Environmental, Planning, and Engineering Consultants
440 Park Avenue South
7th Floor
New York, NY 10016
tel: 212 696-0670
fax: 212 213-3191
www.akrf.com

December 31, 2019

Mr. Matthew Hubicki
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York, 12233-7017

Re: Baseline Groundwater Sampling & Emerging Contaminant Sampling Letter Report
Polychrome Manufacturing Site (Polychrome East Site)
80-94 Alexander Street, Yonkers, NY 10701
NYSDEC BCP Site: C360098

Dear Mr. Hubicki:

AKRF, Inc. (AKRF), on behalf of Avalon Yonkers Sun Sites, LLC, has prepared this Baseline Groundwater Sampling & Emerging Contaminant Sampling Letter Report (Letter Report) for the Polychrome East Site (the Site) located at 80-94 Alexander Street, Yonkers, New York. This Letter Report summarizes the results of the baseline groundwater sampling completed in October 2019 in compliance with the December 2019 Site Management Plan (SMP). This Letter Report also summarizes two rounds of emerging contaminant[1] sampling completed in June 2019 and October 2019.

SAMPLING METHODOLOGY

As detailed in Section 4.4 of the SMP, a network of groundwater monitoring wells has been installed at the Site to assess the effectiveness of the remedy in mitigating impacts to on-Site groundwater and to assess the long-term performance of natural attenuation following remediation.

The Site groundwater monitoring well network consists of four 4-inch diameter monitoring wells (MW-A through MW-D), installed with 10-foot monitoring well screens set at elevations ranging from approximately -6 to +4 feet mean sea level (msl) to target the shallow groundwater table. Figure 1 depicts the location of groundwater monitoring wells. Monitoring well construction details are included in the SMP. The groundwater monitoring network was designed as detailed below.

- MW-A was designed to monitor groundwater quality near the petroleum hot spot observed within the combined Excavation Area B, 3, and 4 along the northern portion of the Site;
- MW-B and MW-C were designed to monitor down-gradient groundwater quality conditions along the western and southern portions of the Site, respectively; and

[1] For the purposes of this Letter Report, "emerging contaminants" refers to 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS), a select currently unregulated list of organic compounds that were added to the United States Environmental Protection Agency (USEPA)'s third drinking water contaminant candidate list (*USEPA CCL3*, dated October 8, 2009).

- MW-D was designed to monitor up-gradient groundwater quality conditions along the eastern portion of the Site.

Between October 11, 2019 and October 15, 2019, baseline groundwater samples were collected from groundwater monitoring wells MW-A through MW-D and analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) by EPA Method 8260, TCL semi-volatile organic compounds (SVOCs) by EPA Method 8270D, Target Analyte List (TAL) for metals (total and dissolved), and emerging contaminant 1,4-dioxane by EPA Method 8270 Selective Ion Monitoring (SIM). The data collected as part of this baseline sampling event is used to evaluate the appropriate analyte list for subsequent annual sampling events detailed in the SMP.

In addition, as part of NYSDEC's statewide initiative to evaluate environmental remediation sites for emerging contaminants, two rounds of emerging contaminant sampling were completed at the Site in 2019. In response to a NYSDEC request dated May 4, 2019, groundwater samples were collected from MW-C and MW-D on June 10, 2019, and analyzed for emerging contaminants. In response to a supplemental NYSDEC request dated October 17, 2019, an additional groundwater sample was collected from MW-B on October 24, 2019, and analyzed for PFAS by EPA Method Modified 537. Baseline groundwater samples collected October 11, 2019 through October 15, 2019 were analyzed for 1,4-dioxane to satisfy this supplemental request.

Sampling was conducted using low-flow sampling techniques, in general accordance with United States EPA's "Low-Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells" [(EQASOP-GW 001) dated January 2010] and the NYSDEC "PFAS Groundwater Samples from Monitoring Wells Sample Protocol Revision 1.2" dated August 9, 2018, augmented with the emerging contaminant sampling requirements set forth in USEPA Method 537, Rev 1.1, and with industry-consensus sampling methodology for emerging contaminants. Augmented methods included, but were not limited to, considerations for personal protective equipment (PPE) types and proprietary materials, work zone and exclusion zone considerations for equipment, and food/drink, sample collection sequencing, equipment, and bottleware and preservation, equipment decontamination, and auxiliary equipment such as field books, and writing utensils.

At each sampling location, tubing was connected to a peristaltic pump, which was then lowered to the appropriate sampling depth, based on the observed total depth and documented screened interval of the well. The pump was then activated at the lowest flow rate, and the depth to water was measured periodically. Groundwater was pumped, field-screened with a photoionization detector (PID), and monitored using a water quality meter for the gradual stabilization of five parameters: pH, specific conductivity, oxidation-reduction potential (ORP), turbidity, and dissolved oxygen. Groundwater samples were collected when water quality indicators had stabilized and turbidity levels were less than 50 nephelometric turbidity units (NTU). All purge water was containerized in a 55-gallon drum for future characterization and off-site disposal.

Quality assurance/quality control (QA/QC) samples were collected during both the June 2019 emerging contaminant sampling event and the October 2019 baseline groundwater/emerging contaminant sampling event.

In June 2019, the QA/QC samples consisted of a matrix spike/matrix spike duplicate, a field equipment blank, and a blind duplicate sample. The blind duplicate sample (labeled DUPE-06102019) QA/QC sample was collected during the June 2019 emerging contaminant sampling event conducted concurrently at the adjacent Polychrome West site (BCP Site No. C360099) and was used as a representative QA/QC sample for the Site. The results of the June 2019 blind duplicate sample is provided in the Baseline Groundwater Sampling & Emerging Contaminant Sampling Letter Report prepared for Polychrome West (BCP Site No. C360099), submitted to NYSDEC on December 31, 2019.

During the October 2019 baseline groundwater monitoring sampling event, the QA/QC samples consisted of a matrix spike/matrix spike duplicate, a field equipment blank, and a blind duplicate sample (labeled PCE-MW-X-20191015) collected at groundwater monitoring well MW-D.

Groundwater samples were collected in laboratory-supplied glassware, labeled, and placed in a chilled cooler in a safe location prior to pick-up by the laboratory under chain-of-custody protocol. The laboratory analysis was conducted by Alpha Analytical of Westborough, Massachusetts, a New York State Environmental Laboratory Approval Program (ELAP)-certified laboratory. Category B deliverables provided by the laboratory and associated Data Usability Summary Reports (DUSRs) were submitted to NYSDEC as part of the Final Engineering Report. Validated Data Deliverables (EDDs) were accepted by NYSDEC on December 30, 2019.

BASELINE ANALYTICAL RESULTS

Sample results were compared to the NYSDEC Technical Operational Guidance Series (TOGS) Ambient Water Quality Standards and Guidance Values (AWQSGVs). A summary of the sampling results is as follows:

- Six VOCs were detected above the AWQSGVs in one of the four groundwater samples (MW-D), as well as the associated blind duplicate, as further detailed below. All other detected VOCs were below the AWQSGVs.
    - 1,2,4-trimethylbenzene was detected above its AWQSGV of 5 micrograms per liter (µg/L) at a concentration of 5.7 µg/L in both MW-D and the blind duplicate.
    - Benzene was detected above its AWQSGV of 1 µg/L at a concentration of 11 µg/L in both MW-D and the blind duplicate.
    - Ethylbenzene was detected above its AWQSGV of 5 µg/L at a concentration of 8.5 µg/L in both MW-D and the blind duplicate.
    - M,P-xylenes was detected above its AWQSGV of 5 µg/L at a maximum concentration of 13 µg/L in the blind duplicate.
    - O-xylene was detected above its AWQSGV of 5 µg/L at a maximum concentration of 6.3 µg/L in the blind duplicate.
    - Toluene was detected above its AWQSGV of 5 µg/L at a concentration of 10 µg/L in both MW-D and the blind duplicate.
- Nine SVOCs were detected above the AWQSGVs in one or more groundwater samples as further detailed below. All other detected SVOCs were below the AWQSGVs.
    - 2,4-Dimethylphenol was detected in one of the four groundwater samples (MW-D), as well as the associated blind duplicate, above its AWQSGV of 50 µg/L at a maximum concentration of 57 µg/L in the blind duplicate.
    - Benzo(a)Anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and chrysene were detected in all four of the groundwater samples, as well as the blind duplicate, above their AWQSGVs (0.002 µg/L, non-detect, 0.002 µg/L, 0.002 µg/L and 0.002 µg/L, respectively) with a maximum concentration of 3.2 µg/L of benzo(b)fluoranthene detected in MW-D.
    - Biphenyl was detected in one of the four groundwater samples (MW-D), as well as the associated blind duplicate, above its AWQSGV of 5 µg/L at a maximum concentration of 12 µg/L in the blind duplicate.
    - Indeno(1,2,3-c,d)pyrene was detected in three of the four groundwater samples, as well as the blind duplicate, above its AWQSGV of 0.002 µg/L with a maximum concentration of 1.5 µg/L detected in MW-D.
    - Phenol was detected in one of the four groundwater samples (MW-D), as well as the associated blind duplicate, above its AWQSGV of 1.0 µg/L with a maximum concentration of 340 µg/L in the blind duplicate.

  - Naphthalene was not detected in any of the groundwater samples when analyzed as an SVOC above its AWQSGV of 10 µg/L. Although there is no AWQSGV for comparison (for naphthalene) when analyzed as a VOC, naphthalene was also detected above 10 µg/L (when analyzed as a VOC) in two of the four samples (MW-A and MW-D), as well as the blind duplicate, with a maximum concentration of 1,000 µg/L detected in MW-D.

- Four metals were detected above the AWQSGVs in one or more groundwater samples as further detailed below. All other detected metals were below the AWQSGVs.
  - Iron was detected in two of the four dissolved (filtered) groundwater samples, as well as the blind duplicate, above its AWQSGV of 300 µg/L with a maximum concentration of 1,530 µg/L in MW-C.
  - Manganese was detected in two of the four dissolved (filtered) groundwater samples above its AWQSGV of 300 µg/L with a maximum concentration of 468.7 µg/L in MW-C.
  - Mercury was detected in one of the four dissolved (filtered) groundwater samples (MW-D), as well as the associated blind duplicate, above its AWQSGV of 0.7 µg/L with a maximum concentration of 8.43 µg/L in the blind duplicate.
  - Sodium was detected in all four dissolved (filtered) groundwater samples, as well as the blind duplicate, above its AWQSGV of 20,000 µg/L with a maximum concentration of 272,000 µg/L in MW-A.
  - Similar but slightly higher concentrations were reported for the same analytes in the total (unfiltered) samples analyzed. Lead was also detected above its AWQSGVs of 25 µg/L in one of the four total (unfiltered) groundwater samples, as well as the associated blind duplicate, with a maximum concentration of 38.2 µg/L in MW-D.

The groundwater analytical results for VOCs, SVOCs, and metals (total and dissolved) are presented in the attached Tables 1A and 1D. VOCs, SVOCs, and metals (dissolved only) exceeding AWQSGVs are displayed on Figure 1. The full laboratory analytical reports for groundwater sampling are provided as Attachment A.

EMERGING CONTAMINANTS ANALYTICAL RESULTS

A summary of the sampling results is as follows:

- 1,4-Dioxane was detected in one of the two groundwater samples collected in June 2019 (MW-D). 1,4-Dioxane was detected in all four of the groundwater samples collected in October 2019 (MW-A through MW-D), as well as the blind duplicate, with a maximum concentration of 505 µg/L in MW-B.
- PFAS were detected in both of the groundwater samples collected in June 2019 (MW-C and MW-D), and in the one additional sample collected in October 2019 (MW-B), with a maximum total PFAS concentration (total of all compounds listed on Table 1E) of 100.217 nanograms/liter (ng/l) in MW-B.
- No emerging contaminants were identified in the associated field equipment blank sample.

The groundwater analytical results for 1,4-dioxane and PFAS are presented in the attached Tables 1E and 1F. The full laboratory analytical reports for groundwater sampling are provided as Attachment A.

CONCLUSIONS

VOCs

Specific VOC compounds reported above the AWQSGVs identified at MW-D, with the exception of naphthalene (which is discussed in the subsequent paragraph), were limited to BTEX (benzene, toluene, ethylbenzene, and xylenes) or related compounds. No other on-Site wells reported VOC exceedances of the AWQSGVs. BTEX and related compounds are commonly associated with petroleum contamination. As noted in the Final Engineering Report (FER), contaminated soil surrounding the area of MW-D was removed as part of remedial excavation activities. While no VOC exceedances of the 6 NYCRR Part 375

Restricted Residential Soil Cleanup Objectives were identified during the remedial excavation activities, residual petroleum contamination from the former UST may be contributing to the VOC exceedances reported at MW-D. Notwithstanding, since MW-D is located along the eastern property boundary in a presumed up-gradient location, the detected VOCs may also be associated with an up-gradient (off-site) source.

Although typically analyzed and reported as a SVOC, naphthalene was also detected in two wells (reported at 16 µg/L at MW-A and reported at 1,000 µg/L at MW-D) above its AWQSGV (10 µg/L) when analyzed as a VOC. Naphthalene is a common indicator of coal tar contamination, which was evaluated extensively at the Site and remediated as part of the Site remediation. As indicated in the FER, coal tar contamination remediated on-Site appeared to have originated from the adjacent Consolidated Edison (ConEd) Woodworth Avenue Manufactured Gas Plant (MGP) site. Since MW-D is located along the eastern property boundary in a presumed up-gradient location and the naphthalene concentrations in the remaining on-Site wells were below or close to the AWQSGV, the elevated naphthalene concentration in MW-D likely originates from an up-gradient (coal tar) source(s).

SVOCs

With the exception of phenol, the detected SVOCs are PAHs, a class of compounds most commonly found in combustion byproducts that are frequently found in urban fill. Remedial activities targeted contaminant source areas of elevated PAHs; however, areas of urban fill remain beneath the Site-wide cover as documented in endpoint sampling completed as part of the remediation at the Site (refer to the FER for additional detail). As a result, low level PAHs detected above AWQSGVs in most groundwater monitoring wells sampled are likely attributable to the characteristics of remaining on-Site urban fill.

Phenol is a byproduct commonly associated with coal tar. Phenol was only detected above the AWQSGV in MW-D, which is the Site's up-gradient well. The elevated concentrations of naphthalene (discussed in the VOCs section) and phenol detected in groundwater at MW-D appear to be attributable to off-site coal tar related impacts to groundwater.

Metals

Iron, manganese, and sodium are natural metals that are expected to be present within the aquifer, and are not likely attributable to Site-related residual contamination. It should be noted that AWQSGVs were developed assuming use of groundwater as a drinking source, a scenario that is prohibited as part of the institutional controls implemented at the Site.

Mercury has been previously detected at elevated concentrations within the urban fill Site-wide. Remedial activities targeted contaminant source areas of elevated metals, including mercury; however, areas of residual mercury contamination within the urban fill remain beneath the Site-wide cover as documented in endpoint sampling in the FER. As a result, mercury detected above AWQSGVs in MW-D may be attributable to remaining on-Site urban fill. Alternatively, the elevated mercury may be attributable to off-site sources as MW-D is the Site's up-gradient well.

Note that lead was also detected above their respective AWQSGVs in one of the four total (unfiltered) groundwater samples; however, lead was likely detected due to turbidity (entrained sediment) from urban fill in the unfiltered sample, and not likely representative of actual groundwater conditions.

Future Sampling Recommendations

While elevated VOC and SVOC concentrations were reported at MW-D (the Site's up-gradient well), the remaining groundwater concentrations are within an order of magnitude of the AWQSGV or are associated with regional groundwater quality (e.g., iron, manganese, and iron). Based on the baseline sampling results, AKRF recommends to continue groundwater monitoring on an annual basis in accordance with the SMP for TCL VOCs via EPA 8260, TCL SVOCs by EPA 8270D, and 1,4-dioxane by EPA 8270SIM. Future sampling for metals is not recommended based upon only minor exceedances and/or background sources for such exceedances.

Please feel free to contact me at 914-922-2387 with any questions or concerns during your review.

Sincerely,
AKRF, Inc.

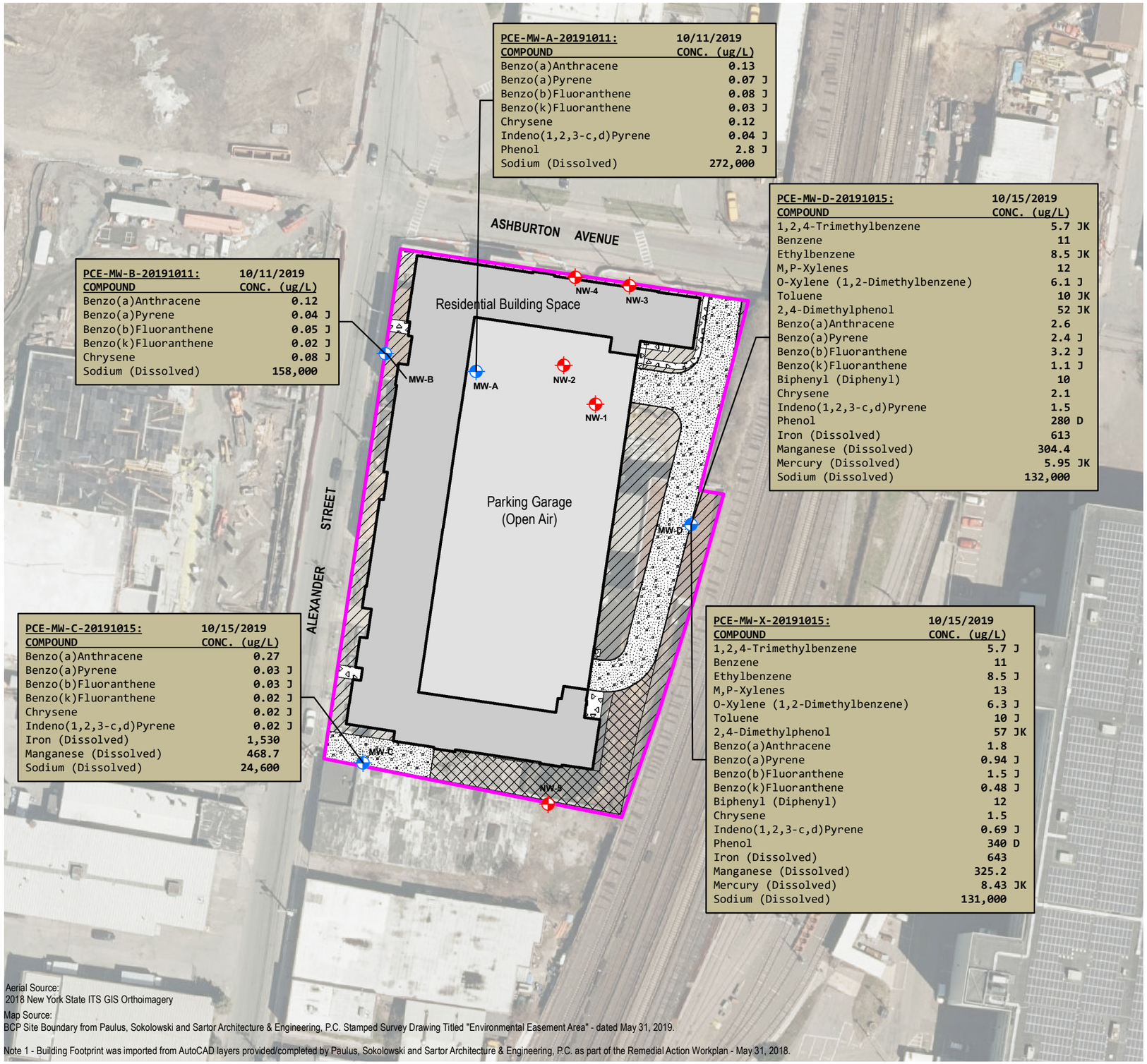
Patrick McHugh, P.E.
Environmental Engineer

Attachments:

Figure 1	Baseline Groundwater Sampling Results Exceeding AWQSGVs
Table 1A-1E	Baseline and Emerging Contaminant Sample Analytical Results
Attachment A	Laboratory Analytical Reports

cc (electronic copy only):
S. Deyette, K. Carpenter – NYSDEC
S. Wagh, M. Shuck – NYSDOH
M. Godick, R. Kinal, S. Grens, S. Caporizzo - AKRF
B. White, C. Reynolds, J. Vogel – Avalon Yonkers Sun Sites, LLC

FIGURES



Aerial Source:
2018 New York State ITS GIS Orthoimagery

Map Source:
BCP Site Boundary from Paulus, Sokolowski and Sartor Architecture & Engineering, P.C. Stamped Survey Drawing Titled "Environmental Easement Area" - dated May 31, 2019.

Note 1 - Building Footprint was imported from AutoCAD layers provided/completed by Paulus, Sokolowski and Sartor Architecture & Engineering, P.C. as part of the Remedial Action Workplan - May 31, 2018.

LEGEND

- BCP SITE BOUNDARY
- RESIDENTIAL BUILDING SPACE
- PARKING GARAGE (OPEN AIR)
- SIDEWALK
- GRASS PAVER
- ASPHALT
- LANDSCAPED
- NAPL RECOVERY WELL LOCATION
- GROUNDWATER MONITORING WELL LOCATION (SHALLOW LNAPL RECOVERY)

	NYSDEC AWQSGVs ug/l
Volatile Organic Compounds	
1,2,4-Trimethylbenzene	5
Benzene	1
Ethylbenzene	5
M,P-Xylenes	5
O-Xylene (1,2-Dimethylbenzene)	5
Toluene	5
Semivolatile Organic Compounds	
2,4-Dimethylphenol	50
Benzo(a)Anthracene	0.002
Benzo(a)Pyrene	0
Benzo(b)Fluoranthene	0.002
Benzo(k)Fluoranthene	0.002
Biphenyl (Diphenyl)	5
Chrysene	0.002
Indeno(1,2,3-c,d)Pyrene	0.002
Phenol	1
Metals	
Iron	300
Manganese	300
Mercury	0.7
Sodium	20,000

Qualifier	Description
K	Reported concentration value is proportional to dilution factor and may be exaggerated
D	Indicates an identified compound in an analysis that has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analyses.
J	The reported value is estimated

0 40 80 160
SCALE IN FEET

AKRF
440 Park Avenue South, New York, NY 10016

Polychrome East
NYSDEC Site (BCP #C360098)
Yonkers, New York

BASELINE GROUNDWATER MONITORING EXCEEDANCES

DATE
12/17/2019

PROJECT NO.
180132

FIGURE
1

TABLES

Table 1A
Baseline Groundwater Sampling Emerging Contaminant Sampling Letter Report
Polychrome East (BCP No. C360098)
VOCs

