

7 October 2020

Mr. Joshua Haugh
Division of Environmental Remediation
New York State Department of Environmental Conservation
1130 N. Westcott Road
Schenectady, New York 12306-2014

RE: Summary of Pre-Design Investigation Results
Contract/Work Assignment No: D009806-04
Admiral Cleaners, Watervliet, New York
Site No. 401075

Dear Mr. Haugh:

This letter provides a draft summary of analytical results for samples collected during Pre-Design Investigation (PDI) field activities at the Admiral Cleaners Site (No. 401075) in the City of Watervliet, Albany County, New York. In May and June 2020, EA Engineering, P.C. and its affiliate EA Science and Technology (EA) completed PDI field activities as described in the Pre-Design Investigation Letter Work Plan Addendum.¹

Twenty-six boring locations were completed as part of the field investigation. Twenty-three soil borings were completed on 18 and 19 May 2020 by EA's drilling contractor, Parrott Wolff, Inc. of Syracuse, New York, using a direct-push Geoprobe® Mode 6712 DT and 4-foot (ft) macro-core sleeves until refusal. Boring locations located on the slab of the former dry-cleaning building were first cored to gain access to sub-slab soil. Borings were advanced at locations closest to the inferred perimeter of the underground storage tank (UST) then stepped out approximately 5 to 10 ft. Each macro-core sleeve was screened with a photoionization detector (PID) and logged. Samples were collected from the interval with the greatest PID reading, visible staining, and/or strong odor.

Three proposed soil boring locations in the backyard of the adjacent 621 19th Street Property could not be installed safely with the Geoprobe® due to the location of overhead power lines. These three locations were completed 16 June 2020 by EA with a hand auger. The hand auger was advanced until refusal and soil samples were collected from the interval exhibiting the highest PID reading.

Soil samples were submitted to ALS Group USA of Rochester, New York, and analyzed for volatile organic compounds (VOCs) via U.S. Environmental Protection Agency (EPA) Method 8260. A subset of 5 samples were collected and analyzed for Per- and Polyfluoroalkyl Substances and 1,4-Dioxane following modified EPA Method 537 and EPA Method 8270D select ion monitoring, respectively.

¹ EA. 2020. *Pre-Design Investigation Letter Work Plan Addendum*. 13 May.



A summary of detected analytes is presented in **Tables 1 and 2**. Soil boring sample locations and results are provided in **Figure 1**.

Daily field reports and soil boring logs are provided in **Attachment 1**. During outdoor intrusive activities (e.g., soil borings/direct push, monitoring well installation, etc.) at the site, a Community Air Monitoring Plan² was in place. Soil boring cuttings were containerized and stored securely onsite. One waste characterization sample was collected from the cuttings and submitted to Con-Test for full characterization including Toxicity Characteristic Leaching Procedure analysis. Laboratory results for the waste characterization sample are provided in **Attachment 2**.

Analytical results and field PID screening results indicate that the greatest impacts are observed in the vicinity of the UST and the suspected dry-cleaning fluid disposal area. Odor, visible staining, and free product was observed at boring location PDI-SB-03 from 9 to 10 ft below ground surface (bgs) and PDI-SB-10 from 7 to 10 ft bgs. Odor and staining were also observed at location PDI-SB-16 from 8.5 to 10 ft bgs.

The greatest concentrations of tetrachloroethene (PCE) were observed in soil samples from PDI-SB-05 and PDI-SB-16. The concentration of PCE in both samples was equal to the New York State Department of Environmental Protection (NYSDEC) Commercial Use Soil Cleanup Objective (SCO) of 150 milligrams per kilograms (mg/kg). The next greatest detected concentration of PCE was observed in Sample PDI-SB-06 with a concentration of 140 mg/kg. Benzene, toluene, ethylbenzene, and xylene compounds were detected at concentrations greater than their respective Unrestricted Use SCOs at five locations: PDI-SB-02, -13, -10, -13, and -16. Borings locations PDI-SB-13 and PDI-SB-16 are located north of the UST, while the remaining locations are all south of the UST, towards 19th Street. PDI soil borings and detected analytes are shown on **Figure 1** and a summary of VOC detections are provided as **Tables 1 and 2**. Results of this investigation were also combined with Remedial Investigation Phase I and Phase II results to generate two cross sections (**Figures 2 through 4**).^{3, 4}

Sincerely yours,

EA SCIENCE AND TECHNOLOGY

Christopher Schroer
Project Manager

EA ENGINEERING, P.C.

Donald Conan, P.E., P.G.
Contract Manager

² EA. 2019. *Community Air Monitoring Plan; Admiral Cleaners Site (401075)*. July.

³ EA. 2018. *Summary of Phase I Remedial Investigation Results*. 4 September.

⁴ EA. 2019. *Summary of Phase II Remedial Investigation Results*. 24 January.



Figures

- 1 Pre-Design Investigation Surface Soil Analytical Results
- 2 Pre-Design Investigation Cross Sections Transect Locations
- 3 Pre-Design Investigation North-South Cross-Section
- 4 Pre-Design Investigation East-West Cross-Section

Tables

- 1 Summary of Detected Volatile Organic Compounds in Soil Boring Samples, May – June 2020
- 2 Summary of Emerging contaminants in Soil Boring Samples, May 2020

Attachment

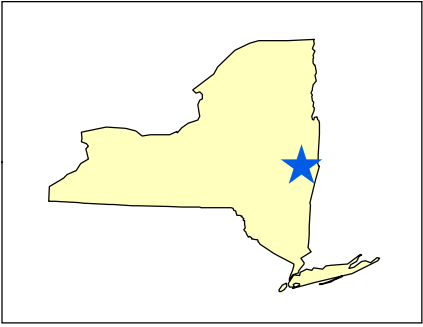
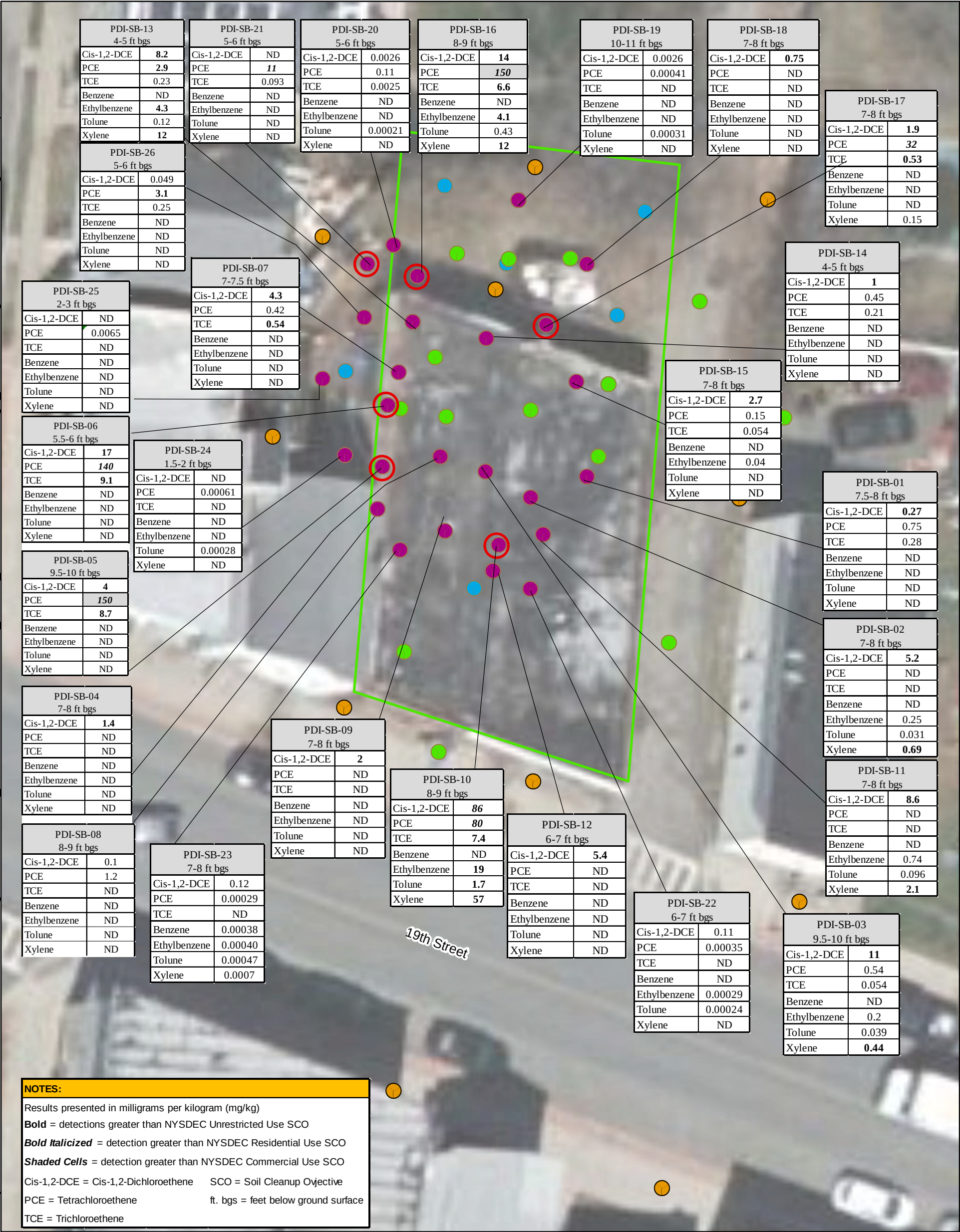
- 1 Field Forms
- 2 Laboratory Analytical Results

This page left intentionally blank

Figures

This page left intentionally blank

G:\Projects\State&Local\NYSDEC - D009806\Work Assignments\1602504 Admiral-Cleaners-RI-FS\06_GIS\01_MXDI\PDI Results Memo\Fig1_PDI Soil Boring Location Volatile Organic Compound-rev.mxd



- Legend**
- Phase I Soil Boring Location
 - Monitoring Well, Phase I
 - Phase II Soil Boring Locations
 - PDI Soil Boring Locations
 - Admiral Cleaners Site Boundary
 - Exceeds Residential SCO

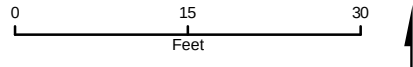


Figure 1
Pre-Design Investigation Surface
Soil Analytical Results

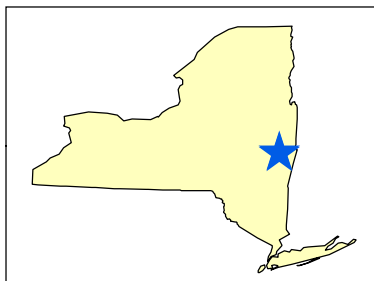
Admiral Cleaners
Watervliet, Albany County, NY

Map Date: 7/24/2020
Projection: NAD 1983 State Plane New York
East FIPS 3101 Feet

Note: Pre-Design Investigation results reported for CVOCs of concern and BTEX compounds.



This page intentionally left blank



Legend

- Admiral Cleaners Site Boundary
- + Phase I Monitoring Well Locations
- + Phase II Monitoring Well Locations
- Phase I Soil Boring Locations
- Phase II Surface Soil Locations

0 15 30
Feet



Figure 2
Pre-Design Investigation
Cross Sections Transect Locations

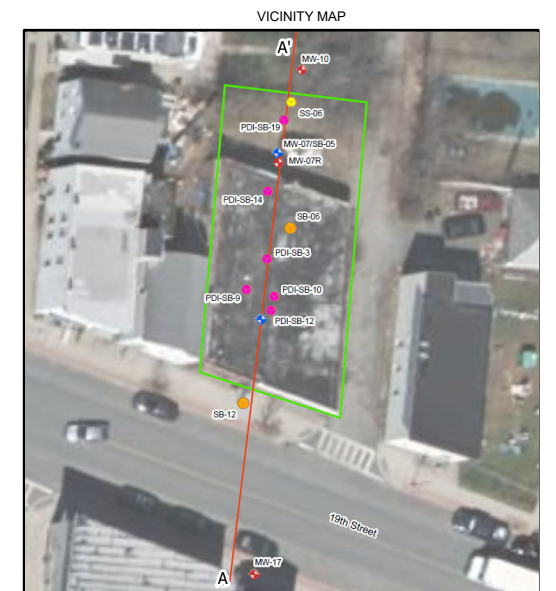
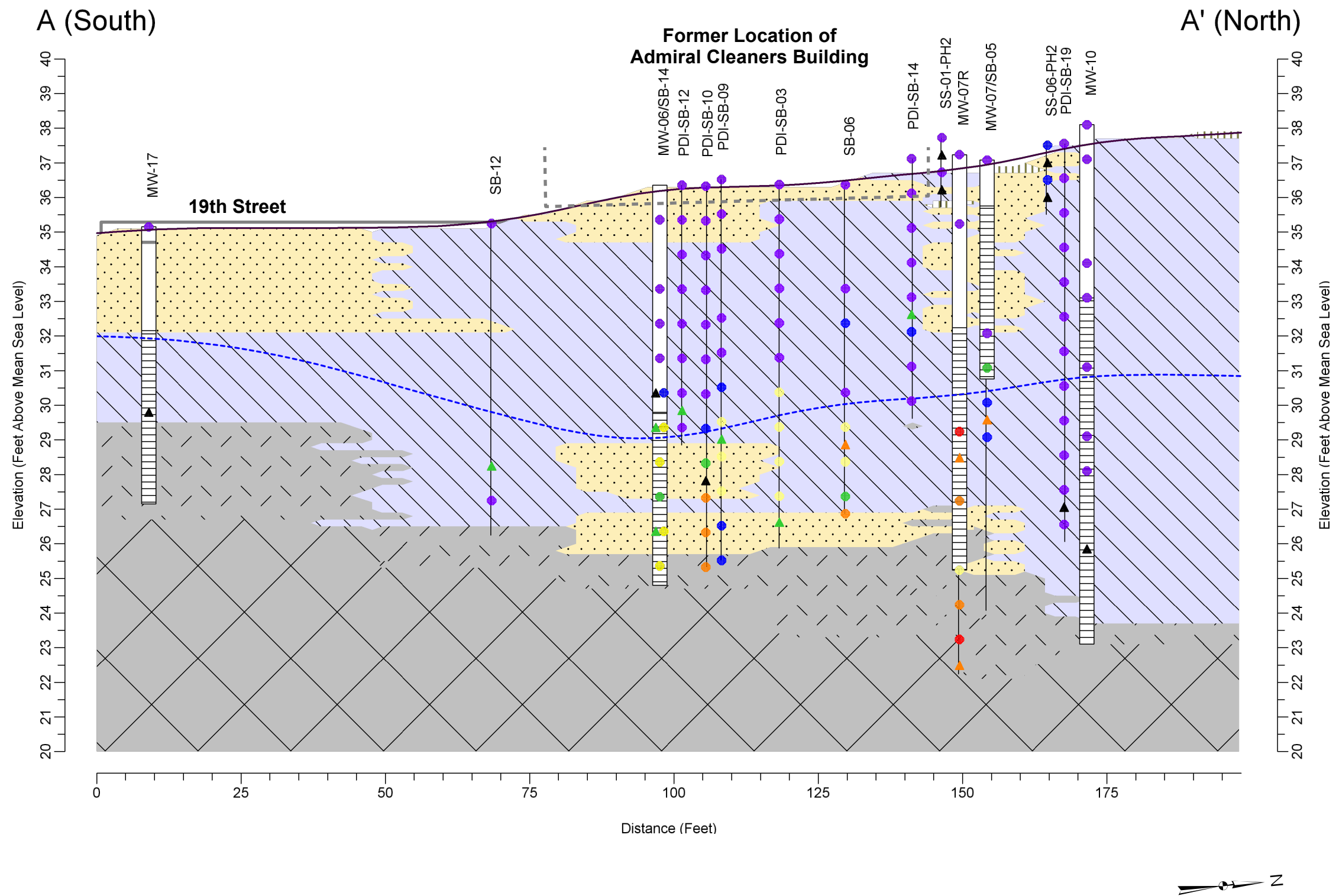
Admiral Cleaners
Watervliet, Albany County, NY

Map Date: 9/14/2020
Projection: NAD 1983 State Plane New York
East FIPS 3101 Feet



This page intentionally left blank

C:\Users\jtrummond\Documents\ArcGIS\Projects\Admiral Cleaners\Admiral Cleaners.aprx



Legend

Groundwater Surface (Sept. 2018)

Soil Type/Lithology

- Topsoil
- Sand - Poorly sorted (Till)
- Clay
- Weathered Bedrock
- Competent Bedrock

Analytical Results (PCE)

- Less Than Unrestricted SCO
- Greater Than Unrestricted SCO
- Greater Than Residential SCO
- Greater Than Commercial SCO

PID Readings

- <10 ppm
- 10-50 ppm
- 50-100 ppm
- 100-500 ppm
- 500-1000 ppm
- >1000 ppm

Well and Boring Indicators

- Soil Boring Interval
- Well Riser Interval
- Well Screen Interval

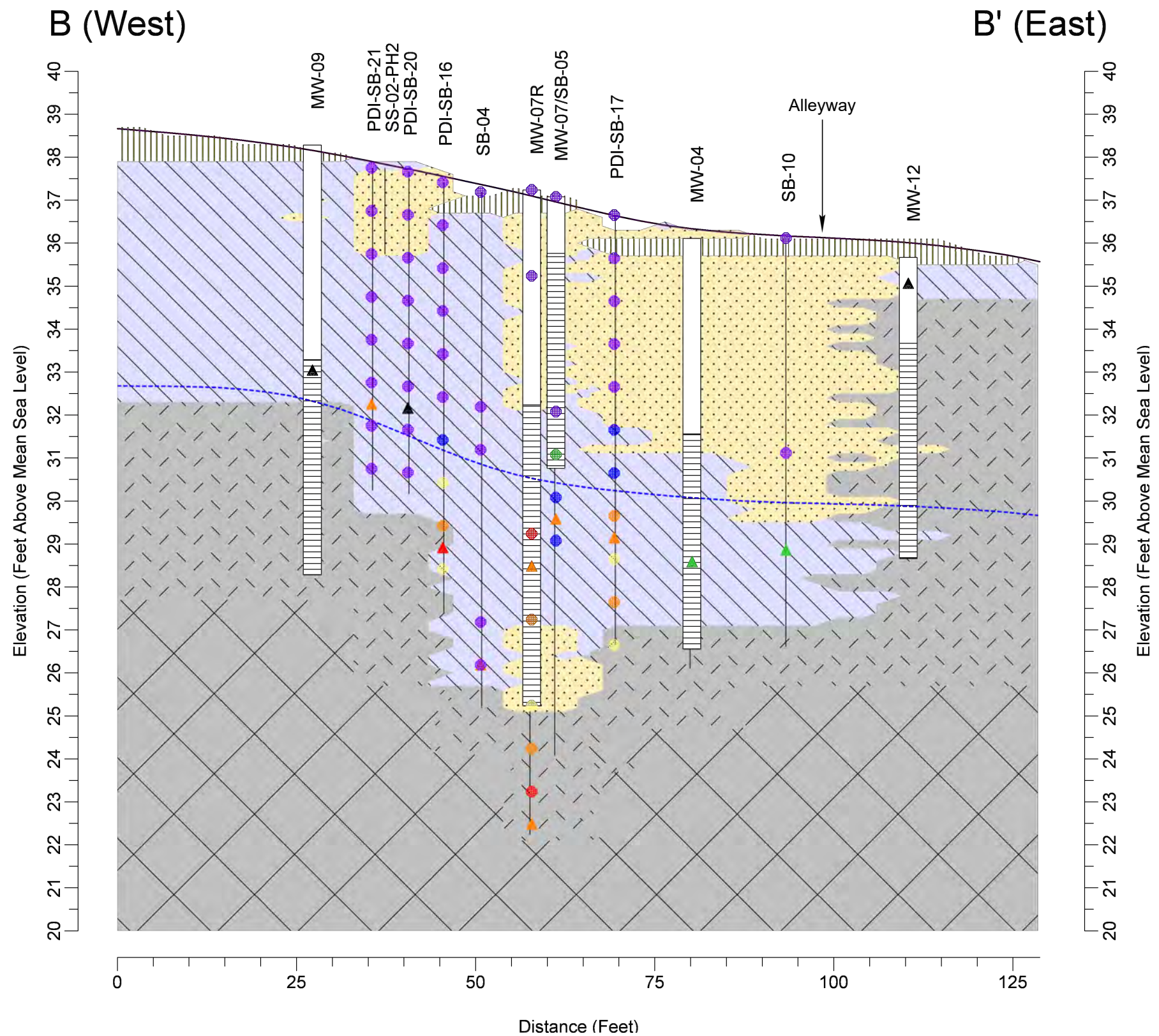


Figure 3
Pre-Design Investigation
North-South Cross-Section

Admiral Cleaners
Watervliet, NY

Aerial: ESRI, 2011
Map Date: 9/29/2020

This page intentionally left blank



- Legend**
- Groundwater Surface (Sept. 2018)
 - Soil Type/Lithology**
 - Topsoil
 - Sand - Poorly Sorted (Till)
 - Clay
 - Weathered Bedrock
 - Competent Bedrock
 - Analytical Results (PCE)**
 - Less Than Unrestricted SCO
 - Greater Than Unrestricted SCO
 - Greater Than Residential SCO
 - Greater Than Commercial SCO
 - PID Readings**
 - < 10 ppm
 - 10-50 ppm
 - 50-100 ppm
 - 100-500 ppm
 - 500-1000 ppm
 - >1000 ppm
 - Well and Boring Indicators**
 - Soil Boring Interval
 - Well Riser Interval
 - Well Screen Interval



Notes:
PCE = Tetrachloroethylene
SCO = Soil Cleanup Objective



Figure 4
Pre-Design Investigation
East-West Cross-Section
Admiral Cleaners
Watervliet, NY

Aerial: ESRI, 2011
Map Date: 7/22/2020

This page intentionally left blank

Tables

This page left intentionally blank

Table 1 Summary of Detected Volatile Organic Compounds in Soil Boring Samples, May - June 2020*

