVC Casing</p> <p>1" 10-Slot PVC Screen</p> <p>Ground Surface</p> <p>5.00'</p> <p>Approximate Water Level (6.50')</p> <p>15.00'</p>
0	<b>ASPHALT</b>		-	0.0	
0	<b>SAND</b> Dark Brown/Black, fine to coarse, some gravel		-	0.0	
2			-	0.0	
4			-	0.0	
6			-	0.0	
8			-	0.0	
10			-	0.0	
12	<b>BROWN MEADOW MAT</b>		-	0.0	
14			-	0.0	
16			-	0.0	

**Completion Notes:** EOB @ 15' BGS. Hole filled with soil cuttings and bentonite.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted



## Well Log:

**Project No.:** 19-3641-0-001

**Well No.:** SB/TMW-2

**Project Name:** 130 MIDLAND AVENUE

**Date Drilled:** 4/9/2019

**Facility ID#:**

**Drill Rig:** 6610

**Logged By:** KA

**Sampling Method:** GRAB

SUBSURFACE PROFILE		SAMPLE			Well Completion Details
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	FID (ppm)	
0	Ground Surface				
0	<b>ASPHALT</b>		-	0.0	
1	<b>SAND</b> Tan, fine to medium, some gravel		-	0.0	
2	<b>SAND</b> Black, fine to medium, some gravel, some silt		-	3.9	
3			-	1.3	
4		SS-2	-	22	
4.0 - 5.0'					
5	<b>SAND</b> Brown, fine to medium, some gravel, some silt		-	0.0	
6	<b>SAND</b> Gray, fine to medium, some clay		-	0.0	
7			-	0.0	
8	<b>BROWN MEADOW MAT</b>		-	0.0	
9			-	1.5	
10			-	0.4	
11			-	0.0	
12			-	0.0	
13	<b>SAND</b> Gray, fine to medium		-	0.0	
14			-	0.0	
15					
16					

**Completion Notes:** EOB @ 15' BGS. Hole filled with soil cuttings and bentonite.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted





## Well Log:

**Project No.:** 19-3641-0-001

**Well No.:** SB/TMW-3

**Project Name:** 130 MIDLAND AVENUE

**Date Drilled:** 4/9/2019

**Facility ID#:**

**Drill Rig:** 6610

**Logged By:** KA

**Sampling Method:** GRAB

SUBSURFACE PROFILE		SAMPLE			Well Completion Details
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	<b>Ground Surface</b>				<p>1" PVC Casing</p> <p>1" 10-Slot PVC Screen</p> <p>Ground Surface</p> <p>5.00'</p> <p>Approximate Water Level (13.00')</p> <p>15.00'</p>
0	<b>ASPHALT</b>		-	0.0	
0	<b>SAND</b> Tan, fine to medium, some gravel		-	0.9	
2	<b>SAND</b> Black, fine to medium, some gravel, some silt	SS-3 2.0 - 3.0'	-	8.6	
4			-	1.0	
4			-	2.2	
6	<b>SAND</b> Brown, fine to medium, some gravel, some silt		-	0.1	
6	<b>SAND</b> Gray, fine to medium, some clay		-	0.0	
8	<b>BROWN MEADOW MAT</b>		-	0.0	
8			-	0.0	
10			-	0.0	
12			-	0.0	
12			-	0.0	
14	<b>SAND</b> Gray, fine to medium		-	0.0	
14			-	0.0	
16					

**Completion Notes:** EOB @ 15' BGS. Hole filled with soil cuttings and bentonite.

- The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
- Boring backfilled with natural soils unless otherwise noted



## Well Log:

**Project No.:** 19-3641-0-001

**Well No.:** SB/TMW-4

**Project Name:** 130 MIDLAND AVENUE

**Date Drilled:** 4/9/2019

**Facility ID#:**

**Drill Rig:** 6610

**Logged By:** KA

**Sampling Method:** GRAB

SUBSURFACE PROFILE		SAMPLE			Well Completion Details
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	<b>Ground Surface</b>				<p>1" PVC Casing</p> <p>1" 10-Slot PVC Screen</p> <p>Ground Surface</p> <p>5.00'</p> <p>Approximate Water Level (12.5')</p> <p>15.00'</p>
0	<b>ASPHALT</b>		-	0.0	
0	<b>SAND</b> Tan, fine to medium, some gravel		-	0.0	
2	<b>SAND</b> Black, fine to medium, some gravel, some silt		-	0.0	
2			-	0.0	
4			-	0.1	
6	<b>SAND</b> Brown, fine to medium, some gravel, some silt		-	0.4	
6	<b>SAND</b> Gray, fine to medium, some clay		-	3.2	
8			-	7.5	
8	<b>BROWN MEADOW MAT</b>		-	2.1	
10			-	0.2	
10			-	0.2	
12		SS-4 11.0 - 12.0'	-	11	
12	<b>SAND</b> Gray, fine to medium		-	2.5	
14			-	245	
14			-	55	
16					