	AKRF Sample ID	PCE-MW-A-20191011	PCE-MW-B-20191011	PCE-MW-C-20191015	PCE-MW-D-20191015
	Laboratory Sample ID	L1947800-03	L1947800-02	L1948207-01	L1948207-02
	Date Sampled	10/11/2019 1:00:00 PM	10/11/2019 11:25:00 AM	10/15/2019 11:38:00 AM	10/15/2019 1:12:00 PM
	Unit	µg/L	µg/L	µg/L	µg/L
	Dilution Factor	2	1	1	5
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q
1,1,1,2-Tetrachloroethane	5	5 U	2.5 U	2.5 U	12 U
1,1,1-Trichloroethane	5	5 U	2.5 U	2.5 U	12 U
1,1,2,2-Tetrachloroethane	5	1 U	0.5 U	0.5 U	2.5 U
1,1,2-Trichloroethane	1	3 U	1.5 U	1.5 U	7.5 U
1,1-Dichloroethane	5	5 U	2.5 U	2.5 U	12 U
1,1-Dichloroethene	5	1 U	0.5 U	0.5 U	2.5 U
1,1-Dichloropropene	5	5 U	2.5 U	2.5 U	12 U
1,2,3-Trichlorobenzene	5	5 U	2.5 U	2.5 U	12 U
1,2,3-Trichloropropane	0.04	5 U	2.5 U	2.5 U	12 U
1,2,4,5-Tetramethylbenzene	5	4 UJ	1.8 J	0.74 J	10 U
1,2,4-Trichlorobenzene	5	5 U	2.5 U	2.5 U	12 U
1,2,4-Trimethylbenzene	**5**	1.5 J	2.5 U	2.5 U	**5.7 JK**
1,2-Dibromo-3-Chloropropane	0.04	5 U	2.5 U	2.5 U	12 U
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	4 U	2 U	2 U	10 U
1,2-Dichlorobenzene	3	5 U	2.5 U	2.5 U	12 U
1,2-Dichloroethane	0.6	1 U	0.5 U	0.5 U	2.5 U
1,2-Dichloropropane	1	2 U	1 U	1 U	5 U
1,3,5-Trimethylbenzene (Mesitylene)	5	5 U	2.5 U	2.5 U	12 U
1,3-Dichlorobenzene	3	5 U	2.5 U	2.5 U	12 U
1,3-Dichloropropane	5	5 U	2.5 U	2.5 U	12 U
1,4-Dichlorobenzene	3	5 U	2.5 U	2.5 U	12 U
1,4-Diethyl Benzene	NS	4 U	2 U	2 U	10 U
1,4-Dichlorobenzene	3	5 U	2.5 U	2.5 U	12 U
1,4-Diethyl Benzene	NS	4 U	2 U	2 U	10 U
2,2-Dichloropropane	5	5 U	2.5 U	2.5 U	12 U
2-Chlorotoluene	5	5 U	2.5 U	2.5 U	12 U
2-Hexanone	50	10 U	5 U	5 U	25 U
4-Chlorotoluene	5	5 U	2.5 U	2.5 U	12 U
4-Ethyltoluene	NS	4 U	2 U	2 UJ	4 JK
Acetone	50	16	5 U	5 U	28
Acrylonitrile	5	10 U	5 U	5 R	25 R
Benzene	**1**	0.76 J	0.64	0.21 J	**11**
Bromobenzene	5	5 U	2.5 U	2.5 U	12 U
Bromochloromethane	5	5 U	2.5 U	2.5 U	12 U
Bromodichloromethane	50	1 U	0.5 U	0.5 U	2.5 U
Bromoform	50	4 U	2 U	2 U	10 U
Bromomethane	5	5 UJ	2.5 UJ	2.5 U	12 U
Carbon Disulfide	60	10 U	5 U	5 U	25 U
Carbon Tetrachloride	5	1 U	0.5 U	0.5 U	2.5 U
Chlorobenzene	5	5 U	2.5 U	2.5 U	12 U
Chloroethane	5	5 U	2.5 U	2.5 U	12 U
Chloroform	7	5 U	2.5 U	2.5 U	12 U
Chloromethane	5	5 U	2.5 U	2.5 U	12 U
Cis-1,2-Dichloroethylene	5	5 U	2.5 U	2.5 U	12 U
Cis-1,3-Dichloropropene	NS	1 U	0.5 U	0.5 U	2.5 U
Cymene	5	5 U	2.5 U	2.5 UJ	12 UJ
Dibromochloromethane	50	1 U	0.5 U	0.5 U	2.5 U
Dibromomethane	5	10 U	5 U	5 U	25 U
Dichlorodifluoromethane	5	10 U	5 U	5 U	25 U
Dichloroethylenes	NS	5 U	2.5 U	2.5 U	12 U
Diethyl Ether (Ethyl Ether)	NS	5 U	2.5 U	2.5 U	12 U
Ethylbenzene	**5**	5 U	2.5 U	2.5 U	**8.5 JK**
Isopropylbenzene (Cumene)	5	5 U	2.2 J	2.5 UJ	12 UJ
M,P-Xylenes	**5**	5 U	2.5 U	2.5 U	**12**
Methyl Ethyl Ketone (2-Butanone)	50	6.4 J	5 U	5 U	25 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	10 U	5 U	5 U	25 U
Methylene Chloride	5	5 U	2.5 U	2.5 U	12 U
Naphthalene	10	16 J	0.73 J	2.5 UJ	1,000 J
N-Butylbenzene	5	5 U	2.5 U	2.5 UJ	12 UJ
N-Propylbenzene	5	5 U	2.5 U	2.5 UJ	12 UJ
O-Xylene (1,2-Dimethylbenzene)	**5**	5 U	2.5 U	2.5 U	**6.1 J**
Sec-Butylbenzene	5	5 U	2.5 U	2.5 UJ	12 UJ
Styrene	5	5 U	2.5 U	2.5 U	12 U
T-Butylbenzene	5	5 UJ	2.5 UJ	2.5 U	12 U
Tert-Butyl Methyl Ether	10	5 U	2.5 U	2.5 U	12 U
Tetrachloroethylene (PCE)	5	1 U	0.5 U	0.5 U	2.5 U
Toluene	**5**	5 U	2.5 U	2.5 U	**10 JK**
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	1 U	0.5 U	0.5 U	2.5 U
Trans-1,2-Dichloroethene	5	5 U	2.5 U	2.5 U	12 U
Trans-1,3-Dichloropropene	NS	1 U	0.5 U	0.5 U	2.5 U
Trans-1,4-Dichloro-2-Butene	5	5 U	2.5 U	2.5 U	12 U
Trichloroethylene (TCE)	5	0.69 J	0.5 U	0.5 U	2.5 U
Trichlorofluoromethane	5	5 U	2.5 U	2.5 U	12 U
Vinyl Acetate	NS	10 U	5 U	5 U	25 U
Vinyl Chloride	2	2 U	1.4	1 U	5 U
Xylenes, Total	NS	5 U	2.5 U	2.5 U	18 J

Table 1A
Baseline Groundwater Sampling Emerging Contaminant Sampling Letter Report
Polychrome East (BCP No. C360098)
VOCs

	AKRF Sample ID	PCE-MW-X-20191015	PCE-MW-X-20191015	Field Blank-20191011	TRIPBLANK-20191015
	Laboratory Sample ID	L1948207-03	L1948207-03	L1947800-01	L1948207-06
	Date Sampled	10/15/2019	10/15/2019	10/11/2019 10:15:00 AM	10/15/2019
	Unit	µg/L	µg/L	µg/L	µg/L
	Dilution Factor	5	20	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q
1,1,1,2-Tetrachloroethane	5	12 U	NT	2.5 U	2.5 U
1,1,1-Trichloroethane	5	12 U	NT	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	2.5 U	NT	0.5 U	0.5 U
1,1,2-Trichloroethane	1	7.5 U	NT	1.5 U	1.5 U
1,1-Dichloroethane	5	12 U	NT	2.5 U	2.5 U
1,1-Dichloroethene	5	2.5 U	NT	0.5 U	0.5 U
1,1-Dichloropropene	5	12 U	NT	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	12 U	NT	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	12 U	NT	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	10 U	NT	2 UJ	2 U
1,2,4-Trichlorobenzene	5	12 U	NT	2.5 U	2.5 U
1,2,4-Trimethylbenzene	**5**	**5.7 J**	NT	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	12 U	NT	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	10 U	NT	2 U	2 U
1,2-Dichlorobenzene	3	12 U	NT	2.5 U	2.5 U
1,2-Dichloroethane	0.6	2.5 U	NT	0.5 U	0.5 U
1,2-Dichloropropane	1	5 U	NT	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	12 U	NT	2.5 U	2.5 U
1,3-Dichlorobenzene	3	12 U	NT	2.5 U	2.5 U
1,3-Dichloropropane	5	12 U	NT	2.5 U	2.5 U
1,4-Dichlorobenzene	3	12 U	NT	2.5 U	2.5 U
1,4-Diethyl Benzene	NS	10 U	NT	2 U	2 U
2,2-Dichloropropane	5	12 U	NT	2.5 U	2.5 U
2-Chlorotoluene	5	12 U	NT	2.5 U	2.5 U
2-Hexanone	50	25 U	NT	5 U	5 U
4-Chlorotoluene	5	12 U	NT	2.5 U	2.5 U
4-Ethyltoluene	NS	4.1 J	NT	2 U	2 UJ
Acetone	50	24 J	NT	5 U	5 U
Acrylonitrile	5	25 R	NT	5 U	5 R
Benzene	**1**	**11**	NT	0.5 U	0.5 U
Bromobenzene	5	12 U	NT	2.5 U	2.5 U
Bromochloromethane	5	12 U	NT	2.5 U	2.5 U
Bromodichloromethane	50	2.5 U	NT	0.5 U	0.5 U
Bromoform	50	10 U	NT	2 U	2 U
Bromomethane	5	12 U	NT	2.5 UJ	2.5 U
Carbon Disulfide	60	25 U	NT	5 U	5 U
Carbon Tetrachloride	5	2.5 U	NT	0.5 U	0.5 U
Chlorobenzene	5	12 U	NT	2.5 U	2.5 U
Chloroethane	5	12 U	NT	2.5 U	2.5 U
Chloroform	7	12 U	NT	2.5 U	2.5 U
Chloromethane	5	12 U	NT	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	12 U	NT	2.5 U	2.5 U
Cis-1,3-Dichloropropene	NS	2.5 U	NT	0.5 U	0.5 U
Cymene	5	12 UJ	NT	2.5 U	2.5 UJ
Dibromochloromethane	50	2.5 U	NT	0.5 U	0.5 U
Dibromomethane	5	25 U	NT	5 U	5 U
Dichlorodifluoromethane	5	25 U	NT	5 U	5 U
Dichloroethylenes	NS	12 U	NT	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	NS	12 U	NT	2.5 U	2.5 U
Ethylbenzene	**5**	**8.5 J**	NT	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	12 UJ	NT	2.5 U	2.5 UJ
M,P-Xylenes	**5**	**13**	NT	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	25 U	NT	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	25 U	NT	5 U	5 U
Methylene Chloride	5	12 U	NT	2.5 U	2.5 U
Naphthalene	10	NR	670 R	2.5 UJ	2.5 UJ
N-Butylbenzene	5	12 UJ	NT	2.5 U	2.5 UJ
N-Propylbenzene	5	12 UJ	NT	2.5 U	2.5 UJ
O-Xylene (1,2-Dimethylbenzene)	**5**	**6.3 J**	NT	2.5 U	2.5 U
Sec-Butylbenzene	5	12 UJ	NT	2.5 U	2.5 UJ
Styrene	5	12 U	NT	2.5 U	2.5 U
T-Butylbenzene	5	12 U	NT	2.5 UJ	2.5 U
Tert-Butyl Methyl Ether	10	12 U	NT	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	2.5 U	NT	0.5 U	0.5 U
Toluene	**5**	**10 J**	NT	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	2.5 U	NT	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	12 U	NT	2.5 U	2.5 U
Trans-1,3-Dichloropropene	NS	2.5 U	NT	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	5	12 U	NT	2.5 U	2.5 U
Trichloroethylene (TCE)	5	2.5 U	NT	0.5 U	0.5 U
Trichlorofluoromethane	5	12 U	NT	2.5 U	2.5 U
Vinyl Acetate	NS	25 U	NT	5 U	5 U
Vinyl Chloride	2	5 U	NT	1 U	1 U
Xylenes, Total	NS	19 J	NT	2.5 U	2.5 U

Table 1B
Baseline Groundwater Sampling Emerging Contaminant Sampling Letter Report
Polychrome East (BCP No. C360098)
SVOCs

	AKRF Sample ID	PCE-MW-A-20191011	PCE-MW-B-20191011	PCE-MW-C-20191015	PCE-MW-D-20191015
	Laboratory Sample ID	L1947800-03	L1947800-02	L1948207-01	L1948207-02
	Date Sampled	10/11/2019 1:00:00 PM	10/11/2019 11:25:00 AM	10/15/2019 11:38:00 AM	10/15/2019 1:12:00 PM
	Unit	µg/L	µg/L	µg/L	µg/L
	Dilution Factor	1	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	5	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	NS	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	NS	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	5	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	**50**	5 U	5 U	5 U	**52 JK**
2,4-Dinitrophenol	10	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	5	5 U	5 U	5 U	5 U
2,6-Dinitrotoluene	5	5 U	5 U	5 U	5 U
2-Chloronaphthalene	10	0.2 U	0.2 U	0.2 U	NR
2-Chlorophenol	NS	2 U	2 U	2 U	2 U
2-Methylnaphthalene	NS	0.05 J	0.1 U	0.07 J	NR
2-Methylphenol (O-Cresol)	NS	5 U	5 U	5 U	60
2-Nitroaniline	5	5 U	5 U	5 U	5 UJ
2-Nitrophenol	NS	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	5 U	5 U	5 U	5 R
3-Methylphenol/4-Methylphenol	NS	5 U	5 U	5 U	160 JK
3-Nitroaniline	5	5 U	5 U	5 U	5 U
4,6-Dinitro-2-Methylphenol	NS	10 U	10 U	10 U	10 U
4-Bromophenyl Phenyl Ether	NS	2 U	2 U	2 U	2 U
4-Chloro-3-Methylphenol	NS	2 U	2 U	2 U	2 U
4-Chloroaniline	5	5 U	5 U	5 U	5 UJ
4-Chlorophenyl Phenyl Ether	NS	2 U	2 U	2 U	2 U
4-Nitroaniline	5	5 U	5 U	5 U	5 UJ
4-Nitrophenol	NS	10 U	10 U	10 U	10 U
Acenaphthene	20	0.1 U	0.16	12	NR
Acenaphthylene	NS	0.39	0.1 U	0.28	NR
Acetophenone	NS	1 J	5 U	5 U	1.6 J
Anthracene	50	0.16	0.03 J	0.17	NR
Benzo(a)Anthracene	**0.002**	**0.13**	**0.12**	**0.27**	NR
Benzo(a)Pyrene	**ND**	**0.07 J**	**0.04 J**	**0.03 J**	NR
Benzo(b)Fluoranthene	**0.002**	**0.08 J**	**0.05 J**	**0.03 J**	NR
Benzo(g,h,i)Perylene	NS	0.04 J	0.1 U	0.02 J	NR
Benzo(k)Fluoranthene	**0.002**	**0.03 J**	**0.02 J**	**0.02 J**	NR
Benzoic Acid	NS	50 U	50 U	50 U	76 JK
Benzyl Alcohol	NS	2 U	2 U	2 U	2.6
Benzyl Butyl Phthalate	50	5 U	5 U	5 U	5 U
Biphenyl (Diphenyl)	**5**	2 U	2 U	2 U	**10**
Bis(2-Chloroethoxy) Methane	5	5 U	5 U	5 U	5 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1	2 U	2 U	2 U	2 U
Bis(2-Chloroisopropyl) Ether	5	2 U	2 U	2 U	2 U
Bis(2-Ethylhexyl) Phthalate	5	3 U	3 U	3 U	3 U
Carbazole	NS	2 U	2 U	2 U	52
Chrysene	**0.002**	**0.12**	**0.08 J**	**0.02 J**	NR
Dibenz(a,h)Anthracene	NS	0.1 U	0.1 U	0.02 J	NR
Dibenzofuran	NS	2 U	2 U	2 U	27
Diethyl Phthalate	50	5 U	5 U	5 U	5 U
Dimethyl Phthalate	50	5 U	5 U	5 U	5 U
Di-N-Butyl Phthalate	50	5 U	5 U	5 U	5 U
Di-N-Octylphthalate	50	5 U	5 U	5 U	5 UJ
Fluoranthene	50	0.92	0.17	0.07 J	NR
Fluorene	50	0.11	0.04 J	1.9	NR
Hexachlorobenzene	0.04	0.8 U	0.8 U	0.8 U	NR
Hexachlorobutadiene	0.5	0.5 U	0.5 U	0.5 U	NR
Hexachlorocyclopentadiene	5	20 U	20 U	20 U	20 U
Hexachloroethane	5	0.8 U	0.8 U	0.8 U	NR
Indeno(1,2,3-c,d)Pyrene	**0.002**	**0.04 J**	0.1 U	**0.02 J**	NR
Isophorone	50	5 U	5 U	5 U	5 U
Naphthalene	10	0.21	0.1 U	0.43	NR
Nitrobenzene	0.4	2 U	2 U	2 U	2 U
N-Nitrosodi-N-Propylamine	NS	5 U	5 U	5 U	5 U
N-Nitrosodiphenylamine	50	2 U	2 U	2 U	2 U
Pentachlorophenol	NS	0.8 U	0.8 U	0.8 UJ	NR
Phenanthrene	50	0.1 U	0.1 U	0.71	NR
Phenol	**1**	**2.8 J**	5 U	5 U	NR
Pyrene	50	1.4	0.32	0.12	NR

Table 1B
Baseline Groundwater Sampling Emerging Contaminant Sampling Letter Report
Polychrome East (BCP No. C360098)
SVOCs

	AKRF Sample ID	PCE-MW-D-20191015	PCE-MW-D-20191015	PCE-MW-X-20191015
	Laboratory Sample ID	L1948207-02	L1948207-02	L1948207-03
	Date Sampled	10/15/2019 1:12:00 PM	10/15/2019 1:12:00 PM	10/15/2019
	Unit	µg/L	µg/L	µg/L
	Dilution Factor	5	10	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	5	NT	NT	10 U
2,4,5-Trichlorophenol	NS	NT	NT	5 U
2,4,6-Trichlorophenol	NS	NT	NT	5 U
2,4-Dichlorophenol	5	NT	NT	5 U
2,4-Dimethylphenol	**50**	NT	NT	**57 JK**
2,4-Dinitrophenol	10	NT	NT	20 U
2,4-Dinitrotoluene	5	NT	NT	5 U
2,6-Dinitrotoluene	5	NT	NT	5 U
2-Chloronaphthalene	10	NT	2 U	NR
2-Chlorophenol	NS	NT	NT	2 U
2-Methylnaphthalene	NS	NT	1 UJ	NR
2-Methylphenol (O-Cresol)	NS	NT	NT	64
2-Nitroaniline	5	NT	NT	5 UJ
2-Nitrophenol	NS	NT	NT	10 U
3,3'-Dichlorobenzidine	5	NT	NT	5 R
3-Methylphenol/4-Methylphenol	NS	NT	NT	170 JK
3-Nitroaniline	5	NT	NT	5 UJ
4,6-Dinitro-2-Methylphenol	NS	NT	NT	10 U
4-Bromophenyl Phenyl Ether	NS	NT	NT	2 U
4-Chloro-3-Methylphenol	NS	NT	NT	2 U
4-Chloroaniline	5	NT	NT	5 UJ
4-Chlorophenyl Phenyl Ether	NS	NT	NT	2 U
4-Nitroaniline	5	NT	NT	5 UJ
4-Nitrophenol	NS	NT	NT	10 U
Acenaphthene	20	NT	1 UJ	NR
Acenaphthylene	NS	NT	0.15 J	NR
Acetophenone	NS	NT	NT	2 J
Anthracene	50	NT	0.64 J	NR
Benzo(a)Anthracene	**0.002**	NT	**2.6**	NR
Benzo(a)Pyrene	**ND**	NT	**2.4 J**	NR
Benzo(b)Fluoranthene	**0.002**	NT	**3.2 J**	NR
Benzo(g,h,i)Perylene	NS	NT	1.4	NR
Benzo(k)Fluoranthene	**0.002**	NT	**1.1 J**	NR
Benzoic Acid	NS	NT	NT	92 JK
Benzyl Alcohol	NS	NT	NT	3
Benzyl Butyl Phthalate	50	NT	NT	5 U
Biphenyl (Diphenyl)	**5**	NT	NT	**12**
Bis(2-Chloroethoxy) Methane	5	NT	NT	5 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1	NT	NT	2 U
Bis(2-Chloroisopropyl) Ether	5	NT	NT	2 U
Bis(2-Ethylhexyl) Phthalate	5	NT	NT	3 U
Carbazole	NS	NT	NT	62
Chrysene	**0.002**	NT	**2.1**	NR
Dibenz(a,h)Anthracene	NS	NT	0.31 J	NR
Dibenzofuran	NS	NT	NT	31
Diethyl Phthalate	50	NT	NT	5 U
Dimethyl Phthalate	50	NT	NT	5 U
Di-N-Butyl Phthalate	50	NT	NT	5 U
Di-N-Octylphthalate	50	NT	NT	5 UJ
Fluoranthene	50	NT	4.2	NR
Fluorene	50	NT	1 UJ	NR
Hexachlorobenzene	0.04	NT	8 U	NR
Hexachlorobutadiene	0.5	NT	5 U	NR
Hexachlorocyclopentadiene	5	NT	NT	20 U
Hexachloroethane	5	NT	8 U	NR
Indeno(1,2,3-c,d)Pyrene	**0.002**	NT	**1.5**	NR
Isophorone	50	NT	NT	5 U
Naphthalene	10	NT	1 R	NR
Nitrobenzene	0.4	NT	NT	2 U
N-Nitrosodi-N-Propylamine	NS	NT	NT	5 U
N-Nitrosodiphenylamine	50	NT	NT	2 U
Pentachlorophenol	NS	NT	8 UJ	NR
Phenanthrene	50	NT	2.1 J	NR
Phenol	**1**	**280 D**	NT	NR
Pyrene	50	NT	3.6	NR

Table 1B
Baseline Groundwater Sampling Emerging Contaminant Sampling Letter Report
Polychrome East (BCP No. C360098)
SVOCs

	AKRF Sample ID	PCE-MW-X-20191015	PCE-MW-X-20191015	Field Blank-20191011
	Laboratory Sample ID	L1948207-03	L1948207-03	L1947800-01
	Date Sampled	10/15/2019	10/15/2019	10/11/2019 10:15:00 AM
	Unit	µg/L	µg/L	µg/L
	Dilution Factor	5	10	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q
1,2,4,5-Tetrachlorobenzene	5	NT	NT	10 U
2,4,5-Trichlorophenol	NS	NT	NT	5 U
2,4,6-Trichlorophenol	NS	NT	NT	5 U
2,4-Dichlorophenol	5	NT	NT	5 U
2,4-Dimethylphenol	**50**	NT	NT	5 U
2,4-Dinitrophenol	10	NT	NT	20 U
2,4-Dinitrotoluene	5	NT	NT	5 U
2,6-Dinitrotoluene	5	NT	NT	5 U
2-Chloronaphthalene	10	NT	2 U	0.2 U
2-Chlorophenol	NS	NT	NT	2 U
2-Methylnaphthalene	NS	NT	2.4	0.1 U
2-Methylphenol (O-Cresol)	NS	NT	NT	5 U
2-Nitroaniline	5	NT	NT	5 U
2-Nitrophenol	NS	NT	NT	10 U
3,3'-Dichlorobenzidine	5	NT	NT	5 U
3-Methylphenol/4-Methylphenol	NS	NT	NT	5 U
3-Nitroaniline	5	NT	NT	5 U
4,6-Dinitro-2-Methylphenol	NS	NT	NT	10 U
4-Bromophenyl Phenyl Ether	NS	NT	NT	2 U
4-Chloro-3-Methylphenol	NS	NT	NT	2 U
4-Chloroaniline	5	NT	NT	5 U
4-Chlorophenyl Phenyl Ether	NS	NT	NT	2 U
4-Nitroaniline	5	NT	NT	5 U
4-Nitrophenol	NS	NT	NT	10 U
Acenaphthene	20	NT	13	0.1 U
Acenaphthylene	NS	NT	3.4 J	0.1 U
Acetophenone	NS	NT	NT	5 U
Anthracene	50	NT	2.1 J	0.1 U
Benzo(a)Anthracene	**0.002**	NT	**1.8**	0.1 U
Benzo(a)Pyrene	**ND**	NT	**0.94 J**	0.1 U
Benzo(b)Fluoranthene	**0.002**	NT	**1.5 J**	0.1 U
Benzo(g,h,i)Perylene	NS	NT	0.68 J	0.1 U
Benzo(k)Fluoranthene	**0.002**	NT	**0.48 J**	0.1 U
Benzoic Acid	NS	NT	NT	50 U
Benzyl Alcohol	NS	NT	NT	2 U
Benzyl Butyl Phthalate	50	NT	NT	5 U
Biphenyl (Diphenyl)	**5**	NT	NT	2 U
Bis(2-Chloroethoxy) Methane	5	NT	NT	5 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1	NT	NT	2 U
Bis(2-Chloroisopropyl) Ether	5	NT	NT	2 U
Bis(2-Ethylhexyl) Phthalate	5	NT	NT	3 U
Carbazole	NS	NT	NT	2 U
Chrysene	**0.002**	NT	**1.5**	0.1 U
Dibenz(a,h)Anthracene	NS	NT	0.15 J	0.1 U
Dibenzofuran	NS	NT	NT	2 U
Diethyl Phthalate	50	NT	NT	5 U
Dimethyl Phthalate	50	NT	NT	5 U
Di-N-Butyl Phthalate	50	NT	NT	5 U
Di-N-Octylphthalate	50	NT	NT	5 U
Fluoranthene	50	NT	3.1	0.1 U
Fluorene	50	NT	13	0.1 U
Hexachlorobenzene	0.04	NT	8 U	0.8 U
Hexachlorobutadiene	0.5	NT	5 U	0.5 U
Hexachlorocyclopentadiene	5	NT	NT	20 U
Hexachloroethane	5	NT	8 U	0.8 U
Indeno(1,2,3-c,d)Pyrene	**0.002**	NT	**0.69 J**	0.1 U
Isophorone	50	NT	NT	5 U
Naphthalene	10	NT	1.7 R	0.1 U
Nitrobenzene	0.4	NT	NT	2 U
N-Nitrosodi-N-Propylamine	NS	NT	NT	5 U
N-Nitrosodiphenylamine	50	NT	NT	2 U
Pentachlorophenol	NS	NT	8 UJ	0.8 U
Phenanthrene	50	NT	12 J	0.03 J
Phenol	**1**	**340 D**	NT	5 U
Pyrene	50	NT	6.2	0.1 U

Table 1C
Baseline Groundwater Sampling Emerging Contaminant Sampling Letter Report
Polychrome East (BCP No. C360098)
Metals (Dissolved)