Analyte	Sample Location	PDI-SB-01		PDI-SB-02		PDI-SB-03		PDI-SB-04		PDI-SB-05		PDI-SB-06		PDI-SB-07		PDI-SB-08		PDI-SB-09		Unrestricted Use Soil Cleanup Objective (mg/kg)	Residential Use Soil Cleanup Objective (mg/kg)	Commercial Use Soil Cleanup Objective (mg/kg)
	Interval (ft bgs)	7.5-8		7-8		9.5-10		7-8		9.5-10		5.5-6		7-7.5		8-9		7-8				
	Sample Date	5/18/2020		5/18/2020		5/18/2020		5/18/2020		5/18/2020		5/18/2020		5/18/2020		5/19/2020		5/19/2020				
	Sample Type	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil				
Volatile Organic Compounds by EPA Method 8260C																						
1,1-Dichloroethene (1,1-DCE)	mg/kg	(<0.046)	U	(<0.034)	U	(<0.033)	U	(<0.031)	U	(<0.310)	U	(<0.360)	U	(<0.035)	U	(<0.030)	U	(<0.038)	U	0.33	19	240
Acetone	mg/kg	(<0.320)	U	(<0.540)	U	(<0.530)	U	(<0.490)	U	(<5.000)	U	(<5.900)	U	(<0.560)	U	(<0.490)	U	(<0.620)	U	0.05	100	500
Benzene	mg/kg	(<0.032)	U	(<0.023)	U	(<0.023)	U	(<0.021)	U	(<0.210)	U	(<0.250)	U	(<0.024)	U	(<0.021)	U	(<0.027)	U	0.06	2.9	44
Carbon Disulfide	mg/kg	(<0.046)	U	(<0.034)	U	(<0.033)	U	(<0.031)	U	(<0.310)	U	(<0.360)	U	(0.035)	U	(<0.030)	U	(<0.038)	U	--	--	--
Chloroethane	mg/kg	(<0.032)	U	(<0.023)	U	(<0.023)	U	(<0.021)	U	(<0.210)	U	(<0.250)	U	(<0.024)	U	(<0.021)	U	(<0.027)	U	--	--	--
Chloroform	mg/kg	(<0.032)	U	(<0.023)	U	0.025	J	(<0.021)	U	(<0.210)	U	(<0.250)	U	(<0.024)	U	(<0.021)	U	(<0.027)	U	0.37	10	350
Cis-1,2-Dichloroethylene (Cis-1,2-DCE)	mg/kg	0.27	J	5.2		11		1.4		4	J	17		4.3		0.100	J	2		0.25	59	500
Cyclohexane	mg/kg	(<0.041)	U	(<0.030)	U	(<0.029)	U	0.096	J	(<0.280)	U	(<0.330)	U	(<0.031)	U	(<0.027)	U	(<0.034)	U	--	--	--
Ethylbenzene	mg/kg	(<0.032)	U	0.25	J	0.200	J	(<0.021)	U	(<0.210)	U	(<0.250)	U	(<0.024)	U	(<0.021)	U	(<0.027)	U	1	30	390
Isopropylbenzene	mg/kg	(<0.032)	U	0.440	J	0.240	J	(<0.021)	U	(<0.210)	U	(<0.250)	U	(<0.024)	U	(<0.021)	U	(<0.027)	U	--	--	--
Methyl Acetate	mg/kg	0.210	BJ	(<0.097)	U	0.095	BJ	(<0.087)	U	(<0.890)	U	(<1.100)	U	(<0.099)	U	(<0.087)	U	(<0.110)	U	--	--	--
Methyl Ethyl Ketone	mg/kg	(<0.320)	U	(<0.230)	U	(<0.230)	U	(<0.210)	U	(<2.100)	U	(<2.500)	U	(<0.240)	U	(<0.210)	U	(<0.270)	U	0.12	100	500
Methylcyclohexane	mg/kg	(<0.049)	U	0.140	J	0.060	J	0.230	J	(<0.330)	U	(<0.390)	U	(<0.037)	U	(<0.032)	U	(<0.041)	U	--	--	--
Styrene	mg/kg	(<0.032)	U	(<0.023)	U	(<0.023)	U	(<0.021)	U	(<0.210)	U	(<0.250)	U	(<0.024)	U	(<0.021)	U	(<0.027)	U	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.75	J	(<0.027)	U	0.540	J	(<0.024)	U	150		140		0.420	J	1.2		(<0.030)	U	1.3	5.5	150
Toluene	mg/kg	(<0.032)	U	0.031	J	0.039	J	(<0.021)	U	(<0.210)	U	(<0.250)	U	(<0.024)	U	(<0.021)	U	(<0.027)	U	0.7	100	500
Trans-1,2-Dichloroethene	mg/kg	(<0.032)	U	(<0.023)	U	(<0.023)	U	(<0.021)	U	(<0.210)	U	(<0.250)	U	0.075	J	(<0.021)	U	(<0.027)	U	--	--	--
Trichloroethene (TCE)	mg/kg	0.28	J	(<0.026)	U	0.054	J	(<0.023)	U	8.7		9.1		0.54	J	(<0.023)	U	(<0.029)	U	0.47	10	200
Vinyl Chloride	mg/kg	(<0.072)	U	(<0.053)	U	(<0.052)	U	(<0.048)	U	(<0.490)	U	(<0.570)	U	(<0.055)	U	(<0.048)	U	(<0.060)	U	0.02	0.21	13
Xylenes (Total)	mg/kg	(<0.082)	U	0.69	J	0.44	J	(<0.054)	U	(<0.550)	U	(<0.650)	U	(<0.062)	U	(<0.054)	U	(<0.068)	U	0.26	100	500
NOTES:																						
mg/kg = Milligram(s) per kilogram(s) = part(s) per million																						
EPA = U.S. Environmental Protection Agency																						
ft bgs = Foot (feet) below ground surface																						
ID = Identification																						
NS = Not sampled																						
NYSDEC = New York State Department of Environmental Protection																						
B = Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.																						
J = Result is estimated concentration; detected below Reporting Level.																						
U = Analyte was analyzed for, but not detected below the laboratory detection limit.																						
D = Indicates the compound concentration is the result of a dilution.																						
E = Result is estimated concentration; value reported over verified calibration range.																						
ft bgs = Foot (feet)below ground surface																						
* Data presented in this table is preliminary, unvalidated data.																						
Analytical data results provided by ALS Environmental.																						
Bold values indicate that the analyte was detected greater than the NYSDEC Unrestricted Use Soil Cleanup Objective																						
<i>Bold Italicized</i> values indicate that the analyte was detected greater than the NYSDEC Residential Use Soil Cleanup Objective																						
<i>Shaded cells</i> indicate that the analyte was detected greater than the NYSDEC Commercial Use Cleanup Objective																						
Duplicate PDI-DUP-1 collected at PDI-SB-06; PDI-DUP-2 collected at PDI-SB-17; PDI-DUP-3 collected at PDI-SB-20																						

Table 1 Summary of Detected Volatile Organic Compounds in Soil Boring Samples, May - June 2020*

Analyte	Sample Location	PDI-SB-10		PDI-SB-11		PDI-SB-12		PDI-SB-13		PDI-SB-14		PDI-SB-15		PDI-SB-16		PDI-SB-17		PDI-SB-18		Unrestricted Use Soil Cleanup Objective (mg/kg)	Residential Use Soil Cleanup Objective (mg/kg)	Commercial Use Soil Cleanup Objective (mg/kg)
	Interval (ft bgs)	8-9		7-8		6-7		4-5		4-5		7-8		8-9		7-8		7-8				
	Sample Date	5/19/2020		5/19/2020				5/19/2020		5/19/2020		5/19/2020		5/19/2020		5/19/2020		5/19/2020				
	Sample Type	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil				
Volatile Organic Compounds by EPA Method 8260C																						
1,1-Dichloroethene (1,1-DCE)	mg/kg	(<0.740)	U	(<0.130)	U	(<0.036)	U	(<0.041)	U	(<0.036)	U	(<0.037)	U	(<0.280)	U	(<0.062)	U	(<0.030)	U	0.33	19	240
Acetone	mg/kg	(<1.200)	U	(<2.000)	U	(<0.570)	U	(<0.660)	U	(<0.590)	U	(<0.600)	U	(<4.500)	U	(<1.100)	U	(<0.480)	U	0.05	100	500
Benzene	mg/kg	(<0.510)	U	(<0.085)	U	(<0.025)	U	(<0.029)	U	(<0.025)	U	(<0.026)	U	(<0.190)	U	(<0.043)	U	(<0.021)	U	0.06	2.9	44
Carbon Disulfide	mg/kg	(<0.740)	U	(<0.130)	U	(<0.036)	U	(<0.041)	U	(<0.036)	U	(<0.037)	U	(<0.280)	U	(<0.062)	U	(<0.030)	U	--	--	--
Chloroethane	mg/kg	(<0.510)	U	(<0.085)	U	(<0.025)	U	(<0.029)	U	(<0.025)	U	(<0.026)	U	(<0.190)	U	(<0.043)	U	(<0.021)	U	--	--	--
Chloroform	mg/kg	0.570	J	(<0.085)	U	(<0.025)	U	(<0.029)	U	(<0.025)	U	(<0.026)	U	(<0.190)	U	(<0.043)	U	(<0.021)	U	0.37	10	350
Cis-1,2-Dichloroethylene (Cis-1,2-DCE)	mg/kg	86		8.6		5.4		8.2		1		2.7		14		1.9	J	0.75		0.25	59	500
Cyclohexane	mg/kg	1.9	J	0.190	J	(<0.032)	U	(<0.037)	U	(<0.033)	U	(<0.033)	U	(<0.250)	U	(<0.056)	U	(<0.027)	U	--	--	--
Ethylbenzene	mg/kg	19		0.740	J	(<0.025)	U	4.3		(<0.025)	U	0.040	J	4.1	J	(<0.043)	U	(<0.021)	U	1	30	390
Isopropylbenzene	mg/kg	26		1.2	J	(<0.025)	U	5.8		(<0.025)	U	0.050	J	5.5		0.062	J	(<0.021)	U	--	--	--
Methyl Acetate	mg/kg	(<2.200)	U	(<0.360)	U	(<0.110)	U	(<0.120)	U	0.270	BJ	(<0.110)	U	(<0.800)	U	(<0.180)	U	(<0.085)	U	--	--	--
Methyl Ethyl Ketone	mg/kg	(<5.100)	U	(<0.850)	U	(<0.250)	U	(<0.290)	U	(<0.250)	U	(<0.260)	U	(<1.900)	U	(<0.430)	U	(<0.210)	U	0.12	100	500
Methylcyclohexane	mg/kg	5.3	J	0.600	J	(<0.038)	U	0.091	J	(<0.025)	U	(<0.040)	U	1.200	J	(<0.067)	U	(<0.032)	U	--	--	--
Styrene	mg/kg	(<0.510)	U	(<0.085)	U	(<0.025)	U	(<0.029)	U	(<0.025)	U	(<0.260)	U	(<0.190)	U	(<0.043)	U	(<0.021)	U	--	--	--
Tetrachloroethene (PCE)	mg/kg	80		(<0.098)	U	(<0.028)	U	2.9		0.450	J	0.150	J	150		32	J	(<0.024)	U	1.3	5.5	150
Toluene	mg/kg	1.7	J	0.096	J	(<0.025)	U	0.120	J	(<0.025)	U	(<0.260)	U	0.430	J	(<0.043)	U	(<0.021)	U	0.7	100	500
Trans-1,2-Dichloroethene	mg/kg	(<0.510)	U	(<0.085)	U	(<0.025)	U	0.080	J	(<0.025)	U	(<0.260)	U	0.280	J	(<0.043)	U	(<0.021)	U	--	--	--
Trichloroethene (TCE)	mg/kg	7.4	J	(<0.093)	U	(<0.027)	U	0.230	J	0.210	J	0.054	J	6.6		0.53	J	(<0.023)	U	0.47	10	200
Vinyl Chloride	mg/kg	(<1.200)	U	(<0.200)	U	(<0.056)	U	(<0.065)	U	(<0.057)	U	(<0.059)	U	(<0.440)	U	(<0.099)	U	(<0.047)	U	0.02	0.21	13
Xylenes (Total)	mg/kg	57		2.1	J	(<0.063)	U	12		(<0.065)	U	(<0.066)	U	12	J	0.150	J	(<0.053)	U	0.26	100	500

Table 1 Summary of Detected Volatile Organic Compounds in Soil Boring Samples, May - June 2020*

Analyte	Sample Location	PDI-SB-19		PDI-SB-20		PDI-SB-21		PDI-SB-22		PDI-SB-23		PDI-DUP1-5-19-20		PDI-DUP3-5-19-20		PDI-SB-24		PDI-SB-25		Unrestricted Use Soil Cleanup Objective (mg/kg)	Residential Use Soil Cleanup Objective (mg/kg)	Commercial Use Soil Cleanup Objective (mg/kg)
	Interval (ft bgs)	10-11		5-6		5-6		6-7		7-8		---		---		1.5-2		2-3				
	Sample Date	5/19/2020		5/19/2020		5/19/2020		5/19/2020		5/19/2020		5/18/2020		5/19/2020		6/16/2020		6/16/2020				
	Sample Type	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil				
Volatile Organic Compounds by EPA Method 8260C																						
1,1-Dichloroethene (1,1-DCE)	mg/kg	(<0.00023)	U	(<0.00030)	U	(<0.040)	U	(<0.00032)	U	0.00046	J	(<0.600)	U	(<0.00034)	U	(<0.00034)	U	(<0.00044)	U	0.33	19	240
Acetone	mg/kg	0.05		(0.0048)	U	(<0.640)	U	0.065		0.130		(<9.700)	U	0.035		(<0.0055)	U	(<0.00031)	U	0.05	100	500
Benzene	mg/kg	(<0.00016)	U	(<0.00021)	U	(<0.028)	U	(<0.00023)	U	0.00038	J	(<0.410)	U	(<0.00023)	U	(<0.00024)	U	(<0.00031)	U	0.06	2.9	44
Carbon Disulfide	mg/kg	0.00067	J	(<0.00030)	U	(<0.040)	U	0.00041	J	0.00041	J	(<0.600)	U	(<0.00034)	U	(<0.00034)	U	(<0.00044)	U	--	--	--
Chloroethane	mg/kg	0.00064	BJ	0.00073	BJ	(<0.028)	U	0.00065	BJ	0.00059	BJ	(<0.410)	U	0.00072	BJ	(<0.00048)	U	(<0.00062)	U	--	--	--
Chloroform	mg/kg	(<0.00016)	U	0.00024	BJ	(<0.028)	U	(<0.00023)	U	(<0.00023)	U	(<0.410)	U	0.00024	BJ	(<0.00024)	U	(<0.00031)	U	0.37	10	350
Cis-1,2-Dichloroethylene (Cis-1,2-DCE)	mg/kg	0.026		0.0026	J	(<0.028)	U	110		0.120		9.1	J	0.002	J	(<0.00024)	U	(<0.00031)	U	0.25	59	500
Cyclohexane	mg/kg	(<0.00021)	U	(<0.00027)	U	(<0.036)	U	0.0036	J	0.0076		(<0.540)	U	(<0.00030)	U	(<0.00031)	U	(<0.00040)	U	--	--	--
Ethylbenzene	mg/kg	(<0.00016)	U	(<0.00021)	U	(<0.028)	U	0.00029	J	0.00040	J	(<0.410)	U	(<0.00023)	U	(<0.00024)	U	(<0.00031)	U	1	30	390
Isopropylbenzene	mg/kg	(<0.00016)	U	(<0.00021)	U	(<0.028)	U	0.00092	J	0.00044	J	(<0.410)	U	(<0.00023)	U	(<0.00024)	U	(<0.00031)	U	--	--	--
Methyl Acetate	mg/kg	0.0019	J	(<0.00085)	U	(<0.120)	U	(<0.00093)	U	(<0.00094)	U	(<1.800)	U	(<0.00096)	U	(<0.00098)	U	(<0.0013)	U	--	--	--
Methyl Ethyl Ketone	mg/kg	0.0062		(<0.0021)	U	(<0.280)	U	0.0090		0.017		(<4.100)	U	0.0035	J	(<0.0024)	U	(<0.0031)	U	0.12	100	500
Methylcyclohexane	mg/kg	(<0.00025)	U	(<0.00032)	U	(<0.043)	U	0.0090		0.016		(<0.640)	U	(<0.00036)	U	(<0.00036)	U	(<0.00047)	U	--	--	--
Styrene	mg/kg	(<0.00016)	U	0.00030	J	(<0.028)	U	(<0.00023)	U	(<0.00023)	U	(<0.410)	U	(<0.00023)	U	(<0.00024)	U	(<0.00031)	U	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.00041	J	0.110		11		0.00035	J	0.00029	J	210		0.071		0.00061	J	0.0065	J	1.3	5.5	150
Toluene	mg/kg	0.00031	J	0.00021	J	(<0.028)	U	0.00024	J	0.00047	J	(<0.410)	U	(<0.00023)	U	0.00028	J	(<0.00031)	U	0.7	100	500
Trans-1,2-Dichloroethene	mg/kg	0.0016	J	(<0.00021)	U	(<0.028)	U	0.0025	J	0.0027	J	(<0.410)	U	(<0.00023)	U	(<0.00024)	U	(<0.00031)	U	--	--	--
Trichloroethene (TCE)	mg/kg	(<0.00018)	U	0.0025	J	0.093	J	(<0.00025)	U	(<0.00025)	U	9.9	J	0.0022	J	(<0.00026)	U	(<0.00034)	U	0.47	10	200
Vinyl Chloride	mg/kg	(<0.00037)	U	(<0.00047)	U	(<0.063)	U	0.00061	J	0.0032	J	(<0.950)	U	(<0.00053)	U	(<0.00054)	U	(<0.00070)	U	0.02	0.21	13
Xylenes (Total)	mg/kg	(<0.00041)	U	(<0.00053)	U	(<0.071)	U	(<0.00058)	U	0.00070	J	(<1.1000)	U	(<0.00060)	U	(<0.00061)	U	(<0.00079)	U	0.26	100	500

Table 1 Summary of Detected Volatile Organic Compounds in Soil Boring Samples, May - June 2020*

Analyte	Sample Location	PDI-SB-26		PDI-DUP-06-16-2020		Unrestricted Use Soil Cleanup Objective (mg/kg)	Residential Use Soil Cleanup Objective (mg/kg)	Commercial Use Soil Cleanup Objective (mg/kg)
	Interval (ft bgs)	5-6		-				
	Sample Date	6/16/2020		6/16/2020				
	Sample Type	Soil		Soil				
VOCs by USEPA Method 8260C								
1,1-Dichloroethene (1,1-DCE)	mg/kg	(<0.030)	U	(<0.00040)	U	0.33	19	240
Acetone	mg/kg	(<0.480)	U	(<0.0064)	U	0.05	100	500
Benzene	mg/kg	(<0.021)	U	(<0.00028)	U	0.06	2.9	44
Carbon Disulfide	mg/kg	(<0.030)	U	(<0.00040)	U	--	--	--
Chloroethane	mg/kg	(<0.042)	U	(<0.00056)	U	--	--	--
Chloroform	mg/kg	(<0.021)	U	(<0.00028)	U	0.37	10	350
Cis-1,2-Dichloroethylene (Cis-1,2-DCE)	mg/kg	0.049	J	(<0.00028)	U	0.25	59	500
Cyclohexane	mg/kg	(<0.027)	U	(<0.00036)	U	--	--	--
Ethylbenzene	mg/kg	(<0.021)	U	(<0.00028)	U	1	30	390
Isopropylbenzene	mg/kg	(<0.021)	U	(<0.00028)	U	--	--	--
Methyl Acetate	mg/kg	(<0.086)	U	(<0.0012)	U	--	--	--
Methyl Ethyl Ketone	mg/kg	(<0.210)	U	(<0.0028)	U	0.12	100	500
Methylcyclohexane	mg/kg	(<0.032)	U	(<0.00043)	U	--	--	--
Styrene	mg/kg	(<0.021)	U	(<0.00028)	U	--	--	--
Tetrachloroethene (PCE)	mg/kg	3.1		0.0074		1.3	5.5	150
Toluene	mg/kg	(<0.021)	U	(<0.00028)	U	0.7	100	500
Trans-1,2-Dichloroethene	mg/kg	(<0.021)	U	(<0.00028)	U	--	--	--
Trichloroethene (TCE)	mg/kg	0.250	J	(<0.00030)	U	0.47	10	200
Vinyl Chloride	mg/kg	(<0.047)	U	(<0.00063)	U	0.02	0.21	13
Xylenes (Total)	mg/kg	(<0.053)	U	(<0.00071)	U	0.26	100	500

Table 2 Summary of Emerging Contaminants in Soil Boring Samples, May 2020*

Analyte	Sample Location	PDI-SB-07		PDI-SB-10		PDI-SB-17		PDI-SB-19		PDI-SB-21		PDI-DUP2-5-19-20	
	Interval (ft bgs)	7-7.5		8-9		7-8		10-11		5-6		-	
	Sample Date	5/18/2020		5/19/2020		5/19/2020		5/19/2020		5/19/2020		5/19/2020	
	Sample Type	Soil		Soil		Soil		Soil		Soil		Soil	
SVOCs by EPA Method 8270D SIM													
1,4-Dioxane	mg/kg	(<0.013)	U	(<0.270)	U	(<0.012)	U	(<0.012)	U	(<0.012)	U	(<0.012)	U
PFAS by EPA Method 537M													
Perfluoroalkane Sulfonic Acids													
Perfluorobutanesulfonic acid (PFBS)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Perfluorohexanesulfonic acid (PFHxS)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Perfluoroheptanesulfonic acid (PFHpS)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Perfluorooctane sulfonic acid (PFOS)	ng/g	0.25	J	0.18	J	(<1.1)	U	(<1.1)	U	0.18	J	0.18	J
Perfluorodecane sulfonic acid (PFDS)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Perfluoroalkane Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Perfluoropentanoic acid (PFPeA)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Perfluorohexanoic acid (PFHxA)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Perfluoroheptanoic acid (PFHpA)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Perfluorooctanoic acid (PFOA)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	0.21	J	(<1.2)	U
Perfluorononanoic acid (PFNA)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Perfluorodecanoic acid (PFDA)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Perfluoroundecanoic acid (PFUnDA)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Perfluorododecanoic acid (PFDoDA)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Perfluorotridecanoic acid (PFTrDA)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Perfluorotetradecanoic acid (PFTeDA)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	0.21	J	(<1.2)	U	(<1.2)	U
Perfluoroalkyl Sulfonamides													
Perfluorooctanesulfonamide (FOSA)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
NMeFOSAA	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
NEtFOSAA	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
(N:2) Flyorotelomer Sulfonic Acids													
6:2 Fluorotelomersulfonate (6:2 FTS)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
8:2 Fluorotelomersulfonate (8:2 FTS)	ng/g	(<1.1)	U	(<1.2)	U	(<1.1)	U	(<1.1)	U	(<1.2)	U	(<1.2)	U
Total PFAS	ppb	0.25		0.18		ND		0.21		0.39		0.18	
NOTES: mg/kg = Milligram(s) per kilogram(s) ng/g = Nanogram(s) per gram EPA = U.S. Environmental Protection Agency ft bgs = Foot (feet) below ground surface ID = Identification NYSDEC = New York State Department of Environmental Conserva ppb = Part(s) per billion J = Result is estimated concentration; detected below Reporting Level. U = Analyte was analyzed for, but not detected below the laboratory detection limit. PDI-DUP2-5-19-20 was a blind field duplicate collected from PDI-SB-17 * Data presented in this table is unvalidated data.													