**Completion Notes:** EOB @ 15' BGS. Hole filled with soil cuttings and bentonite.

- The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
- Boring backfilled with natural soils unless otherwise noted



# Well Log:

**Project No.:** 19-3641-0-001

**Well No.:** SB/TMW-5

**Project Name:** 130 MIDLAND AVENUE

**Date Drilled:** 4/9/2019

**Facility ID#:**

**Drill Rig:** 6610

**Logged By:** KA

**Sampling Method:** GRAB

SUBSURFACE PROFILE		SAMPLE			Well Completion Details
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	Ground Surface				
0	<b>ASPHALT</b>		-	0.0	
0	<b>SAND</b> Tan, fine to medium, some gravel	SS-5	-	0.0	
2	<b>SAND</b> Black, fine to medium, some gravel, some silt	1.0 ~ 2.0'	-	0.0	
2			-	0.0	
4			-	0.0	
4			-	0.1	
6			-	0.4	
6	<b>SAND</b> Brown, fine to medium		-	3.2	
8			-	7.5	
8			-	2.1	
10			-	0.2	
10			-	0.2	
12			-	11	
12			-	2.5	
14			-	245	
14			-	55	
16					

**Completion Notes:** EOB @ 15' BGS. Hole filled with soil cuttings and bentonite.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted





# Boring Log .

**Project No.:** 19-3641-0-001

**Boring No.:** SB-6

**Project Name:** 130 MIDLAND AVENUE

**Date Drilled:** 4/9/2019

**Facility ID#:**

**Drill Rig:** 6610

**Logged By:** KA

**Sampling Method:** GRAB

SUBSURFACE PROFILE		SAMPLE		
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)
	Ground Surface			
0	<b>ASPHALT</b>			
	<b>SAND</b> Tan, fine to medium		-	0.0
	<b>SAND</b> Black, fine to medium, some gravel, some silt	<b>SS-6</b> 1.0 ~ 2.0'	-	0.0
2			-	0.0
4			-	0.0
6			-	0.0
8			-	0.0
10	<b>REFUSAL @ 10' BGS</b>		-	0.0

No Well Installed

**Completion Notes:** EOB @ 10' BGS. Hole filled with soil cuttings and bentonite.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.



# Boring Log .

**Project No.:** 19-3641-0-001

**Boring No.:** SB-7

**Project Name:** 130 MIDLAND AVENUE

**Date Drilled:** 4/9/2019

**Facility ID#:**

**Drill Rig:** 6610

**Logged By:** KA

**Sampling Method:** GRAB

SUBSURFACE PROFILE		SAMPLE		
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)
	Ground Surface			
0	<b>ASPHALT</b>			
	<b>SAND</b> Tan, fine to medium		-	0.0
	<b>SAND</b> Black, fine to medium, some gravel, some silt	<b>SS-7</b> 1.0 ~ 2.0'	-	0.0
2			-	0.0
4			-	0.0
6			-	0.0
8			-	0.0
10	<b>REFUSAL @ 10' BGS</b>		-	0.0

No Well Installed

**Completion Notes:** EOB @ 10' BGS. Hole filled with soil cuttings and bentonite.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.



# Well Log:

**Project No.:** 19-3641-0-001

**Well No.:** SB/TMW-8

**Project Name:** 130 MIDLAND AVENUE

**Date Drilled:** 4/9/2019

**Facility ID#:**

**Drill Rig:** 6610

**Logged By:** KA

**Sampling Method:** GRAB

SUBSURFACE PROFILE		SAMPLE		Well Completion Details
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts  PID (ppm)	
0	Ground Surface <b>ASPHALT</b>			
	<b>SAND</b> Tan, fine to medium		- 0.0	
	<b>SAND</b> Black, fine to medium, some gravel, some silt		- 0.0	
2			- 0.0	
			- 0.0	
4			- 0.0	
			- 0.0	
6			- 0.0	
			- 0.0	
8			- 0.0	
		SS-8 8.0 - 9.0'	- 0.0	
			- 0.0	
10			- 0.0	
			- 0.0	
12	<b>REFUSAL @ 12' BGS</b>			

**Completion Notes:** EOB @ 12' BGS. Hole filled with soil cuttings and bentonite.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted





## Well Log:

**Project No.:** 19-3641-0-001

**Well No.:** SB/TMW-9

**Project Name:** 130 MIDLAND AVENUE

**Date Drilled:** 4/9/2019

**Facility ID#:**

**Drill Rig:** 6610

**Logged By:** KA

**Sampling Method:** GRAB

SUBSURFACE PROFILE		SAMPLE			Well Completion Details
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	Ground Surface				
0	<b>ASPHALT</b>		-	0.0	
0	<b>SAND</b> Tan, fine to medium	SS-9	-	0.0	
2	<b>SAND</b> Black, fine to medium, some gravel, some silt	1.0 ~ 2.0'	-	0.0	
2			-	0.0	
4			-	0.0	
4			-	0.0	
6			-	0.0	
6			-	0.0	
8			-	0.0	
8			-	0.0	
10			-	0.0	
10			-	0.0	
12			-	0.0	
12			-	0.0	
14			-	0.0	
14			-	0.0	
16					