	AKRF Sample ID	PCE-MW-A-20191011	PCE-MW-B-20191011	PCE-MW-C-20191015	PCE-MW-D-20191015	PCE-MW-X-20191015	Field Blank-20191011
	Laboratory Sample ID	L1947800-03	L1947800-02	L1948207-01	L1948207-02	L1948207-03	L1947800-01
	Date Sampled	10/11/2019 1:00:00 PM	10/11/2019 11:25:00 AM	10/15/2019 11:38:00 AM	10/15/2019 1:12:00 PM	10/15/2019	10/11/2019 10:15:00 AM
	Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	Dilution Factor	1	1	1	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	1,450	4.28 J	10 U	149	143	10 U
Antimony	3	4 U	4 U	4 UJ	1.55 J	1.14 J	4 U
Arsenic	25	17.31	2.88	2.97	15.15	14.67	0.5 U
Barium	1,000	31.12	67.8	57.99	67.41	69.56	7.42
Beryllium	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cadmium	5	0.09 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Calcium	NS	56,500	75,500	74,800	47,500	49,300	256
Chromium, Total	50	1.01	1 U	1 U	1.37	1.41	0.46 J
Cobalt	NS	1.05	0.43 J	0.5	0.29 J	0.3 J	0.5 U
Copper	200	7.45	1 U	1 U	17.07	17.35	1 U
Iron	**300**	82.3	128	**1,530**	**613**	**643**	50 U
Lead	25	3.57	1 U	1 U	16.76	17.36	1 U
Magnesium	35,000	33.4 J	13,500	6,540	14,600	14,800	70 U
Manganese	**300**	1.07	292.3	**468.7**	**304.4**	**325.2**	1 U
Mercury	**0.7**	0.2 U	0.2 U	0.2 U	**5.95 JK**	**8.43 JK**	0.2 U
Nickel	100	8.74	2 U	1.75 J	12.01	11.23	2 U
Potassium	NS	28,800	31,900	8,680	75,400	74,000	100 U
Selenium	10	9.19	5 U	5 U	5 U	5 U	5 U
Silver	50	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Sodium	**20,000**	**272,000**	**158,000**	**24,600**	**132,000**	**131,000**	1,960
Thallium	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vanadium	NS	26.85	5 U	5 U	5 U	5 U	5 U
Zinc	2,000	10 U	10 U	19.92	10.77	9.83 J	10 U

Table 1D
Baseline Groundwater Sampling Emerging Contaminant Sampling Letter Report
Polychrome East (BCP No. C360098)
Metals (Totals)

	AKRF Sample ID	PCE-MW-A-20191011	PCE-MW-B-20191011	PCE-MW-C-20191015	PCE-MW-D-20191015
	Laboratory Sample ID	L1947800-03	L1947800-02	L1948207-01	L1948207-02
	Date Sampled	10/11/2019 1:00:00 PM	10/11/2019 11:25:00 AM	10/15/2019 11:38:00 AM	10/15/2019 1:12:00 PM
	Unit	µg/L	µg/L	µg/L	µg/L
	Dilution Factor	1	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q
Aluminum	NS	2,170	69.8	87.5	376
Antimony	**3**	2.29 J	4 U	0.45 J	**7.2 J**
Arsenic	25	15.22	3.13	4.61	16.04
Barium	1,000	29.81	80.22	59.84	71.53
Beryllium	3	0.5 U	0.5 U	0.5 U	0.5 U
Cadmium	5	0.19 J	0.2 U	0.2 U	0.07 J
Calcium	NS	61,600	70,200	72,400	45,900
Chromium, Total	50	4.07	0.6 J	1 U	2.03
Cobalt	NS	1.43	0.62	0.54	0.32 J
Copper	200	22.25	1 U	2.64	42.3
Iron	**300**	**1,050**	**2,220**	**3,190**	**1,120 JK**
Lead	**25**	17.17	1.45	3.21	**38.2**
Magnesium	35,000	255	13,600	6,260	13,800
Manganese	**300**	17.52	297.2	**471**	**338.9**
Mercury	**0.7**	0.2 U	0.2 U	0.2 U	NR
Nickel	100	10.4	0.65 J	1.97 J	12.46
Potassium	NS	33,800	31,000	8,600	73,500
Selenium	10	9.95	5 U	5 U	5 UJ
Silver	50	0.4 U	0.4 U	0.4 U	0.4 U
Sodium	**20,000**	**269,000**	**154,000**	**23,500**	**124,000**
Thallium	0.5	1 U	1 U	0.5 U	0.5 U
Vanadium	NS	40.35	5 U	5 U	1.62 J
Zinc	2,000	26.95	3.59 J	25.44	43.08

Table 1D
Baseline Groundwater Sampling Emerging Contaminant Sampling Letter Report
Polychrome East (BCP No. C360098)
Metals (Totals)

	AKRF Sample ID	PCE-MW-D-20191015	PCE-MW-X-20191015	Field Blank-20191011
	Laboratory Sample ID	L1948207-02	L1948207-03	L1947800-01
	Date Sampled	10/15/2019 1:12:00 PM	10/15/2019	10/11/2019 10:15:00 AM
	Unit	µg/L	µg/L	µg/L
	Dilution Factor	2	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q
Aluminum	NS	NT	363	10 U
Antimony	**3**	NT	1.12 J	4 U
Arsenic	25	NT	15.72	0.5 U
Barium	1,000	NT	75.46	2.13
Beryllium	3	NT	0.5 U	0.5 U
Cadmium	5	NT	0.06 J	0.2 U
Calcium	NS	NT	49,700	100 U
Chromium, Total	50	NT	2.16	0.41 J
Cobalt	NS	NT	0.34 J	0.5 U
Copper	200	NT	42.23	1.28
Iron	**300**	NT	**1,250 JK**	50 U
Lead	**25**	NT	**38.12**	1 U
Magnesium	35,000	NT	15,200	70 U
Manganese	**300**	NT	**364.3**	1 U
Mercury	**0.7**	**15.48 JK**	**15.8 JK**	0.2 U
Nickel	100	NT	12.45	2 U
Potassium	NS	NT	76,500	100 U
Selenium	10	NT	5 UJ	5 U
Silver	50	NT	0.4 U	0.4 U
Sodium	**20,000**	NT	**132,000**	164
Thallium	0.5	NT	0.5 U	1 U
Vanadium	NS	NT	1.62 J	5 U
Zinc	2,000	NT	43.76	10 U

Table 1E
Baseline Groundwater Sampling Emerging Contaminant Sampling Letter Report
Polychrome East (BCP No. C360098)
Emerging Contaminants - PFAS

AKRF Sample ID		PCE-MW-C-06102019	PCE-MW-D-06102019	PCE-MW-B-20191024	PCE-EQ-06102019
Laboratory Sample ID		L1924653-02	L1924653-01	L1950466-01	L1924653-03
Date Sampled		6/10/2019 11:05 AM	6/10/2019 9:55 AM	10/24/2019 12:05:00 PM	6/10/2019 10:05 AM
Unit		ng/L	ng/L	ng/L	ng/L
Dilution Factor		1	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	1.23 U	1.22 U	3	1.14 U
8:2 Fluorotelomer sulfonate	NS	1.12 U	1.11 U	2.02 U	1.04 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	0.74 U	0.74 U	2.02 U	0.69 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	0.6 U	0.6 U	2.02 U	0.56 U
Perfluorobutanesulfonic acid	NS	0.12 J	0.14 J	3.07	0.2 U
Perfluorobutanoic acid	NS	5.57	3.03	15.1	0.35 U
Perfluorodecanesulfonic acid	NS	0.9 U	0.9 U	2.02 U	0.84 U
Perfluorodecanoic acid	NS	0.28 U	0.35 J	2.02 U	0.26 U
Perfluorododecanoic acid	NS	0.34 U	0.34 U	2.02 U	0.32 U
Perfluoroheptanesulfonic acid	NS	0.64 U	0.63 U	2.02 U	0.59 U
Perfluoroheptanoic acid	NS	2.77	2.87	7.12	0.19 U
Perfluorohexanesulfonic acid	NS	0.45 J	1.43 J	3.84	0.32 U
Perfluorohexanoic acid	NS	4.9	3.28	14.8	0.28 U
Perfluorononanoic acid	NS	0.33 J	1.08 J	0.887 J	0.27 U
Perfluorooctanesulfonic acid	NS	1.6 J	9.06	10.5	0.43 U
Perfluorooctanoic acid	NS	5.64	16.5	23	0.2 U
Perfluoropentanoic acid	NS	3.84	4.34	18.9	0.34 U
Perfluorotetradecanoic acid	NS	0.23 U	0.23 U	2.02 U	0.21 U
Perfluorotridecanoic acid	NS	0.3 U	0.3 U	2.02 U	0.28 U
Perfluoroundecanoic acid	NS	0.24 U	0.29 J	2.02 U	0.22 U
Perfluroroctanesulfonamide	NS	0.54 U	0.53 U	2.02 U	0.5 U

Table 1F
Baseline Groundwater Sampling Emerging Contaminant Sampling Letter Report
Polychrome East (BCP No. C360098)
Emerging Contaminants - 1,4-Dioxane

	AKRF Sample ID	PCE-MW-C-06102019	PCE-MW-D-06102019	PCE-MW-A-20191011	PCE-MW-B-20191011	PCE-MW-C-20191015	PCE-MW-D-20191015	PCE-MW-X-20191015	PCE-EQ-06102019	Field Blank-20191011
	Laboratory Sample ID	L1924653-02	L1924653-01	L1947800-03	L1947800-02	L1948207-01	L1948207-02	L1948207-03	L1924653-03	L1947800-01
	Date Sampled	6/10/2019 11:05 AM	6/10/2019 9:55 AM	10/11/2019 1:00:00 PM	10/11/2019 11:25:00 AM	10/15/2019 11:38:00 AM	10/15/2019 1:12:00 PM	10/15/2019	6/10/2019 10:05 AM	10/11/2019 10:15:00 AM
	Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	Dilution Factor	1	1	1	2	1	1	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
1,4-Dioxane (P-Dioxane)	NS	0.0326 U	189	10.8	505	0.839	185	169	0.742	0.139 U

Tables 1A-1F
Baseline Groundwater Sampling Emerging Contaminant Sampling Letter Report
Polychrome East (BCP No. C360098)
Notes

DEFINITIONS

D : Indicates an identified compound in an analysis that has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analyses.

J : The reported value is estimated

K : Reported concentration value is proportional to dilution factor and may be exagerated.

ND : The standard is a non-detectable concentration by the approved analytical method.

NR : Not reported.

NS : No standard.

NT : Not tested.

R : Indicates the reported result is unusable. (note: the analyte may or may not be present.)

U : Indicates that the compound was analyzed for, but not detected.

µg/L : micrograms per Liter

ng/L : nanograms per Liter

STANDARDS

NYSDEC Class GA AWQSGVs : New York State Department of Environmental Conservation Technical and Operational Guidance Series (1.1.1): Class GA Ambient Water Quality Standards and Guidance Values (AWQSGVs).

Exceedances of NYSDEC Class GA AWQSGVs are highlighted in bold font.

ATTACHMENT A
LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

Lab Number:	L1924653
Client:	AKRF, Inc. 34 South Broadway Suite 401 White Plains, NY 10601
ATTN:	Patrick McHugh
Phone:	(914) 922-2387
Project Name:	AVALON YONKERS PCE
Project Number:	180132
Report Date:	07/08/19

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: AVALON YONKERS PCE
Project Number: 180132

Lab Number: L1924653
Report Date: 07/08/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1924653-01	PCE-MW-D-06102019	WATER	YONKERS, NY	06/10/19 09:55	06/10/19
L1924653-02	PCE-FB-06102019	WATER	YONKERS, NY	06/10/19 10:00	06/10/19
L1924653-03	PCE-EQ-06102019	WATER	YONKERS, NY	06/10/19 10:05	06/10/19
L1924653-04	PCE-MW-C-06102019	WATER	YONKERS, NY	06/10/19 11:05	06/10/19

Project Name:	AVALON YONKERS PCE	**Lab Number:**	L1924653
Project Number:	180132	**Report Date:**	07/08/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: AVALON YONKERS PCE **Lab Number:** L1924653
Project Number: 180132 **Report Date:** 07/08/19

Case Narrative (continued)

Report Submission
July 8,, 2019: This is the final report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Perfluorinated Alkyl Acids by Isotope Dilution
WG1250772-1: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.
WG1251337-1: The continuing calibration standard had the response for M8FOSA, M2-6:2FTS and M2-8:2FTS outside the acceptance criteria for the method. The associated target analytes were within acceptance criteria; therefore, no further action was taken.
WG1251337-1: The continuing calibration standard had the response for 8:2FTS outside the acceptance criteria for the method. This value represents less than 10% of all compounds; therefore, the calibration was accepted.
WG1251337-2: The continuing calibration standard had the response for M2-6:2FTS, M2-8:2FTS and M8FOSA outside the acceptance criteria for the method. The associated target analytes were within acceptance criteria; therefore, no further action was taken.
WG1251337-2: The continuing calibration standard had the response for Perfluoroctanesulfonic Acid-Branched (br-PFOS) outside of acceptance criteria. The response for Perfluorooctanesulfonic Acid (PFOS) was within acceptance criteria; therefore, no further action was taken.
WG1251337-4: The continuing calibration standard had the response for M2-6:2FTS, M2-8:2FTS and M8FOSA outside the acceptance criteria for the method. The associated target analytes were within acceptance criteria; therefore, no further action was taken.
WG1251337-5:The continuing calibration standard had the response for M2-8:2FTS and M8FOSA outside the acceptance criteria for the method. The associated target analytes were within acceptance criteria; therefore, no further action was taken.

Project Name:	AVALON YONKERS PCE	**Lab Number:**	L1924653
Project Number:	180132	**Report Date:**	07/08/19

Case Narrative (continued)

WG1251337-5: The continuing calibration standard had the response for 6:2FTS outside the acceptance criteria for the method. This value represents less than 10% of all compounds; therefore, the calibration was accepted.

WG1251337-6: The continuing calibration standard had the response for M2-8:2FTS and M8FOSA outside the acceptance criteria for the method. The associated target analytes were within acceptance criteria; therefore, no further action was taken.

WG1251337-6:The continuing calibration standard had the response for Perfluoroctanesulfonic Acid-Branched (br-PFOS) outside of acceptance criteria. The response for Perfluorooctanesulfonic Acid (PFOS) was within acceptance criteria; therefore, no further action was taken.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 07/08/19

ORGANICS

SEMIVOLATILES

Project Name: AVALON YONKERS PCE
Project Number: 180132
Lab Number: L1924653
Report Date: 07/08/19

SAMPLE RESULTS

Lab ID: L1924653-01
Client ID: PCE-MW-D-06102019
Sample Location: YONKERS, NY

Date Collected: 06/10/19 09:55
Date Received: 06/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 06/16/19 07:30
Analyst: MA

Extraction Method: EPA 3510C
Extraction Date: 06/15/19 08:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	189000		ng/l	144	32.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	34		15-110

Project Name: AVALON YONKERS PCE
Project Number: 180132
Lab Number: L1924653
Report Date: 07/08/19

SAMPLE RESULTS

Lab ID: L1924653-01
Client ID: PCE-MW-D-06102019
Sample Location: YONKERS, NY

Date Collected: 06/10/19 09:55
Date Received: 06/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 06/21/19 20:23
Analyst: PB

Extraction Method: EPA 537
Extraction Date: 06/20/19 08:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	3.03		ng/l	1.84	0.375	1
Perfluoropentanoic Acid (PFPeA)	4.34		ng/l	1.84	0.364	1
Perfluorobutanesulfonic Acid (PFBS)	1.39	J	ng/l	1.84	0.219	1
Perfluorohexanoic Acid (PFHxA)	3.28		ng/l	1.84	0.301	1
Perfluoroheptanoic Acid (PFHpA)	2.87		ng/l	1.84	0.207	1
Perfluorohexanesulfonic Acid (PFHxS)	1.43	J	ng/l	1.84	0.346	1
Perfluorooctanoic Acid (PFOA)	16.5		ng/l	1.84	0.217	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.84	1.22	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.84	0.632	1
Perfluorononanoic Acid (PFNA)	1.08	J	ng/l	1.84	0.287	1
Perfluorooctanesulfonic Acid (PFOS)	9.06		ng/l	1.84	0.463	1
Perfluorodecanoic Acid (PFDA)	0.346	J	ng/l	1.84	0.279	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.84	1.11	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.84	0.596	1
Perfluoroundecanoic Acid (PFUnA)	0.287	J	ng/l	1.84	0.239	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.84	0.901	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.84	0.533	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.84	0.739	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.84	0.342	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.84	0.301	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.84	0.228	1
PFOA/PFOS, Total	25.6		ng/l	1.84	0.217	1

Project Name: AVALON YONKERS PCE **Lab Number:** L1924653

Project Number: 180132 **Report Date:** 07/08/19

SAMPLE RESULTS

Lab ID: L1924653-01 Date Collected: 06/10/19 09:55

Client ID: PCE-MW-D-06102019 Date Received: 06/10/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	104		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	74		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	117		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	99		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	99		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	125		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	101		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	126		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	98		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	113		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	98		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	80		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	72		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	95		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	46		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	69		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	77		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	58		33-143

Project Name: AVALON YONKERS PCE
Project Number: 180132
Lab Number: L1924653
Report Date: 07/08/19

SAMPLE RESULTS

Lab ID: L1924653-03
Client ID: PCE-EQ-06102019
Sample Location: YONKERS, NY

Date Collected: 06/10/19 10:05
Date Received: 06/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 06/16/19 07:53
Analyst: MA

Extraction Method: EPA 3510C
Extraction Date: 06/15/19 08:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	144	32.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	35		15-110

Project Name: AVALON YONKERS PCE
Project Number: 180132
Lab Number: L1924653
Report Date: 07/08/19

SAMPLE RESULTS

Lab ID: L1924653-03
Client ID: PCE-EQ-06102019
Sample Location: YONKERS, NY

Date Collected: 06/10/19 10:05
Date Received: 06/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 06/21/19 21:30
Analyst: PB

Extraction Method: EPA 537
Extraction Date: 06/20/19 08:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.71	0.349	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.71	0.339	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.71	0.204	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.71	0.281	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.71	0.193	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.71	0.322	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.71	0.202	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.71	1.14	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.71	0.589	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.71	0.267	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.71	0.432	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.71	0.260	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.71	1.04	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.71	0.555	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.71	0.223	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.71	0.839	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.71	0.496	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.71	0.688	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.71	0.318	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.71	0.280	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.71	0.212	1
PFOA/PFOS, Total	ND		ng/l	1.71	0.202	1

Project Name: AVALON YONKERS PCE **Lab Number:** L1924653

Project Number: 180132 **Report Date:** 07/08/19

SAMPLE RESULTS

Lab ID: L1924653-03 Date Collected: 06/10/19 10:05

Client ID: PCE-EQ-06102019 Date Received: 06/10/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	118		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	124		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	147		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	143		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	125		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	137		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	111		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	60		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	103		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	120		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	110		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	61		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	72		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	110		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	55		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	52		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	90		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	72		33-143

Project Name: AVALON YONKERS PCE
Project Number: 180132
Lab Number: L1924653
Report Date: 07/08/19

SAMPLE RESULTS

Lab ID: L1924653-04
Client ID: PCE-MW-C-06102019
Sample Location: YONKERS, NY

Date Collected: 06/10/19 11:05
Date Received: 06/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 06/16/19 08:16
Analyst: MA

Extraction Method: EPA 3510C
Extraction Date: 06/15/19 08:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	742.		ng/l	144	32.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	35		15-110

Project Name: AVALON YONKERS PCE
Project Number: 180132
Lab Number: L1924653
Report Date: 07/08/19

SAMPLE RESULTS

Lab ID: L1924653-04
Client ID: PCE-MW-C-06102019
Sample Location: YONKERS, NY

Date Collected: 06/10/19 11:05
Date Received: 06/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 06/21/19 20:40
Analyst: PB

Extraction Method: EPA 537
Extraction Date: 06/20/19 08:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	5.57		ng/l	1.84	0.376	1
Perfluoropentanoic Acid (PFPeA)	3.84		ng/l	1.84	0.365	1
Perfluorobutanesulfonic Acid (PFBS)	1.18	J	ng/l	1.84	0.220	1
Perfluorohexanoic Acid (PFHxA)	4.90		ng/l	1.84	0.302	1
Perfluoroheptanoic Acid (PFHpA)	2.77		ng/l	1.84	0.208	1
Perfluorohexanesulfonic Acid (PFHxS)	0.450	J	ng/l	1.84	0.347	1
Perfluorooctanoic Acid (PFOA)	5.64		ng/l	1.84	0.218	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.84	1.23	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.84	0.635	1
Perfluorononanoic Acid (PFNA)	0.325	J	ng/l	1.84	0.288	1
Perfluorooctanesulfonic Acid (PFOS)	1.60	J	ng/l	1.84	0.465	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.84	0.280	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.84	1.12	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.84	0.598	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.84	0.240	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.84	0.904	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.84	0.535	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.84	0.742	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.84	0.343	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.84	0.302	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.84	0.229	1
PFOA/PFOS, Total	7.24	J	ng/l	1.84	0.218	1

Project Name: AVALON YONKERS PCE **Lab Number:** L1924653

Project Number: 180132 **Report Date:** 07/08/19

SAMPLE RESULTS

Lab ID: L1924653-04 Date Collected: 06/10/19 11:05

Client ID: PCE-MW-C-06102019 Date Received: 06/10/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	103		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	93		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	117		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	110		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	104		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	122		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	81		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	85		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	105		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	93		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	56		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	55		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	90		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	50		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	44		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	74		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	63		33-143

Project Name: AVALON YONKERS PCE
Project Number: 180132
Lab Number: L1924653
Report Date: 07/08/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 06/16/19 03:13
Analyst: MA

Extraction Method: EPA 3510C
Extraction Date: 06/15/19 08:15

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01,03-04 Batch: WG1248924-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	40		15-110

Project Name: AVALON YONKERS PCE **Lab Number:** L1924653

Project Number: 180132 **Report Date:** 07/08/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 06/21/19 10:11
Analyst: PB

Extraction Method: EPA 537
Extraction Date: 06/20/19 08:01

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01,03-04 Batch: WG1250772-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.00	0.452
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00	0.245
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.00	1.12
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248
PFOA/PFOS, Total	ND		ng/l	2.00	0.236
PFAS, Total (5)	ND		ng/l	2.00	0.225

Project Name: AVALON YONKERS PCE
Project Number: 180132
Lab Number: L1924653
Report Date: 07/08/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 06/21/19 10:11
Analyst: PB

Extraction Method: EPA 537
Extraction Date: 06/20/19 08:01

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01,03-04 Batch: WG1250772-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	121		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	115		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	145		31-159
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	80		1-313
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	**146**	Q	21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	123		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	144		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	109		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	54		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	99		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	126		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	109		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	45		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	78		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	113		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	58		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	70		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	96		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	87		33-143

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVALON YONKERS PCE

Project Number: 180132

Lab Number: L1924653

Report Date: 07/08/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab	Associated sample(s): 01,03-04		Batch: WG1248924-2 WG1248924-3					
1,4-Dioxane	110		107		40-140	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	37		31		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVALON YONKERS PCE

Project Number: 180132

Lab Number: L1924653

Report Date: 07/08/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01,03-04 Batch: WG1250772-2 WG1250772-3								
Perfluorobutanoic Acid (PFBA)	105		99		67-148	6		30
Perfluoropentanoic Acid (PFPeA)	106		100		63-161	6		30
Perfluorobutanesulfonic Acid (PFBS)	106		102		65-157	4		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	102		97		37-219	5		30
Perfluorohexanoic Acid (PFHxA)	125		117		69-168	7		30
Perfluoropentanesulfonic Acid (PFPeS)	106		106		52-156	0		30
Perfluoroheptanoic Acid (PFHpA)	113		107		58-159	5		30
Perfluorohexanesulfonic Acid (PFHxS)	110		109		69-177	1		30
Perfluorooctanoic Acid (PFOA)	113		107		63-159	5		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	84		94		49-187	11		30
Perfluoroheptanesulfonic Acid (PFHpS)	118		105		61-179	12		30
Perfluorononanoic Acid (PFNA)	119		111		68-171	7		30
Perfluorooctanesulfonic Acid (PFOS)	95		89		52-151	7		30
Perfluorodecanoic Acid (PFDA)	119		112		63-171	6		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	111		98		56-173	12		30
Perfluorononanesulfonic Acid (PFNS)	115		106		48-150	8		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	116		104		60-166	11		30
Perfluoroundecanoic Acid (PFUnA)	99		94		60-153	5		30
Perfluorodecanesulfonic Acid (PFDS)	134		115		38-156	15		30
Perfluorooctanesulfonamide (FOSA)	111		105		46-170	6		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	108		140		45-170	26		30
Perfluorododecanoic Acid (PFDoA)	124		109		67-153	13		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVALON YONKERS PCE

Project Number: 180132

Lab Number: L1924653

Report Date: 07/08/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01,03-04 Batch: WG1250772-2 WG1250772-3								
Perfluorotridecanoic Acid (PFTrDA)	114		113		48-158	1		30
Perfluorotetradecanoic Acid (PFTA)	131		122		59-182	7		30

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	111		111		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	105		105		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	126		124		31-159
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	75		75		1-313
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	134		133		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	115		109		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	119		115		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	103		96		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	54		47		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	92		85		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	99		98		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	97		90		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	43		40		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	68		65		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	101		94		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	56		51		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	60		52		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	86		84		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	76		79		33-143