This page intentionally left blank

Attachment 1

Field Forms

This page left intentionally blank

 EA Engineering, P.C. EA Science and Technology		Job. No. 1602504		Client: NYSDEC Project: Admiral Cleaners		Location: Watervliet, New York	
		Drilling Method: Geoprobe Direct-Push		Soil Boring Number: PDI-SB-04		Sheet 1 of 1	
		Sampling Method:		Continuous Macrocore®		Drilling	
		Water Level: 4'		Start		Finish	
Coordinates: Northing _____ Easting: _____		Time:		Date: 5/18/2020		Date: 5/18/2020	
Surface Elevation: _____		Date:		Time: 1:45:00 PM		Time: 2:05:00 PM	
Casing Below Surface: _____							
Reference Elevation: _____							
Reference Description: _____							
Blow Counts (140-lb)	Ft. Driven/ Ft. Recvrd	Boring Diagram	PID (ppm)	Depth in Feet	USCS Log	Surface Conditions:	
				0		Weather:	
						Temperature:	
	3/4		10.5	1		4" Concrete	
			34.2	2	GP/SP		
			107	3	CH	4"-2' Brown clayey FILL (brick, rock frags, etc.)	
	4/4		41.1	4	ML/CL	2-3' Brown CLAY, little fine sand, medium dense, plastic	
			13.2	5	CL	3-4.5' Dark gray clayey-SILT, medium dense, odor, wet at 4'	
			43	6		4.5-9' light gray CLAY, little silt toawrds base, very dense, odor	
	3/3		26.6	7			
			116	8			
			53.4	9	ML	9-11' light gray/brown, SILT, very stiff, wet sand seam at 10' rock fragments at base.	
			34	10			
			31	11		Refusal at 11'	
				12			
				13			
				14			
				15			
				16			
				17			
				18			
				19			
				20			
				21			
				22			
				23			
				24			
				25			
				26			
		27					
		28					
		29					
Monitoring Well Construction Information						Soil Vapor Point Installation Information	
Monitoring Well Diameter: _____ in Bottom of Monitoring Well: _____ ft bgs Stick Up or Flush Mount: _____ Screen Interval: _____ To _____ ft bgs Riser Interval: _____ To _____ ft bgs Sand Pack Interval: _____ To _____ ft bgs Bentonite Seal: _____ To _____ ft bgs Grout Interval: _____ To _____ ft bgs						Depth of Soil Vapor Point: _____ ft Bottom of Tubing: _____ ft Top of Sand Pack: _____ ft Top of Bentonite Seal: _____ ft	
Logged by: <u>Danny Kite</u>						Date: <u>5/18/2020</u>	
Drilling Contractor: <u>Parratt-Wolff</u>						Driller: <u>Mark Eaves</u>	



EA Engineering, P.C.
EA Science and Technology

LOG OF SOIL BORING

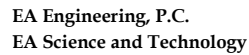
Coordinates: Northing _____ Easting: _____
Surface Elevation: _____
Casing Below Surface: _____
Reference Elevation: _____
Reference Description: _____

Job No. 1602504	Client: NYSDEC	Location: Watervliet, New York
Project: Admiral Cleaners		Soil Boring Number: PDI-SB-07
Drilling Method: Geoprobe Direct-Push		Sheet 1 of 1
Sampling Method:		
Continuous Macrocore®		Drilling
Water Level: 4'		Start
Time:		Finish
Date:		Date: 5/18/2020
		Time: 3:15 PM

Blow Counts (140-lb)	Ft. Driven/ Recvrd	Boring Diagram	PID (ppm)	Depth in Feet	USCS Log	Surface Conditions: Weather: Temperature:
	3/4		0.2	0		4" Concrete
			2	1	SP	4"-2.5' fill with rock fragments and some debris, also has some sand
				2		
			3.4	3	CH	2.5-4' brown silty-CLAY
	3.5/ 3.5			4	CL/ML	4-7' brown/green silty-CLAY, some odor
			1.1	5		
				6	GP	7-7.5' rock fragments with some shale in it
			5.3	7		Refusal at 7.5'

Monitoring Well Construction Information		Soil Vapor Point Installation Information	
Monitoring Well Diameter: _____ in		Depth of Soil Vapor Point: _____ ft	
Bottom of Monitoring Well: _____ ft bgs		Bottom of Tubing: _____ ft	
Stick Up or Flush Mount: _____		Top of Sand Pack: _____ ft	
Screen Interval: _____ To _____ ft bgs		Top of Bentonite Seal: _____ ft	
Riser Interval: _____ To _____ ft bgs			
Sand Pack Interval: _____ To _____ ft bgs			
Bentonite Seal: _____ To _____ ft bgs			
Grout Interval: _____ To _____ ft bgs			
Logged by: <u>Enock Bunvon</u>		Date: <u>5/18/2020</u>	
Drilling Contractor: <u>Parratt-Wolff</u>		Driller: <u>Mark Eaves</u>	

 EA Engineering, P.C. EA Science and Technology				Job. No. 1602504 Client: NYSDEC Project: Admiral Cleaners		Location: Watervliet, New York		
LOG OF SOIL BORING Coordinates: Northing _____ Easting: _____ Surface Elevation: _____ Casing Below Surface: _____ Reference Elevation: _____ Reference Description: _____				Drilling Method: _____ Geoprobe Direct-Push		Soil Boring Number: PDI-SB-14		
				Sampling Method: _____		Sheet 1 of 1		
				Continuous Macrocore®		Drilling		
				Water Level: _____		Start _____ Finish _____		
				Time: _____		Date: 5/19/2020		
				Date: _____		Time: 11:40 AM		
						Date: 5/19/2020		
						Time: 12:00 PM		
Blow Counts (140-lb)	Ft. Driven/ Ft. Recvrd	Boring Diagram	PID (ppm)	Depth in Feet	USCS Log	Surface Conditions:		
						Weather:		
						Temperature:		
	3/4		0.1	0				
						GP	0-2' concrete/rubble fill	
				1.7	1			
				1.6	2		CH	2-3' brown CLAY, plastic, medium dense, odor
	4/4		1.4	3				
						CL	3-5.5' gray/brown CLAY, little silt, nonplastic, trace gravel, odor	
				2.8	4			
				29.6	5			
			6.6	6				
						CL	5.5-7.5' gray CLAY, very dense, nonplastic, trace gravel	
				8.6	7			
							Refusal at 7.5'	
Monitoring Well Construction Information						Soil Vapor Point Installation Information		
Monitoring Well Diameter: _____ in						Depth of Soil Vapor Point: _____ ft		
Bottom of Monitoring Well: _____ ft bgs						Bottom of Tubing: _____ ft		
Stick Up or Flush Mount: _____						Top of Sand Pack: _____ ft		
Screen Interval: _____ To _____ ft bgs						Top of Bentonite Seal: _____ ft		
Riser Interval: _____ To _____ ft bgs								
Sand Pack Interval: _____ To _____ ft bgs								
Bentonite Seal: _____ To _____ ft bgs								
Grout Interval: _____ To _____ ft bgs								
Logged by: Danny Kite						Date: 5/19/2020		
Drilling Contractor: Parratt-Wolff						Driller: Mark Eaves		



Coordinates: Northing _____ Easting: _____

Surface Elevation: _____

Casing Below Surface:

Reference Elevation: _____

Reference Description:

Blow	Ft. Driven/	Boring	BID	Depth
------	-------------	--------	-----	-------

Job. No. 1602504	Client: NYSDEC			Location:	
	Project: Admiral Cleaners			Watervliet, New York	
Drilling Method:				Soil Boring Number: PDI-SB-16	
Geoprobe Direct-Push					
Sampling Method:				Sheet 1 of 1	
Continuous Macrocore®			Drilling		
Water Level:	3.50		Start		Finish
Time:			Date:	5/19/2020	5/19/2020
Date:			Time:	1:00 PM	1:15 PM

[illegible]

Monitoring Well Construction Information				Soil Vapor Point Installation Information			
Monitoring Well Diameter: _____ in				Depth of Soil Vapor Point: _____ ft			
Bottom of Monitoring Well: _____ ft bgs				Bottom of Tubing: _____ ft			
Stick Up or Flush Mount: _____				Top of Sand Pack: _____ ft			
Screen Interval: _____ To _____ ft bgs				Top of Bentonite Seal: _____ ft			
Riser Interval: _____ To _____ ft bgs							
Sand Pack Interval: _____ To _____ ft bgs							
Bentonite Seal: _____ To _____ ft bgs							
Grout Interval: _____ To _____ ft bgs							
Logged by: _____ <u>Danny Kite</u>				Date: _____ <u>5/19/2020</u>			
Drilling Contractor: _____ <u>Parratt-Wolff</u>				Driller: _____ <u>Mark Eaves</u>			

LOG OF SOIL BORING

Coordinates: Northing Easting:

Surface Elevation: _____

Casing Below Surface:

Reference Elevation: _____

Reference Description:

Job. No.	Client:	NYSDEC
1602504	Project:	Admiral Cleaners

Location:
Watervliet, New York

Drilling Method:

Soil Boring Number:
PDI-SB-17

Geoprobe Direct-Push

Sampling Method:

Sheet 1 of 1

Continuous Macrocore®

Drilling

Water Level:	4'
--------------	----

Start

Finish

	5/19/2020
--	-----------

Date:

Time:

Time

1:30 PM

Surface Conditions:

Weather:

Temperature:

[illegible]

Monitoring Well Construction Information

Monitoring Well Diameter:	_____	in
Bottom of Monitoring Well:	_____	ft bgs
Stick Up or Flush Mount:	_____	
Screen Interval:	To _____	ft bgs
Riser Interval:	To _____	ft bgs
Sand Pack Interval:	To _____	ft bgs
Bentonite Seal:	To _____	ft bgs
Grout Interval:	To _____	ft bgs

Soil Vapor Point Installation Information

Depth of Soil Vapor Point:	_____	ft
Bottom of Tubing:	_____	ft
Top of Sand Pack:	_____	ft
Top of Bentonite Seal:	_____	ft

Logged by:	<u>Danny Kite</u>
Drilling Contractor:	Parratt-Wolff

Date: 5/19/2020

Driller: Mark Eaves

LOG OF SOIL BORING

Coordinates: Northing _____ Easting: _____

Surface Elevation: _____

Casing Below Surface: _____

Reference Elevation: _____

Reference Description:	
------------------------	--

Job. No. 1602504	Client: NYSDEC			Location:	
	Project: Admiral Cleaners			Watervliet, New York	
Drilling Method:				Soil Boring Number: PDI-SB-18	
Geoprobe Direct-Push					
Sampling Method:				Sheet 1 of 1	
Continuous Macrocore®			Drilling		
Water Level: 4'			Start		Finish
Time:			Date:	5/19/2020	Date: 5/19/2020
Date:			Time:	1:40 PM	Time: 2:00 PM

[illegible]

Monitoring Well Construction Information				Soil Vapor Point Installation Information	
Monitoring Well Diameter:	_____	in		Depth of Soil Vapor Point:	_____ ft
Bottom of Monitoring Well:	_____	ft bgs		Bottom of Tubing:	_____ ft
Stick Up or Flush Mount:	_____			Top of Sand Pack:	_____ ft
Screen Interval:	_____	To _____	ft bgs	Top of Bentonite Seal:	_____ ft
Riser Interval:	_____	To _____	ft bgs		
Sand Pack Interval:	_____	To _____	ft bgs		
Bentonite Seal:	_____	To _____	ft bgs		
Grout Interval:	_____	To _____	ft bgs		

Logged by:	Danny Kite	Date:	5/19/2020
Drilling Contractor:	Parratt-Wolff	Driller:	Mark Eaves

 EA Engineering, P.C. EA Science and Technology		Job No. 1602504		Client: NYSDEC Project: Admiral Cleaners		Location: Watervliet, New York			
		Drilling Method: Geoprobe Direct-Push						Soil Boring Number: PDI-SB-19	
		Sampling Method: Continuous Macrocore®						Sheet 1 of 1	
		LOG OF SOIL BORING Coordinates: Northing _____ Easting: _____ Surface Elevation: _____ Casing Below Surface: _____ Reference Elevation: _____ Reference Description: _____							
		Water Level: _____		Start		Finish			
		Time: _____		Date: 5/19/2020		Date: 5/19/2020			
		Date: _____		Time: 2:00 PM		Time: 2:15 PM			
Blow Counts (140-lb)	Ft. Driven/ Ft. Recvrd	Boring Diagram	PID (ppm)	Depth in Feet	USCS Log	Surface Conditions:			
						Weather:			
						Temperature:			
	3/4		0.1	0	GP	0-4' brown gravelly fill			
			0.5	1					
			0.8	2					
			0.7	3					
	4/4		0.5	4	CL	4-6' brown CLAY, low plasticity, little gravel, trace sand, stiff			
			0.3	5					
			0.6	6					
			0.5	7					
	3.5/3.5		0.4	8	CL/ML	6-10' gray silty-CLAY, trace gravel, low plasticity			
			0.5	9					
			0.7	10					
			0.4	11					
						Refusal at 11.5'			
Monitoring Well Construction Information						Soil Vapor Point Installation Information			
Monitoring Well Diameter: _____ in Bottom of Monitoring Well: _____ ft bgs Stick Up or Flush Mount: _____ Screen Interval: _____ To _____ ft bgs Riser Interval: _____ To _____ ft bgs Sand Pack Interval: _____ To _____ ft bgs Bentonite Seal: _____ To _____ ft bgs Grout Interval: _____ To _____ ft bgs						Depth of Soil Vapor Point: _____ ft Bottom of Tubing: _____ ft Top of Sand Pack: _____ ft Top of Bentonite Seal: _____ ft			
Logged by: <u>Danny Kite</u>						Date: <u>5/19/2020</u>			
Drilling Contractor: <u>Parratt-Wolff</u>						Driller: <u>Mark Eaves</u>			



EA Engineering, P.C.
EA Science and Technology

LOG OF SOIL BORING

Coordinates: Northing _____ Easting: _____

Surface Elevation: _____

Casing Below Surface: _____

Reference Elevation: _____

Reference Description: _____

Job No. 1602504 Client: NYSDEC
Project: Admiral Cleaners

Location:
Watervliet, New York

Drilling Method:
Geoprobe Direct-Push

Soil Boring Number:
PDI-SB-20

Sampling Method:

Sheet 1 of 1

Continuous Macrocore®

Drilling

Water Level: _____

Start

Finish

Time: _____

Date: 5/19/2020

Date: 5/19/2020

Date: _____

Time: 2:20 PM

Time: 2:35 PM

Blow Counts (140-lb)	Ft. Driven/ Ft. Recvrd	Boring Diagram	PID (ppm)	Depth	USCS Log	Surface Conditions:
				in		Weather:
				Feet		Temperature:
	4/4		0.1	0	GW	0-5' brown gravelly fill, stone, bricks, trace clay, little sand
				1		
			0.4			
			0.7	2		
			0.6	3		
	4/4		0.5	4		
			0.8	5	ML/CL	5-7.5' gray/ tan clayey-SILT, very stiff, trace gravel
			0.3	6		
			0.4	7		
				8		
				Refusal at 7.5'		

Monitoring Well Construction Information

Monitoring Well Diameter: _____ in
Bottom of Monitoring Well: _____ ft bgs
Stick Up or Flush Mount: _____
Screen Interval: _____ To _____ ft bgs
Riser Interval: _____ To _____ ft bgs
Sand Pack Interval: _____ To _____ ft bgs
Bentonite Seal: _____ To _____ ft bgs
Grout Interval: _____ To _____ ft bgs

Soil Vapor Point Installation Information

Depth of Soil Vapor Point: _____ ft
Bottom of Tubing: _____ ft
Top of Sand Pack: _____ ft
Top of Bentonite Seal: _____ ft

Logged by: Danny Kite

Date: 5/19/2020

Drilling Contractor: Parratt-Wolff

Driller: Mark Eaves

LOG OF SOIL BORING

Coordinates: Northing _____ Easting: _____

Surface Elevation: _____

Casing Below Surface:

Reference Elevation: _____

Reference Description:

Job. No.	Client:	NYSDEC
1602504	Project:	Admiral Cleaners

Location:
tervliet, New York

Drilling Method:
Geoprobe Direct-Push

Soil Boring Number:
PDI-SB-21

Sampling Method:

Sheet 1 of 1

Continuous Macrocore®	
-----------------------	--

Drilling

Water Level:			Start
--------------	--	--	-------

Start

Finish

Time:		Date:	5/19/2020
-------	--	-------	-----------

Date:

Date:

5/19/2020

Date:		Time:	2:35 PM
-------	--	-------	---------

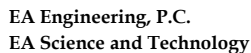
Time:

Time:

2:50 PM

[illegible]

Monitoring Well Construction Information				Soil Vapor Point Installation Information			
Monitoring Well Diameter: _____ in				Depth of Soil Vapor Point: _____ ft			
Bottom of Monitoring Well: _____ ft bgs				Bottom of Tubing: _____ ft			
Stick Up or Flush Mount: _____				Top of Sand Pack: _____ ft			
Screen Interval: _____ To _____ ft bgs				Top of Bentonite Seal: _____ ft			
Riser Interval: _____ To _____ ft bgs							
Sand Pack Interval: _____ To _____ ft bgs							
Bentonite Seal: _____ To _____ ft bgs							
Grout Interval: _____ To _____ ft bgs							
Logged by: <u>Danny Kite</u>				Date: <u>5/19/2020</u>			
Drilling Contractor: <u>Parratt-Wolff</u>				Driller: <u>Mark Eaves</u>			



Coordinates: Northing Easting:

Surface Elevation: _____

Casing Below Surface: _____

Reference Elevations:

Reference Description: _____

Reference Description:				
Ref ID	Ref Title	Ref Author	Ref Date	Ref Status
1	...	...	...	...
2	...	...	...	...
3	...	...	...	...
4	...	...	...	...
5	...	...	...	...
6	...	...	...	...
7	...	...	...	...
8	...	...	...	...
9	...	...	...	...
10	...	...	...	...
11	...	...	...	...
12	...	...	...	...
13	...	...	...	...
14	...	...	...	...
15	...	...	...	...
16	...	...	...	...
17	...	...	...	...
18	...	...	...	...
19	...	...	...	...
20	...	...	...	...
21	...	...	...	...
22	...	...	...	...
23	...	...	...	...
24	...	...	...	...
25	...	...	...	...
26	...	...	...	...
27	...	...	...	...
28	...	...	...	...
29	...	...	...	...
30	...	...	...	...
31	...	...	...	...
32	...	...	...	...
33	...	...	...	...
34	...	...	...	...
35	...	...	...	...
36	...	...	...	...
37	...	...	...	...
38	...	...	...	...
39	...	...	...	...
40	...	...	...	...
41	...	...	...	...
42	...	...	...	...
43	...	...	...	...
44	...	...	...	...
45	...	...	...	...
46	...	...	...	...
47	...	...	...	...
48	...	...	...	...
49	...	...	...	...
50	...	...	...	...
51	...	...	...	...
52	...	...	...	...
53	...	...	...	...
54	...	...	...	...
55	...	...	...	...
56	...	...	...	...
57	...	...	...	...
58	...	...	...	...
59	...	...	...	...
60	...	...	...	...
61	...	...	...	...
62	...	...	...	...
63	...	...	...	...
64	...	...	...	...
65	...	...	...	...
66	...	...	...	...
67	...	...	...	...
68	...	...	...	...
69	...	...	...	...
70	...	...	...	...
71	...	...	...	...
72	...	...	...	...
73	...	...	...	...
74	...	...	...	...
75	...	...	...	...
76	...	...	...	...
77	...	...	...	...
78	...	...	...	...
79	...	...	...	...
80	...	...	...	...
81	...	...	...	...
82	...	...	...	...
83	...	...	...	...
84	...	...	...	...
85	...	...	...	...
86	...	...	...	...
87	...	...	...	...
88	...	...	...	...
89	...	...	...	...
90	...	...	...	...
91	...	...	...	...
92	...	...	...	...
93	...	...	...	...
94	...	...	...	...
95	...	...	...	...
96	...	...	...	...
97	...	...	...	...
98	...	...	...	...
99	...	...	...	...
100	...	...	...	...

Job. No.	Client:	NYSDEC
1602504	Project:	Admiral Cleaners

Location:
Watervliet, New York

Drilling Method:
Geoprobe Direct-Push

Soil Boring Number:
PDI-SB-22

Sampling Method:

Sheet 1 of 1

Continuous Macrocore®

Drilling

Water Level:	
--------------	--

Start

Finish

Time:	
-------	--

Date:	5/10/2020
-------	-----------

Date:	5/19/2020
-------	-----------

Time.	
—	

Date:	5/19/2024
Time:	1:00 PM

Date:	5/19/2020
Time:	2:45 PM

[illegible]

Monitoring Well Construction Information

Monitoring Well Diameter:	_____	in
Bottom of Monitoring Well:	_____	ft bgs
Stick Up or Flush Mount:	_____	
Screen Interval:	_____ To _____	ft bgs
Riser Interval:	_____ To _____	ft bgs
Sand Pack Interval:	_____ To _____	ft bgs
Bentonite Seal:	_____ To _____	ft bgs
Grout Interval:	_____ To _____	ft bgs

Soil Vapor Point Installation Information

Depth of Soil Vapor Point:	ft
Bottom of Tubing:	ft
Top of Sand Pack:	ft
Top of Bentonite Seal:	ft