**Completion Notes:** EOB @ 15' BGS. Hole filled with soil cuttings and bentonite.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted



# Well Log:

**Project No.:** 19-3641-0-001

**Well No.:** SB/TMW-10

**Project Name:** 130 MIDLAND AVENUE

**Date Drilled:** 4/9/2019

**Facility ID#:**

**Drill Rig:** 6610

**Logged By:** KA

**Sampling Method:** GRAB

SUBSURFACE PROFILE		SAMPLE			Well Completion Details
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	Ground Surface				<p>1" PVC Casing</p> <p>1" 10-Slot PVC Screen</p> <p>Ground Surface</p> <p>5.00'</p> <p>Approximate Water Level (11.00')</p> <p>15.00'</p>
0	<b>ASPHALT</b>		-	0.0	
0	<b>SAND</b> Tan, fine to medium	SS-10	-	0.0	
2	<b>SAND</b> Black, fine to medium, some gravel, some silt	1.0 ~ 2.0'	-	0.0	
2			-	0.0	
4			-	0.0	
4			-	0.0	
6	<b>SAND</b> Brown, fine to medium, some gravel, some silt		-	0.0	
6	<b>SAND</b> Black, fine to medium, some gravel, some sand		-	0.0	
8			-	0.0	
8			-	0.0	
10			-	0.0	
10			-	0.0	
12			-	0.0	
12			-	0.0	
14			-	0.0	
14			-	0.0	
16					

**Completion Notes:** EOB @ 15' BGS. Hole filled with soil cuttings and bentonite.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted





## Boring Log .

**Project No.:** 19-3641-0-001

**Boring No.:** SB-11

**Project Name:** 130 MIDLAND AVENUE

**Date Drilled:** 4/9/2019

**Facility ID#:**

**Drill Rig:** 6610

**Logged By:** KA

**Sampling Method:** GRAB

SUBSURFACE PROFILE		SAMPLE			No Well Installed
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	Ground Surface				
0	<b>ASPHALT</b>		-	0.0	
1	<b>SAND</b> Tan, fine to medium		-	0.0	
2	<b>SAND</b> Black, fine to medium, some gravel, some silt		-	0.0	
2.0 - 3.0	<b>SAND</b> Brown, fine to medium, some gravel, some silt	SS-11	-	0.0	
4	<b>SAND</b> Black, fine to medium, some gravel, some sand		-	0.0	
6			-	0.0	
8			-	0.0	
10			-	0.0	
12			-	0.0	
14			-	0.0	
16			-	0.0	

**Completion Notes:** EOB @ 15' BGS. Hole filled with soil cuttings and bentonite.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted.



## Well Log:

**Project No.:** 19-3641-0-001

**Well No.:** SB/TMW-12

**Project Name:** 130 MIDLAND AVENUE

**Date Drilled:** 4/9/2019

**Facility ID#:**

**Drill Rig:** 6610

**Logged By:** KA

**Sampling Method:** GRAB

SUBSURFACE PROFILE		SAMPLE			Well Completion Details
Depth (ft.)	Description and Comments	Sample # Depth	Blow Counts	PID (ppm)	
0	Ground Surface				<p style="text-align: center;">1" PVC Casing</p> <p style="text-align: center;">1" 10-Slot PVC Screen</p> <p style="text-align: right;">Ground Surface</p> <p style="text-align: right;">5.00'</p> <p style="text-align: right;">Approximate Water Level (6.00')</p> <p style="text-align: right;">15.00'</p>
0	<b>ASPHALT</b>		-	0.0	
0	<b>SAND</b> Tan, fine to medium		-	0.0	
2	<b>SAND</b> Black, fine to medium, some gravel, some silt	SS-12 2.0 ~ 3.0'	-	0.0	
4			-	0.0	
4			-	0.0	
6			-	0.0	
6			-	0.0	
8			-	0.0	
8			-	0.0	
10			-	0.0	
10			-	0.0	
12			-	0.0	
12			-	0.0	
14			-	0.0	
14			-	0.0	
16					

**Completion Notes:** EOB @ 15' BGS. Hole filled with soil cuttings and bentonite.

1. The indicated stratification lines are approximate in situ. The transitions between materials may be gradual.
2. Boring backfilled with natural soils unless otherwise noted

# Appendix B

All Laboratory Analytical Reports included  
in Exhibit C1 of BCP Application