Project Name: AVALON YONKERS PCE
Project Number: 180132

Lab Number: L1924653
Report Date: 07/08/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1924653-01A	Amber 250ml unpreserved	A	8	8	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1924653-01B	Amber 250ml unpreserved	A	8	8	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1924653-01C	2 Plastic/1 Plastic/1 H20 Plastic	B	NA		2.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L1924653-01D	2 Plastic/1 Plastic/1 H20 Plastic	B	NA		2.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L1924653-02A	Amber 500ml unpreserved	A	8	8	3.3	Y	Absent		A2-L-EXT-14DIOXANE(7)
L1924653-02B	Amber 500ml unpreserved	A	8	8	3.3	Y	Absent		A2-L-EXT-14DIOXANE(7)
L1924653-02C	2 Plastic Trizma/1 Plastic/1 H20+Trizma	B	NA		2.1	Y	Absent		A2-L-EXT-537-ISOTOPE(14)
L1924653-02D	2 Plastic Trizma/1 Plastic/1 H20+Trizma	B	NA		2.1	Y	Absent		A2-L-EXT-537-ISOTOPE(14)
L1924653-03A	Amber 250ml unpreserved	A	8	8	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1924653-03B	Amber 250ml unpreserved	A	8	8	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1924653-03C	2 Plastic/1 Plastic/1 H20 Plastic	B	NA		2.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L1924653-03D	2 Plastic/1 Plastic/1 H20 Plastic	B	NA		2.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L1924653-04A	Amber 250ml unpreserved	A	8	8	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1924653-04B	Amber 250ml unpreserved	A	8	8	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1924653-04C	2 Plastic/1 Plastic/1 H20 Plastic	B	NA		2.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L1924653-04D	2 Plastic/1 Plastic/1 H20 Plastic	B	NA		2.1	Y	Absent		A2-NY-537-ISOTOPE(14)

*Values in parentheses indicate holding time in days

Project Name:	AVALON YONKERS PCE	**Lab Number:**	L1924653
Project Number:	180132	**Report Date:**	07/08/19

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	AVALON YONKERS PCE	**Lab Number:**	L1924653
Project Number:	180132	**Report Date:**	07/08/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	AVALON YONKERS PCE	**Lab Number:**	L1924653
Project Number:	180132	**Report Date:**	07/08/19

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

122 Determination of Selected Perfluorintated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537, EPA/600/R-08/092. Version 1.1, September 2009.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 6/11/19

ALPHA Job #: L1924653

Client Information
Client: AKRF INC
Address: 440 PARK AVE S NY NY
Phone:
Fax: PMURPHY@AKRFCOM
Email:

Project Information
Project Name: AVALON YONKERS PCE
Project Location: YONKERS NY
Project #: 170132
(Use Project name as Project #) ☐
Project Manager: PAT MURPHY
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☒ EQuIS (4 File)
☐ Other

Billing Information
☒ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
HOLD PCE-FB-06102019

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCE	1,4-Dioxane	Sample Specific Comments
924653-01	PCE-MW-D-06102019	6/10/19	955	GW	JS	X	X	
-02	PCE-FB-06102019	6/10/19	1000			X	X	
-03	PCE-EB-06102019	6/10/19	1005			X	X	
-04	PCE-MW-C-06102019	6/10/19	1105	↓	↓	X	X	

Total Bottle

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
	6/10/19 14:05		6/10/19 14:05
	6/11/19 1130		6/11/19 10:45
	6/11/19 11:35		6/11/19 11:38

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L1947800
Client:	AKRF, Inc. 34 South Broadway Suite 401 White Plains, NY 10601
ATTN:	Patrick McHugh
Phone:	(914) 922-2387
Project Name:	PCE
Project Number:	180132
Report Date:	10/25/19

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1947800-01	FIELD BLANK-20191011	WATER	YONKERS, NY	10/11/19 10:15	10/11/19
L1947800-02	PCE-MW-B-20191011	WATER	YONKERS, NY	10/11/19 11:25	10/11/19
L1947800-03	PCE-MW-A-20191011	WATER	YONKERS, NY	10/11/19 13:00	10/11/19

Project Name:	PCE	**Lab Number:**	L1947800
Project Number:	180132	**Report Date:**	10/25/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: PCE
Project Number: 180132
Lab Number: L1947800
Report Date: 10/25/19

Case Narrative (continued)

Report Submission

October 25, 2019: This final report includes the results of all requested analyses.

October 18, 2019: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L1947800-03: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

Semivolatile Organics by SIM

WG1297595: An MS/MSD was not performed because the dilution required by the native sample would have caused the spike compounds to be diluted below the range of calibration.

Total Metals

L1947800-01: The Field Blank has results for barium, copper and sodium present above the reporting limit. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

Dissolved Metals

L1947800-01: The Field Blank has results for barium, calcium and sodium present above the reporting limit. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 10/25/19

ORGANICS

VOLATILES

Project Name: PCE
Project Number: 180132
Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-01
Client ID: FIELD BLANK-20191011
Sample Location: YONKERS, NY
Date Collected: 10/11/19 10:15
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 10/17/19 13:34
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-01 Date Collected: 10/11/19 10:15

Client ID: FIELD BLANK-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-01 Date Collected: 10/11/19 10:15

Client ID: FIELD BLANK-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	99		70-130

Project Name: PCE
Project Number: 180132
Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-02
Client ID: PCE-MW-B-20191011
Sample Location: YONKERS, NY

Date Collected: 10/11/19 11:25
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 10/17/19 13:12
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.64		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.4		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-02 Date Collected: 10/11/19 11:25

Client ID: PCE-MW-B-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	2.2	J	ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	0.73	J	ug/l	2.5	0.70	1

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-02 Date Collected: 10/11/19 11:25

Client ID: PCE-MW-B-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	700		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	1.8	J	ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	111		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	96		70-130

Project Name: PCE
Project Number: 180132
Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-03 D
Client ID: PCE-MW-A-20191011
Sample Location: YONKERS, NY

Date Collected: 10/11/19 13:00
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 10/17/19 12:51
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	ND		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	ND		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	ND		ug/l	1.0	0.26	2
1,1,1-Trichloroethane	ND		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
1,3-Dichloropropene, Total	ND		ug/l	1.0	0.29	2
1,1-Dichloropropene	ND		ug/l	5.0	1.4	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	0.76	J	ug/l	1.0	0.32	2
Toluene	ND		ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	ND		ug/l	2.0	0.14	2
Chloroethane	ND		ug/l	5.0	1.4	2
1,1-Dichloroethene	ND		ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-03 D
Client ID: PCE-MW-A-20191011
Sample Location: YONKERS, NY

Date Collected: 10/11/19 13:00
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.69	J	ug/l	1.0	0.35	2
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl tert butyl ether	ND		ug/l	5.0	1.4	2
p/m-Xylene	ND		ug/l	5.0	1.4	2
o-Xylene	ND		ug/l	5.0	1.4	2
Xylenes, Total	ND		ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2
1,2-Dichloroethene, Total	ND		ug/l	5.0	1.4	2
Dibromomethane	ND		ug/l	10	2.0	2
1,2,3-Trichloropropane	ND		ug/l	5.0	1.4	2
Acrylonitrile	ND		ug/l	10	3.0	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	16		ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	6.4	J	ug/l	10	3.9	2
Vinyl acetate	ND		ug/l	10	2.0	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
2,2-Dichloropropane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
1,3-Dichloropropane	ND		ug/l	5.0	1.4	2
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	1.4	2
Bromobenzene	ND		ug/l	5.0	1.4	2
n-Butylbenzene	ND		ug/l	5.0	1.4	2
sec-Butylbenzene	ND		ug/l	5.0	1.4	2
tert-Butylbenzene	ND		ug/l	5.0	1.4	2
o-Chlorotoluene	ND		ug/l	5.0	1.4	2
p-Chlorotoluene	ND		ug/l	5.0	1.4	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Hexachlorobutadiene	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
p-Isopropyltoluene	ND		ug/l	5.0	1.4	2
Naphthalene	16		ug/l	5.0	1.4	2

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-03 D
Client ID: PCE-MW-A-20191011
Sample Location: YONKERS, NY

Date Collected: 10/11/19 13:00
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	5.0	1.4	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,3,5-Trimethylbenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trimethylbenzene	1.5	J	ug/l	5.0	1.4	2
1,4-Dioxane	ND		ug/l	500	120	2
p-Diethylbenzene	ND		ug/l	4.0	1.4	2
p-Ethyltoluene	ND		ug/l	4.0	1.4	2
1,2,4,5-Tetramethylbenzene	ND		ug/l	4.0	1.1	2
Ethyl ether	ND		ug/l	5.0	1.4	2
trans-1,4-Dichloro-2-butene	ND		ug/l	5.0	1.4	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	99		70-130

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/17/19 08:27
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1297460-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/17/19 08:27
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1297460-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: PCE
Project Number: 180132
Lab Number: L1947800
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/17/19 08:27
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1297460-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	94		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: PCE

Project Number: 180132

Lab Number: L1947800

Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1297460-3 WG1297460-4								
Methylene chloride	92		93		70-130	1		20
1,1-Dichloroethane	99		100		70-130	1		20
Chloroform	88		88		70-130	0		20
Carbon tetrachloride	79		81		63-132	3		20
1,2-Dichloropropane	99		100		70-130	1		20
Dibromochloromethane	84		83		63-130	1		20
1,1,2-Trichloroethane	94		95		70-130	1		20
Tetrachloroethene	91		88		70-130	3		20
Chlorobenzene	88		88		75-130	0		20
Trichlorofluoromethane	80		76		62-150	5		20
1,2-Dichloroethane	85		85		70-130	0		20
1,1,1-Trichloroethane	81		81		67-130	0		20
Bromodichloromethane	82		82		67-130	0		20
trans-1,3-Dichloropropene	82		79		70-130	4		20
cis-1,3-Dichloropropene	82		82		70-130	0		20
1,1-Dichloropropene	92		89		70-130	3		20
Bromoform	86		85		54-136	1		20
1,1,2,2-Tetrachloroethane	92		91		67-130	1		20
Benzene	91		88		70-130	3		20
Toluene	92		89		70-130	3		20
Ethylbenzene	89		88		70-130	1		20
Chloromethane	120		120		64-130	0		20
Bromomethane	74		72		39-139	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: PCE

Project Number: 180132

Lab Number: L1947800

Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1297460-3 WG1297460-4								
Vinyl chloride	99		100		55-140	1		20
Chloroethane	85		84		55-138	1		20
1,1-Dichloroethene	91		92		61-145	1		20
trans-1,2-Dichloroethene	89		90		70-130	1		20
Trichloroethene	86		84		70-130	2		20
1,2-Dichlorobenzene	89		87		70-130	2		20
1,3-Dichlorobenzene	90		88		70-130	2		20
1,4-Dichlorobenzene	88		88		70-130	0		20
Methyl tert butyl ether	80		80		63-130	0		20
p/m-Xylene	90		90		70-130	0		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	88		86		70-130	2		20
1,2,3-Trichloropropane	97		95		64-130	2		20
Acrylonitrile	120		120		70-130	0		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	84		85		36-147	1		20
Acetone	94		100		58-148	6		20
Carbon disulfide	96		94		51-130	2		20
2-Butanone	88		98		63-138	11		20
Vinyl acetate	90		91		70-130	1		20
4-Methyl-2-pentanone	91		90		59-130	1		20
2-Hexanone	85		87		57-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: PCE

Project Number: 180132

Lab Number: L1947800

Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1297460-3 WG1297460-4								
Bromochloromethane	95		92		70-130	3		20
2,2-Dichloropropane	84		80		63-133	5		20
1,2-Dibromoethane	88		87		70-130	1		20
1,3-Dichloropropane	92		91		70-130	1		20
1,1,1,2-Tetrachloroethane	86		84		64-130	2		20
Bromobenzene	86		86		70-130	0		20
n-Butylbenzene	92		87		53-136	6		20
sec-Butylbenzene	90		88		70-130	2		20
tert-Butylbenzene	74		73		70-130	1		20
o-Chlorotoluene	89		86		70-130	3		20
p-Chlorotoluene	89		87		70-130	2		20
1,2-Dibromo-3-chloropropane	86		83		41-144	4		20
Hexachlorobutadiene	86		84		63-130	2		20
Isopropylbenzene	86		86		70-130	0		20
p-Isopropyltoluene	88		86		70-130	2		20
Naphthalene	76		74		70-130	3		20
n-Propylbenzene	90		88		69-130	2		20
1,2,3-Trichlorobenzene	83		81		70-130	2		20
1,2,4-Trichlorobenzene	81		80		70-130	1		20
1,3,5-Trimethylbenzene	87		86		64-130	1		20
1,2,4-Trimethylbenzene	87		85		70-130	2		20
1,4-Dioxane	124		130		56-162	5		20
p-Diethylbenzene	85		83		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: PCE

Project Number: 180132

Lab Number: L1947800

Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1297460-3 WG1297460-4								
p-Ethyltoluene	87		86		70-130	1		20
1,2,4,5-Tetramethylbenzene	78		76		70-130	3		20
Ethyl ether	100		98		59-134	2		20
trans-1,4-Dichloro-2-butene	94		92		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	89		91		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	94		93		70-130
Dibromofluoromethane	96		97		70-130

SEMIVOLATILES

Project Name: PCE
Project Number: 180132
Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-01
Client ID: FIELD BLANK-20191011
Sample Location: YONKERS, NY

Date Collected: 10/11/19 10:15
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 10/18/19 11:38
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 07:13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-01 Date Collected: 10/11/19 10:15

Client ID: FIELD BLANK-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	45		23-120
2-Fluorobiphenyl	46		15-120
2,4,6-Tribromophenol	41		10-120
4-Terphenyl-d14	46		41-149

Project Name: PCE
Project Number: 180132
Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-01
Client ID: FIELD BLANK-20191011
Sample Location: YONKERS, NY

Date Collected: 10/11/19 10:15
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 10/18/19 13:04
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 07:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	0.03	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-01 Date Collected: 10/11/19 10:15

Client ID: FIELD BLANK-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		21-120
Phenol-d6	48		10-120
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	71		15-120
2,4,6-Tribromophenol	65		10-120
4-Terphenyl-d14	73		41-149

Project Name: PCE
Project Number: 180132
Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-01
Client ID: FIELD BLANK-20191011
Sample Location: YONKERS, NY

Date Collected: 10/11/19 10:15
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 10/25/19 11:28
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 20:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	139	31.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	41		15-110

Project Name: PCE
Project Number: 180132
Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-02
Client ID: PCE-MW-B-20191011
Sample Location: YONKERS, NY

Date Collected: 10/11/19 11:25
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 10/18/19 12:05
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 07:13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-02 Date Collected: 10/11/19 11:25

Client ID: PCE-MW-B-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		21-120
Phenol-d6	53		10-120
Nitrobenzene-d5	50		23-120
2-Fluorobiphenyl	49		15-120
2,4,6-Tribromophenol	67		10-120
4-Terphenyl-d14	52		41-149

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-02
Client ID: PCE-MW-B-20191011
Sample Location: YONKERS, NY

Date Collected: 10/11/19 11:25
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 10/18/19 13:20
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 07:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.16		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.17		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.12		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.04	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.05	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.02	J	ug/l	0.10	0.01	1
Chrysene	0.08	J	ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.03	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.04	J	ug/l	0.10	0.01	1
Phenanthrene	0.03	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.32		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-02 Date Collected: 10/11/19 11:25

Client ID: PCE-MW-B-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		21-120
Phenol-d6	53		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	82		15-120
2,4,6-Tribromophenol	85		10-120
4-Terphenyl-d14	84		41-149

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-02 D
Client ID: PCE-MW-B-20191011
Sample Location: YONKERS, NY

Date Collected: 10/11/19 11:25
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 10/25/19 12:33
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 20:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	505000		ng/l	278	62.8	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	41		15-110

Project Name: PCE
Project Number: 180132
Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-03
Client ID: PCE-MW-A-20191011
Sample Location: YONKERS, NY

Date Collected: 10/11/19 13:00
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 10/18/19 12:32
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 07:13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-03 Date Collected: 10/11/19 13:00

Client ID: PCE-MW-A-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	1.0	J	ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	2.8	J	ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	61		10-120
Nitrobenzene-d5	54		23-120
2-Fluorobiphenyl	51		15-120
2,4,6-Tribromophenol	72		10-120
4-Terphenyl-d14	52		41-149

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-03
Client ID: PCE-MW-A-20191011
Sample Location: YONKERS, NY

Date Collected: 10/11/19 13:00
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 10/18/19 13:36
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 07:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.92		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.21		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.13		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.07	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.08	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.03	J	ug/l	0.10	0.01	1
Chrysene	0.12		ug/l	0.10	0.01	1
Acenaphthylene	0.39		ug/l	0.10	0.01	1
Anthracene	0.16		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.04	J	ug/l	0.10	0.01	1
Fluorene	0.11		ug/l	0.10	0.01	1
Phenanthrene	0.03	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.04	J	ug/l	0.10	0.01	1
Pyrene	1.4		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.05	J	ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-03 Date Collected: 10/11/19 13:00

Client ID: PCE-MW-A-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		21-120
Phenol-d6	59		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	85		15-120
2,4,6-Tribromophenol	88		10-120
4-Terphenyl-d14	82		41-149

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-03
Client ID: PCE-MW-A-20191011
Sample Location: YONKERS, NY

Date Collected: 10/11/19 13:00
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 10/25/19 12:12
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 20:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	10800		ng/l	163	36.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	44		15-110

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 10/18/19 09:52
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 17:15

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1297593-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 10/18/19 09:52
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 17:15

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1297593-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 10/18/19 09:52
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 17:15

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1297593-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	56		15-120
2,4,6-Tribromophenol	59		10-120
4-Terphenyl-d14	57		41-149

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 10/18/19 11:13
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 17:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-03 Batch: WG1297595-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 10/18/19 11:13
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 17:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-03 Batch: WG1297595-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	90		15-120
2,4,6-Tribromophenol	79		10-120
4-Terphenyl-d14	98		41-149

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 10/25/19 03:58
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 20:30

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01-03 Batch: WG1297606-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	34		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: PCE

Project Number: 180132

Lab Number: L1947800

Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1297593-2 WG1297593-3								
Acenaphthene	81		76		37-111	6		30
1,2,4-Trichlorobenzene	74		77		39-98	4		30
Hexachlorobenzene	78		74		40-140	5		30
Bis(2-chloroethyl)ether	78		78		40-140	0		30
2-Chloronaphthalene	76		71		40-140	7		30
1,2-Dichlorobenzene	75		73		40-140	3		30
1,3-Dichlorobenzene	76		72		40-140	5		30
1,4-Dichlorobenzene	74		72		36-97	3		30
3,3'-Dichlorobenzidine	73		69		40-140	6		30
2,4-Dinitrotoluene	78		76		48-143	3		30
2,6-Dinitrotoluene	73		76		40-140	4		30
Fluoranthene	83		80		40-140	4		30
4-Chlorophenyl phenyl ether	79		76		40-140	4		30
4-Bromophenyl phenyl ether	79		72		40-140	9		30
Bis(2-chloroisopropyl)ether	76		76		40-140	0		30
Bis(2-chloroethoxy)methane	78		78		40-140	0		30
Hexachlorobutadiene	74		70		40-140	6		30
Hexachlorocyclopentadiene	61		61		40-140	0		30
Hexachloroethane	73		71		40-140	3		30
Isophorone	81		82		40-140	1		30
Naphthalene	76		75		40-140	1		30
Nitrobenzene	79		79		40-140	0		30
NDPA/DPA	82		79		40-140	4		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1297593-2 WG1297593-3								
n-Nitrosodi-n-propylamine	82		81		29-132	1		30
Bis(2-ethylhexyl)phthalate	70		66		40-140	6		30
Butyl benzyl phthalate	72		67		40-140	7		30
Di-n-butylphthalate	73		70		40-140	4		30
Di-n-octylphthalate	63		64		40-140	2		30
Diethyl phthalate	82		76		40-140	8		30
Dimethyl phthalate	74		71		40-140	4		30
Benzo(a)anthracene	84		85		40-140	1		30
Benzo(a)pyrene	70		70		40-140	0		30
Benzo(b)fluoranthene	74		75		40-140	1		30
Benzo(k)fluoranthene	82		84		40-140	2		30
Chrysene	78		78		40-140	0		30
Acenaphthylene	76		74		45-123	3		30
Anthracene	81		81		40-140	0		30
Benzo(ghi)perylene	82		84		40-140	2		30
Fluorene	82		78		40-140	5		30
Phenanthrene	81		78		40-140	4		30
Dibenzo(a,h)anthracene	76		76		40-140	0		30
Indeno(1,2,3-cd)pyrene	78		81		40-140	4		30
Pyrene	79		75		26-127	5		30
Biphenyl	77		72		40-140	7		30
4-Chloroaniline	70		68		40-140	3		30
2-Nitroaniline	73		72		52-143	1		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1297593-2 WG1297593-3								
3-Nitroaniline	73		69		25-145	6		30
4-Nitroaniline	70		65		51-143	7		30
Dibenzofuran	80		73		40-140	9		30
2-Methylnaphthalene	78		76		40-140	3		30
1,2,4,5-Tetrachlorobenzene	74		72		2-134	3		30
Acetophenone	80		78		39-129	3		30
2,4,6-Trichlorophenol	76		74		30-130	3		30
p-Chloro-m-cresol	82		78		23-97	5		30
2-Chlorophenol	81		82		27-123	1		30
2,4-Dichlorophenol	82		79		30-130	4		30
2,4-Dimethylphenol	80		60		30-130	29		30
2-Nitrophenol	77		78		30-130	1		30
4-Nitrophenol	70		65		10-80	7		30
2,4-Dinitrophenol	66		69		20-130	4		30
4,6-Dinitro-o-cresol	72		74		20-164	3		30
Pentachlorophenol	74		69		9-103	7		30
Phenol	57		59		12-110	3		30
2-Methylphenol	79		76		30-130	4		30
3-Methylphenol/4-Methylphenol	82		80		30-130	2		30
2,4,5-Trichlorophenol	75		75		30-130	0		30
Benzoic Acid	45		53		10-164	16		30
Benzyl Alcohol	75		74		26-116	1		30
Carbazole	79		79		55-144	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: PCE

Project Number: 180132

Lab Number: L1947800

Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1297593-2 WG1297593-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	71		72		21-120
Phenol-d6	60		61		10-120
Nitrobenzene-d5	66		66		23-120
2-Fluorobiphenyl	60		60		15-120
2,4,6-Tribromophenol	79		79		10-120
4-Terphenyl-d14	60		60		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG1297595-2 WG1297595-3								
Acenaphthene	100		98		40-140	2		40
2-Chloronaphthalene	101		97		40-140	4		40
Fluoranthene	109		106		40-140	3		40
Hexachlorobutadiene	107		104		40-140	3		40
Naphthalene	93		92		40-140	1		40
Benzo(a)anthracene	108		104		40-140	4		40
Benzo(a)pyrene	110		106		40-140	4		40
Benzo(b)fluoranthene	114		109		40-140	4		40
Benzo(k)fluoranthene	116		114		40-140	2		40
Chrysene	107		105		40-140	2		40
Acenaphthylene	95		86		40-140	10		40
Anthracene	107		103		40-140	4		40
Benzo(ghi)perylene	110		109		40-140	1		40
Fluorene	104		102		40-140	2		40
Phenanthrene	103		101		40-140	2		40
Dibenzo(a,h)anthracene	114		113		40-140	1		40
Indeno(1,2,3-cd)pyrene	112		112		40-140	0		40
Pyrene	108		105		40-140	3		40
2-Methylnaphthalene	97		95		40-140	2		40
Pentachlorophenol	85		78		40-140	9		40
Hexachlorobenzene	110		106		40-140	4		40
Hexachloroethane	88		88		40-140	0		40

Lab Control Sample Analysis
Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG1297595-2 WG1297595-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	69		67		21-120
Phenol-d6	57		56		10-120
Nitrobenzene-d5	90		87		23-120
2-Fluorobiphenyl	99		94		15-120
2,4,6-Tribromophenol	95		89		10-120
4-Terphenyl-d14	103		98		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: PCE

Project Number: 180132

Lab Number: L1947800

Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab	Associated sample(s): 01-03		Batch: WG1297606-2 WG1297606-3					
1,4-Dioxane	109		104		40-140	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	33		34		15-110

METALS

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-01 Date Collected: 10/11/19 10:15

Client ID: FIELD BLANK-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Barium, Total	0.00213		mg/l	0.00050	0.00017	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Calcium, Total	ND		mg/l	0.100	0.0394	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Chromium, Total	0.00041	J	mg/l	0.00100	0.00017	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Copper, Total	0.00128		mg/l	0.00100	0.00038	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Iron, Total	ND		mg/l	0.0500	0.0191	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	10/16/19 12:50	10/16/19 19:36	EPA 7470A	1,7470A	AL
Nickel, Total	ND		mg/l	0.00200	0.00055	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Sodium, Total	0.164		mg/l	0.100	0.0293	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Thallium, Total	0.00026	J	mg/l	0.00100	0.00014	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	10/16/19 20:54	10/17/19 10:38	EPA 3005A	1,6020B	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Antimony, Dissolved	ND		mg/l	0.00400	0.00042	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.00742		mg/l	0.00050	0.00017	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM

Project Name: PCE
Project Number: 180132
Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-01
Client ID: FIELD BLANK-20191011
Sample Location: YONKERS, NY
Sample Depth:
Matrix: Water

Date Collected: 10/11/19 10:15
Date Received: 10/11/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Calcium, Dissolved	0.256		mg/l	0.100	0.0394	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00046	J	mg/l	0.00100	0.00017	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Iron, Dissolved	ND		mg/l	0.0500	0.0191	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	ND		mg/l	0.0700	0.0242	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	10/17/19 11:31	10/17/19 20:28	EPA 7470A	1,7470A	AL
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Potassium, Dissolved	ND		mg/l	0.100	0.0309	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Sodium, Dissolved	1.96		mg/l	0.100	0.0293	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	10/16/19 19:01	10/17/19 00:23	EPA 3005A	1,6020B	AM

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-02 Date Collected: 10/11/19 11:25

Client ID: PCE-MW-B-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0698		mg/l	0.0100	0.00327	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00313		mg/l	0.00050	0.00016	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Barium, Total	0.08022		mg/l	0.00050	0.00017	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Calcium, Total	70.2		mg/l	0.100	0.0394	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Chromium, Total	0.00060	J	mg/l	0.00100	0.00017	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00062		mg/l	0.00050	0.00016	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Copper, Total	0.00054	J	mg/l	0.00100	0.00038	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Iron, Total	2.22		mg/l	0.0500	0.0191	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Lead, Total	0.00145		mg/l	0.00100	0.00034	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Magnesium, Total	13.6		mg/l	0.0700	0.0242	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Manganese, Total	0.2972		mg/l	0.00100	0.00044	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	10/16/19 12:50	10/16/19 19:37	EPA 7470A	1,7470A	AL
Nickel, Total	0.00065	J	mg/l	0.00200	0.00055	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Potassium, Total	31.0		mg/l	0.100	0.0309	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Sodium, Total	154.		mg/l	0.100	0.0293	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00100	0.00014	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Zinc, Total	0.00359	J	mg/l	0.01000	0.00341	1	10/16/19 20:54	10/17/19 12:09	EPA 3005A	1,6020B	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00428	J	mg/l	0.0100	0.00327	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Antimony, Dissolved	ND		mg/l	0.00400	0.00042	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00288		mg/l	0.00050	0.00016	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.06780		mg/l	0.00050	0.00017	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-02 Date Collected: 10/11/19 11:25

Client ID: PCE-MW-B-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Calcium, Dissolved	75.5		mg/l	0.100	0.0394	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00023	J	mg/l	0.00100	0.00017	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00043	J	mg/l	0.00050	0.00016	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.128		mg/l	0.0500	0.0191	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	13.5		mg/l	0.0700	0.0242	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.2923		mg/l	0.00100	0.00044	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	10/17/19 11:31	10/17/19 20:33	EPA 7470A	1,7470A	AL
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Potassium, Dissolved	31.9		mg/l	0.100	0.0309	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Sodium, Dissolved	158.		mg/l	0.100	0.0293	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	10/16/19 19:01	10/17/19 01:47	EPA 3005A	1,6020B	AM

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-03 Date Collected: 10/11/19 13:00

Client ID: PCE-MW-A-20191011 Date Received: 10/11/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	2.17		mg/l	0.0100	0.00327	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Antimony, Total	0.00229	J	mg/l	0.00400	0.00042	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Arsenic, Total	0.01522		mg/l	0.00050	0.00016	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Barium, Total	0.02981		mg/l	0.00050	0.00017	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00019	J	mg/l	0.00020	0.00005	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Calcium, Total	61.6		mg/l	0.100	0.0394	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Chromium, Total	0.00407		mg/l	0.00100	0.00017	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00143		mg/l	0.00050	0.00016	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Copper, Total	0.02225		mg/l	0.00100	0.00038	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Iron, Total	1.05		mg/l	0.0500	0.0191	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Lead, Total	0.01717		mg/l	0.00100	0.00034	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Magnesium, Total	0.255		mg/l	0.0700	0.0242	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Manganese, Total	0.01752		mg/l	0.00100	0.00044	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	10/16/19 12:50	10/16/19 19:39	EPA 7470A	1,7470A	AL
Nickel, Total	0.01040		mg/l	0.00200	0.00055	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Potassium, Total	33.8		mg/l	0.100	0.0309	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Selenium, Total	0.00995		mg/l	0.00500	0.00173	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Sodium, Total	269.		mg/l	0.100	0.0293	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00100	0.00014	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Vanadium, Total	0.04035		mg/l	0.00500	0.00157	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Zinc, Total	0.02695		mg/l	0.01000	0.00341	1	10/16/19 20:54	10/17/19 11:10	EPA 3005A	1,6020B	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	1.45		mg/l	0.0100	0.00327	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00077	J	mg/l	0.00400	0.00042	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.01731		mg/l	0.00050	0.00016	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.03112		mg/l	0.00050	0.00017	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM

Project Name: PCE
Project Number: 180132
Lab Number: L1947800
Report Date: 10/25/19

SAMPLE RESULTS

Lab ID: L1947800-03
Client ID: PCE-MW-A-20191011
Sample Location: YONKERS, NY
Date Collected: 10/11/19 13:00
Date Received: 10/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	0.00009	J	mg/l	0.00020	0.00005	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Calcium, Dissolved	56.5		mg/l	0.100	0.0394	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00101		mg/l	0.00100	0.00017	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00105		mg/l	0.00050	0.00016	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.00745		mg/l	0.00100	0.00038	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.0823		mg/l	0.0500	0.0191	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.00357		mg/l	0.00100	0.00034	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	0.0334	J	mg/l	0.0700	0.0242	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.00107		mg/l	0.00100	0.00044	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	10/17/19 11:31	10/17/19 20:34	EPA 7470A	1,7470A	AL
Nickel, Dissolved	0.00874		mg/l	0.00200	0.00055	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Potassium, Dissolved	28.8		mg/l	0.100	0.0309	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Selenium, Dissolved	0.00919		mg/l	0.00500	0.00173	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Sodium, Dissolved	272.		mg/l	0.100	0.0293	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	0.02685		mg/l	0.00500	0.00157	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	10/16/19 19:01	10/17/19 01:52	EPA 3005A	1,6020B	AM

Project Name: PCE **Lab Number:** L1947800

Project Number: 180132 **Report Date:** 10/25/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1296926-1										
Mercury, Total	ND		mg/l	0.00020	0.00009	1	10/16/19 12:50	10/16/19 19:23	1,7470A	AL

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1297002-1										
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Antimony, Dissolved	ND		mg/l	0.00400	0.00042	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Barium, Dissolved	ND		mg/l	0.00050	0.00017	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Calcium, Dissolved	ND		mg/l	0.100	0.0394	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Iron, Dissolved	ND		mg/l	0.0500	0.0191	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Magnesium, Dissolved	ND		mg/l	0.0700	0.0242	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Potassium, Dissolved	ND		mg/l	0.100	0.0309	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Sodium, Dissolved	0.0460	J	mg/l	0.100	0.0293	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	10/16/19 19:01	10/16/19 23:12	1,6020B	AM

Project Name: PCE
Project Number: 180132
Lab Number: L1947800
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1297157-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Barium, Total	ND		mg/l	0.00050	0.00017	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Calcium, Total	ND		mg/l	0.100	0.0394	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Copper, Total	ND		mg/l	0.00100	0.00038	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Iron, Total	0.0207	J	mg/l	0.0500	0.0191	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Nickel, Total	ND		mg/l	0.00200	0.00055	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Sodium, Total	ND		mg/l	0.100	0.0293	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Thallium, Total	0.00046	J	mg/l	0.00100	0.00014	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	10/16/19 20:54	10/17/19 09:37	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1297430-1										
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	10/17/19 11:31	10/17/19 20:24	1,7470A	AL

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: PCE

Project Number: 180132

Lab Number: L1947800

Report Date: 10/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1296926-2								
Mercury, Total	102		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: PCE

Project Number: 180132

Lab Number: L1947800

Report Date: 10/25/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1297002-2					
Aluminum, Dissolved	96	-	80-120	-	
Antimony, Dissolved	87	-	80-120	-	
Arsenic, Dissolved	94	-	80-120	-	
Barium, Dissolved	100	-	80-120	-	
Beryllium, Dissolved	88	-	80-120	-	
Cadmium, Dissolved	97	-	80-120	-	
Calcium, Dissolved	86	-	80-120	-	
Chromium, Dissolved	94	-	80-120	-	
Cobalt, Dissolved	96	-	80-120	-	
Copper, Dissolved	91	-	80-120	-	
Iron, Dissolved	101	-	80-120	-	
Lead, Dissolved	111	-	80-120	-	
Magnesium, Dissolved	88	-	80-120	-	
Manganese, Dissolved	97	-	80-120	-	
Nickel, Dissolved	93	-	80-120	-	
Potassium, Dissolved	86	-	80-120	-	
Selenium, Dissolved	100	-	80-120	-	
Silver, Dissolved	97	-	80-120	-	
Sodium, Dissolved	88	-	80-120	-	
Thallium, Dissolved	111	-	80-120	-	
Vanadium, Dissolved	95	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1297002-2					
Zinc, Dissolved	95	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: PCE

Project Number: 180132

Lab Number: L1947800

Report Date: 10/25/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1297157-2					
Aluminum, Total	112	-	80-120	-	
Antimony, Total	86	-	80-120	-	
Arsenic, Total	111	-	80-120	-	
Barium, Total	111	-	80-120	-	
Beryllium, Total	108	-	80-120	-	
Cadmium, Total	112	-	80-120	-	
Calcium, Total	106	-	80-120	-	
Chromium, Total	107	-	80-120	-	
Cobalt, Total	106	-	80-120	-	
Copper, Total	102	-	80-120	-	
Iron, Total	116	-	80-120	-	
Lead, Total	112	-	80-120	-	
Magnesium, Total	106	-	80-120	-	
Manganese, Total	107	-	80-120	-	
Nickel, Total	107	-	80-120	-	
Potassium, Total	106	-	80-120	-	
Selenium, Total	113	-	80-120	-	
Silver, Total	105	-	80-120	-	
Sodium, Total	103	-	80-120	-	
Thallium, Total	117	-	80-120	-	
Vanadium, Total	109	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1297157-2					
Zinc, Total	113	-	80-120	-	
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1297430-2					
Mercury, Dissolved	84	-	80-120	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1296926-3 QC Sample: L1946262-01 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.00477	95		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1297002-3 QC Sample: L1947799-01 Client ID: MS Sample										
Aluminum, Dissolved	ND	2	1.82	91		-	-	75-125	-	20
Antimony, Dissolved	ND	0.5	0.4803	96		-	-	75-125	-	20
Arsenic, Dissolved	0.00323J	0.12	0.1268	106		-	-	75-125	-	20
Barium, Dissolved	0.2445	2	2.181	97		-	-	75-125	-	20
Beryllium, Dissolved	ND	0.05	0.04550	91		-	-	75-125	-	20
Cadmium, Dissolved	ND	0.051	0.05284	104		-	-	75-125	-	20
Calcium, Dissolved	322.	10	310	**0**	Q	-	-	75-125	-	20
Chromium, Dissolved	0.01764	0.2	0.1914	87		-	-	75-125	-	20
Cobalt, Dissolved	ND	0.5	0.4599	92		-	-	75-125	-	20
Copper, Dissolved	0.01102	0.25	0.2289	87		-	-	75-125	-	20
Iron, Dissolved	ND	1	1.17	117		-	-	75-125	-	20
Lead, Dissolved	ND	0.51	0.5504	108		-	-	75-125	-	20
Magnesium, Dissolved	334.	10	308	**0**	Q	-	-	75-125	-	20
Manganese, Dissolved	ND	0.5	0.4614	92		-	-	75-125	-	20
Nickel, Dissolved	ND	0.5	0.4354	87		-	-	75-125	-	20
Potassium, Dissolved	119.	10	121	**20**	Q	-	-	75-125	-	20
Selenium, Dissolved	ND	0.12	0.132	110		-	-	75-125	-	20
Silver, Dissolved	ND	0.05	0.04542	91		-	-	75-125	-	20
Sodium, Dissolved	3650	10	3410	**0**	Q	-	-	75-125	-	20
Thallium, Dissolved	ND	0.12	0.1090	91		-	-	75-125	-	20
Vanadium, Dissolved	ND	0.5	0.4460	89		-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1297002-3 QC Sample: L1947799-01 Client ID: MS Sample									
Zinc, Dissolved	ND	0.5	0.5060	101	-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1297157-3 QC Sample: L1947799-01 Client ID: MS Sample										
Aluminum, Total	0.0814J	2	2.25	112		-	-	75-125	-	20
Antimony, Total	0.01117J	0.5	0.6416	**128**	Q	-	-	75-125	-	20
Arsenic, Total	0.00445J	0.12	0.1446	120		-	-	75-125	-	20
Barium, Total	0.2070	2	2.549	117		-	-	75-125	-	20
Beryllium, Total	ND	0.05	0.05497	110		-	-	75-125	-	20
Cadmium, Total	ND	0.051	0.06056	119		-	-	75-125	-	20
Calcium, Total	321.	10	346	**250**	Q	-	-	75-125	-	20
Chromium, Total	0.01426	0.2	0.2294	108		-	-	75-125	-	20
Cobalt, Total	ND	0.5	0.5205	104		-	-	75-125	-	20
Copper, Total	0.01116	0.25	0.2668	102		-	-	75-125	-	20
Iron, Total	0.284J	1	1.37	**137**	Q	-	-	75-125	-	20
Lead, Total	ND	0.51	0.5757	113		-	-	75-125	-	20
Magnesium, Total	358.	10	371	**130**	Q	-	-	75-125	-	20
Manganese, Total	0.00820J	0.5	0.5363	107		-	-	75-125	-	20
Nickel, Total	ND	0.5	0.5238	105		-	-	75-125	-	20
Potassium, Total	123.	10	136	**130**	Q	-	-	75-125	-	20
Selenium, Total	ND	0.12	0.156	**130**	Q	-	-	75-125	-	20
Silver, Total	ND	0.05	0.05095	102		-	-	75-125	-	20
Sodium, Total	3740	10	3800	**600**	Q	-	-	75-125	-	20
Thallium, Total	0.00300J	0.12	0.1424	119		-	-	75-125	-	20
Vanadium, Total	ND	0.5	0.5310	106		-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1297157-3 QC Sample: L1947799-01 Client ID: MS Sample									
Zinc, Total	ND	0.5	0.6136	123	-	-	75-125	-	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1297430-3 QC Sample: L1947800-01 Client ID: FIELD BLANK-20191011									
Mercury, Dissolved	ND	0.005	0.00508	102	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1296926-4 QC Sample: L1946262-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1297002-4 QC Sample: L1947799-01 Client ID: DUP Sample					
Aluminum, Dissolved	ND	ND	mg/l	NC	20
Antimony, Dissolved	ND	0.02724J	mg/l	NC	20
Arsenic, Dissolved	0.00323J	0.00343J	mg/l	NC	20
Barium, Dissolved	0.2445	0.2412	mg/l	1	20
Beryllium, Dissolved	ND	ND	mg/l	NC	20
Cadmium, Dissolved	ND	ND	mg/l	NC	20
Calcium, Dissolved	322.	315	mg/l	2	20
Chromium, Dissolved	0.01764	0.01574	mg/l	11	20
Cobalt, Dissolved	ND	ND	mg/l	NC	20
Copper, Dissolved	0.01102	0.01157	mg/l	5	20
Iron, Dissolved	ND	ND	mg/l	NC	20
Lead, Dissolved	ND	ND	mg/l	NC	20
Magnesium, Dissolved	334.	332	mg/l	1	20
Manganese, Dissolved	ND	ND	mg/l	NC	20
Nickel, Dissolved	ND	ND	mg/l	NC	20
Potassium, Dissolved	119.	117	mg/l	2	20
Selenium, Dissolved	ND	ND	mg/l	NC	20
Silver, Dissolved	ND	ND	mg/l	NC	20
Sodium, Dissolved	3650	3620	mg/l	1	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: PCE

Project Number: 180132

Lab Number: L1947800

Report Date: 10/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1297002-4 QC Sample: L1947799-01 Client ID: DUP Sample					
Thallium, Dissolved	ND	ND	mg/l	NC	20
Vanadium, Dissolved	ND	ND	mg/l	NC	20
Zinc, Dissolved	ND	ND	mg/l	NC	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1297157-4 QC Sample: L1947799-01 Client ID: DUP Sample					
Aluminum, Total	0.0814J	0.0838J	mg/l	NC	20
Antimony, Total	0.01117J	0.02535J	mg/l	NC	20
Arsenic, Total	0.00445J	0.00386J	mg/l	NC	20
Barium, Total	0.2070	0.1966	mg/l	5	20
Beryllium, Total	ND	ND	mg/l	NC	20
Cadmium, Total	ND	ND	mg/l	NC	20
Calcium, Total	321.	315	mg/l	2	20
Chromium, Total	0.01426	0.01386	mg/l	3	20
Cobalt, Total	ND	ND	mg/l	NC	20
Copper, Total	0.01116	0.01100	mg/l	1	20
Iron, Total	0.284J	0.466J	mg/l	NC	20
Lead, Total	ND	ND	mg/l	NC	20
Magnesium, Total	358.	344	mg/l	4	20
Manganese, Total	0.00820J	0.00818J	mg/l	NC	20
Nickel, Total	ND	ND	mg/l	NC	20
Potassium, Total	123.	120	mg/l	2	20
Selenium, Total	ND	ND	mg/l	NC	20
Silver, Total	ND	ND	mg/l	NC	20
Sodium, Total	3740	3660	mg/l	2	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1297157-4 QC Sample: L1947799-01 Client ID: DUP Sample					
Thallium, Total	0.00300J	0.00736J	mg/l	NC	20
Vanadium, Total	ND	ND	mg/l	NC	20
Zinc, Total	ND	ND	mg/l	NC	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1297430-4 QC Sample: L1947800-01 Client ID: FIELD BLANK-20191011					
Mercury, Dissolved	ND	ND	mg/l	NC	20

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1947800-01A	Vial HCl preserved	B	NA		4.3	Y	Absent		NYTCL-8260(14)
L1947800-01B	Vial HCl preserved	B	NA		4.3	Y	Absent		NYTCL-8260(14)
L1947800-01C	Vial HCl preserved	B	NA		4.3	Y	Absent		NYTCL-8260(14)
L1947800-01D	Plastic 250ml unpreserved	B	7	7	4.3	Y	Absent		-
L1947800-01E	Plastic 250ml HNO3 preserved	B	<2	<2	4.3	Y	Absent		FE-6020T(180),BA-6020T(180),TL-6020T(180),SE-6020T(180),NI-6020T(180),CA-6020T(180),K-6020T(180),CR-6020T(180),CU-6020T(180),ZN-6020T(180),NA-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),V-6020T(180),AS-6020T(180),SB-6020T(180),HG-T(28),MG-6020T(180),AG-6020T(180),CD-6020T(180),AL-6020T(180),CO-6020T(180)
L1947800-01F	Amber 250ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1947800-01G	Amber 250ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1947800-01H	Amber 250ml unpreserved	B	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1947800-01I	Amber 250ml unpreserved	B	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1947800-01X	Plastic 120ml HNO3 preserved Filtrates	B	NA		4.3	Y	Absent		V-6020S(180),CU-6020S(180),K-6020S(180),SE-6020S(180),MN-6020S(180),CO-6020S(180),ZN-6020S(180),BE-6020S(180),MG-6020S(180),FE-6020S(180),CA-6020S(180),CR-6020S(180),PB-6020S(180),TL-6020S(180),BA-6020S(180),NI-6020S(180),NA-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1947800-02A	Vial HCl preserved	B	NA		4.3	Y	Absent		NYTCL-8260(14)
L1947800-02B	Vial HCl preserved	B	NA		4.3	Y	Absent		NYTCL-8260(14)
L1947800-02C	Vial HCl preserved	B	NA		4.3	Y	Absent		NYTCL-8260(14)
L1947800-02D	Plastic 250ml unpreserved	B	7	7	4.3	Y	Absent		-

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1947800-02E	Plastic 250ml HNO3 preserved	B	<2	<2	4.3	Y	Absent		FE-6020T(180),TL-6020T(180),BA-6020T(180),SE-6020T(180),K-6020T(180),CA-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),MG-6020T(180),AG-6020T(180),CD-6020T(180),AL-6020T(180),HG-T(28),CO-6020T(180)
L1947800-02F	Amber 250ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1947800-02G	Amber 250ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1947800-02H	Amber 250ml unpreserved	B	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1947800-02I	Amber 250ml unpreserved	B	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1947800-02X	Plastic 120ml HNO3 preserved Filtrates	B	NA		4.3	Y	Absent		V-6020S(180),SE-6020S(180),K-6020S(180),CU-6020S(180),MN-6020S(180),BE-6020S(180),MG-6020S(180),CO-6020S(180),ZN-6020S(180),CA-6020S(180),FE-6020S(180),CR-6020S(180),NA-6020S(180),TL-6020S(180),PB-6020S(180),BA-6020S(180),NI-6020S(180),SB-6020S(180),AG-6020S(180),AS-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1947800-03A	Vial HCl preserved	B	NA		4.3	Y	Absent		NYTCL-8260(14)
L1947800-03B	Vial HCl preserved	B	NA		4.3	Y	Absent		NYTCL-8260(14)
L1947800-03C	Vial HCl preserved	B	NA		4.3	Y	Absent		NYTCL-8260(14)
L1947800-03D	Plastic 250ml unpreserved	B	7	7	4.3	Y	Absent		-
L1947800-03E	Plastic 250ml HNO3 preserved	B	<2	<2	4.3	Y	Absent		FE-6020T(180),SE-6020T(180),BA-6020T(180),TL-6020T(180),NI-6020T(180),CA-6020T(180),K-6020T(180),CR-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),CD-6020T(180),HG-T(28),AG-6020T(180),AL-6020T(180),MG-6020T(180),CO-6020T(180)
L1947800-03F	Amber 250ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1947800-03G	Amber 250ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1947800-03H	Amber 250ml unpreserved	B	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1947800-03I	Amber 250ml unpreserved	B	7	7	4.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)

*Values in parentheses indicate holding time in days

Project Name: PCE
Project Number: 180132

Lab Number: L1947800
Report Date: 10/25/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1947800-03X	Plastic 120ml HNO3 preserved Filtrates	B	NA		4.3	Y	Absent		CU-6020S(180),V-6020S(180),K-6020S(180),SE-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),ZN-6020S(180),MG-6020S(180),CR-6020S(180),FE-6020S(180),CA-6020S(180),TL-6020S(180),NA-6020S(180),NI-6020S(180),BA-6020S(180),PB-6020S(180),SB-6020S(180),AG-6020S(180),AS-6020S(180),HG-S(28),CD-6020S(180),AL-6020S(180)

*Values in parentheses indicate holding time in days

Project Name:	PCE	**Lab Number:**	L1947800
Project Number:	180132	**Report Date:**	10/25/19

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	PCE	**Lab Number:**	L1947800
Project Number:	180132	**Report Date:**	10/25/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	PCE	**Lab Number:**	L1947800
Project Number:	180132	**Report Date:**	10/25/19

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 10/12/19

ALPHA Job #: L1947800

Client Information
Client: AKRF, Inc.
Address: 440 Park Ave S. NY NY
Phone: 907-378-8737
Fax:
Email: pmchugh@akrf.com

Project Information
Project Name: PCE
Project Location: Yonkers NY
Project #: 180132
(Use Project name as Project #) ☐
Project Manager: Pat McHugh
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☒ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☒ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☒ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC	SVOC	metals (filtered)	metals (unfiltered)	1,4 dioxane				Total Bottle
47800-01	Field Blank-20191011	10/9/2019	1015	water	SS	X	X	X	X	X				
-02	PCE-MW-B-20191011	10/11/2019	1125	GW	SS	X	X	X	X	X				
-03	PCE-MW-A-20191011	↓	1355	GW	SS	X	X	X	X	X				

Sample Specific Comments

Container Type	V	A	D	D	D			
Preservative	B	A	A	C	A			

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	10/11/19 1500	AAL	10-11-19 15:00
	10-11-19 16:40	AAL	10/12/19 2100
AAL	10/12/19 0100		10/12/19 0600

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L1948207
Client:	AKRF, Inc. 34 South Broadway Suite 401 White Plains, NY 10601
ATTN:	Patrick McHugh
Phone:	(914) 922-2387
Project Name:	AVB-PCE
Project Number:	180132
Report Date:	10/30/19

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1948207-01	PCE-MW-C-20191015	WATER	YONKERS, NY	10/15/19 11:38	10/15/19
L1948207-02	PCE-MW-D-20191015	WATER	YONKERS, NY	10/15/19 13:12	10/15/19
L1948207-03	PCE-MW-X-20191015	WATER	YONKERS, NY	10/15/19 00:00	10/15/19
L1948207-06	TRIPBLANK-20191015	WATER	YONKERS, NY	10/15/19 00:00	10/15/19

Project Name:	AVB-PCE	**Lab Number:**	L1948207
Project Number:	180132	**Report Date:**	10/30/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: AVB-PCE **Lab Number:** L1948207
Project Number: 180132 **Report Date:** 10/30/19

Case Narrative (continued)

Report Submission

October 30, 2019: This final report includes the results of all requested analyses.