Logged by: Danny Kite

Date: 5/19/2020

Drilling Contractor: Parratt-Wolff

Driller: Mark Eaves

EA Engineering, P.C. EA Science and Technology LOG OF SOIL BORING Coordinates: Northing: _____ Easting: _____ Surface Elevation: _____ Casing Below Surface: _____ Reference Elevation: _____ Reference Description: _____			Job. No. 1602504 Client: NYSDEC Project: 401075 - Admiral Cleaners		Location: Watervliet, New York																																																																																																																																																													
			Drilling Method: Handheld Auger		Soil Boring Number: PDI-SB-24																																																																																																																																																													
			Sampling Method: _____		Sheet 1 of 1																																																																																																																																																													
			Macrocore®		Drilling																																																																																																																																																													
Water Level: _____		Start		Finish																																																																																																																																																														
Time: _____		Date: 6/16/2020	Date: 6/16/2020		Time: 9:00 AM																																																																																																																																																													
Date: _____		Time: 9:00 AM	Time: 9:44 AM		Time: 9:44 AM																																																																																																																																																													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Blow Counts (140-lb)</th> <th>Ft. Driven/ Ft. Recvrd</th> <th>Boring Diagram</th> <th>PID (ppm)</th> <th>Depth in Feet</th> <th>USCS Log</th> </tr> </thead> <tbody> <tr><td></td><td>1/1</td><td rowspan="29"></td><td>0.4</td><td>0</td><td>SM</td></tr> <tr><td></td><td></td><td></td><td>1</td><td></td></tr> <tr><td></td><td>1/1</td><td>0.3</td><td>2</td><td>ML</td></tr> <tr><td></td><td></td><td></td><td>3</td><td></td></tr> <tr><td></td><td>1/1</td><td>0.7</td><td>4</td><td>ML</td></tr> <tr><td></td><td></td><td></td><td>5</td><td></td></tr> <tr><td></td><td>1/1</td><td>0.6</td><td>6</td><td>SM</td></tr> <tr><td></td><td></td><td></td><td>7</td><td></td></tr> <tr><td></td><td>1/1</td><td>0.6</td><td>8</td><td>ML</td></tr> <tr><td></td><td></td><td></td><td>9</td><td></td></tr> <tr><td></td><td>1/1</td><td>0.4</td><td>10</td><td>SP</td></tr> <tr><td></td><td></td><td></td><td>11</td><td></td></tr> <tr><td></td><td>1/1</td><td>0.4</td><td>12</td><td>CH</td></tr> <tr><td></td><td></td><td></td><td>13</td><td></td></tr> <tr><td></td><td>1/1</td><td>0.3</td><td>14</td><td>CL</td></tr> <tr><td></td><td></td><td></td><td>15</td><td></td></tr> <tr><td></td><td>1/1</td><td>0.1</td><td>16</td><td>CL</td></tr> <tr><td></td><td></td><td></td><td>17</td><td></td></tr> <tr><td></td><td></td><td></td><td>18</td><td></td></tr> <tr><td></td><td></td><td></td><td>19</td><td></td></tr> <tr><td></td><td></td><td></td><td>20</td><td></td></tr> <tr><td></td><td></td><td></td><td>21</td><td></td></tr> <tr><td></td><td></td><td></td><td>22</td><td></td></tr> <tr><td></td><td></td><td></td><td>23</td><td></td></tr> <tr><td></td><td></td><td></td><td>24</td><td></td></tr> <tr><td></td><td></td><td></td><td>25</td><td></td></tr> <tr><td></td><td></td><td></td><td>26</td><td></td></tr> <tr><td></td><td></td><td></td><td>27</td><td></td></tr> <tr><td></td><td></td><td></td><td>28</td><td></td></tr> <tr><td></td><td></td><td></td><td>29</td><td></td></tr> </tbody> </table>			Blow Counts (140-lb)	Ft. Driven/ Ft. Recvrd	Boring Diagram	PID (ppm)	Depth in Feet	USCS Log		1/1		0.4	0	SM				1			1/1	0.3	2	ML				3			1/1	0.7	4	ML				5			1/1	0.6	6	SM				7			1/1	0.6	8	ML				9			1/1	0.4	10	SP				11			1/1	0.4	12	CH				13			1/1	0.3	14	CL				15			1/1	0.1	16	CL				17					18					19					20					21					22					23					24					25					26					27					28					29		Surface Conditions: Weather: Calm Temperature: 81 F		
			Blow Counts (140-lb)	Ft. Driven/ Ft. Recvrd	Boring Diagram	PID (ppm)	Depth in Feet	USCS Log																																																																																																																																																										
	1/1		0.4	0	SM																																																																																																																																																													
				1																																																																																																																																																														
	1/1		0.3	2	ML																																																																																																																																																													
				3																																																																																																																																																														
	1/1		0.7	4	ML																																																																																																																																																													
				5																																																																																																																																																														
	1/1		0.6	6	SM																																																																																																																																																													
				7																																																																																																																																																														
	1/1		0.6	8	ML																																																																																																																																																													
				9																																																																																																																																																														
	1/1		0.4	10	SP																																																																																																																																																													
				11																																																																																																																																																														
	1/1		0.4	12	CH																																																																																																																																																													
				13																																																																																																																																																														
	1/1		0.3	14	CL																																																																																																																																																													
				15																																																																																																																																																														
	1/1		0.1	16	CL																																																																																																																																																													
				17																																																																																																																																																														
				18																																																																																																																																																														
				19																																																																																																																																																														
				20																																																																																																																																																														
				21																																																																																																																																																														
				22																																																																																																																																																														
				23																																																																																																																																																														
				24																																																																																																																																																														
				25																																																																																																																																																														
				26																																																																																																																																																														
				27																																																																																																																																																														
				28																																																																																																																																																														
			29																																																																																																																																																															
0-7" dark brown SILT embedded with gravels mostly shale rocks and organic debris			7"-1.5' same as above																																																																																																																																																															
1.5'-2' loose fine SILT embedded with shale fragments, no odor observed			2'-3' dark brown SAND with shale fragments, no organic debris, no odor																																																																																																																																																															
3'-4' same as above			4'-5' dark brown moist SAND with little gravels mostly shale. high plasticity observed, no odor																																																																																																																																																															
5'-6' gray CLAY really moist and has little fine SILT. No odor observed			6'-7' loose brown/ green clayey SAND with little fine silt. No odor observed																																																																																																																																																															
7'-8' loose gray/ green silty -CLAY with little gravels			Refusal at 8'																																																																																																																																																															

 | Monitoring Well Construction Information | | Soil Vapor Point Installation Information | | |--|-----------------|---|----| | Monitoring Well Diameter: _____ | in | Depth of Soil Vapor Point: _____ | ft | | Bottom of Monitoring Well: _____ | ft bgs | Bottom of Tubing: _____ | ft | | Stick Up or Flush Mount: _____ | | Top of Sand Pack: _____ | ft | | Screen Interval: _____ | To _____ ft bgs | Top of Bentonite Seal: _____ | ft | | Riser Interval: _____ | To _____ ft bgs | | | | Sand Pack Interval: _____ | To _____ ft bgs | | | | Bentonite Seal: _____ | To _____ ft bgs | | | | Grout Interval: _____ | To _____ ft bgs | | | | | || Logged by: Enock Bunyon/Michael Wright | | | Date: 6/16/2020 | | |
| Drilling Contractor: _____ | | | Driller: _____ | | |

 EA Engineering, P.C. EA Science and Technology						Job No. 1602504 Client: NYSDEC Project: 401075 - Admiral Cleaners		Location: Watervliet, New York				
LOG OF SOIL BORING Coordinates: Northing _____ Easting: _____ Surface Elevation: _____ Casing Below Surface: _____ Reference Elevation: _____ Reference Description: _____						Drilling Method: Handheld Auger		Soil Boring Number: PDI-SB-25				
						Sampling Method:		Sheet 1 of 1				
						Macrocore®		Drilling				
						Water Level:		Start		Finish		
						Date:		Date: 6/16/2020		Date: 6/16/2020		
						Date:		Date: 10:20 AM		Date: 11:13:00 PM		
						Surface Conditions:						
						Weather: calm						
						Temperature: 81 F						
Blow Counts (140-lb)	Ft. Driven/ Ft. Recvrd	Boring Diagram	PID (ppm)	Depth in Feet	USCS Log							
	1/1		0	0	SM	0'-1' loose dark brown fine sand, little sand, trace gravel						
				1								
	1/1		0	2	SM	1'-2' same as above						
				3								
	1/1		0.1	4	SP	2'-3' moist dark brown, loose sandy silt, trace clay and trace gravel mostly shale						
				5								
	1/1		0.2	6	ML	3'-4' moist, loose dark brown silty sand with gravels and organic debris						
				7								
	1/1		0.1	8	ML	4'-5' moist dark brown sandy silt, little gravel and little clay						
				9								
	1/1		0	10	ML	5'-6' same as above						
				11								
				12			refusal at 6'					
				13								
				14								
				15								
				16								
				17								
				18								
				19								
				20								
				21								
				22								
				23								
				24								
				25								
				26								
				27								
				28								
			29									
Monitoring Well Construction Information						Soil Vapor Point Installation Information						
Monitoring Well Diameter: _____ in Bottom of Monitoring Well: _____ ft bgs Stick Up or Flush Mount: _____ Screen Interval: _____ To _____ ft bgs Riser Interval: _____ To _____ ft bgs Sand Pack Interval: _____ To _____ ft bgs Bentonite Seal: _____ To _____ ft bgs Grout Interval: _____ To _____ ft bgs						Depth of Soil Vapor Point: _____ ft Bottom of Tubing: _____ ft Top of Sand Pack: _____ ft Top of Bentonite Seal: _____ ft						
Logged by: <u>Enock Bunyon/Michael Wright</u>						Date: <u>6/16/2020</u>						
Drilling Contractor: _____						Driller: _____						

DAILY OBSERVATION REPORT**Date: Tuesday, May 19, 2020**

NYSDEC

Temperature: (F) 60F (am) 70F (pm)

Wind Direction: Calm (am) Calm (pm)

Weather: (am) partly cloudy

(pm) partly cloudy

Project Name: Admiral Cleaners**NYSDEC Site # 401075****Contract # D009806-04**

Arrive at site 0825 (am)

Watervliet, New York

Leave site: 1725 (pm)

HEALTH & SAFETY:

Are there any changes to the Health & Safety Plan?
(If yes, list the deviation under items for concern)

Yes () No (x)

Are monitoring results at acceptable levels?

Soil

Yes () n/a (x) * No ()

Waters

Yes () n/a (x) * No ()

Air

Yes () n/a (x) * No ()

OTHER ITEMS:

- If No, provide comments

Site Sketch Attached: Yes () No (x)

Photos Taken: Yes (x) No ()

DESCRIPTION OF DAILY WORK PERFORMED:

EA personnel Enock Bunyon and Danny Kite arrived onsite at 0825 am to continue installing soil borings and collecting soil samples for the pre-design investigation. Mark Eaves and Gerald Eaves (Parratt Wolff, Inc.) arrived onsite at 0800 am. E. Bunyon and D. Kite set up air monitoring equipment at the south side of the site (downwind) and north side of the site (upwind).

Eric Barney from USIC was onsite at 0825 am to check underground utility lines onsite. Brian Neuman from PES arrived onsite at 0920 am to discuss fence installation plan with EA personnel E. Bunyon and D. Kite. Eric Barney (USIC) offsite at 0840 am. Brain Neuman (PES) offsite at 0930 am.

Geoprobe® Model 6712DT was set-up and direct push method was used to install soil borings. E. Bunyon and D. Kite logged soil borings, screening each macro-core sleeve with a photoionization detector (PID). E. Bunyon and D. Kite collected soil samples from interval with highest PID readings.

Sixteen soil borings were completed and sampled for VOC analysis. Field duplicate (PDI-DUP 2-5-19-20) was collected from PDI-SB-17; the parent sample was PDI-SB-17-(7'-8'). Field duplicate (PDI-DUP 3-5-19-20) was collected from PDI-SB-20; the parent sample was PDI-SB-20-(5'-6'). Three Matrix spike/Matrix spike duplicate (MS/MSD) samples were collected and the parent samples are PDI-SB-10-(8'-9'), PDI-SB-19-(10'-11'), and PDI-SB-21-(5'-6'). No dust and odor issues observed. Boreholes backfilled with bentonite to grade following completion.

EA personnel Enock Bunyon and Danny Kite flagged all soil boring locations and collected coordinates with handheld GPS. EA personnel along with Parratt Wolff, Inc. personnel continued with site clean-up.

EA and Parratt Wolff, Inc. off-site at 1725.

DAILY OBSERVATION REPORT

Date: Tuesday, May 19, 2020

SAMPLING:

Location ID	Sample ID	Time	Analytes	QA/QC
PDI-SB-08	PDI-SB-08-(8'-9')	0900	VOC	
PDI-SB-09	PDI-SB-09-(7'-8')	0932	VOC	
PDI-SB-10	PDI-SB-10-(8'-9')	1005	VOC, PFAS,1,4-Dioxene	MS/MSD
PDI-SB-11	PDI-SB-11-(7'-8')	1040	VOC	
PDI-SB-12	PDI-SB-12-(6'-7')	1230	VOC	
PDI-SB-13	PDI-SB-13-(4'-5')	1118	VOC	
PDI-SB-14	PDI-SB-14-(4'-5')	1200	VOC	
PDI-SB-15	PDI-SB-15-(7'-8')	1215	VOC	
PDI-SB-16	PDI-SB-16-(8'-9')	1315	VOC	
PDI-SB-17	PDI-SB-17-(7'-8')	1347	VOC, PFAS,1,4-Dioxene	Duplicate (PDI-DUP 2-5-19-20)
PDI-SB-18	PDI-SB-18-(7'-8')	1400	VOC	
PDI-SB-19	PDI-SB-19-(10'-11')	1440	VOC, PFAS,1,4-Dioxene	MS/MSD
PDI-SB-20	PDI-SB-20-(5'-6')	1500	VOC	Duplicate (PDI-DUP 3 -5-19-20)
PDI-SB-21	PDI-SB-21-(5'-6')	1530	VOC, PFAS,1,4-Dioxene	MS/MSD
PDI-SB-22	PDI-SB-22-(6'-7')	1550	VOC	
PDI-SB-23	PDI-SB-23-(7'-8')	1620	VOC	

CONTRACTOR/SUBCONTRACTOR EQUIPMENT AND PERSONNEL ON SITE:*(Name of contractor) personnel:* Enock Bunyon, Danny Kite - EA*(Name of Subcontractor) personnel:* Mark Eaves, Gerald Eaves – Parratt Wolff, Inc.*(Name of contractor) equipment:* Geoprobe® Model 6712DT, DustTrak environmental monitor (2), MiniRae PID (3), Trimble® Geo 7X GPS Data Collector (1)*(*Indicates active equipment)**Other Subcontractors:* NA**VISITORS TO SITE:**Eric Barney – USIC
Brian Neuman - PES**ITEMS OF CONCERN:**

None

ATTACHMENT(S) TO THIS REPORT:

Photo Log

DAILY OBSERVATION REPORT

Date: Tuesday, May 19, 2020

SITE REPRESENTATIVE:

Name: Enock Bunyon

cc: Danny Kite

bcc:

A handwritten signature in black ink, appearing to read "Enock Bunyon". The signature is written in a cursive style with a large initial "E" and a long horizontal stroke.

Photo Log

Borehole backfilled with Bentonite



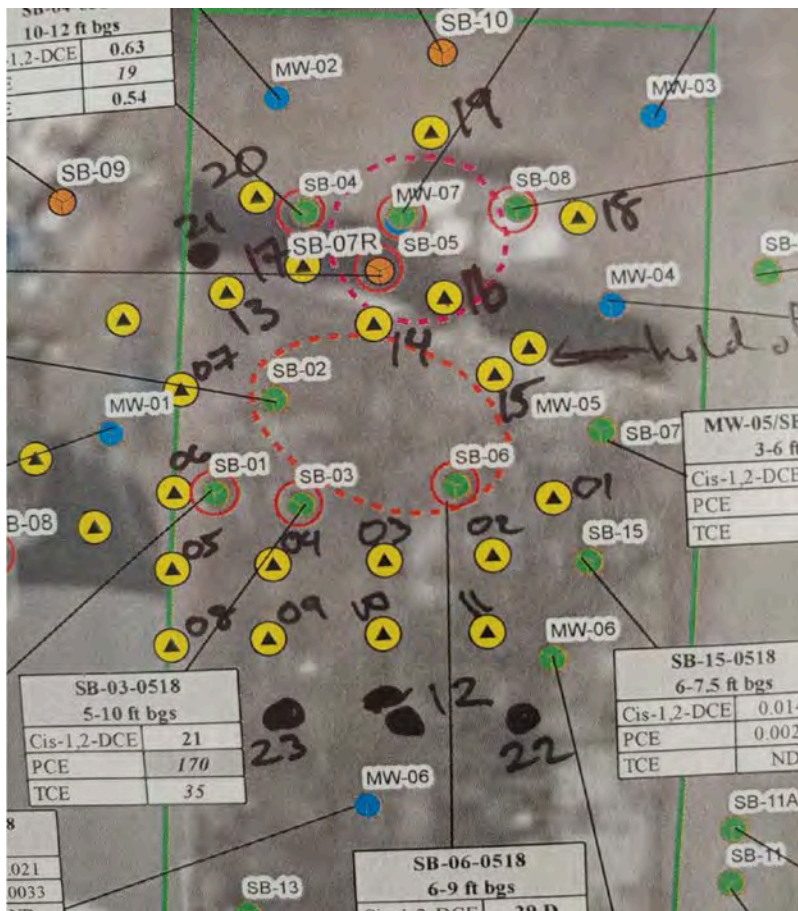
Location PDI-SB-14



Flagged soil borings after backfilling with bentonite



PDI soil boring location IDs



COVID DAILY HEALTH CHECKLIST

Is social distancing being practiced?	Yes ☒	No ☐
Is the tail gate safety meeting held outdoors?	Yes ☒	No ☐
Are remote/call in job meetings being held in lieu of meeting in person where possible?	Yes ☒	No ☐
Were personal protective gloves, masks, and eye protection being used?	Yes ☒	No ☐
Are sanitizing wipes, wash stations or spray available?	Yes ☒	No ☐
Have any workers/visitors been excluded based on close contact with individuals diagnosed with COVID-19, have recently traveled to restricted areas or countries, or are symptomatic (fever, chills, cough/shortness of breath)?	Yes ☐	No ☒
<u>Comments:</u> All on-site personnel had temperatures taken at the tail gate safety meeting. No elevated temperatures measured.		

DAILY OBSERVATION REPORT**Date: Monday, May 18, 2020**

NYSDEC

Temperature: (F) 55F (am) 65F (pm)

Wind Direction: Calm (am) Calm (pm)

Weather: (am) light rain showers
(pm) cloudy**Project Name: Admiral Cleaners****NYSDEC Site # 401075****Contract # D009806-04**

Arrive at site 0856 (am)

Location: Watervliet, New York

Leave site: 1655 (pm)

HEALTH & SAFETY:Are there any changes to the Health & Safety Plan?
(If yes, list the deviation under items for concern)

Yes () No (x)

Are monitoring results at acceptable levels?

Soil

Yes () n/a (x) * No ()

Waters

Yes () n/a (x) * No ()

Air

Yes () n/a (x) * No ()

- If No, provide comments

OTHER ITEMS:

Site Sketch Attached:

Yes () No (x)

Photos Taken:

Yes (x) No ()

DESCRIPTION OF DAILY WORK PERFORMED:

EA personnel Enock Bunyon and Danny Kite arrived onsite at 0856 am. Mark Eaves and Gerald Eaves (Parratt Wolff, Inc.) arrived on-site at 0920 am. E. Bunyon and D. Kite set up air monitoring equipment at the south side of the site (downwind) and north side of the site (upwind).

D. Kite held tailgate meeting discussing the Health and Safety Plan as well as the COVID-19 guidance for essential work and workers.

Geoprobe® Model 6712DT was set-up and direct push methods were used to complete soil borings. E. Bunyon and D. Kite logged soil borings, screening each macro-core sleeve with a photoionization detector (PID). E. Bunyon and D. Kite collected soil samples from interval with highest PID readings. Soil borings were not installed in the area behind Gagliardi's property (621 19th Street) due to obstruction of overhead utility lines.

Eight soil borings were completed and sampled for VOC analysis. PDI-SB-07 was sampled for PFAS and 1,4- Dioxane analysis as well. Field Duplicate was collected from PDI-SB-06-(5.5'-6"). No dust and odor issues observed. Boreholes backfilled with bentonite to grade following completion.

EA personnel E. Bunyon and D. Kite and Parratt Wolff, Inc. personnel continued with site clean-up. EA and Parratt-Wolff off-site at 1655.

DAILY OBSERVATION REPORT

Date: Monday, May 18, 2020

SAMPLING:

Location ID	Sample ID	Time	Analytes	QA/QC
PDI-SB-01	PDI-SB-01-(7.5'-8')	1200	VOC	
PDI-SB-02	PDI-SB-02-(7'-8')	1305	VOC	
PDI-SB-03	PDI-SB-03-(9.5'-10')	1350	VOC	
PDI-SB-04	PDI-SB-04-(7'-8')	1400	VOC	
PDI-SB-05	PDI-SB-05-(9.5'-10')	1430	VOC	
PDI-SB-06	PDI-SB-06-(5.5'-6')	1450	VOC	Duplicate (PDI-DUP 1-5-18-19)
PDI-SB-07	PDI-SB-07-(9.5'-10')	1530	VOC, PFAS,1,4- Dioxene	

CONTRACTOR/SUBCONTRACTOR EQUIPMENT AND PERSONNEL ON SITE:*(Name of contractor) personnel:* Enock Bunyon, Danny Kite - EA*(Name of Subcontractor) personnel:* Mark Eaves, Gerald Eaves – Parratt Wolff, Inc.*(Name of contractor) equipment:* Geoprobe® Model 6712DT, DustTrak environmental monitor (2), MiniRae PID (3)*(*Indicates active equipment)**Other Subcontractors:* NA**VISITORS TO SITE:**

None

ITEMS OF CONCERN:

None

ATTACHMENT(S) TO THIS REPORT:

Photolog

SITE REPRESENTATIVE:

Name: Enock Bunyon

cc: Danny Kite

bcc:

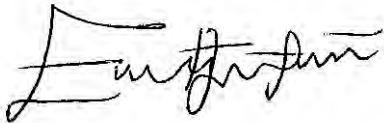


PHOTO LOG

DustTrak monitor at south side of the site (downwind)



Coring of concrete slab at PDI-SB-04



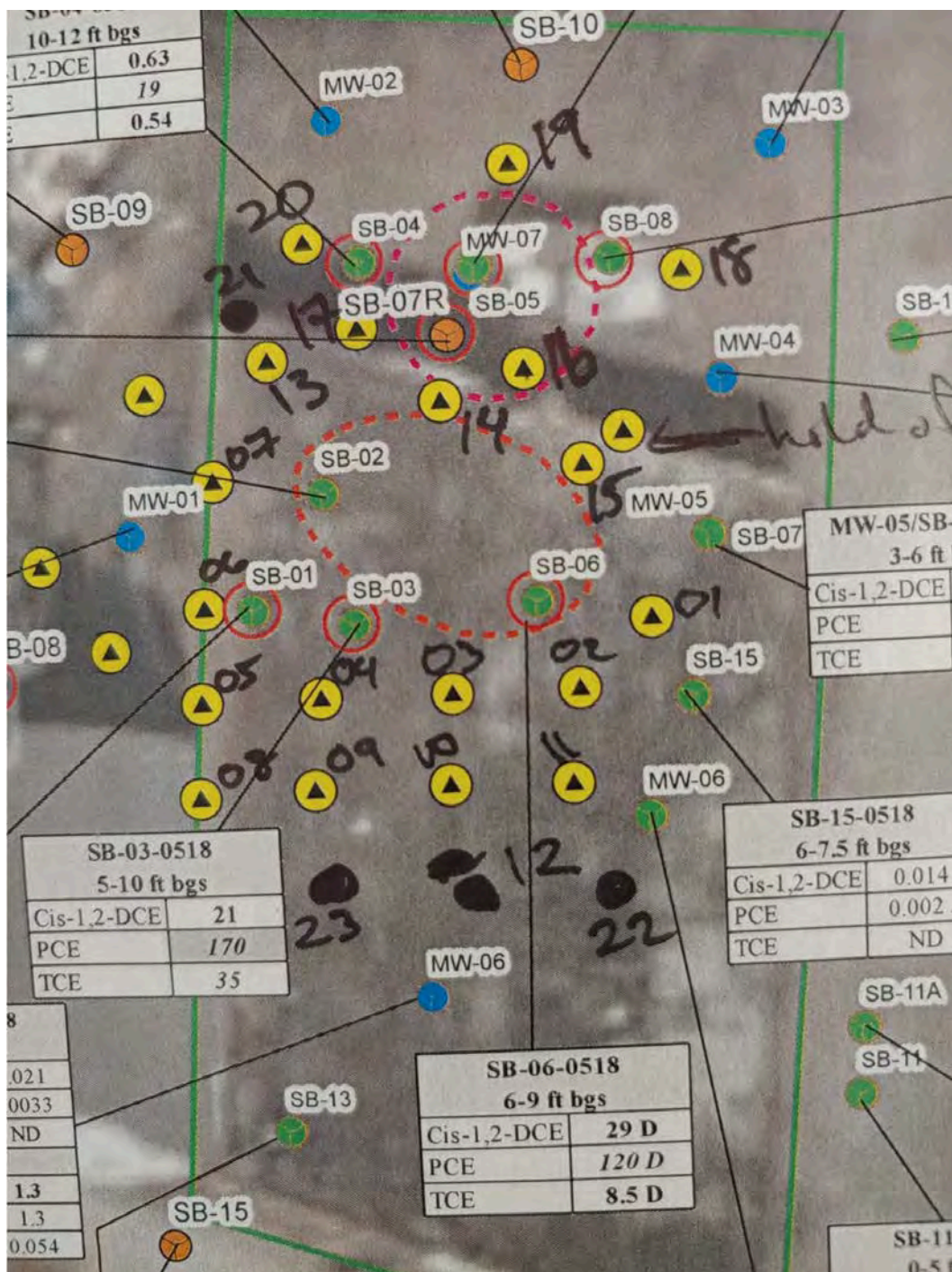
PID screening of macro-core sample



Geoprobe 6712DT setup onsite



PDI soil boring location IDs



DAILY OBSERVATION REPORT**Date: Monday, May 18, 2020****COVID DAILY HEALTH CHECKLIST**

Is social distancing being practiced?	Yes ☒	No ☐
Is the tail gate safety meeting held outdoors?	Yes ☒	No ☐
Are remote/call in job meetings being held in lieu of meeting in person where possible?	Yes ☒	No ☐
Were personal protective gloves, masks, and eye protection being used?	Yes ☒	No ☐
Are sanitizing wipes, wash stations or spray available?	Yes ☒	No ☐
Have any workers/visitors been excluded based on close contact with individuals diagnosed with COVID-19, have recently traveled to restricted areas or countries, or are symptomatic (fever, chills, cough/shortness of breath)?	Yes ☐	No ☒
<u>Comments:</u> All on-site personnel had temperatures taken at the tail gate safety meeting. No elevated temperatures measured.		

DAILY OBSERVATION REPORT**Date: Tuesday, June 16, 2020**

NYSDEC

Temperature: (F) 61 (am) 81 (pm)

Wind Direction: Calm (am) Calm (pm)

Weather: (am) Sunny

(pm) Sunny

Project Name: Admiral Cleaners**NYSDEC Site # 401075****Contract # D009806-04**

Arrive at site 0825 (am)

Watervliet, New York

Leave site: 1615 (pm)

HEALTH & SAFETY:

Are there any changes to the Health & Safety Plan?
(If yes, list the deviation under items for concern)

Yes () No (x)

Are monitoring results at acceptable levels?

Soil

Yes () n/a (x) * No ()

Waters

Yes () n/a (x) * No ()

Air

Yes () n/a (x) * No ()

OTHER ITEMS:

- If No, provide comments

Site Sketch Attached: Yes () No (x)

Photos Taken: Yes (x) No ()

DESCRIPTION OF DAILY WORK PERFORMED:

Enock Bunyon and Michael Wright arrived onsite at 0825 am to complete soil borings and collect soil samples for the pre-design investigation. The proposed three soil boring locations were in the backyard of Mr. Gagliardi's residence.

Handheld Auger was set-up and direct force was applied to bore holes. E. Bunyon and M. Wright logged soil borings and screened with photoionization detector (PID). E. Bunyon and M. Wright collected soil samples from interval with highest PID readings.

Three soil borings were completed and sampled for VOC analysis. Field duplicate (PDI-DUP 6-16-20) was collected from PDI-SB-25; the parent sample was PDI-SB-25-(2'-3'). Matrix spike/Matrix spike duplicate (MS/MSD) sample was collected, and the parent sample is PDI-SB-24-(1.5'-2').

EA personnel E. Bunyon and M. Wright offsite 1130 am through 1232 pm to purchase fine sand from the Home Depot to backfill exposed boreholes. Boreholes were backfilled with fine sand and then covered with bentonite to ground surface.

Well Assessment were completed to check the conditions of the monitoring wells after the demolition of the property. MW - 01, MW-06, MW-08, MW-09, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, and MW-17 were all assessed. MW-06 was damaged from the demolition process. MW-02, MW-03, MW-04, MW-07, and MW-07R could not be located and hence they were not assessed to check their various conditions.

EA personnel E. Bunyon and M. Wright collected coordinates for the three soil borings with handheld GPS and continued with site clean-up.

E. Bunyon and M. Wright off-site at 1615.

DAILY OBSERVATION REPORT

Date: Tuesday, June 16, 2020

SAMPLING:

Location ID	Sample ID	Time	Analytes	QA/QC
PDI-SB-24	PDI-SB-08-(1.5'-2')	0944	VOC	MS/MSD
PDI-SB-25	PDI-SB-09-(2'-3')	1113	VOC	DUP
PDI-SB-26	PDI-SB-10-(5'-6')	1315	VOC	

CONTRACTOR/SUBCONTRACTOR EQUIPMENT AND PERSONNEL ON SITE:

(Name of contractor) personnel: Enock Bunyon, Michael Wright - EA

(Name of Subcontractor) personnel: Handheld Auger, MiniRae PID, Trimble® Geo 7X GPS Data Collector

Other Subcontractors: NA

VISITORS TO SITE:

ITEMS OF CONCERN:

MW-06 damaged and Monitoring wells do not have well tags.

ATTACHMENT(S) TO THIS REPORT:

Photo Log

SITE REPRESENTATIVE:

Name: Enock Bunyon

cc: Michael Wright

bcc:

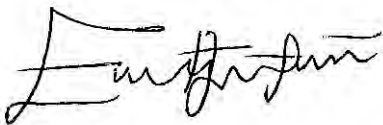


Photo Log

Exposed bore hole at PDI-SB-24



screening samples with PID



MW-06 current condition



Borehole recovered with sand and bentonite



COVID DAILY HEALTH CHECKLIST

Is social distancing being practiced?	Yes ☒	No ☐
Is the tail gate safety meeting held outdoors?	Yes ☒	No ☐
Are remote/call in job meetings being held in lieu of meeting in person where possible?	Yes ☒	No ☐
Were personal protective gloves, masks, and eye protection being used?	Yes ☒	No ☐
Are sanitizing wipes, wash stations or spray available?	Yes ☒	No ☐
Have any workers/visitors been excluded based on close contact with individuals diagnosed with COVID-19, have recently traveled to restricted areas or countries, or are symptomatic (fever, chills, cough/shortness of breath)?	Yes ☐	No ☒
<u>Comments:</u> All on-site personnel had temperatures taken at the tail gate safety meeting. No elevated temperatures measured.		

This page intentionally left blank

Attachment 2

Laboratory Analytical Results

This page left intentionally blank



June 16, 2020

Service Request No:R2004156

Mr. Chris Schroer
EA Engineering, Science, and Technology
269 West Jefferson Street
Syracuse, NY 13202

Laboratory Results for: NYSDEC / Admiral Cleaners

Dear Mr.Schroer,

Enclosed are the results of the sample(s) submitted to our laboratory May 19, 2020
For your reference, these analyses have been assigned our service request number **R2004156**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Meghan.Pedro@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Meghan Pedro
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners
Sample Matrix: Soil, Water

Service Request: R2004156
Date Received: 05/19/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Nine soil, water samples were received for analysis at ALS Environmental on 05/19/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

Method 8270D, 05/26/2020: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) above the MRL in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Method 8270D SIM: Due to a laboratory error sample R2004156-009 was extracted outside of holding time. Sample was extracted 1 day past hold. The data is flagged to indicate the holding time exceedance.

General Chemistry:

No significant anomalies were noted with this analysis.

Subcontracted Analytical Parameters:

One or more samples were subcontracted to another laboratory for testing. The certified analytical report from the subcontractor has been included in its entirety at the end of this report and includes the name and address of the subcontracted laboratory.

Volatiles by GC/MS:

Method 8260C, 05/26/2020: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 05/28/2020: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Approved by

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke.

Date

06/16/2020



SAMPLE DETECTION SUMMARY

CLIENT ID: PD1-SB-01 - (7.5-8)				Lab ID: R2004156-001		
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	70.9				Percent	ALS SOP
Methyl Acetate	210	BJ	140	780	ug/Kg	8260C
Tetrachloroethene (PCE)	750	J	36	780	ug/Kg	8260C
Trichloroethene (TCE)	280	J	35	780	ug/Kg	8260C
cis-1,2-Dichloroethene	270	J	32	780	ug/Kg	8260C

CLIENT ID: PD1-SB-02 - (7-8)				Lab ID: R2004156-002		
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	84.3				Percent	ALS SOP
Ethylbenzene	250	J	23	570	ug/Kg	8260C
Isopropylbenzene (Cumene)	440	J	23	570	ug/Kg	8260C
Methylcyclohexane	140	J	36	570	ug/Kg	8260C
Toluene	31	J	23	570	ug/Kg	8260C
Xylenes, Total	690	J	60	1700	ug/Kg	8260C
cis-1,2-Dichloroethene	5200		23	570	ug/Kg	8260C

CLIENT ID: PD1-SB-04 - (7-8)				Lab ID: R2004156-003		
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	85.0				Percent	ALS SOP
Cyclohexane	96	J	27	520	ug/Kg	8260C
Methylcyclohexane	230	J	33	520	ug/Kg	8260C
cis-1,2-Dichloroethene	1400		21	520	ug/Kg	8260C

CLIENT ID: PD1-SB-05 - (9.5-10)				Lab ID: R2004156-004		
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	87.3				Percent	ALS SOP
Tetrachloroethene (PCE)	150000		250	5200	ug/Kg	8260C
Trichloroethene (TCE)	8700		240	5200	ug/Kg	8260C
cis-1,2-Dichloroethene	4000	J	210	5200	ug/Kg	8260C

CLIENT ID: PD1-SB-06 - (5.5-6)				Lab ID: R2004156-005		
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	76.7				Percent	ALS SOP
Tetrachloroethene (PCE)	140000		290	6200	ug/Kg	8260C
Trichloroethene (TCE)	9100		280	6200	ug/Kg	8260C
cis-1,2-Dichloroethene	17000		250	6200	ug/Kg	8260C

CLIENT ID: PD1-DUP1 - 5-18-20				Lab ID: R2004156-006		
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	79.7				Percent	ALS SOP
Tetrachloroethene (PCE)	210000		480	10000	ug/Kg	8260C
Trichloroethene (TCE)	9900	J	450	10000	ug/Kg	8260C
cis-1,2-Dichloroethene	9100	J	410	10000	ug/Kg	8260C



SAMPLE DETECTION SUMMARY

CLIENT ID: PD1-SB-07 - (7-7.5)			Lab ID: R2004156-007			
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	79.9				Percent	ALS SOP
Tetrachloroethene (PCE)	420	J	28	590	ug/Kg	8260C
Trichloroethene (TCE)	540	J	26	590	ug/Kg	8260C
cis-1,2-Dichloroethene	4300		24	590	ug/Kg	8260C
trans-1,2-Dichloroethene	75	J	24	590	ug/Kg	8260C

CLIENT ID: PD1-SB-03 (9.5-10)			Lab ID: R2004156-008			
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	81.1				Percent	ALS SOP
Chloroform	25	J	23	550	ug/Kg	8260C
Ethylbenzene	200	J	23	550	ug/Kg	8260C
Isopropylbenzene (Cumene)	240	J	23	550	ug/Kg	8260C
Methyl Acetate	95	BJ	94	550	ug/Kg	8260C
Methylcyclohexane	60	J	35	550	ug/Kg	8260C
Tetrachloroethene (PCE)	540	J	26	550	ug/Kg	8260C
Toluene	39	J	23	550	ug/Kg	8260C
Trichloroethene (TCE)	54	J	25	550	ug/Kg	8260C
Xylenes, Total	440	J	58	1700	ug/Kg	8260C
cis-1,2-Dichloroethene	11000		23	550	ug/Kg	8260C



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504

Service Request:R2004156

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R2004156-001	PD1-SB-01 - (7.5-8)	5/18/2020	1200
R2004156-002	PD1-SB-02 - (7-8)	5/18/2020	1305
R2004156-003	PD1-SB-04 - (7-8)	5/18/2020	1400
R2004156-004	PD1-SB-05 - (9.5-10)	5/18/2020	1430
R2004156-005	PD1-SB-06 - (5.5-6)	5/18/2020	1450
R2004156-006	PD1-DUP1 - 5-18-20	5/18/2020	1450
R2004156-007	PD1-SB-07 - (7-7.5)	5/18/2020	1530
R2004156-008	PD1-SB-03 (9.5-10)	5/18/2020	1350
R2004156-009	Trip Blank	5/18/2020	



Cooler Receipt and Preservation Check Form

R2004156

5

EA Engineering, Science, and Technology
NYSDEC / Admiral CleanersProject/Client EA Engineering Folder Number _____Cooler received on 5/19/2020 by: KECOURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y <u>N</u>
2	Custody papers properly completed (ink, signed)?	<u>Y</u> N
3	Did all bottles arrive in good condition (unbroken)?	<u>Y</u> N
4	Circle <u>Wet Ice</u> Dry Ice Gel packs present?	<u>Y</u> N
5a	Perchlorate samples have required headspace?	Y N <u>NA</u>
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	Y N <u>NA</u>
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as: Bulk Encore <u>5035set</u> NA	

8. Temperature Readings Date: 5/19/2020 Time: 10:10 ID: IR#7 IR#10 Front: Temp Blank Sample Bottle

Observed Temp (°C)	<u>10.9</u>		<u>KE 5/19/2020</u>				
Within 0-6°C?	Y <u>N</u>	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) * Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: ROU2 by KE on 5/19/20 at 10:25
 5035 samples placed in storage location: F-09 by KE on 5/19/20 at 10:25 within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 5/19/2020 Time: 1313 by: KE

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
 10. Did all bottle labels and tags agree with custody papers? YES NO
 11. Were correct containers used for the tests indicated? YES NO
 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
 13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated NA

pH	Lot of test paper	Reagent	Preserved?	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH	Yes No						
≤2		HNO ₃							
≤2		H ₂ SO ₄							
<4		NaHSO ₄							
5-9		For 608pest		No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522		If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃							
		ZnAcetate	- -						
		HCl	** **						

**VOAs and 1664 Not to be tested before analysis.
 Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 090919-15R, 041320-18MC

Explain all Discrepancies/ Other Comments:

* Terracore Kits still in the foam holders that come with the samples. Zip lock bags and bubble bags were ~~provided~~ to provided to transfer the vials + soil jar into, but were not used.

* PFAS sample was sent in the same cooler as the other sample bottles, not in its own cooler.

HPROD	BULK
HTR	FLDT
<u>SUB</u>	HGFB
ALS	LL3541

Labels secondary reviewed by: KE

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504

Service Request: R2004156

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
ALS SOP	Soil	Total Solids

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504

Service Request: R2004156

Sample Name: PD1-SB-01 - (7.5-8)
Lab Code: R2004156-001
Sample Matrix: Soil

Date Collected: 05/18/20
Date Received: 05/19/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

Sample Name: PD1-SB-02 - (7-8)
Lab Code: R2004156-002
Sample Matrix: Soil

Date Collected: 05/18/20
Date Received: 05/19/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

Sample Name: PD1-SB-04 - (7-8)
Lab Code: R2004156-003
Sample Matrix: Soil

Date Collected: 05/18/20
Date Received: 05/19/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

Sample Name: PD1-SB-05 - (9.5-10)
Lab Code: R2004156-004
Sample Matrix: Soil

Date Collected: 05/18/20
Date Received: 05/19/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504

Service Request: R2004156

Sample Name: PD1-SB-06 - (5.5-6)
Lab Code: R2004156-005
Sample Matrix: Soil

Date Collected: 05/18/20
Date Received: 05/19/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

Sample Name: PD1-DUP1 - 5-18-20
Lab Code: R2004156-006
Sample Matrix: Soil

Date Collected: 05/18/20
Date Received: 05/19/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

Sample Name: PD1-SB-07 - (7-7.5)
Lab Code: R2004156-007
Sample Matrix: Soil

Date Collected: 05/18/20
Date Received: 05/19/20

Analysis Method
160.3 Modified
8260C
8270D
ALS SOP
PFC/537M

Extracted/Digested By

Analyzed By
SCHAPPELLE
FNAEGLER
JMISIUREWICZ
KWONG
CMULLER

Sample Name: PD1-SB-03 (9.5-10)
Lab Code: R2004156-008
Sample Matrix: Soil

Date Collected: 05/18/20
Date Received: 05/19/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504

Service Request: R2004156

Sample Name: Trip Blank
Lab Code: R2004156-009
Sample Matrix: Water

Date Collected: 05/18/20
Date Received: 05/19/20

Analysis Method
8270D SIM

Extracted/Digested By
JMISIUREWICZ

Analyzed By
JMISIUREWICZ



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 12:00
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-01 - (7.5-8)
Lab Code: R2004156-001

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	32 U	780	32	110.5	05/26/20 16:24	
1,1,2,2-Tetrachloroethane	32 U	780	32	110.5	05/26/20 16:24	
1,1,2-Trichloroethane	32 U	780	32	110.5	05/26/20 16:24	
1,1,2-Trichloro-1,2,2-trifluoroethane	32 U	780	32	110.5	05/26/20 16:24	
1,1-Dichloroethane (1,1-DCA)	32 U	780	32	110.5	05/26/20 16:24	
1,1-Dichloroethene (1,1-DCE)	46 U	780	46	110.5	05/26/20 16:24	
1,2,4-Trichlorobenzene	66 U	780	66	110.5	05/26/20 16:24	
1,2-Dibromo-3-chloropropane (DBCP)	46 U	780	46	110.5	05/26/20 16:24	
1,2-Dibromoethane	32 U	780	32	110.5	05/26/20 16:24	
1,2-Dichlorobenzene	32 U	780	32	110.5	05/26/20 16:24	
1,2-Dichloroethane	32 U	780	32	110.5	05/26/20 16:24	
1,2-Dichloropropane	32 U	780	32	110.5	05/26/20 16:24	
1,3-Dichlorobenzene	32 U	780	32	110.5	05/26/20 16:24	
1,4-Dichlorobenzene	35 U	780	35	110.5	05/26/20 16:24	
2-Butanone (MEK)	320 U	780	320	110.5	05/26/20 16:24	
2-Hexanone	57 U	780	57	110.5	05/26/20 16:24	
4-Methyl-2-pentanone	36 U	780	36	110.5	05/26/20 16:24	
Acetone	740 U	780	740	110.5	05/26/20 16:24	
Benzene	32 U	780	32	110.5	05/26/20 16:24	
Bromodichloromethane	32 U	780	32	110.5	05/26/20 16:24	
Bromoform	78 U	780	78	110.5	05/26/20 16:24	
Bromomethane	330 U	780	330	110.5	05/26/20 16:24	
Carbon Disulfide	46 U	780	46	110.5	05/26/20 16:24	
Carbon Tetrachloride	41 U	780	41	110.5	05/26/20 16:24	
Chlorobenzene	32 U	780	32	110.5	05/26/20 16:24	
Chloroethane	32 U	780	32	110.5	05/26/20 16:24	
Chloroform	32 U	780	32	110.5	05/26/20 16:24	
Chloromethane	220 U	780	220	110.5	05/26/20 16:24	
Cyclohexane	41 U	780	41	110.5	05/26/20 16:24	
Dibromochloromethane	32 U	780	32	110.5	05/26/20 16:24	
Dichlorodifluoromethane (CFC 12)	52 U	780	52	110.5	05/26/20 16:24	
Dichloromethane	440 U	780	440	110.5	05/26/20 16:24	
Ethylbenzene	32 U	780	32	110.5	05/26/20 16:24	
Isopropylbenzene (Cumene)	32 U	780	32	110.5	05/26/20 16:24	
Methyl Acetate	210 BJ	780	140	110.5	05/26/20 16:24	
Methyl tert-Butyl Ether	32 U	780	32	110.5	05/26/20 16:24	
Methylcyclohexane	49 U	780	49	110.5	05/26/20 16:24	
Styrene	32 U	780	32	110.5	05/26/20 16:24	
Tetrachloroethene (PCE)	750 J	780	36	110.5	05/26/20 16:24	
Toluene	32 U	780	32	110.5	05/26/20 16:24	
Trichloroethene (TCE)	280 J	780	35	110.5	05/26/20 16:24	
Trichlorofluoromethane (CFC 11)	41 U	780	41	110.5	05/26/20 16:24	
Vinyl Chloride	72 U	780	72	110.5	05/26/20 16:24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 12:00
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-01 - (7.5-8)
Lab Code: R2004156-001

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	82 U	2300	82	110.5	05/26/20 16:24	
cis-1,2-Dichloroethene	270 J	780	32	110.5	05/26/20 16:24	
cis-1,3-Dichloropropene	32 U	780	32	110.5	05/26/20 16:24	
trans-1,2-Dichloroethene	32 U	780	32	110.5	05/26/20 16:24	
trans-1,3-Dichloropropene	32 U	780	32	110.5	05/26/20 16:24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	31 - 154	05/26/20 16:24	
Dibromofluoromethane	92	63 - 138	05/26/20 16:24	
Toluene-d8	102	66 - 138	05/26/20 16:24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 13:05
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-02 - (7-8)
Lab Code: R2004156-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	23 U	570	23	96.5	05/28/20 18:42	
1,1,2,2-Tetrachloroethane	23 U	570	23	96.5	05/28/20 18:42	
1,1,2-Trichloroethane	23 U	570	23	96.5	05/28/20 18:42	
1,1,2-Trichloro-1,2,2-trifluoroethane	23 U	570	23	96.5	05/28/20 18:42	
1,1-Dichloroethane (1,1-DCA)	23 U	570	23	96.5	05/28/20 18:42	
1,1-Dichloroethene (1,1-DCE)	34 U	570	34	96.5	05/28/20 18:42	
1,2,4-Trichlorobenzene	49 U	570	49	96.5	05/28/20 18:42	
1,2-Dibromo-3-chloropropane (DBCP)	34 U	570	34	96.5	05/28/20 18:42	
1,2-Dibromoethane	23 U	570	23	96.5	05/28/20 18:42	
1,2-Dichlorobenzene	23 U	570	23	96.5	05/28/20 18:42	
1,2-Dichloroethane	23 U	570	23	96.5	05/28/20 18:42	
1,2-Dichloropropane	23 U	570	23	96.5	05/28/20 18:42	
1,3-Dichlorobenzene	23 U	570	23	96.5	05/28/20 18:42	
1,4-Dichlorobenzene	26 U	570	26	96.5	05/28/20 18:42	
2-Butanone (MEK)	230 U	570	230	96.5	05/28/20 18:42	
2-Hexanone	42 U	570	42	96.5	05/28/20 18:42	
4-Methyl-2-pentanone	27 U	570	27	96.5	05/28/20 18:42	
Acetone	540 U	570	540	96.5	05/28/20 18:42	
Benzene	23 U	570	23	96.5	05/28/20 18:42	
Bromodichloromethane	23 U	570	23	96.5	05/28/20 18:42	
Bromoform	58 U	570	58	96.5	05/28/20 18:42	
Bromomethane	250 U	570	250	96.5	05/28/20 18:42	
Carbon Disulfide	34 U	570	34	96.5	05/28/20 18:42	
Carbon Tetrachloride	30 U	570	30	96.5	05/28/20 18:42	
Chlorobenzene	23 U	570	23	96.5	05/28/20 18:42	
Chloroethane	23 U	570	23	96.5	05/28/20 18:42	
Chloroform	23 U	570	23	96.5	05/28/20 18:42	
Chloromethane	170 U	570	170	96.5	05/28/20 18:42	
Cyclohexane	30 U	570	30	96.5	05/28/20 18:42	
Dibromochloromethane	23 U	570	23	96.5	05/28/20 18:42	
Dichlorodifluoromethane (CFC 12)	38 U	570	38	96.5	05/28/20 18:42	
Dichloromethane	330 U	570	330	96.5	05/28/20 18:42	
Ethylbenzene	250 J	570	23	96.5	05/28/20 18:42	
Isopropylbenzene (Cumene)	440 J	570	23	96.5	05/28/20 18:42	
Methyl Acetate	97 U	570	97	96.5	05/28/20 18:42	
Methyl tert-Butyl Ether	23 U	570	23	96.5	05/28/20 18:42	
Methylcyclohexane	140 J	570	36	96.5	05/28/20 18:42	
Styrene	23 U	570	23	96.5	05/28/20 18:42	
Tetrachloroethene (PCE)	27 U	570	27	96.5	05/28/20 18:42	
Toluene	31 J	570	23	96.5	05/28/20 18:42	
Trichloroethene (TCE)	26 U	570	26	96.5	05/28/20 18:42	
Trichlorofluoromethane (CFC 11)	30 U	570	30	96.5	05/28/20 18:42	
Vinyl Chloride	53 U	570	53	96.5	05/28/20 18:42	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 13:05
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-02 - (7-8)
Lab Code: R2004156-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	690 J	1700	60	96.5	05/28/20 18:42	
cis-1,2-Dichloroethene	5200	570	23	96.5	05/28/20 18:42	
cis-1,3-Dichloropropene	23 U	570	23	96.5	05/28/20 18:42	
trans-1,2-Dichloroethene	23 U	570	23	96.5	05/28/20 18:42	
trans-1,3-Dichloropropene	23 U	570	23	96.5	05/28/20 18:42	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	31 - 154	05/28/20 18:42	
Dibromofluoromethane	91	63 - 138	05/28/20 18:42	
Toluene-d8	102	66 - 138	05/28/20 18:42	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 14:00
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-04 - (7-8)
Lab Code: R2004156-003