October 22, 2019: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The analyses performed were specified by the client.

L1948207-06: A Trip Blank was received, but not listed on the Chain of Custody. At the client's request, this Trip Blank was analyzed and reported as "TRIPBLANK-20191015".

Semivolatile Organics

The WG1297593-6/-7 MS/MSD recoveries, performed on L1948207-02, are below the acceptance criteria for 3,3'-dichlorobenzidine (0%/0%) due to the concentration of this compound falling below the reported detection limit.

Semivolatile Organics by SIM

L1948207-02 and -03: The sample has elevated detection limits due to the dilution required by the sample matrix.

WG1297595: An MS/MSD was not performed on L1948207-02 because the dilution required by the native sample would have caused the spike compounds to be diluted below the range of calibration.

1,4-Dioxane by 8270-SIM

The WG1298230-4/-5 MS/MSD recoveries, performed on L1948207-02, are outside the acceptance criteria for 1,4-dioxane (0%/0%). The unacceptable percent recoveries are attributed to the elevated concentrations of target compounds present in the native sample.

Project Name: AVB-PCE **Lab Number:** L1948207
Project Number: 180132 **Report Date:** 10/30/19

Case Narrative (continued)

Total Metals

The WG1297953-4 MSD recovery, performed on L1948207-02, is outside the acceptance criteria for mercury (130%). A post digestion spike was performed and yielded an unacceptable recovery for mercury (70%). This has been attributed to sample matrix.

The WG1298045-3/-4 MS/MSD recoveries, performed on L1948207-02, are outside the acceptance criteria for iron (154%/129%) and selenium (41%/74%). A post digestion spike was performed and was within acceptance criteria.

The WG1298045-3/-4 MS/MSD recoveries for sodium (50%/70%), performed on L1948207-02, do not apply because the sample concentration is greater than four times the spike amount added.

The WG1298045-3/-4 MS/MSD RPD for selenium (58%), performed on L1948207-02, is above the acceptance criteria.

Dissolved Metals

The WG1297954-3/-4 MS/MSD recoveries, performed on L1948207-02, are outside the acceptance criteria for mercury (135%/131%). A post digestion spike was performed and was within acceptance criteria.

The WG1298076-3/-4 MS/MSD recoveries for calcium (MSD at 135%) and sodium (10%/50%), performed on L1948207-02, do not apply because the sample concentrations are greater than four times the spike amounts added.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Lisa Westerlind

Title: Technical Director/Representative Date: 10/30/19

ORGANICS

VOLATILES

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-01
Client ID: PCE-MW-C-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 11:38
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 10/21/19 15:29
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.21	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-01 Date Collected: 10/15/19 11:38

Client ID: PCE-MW-C-20191015 Date Received: 10/15/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-01 Date Collected: 10/15/19 11:38

Client ID: PCE-MW-C-20191015 Date Received: 10/15/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	0.74	J	ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	104		70-130

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-02 D
Client ID: PCE-MW-D-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 13:12
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 10/21/19 15:52
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	11		ug/l	2.5	0.80	5
Toluene	10	J	ug/l	12	3.5	5
Ethylbenzene	8.5	J	ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	ND		ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	ND		ug/l	12	3.5	5

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-02 D
Client ID: PCE-MW-D-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 13:12
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	12		ug/l	12	3.5	5
o-Xylene	6.1	J	ug/l	12	3.5	5
Xylenes, Total	18	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	ND		ug/l	12	3.5	5
1,2-Dichloroethene, Total	ND		ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	28		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	1000		ug/l	12	3.5	5

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-02 D
Client ID: PCE-MW-D-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 13:12
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	5.7	J	ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	4.0	J	ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	ND		ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	104		70-130

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-03 D2
Client ID: PCE-MW-X-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 00:00
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 10/22/19 14:05
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Naphthalene	670		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	102		70-130

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-03 D
Client ID: PCE-MW-X-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 00:00
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 10/21/19 16:15
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	11		ug/l	2.5	0.80	5
Toluene	10	J	ug/l	12	3.5	5
Ethylbenzene	8.5	J	ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	ND		ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	ND		ug/l	12	3.5	5

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-03 D
Client ID: PCE-MW-X-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 00:00
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	13		ug/l	12	3.5	5
o-Xylene	6.3	J	ug/l	12	3.5	5
Xylenes, Total	19	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	ND		ug/l	12	3.5	5
1,2-Dichloroethene, Total	ND		ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	24	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	1100	E	ug/l	12	3.5	5

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-03 D
Client ID: PCE-MW-X-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 00:00
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	5.7	J	ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	4.1	J	ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	ND		ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	101		70-130

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-06
Client ID: TRIPBLANK-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 00:00
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 10/21/19 15:06
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-06 Date Collected: 10/15/19 00:00

Client ID: TRIPBLANK-20191015 Date Received: 10/15/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-06 Date Collected: 10/15/19 00:00

Client ID: TRIPBLANK-20191015 Date Received: 10/15/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	103		70-130

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/21/19 08:25
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,06 Batch: WG1298702-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/21/19 08:25
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,06 Batch: WG1298702-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/21/19 08:25
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,06 Batch: WG1298702-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	99		70-130

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/22/19 12:52
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1299206-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/22/19 12:52
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1299206-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/22/19 12:52
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1299206-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	102		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,06 Batch: WG1298702-3 WG1298702-4								
Methylene chloride	98		97		70-130	1		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	120		110		63-132	9		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	110		110		70-130	0		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	110		100		75-130	10		20
Trichlorofluoromethane	120		120		62-150	0		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	98		97		70-130	1		20
cis-1,3-Dichloropropene	110		100		70-130	10		20
1,1-Dichloropropene	110		110		70-130	0		20
Bromoform	110		110		54-136	0		20
1,1,2,2-Tetrachloroethane	120		120		67-130	0		20
Benzene	110		100		70-130	10		20
Toluene	110		100		70-130	10		20
Ethylbenzene	110		110		70-130	0		20
Chloromethane	98		98		64-130	0		20
Bromomethane	81		79		39-139	3		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,06 Batch: WG1298702-3 WG1298702-4								
Vinyl chloride	110		110		55-140	0		20
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	110		100		61-145	10		20
trans-1,2-Dichloroethene	98		98		70-130	0		20
Trichloroethene	100		99		70-130	1		20
1,2-Dichlorobenzene	110		110		70-130	0		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		100		70-130	10		20
Methyl tert butyl ether	100		110		63-130	10		20
p/m-Xylene	110		110		70-130	0		20
o-Xylene	110		105		70-130	5		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Dibromomethane	110		110		70-130	0		20
1,2,3-Trichloropropane	120		120		64-130	0		20
Acrylonitrile	120		130		70-130	8		20
Styrene	115		115		70-130	0		20
Dichlorodifluoromethane	110		110		36-147	0		20
Acetone	120		120		58-148	0		20
Carbon disulfide	110		100		51-130	10		20
2-Butanone	120		110		63-138	9		20
Vinyl acetate	100		100		70-130	0		20
4-Methyl-2-pentanone	110		120		59-130	9		20
2-Hexanone	110		120		57-130	9		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,06 Batch: WG1298702-3 WG1298702-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	110		110		63-133	0		20
1,2-Dibromoethane	110		110		70-130	0		20
1,3-Dichloropropane	110		110		70-130	0		20
1,1,1,2-Tetrachloroethane	110		100		64-130	10		20
Bromobenzene	110		100		70-130	10		20
n-Butylbenzene	120		120		53-136	0		20
sec-Butylbenzene	120		120		70-130	0		20
tert-Butylbenzene	120		120		70-130	0		20
o-Chlorotoluene	110		110		70-130	0		20
p-Chlorotoluene	120		110		70-130	9		20
1,2-Dibromo-3-chloropropane	100		120		41-144	18		20
Hexachlorobutadiene	110		110		63-130	0		20
Isopropylbenzene	120		120		70-130	0		20
p-Isopropyltoluene	120		120		70-130	0		20
Naphthalene	120		130		70-130	8		20
n-Propylbenzene	120		120		69-130	0		20
1,2,3-Trichlorobenzene	110		120		70-130	9		20
1,2,4-Trichlorobenzene	110		110		70-130	0		20
1,3,5-Trimethylbenzene	120		120		64-130	0		20
1,2,4-Trimethylbenzene	120		120		70-130	0		20
1,4-Dioxane	116		122		56-162	5		20
p-Diethylbenzene	120		110		70-130	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVB-PCE

Project Number: 180132

Lab Number: L1948207

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,06 Batch: WG1298702-3 WG1298702-4								
p-Ethyltoluene	120		120		70-130	0		20
1,2,4,5-Tetramethylbenzene	120		120		70-130	0		20
Ethyl ether	120		120		59-134	0		20
trans-1,4-Dichloro-2-butene	100		100		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	111		112		70-130
Toluene-d8	98		97		70-130
4-Bromofluorobenzene	103		104		70-130
Dibromofluoromethane	102		102		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1299206-3 WG1299206-4								
Methylene chloride	96		99		70-130	3		20
1,1-Dichloroethane	85		86		70-130	1		20
Chloroform	89		87		70-130	2		20
Carbon tetrachloride	82		81		63-132	1		20
1,2-Dichloropropane	89		86		70-130	3		20
Dibromochloromethane	82		81		63-130	1		20
1,1,2-Trichloroethane	96		89		70-130	8		20
Tetrachloroethene	100		94		70-130	6		20
Chlorobenzene	100		99		75-130	1		20
Trichlorofluoromethane	81		82		62-150	1		20
1,2-Dichloroethane	87		89		70-130	2		20
1,1,1-Trichloroethane	87		85		67-130	2		20
Bromodichloromethane	81		82		67-130	1		20
trans-1,3-Dichloropropene	95		86		70-130	10		20
cis-1,3-Dichloropropene	91		88		70-130	3		20
1,1-Dichloropropene	91		92		70-130	1		20
Bromoform	76		72		54-136	5		20
1,1,2,2-Tetrachloroethane	96		92		67-130	4		20
Benzene	90		89		70-130	1		20
Toluene	100		92		70-130	8		20
Ethylbenzene	97		91		70-130	6		20
Chloromethane	100		97		64-130	3		20
Bromomethane	94		96		39-139	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVB-PCE

Project Number: 180132

Lab Number: L1948207

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1299206-3 WG1299206-4								
Vinyl chloride	82		84		55-140	2		20
Chloroethane	87		92		55-138	6		20
1,1-Dichloroethene	86		82		61-145	5		20
trans-1,2-Dichloroethene	94		92		70-130	2		20
Trichloroethene	90		88		70-130	2		20
1,2-Dichlorobenzene	110		100		70-130	10		20
1,3-Dichlorobenzene	110		100		70-130	10		20
1,4-Dichlorobenzene	110		100		70-130	10		20
Methyl tert butyl ether	86		85		63-130	1		20
p/m-Xylene	110		105		70-130	5		20
o-Xylene	105		100		70-130	5		20
cis-1,2-Dichloroethene	90		88		70-130	2		20
Dibromomethane	92		90		70-130	2		20
1,2,3-Trichloropropane	92		89		64-130	3		20
Acrylonitrile	86		88		70-130	2		20
Styrene	95		90		70-130	5		20
Dichlorodifluoromethane	82		86		36-147	5		20
Acetone	85		78		58-148	9		20
Carbon disulfide	84		92		51-130	9		20
2-Butanone	92		96		63-138	4		20
Vinyl acetate	110		100		70-130	10		20
4-Methyl-2-pentanone	97		95		59-130	2		20
2-Hexanone	100		88		57-130	13		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1299206-3 WG1299206-4								
Bromochloromethane	87		85		70-130	2		20
2,2-Dichloropropane	100		110		63-133	10		20
1,2-Dibromoethane	93		88		70-130	6		20
1,3-Dichloropropane	95		88		70-130	8		20
1,1,1,2-Tetrachloroethane	89		84		64-130	6		20
Bromobenzene	96		90		70-130	6		20
n-Butylbenzene	100		96		53-136	4		20
sec-Butylbenzene	98		93		70-130	5		20
tert-Butylbenzene	95		90		70-130	5		20
o-Chlorotoluene	100		96		70-130	4		20
p-Chlorotoluene	100		96		70-130	4		20
1,2-Dibromo-3-chloropropane	94		88		41-144	7		20
Hexachlorobutadiene	110		100		63-130	10		20
Isopropylbenzene	96		90		70-130	6		20
p-Isopropyltoluene	98		94		70-130	4		20
Naphthalene	99		100		70-130	1		20
n-Propylbenzene	96		92		69-130	4		20
1,2,3-Trichlorobenzene	100		100		70-130	0		20
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	98		91		64-130	7		20
1,2,4-Trimethylbenzene	99		92		70-130	7		20
1,4-Dioxane	82		110		56-162	**29**	Q	20
p-Diethylbenzene	100		98		70-130	2		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1299206-3 WG1299206-4								
p-Ethyltoluene	98		92		70-130	6		20
1,2,4,5-Tetramethylbenzene	100		98		70-130	2		20
Ethyl ether	92		90		59-134	2		20
trans-1,4-Dichloro-2-butene	90		91		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	90		95		70-130
Toluene-d8	102		99		70-130
4-Bromofluorobenzene	97		97		70-130
Dibromofluoromethane	96		100		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,06 QC Batch ID: WG1298702-6 WG1298702-7 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015												
Methylene chloride	ND	50	52	104		52	104		70-130	0		20
1,1-Dichloroethane	ND	50	59	118		58	116		70-130	2		20
Chloroform	ND	50	57	114		56	112		70-130	2		20
Carbon tetrachloride	ND	50	63	126		62	124		63-132	2		20
1,2-Dichloropropane	ND	50	57	114		57	114		70-130	0		20
Dibromochloromethane	ND	50	55	110		55	110		63-130	0		20
1,1,2-Trichloroethane	ND	50	60	120		60	120		70-130	0		20
Tetrachloroethene	ND	50	58	116		58	116		70-130	0		20
Chlorobenzene	ND	50	55	110		55	110		75-130	0		20
Trichlorofluoromethane	ND	50	66	132		65	130		62-150	2		20
1,2-Dichloroethane	ND	50	62	124		60	120		70-130	3		20
1,1,1-Trichloroethane	ND	50	63	126		62	124		67-130	2		20
Bromodichloromethane	ND	50	58	116		55	110		67-130	5		20
trans-1,3-Dichloropropene	ND	50	49	98		49	98		70-130	0		20
cis-1,3-Dichloropropene	ND	50	55	110		53	106		70-130	4		20
1,1-Dichloropropene	ND	50	60	120		60	120		70-130	0		20
Bromoform	ND	50	56	112		56	112		54-136	0		20
1,1,2,2-Tetrachloroethane	ND	50	61	122		62	124		67-130	2		20
Benzene	11	50	68	114		66	110		70-130	3		20
Toluene	10J	50	66	**132**	Q	65	130		70-130	2		20
Ethylbenzene	8.5J	50	68	**136**	Q	67	**134**	Q	70-130	1		20
Chloromethane	ND	50	54	108		54	108		64-130	0		20
Bromomethane	ND	50	28	56		35	70		39-139	**22**	Q	20

Matrix Spike Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,06 QC Batch ID: WG1298702-6 WG1298702-7 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015												
Vinyl chloride	ND	50	60	120		61	122		55-140	2		20
Chloroethane	ND	50	62	124		61	122		55-138	2		20
1,1-Dichloroethene	ND	50	57	114		57	114		61-145	0		20
trans-1,2-Dichloroethene	ND	50	52	104		52	104		70-130	0		20
Trichloroethene	ND	50	54	108		54	108		70-130	0		20
1,2-Dichlorobenzene	ND	50	57	114		58	116		70-130	2		20
1,3-Dichlorobenzene	ND	50	56	112		57	114		70-130	2		20
1,4-Dichlorobenzene	ND	50	55	110		56	112		70-130	2		20
Methyl tert butyl ether	ND	50	52	104		54	108		63-130	4		20
p/m-Xylene	12	100	130	118		130	118		70-130	0		20
o-Xylene	6.1J	100	120	120		120	120		70-130	0		20
cis-1,2-Dichloroethene	ND	50	59	118		60	120		70-130	2		20
Dibromomethane	ND	50	61	122		60	120		70-130	2		20
1,2,3-Trichloropropane	ND	50	61	122		60	120		64-130	2		20
Acrylonitrile	ND	50	67	**134**	Q	65	130		70-130	3		20
Styrene	ND	100	120	120		120	120		70-130	0		20
Dichlorodifluoromethane	ND	50	61	122		60	120		36-147	2		20
Acetone	28	50	85	114		76	96		58-148	11		20
Carbon disulfide	ND	50	57	114		57	114		51-130	0		20
2-Butanone	ND	50	65	130		68	136		63-138	5		20
Vinyl acetate	ND	50	56	112		56	112		70-130	0		20
4-Methyl-2-pentanone	ND	50	62	124		63	126		59-130	2		20
2-Hexanone	ND	50	60	120		62	124		57-130	3		20

Matrix Spike Analysis

Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,06 QC Batch ID: WG1298702-6 WG1298702-7 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015												
Bromochloromethane	ND	50	58	116		57	114		70-130	2		20
2,2-Dichloropropane	ND	50	54	108		53	106		63-133	2		20
1,2-Dibromoethane	ND	50	60	120		59	118		70-130	2		20
1,3-Dichloropropane	ND	50	58	116		58	116		70-130	0		20
1,1,1,2-Tetrachloroethane	ND	50	57	114		57	114		64-130	0		20
Bromobenzene	ND	50	53	106		55	110		70-130	4		20
n-Butylbenzene	ND	50	64	128		64	128		53-136	0		20
sec-Butylbenzene	ND	50	63	126		63	126		70-130	0		20
tert-Butylbenzene	ND	50	62	124		62	124		70-130	0		20
o-Chlorotoluene	ND	50	56	112		57	114		70-130	2		20
p-Chlorotoluene	ND	50	58	116		59	118		70-130	2		20
1,2-Dibromo-3-chloropropane	ND	50	56	112		62	124		41-144	10		20
Hexachlorobutadiene	ND	50	57	114		59	118		63-130	3		20
Isopropylbenzene	ND	50	63	126		64	128		70-130	2		20
p-Isopropyltoluene	ND	50	65	130		64	128		70-130	2		20
Naphthalene	1000	50	1200E	**400**	Q	1100E	**200**	Q	70-130	9		20
n-Propylbenzene	ND	50	63	126		64	128		69-130	2		20
1,2,3-Trichlorobenzene	ND	50	58	116		65	130		70-130	11		20
1,2,4-Trichlorobenzene	ND	50	57	114		61	122		70-130	7		20
1,3,5-Trimethylbenzene	ND	50	64	128		64	128		64-130	0		20
1,2,4-Trimethylbenzene	5.7J	50	68	**136**	Q	69	**138**	Q	70-130	1		20
1,4-Dioxane	ND	2500	2400	96		2600	104		56-162	8		20
p-Diethylbenzene	ND	50	66	**132**	Q	67	**134**	Q	70-130	2		20

Matrix Spike Analysis

Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,06 QC Batch ID: WG1298702-6 WG1298702-7 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015												
p-Ethyltoluene	4.0J	50	66	**132**	Q	66	**132**	Q	70-130	0		20
1,2,4,5-Tetramethylbenzene	ND	50	66	**132**	Q	67	**134**	Q	70-130	2		20
Ethyl ether	ND	50	64	128		62	124		59-134	3		20
trans-1,4-Dichloro-2-butene	ND	50	44	88		55	110		70-130	**22**	Q	20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		115		70-130
4-Bromofluorobenzene	102		103		70-130
Dibromofluoromethane	103		104		70-130
Toluene-d8	95		96		70-130

SEMIVOLATILES

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-01
Client ID: PCE-MW-C-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 11:38
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 10/18/19 17:23
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 00:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-01 Date Collected: 10/15/19 11:38

Client ID: PCE-MW-C-20191015 Date Received: 10/15/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		21-120
Phenol-d6	60		10-120
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	51		15-120
2,4,6-Tribromophenol	69		10-120
4-Terphenyl-d14	52		41-149

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-01
Client ID: PCE-MW-C-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 11:38
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 10/19/19 17:30
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 00:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	12		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.07	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.43		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.27		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.03	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.03	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.02	J	ug/l	0.10	0.01	1
Chrysene	0.02	J	ug/l	0.10	0.01	1
Acenaphthylene	0.28		ug/l	0.10	0.01	1
Anthracene	0.17		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.02	J	ug/l	0.10	0.01	1
Fluorene	1.9		ug/l	0.10	0.01	1
Phenanthrene	0.71		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.02	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.02	J	ug/l	0.10	0.01	1
Pyrene	0.12		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.07	J	ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-01 Date Collected: 10/15/19 11:38

Client ID: PCE-MW-C-20191015 Date Received: 10/15/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	59		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	83		15-120
2,4,6-Tribromophenol	92		10-120
4-Terphenyl-d14	76		41-149

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-01
Client ID: PCE-MW-C-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 11:38
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 10/28/19 03:26
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 10/19/19 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	839.		ng/l	150	33.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	43		15-110

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-02
Client ID: PCE-MW-D-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 13:12
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 10/18/19 17:49
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 00:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	10.		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-02 Date Collected: 10/15/19 13:12

Client ID: PCE-MW-D-20191015 Date Received: 10/15/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	27.		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	1.6	J	ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	52.		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	270	E	ug/l	5.0	0.57	1
2-Methylphenol	60.		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	160		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	76.		ug/l	50	2.6	1
Benzyl Alcohol	2.6		ug/l	2.0	0.59	1
Carbazole	52.		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		21-120
Phenol-d6	59		10-120
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	52		15-120
2,4,6-Tribromophenol	75		10-120
4-Terphenyl-d14	54		41-149

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-02
Client ID: PCE-MW-D-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 13:12
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 10/28/19 03:53
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 10/19/19 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	185000		ng/l	150	33.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	40		15-110

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-02 D
Client ID: PCE-MW-D-20191015
Sample Location: YONKERS, NY

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 10/22/19 13:51
Analyst: SZ

Date Collected: 10/15/19 13:12
Date Received: 10/15/19
Field Prep: Not Specified

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 00:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Phenol	280		ug/l	25	2.8	5

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-02 D
Client ID: PCE-MW-D-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 13:12
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 10/21/19 13:23
Analyst: CB

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 00:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	1.0	0.14	10
2-Chloronaphthalene	ND		ug/l	2.0	0.18	10
Fluoranthene	4.2		ug/l	1.0	0.20	10
Hexachlorobutadiene	ND		ug/l	5.0	0.47	10
Naphthalene	ND		ug/l	1.0	0.49	10
Benzo(a)anthracene	2.6		ug/l	1.0	0.20	10
Benzo(a)pyrene	2.4		ug/l	1.0	0.15	10
Benzo(b)fluoranthene	3.2		ug/l	1.0	0.12	10
Benzo(k)fluoranthene	1.1		ug/l	1.0	0.09	10
Chrysene	2.1		ug/l	1.0	0.12	10
Acenaphthylene	0.15	J	ug/l	1.0	0.12	10
Anthracene	0.64	J	ug/l	1.0	0.14	10
Benzo(ghi)perylene	1.4		ug/l	1.0	0.14	10
Fluorene	ND		ug/l	1.0	0.14	10
Phenanthrene	2.1		ug/l	1.0	0.23	10
Dibenzo(a,h)anthracene	0.31	J	ug/l	1.0	0.13	10
Indeno(1,2,3-cd)pyrene	1.5		ug/l	1.0	0.12	10
Pyrene	3.6		ug/l	1.0	0.19	10
2-Methylnaphthalene	ND		ug/l	1.0	0.22	10
Pentachlorophenol	ND		ug/l	8.0	0.14	10
Hexachlorobenzene	ND		ug/l	8.0	0.09	10
Hexachloroethane	ND		ug/l	8.0	0.63	10

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-02 D
Client ID: PCE-MW-D-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 13:12
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		21-120
Phenol-d6	60		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	93		15-120
2,4,6-Tribromophenol	104		10-120
4-Terphenyl-d14	83		41-149

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-03
Client ID: PCE-MW-X-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 00:00
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 10/18/19 18:16
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 00:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	12.		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-03 Date Collected: 10/15/19 00:00

Client ID: PCE-MW-X-20191015 Date Received: 10/15/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	31.		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	2.0	J	ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	57.		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	320	E	ug/l	5.0	0.57	1
2-Methylphenol	64.		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	170		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	92.		ug/l	50	2.6	1
Benzyl Alcohol	3.0		ug/l	2.0	0.59	1
Carbazole	62.		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		21-120
Phenol-d6	67		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	57		15-120
2,4,6-Tribromophenol	89		10-120
4-Terphenyl-d14	59		41-149

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-03
Client ID: PCE-MW-X-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 00:00
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 10/30/19 06:58
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 10/19/19 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	169000		ng/l	150	33.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	34		15-110