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	21 U	520	21	88	05/26/20 17:08	
1,1,2,2-Tetrachloroethane	21 U	520	21	88	05/26/20 17:08	
1,1,2-Trichloroethane	21 U	520	21	88	05/26/20 17:08	
1,1,2-Trichloro-1,2,2-trifluoroethane	21 U	520	21	88	05/26/20 17:08	
1,1-Dichloroethane (1,1-DCA)	21 U	520	21	88	05/26/20 17:08	
1,1-Dichloroethene (1,1-DCE)	31 U	520	31	88	05/26/20 17:08	
1,2,4-Trichlorobenzene	44 U	520	44	88	05/26/20 17:08	
1,2-Dibromo-3-chloropropane (DBCP)	31 U	520	31	88	05/26/20 17:08	
1,2-Dibromoethane	21 U	520	21	88	05/26/20 17:08	
1,2-Dichlorobenzene	21 U	520	21	88	05/26/20 17:08	
1,2-Dichloroethane	21 U	520	21	88	05/26/20 17:08	
1,2-Dichloropropane	21 U	520	21	88	05/26/20 17:08	
1,3-Dichlorobenzene	21 U	520	21	88	05/26/20 17:08	
1,4-Dichlorobenzene	23 U	520	23	88	05/26/20 17:08	
2-Butanone (MEK)	210 U	520	210	88	05/26/20 17:08	
2-Hexanone	38 U	520	38	88	05/26/20 17:08	
4-Methyl-2-pentanone	24 U	520	24	88	05/26/20 17:08	
Acetone	490 U	520	490	88	05/26/20 17:08	
Benzene	21 U	520	21	88	05/26/20 17:08	
Bromodichloromethane	21 U	520	21	88	05/26/20 17:08	
Bromoform	52 U	520	52	88	05/26/20 17:08	
Bromomethane	220 U	520	220	88	05/26/20 17:08	
Carbon Disulfide	31 U	520	31	88	05/26/20 17:08	
Carbon Tetrachloride	27 U	520	27	88	05/26/20 17:08	
Chlorobenzene	21 U	520	21	88	05/26/20 17:08	
Chloroethane	21 U	520	21	88	05/26/20 17:08	
Chloroform	21 U	520	21	88	05/26/20 17:08	
Chloromethane	150 U	520	150	88	05/26/20 17:08	
Cyclohexane	96 J	520	27	88	05/26/20 17:08	
Dibromochloromethane	21 U	520	21	88	05/26/20 17:08	
Dichlorodifluoromethane (CFC 12)	35 U	520	35	88	05/26/20 17:08	
Dichloromethane	290 U	520	290	88	05/26/20 17:08	
Ethylbenzene	21 U	520	21	88	05/26/20 17:08	
Isopropylbenzene (Cumene)	21 U	520	21	88	05/26/20 17:08	
Methyl Acetate	87 U	520	87	88	05/26/20 17:08	
Methyl tert-Butyl Ether	21 U	520	21	88	05/26/20 17:08	
Methylcyclohexane	230 J	520	33	88	05/26/20 17:08	
Styrene	21 U	520	21	88	05/26/20 17:08	
Tetrachloroethene (PCE)	24 U	520	24	88	05/26/20 17:08	
Toluene	21 U	520	21	88	05/26/20 17:08	
Trichloroethene (TCE)	23 U	520	23	88	05/26/20 17:08	
Trichlorofluoromethane (CFC 11)	27 U	520	27	88	05/26/20 17:08	
Vinyl Chloride	48 U	520	48	88	05/26/20 17:08	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 14:00
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-04 - (7-8)
Lab Code: R2004156-003

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	54 U	1600	54	88	05/26/20 17:08	
cis-1,2-Dichloroethene	1400	520	21	88	05/26/20 17:08	
cis-1,3-Dichloropropene	21 U	520	21	88	05/26/20 17:08	
trans-1,2-Dichloroethene	21 U	520	21	88	05/26/20 17:08	
trans-1,3-Dichloropropene	21 U	520	21	88	05/26/20 17:08	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	31 - 154	05/26/20 17:08	
Dibromofluoromethane	90	63 - 138	05/26/20 17:08	
Toluene-d8	105	66 - 138	05/26/20 17:08	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 14:30
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-05 - (9.5-10)
Lab Code: R2004156-004

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	210 U	5200	210	915	05/26/20 18:15	
1,1,2,2-Tetrachloroethane	210 U	5200	210	915	05/26/20 18:15	
1,1,2-Trichloroethane	210 U	5200	210	915	05/26/20 18:15	
1,1,2-Trichloro-1,2,2-trifluoroethane	210 U	5200	210	915	05/26/20 18:15	
1,1-Dichloroethane (1,1-DCA)	210 U	5200	210	915	05/26/20 18:15	
1,1-Dichloroethene (1,1-DCE)	310 U	5200	310	915	05/26/20 18:15	
1,2,4-Trichlorobenzene	450 U	5200	450	915	05/26/20 18:15	
1,2-Dibromo-3-chloropropane (DBCP)	310 U	5200	310	915	05/26/20 18:15	
1,2-Dibromoethane	210 U	5200	210	915	05/26/20 18:15	
1,2-Dichlorobenzene	210 U	5200	210	915	05/26/20 18:15	
1,2-Dichloroethane	210 U	5200	210	915	05/26/20 18:15	
1,2-Dichloropropane	210 U	5200	210	915	05/26/20 18:15	
1,3-Dichlorobenzene	210 U	5200	210	915	05/26/20 18:15	
1,4-Dichlorobenzene	240 U	5200	240	915	05/26/20 18:15	
2-Butanone (MEK)	2100 U	5200	2100	915	05/26/20 18:15	
2-Hexanone	380 U	5200	380	915	05/26/20 18:15	
4-Methyl-2-pentanone	250 U	5200	250	915	05/26/20 18:15	
Acetone	5000 U	5200	5000	915	05/26/20 18:15	
Benzene	210 U	5200	210	915	05/26/20 18:15	
Bromodichloromethane	210 U	5200	210	915	05/26/20 18:15	
Bromoform	530 U	5200	530	915	05/26/20 18:15	
Bromomethane	2300 U	5200	2300	915	05/26/20 18:15	
Carbon Disulfide	310 U	5200	310	915	05/26/20 18:15	
Carbon Tetrachloride	280 U	5200	280	915	05/26/20 18:15	
Chlorobenzene	210 U	5200	210	915	05/26/20 18:15	
Chloroethane	210 U	5200	210	915	05/26/20 18:15	
Chloroform	210 U	5200	210	915	05/26/20 18:15	
Chloromethane	1500 U	5200	1500	915	05/26/20 18:15	
Cyclohexane	280 U	5200	280	915	05/26/20 18:15	
Dibromochloromethane	210 U	5200	210	915	05/26/20 18:15	
Dichlorodifluoromethane (CFC 12)	350 U	5200	350	915	05/26/20 18:15	
Dichloromethane	3000 U	5200	3000	915	05/26/20 18:15	
Ethylbenzene	210 U	5200	210	915	05/26/20 18:15	
Isopropylbenzene (Cumene)	210 U	5200	210	915	05/26/20 18:15	
Methyl Acetate	890 U	5200	890	915	05/26/20 18:15	
Methyl tert-Butyl Ether	210 U	5200	210	915	05/26/20 18:15	
Methylcyclohexane	330 U	5200	330	915	05/26/20 18:15	
Styrene	210 U	5200	210	915	05/26/20 18:15	
Tetrachloroethene (PCE)	150000	5200	250	915	05/26/20 18:15	
Toluene	210 U	5200	210	915	05/26/20 18:15	
Trichloroethene (TCE)	8700	5200	240	915	05/26/20 18:15	
Trichlorofluoromethane (CFC 11)	280 U	5200	280	915	05/26/20 18:15	
Vinyl Chloride	490 U	5200	490	915	05/26/20 18:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 14:30
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-05 - (9.5-10)
Lab Code: R2004156-004

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	550 U	16000	550	915	05/26/20 18:15	
cis-1,2-Dichloroethene	4000 J	5200	210	915	05/26/20 18:15	
cis-1,3-Dichloropropene	210 U	5200	210	915	05/26/20 18:15	
trans-1,2-Dichloroethene	210 U	5200	210	915	05/26/20 18:15	
trans-1,3-Dichloropropene	210 U	5200	210	915	05/26/20 18:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	31 - 154	05/26/20 18:15	
Dibromofluoromethane	98	63 - 138	05/26/20 18:15	
Toluene-d8	105	66 - 138	05/26/20 18:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 14:50
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-06 - (5.5-6)
Lab Code: R2004156-005

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	250 U	6200	250	950	05/27/20 18:06	
1,1,2,2-Tetrachloroethane	250 U	6200	250	950	05/27/20 18:06	
1,1,2-Trichloroethane	250 U	6200	250	950	05/27/20 18:06	
1,1,2-Trichloro-1,2,2-trifluoroethane	250 U	6200	250	950	05/27/20 18:06	
1,1-Dichloroethane (1,1-DCA)	250 U	6200	250	950	05/27/20 18:06	
1,1-Dichloroethene (1,1-DCE)	360 U	6200	360	950	05/27/20 18:06	
1,2,4-Trichlorobenzene	530 U	6200	530	950	05/27/20 18:06	
1,2-Dibromo-3-chloropropane (DBCP)	360 U	6200	360	950	05/27/20 18:06	
1,2-Dibromoethane	250 U	6200	250	950	05/27/20 18:06	
1,2-Dichlorobenzene	250 U	6200	250	950	05/27/20 18:06	
1,2-Dichloroethane	250 U	6200	250	950	05/27/20 18:06	
1,2-Dichloropropane	250 U	6200	250	950	05/27/20 18:06	
1,3-Dichlorobenzene	250 U	6200	250	950	05/27/20 18:06	
1,4-Dichlorobenzene	280 U	6200	280	950	05/27/20 18:06	
2-Butanone (MEK)	2500 U	6200	2500	950	05/27/20 18:06	
2-Hexanone	450 U	6200	450	950	05/27/20 18:06	
4-Methyl-2-pentanone	290 U	6200	290	950	05/27/20 18:06	
Acetone	5900 U	6200	5900	950	05/27/20 18:06	
Benzene	250 U	6200	250	950	05/27/20 18:06	
Bromodichloromethane	250 U	6200	250	950	05/27/20 18:06	
Bromoform	620 U	6200	620	950	05/27/20 18:06	
Bromomethane	2700 U	6200	2700	950	05/27/20 18:06	
Carbon Disulfide	360 U	6200	360	950	05/27/20 18:06	
Carbon Tetrachloride	330 U	6200	330	950	05/27/20 18:06	
Chlorobenzene	250 U	6200	250	950	05/27/20 18:06	
Chloroethane	250 U	6200	250	950	05/27/20 18:06	
Chloroform	250 U	6200	250	950	05/27/20 18:06	
Chloromethane	1800 U	6200	1800	950	05/27/20 18:06	
Cyclohexane	330 U	6200	330	950	05/27/20 18:06	
Dibromochloromethane	250 U	6200	250	950	05/27/20 18:06	
Dichlorodifluoromethane (CFC 12)	410 U	6200	410	950	05/27/20 18:06	
Dichloromethane	3500 U	6200	3500	950	05/27/20 18:06	
Ethylbenzene	250 U	6200	250	950	05/27/20 18:06	
Isopropylbenzene (Cumene)	250 U	6200	250	950	05/27/20 18:06	
Methyl Acetate	1100 U	6200	1100	950	05/27/20 18:06	
Methyl tert-Butyl Ether	250 U	6200	250	950	05/27/20 18:06	
Methylcyclohexane	390 U	6200	390	950	05/27/20 18:06	
Styrene	250 U	6200	250	950	05/27/20 18:06	
Tetrachloroethene (PCE)	140000	6200	290	950	05/27/20 18:06	
Toluene	250 U	6200	250	950	05/27/20 18:06	
Trichloroethene (TCE)	9100	6200	280	950	05/27/20 18:06	
Trichlorofluoromethane (CFC 11)	330 U	6200	330	950	05/27/20 18:06	
Vinyl Chloride	570 U	6200	570	950	05/27/20 18:06	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 14:50
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-06 - (5.5-6)
Lab Code: R2004156-005

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	650 U	19000	650	950	05/27/20 18:06	
cis-1,2-Dichloroethene	17000	6200	250	950	05/27/20 18:06	
cis-1,3-Dichloropropene	250 U	6200	250	950	05/27/20 18:06	
trans-1,2-Dichloroethene	250 U	6200	250	950	05/27/20 18:06	
trans-1,3-Dichloropropene	250 U	6200	250	950	05/27/20 18:06	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	31 - 154	05/27/20 18:06	
Dibromofluoromethane	94	63 - 138	05/27/20 18:06	
Toluene-d8	103	66 - 138	05/27/20 18:06	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 14:50
Date Received: 05/19/20 10:05

Sample Name: PD1-DUP1 - 5-18-20
Lab Code: R2004156-006

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	410 U	10000	410	1630	05/27/20 18:28	
1,1,2,2-Tetrachloroethane	410 U	10000	410	1630	05/27/20 18:28	
1,1,2-Trichloroethane	410 U	10000	410	1630	05/27/20 18:28	
1,1,2-Trichloro-1,2,2-trifluoroethane	410 U	10000	410	1630	05/27/20 18:28	
1,1-Dichloroethane (1,1-DCA)	410 U	10000	410	1630	05/27/20 18:28	
1,1-Dichloroethene (1,1-DCE)	600 U	10000	600	1630	05/27/20 18:28	
1,2,4-Trichlorobenzene	860 U	10000	860	1630	05/27/20 18:28	
1,2-Dibromo-3-chloropropane (DBCP)	600 U	10000	600	1630	05/27/20 18:28	
1,2-Dibromoethane	410 U	10000	410	1630	05/27/20 18:28	
1,2-Dichlorobenzene	410 U	10000	410	1630	05/27/20 18:28	
1,2-Dichloroethane	410 U	10000	410	1630	05/27/20 18:28	
1,2-Dichloropropane	410 U	10000	410	1630	05/27/20 18:28	
1,3-Dichlorobenzene	410 U	10000	410	1630	05/27/20 18:28	
1,4-Dichlorobenzene	450 U	10000	450	1630	05/27/20 18:28	
2-Butanone (MEK)	4100 U	10000	4100	1630	05/27/20 18:28	
2-Hexanone	740 U	10000	740	1630	05/27/20 18:28	
4-Methyl-2-pentanone	480 U	10000	480	1630	05/27/20 18:28	
Acetone	9700 U	10000	9700	1630	05/27/20 18:28	
Benzene	410 U	10000	410	1630	05/27/20 18:28	
Bromodichloromethane	410 U	10000	410	1630	05/27/20 18:28	
Bromoform	1100 U	10000	1100	1630	05/27/20 18:28	
Bromomethane	4300 U	10000	4300	1630	05/27/20 18:28	
Carbon Disulfide	600 U	10000	600	1630	05/27/20 18:28	
Carbon Tetrachloride	540 U	10000	540	1630	05/27/20 18:28	
Chlorobenzene	410 U	10000	410	1630	05/27/20 18:28	
Chloroethane	410 U	10000	410	1630	05/27/20 18:28	
Chloroform	410 U	10000	410	1630	05/27/20 18:28	
Chloromethane	2900 U	10000	2900	1630	05/27/20 18:28	
Cyclohexane	540 U	10000	540	1630	05/27/20 18:28	
Dibromochloromethane	410 U	10000	410	1630	05/27/20 18:28	
Dichlorodifluoromethane (CFC 12)	680 U	10000	680	1630	05/27/20 18:28	
Dichloromethane	5800 U	10000	5800	1630	05/27/20 18:28	
Ethylbenzene	410 U	10000	410	1630	05/27/20 18:28	
Isopropylbenzene (Cumene)	410 U	10000	410	1630	05/27/20 18:28	
Methyl Acetate	1800 U	10000	1800	1630	05/27/20 18:28	
Methyl tert-Butyl Ether	410 U	10000	410	1630	05/27/20 18:28	
Methylcyclohexane	640 U	10000	640	1630	05/27/20 18:28	
Styrene	410 U	10000	410	1630	05/27/20 18:28	
Tetrachloroethene (PCE)	210000	10000	480	1630	05/27/20 18:28	
Toluene	410 U	10000	410	1630	05/27/20 18:28	
Trichloroethene (TCE)	9900 J	10000	450	1630	05/27/20 18:28	
Trichlorofluoromethane (CFC 11)	540 U	10000	540	1630	05/27/20 18:28	
Vinyl Chloride	950 U	10000	950	1630	05/27/20 18:28	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 14:50
Date Received: 05/19/20 10:05

Sample Name: PD1-DUP1 - 5-18-20
Lab Code: R2004156-006

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	1100 U	31000	1100	1630	05/27/20 18:28	
cis-1,2-Dichloroethene	9100 J	10000	410	1630	05/27/20 18:28	
cis-1,3-Dichloropropene	410 U	10000	410	1630	05/27/20 18:28	
trans-1,2-Dichloroethene	410 U	10000	410	1630	05/27/20 18:28	
trans-1,3-Dichloropropene	410 U	10000	410	1630	05/27/20 18:28	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	31 - 154	05/27/20 18:28	
Dibromofluoromethane	96	63 - 138	05/27/20 18:28	
Toluene-d8	99	66 - 138	05/27/20 18:28	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 15:30
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-07 - (7-7.5)
Lab Code: R2004156-007

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	24 U	590	24	94	05/26/20 16:46	
1,1,2,2-Tetrachloroethane	24 U	590	24	94	05/26/20 16:46	
1,1,2-Trichloroethane	24 U	590	24	94	05/26/20 16:46	
1,1,2-Trichloro-1,2,2-trifluoroethane	24 U	590	24	94	05/26/20 16:46	
1,1-Dichloroethane (1,1-DCA)	24 U	590	24	94	05/26/20 16:46	
1,1-Dichloroethene (1,1-DCE)	35 U	590	35	94	05/26/20 16:46	
1,2,4-Trichlorobenzene	50 U	590	50	94	05/26/20 16:46	
1,2-Dibromo-3-chloropropane (DBCP)	35 U	590	35	94	05/26/20 16:46	
1,2-Dibromoethane	24 U	590	24	94	05/26/20 16:46	
1,2-Dichlorobenzene	24 U	590	24	94	05/26/20 16:46	
1,2-Dichloroethane	24 U	590	24	94	05/26/20 16:46	
1,2-Dichloropropane	24 U	590	24	94	05/26/20 16:46	
1,3-Dichlorobenzene	24 U	590	24	94	05/26/20 16:46	
1,4-Dichlorobenzene	26 U	590	26	94	05/26/20 16:46	
2-Butanone (MEK)	240 U	590	240	94	05/26/20 16:46	
2-Hexanone	43 U	590	43	94	05/26/20 16:46	
4-Methyl-2-pentanone	28 U	590	28	94	05/26/20 16:46	
Acetone	560 U	590	560	94	05/26/20 16:46	
Benzene	24 U	590	24	94	05/26/20 16:46	
Bromodichloromethane	24 U	590	24	94	05/26/20 16:46	
Bromoform	59 U	590	59	94	05/26/20 16:46	
Bromomethane	250 U	590	250	94	05/26/20 16:46	
Carbon Disulfide	35 U	590	35	94	05/26/20 16:46	
Carbon Tetrachloride	31 U	590	31	94	05/26/20 16:46	
Chlorobenzene	24 U	590	24	94	05/26/20 16:46	
Chloroethane	24 U	590	24	94	05/26/20 16:46	
Chloroform	24 U	590	24	94	05/26/20 16:46	
Chloromethane	170 U	590	170	94	05/26/20 16:46	
Cyclohexane	31 U	590	31	94	05/26/20 16:46	
Dibromochloromethane	24 U	590	24	94	05/26/20 16:46	
Dichlorodifluoromethane (CFC 12)	39 U	590	39	94	05/26/20 16:46	
Dichloromethane	330 U	590	330	94	05/26/20 16:46	
Ethylbenzene	24 U	590	24	94	05/26/20 16:46	
Isopropylbenzene (Cumene)	24 U	590	24	94	05/26/20 16:46	
Methyl Acetate	99 U	590	99	94	05/26/20 16:46	
Methyl tert-Butyl Ether	24 U	590	24	94	05/26/20 16:46	
Methylcyclohexane	37 U	590	37	94	05/26/20 16:46	
Styrene	24 U	590	24	94	05/26/20 16:46	
Tetrachloroethene (PCE)	420 J	590	28	94	05/26/20 16:46	
Toluene	24 U	590	24	94	05/26/20 16:46	
Trichloroethene (TCE)	540 J	590	26	94	05/26/20 16:46	
Trichlorofluoromethane (CFC 11)	31 U	590	31	94	05/26/20 16:46	
Vinyl Chloride	55 U	590	55	94	05/26/20 16:46	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 15:30
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-07 - (7-7.5)
Lab Code: R2004156-007