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-03 D
Client ID: PCE-MW-X-20191015
Sample Location: YONKERS, NY

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 10/22/19 12:35
Analyst: SZ

Date Collected: 10/15/19 00:00
Date Received: 10/15/19
Field Prep: Not Specified

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 00:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Phenol	340		ug/l	25	2.8	5

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-03 D
Client ID: PCE-MW-X-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 00:00
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 10/21/19 13:39
Analyst: CB

Extraction Method: EPA 3510C
Extraction Date: 10/18/19 00:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	13		ug/l	1.0	0.14	10
2-Chloronaphthalene	ND		ug/l	2.0	0.18	10
Fluoranthene	3.1		ug/l	1.0	0.20	10
Hexachlorobutadiene	ND		ug/l	5.0	0.47	10
Naphthalene	1.7		ug/l	1.0	0.49	10
Benzo(a)anthracene	1.8		ug/l	1.0	0.20	10
Benzo(a)pyrene	0.94	J	ug/l	1.0	0.15	10
Benzo(b)fluoranthene	1.5		ug/l	1.0	0.12	10
Benzo(k)fluoranthene	0.48	J	ug/l	1.0	0.09	10
Chrysene	1.5		ug/l	1.0	0.12	10
Acenaphthylene	3.4		ug/l	1.0	0.12	10
Anthracene	2.1		ug/l	1.0	0.14	10
Benzo(ghi)perylene	0.68	J	ug/l	1.0	0.14	10
Fluorene	13		ug/l	1.0	0.14	10
Phenanthrene	12		ug/l	1.0	0.23	10
Dibenzo(a,h)anthracene	0.15	J	ug/l	1.0	0.13	10
Indeno(1,2,3-cd)pyrene	0.69	J	ug/l	1.0	0.12	10
Pyrene	6.2		ug/l	1.0	0.19	10
2-Methylnaphthalene	2.4		ug/l	1.0	0.22	10
Pentachlorophenol	ND		ug/l	8.0	0.14	10
Hexachlorobenzene	ND		ug/l	8.0	0.09	10
Hexachloroethane	ND		ug/l	8.0	0.63	10

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-03 D
Client ID: PCE-MW-X-20191015
Sample Location: YONKERS, NY

Date Collected: 10/15/19 00:00
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		21-120
Phenol-d6	74		10-120
Nitrobenzene-d5	120		23-120
2-Fluorobiphenyl	106		15-120
2,4,6-Tribromophenol	115		10-120
4-Terphenyl-d14	94		41-149

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 10/18/19 09:52
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 17:15

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1297593-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 10/18/19 09:52
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 17:15

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1297593-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 10/18/19 09:52
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 17:15

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1297593-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	56		15-120
2,4,6-Tribromophenol	59		10-120
4-Terphenyl-d14	57		41-149

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 10/18/19 11:13
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 17:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-03 Batch: WG1297595-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 10/18/19 11:13
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 10/17/19 17:17

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-03 Batch: WG1297595-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	90		15-120
2,4,6-Tribromophenol	79		10-120
4-Terphenyl-d14	98		41-149

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 10/27/19 13:46
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 10/19/19 07:00

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01-03 Batch: WG1298230-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	38		15-110

Lab Control Sample Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1297593-2 WG1297593-3								
Acenaphthene	81		76		37-111	6		30
1,2,4-Trichlorobenzene	74		77		39-98	4		30
Hexachlorobenzene	78		74		40-140	5		30
Bis(2-chloroethyl)ether	78		78		40-140	0		30
2-Chloronaphthalene	76		71		40-140	7		30
1,2-Dichlorobenzene	75		73		40-140	3		30
1,3-Dichlorobenzene	76		72		40-140	5		30
1,4-Dichlorobenzene	74		72		36-97	3		30
3,3'-Dichlorobenzidine	73		69		40-140	6		30
2,4-Dinitrotoluene	78		76		48-143	3		30
2,6-Dinitrotoluene	73		76		40-140	4		30
Fluoranthene	83		80		40-140	4		30
4-Chlorophenyl phenyl ether	79		76		40-140	4		30
4-Bromophenyl phenyl ether	79		72		40-140	9		30
Bis(2-chloroisopropyl)ether	76		76		40-140	0		30
Bis(2-chloroethoxy)methane	78		78		40-140	0		30
Hexachlorobutadiene	74		70		40-140	6		30
Hexachlorocyclopentadiene	61		61		40-140	0		30
Hexachloroethane	73		71		40-140	3		30
Isophorone	81		82		40-140	1		30
Naphthalene	76		75		40-140	1		30
Nitrobenzene	79		79		40-140	0		30
NDPA/DPA	82		79		40-140	4		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1297593-2 WG1297593-3								
n-Nitrosodi-n-propylamine	82		81		29-132	1		30
Bis(2-ethylhexyl)phthalate	70		66		40-140	6		30
Butyl benzyl phthalate	72		67		40-140	7		30
Di-n-butylphthalate	73		70		40-140	4		30
Di-n-octylphthalate	63		64		40-140	2		30
Diethyl phthalate	82		76		40-140	8		30
Dimethyl phthalate	74		71		40-140	4		30
Benzo(a)anthracene	84		85		40-140	1		30
Benzo(a)pyrene	70		70		40-140	0		30
Benzo(b)fluoranthene	74		75		40-140	1		30
Benzo(k)fluoranthene	82		84		40-140	2		30
Chrysene	78		78		40-140	0		30
Acenaphthylene	76		74		45-123	3		30
Anthracene	81		81		40-140	0		30
Benzo(ghi)perylene	82		84		40-140	2		30
Fluorene	82		78		40-140	5		30
Phenanthrene	81		78		40-140	4		30
Dibenzo(a,h)anthracene	76		76		40-140	0		30
Indeno(1,2,3-cd)pyrene	78		81		40-140	4		30
Pyrene	79		75		26-127	5		30
Biphenyl	77		72		40-140	7		30
4-Chloroaniline	70		68		40-140	3		30
2-Nitroaniline	73		72		52-143	1		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1297593-2 WG1297593-3								
3-Nitroaniline	73		69		25-145	6		30
4-Nitroaniline	70		65		51-143	7		30
Dibenzofuran	80		73		40-140	9		30
2-Methylnaphthalene	78		76		40-140	3		30
1,2,4,5-Tetrachlorobenzene	74		72		2-134	3		30
Acetophenone	80		78		39-129	3		30
2,4,6-Trichlorophenol	76		74		30-130	3		30
p-Chloro-m-cresol	82		78		23-97	5		30
2-Chlorophenol	81		82		27-123	1		30
2,4-Dichlorophenol	82		79		30-130	4		30
2,4-Dimethylphenol	80		60		30-130	29		30
2-Nitrophenol	77		78		30-130	1		30
4-Nitrophenol	70		65		10-80	7		30
2,4-Dinitrophenol	66		69		20-130	4		30
4,6-Dinitro-o-cresol	72		74		20-164	3		30
Pentachlorophenol	74		69		9-103	7		30
Phenol	57		59		12-110	3		30
2-Methylphenol	79		76		30-130	4		30
3-Methylphenol/4-Methylphenol	82		80		30-130	2		30
2,4,5-Trichlorophenol	75		75		30-130	0		30
Benzoic Acid	45		53		10-164	16		30
Benzyl Alcohol	75		74		26-116	1		30
Carbazole	79		79		55-144	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVB-PCE

Project Number: 180132

Lab Number: L1948207

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1297593-2 WG1297593-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	71		72		21-120
Phenol-d6	60		61		10-120
Nitrobenzene-d5	66		66		23-120
2-Fluorobiphenyl	60		60		15-120
2,4,6-Tribromophenol	79		79		10-120
4-Terphenyl-d14	60		60		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG1297595-2 WG1297595-3								
Acenaphthene	100		98		40-140	2		40
2-Chloronaphthalene	101		97		40-140	4		40
Fluoranthene	109		106		40-140	3		40
Hexachlorobutadiene	107		104		40-140	3		40
Naphthalene	93		92		40-140	1		40
Benzo(a)anthracene	108		104		40-140	4		40
Benzo(a)pyrene	110		106		40-140	4		40
Benzo(b)fluoranthene	114		109		40-140	4		40
Benzo(k)fluoranthene	116		114		40-140	2		40
Chrysene	107		105		40-140	2		40
Acenaphthylene	95		86		40-140	10		40
Anthracene	107		103		40-140	4		40
Benzo(ghi)perylene	110		109		40-140	1		40
Fluorene	104		102		40-140	2		40
Phenanthrene	103		101		40-140	2		40
Dibenzo(a,h)anthracene	114		113		40-140	1		40
Indeno(1,2,3-cd)pyrene	112		112		40-140	0		40
Pyrene	108		105		40-140	3		40
2-Methylnaphthalene	97		95		40-140	2		40
Pentachlorophenol	85		78		40-140	9		40
Hexachlorobenzene	110		106		40-140	4		40
Hexachloroethane	88		88		40-140	0		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVB-PCE

Project Number: 180132

Lab Number: L1948207

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG1297595-2 WG1297595-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	69		67		21-120
Phenol-d6	57		56		10-120
Nitrobenzene-d5	90		87		23-120
2-Fluorobiphenyl	99		94		15-120
2,4,6-Tribromophenol	95		89		10-120
4-Terphenyl-d14	103		98		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVB-PCE

Project Number: 180132

Lab Number: L1948207

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab	Associated sample(s): 01-03		Batch: WG1298230-2 WG1298230-3					
1,4-Dioxane	108		110		40-140	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	40		36		15-110

Matrix Spike Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1297593-6 WG1297593-7 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015												
1,2,4-Trichlorobenzene	ND	18.2	12	66		12	66		39-98	0		30
Bis(2-chloroethyl)ether	ND	18.2	13	72		13	72		40-140	0		30
1,2-Dichlorobenzene	ND	18.2	12	66		12	66		40-140	0		30
1,3-Dichlorobenzene	ND	18.2	12	66		12	66		40-140	0		30
1,4-Dichlorobenzene	ND	18.2	12	66		12	66		36-97	0		30
3,3'-Dichlorobenzidine	ND	18.2	ND	**0**	Q	ND	**0**	Q	40-140	NC		30
2,4-Dinitrotoluene	ND	18.2	13	72		14	77		48-143	7		30
2,6-Dinitrotoluene	ND	18.2	14	77		13	72		40-140	7		30
4-Chlorophenyl phenyl ether	ND	18.2	12	66		13	72		40-140	8		30
4-Bromophenyl phenyl ether	ND	18.2	13	72		13	72		40-140	0		30
Bis(2-chloroisopropyl)ether	ND	18.2	13	72		13	72		40-140	0		30
Bis(2-chloroethoxy)methane	ND	18.2	14	77		14	77		40-140	0		30
Hexachlorocyclopentadiene	ND	18.2	11.J	61		11.J	61		40-140	0		30
Isophorone	ND	18.2	14	77		14	77		40-140	0		30
Nitrobenzene	ND	18.2	13	72		13	72		40-140	0		30
NDPA/DPA	ND	18.2	14	77		14	77		40-140	0		30
n-Nitrosodi-n-propylamine	ND	18.2	14	77		14	77		29-132	0		30
Bis(2-ethylhexyl)phthalate	ND	18.2	14	77		13	72		40-140	7		30
Butyl benzyl phthalate	ND	18.2	15	83		14	77		40-140	7		30
Di-n-butylphthalate	ND	18.2	14	77		14	77		40-140	0		30
Di-n-octylphthalate	ND	18.2	15	83		14	77		40-140	7		30
Diethyl phthalate	ND	18.2	13	72		14	77		40-140	7		30
Dimethyl phthalate	ND	18.2	12	66		11	61		40-140	9		30

Matrix Spike Analysis

Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1297593-6 WG1297593-7 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015												
Biphenyl	10	18.2	24	77		23	72		40-140	4		30
4-Chloroaniline	ND	18.2	5.3	**29**	Q	7.8	43		40-140	**38**	Q	30
2-Nitroaniline	ND	18.2	14	77		14	77		52-143	0		30
3-Nitroaniline	ND	18.2	2.2J	**12**	Q	2.9J	**16**	Q	25-145	27		30
4-Nitroaniline	ND	18.2	6.9	**38**	Q	6.5	**36**	Q	51-143	6		30
Dibenzofuran	27	18.2	40	72		43	88		40-140	7		30
1,2,4,5-Tetrachlorobenzene	ND	18.2	12	66		12	66		2-134	0		30
Acetophenone	1.6J	18.2	15	83		14	77		39-129	7		30
2,4,6-Trichlorophenol	ND	18.2	14	77		13	72		30-130	7		30
p-Chloro-m-cresol	ND	18.2	15	83		14	77		23-97	7		30
2-Chlorophenol	ND	18.2	14	77		14	77		27-123	0		30
2,4-Dichlorophenol	ND	18.2	14	77		14	77		30-130	0		30
2,4-Dimethylphenol	52	18.2	86	**190**	Q	85	**180**	Q	30-130	1		30
2-Nitrophenol	ND	18.2	14	77		14	77		30-130	0		30
4-Nitrophenol	ND	18.2	15	**83**	Q	15	**83**	Q	10-80	0		30
2,4-Dinitrophenol	ND	18.2	17.J	94		18.J	99		20-130	6		30
4,6-Dinitro-o-cresol	ND	18.2	15	83		15	83		20-164	0		30
Phenol	270E	18.2	360E	**500**	Q	320E	**280**	Q	12-110	12		30
2-Methylphenol	60	18.2	80	110		79	100		30-130	1		30
3-Methylphenol/4-Methylphenol	160	18.2	190E	**170**	Q	180E	110		30-130	5		30
2,4,5-Trichlorophenol	ND	18.2	15	83		13	72		30-130	14		30
Benzoic Acid	76	18.2	110	**190**	Q	99	130		10-164	11		30
Benzyl Alcohol	2.6	18.2	16	74		15	68		26-116	6		30

Matrix Spike Analysis

Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1297593-6 WG1297593-7 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015												
Carbazole	52	18.2	75	130		73	120		55-144	3		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,6-Tribromophenol	84		81		10-120
2-Fluorobiphenyl	56		55		15-120
2-Fluorophenol	71		73		21-120
4-Terphenyl-d14	59		56		41-149
Nitrobenzene-d5	63		62		23-120
Phenol-d6	66		65		10-120

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1298230-4 WG1298230-5 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015												
1,4-Dioxane	185000	5000	171000	**0**	Q	177000	**0**	Q	40-140	3		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,4-Dioxane-d8	40		35		15-110

METALS

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-01 Date Collected: 10/15/19 11:38

Client ID: PCE-MW-C-20191015 Date Received: 10/15/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0875		mg/l	0.0100	0.00327	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Antimony, Total	0.00045	J	mg/l	0.00400	0.00042	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00461		mg/l	0.00050	0.00016	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Barium, Total	0.05984		mg/l	0.00050	0.00017	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Calcium, Total	72.4		mg/l	0.100	0.0394	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00054		mg/l	0.00050	0.00016	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Copper, Total	0.00264		mg/l	0.00100	0.00038	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Iron, Total	3.19		mg/l	0.0500	0.0191	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Lead, Total	0.00321		mg/l	0.00100	0.00034	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Magnesium, Total	6.26		mg/l	0.0700	0.0242	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Manganese, Total	0.4710		mg/l	0.00100	0.00044	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	10/18/19 12:18	10/18/19 18:32	EPA 7470A	1,7470A	AL
Nickel, Total	0.00197	J	mg/l	0.00200	0.00055	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Potassium, Total	8.60		mg/l	0.100	0.0309	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Sodium, Total	23.5		mg/l	0.100	0.0293	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Zinc, Total	0.02544		mg/l	0.01000	0.00341	1	10/18/19 16:48	10/21/19 13:19	EPA 3005A	1,6020B	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00043	J	mg/l	0.00400	0.00042	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00297		mg/l	0.00050	0.00016	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.05799		mg/l	0.00050	0.00017	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-01
Client ID: PCE-MW-C-20191015
Sample Location: YONKERS, NY
Date Collected: 10/15/19 11:38
Date Received: 10/15/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Calcium, Dissolved	74.8		mg/l	0.100	0.0394	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00050		mg/l	0.00050	0.00016	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Iron, Dissolved	1.53		mg/l	0.0500	0.0191	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	6.54		mg/l	0.0700	0.0242	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.4687		mg/l	0.00100	0.00044	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	10/18/19 12:18	10/18/19 17:55	EPA 7470A	1,7470A	AL
Nickel, Dissolved	0.00175	J	mg/l	0.00200	0.00055	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Potassium, Dissolved	8.68		mg/l	0.100	0.0309	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Sodium, Dissolved	24.6		mg/l	0.100	0.0293	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM
Zinc, Dissolved	0.01992		mg/l	0.01000	0.00341	1	10/18/19 17:10	10/21/19 14:21	EPA 3005A	1,6020B	AM

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-02 Date Collected: 10/15/19 13:12

Client ID: PCE-MW-D-20191015 Date Received: 10/15/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.376		mg/l	0.0100	0.00327	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Antimony, Total	0.00720		mg/l	0.00400	0.00042	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Arsenic, Total	0.01604		mg/l	0.00050	0.00016	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Barium, Total	0.07153		mg/l	0.00050	0.00017	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00007	J	mg/l	0.00020	0.00005	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Calcium, Total	45.9		mg/l	0.100	0.0394	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Chromium, Total	0.00203		mg/l	0.00100	0.00017	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00032	J	mg/l	0.00050	0.00016	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Copper, Total	0.04230		mg/l	0.00100	0.00038	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Iron, Total	1.12		mg/l	0.0500	0.0191	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Lead, Total	0.03820		mg/l	0.00100	0.00034	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Magnesium, Total	13.8		mg/l	0.0700	0.0242	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Manganese, Total	0.3389		mg/l	0.00100	0.00044	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Mercury, Total	0.01548		mg/l	0.00040	0.00018	2	10/18/19 12:18	10/18/19 18:54	EPA 7470A	1,7470A	AL
Nickel, Total	0.01246		mg/l	0.00200	0.00055	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Potassium, Total	73.5		mg/l	0.100	0.0309	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Sodium, Total	124.		mg/l	0.100	0.0293	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Thallium, Total	0.00020	J	mg/l	0.00050	0.00014	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Vanadium, Total	0.00162	J	mg/l	0.00500	0.00157	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Zinc, Total	0.04308		mg/l	0.01000	0.00341	1	10/18/19 16:48	10/21/19 12:03	EPA 3005A	1,6020B	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.149		mg/l	0.0100	0.00327	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00155	J	mg/l	0.00400	0.00042	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.01515		mg/l	0.00050	0.00016	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.06741		mg/l	0.00050	0.00017	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-02 Date Collected: 10/15/19 13:12

Client ID: PCE-MW-D-20191015 Date Received: 10/15/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Calcium, Dissolved	47.5		mg/l	0.100	0.0394	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00137		mg/l	0.00100	0.00017	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00029	J	mg/l	0.00050	0.00016	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.01707		mg/l	0.00100	0.00038	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.613		mg/l	0.0500	0.0191	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.01676		mg/l	0.00100	0.00034	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	14.6		mg/l	0.0700	0.0242	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.3044		mg/l	0.00100	0.00044	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Mercury, Dissolved	0.00595		mg/l	0.00020	0.00009	1	10/18/19 12:18	10/18/19 17:39	EPA 7470A	1,7470A	AL
Nickel, Dissolved	0.01201		mg/l	0.00200	0.00055	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Potassium, Dissolved	75.4		mg/l	0.100	0.0309	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Sodium, Dissolved	132.		mg/l	0.100	0.0293	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM
Zinc, Dissolved	0.01077		mg/l	0.01000	0.00341	1	10/18/19 17:10	10/21/19 13:54	EPA 3005A	1,6020B	AM

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-03 Date Collected: 10/15/19 00:00

Client ID: PCE-MW-X-20191015 Date Received: 10/15/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.363		mg/l	0.0100	0.00327	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Antimony, Total	0.00112	J	mg/l	0.00400	0.00042	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Arsenic, Total	0.01572		mg/l	0.00050	0.00016	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Barium, Total	0.07546		mg/l	0.00050	0.00017	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00006	J	mg/l	0.00020	0.00005	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Calcium, Total	49.7		mg/l	0.100	0.0394	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Chromium, Total	0.00216		mg/l	0.00100	0.00017	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00034	J	mg/l	0.00050	0.00016	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Copper, Total	0.04223		mg/l	0.00100	0.00038	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Iron, Total	1.25		mg/l	0.0500	0.0191	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Lead, Total	0.03812		mg/l	0.00100	0.00034	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Magnesium, Total	15.2		mg/l	0.0700	0.0242	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Manganese, Total	0.3643		mg/l	0.00100	0.00044	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Mercury, Total	0.01580		mg/l	0.00020	0.00009	1	10/18/19 12:18	10/18/19 18:34	EPA 7470A	1,7470A	AL
Nickel, Total	0.01245		mg/l	0.00200	0.00055	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Potassium, Total	76.5		mg/l	0.100	0.0309	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Sodium, Total	132.		mg/l	0.100	0.0293	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Vanadium, Total	0.00162	J	mg/l	0.00500	0.00157	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Zinc, Total	0.04376		mg/l	0.01000	0.00341	1	10/18/19 16:48	10/21/19 13:23	EPA 3005A	1,6020B	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.143		mg/l	0.0100	0.00327	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00114	J	mg/l	0.00400	0.00042	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.01467		mg/l	0.00050	0.00016	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.06956		mg/l	0.00050	0.00017	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

SAMPLE RESULTS

Lab ID: L1948207-03 Date Collected: 10/15/19 00:00

Client ID: PCE-MW-X-20191015 Date Received: 10/15/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Calcium, Dissolved	49.3		mg/l	0.100	0.0394	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00141		mg/l	0.00100	0.00017	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00030	J	mg/l	0.00050	0.00016	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.01735		mg/l	0.00100	0.00038	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.643		mg/l	0.0500	0.0191	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.01736		mg/l	0.00100	0.00034	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	14.8		mg/l	0.0700	0.0242	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.3252		mg/l	0.00100	0.00044	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Mercury, Dissolved	0.00843		mg/l	0.00020	0.00009	1	10/18/19 12:18	10/18/19 17:57	EPA 7470A	1,7470A	AL
Nickel, Dissolved	0.01123		mg/l	0.00200	0.00055	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Potassium, Dissolved	74.0		mg/l	0.100	0.0309	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Sodium, Dissolved	131.		mg/l	0.100	0.0293	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM
Zinc, Dissolved	0.00983	J	mg/l	0.01000	0.00341	1	10/18/19 17:10	10/21/19 14:26	EPA 3005A	1,6020B	AM

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1297953-1										
Mercury, Total	ND		mg/l	0.00020	0.00009	1	10/18/19 12:18	10/18/19 17:58	1,7470A	AL

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1297954-1										
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	10/18/19 12:18	10/18/19 17:35	1,7470A	AL

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1298045-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Barium, Total	ND		mg/l	0.00050	0.00017	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Calcium, Total	ND		mg/l	0.100	0.0394	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Copper, Total	ND		mg/l	0.00100	0.00038	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Iron, Total	ND		mg/l	0.0500	0.0191	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Nickel, Total	ND		mg/l	0.00200	0.00055	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM

Project Name: AVB-PCE **Lab Number:** L1948207

Project Number: 180132 **Report Date:** 10/30/19

Method Blank Analysis
Batch Quality Control

Potassium, Total	ND	mg/l	0.100	0.0309	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Selenium, Total	ND	mg/l	0.00500	0.00173	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Silver, Total	ND	mg/l	0.00040	0.00016	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Sodium, Total	ND	mg/l	0.100	0.0293	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Thallium, Total	ND	mg/l	0.00050	0.00014	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Vanadium, Total	ND	mg/l	0.00500	0.00157	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM
Zinc, Total	ND	mg/l	0.01000	0.00341	1	10/18/19 16:48	10/21/19 11:54	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1298076-1										
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Antimony, Dissolved	0.00054	J	mg/l	0.00400	0.00042	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Barium, Dissolved	ND		mg/l	0.00050	0.00017	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Calcium, Dissolved	ND		mg/l	0.100	0.0394	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Iron, Dissolved	ND		mg/l	0.0500	0.0191	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Magnesium, Dissolved	ND		mg/l	0.0700	0.0242	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Potassium, Dissolved	ND		mg/l	0.100	0.0309	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Sodium, Dissolved	0.0428	J	mg/l	0.100	0.0293	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	10/18/19 17:10	10/21/19 12:50	1,6020B	AM

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVB-PCE

Project Number: 180132

Lab Number: L1948207

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1297953-2								
Mercury, Total	84		-		80-120	-		
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1297954-2								
Mercury, Dissolved	89		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVB-PCE

Project Number: 180132

Lab Number: L1948207

Report Date: 10/30/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1298045-2					
Aluminum, Total	100	-	80-120	-	
Antimony, Total	116	-	80-120	-	
Arsenic, Total	102	-	80-120	-	
Barium, Total	97	-	80-120	-	
Beryllium, Total	99	-	80-120	-	
Cadmium, Total	100	-	80-120	-	
Calcium, Total	102	-	80-120	-	
Chromium, Total	98	-	80-120	-	
Cobalt, Total	96	-	80-120	-	
Copper, Total	92	-	80-120	-	
Iron, Total	103	-	80-120	-	
Lead, Total	106	-	80-120	-	
Magnesium, Total	102	-	80-120	-	
Manganese, Total	97	-	80-120	-	
Nickel, Total	95	-	80-120	-	
Potassium, Total	104	-	80-120	-	
Selenium, Total	102	-	80-120	-	
Silver, Total	96	-	80-120	-	
Sodium, Total	102	-	80-120	-	
Thallium, Total	110	-	80-120	-	
Vanadium, Total	100	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVB-PCE

Project Number: 180132

Lab Number: L1948207

Report Date: 10/30/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1298045-2					
Zinc, Total	100	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVB-PCE

Project Number: 180132

Lab Number: L1948207

Report Date: 10/30/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1298076-2					
Aluminum, Dissolved	104	-	80-120	-	
Antimony, Dissolved	86	-	80-120	-	
Arsenic, Dissolved	113	-	80-120	-	
Barium, Dissolved	111	-	80-120	-	
Beryllium, Dissolved	106	-	80-120	-	
Cadmium, Dissolved	108	-	80-120	-	
Calcium, Dissolved	106	-	80-120	-	
Chromium, Dissolved	104	-	80-120	-	
Cobalt, Dissolved	103	-	80-120	-	
Copper, Dissolved	99	-	80-120	-	
Iron, Dissolved	110	-	80-120	-	
Lead, Dissolved	113	-	80-120	-	
Magnesium, Dissolved	107	-	80-120	-	
Manganese, Dissolved	104	-	80-120	-	
Nickel, Dissolved	103	-	80-120	-	
Potassium, Dissolved	106	-	80-120	-	
Selenium, Dissolved	115	-	80-120	-	
Silver, Dissolved	102	-	80-120	-	
Sodium, Dissolved	105	-	80-120	-	
Thallium, Dissolved	116	-	80-120	-	
Vanadium, Dissolved	107	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVB-PCE

Project Number: 180132

Lab Number: L1948207

Report Date: 10/30/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1298076-2					
Zinc, Dissolved	110	-	80-120	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1297953-3 WG1297953-4 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015												
Mercury, Total	0.01548	0.005	0.02000	90		0.02200	**130**	Q	75-125	10		20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1297954-3 WG1297954-4 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015												
Mercury, Dissolved	0.00595	0.005	0.01270	**135**	Q	0.01250	**131**	Q	75-125	2		20

Matrix Spike Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery		Recovery Limits	RPD		RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1298045-3 WG1298045-4 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015												
Aluminum, Total	0.376	2	2.31	97		2.37	100		75-125	3		20
Antimony, Total	0.00720	0.5	0.4581	90		0.5180	102		75-125	12		20
Arsenic, Total	0.01604	0.12	0.1400	103		0.1499	112		75-125	7		20
Barium, Total	0.07153	2	2.164	105		2.155	104		75-125	0		20
Beryllium, Total	ND	0.05	0.05130	103		0.05173	103		75-125	1		20
Cadmium, Total	0.00007J	0.051	0.05452	107		0.05367	105		75-125	2		20
Calcium, Total	45.9	10	58.2	123		58.1	122		75-125	0		20
Chromium, Total	0.00203	0.2	0.2056	102		0.2036	101		75-125	1		20
Cobalt, Total	0.00032J	0.5	0.5069	101		0.4972	99		75-125	2		20
Copper, Total	0.04230	0.25	0.2898	99		0.2926	100		75-125	1		20
Iron, Total	1.12	1	2.66	**154**	Q	2.41	**129**	Q	75-125	10		20
Lead, Total	0.03820	0.51	0.6046	111		0.6065	111		75-125	0		20
Magnesium, Total	13.8	10	24.7	109		25.2	114		75-125	2		20
Manganese, Total	0.3389	0.5	0.8620	105		0.8441	101		75-125	2		20
Nickel, Total	0.01246	0.5	0.5297	103		0.5176	101		75-125	2		20
Potassium, Total	73.5	10	82.0	85		82.2	87		75-125	0		20
Selenium, Total	ND	0.12	0.0488J	**41**	Q	0.0891	**74**	Q	75-125	**58**	Q	20
Silver, Total	ND	0.05	0.04945	99		0.04930	99		75-125	0		20
Sodium, Total	124.	10	129	**50**	Q	131	**70**	Q	75-125	2		20
Thallium, Total	0.00020J	0.12	0.1459	122		0.1405	117		75-125	4		20
Vanadium, Total	0.00162J	0.5	0.5123	102		0.5142	103		75-125	0		20

Matrix Spike Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1298045-3 WG1298045-4 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015									
Zinc, Total	0.04308	0.5	0.5797	107	0.5742	106	75-125	1	20

Matrix Spike Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery		Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1298076-3 WG1298076-4 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015											
Aluminum, Dissolved	0.149	2	2.26	106		2.27	106		75-125	0	20
Antimony, Dissolved	0.00155J	0.5	0.4833	97		0.4958	99		75-125	3	20
Arsenic, Dissolved	0.01515	0.12	0.1456	109		0.1539	116		75-125	6	20
Barium, Dissolved	0.06741	2	2.186	106		2.304	112		75-125	5	20
Beryllium, Dissolved	ND	0.05	0.05219	104		0.05405	108		75-125	4	20
Cadmium, Dissolved	ND	0.051	0.05619	110		0.05750	113		75-125	2	20
Calcium, Dissolved	47.5	10	59.5	120		61.0	**135**	Q	75-125	2	20
Chromium, Dissolved	0.00137	0.2	0.2099	104		0.2146	107		75-125	2	20
Cobalt, Dissolved	0.00029J	0.5	0.5170	103		0.5251	105		75-125	2	20
Copper, Dissolved	0.01707	0.25	0.2677	100		0.2796	105		75-125	4	20
Iron, Dissolved	0.613	1	1.76	115		1.84	123		75-125	4	20
Lead, Dissolved	0.01676	0.51	0.5892	112		0.6116	117		75-125	4	20
Magnesium, Dissolved	14.6	10	25.7	111		26.7	121		75-125	4	20
Manganese, Dissolved	0.3044	0.5	0.8388	107		0.8570	110		75-125	2	20
Nickel, Dissolved	0.01201	0.5	0.5375	105		0.5473	107		75-125	2	20
Potassium, Dissolved	75.4	10	84.1	87		86.8	114		75-125	3	20
Selenium, Dissolved	ND	0.12	0.134	112		0.136	113		75-125	1	20
Silver, Dissolved	ND	0.05	0.05057	101		0.05192	104		75-125	3	20
Sodium, Dissolved	132.	10	133	**10**	Q	137	**50**	Q	75-125	3	20
Thallium, Dissolved	ND	0.12	0.1370	114		0.1428	119		75-125	4	20
Vanadium, Dissolved	ND	0.5	0.5267	105		0.5528	110		75-125	5	20

Matrix Spike Analysis
Batch Quality Control

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1298076-3 WG1298076-4 QC Sample: L1948207-02 Client ID: PCE-MW-D-20191015									
Zinc, Dissolved	0.01077	0.5	0.5642	111	0.5787	114	75-125	3	20

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1948207-01A	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-01B	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-01C	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-01D	Plastic 250ml unpreserved	A	7	7	4.1	Y	Absent		-
L1948207-01E	Plastic 250ml HNO3 preserved	A	<2	<2	4.1	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CR-6020T(180),NI-6020T(180),K-6020T(180),CA-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),V-6020T(180),AS-6020T(180),SB-6020T(180),MG-6020T(180),AL-6020T(180),HG-T(28),CD-6020T(180),AG-6020T(180),CO-6020T(180)
L1948207-01G	Amber 250ml unpreserved	A	7	7	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1948207-01H	Amber 250ml unpreserved	A	7	7	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1948207-01I	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1948207-01J	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1948207-01X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.1	Y	Absent		CU-6020S(180),K-6020S(180),V-6020S(180),SE-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),ZN-6020S(180),MG-6020S(180),FE-6020S(180),CA-6020S(180),CR-6020S(180),NI-6020S(180),BA-6020S(180),PB-6020S(180),TL-6020S(180),NA-6020S(180),AG-6020S(180),SB-6020S(180),AS-6020S(180),HG-S(28),AL-6020S(180),CD-6020S(180)
L1948207-02A	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-02A1	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-02A2	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1948207-02B	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-02B1	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-02B2	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-02C	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-02C1	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-02C2	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-02D	Plastic 250ml unpreserved	A	8	8	4.1	Y	Absent		-
L1948207-02D1	Plastic 250ml unpreserved	A	8	8	4.1	Y	Absent		-
L1948207-02D2	Plastic 250ml unpreserved	A	8	8	4.1	Y	Absent		-
L1948207-02E	Plastic 250ml HNO3 preserved	A	<2	<2	4.1	Y	Absent		TL-6020T(180),BA-6020T(180),FE-6020T(180),SE-6020T(180),CA-6020T(180),NI-6020T(180),K-6020T(180),CR-6020T(180),ZN-6020T(180),CU-6020T(180),NA-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),V-6020T(180),SB-6020T(180),AS-6020T(180),AL-6020T(180),HG-T(28),AG-6020T(180),MG-6020T(180),CD-6020T(180),CO-6020T(180)
L1948207-02E1	Plastic 250ml HNO3 preserved	A	<2	<2	4.1	Y	Absent		TL-6020T(180),BA-6020T(180),FE-6020T(180),SE-6020T(180),CA-6020T(180),NI-6020T(180),K-6020T(180),CR-6020T(180),ZN-6020T(180),CU-6020T(180),NA-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),V-6020T(180),SB-6020T(180),AS-6020T(180),AL-6020T(180),HG-T(28),AG-6020T(180),MG-6020T(180),CD-6020T(180),CO-6020T(180)
L1948207-02E2	Plastic 250ml HNO3 preserved	A	<2	<2	4.1	Y	Absent		TL-6020T(180),BA-6020T(180),FE-6020T(180),SE-6020T(180),CA-6020T(180),NI-6020T(180),K-6020T(180),CR-6020T(180),ZN-6020T(180),CU-6020T(180),NA-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),V-6020T(180),SB-6020T(180),AS-6020T(180),AL-6020T(180),HG-T(28),AG-6020T(180),MG-6020T(180),CD-6020T(180),CO-6020T(180)
L1948207-02G	Amber 250ml unpreserved	A	8	8	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1948207-02G1	Amber 250ml unpreserved	A	8	8	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1948207-02G2	Amber 250ml unpreserved	A	8	8	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1948207-02H	Amber 250ml unpreserved	A	8	8	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1948207-02H1	Amber 250ml unpreserved	A	8	8	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1948207-02H2	Amber 250ml unpreserved	A	8	8	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1948207-02I	Amber 250ml unpreserved	B	8	8	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1948207-02I1	Amber 250ml unpreserved	B	8	8	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1948207-02I2	Amber 250ml unpreserved	B	8	8	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1948207-02J	Amber 250ml unpreserved	B	8	8	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1948207-02J1	Amber 250ml unpreserved	B	8	8	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1948207-02J2	Amber 250ml unpreserved	B	8	8	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1948207-02X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.1	Y	Absent		K-6020S(180),CU-6020S(180),V-6020S(180),SE-6020S(180),MN-6020S(180),CO-6020S(180),BE-6020S(180),MG-6020S(180),ZN-6020S(180),FE-6020S(180),CA-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),TL-6020S(180),PB-6020S(180),NA-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1948207-02X1	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.1	Y	Absent		K-6020S(180),CU-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),CO-6020S(180),BE-6020S(180),MG-6020S(180),ZN-6020S(180),FE-6020S(180),CA-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),TL-6020S(180),PB-6020S(180),NA-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1948207-02X2	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.1	Y	Absent		K-6020S(180),CU-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),CO-6020S(180),BE-6020S(180),MG-6020S(180),ZN-6020S(180),FE-6020S(180),CA-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),TL-6020S(180),PB-6020S(180),NA-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1948207-03A	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-03B	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-03C	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-03D	Plastic 250ml unpreserved	A	8	8	4.1	Y	Absent		-

*Values in parentheses indicate holding time in days

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1948207
Report Date: 10/30/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1948207-03E	Plastic 250ml HNO3 preserved	A	<2	<2	4.1	Y	Absent		BA-6020T(180),SE-6020T(180),FE-6020T(180),TL-6020T(180),CA-6020T(180),K-6020T(180),CR-6020T(180),NI-6020T(180),ZN-6020T(180),NA-6020T(180),CU-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),SB-6020T(180),V-6020T(180),AS-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),MG-6020T(180),HG-T(28),CO-6020T(180)
L1948207-03G	Amber 250ml unpreserved	A	8	8	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1948207-03H	Amber 250ml unpreserved	A	8	8	4.1	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1948207-03I	Amber 250ml unpreserved	B	8	8	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1948207-03J	Amber 250ml unpreserved	B	8	8	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1948207-03X	Plastic 250ml HNO3 preserved Filtrates	A	NA		4.1	Y	Absent		K-6020S(180),SE-6020S(180),CU-6020S(180),V-6020S(180),MN-6020S(180),MG-6020S(180),CO-6020S(180),BE-6020S(180),ZN-6020S(180),FE-6020S(180),CA-6020S(180),CR-6020S(180),NA-6020S(180),BA-6020S(180),TL-6020S(180),NI-6020S(180),PB-6020S(180),AG-6020S(180),SB-6020S(180),AS-6020S(180),HG-S(28),CD-6020S(180),AL-6020S(180)
L1948207-06A	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)
L1948207-06B	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	AVB-PCE	**Lab Number:**	L1948207
Project Number:	180132	**Report Date:**	10/30/19

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	AVB-PCE	**Lab Number:**	L1948207
Project Number:	180132	**Report Date:**	10/30/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1948207
Report Date: 10/30/19

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: of 1

Date Rec'd in Lab: 10/16/19

ALPHA Job #: L1948207

Client Information
Client: AKRF INC.
Address: 440 PARK AVE S NY NY
Phone:
Fax: pmchugh@akrf.com
Email:

Project Information
Project Name: AVB-PUE
Project Location: YONKERS NY
Project #: 190172
(Use Project name as Project #)
Project Manager: PAT MCHUGH
ALPHAQuote #:

Turn-Around Time
Standard: X
Due Date:
Rush (only if pre approved):
# of Days:

Deliverables
- ASP-A
- X ASP-B
- EQuIS (1 File)
- X EQuIS (4 File)
- Other

Billing Information
- Same as Client Info
PO #

Regulatory Requirement
- NY TOGS
- NY Part 375
- AWQ Standards
- NY CP-51
- NY Restricted Use
- Other
- NY Unrestricted Use
- NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
- NJ
- NY
- Other:

These samples have been previously analyzed by Alpha

Other project specific requirements/comments:
MS/MSD ON PUE-MW-D-20191015 (1)

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
- Done
- Lab to do

Preservation
- Lab to do

(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC	SVOC	METALS	1,4 DIOXANE					Sample Specific Comments	Total Bottle
48207-01	PUE-MW-E-20191015	10/15/19	1138	WATER	JS	X	X	X	X						
-02	PUE-MW-D-20191015	10/15/19	1312	↓	JS	X	X	X	X						
-03	PUE-MW-X-20191015	10/15/19	0:00	↓	JS	X	X	X	X						
-02	PUE-MW-D-MS-20191015	10/15/19	13:12	↓	GS	X	X	X	X						
-02	PUE-MW-D-MSD-20191015	10/15/19	13:12	↓	JS	X	X	X	X						

Container Type:
Preservative:

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
JOHN SILVIA	10/15/19 14:32		10/15/19 14:32
	10/15/19 17:24		10/16/19 2000
	10/16/19 0015		10/16/19 00:15

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L1950466
Client:	AKRF, Inc. 34 South Broadway Suite 401 White Plains, NY 10601
ATTN:	Patrick McHugh
Phone:	(914) 922-2387
Project Name:	AVB-PCE
Project Number:	180132
Report Date:	11/15/19

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1950466
Report Date: 11/15/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1950466-01	PCE-MW-B-20191024	WATER	YONKERS, NY	10/24/19 12:05	10/25/19
L1950466-02	FIELD BLANK-20191024	WATER	YONKERS, NY	10/24/19 11:20	10/25/19

Project Name:	AVB-PCE	**Lab Number:**	L1950466
Project Number:	180132	**Report Date:**	11/15/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	AVB-PCE	**Lab Number:**	L1950466
Project Number:	180132	**Report Date:**	11/15/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 11/15/19

ORGANICS

SEMIVOLATILES

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1950466
Report Date: 11/15/19

SAMPLE RESULTS

Lab ID: L1950466-01
Client ID: PCE-MW-B-20191024
Sample Location: YONKERS, NY

Date Collected: 10/24/19 12:05
Date Received: 10/25/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/15/19 02:20
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 11/07/19 09:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	15.1		ng/l	2.02	0.411	1
Perfluoropentanoic Acid (PFPeA)	18.9		ng/l	2.02	0.399	1
Perfluorobutanesulfonic Acid (PFBS)	3.07		ng/l	2.02	0.240	1
Perfluorohexanoic Acid (PFHxA)	14.8		ng/l	2.02	0.331	1
Perfluoroheptanoic Acid (PFHpA)	7.12		ng/l	2.02	0.227	1
Perfluorohexanesulfonic Acid (PFHxS)	3.84		ng/l	2.02	0.379	1
Perfluorooctanoic Acid (PFOA)	23.0		ng/l	2.02	0.238	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	3.00		ng/l	2.02	1.34	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.02	0.694	1
Perfluorononanoic Acid (PFNA)	0.887	J	ng/l	2.02	0.314	1
Perfluorooctanesulfonic Acid (PFOS)	10.5		ng/l	2.02	0.508	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.02	0.306	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.02	1.22	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.02	0.653	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.02	0.262	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.02	0.988	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.02	0.585	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.02	0.810	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.02	0.375	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.02	0.330	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.02	0.250	1
PFOA/PFOS, Total	33.5		ng/l	2.02	0.238	1

Project Name: AVB-PCE **Lab Number:** L1950466

Project Number: 180132 **Report Date:** 11/15/19

SAMPLE RESULTS

Lab ID: L1950466-01 Date Collected: 10/24/19 12:05

Client ID: PCE-MW-B-20191024 Date Received: 10/25/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	100		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	78		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	92		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	54		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	77		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	196		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	113		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	104		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	89		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	145		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	110		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	99		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	49		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	136		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	92		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	87		33-143

Project Name: AVB-PCE
Project Number: 180132
Lab Number: L1950466
Report Date: 11/15/19

SAMPLE RESULTS

Lab ID: L1950466-02
Client ID: FIELD BLANK-20191024
Sample Location: YONKERS, NY

Date Collected: 10/24/19 11:20
Date Received: 10/25/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/14/19 23:51
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 11/07/19 09:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.92	0.392	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.92	0.381	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.92	0.229	1
Perfluorohexanoic Acid (PFHxA)	0.338	J	ng/l	1.92	0.315	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.92	0.216	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.92	0.362	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.92	0.227	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.92	1.28	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.92	0.662	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.92	0.300	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.92	0.485	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.92	0.292	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.92	1.16	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.92	0.623	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.92	0.250	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.92	0.942	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.92	0.558	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.92	0.773	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.92	0.358	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.92	0.315	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.92	0.238	1
PFOA/PFOS, Total	ND		ng/l	1.92	0.227	1

Project Name: AVB-PCE **Lab Number:** L1950466

Project Number: 180132 **Report Date:** 11/15/19

SAMPLE RESULTS

Lab ID: L1950466-02 Date Collected: 10/24/19 11:20

Client ID: FIELD BLANK-20191024 Date Received: 10/25/19

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	95		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	73		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	103		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	69		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	87		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	104		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	92		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	70		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	108		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	100		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	91		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	68		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	84		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	104		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	41		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	101		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	101		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	98		33-143

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1950466
Report Date: 11/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/14/19 22:28
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 11/07/19 09:30

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1305732-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
Perfluorohexanoic Acid (PFHxA)	0.360	J	ng/l	2.00	0.328
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248
PFOA/PFOS, Total	ND		ng/l	2.00	0.236

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1950466
Report Date: 11/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/14/19 22:28
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 11/07/19 09:30

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1305732-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	102		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	81		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	105		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	73		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	93		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	109		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	103		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	72		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	115		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	106		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	97		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	65		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	137		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	119		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	41		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	131		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	115		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	111		33-143

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVB-PCE

Project Number: 180132

Lab Number: L1950466

Report Date: 11/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1305732-2 WG1305732-3								
Perfluorobutanoic Acid (PFBA)	95		93		67-148	2		30
Perfluoropentanoic Acid (PFPeA)	101		98		63-161	3		30
Perfluorobutanesulfonic Acid (PFBS)	98		92		65-157	6		30
Perfluorohexanoic Acid (PFHxA)	98		94		69-168	4		30
Perfluoroheptanoic Acid (PFHpA)	95		94		58-159	1		30
Perfluorohexanesulfonic Acid (PFHxS)	94		91		69-177	3		30
Perfluorooctanoic Acid (PFOA)	101		96		63-159	5		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	108		105		49-187	3		30
Perfluoroheptanesulfonic Acid (PFHpS)	108		91		61-179	17		30
Perfluorononanoic Acid (PFNA)	97		93		68-171	4		30
Perfluorooctanesulfonic Acid (PFOS)	97		92		52-151	5		30
Perfluorodecanoic Acid (PFDA)	96		88		63-171	9		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	143		137		56-173	4		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	106		105		60-166	1		30
Perfluoroundecanoic Acid (PFUnA)	97		95		60-153	2		30
Perfluorodecanesulfonic Acid (PFDS)	94		99		38-156	5		30
Perfluorooctanesulfonamide (FOSA)	97		91		46-170	6		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	110		100		45-170	10		30
Perfluorododecanoic Acid (PFDoA)	100		96		67-153	4		30
Perfluorotridecanoic Acid (PFTrDA)	115		112		48-158	3		30
Perfluorotetradecanoic Acid (PFTA)	99		102		59-182	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVB-PCE

Project Number: 180132

Lab Number: L1950466

Report Date: 11/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1305732-2 WG1305732-3								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	95		98		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	75		76		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	96		105		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	68		72		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	87		88		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	96		108		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	90		97		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	68		76		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	104		108		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	88		97		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	89		93		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	65		66		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	103		113		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	102		108		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	48		48		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	128		119		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	102		108		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	90		102		33-143

Project Name: AVB-PCE
Project Number: 180132

Lab Number: L1950466
Report Date: 11/15/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1950466-01A	2 Plastic/1 Plastic/1 H20 Plastic	A	NA		2.4	Y	Absent		A2-NY-537-ISOTOPE(14)
L1950466-01B	2 Plastic/1 Plastic/1 H20 Plastic	A	NA		2.4	Y	Absent		A2-NY-537-ISOTOPE(14)
L1950466-02A	2 Plastic/1 Plastic/1 H20 Plastic	A	NA		2.4	Y	Absent		A2-NY-537-ISOTOPE(14)

*Values in parentheses indicate holding time in days

Project Name:	AVB-PCE	**Lab Number:**	L1950466
Project Number:	180132	**Report Date:**	11/15/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	AVB-PCE	**Lab Number:**	L1950466
Project Number:	180132	**Report Date:**	11/15/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	AVB-PCE	**Lab Number:**	L1950466
Project Number:	180132	**Report Date:**	11/15/19

REFERENCES

134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 10/26/19

ALPHA Job #: L1950466

Client Information

Client: AKRF INC.
Address: 440 PARK AVE S
NY NY
Phone:
Fax: pmcHugh@AKRF.com
Email:

Project Information

Project Name: AVB-PLE
Project Location: YONKERS NY
Project #: 190032
(Use Project name as Project #)
Project Manager:
ALPHAQuote #:

Turn-Around Time

Standard [X] Due Date:
Rush (only if pre approved) [ ] # of Days:

Deliverables

[ ] ASP-A [X] ASP-B
[ ] EQuIS (1 File) [X] EQuIS (4 File)
[ ] Other

Regulatory Requirement

[ ] NY TOGS [ ] NY Part 375
[ ] AWQ Standards [ ] NY CP-51
[ ] NY Restricted Use [ ] Other
[ ] NY Unrestricted Use
[ ] NYC Sewer Discharge

Billing Information

[X] Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
[ ] NJ [ ] NY
[ ] Other:

[ ] These samples have been previously analyzed by Alpha

Other project specific requirements/comments:

PFAS FIELD BLANK ON PLE CHAIN

Please specify Metals or TAL.

ANALYSIS

PFAS

Sample Filtration
[ ] Done
[ ] Lab to do
Preservation
[ ] Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PFAS	Sample Specific Comments
L1950466-01	PLE-MW-B-20191024	10/24/19	1205	WATER	JL	X	
-02	FIELD BLANK-20191024	10/24/19	1120	WATER	JL	X	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type									
Preservative									

Relinquished By:	Date/Time	Received By	Date/Time
	10/25/19 0950		10-25-19 9:50
	10-25-19 1355	PSS-AAL	10/25/19 17:00
P.S.	10/25/19 20:45		10/25/19 20:45
	10.26.19 6:42		10/26/19 6:42

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)