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	62 U	1800	62	94	05/26/20 16:46	
cis-1,2-Dichloroethene	4300	590	24	94	05/26/20 16:46	
cis-1,3-Dichloropropene	24 U	590	24	94	05/26/20 16:46	
trans-1,2-Dichloroethene	75 J	590	24	94	05/26/20 16:46	
trans-1,3-Dichloropropene	24 U	590	24	94	05/26/20 16:46	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	31 - 154	05/26/20 16:46	
Dibromofluoromethane	92	63 - 138	05/26/20 16:46	
Toluene-d8	105	66 - 138	05/26/20 16:46	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 13:50
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-03 (9.5-10)
Lab Code: R2004156-008

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	23 U	550	23	90	05/27/20 17:44	
1,1,2,2-Tetrachloroethane	23 U	550	23	90	05/27/20 17:44	
1,1,2-Trichloroethane	23 U	550	23	90	05/27/20 17:44	
1,1,2-Trichloro-1,2,2-trifluoroethane	23 U	550	23	90	05/27/20 17:44	
1,1-Dichloroethane (1,1-DCA)	23 U	550	23	90	05/27/20 17:44	
1,1-Dichloroethene (1,1-DCE)	33 U	550	33	90	05/27/20 17:44	
1,2,4-Trichlorobenzene	47 U	550	47	90	05/27/20 17:44	
1,2-Dibromo-3-chloropropane (DBCP)	33 U	550	33	90	05/27/20 17:44	
1,2-Dibromoethane	23 U	550	23	90	05/27/20 17:44	
1,2-Dichlorobenzene	23 U	550	23	90	05/27/20 17:44	
1,2-Dichloroethane	23 U	550	23	90	05/27/20 17:44	
1,2-Dichloropropane	23 U	550	23	90	05/27/20 17:44	
1,3-Dichlorobenzene	23 U	550	23	90	05/27/20 17:44	
1,4-Dichlorobenzene	25 U	550	25	90	05/27/20 17:44	
2-Butanone (MEK)	230 U	550	230	90	05/27/20 17:44	
2-Hexanone	40 U	550	40	90	05/27/20 17:44	
4-Methyl-2-pentanone	26 U	550	26	90	05/27/20 17:44	
Acetone	530 U	550	530	90	05/27/20 17:44	
Benzene	23 U	550	23	90	05/27/20 17:44	
Bromodichloromethane	23 U	550	23	90	05/27/20 17:44	
Bromoform	56 U	550	56	90	05/27/20 17:44	
Bromomethane	240 U	550	240	90	05/27/20 17:44	
Carbon Disulfide	33 U	550	33	90	05/27/20 17:44	
Carbon Tetrachloride	29 U	550	29	90	05/27/20 17:44	
Chlorobenzene	23 U	550	23	90	05/27/20 17:44	
Chloroethane	23 U	550	23	90	05/27/20 17:44	
Chloroform	25 J	550	23	90	05/27/20 17:44	
Chloromethane	160 U	550	160	90	05/27/20 17:44	
Cyclohexane	29 U	550	29	90	05/27/20 17:44	
Dibromochloromethane	23 U	550	23	90	05/27/20 17:44	
Dichlorodifluoromethane (CFC 12)	37 U	550	37	90	05/27/20 17:44	
Dichloromethane	320 U	550	320	90	05/27/20 17:44	
Ethylbenzene	200 J	550	23	90	05/27/20 17:44	
Isopropylbenzene (Cumene)	240 J	550	23	90	05/27/20 17:44	
Methyl Acetate	95 BJ	550	94	90	05/27/20 17:44	
Methyl tert-Butyl Ether	23 U	550	23	90	05/27/20 17:44	
Methylcyclohexane	60 J	550	35	90	05/27/20 17:44	
Styrene	23 U	550	23	90	05/27/20 17:44	
Tetrachloroethene (PCE)	540 J	550	26	90	05/27/20 17:44	
Toluene	39 J	550	23	90	05/27/20 17:44	
Trichloroethene (TCE)	54 J	550	25	90	05/27/20 17:44	
Trichlorofluoromethane (CFC 11)	29 U	550	29	90	05/27/20 17:44	
Vinyl Chloride	52 U	550	52	90	05/27/20 17:44	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 13:50
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-03 (9.5-10)
Lab Code: R2004156-008

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	440 J	1700	58	90	05/27/20 17:44	
cis-1,2-Dichloroethene	11000	550	23	90	05/27/20 17:44	
cis-1,3-Dichloropropene	23 U	550	23	90	05/27/20 17:44	
trans-1,2-Dichloroethene	23 U	550	23	90	05/27/20 17:44	
trans-1,3-Dichloropropene	23 U	550	23	90	05/27/20 17:44	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	31 - 154	05/27/20 17:44	
Dibromofluoromethane	93	63 - 138	05/27/20 17:44	
Toluene-d8	104	66 - 138	05/27/20 17:44	



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-07 - (7-7.5)
Lab Code: R2004156-007

Service Request: R2004156
Date Collected: 05/18/20 15:30
Date Received: 05/19/20 10:05

Units: ug/Kg
Basis: Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	13 U	86	13	1	05/26/20 10:44	5/21/20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	77	10 - 115	05/26/20 10:44	
Nitrobenzene-d5	76	10 - 130	05/26/20 10:44	
p-Terphenyl-d14	69	10 - 130	05/26/20 10:44	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004156
Date Collected: 05/18/20
Date Received: 05/19/20 10:05

Sample Name: Trip Blank
Lab Code: R2004156-009

Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.027 U	0.040	0.027	1	05/26/20 16:30	5/26/20	*

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	98	64 - 124	05/26/20 16:30	



General Chemistry

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-01 - (7.5-8)
Lab Code: R2004156-001

Service Request: R2004156
Date Collected: 05/18/20 12:00
Date Received: 05/19/20 10:05

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	70.9	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-02 - (7-8)
Lab Code: R2004156-002

Service Request: R2004156
Date Collected: 05/18/20 13:05
Date Received: 05/19/20 10:05

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	84.3	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-04 - (7-8)
Lab Code: R2004156-003

Service Request: R2004156
Date Collected: 05/18/20 14:00
Date Received: 05/19/20 10:05

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	85.0	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-05 - (9.5-10)
Lab Code: R2004156-004

Service Request: R2004156
Date Collected: 05/18/20 14:30
Date Received: 05/19/20 10:05

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	87.3	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-06 - (5.5-6)
Lab Code: R2004156-005

Service Request: R2004156
Date Collected: 05/18/20 14:50
Date Received: 05/19/20 10:05

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	76.7	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-DUP1 - 5-18-20
Lab Code: R2004156-006

Service Request: R2004156
Date Collected: 05/18/20 14:50
Date Received: 05/19/20 10:05

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	79.7	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-07 - (7-7.5)
Lab Code: R2004156-007

Service Request: R2004156
Date Collected: 05/18/20 15:30
Date Received: 05/19/20 10:05

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	79.9	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-03 (9.5-10)
Lab Code: R2004156-008

Service Request: R2004156
Date Collected: 05/18/20 13:50
Date Received: 05/19/20 10:05

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	81.1	Percent	-	1	05/27/20 09:45	



QC Summary Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5035A

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		31-154	63-138	66-138
PD1-SB-01 - (7.5-8)	R2004156-001	99	92	102
PD1-SB-02 - (7-8)	R2004156-002	107	91	102
PD1-SB-04 - (7-8)	R2004156-003	102	90	105
PD1-SB-05 - (9.5-10)	R2004156-004	97	98	105
PD1-SB-06 - (5.5-6)	R2004156-005	99	94	103
PD1-DUP1 - 5-18-20	R2004156-006	95	96	99
PD1-SB-07 - (7-7.5)	R2004156-007	102	92	105
PD1-SB-03 (9.5-10)	R2004156-008	106	93	104
Method Blank	RQ2005358-04	99	91	100
Method Blank	RQ2005441-04	97	91	100
Method Blank	RQ2005502-04	99	89	99
Lab Control Sample	RQ2005358-03	100	99	102
Lab Control Sample	RQ2005441-03	102	99	100
Lab Control Sample	RQ2005502-03	97	95	96

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005358-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	10 U	250	10	50	05/26/20 12:52	
1,1,2,2-Tetrachloroethane	10 U	250	10	50	05/26/20 12:52	
1,1,2-Trichloroethane	10 U	250	10	50	05/26/20 12:52	
1,1,2-Trichloro-1,2,2-trifluoroethane	10 U	250	10	50	05/26/20 12:52	
1,1-Dichloroethane (1,1-DCA)	10 U	250	10	50	05/26/20 12:52	
1,1-Dichloroethene (1,1-DCE)	15 U	250	15	50	05/26/20 12:52	
1,2,4-Trichlorobenzene	21 U	250	21	50	05/26/20 12:52	
1,2-Dibromo-3-chloropropane (DBCP)	15 U	250	15	50	05/26/20 12:52	
1,2-Dibromoethane	10 U	250	10	50	05/26/20 12:52	
1,2-Dichlorobenzene	10 U	250	10	50	05/26/20 12:52	
1,2-Dichloroethane	10 U	250	10	50	05/26/20 12:52	
1,2-Dichloropropane	10 U	250	10	50	05/26/20 12:52	
1,3-Dichlorobenzene	10 U	250	10	50	05/26/20 12:52	
1,4-Dichlorobenzene	11 U	250	11	50	05/26/20 12:52	
2-Butanone (MEK)	100 U	250	100	50	05/26/20 12:52	
2-Hexanone	18 U	250	18	50	05/26/20 12:52	
4-Methyl-2-pentanone	12 U	250	12	50	05/26/20 12:52	
Acetone	240 U	250	240	50	05/26/20 12:52	
Benzene	10 U	250	10	50	05/26/20 12:52	
Bromodichloromethane	10 U	250	10	50	05/26/20 12:52	
Bromoform	25 U	250	25	50	05/26/20 12:52	
Bromomethane	110 U	250	110	50	05/26/20 12:52	
Carbon Disulfide	15 U	250	15	50	05/26/20 12:52	
Carbon Tetrachloride	13 U	250	13	50	05/26/20 12:52	
Chlorobenzene	10 U	250	10	50	05/26/20 12:52	
Chloroethane	10 U	250	10	50	05/26/20 12:52	
Chloroform	10 U	250	10	50	05/26/20 12:52	
Chloromethane	70 U	250	70	50	05/26/20 12:52	
Cyclohexane	13 U	250	13	50	05/26/20 12:52	
Dibromochloromethane	10 U	250	10	50	05/26/20 12:52	
Dichlorodifluoromethane (CFC 12)	17 U	250	17	50	05/26/20 12:52	
Dichloromethane	140 U	250	140	50	05/26/20 12:52	
Ethylbenzene	10 U	250	10	50	05/26/20 12:52	
Isopropylbenzene (Cumene)	10 U	250	10	50	05/26/20 12:52	
Methyl Acetate	76 J	250	42	50	05/26/20 12:52	
Methyl tert-Butyl Ether	10 U	250	10	50	05/26/20 12:52	
Methylcyclohexane	16 U	250	16	50	05/26/20 12:52	
Styrene	10 U	250	10	50	05/26/20 12:52	
Tetrachloroethene (PCE)	12 U	250	12	50	05/26/20 12:52	
Toluene	10 U	250	10	50	05/26/20 12:52	
Trichloroethene (TCE)	11 U	250	11	50	05/26/20 12:52	
Trichlorofluoromethane (CFC 11)	13 U	250	13	50	05/26/20 12:52	
Vinyl Chloride	23 U	250	23	50	05/26/20 12:52	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005358-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	26 U	750	26	50	05/26/20 12:52	
cis-1,2-Dichloroethene	10 U	250	10	50	05/26/20 12:52	
cis-1,3-Dichloropropene	10 U	250	10	50	05/26/20 12:52	
trans-1,2-Dichloroethene	10 U	250	10	50	05/26/20 12:52	
trans-1,3-Dichloropropene	10 U	250	10	50	05/26/20 12:52	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	31 - 154	05/26/20 12:52	
Dibromofluoromethane	91	63 - 138	05/26/20 12:52	
Toluene-d8	100	66 - 138	05/26/20 12:52	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005441-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	10 U	250	10	50	05/27/20 11:50	
1,1,2,2-Tetrachloroethane	10 U	250	10	50	05/27/20 11:50	
1,1,2-Trichloroethane	10 U	250	10	50	05/27/20 11:50	
1,1,2-Trichloro-1,2,2-trifluoroethane	10 U	250	10	50	05/27/20 11:50	
1,1-Dichloroethane (1,1-DCA)	10 U	250	10	50	05/27/20 11:50	
1,1-Dichloroethene (1,1-DCE)	15 U	250	15	50	05/27/20 11:50	
1,2,4-Trichlorobenzene	21 U	250	21	50	05/27/20 11:50	
1,2-Dibromo-3-chloropropane (DBCP)	15 U	250	15	50	05/27/20 11:50	
1,2-Dibromoethane	10 U	250	10	50	05/27/20 11:50	
1,2-Dichlorobenzene	10 U	250	10	50	05/27/20 11:50	
1,2-Dichloroethane	10 U	250	10	50	05/27/20 11:50	
1,2-Dichloropropane	10 U	250	10	50	05/27/20 11:50	
1,3-Dichlorobenzene	10 U	250	10	50	05/27/20 11:50	
1,4-Dichlorobenzene	11 U	250	11	50	05/27/20 11:50	
2-Butanone (MEK)	100 U	250	100	50	05/27/20 11:50	
2-Hexanone	18 U	250	18	50	05/27/20 11:50	
4-Methyl-2-pentanone	12 U	250	12	50	05/27/20 11:50	
Acetone	240 U	250	240	50	05/27/20 11:50	
Benzene	10 U	250	10	50	05/27/20 11:50	
Bromodichloromethane	10 U	250	10	50	05/27/20 11:50	
Bromoform	25 U	250	25	50	05/27/20 11:50	
Bromomethane	110 U	250	110	50	05/27/20 11:50	
Carbon Disulfide	15 U	250	15	50	05/27/20 11:50	
Carbon Tetrachloride	13 U	250	13	50	05/27/20 11:50	
Chlorobenzene	10 U	250	10	50	05/27/20 11:50	
Chloroethane	10 U	250	10	50	05/27/20 11:50	
Chloroform	10 U	250	10	50	05/27/20 11:50	
Chloromethane	70 U	250	70	50	05/27/20 11:50	
Cyclohexane	13 U	250	13	50	05/27/20 11:50	
Dibromochloromethane	10 U	250	10	50	05/27/20 11:50	
Dichlorodifluoromethane (CFC 12)	17 U	250	17	50	05/27/20 11:50	
Dichloromethane	140 U	250	140	50	05/27/20 11:50	
Ethylbenzene	10 U	250	10	50	05/27/20 11:50	
Isopropylbenzene (Cumene)	10 U	250	10	50	05/27/20 11:50	
Methyl Acetate	67 J	250	42	50	05/27/20 11:50	
Methyl tert-Butyl Ether	10 U	250	10	50	05/27/20 11:50	
Methylcyclohexane	16 U	250	16	50	05/27/20 11:50	
Styrene	10 U	250	10	50	05/27/20 11:50	
Tetrachloroethene (PCE)	12 U	250	12	50	05/27/20 11:50	
Toluene	10 U	250	10	50	05/27/20 11:50	
Trichloroethene (TCE)	11 U	250	11	50	05/27/20 11:50	
Trichlorofluoromethane (CFC 11)	13 U	250	13	50	05/27/20 11:50	
Vinyl Chloride	23 U	250	23	50	05/27/20 11:50	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005441-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	26 U	750	26	50	05/27/20 11:50	
cis-1,2-Dichloroethene	10 U	250	10	50	05/27/20 11:50	
cis-1,3-Dichloropropene	10 U	250	10	50	05/27/20 11:50	
trans-1,2-Dichloroethene	10 U	250	10	50	05/27/20 11:50	
trans-1,3-Dichloropropene	10 U	250	10	50	05/27/20 11:50	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	31 - 154	05/27/20 11:50	
Dibromofluoromethane	91	63 - 138	05/27/20 11:50	
Toluene-d8	100	66 - 138	05/27/20 11:50	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005502-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	10 U	250	10	50	05/28/20 13:36	
1,1,2,2-Tetrachloroethane	10 U	250	10	50	05/28/20 13:36	
1,1,2-Trichloroethane	10 U	250	10	50	05/28/20 13:36	
1,1,2-Trichloro-1,2,2-trifluoroethane	10 U	250	10	50	05/28/20 13:36	
1,1-Dichloroethane (1,1-DCA)	10 U	250	10	50	05/28/20 13:36	
1,1-Dichloroethene (1,1-DCE)	15 U	250	15	50	05/28/20 13:36	
1,2,4-Trichlorobenzene	21 U	250	21	50	05/28/20 13:36	
1,2-Dibromo-3-chloropropane (DBCP)	15 U	250	15	50	05/28/20 13:36	
1,2-Dibromoethane	10 U	250	10	50	05/28/20 13:36	
1,2-Dichlorobenzene	10 U	250	10	50	05/28/20 13:36	
1,2-Dichloroethane	10 U	250	10	50	05/28/20 13:36	
1,2-Dichloropropane	10 U	250	10	50	05/28/20 13:36	
1,3-Dichlorobenzene	10 U	250	10	50	05/28/20 13:36	
1,4-Dichlorobenzene	11 U	250	11	50	05/28/20 13:36	
2-Butanone (MEK)	100 U	250	100	50	05/28/20 13:36	
2-Hexanone	18 U	250	18	50	05/28/20 13:36	
4-Methyl-2-pentanone	12 U	250	12	50	05/28/20 13:36	
Acetone	240 U	250	240	50	05/28/20 13:36	
Benzene	10 U	250	10	50	05/28/20 13:36	
Bromodichloromethane	10 U	250	10	50	05/28/20 13:36	
Bromoform	25 U	250	25	50	05/28/20 13:36	
Bromomethane	110 U	250	110	50	05/28/20 13:36	
Carbon Disulfide	15 U	250	15	50	05/28/20 13:36	
Carbon Tetrachloride	13 U	250	13	50	05/28/20 13:36	
Chlorobenzene	10 U	250	10	50	05/28/20 13:36	
Chloroethane	10 U	250	10	50	05/28/20 13:36	
Chloroform	10 U	250	10	50	05/28/20 13:36	
Chloromethane	70 U	250	70	50	05/28/20 13:36	
Cyclohexane	13 U	250	13	50	05/28/20 13:36	
Dibromochloromethane	10 U	250	10	50	05/28/20 13:36	
Dichlorodifluoromethane (CFC 12)	17 U	250	17	50	05/28/20 13:36	
Dichloromethane	140 U	250	140	50	05/28/20 13:36	
Ethylbenzene	10 U	250	10	50	05/28/20 13:36	
Isopropylbenzene (Cumene)	10 U	250	10	50	05/28/20 13:36	
Methyl Acetate	89 J	250	42	50	05/28/20 13:36	
Methyl tert-Butyl Ether	10 U	250	10	50	05/28/20 13:36	
Methylcyclohexane	16 U	250	16	50	05/28/20 13:36	
Styrene	10 U	250	10	50	05/28/20 13:36	
Tetrachloroethene (PCE)	12 U	250	12	50	05/28/20 13:36	
Toluene	10 U	250	10	50	05/28/20 13:36	
Trichloroethene (TCE)	11 U	250	11	50	05/28/20 13:36	
Trichlorofluoromethane (CFC 11)	13 U	250	13	50	05/28/20 13:36	
Vinyl Chloride	23 U	250	23	50	05/28/20 13:36	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005502-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	26 U	750	26	50	05/28/20 13:36	
cis-1,2-Dichloroethene	10 U	250	10	50	05/28/20 13:36	
cis-1,3-Dichloropropene	10 U	250	10	50	05/28/20 13:36	
trans-1,2-Dichloroethene	10 U	250	10	50	05/28/20 13:36	
trans-1,3-Dichloropropene	10 U	250	10	50	05/28/20 13:36	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	31 - 154	05/28/20 13:36	
Dibromofluoromethane	89	63 - 138	05/28/20 13:36	
Toluene-d8	99	66 - 138	05/28/20 13:36	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Analyzed: 05/26/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005358-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	15.2	20.0	76	68-123
1,1,2,2-Tetrachloroethane	8260C	18.5	20.0	92	78-121
1,1,2-Trichloroethane	8260C	19.4	20.0	97	84-117
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	17.8	20.0	89	54-121
1,1-Dichloroethane (1,1-DCA)	8260C	17.5	20.0	88	76-123
1,1-Dichloroethene (1,1-DCE)	8260C	17.8	20.0	89	65-115
1,2,4-Trichlorobenzene	8260C	20.5	20.0	103	62-130
1,2-Dibromo-3-chloropropane (DBCP)	8260C	12.8	20.0	64	54-135
1,2-Dibromoethane	8260C	17.4	20.0	87	77-117
1,2-Dichlorobenzene	8260C	18.6	20.0	93	75-116
1,2-Dichloroethane	8260C	18.2	20.0	91	74-116
1,2-Dichloropropane	8260C	18.4	20.0	92	79-112
1,3-Dichlorobenzene	8260C	19.2	20.0	96	72-118
1,4-Dichlorobenzene	8260C	18.5	20.0	93	72-117
2-Butanone (MEK)	8260C	17.6	20.0	88	67-129
2-Hexanone	8260C	18.9	20.0	95	68-118
4-Methyl-2-pentanone	8260C	19.5	20.0	97	64-123
Acetone	8260C	18.6	20.0	93	32-154
Benzene	8260C	20.2	20.0	101	77-114
Bromodichloromethane	8260C	16.1	20.0	81	72-118
Bromoform	8260C	14.4	20.0	72	55-134
Bromomethane	8260C	12.4	20.0	62	10-150
Carbon Disulfide	8260C	15.3	20.0	77	44-139
Carbon Tetrachloride	8260C	14.8	20.0	74	51-123
Chlorobenzene	8260C	18.1	20.0	90	79-115
Chloroethane	8260C	13.9	20.0	69	10-140
Chloroform	8260C	16.7	20.0	83	76-115
Chloromethane	8260C	18.4	20.0	92	10-131
Cyclohexane	8260C	21.3	20.0	107	67-122
Dibromochloromethane	8260C	15.7	20.0	79	68-121
Dichlorodifluoromethane (CFC 12)	8260C	19.4	20.0	97	51-144
Dichloromethane	8260C	18.0	20.0	90	72-118
Ethylbenzene	8260C	17.9	20.0	89	64-118

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Analyzed: 05/26/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005358-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	18.3	20.0	92	60-123
Methyl Acetate	8260C	18.4	20.0	92	31-122
Methyl tert-Butyl Ether	8260C	17.3	20.0	86	76-118
Methylcyclohexane	8260C	21.2	20.0	106	70-124
Styrene	8260C	18.8	20.0	94	74-117
Tetrachloroethene (PCE)	8260C	19.3	20.0	97	58-124
Toluene	8260C	19.1	20.0	96	72-116
Trichloroethene (TCE)	8260C	18.1	20.0	90	69-118
Trichlorofluoromethane (CFC 11)	8260C	20.9	20.0	105	52-127
Vinyl Chloride	8260C	14.4	20.0	72	59-153
cis-1,2-Dichloroethene	8260C	17.8	20.0	89	79-113
cis-1,3-Dichloropropene	8260C	16.1	20.0	81	66-117
trans-1,2-Dichloroethene	8260C	16.6	20.0	83	73-114
trans-1,3-Dichloropropene	8260C	14.6	20.0	73	57-135

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Analyzed: 05/27/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005441-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	16.8	20.0	84	68-123
1,1,2,2-Tetrachloroethane	8260C	20.7	20.0	103	78-121
1,1,2-Trichloroethane	8260C	21.1	20.0	105	84-117
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	20.0	20.0	100	54-121
1,1-Dichloroethane (1,1-DCA)	8260C	19.9	20.0	99	76-123
1,1-Dichloroethene (1,1-DCE)	8260C	19.9	20.0	99	65-115
1,2,4-Trichlorobenzene	8260C	25.6	20.0	128	62-130
1,2-Dibromo-3-chloropropane (DBCP)	8260C	14.9	20.0	75	54-135
1,2-Dibromoethane	8260C	18.9	20.0	95	77-117
1,2-Dichlorobenzene	8260C	21.4	20.0	107	75-116
1,2-Dichloroethane	8260C	19.4	20.0	97	74-116
1,2-Dichloropropane	8260C	22.0	20.0	110	79-112
1,3-Dichlorobenzene	8260C	21.9	20.0	110	72-118
1,4-Dichlorobenzene	8260C	21.7	20.0	109	72-117
2-Butanone (MEK)	8260C	19.1	20.0	95	67-129
2-Hexanone	8260C	21.2	20.0	106	68-118
4-Methyl-2-pentanone	8260C	20.3	20.0	102	64-123
Acetone	8260C	20.1	20.0	100	32-154
Benzene	8260C	21.9	20.0	110	77-114
Bromodichloromethane	8260C	18.1	20.0	91	72-118
Bromoform	8260C	16.4	20.0	82	55-134
Bromomethane	8260C	13.1	20.0	65	10-150
Carbon Disulfide	8260C	13.8	20.0	69	44-139
Carbon Tetrachloride	8260C	16.9	20.0	84	51-123
Chlorobenzene	8260C	20.5	20.0	102	79-115
Chloroethane	8260C	14.6	20.0	73	10-140
Chloroform	8260C	18.3	20.0	91	76-115
Chloromethane	8260C	21.3	20.0	107	10-131
Cyclohexane	8260C	20.5	20.0	103	67-122
Dibromochloromethane	8260C	17.6	20.0	88	68-121
Dichlorodifluoromethane (CFC 12)	8260C	22.6	20.0	113	51-144
Dichloromethane	8260C	19.4	20.0	97	72-118
Ethylbenzene	8260C	20.7	20.0	103	64-118

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Analyzed: 05/27/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005441-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	22.2	20.0	111	60-123
Methyl Acetate	8260C	19.2	20.0	96	31-122
Methyl tert-Butyl Ether	8260C	19.4	20.0	97	76-118
Methylcyclohexane	8260C	20.4	20.0	102	70-124
Styrene	8260C	21.7	20.0	109	74-117
Tetrachloroethene (PCE)	8260C	22.9	20.0	115	58-124
Toluene	8260C	21.6	20.0	108	72-116
Trichloroethene (TCE)	8260C	21.3	20.0	106	69-118
Trichlorofluoromethane (CFC 11)	8260C	22.5	20.0	113	52-127
Vinyl Chloride	8260C	16.7	20.0	84	59-153
cis-1,2-Dichloroethene	8260C	19.0	20.0	95	79-113
cis-1,3-Dichloropropene	8260C	18.5	20.0	92	66-117
trans-1,2-Dichloroethene	8260C	18.5	20.0	92	73-114
trans-1,3-Dichloropropene	8260C	16.8	20.0	84	57-135

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Analyzed: 05/28/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005502-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	15.6	20.0	78	68-123
1,1,2,2-Tetrachloroethane	8260C	18.1	20.0	90	78-121
1,1,2-Trichloroethane	8260C	18.7	20.0	93	84-117
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	17.6	20.0	88	54-121
1,1-Dichloroethane (1,1-DCA)	8260C	18.2	20.0	91	76-123
1,1-Dichloroethene (1,1-DCE)	8260C	17.1	20.0	85	65-115
1,2,4-Trichlorobenzene	8260C	22.4	20.0	112	62-130
1,2-Dibromo-3-chloropropane (DBCP)	8260C	11.8	20.0	59	54-135
1,2-Dibromoethane	8260C	17.2	20.0	86	77-117
1,2-Dichlorobenzene	8260C	19.7	20.0	98	75-116
1,2-Dichloroethane	8260C	18.7	20.0	93	74-116
1,2-Dichloropropane	8260C	19.6	20.0	98	79-112
1,3-Dichlorobenzene	8260C	19.6	20.0	98	72-118
1,4-Dichlorobenzene	8260C	19.4	20.0	97	72-117
2-Butanone (MEK)	8260C	17.4	20.0	87	67-129
2-Hexanone	8260C	18.5	20.0	92	68-118
4-Methyl-2-pentanone	8260C	20.0	20.0	100	64-123
Acetone	8260C	17.9	20.0	90	32-154
Benzene	8260C	19.6	20.0	98	77-114
Bromodichloromethane	8260C	15.9	20.0	79	72-118
Bromoform	8260C	14.2	20.0	71	55-134
Bromomethane	8260C	12.3	20.0	62	10-150
Carbon Disulfide	8260C	14.4	20.0	72	44-139
Carbon Tetrachloride	8260C	14.7	20.0	73	51-123
Chlorobenzene	8260C	18.0	20.0	90	79-115
Chloroethane	8260C	13.0	20.0	65	10-140
Chloroform	8260C	16.7	20.0	83	76-115
Chloromethane	8260C	18.9	20.0	94	10-131
Cyclohexane	8260C	21.1	20.0	106	67-122
Dibromochloromethane	8260C	15.6	20.0	78	68-121
Dichlorodifluoromethane (CFC 12)	8260C	19.7	20.0	98	51-144
Dichloromethane	8260C	18.0	20.0	90	72-118
Ethylbenzene	8260C	17.8	20.0	89	64-118

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Analyzed: 05/28/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005502-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	19.3	20.0	97	60-123
Methyl Acetate	8260C	17.7	20.0	88	31-122
Methyl tert-Butyl Ether	8260C	17.4	20.0	87	76-118
Methylcyclohexane	8260C	21.0	20.0	105	70-124
Styrene	8260C	19.3	20.0	97	74-117
Tetrachloroethene (PCE)	8260C	19.7	20.0	99	58-124
Toluene	8260C	19.2	20.0	96	72-116
Trichloroethene (TCE)	8260C	17.7	20.0	88	69-118
Trichlorofluoromethane (CFC 11)	8260C	21.4	20.0	107	52-127
Vinyl Chloride	8260C	14.7	20.0	73	59-153
cis-1,2-Dichloroethene	8260C	18.2	20.0	91	79-113
cis-1,3-Dichloropropene	8260C	16.5	20.0	82	66-117
trans-1,2-Dichloroethene	8260C	16.9	20.0	84	73-114
trans-1,3-Dichloropropene	8260C	15.2	20.0	76	57-135



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156

SURROGATE RECOVERY SUMMARY
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3541

Sample Name	Lab Code	2-Fluorobiphenyl	Nitrobenzene-d5	p-Terphenyl-d14
		10-115	10-130	10-130
PD1-SB-07 - (7-7.5)	R2004156-007	77	76	69
Method Blank	RQ2005180-01	84	78	70
Lab Control Sample	RQ2005180-02	49	25	65
Duplicate Lab Control Sample	RQ2005180-03	90	78	71

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005180-01

Units: ug/Kg
Basis: Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	9.7 U	66	9.7	1	05/26/20 09:17	5/21/20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	84	10 - 115	05/26/20 09:17	
Nitrobenzene-d5	78	10 - 130	05/26/20 09:17	
p-Terphenyl-d14	70	10 - 130	05/26/20 09:17	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Analyzed: 05/26/20

Duplicate Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

			Lab Control Sample			Duplicate Lab Control Sample				
			RQ2005180-02			RQ2005180-03				
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,4-Dioxane	8270D	183	204	90	586	200	292 *	24-101	105*	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004156

SURROGATE RECOVERY SUMMARY
1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Extraction Method: EPA 3535A

Sample Name	Lab Code	1,4-Dioxane-d8
		64-124
Trip Blank	R2004156-009	98
Method Blank	RQ2005343-01	97
Lab Control Sample	RQ2005343-02	100
Duplicate Lab Control Sample	RQ2005343-03	103

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004156
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005343-01

Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.027 U	0.040	0.027	1	05/26/20 13:48	5/26/20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	97	64 - 124	05/26/20 13:48	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004156
Date Analyzed: 05/26/20

Duplicate Lab Control Sample Summary
1,4-Dioxane by GC/MS

Units:ug/L
Basis:NA

			Lab Control Sample			Duplicate Lab Control Sample				
			RQ2005343-02			RQ2005343-03				
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,4-Dioxane	8270D SIM	11.2	10.0	112	10.9	10.0	109	58-124	3	30



General Chemistry

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156**Date Collected:** 05/18/20**Date Received:** 05/19/20**Date Analyzed:** 05/27/20**Replicate Sample Summary
General Chemistry Parameters****Sample Name:** PD1-SB-07 - (7-7.5)**Units:** Percent**Lab Code:** R2004156-007**Basis:** As Received

					Duplicate Sample R2004156- 007DUP		
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
Total Solids	ALS SOP	-	79.9	79.3	79.6	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



Subcontracted Analytical Parameters

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T : +1 360 577 7222
F : +1 360 636 1068
www.alsglobal.com

June 11, 2020

Analytical Report for Service Request No: R2004156

Meghan Pedro
ALS Environmental
1565 Jefferson Rd, Building 300
Suite 360
Rochester, NY 14623

RE: NYSDEC / Admiral Cleaners / 1620504

Dear Meghan Pedro,

Enclosed are the results of the sample(s) submitted to our laboratory May 23, 2020
For your reference, these analyses have been assigned our service request number **R2004156**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 3276. You may also contact me via email at Mark.Harris@ALSGlobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager



ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T : +1 360 577 7222
F : +1 360 636 1068
www.alsglobal.com

Table of Contents

Acronyms

Qualifiers

State Certifications, Accreditations, And Licenses

Case Narrative

Chain of Custody

PFAS by HPLC/MS/MS

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdwlabservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners
Sample Matrix: Soil

Service Request: R2004156
Date Received: 05/23/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level II requested by the client.

Sample Receipt:

One soil sample was received for analysis at ALS Environmental on 05/23/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The sample was stored at minimum in accordance with the analytical method requirements.

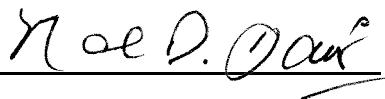
Organic LC:

Method PFC/537M, 05/28/2020: The upper control criterion was exceeded for Perfluoroheptane sulfonic acid (PFHpS) in Continuing Calibration Verification (CCV) KQ2007118-01. The field samples analyzed in this sequence did not contain the analytes in question. Since the apparent problem indicated a potential high bias, the data quality was not affected. No further corrective action was required.

Method PFC/537M, 05/28/2020: The upper control criterion was exceeded for Perfluoropentanoic acid (PFPeA) in Laboratory Control Sample (LCS) KQ2006943-03. The analyte in question was not detected in the associated field samples. The error associated with elevated recovery indicated a high bias. The sample data was not significantly affected. No further corrective action was appropriate.

Method PFC/537M, 05/28/2020: The upper control criterion was exceeded for one or more surrogates in samples PD1-SB-07 - (7-7.5). The associated native analytes were not detected above the Method Reporting Limit (MRL) in this sample. The error associated with an elevated recovery equated to a high bias. Assuming the native analytes performed similar to the labeled analogs, the effect on the reported results was minimal. The quality of the sample data was not significantly affected. No further corrective action was appropriate.

Approved by



Date

06/11/2020



Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Intra-Network Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

ALS Contact: Carlton Beechler

Project Name: NYSDEC / Admiral Cleaners
Project Number: 1620504
Project Manager: Jim Hayward
Company: EA Engineering, Science, and Technology
QAP: LAB QAP

PFAS
PFC/537M

Lab Code	Client Sample ID	# of Cont.	Matrix	Sample		Date Received	Send To	
				Date	Time			
R2004156-007	PD1-SB-07 - (7-7.5)	1	Soil	5/18/20	1530	5/19/20	KELSO	IV

Special Instructions/Comments pH Checked _____	Turnaround Requirements _____ RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 _____ STANDARD Requested FAX Date: _____ Requested Report Date: <u>06/05/20</u>	Report Requirements _____ I. Results Only ☒ II. Results + QC Summaries _____ III. Results + QC and Calibration Summaries ☒ IV. Data Validation Report with Raw Data PQL/MDL/J <u>Y</u> EDD <u>Y</u> <i>NYSDEC Equis v4</i>	Invoice Information PO# 58R2004156 Bill to
---	---	--	--

Relinquished By: *Carl Beechler* 5/22/2020 1325

Received By: *K. Monahan* ALS KELSO

5/23/20 1020
Airbill Number:

PC MH

Cooler Receipt and Preservation Form

Client ALS-Rochester Service Request K20 1200 4156
Received: 5/23/20 Opened: 5/23/20 By: Km Unloaded: 5/23/20 By: Km

1. Samples were received via? USPS Fed-Ex UPS DHL PDX Courier Hand Delivered
2. Samples were received in: (circle) Cooler Box Envelope Other NA
3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 Front
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID	NA	Tracking Number	NA	Filed
<u>N/A</u>	<u>6.9</u>	<u>2.9</u>	<u>10.8</u>	<u>9.8</u>	<u>IR01</u>			<u>173024306070</u>		

4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
5. Were custody papers properly filled out (ink, signed, etc.)? partially Frozen NA Y N
6. Were samples received in good condition (temperature, unbroken)? Indicate in the table below. NA Y N
If applicable, tissue samples were received: Frozen Partially Thawed Thawed
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
11. Were VOA vials received without headspace? Indicate in the table below. NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____



PFAS by HPLC/MS/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 15:30
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-07 - (7-7.5)
Lab Code: R2004156-007

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	1.1 U	1.1	0.26	1	05/28/20 01:11	5/27/20	
Perfluorohexane sulfonic acid (PFHxS)	1.1 U	1.1	0.35	1	05/28/20 01:11	5/27/20	
Perfluoroheptane sulfonic acid (PFHpS)	1.1 U	1.1	0.071	1	05/28/20 01:11	5/27/20	*
Perfluorooctane sulfonic acid (PFOS)	0.25 J	1.1	0.15	1	05/28/20 01:11	5/27/20	
Perfluorodecane sulfonic acid (PFDS)	1.1 U	1.1	0.20	1	05/28/20 01:11	5/27/20	
Perfluoroalkane Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	1.1 U	1.1	0.45	1	05/28/20 01:11	5/27/20	
Perfluoropentanoic acid (PFPeA)	1.1 U	1.1	0.25	1	05/28/20 01:11	5/27/20	*
Perfluorohexanoic acid (PFHxA)	1.1 U	1.1	0.36	1	05/28/20 01:11	5/27/20	
Perfluoroheptanoic acid (PFHpA)	1.1 U	1.1	0.22	1	05/28/20 01:11	5/27/20	
Perfluorooctanoic acid (PFOA)	1.1 U	1.1	0.15	1	05/28/20 01:11	5/27/20	
Perfluorononanoic acid (PFNA)	1.1 U	1.1	0.38	1	05/28/20 01:11	5/27/20	
Perfluorodecanoic acid (PFDA)	1.1 U	1.1	0.30	1	05/28/20 01:11	5/27/20	
Perfluoroundecanoic acid (PFUnDA)	1.1 U	1.1	0.21	1	05/28/20 01:11	5/27/20	
Perfluorododecanoic acid (PFDoDA)	1.1 U	1.1	0.31	1	05/28/20 01:11	5/27/20	
Perfluorotridecanoic acid (PFTrDA)	1.1 U	1.1	0.25	1	05/28/20 01:11	5/27/20	
Perfluorotetradecanoic acid (PFTeDA)	1.1 U	1.1	0.21	1	05/28/20 01:11	5/27/20	
Perfluoroalkyl Sulfonamides							
Perfluorooctane sulfonamide (FOSA)	1.1 U	1.1	0.077	1	05/28/20 01:11	5/27/20	
N-Methyl perfluorooctane sulfonamidoacetic acid	1.1 U	1.1	0.31	1	05/28/20 01:11	5/27/20	
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.1 U	1.1	0.23	1	05/28/20 01:11	5/27/20	
(n:2) Fluorotelomer Sulfonic Acids							
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	1.1 U	1.1	0.18	1	05/28/20 01:11	5/27/20	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	1.1 U	1.1	0.034	1	05/28/20 01:11	5/27/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: 05/18/20 15:30
Date Received: 05/19/20 10:05

Sample Name: PD1-SB-07 - (7-7.5)
Lab Code: R2004156-007

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	50	33 - 109	05/28/20 01:11	
18O2-PFHxS	58	36 - 120	05/28/20 01:11	
13C4-PFOS	66	32 - 130	05/28/20 01:11	
13C4-PFBA	57	34 - 116	05/28/20 01:11	
13C5-PFPeA	48	39 - 133	05/28/20 01:11	
13C2-PFHxA	59	32 - 136	05/28/20 01:11	
13C4-PFHpA	64	36 - 133	05/28/20 01:11	
13C4-PFOA	68	31 - 134	05/28/20 01:11	
13C5-PFNA	80	27 - 133	05/28/20 01:11	
13C2-PFDA	85	30 - 137	05/28/20 01:11	
13C2-PFUnDA	88	32 - 146	05/28/20 01:11	
13C2-PFDoDA	83	36 - 136	05/28/20 01:11	
13C2-PFTeDA	56	39 - 138	05/28/20 01:11	
13C8-FOSA	72	40 - 132	05/28/20 01:11	
D3-MeFOSAA	247	20 - 154	05/28/20 01:11	*
D5-EtFOSAA	268	29 - 153	05/28/20 01:11	*
13C2-6:2 FTS	333	30 - 140	05/28/20 01:11	*
13C2-8:2 FTS	719	9 - 171	05/28/20 01:11	*

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	PD1-SB-07 - (7-7.5)	Method Blank	Lab Control Sample
		R2004156-007	KQ2006943-04	KQ2006943-03
13C3-PFBS	33-109	50	61	63
18O2-PFHxS	36-120	58	59	64
13C4-PFOS	32-130	66	62	74
13C4-PFBA	34-116	57	49	58
13C5-PFPeA	39-133	48	58	58
13C2-PFHxA	32-136	59	59	65
13C4-PFHpA	36-133	64	73	73
13C4-PFOA	31-134	68	56	71
13C5-PFNA	27-133	80	63	73
13C2-PFDA	30-137	85	69	79
13C2-PFUnDA	32-146	88	75	85
13C2-PFDoDA	36-136	83	76	82
13C2-PFTeDA	39-138	56	88	91
13C8-FOSA	40-132	72	91	94
D3-MeFOSAA	20-154	247*	97	106
D5-EtFOSAA	29-153	268*	108	114
13C2-6:2 FTS	30-140	333*	84	87
13C2-8:2 FTS	9-171	719*	122	125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2006943-04

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	1.0 U	1.0	0.22	1	05/28/20 00:08	5/27/20	
Perfluorohexane sulfonic acid (PFHxS)	1.0 U	1.0	0.30	1	05/28/20 00:08	5/27/20	
Perfluoroheptane sulfonic acid (PFHpS)	1.0 U	1.0	0.062	1	05/28/20 00:08	5/27/20	
Perfluorooctane sulfonic acid (PFOS)	1.0 U	1.0	0.13	1	05/28/20 00:08	5/27/20	
Perfluorodecane sulfonic acid (PFDS)	1.0 U	1.0	0.17	1	05/28/20 00:08	5/27/20	
Perfluoroalkane Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	1.0 U	1.0	0.39	1	05/28/20 00:08	5/27/20	
Perfluoropentanoic acid (PFPeA)	1.0 U	1.0	0.21	1	05/28/20 00:08	5/27/20	
Perfluorohexanoic acid (PFHxA)	0.42 J	1.0	0.31	1	05/28/20 00:08	5/27/20	
Perfluoroheptanoic acid (PFHpA)	1.0 U	1.0	0.19	1	05/28/20 00:08	5/27/20	
Perfluorooctanoic acid (PFOA)	1.0 U	1.0	0.13	1	05/28/20 00:08	5/27/20	
Perfluorononanoic acid (PFNA)	1.0 U	1.0	0.33	1	05/28/20 00:08	5/27/20	
Perfluorodecanoic acid (PFDA)	1.0 U	1.0	0.26	1	05/28/20 00:08	5/27/20	
Perfluoroundecanoic acid (PFUnDA)	1.0 U	1.0	0.18	1	05/28/20 00:08	5/27/20	
Perfluorododecanoic acid (PFDoDA)	1.0 U	1.0	0.27	1	05/28/20 00:08	5/27/20	
Perfluorotridecanoic acid (PFTTrDA)	1.0 U	1.0	0.21	1	05/28/20 00:08	5/27/20	
Perfluorotetradecanoic acid (PFTeDA)	1.0 U	1.0	0.18	1	05/28/20 00:08	5/27/20	
Perfluoroalkyl Sulfonamides							
Perfluorooctane sulfonamide (FOSA)	1.0 U	1.0	0.067	1	05/28/20 00:08	5/27/20	
N-Methyl perfluorooctane sulfonamidoacetic acid	1.0 U	1.0	0.27	1	05/28/20 00:08	5/27/20	
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.0 U	1.0	0.20	1	05/28/20 00:08	5/27/20	
(n:2) Fluorotelomer Sulfonic Acids							
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	1.0 U	1.0	0.15	1	05/28/20 00:08	5/27/20	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.030 J	1.0	0.029	1	05/28/20 00:08	5/27/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2006943-04

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	61	33 - 109	05/28/20 00:08	
18O2-PFHxS	59	36 - 120	05/28/20 00:08	
13C4-PFOS	62	32 - 130	05/28/20 00:08	
13C4-PFBA	49	34 - 116	05/28/20 00:08	
13C5-PFPeA	58	39 - 133	05/28/20 00:08	
13C2-PFHxA	59	32 - 136	05/28/20 00:08	
13C4-PFHpA	73	36 - 133	05/28/20 00:08	
13C4-PFOA	56	31 - 134	05/28/20 00:08	
13C5-PFNA	63	27 - 133	05/28/20 00:08	
13C2-PFDA	69	30 - 137	05/28/20 00:08	
13C2-PFUnDA	75	32 - 146	05/28/20 00:08	
13C2-PFDoDA	76	36 - 136	05/28/20 00:08	
13C2-PFTeDA	88	39 - 138	05/28/20 00:08	
13C8-FOSA	91	40 - 132	05/28/20 00:08	
D3-MeFOSAA	97	20 - 154	05/28/20 00:08	
D5-EtFOSAA	108	29 - 153	05/28/20 00:08	
13C2-6:2 FTS	84	30 - 140	05/28/20 00:08	
13C2-8:2 FTS	122	9 - 171	05/28/20 00:08	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004156
Date Analyzed: 05/27/20
Date Extracted: 05/27/20

Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Units: ng/g
Basis: Dry
Analysis Lot: 681608

Lab Control Sample
KQ2006943-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	10.4	7.61	137	69-147
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	9.34	7.68	122	66-141
N-Ethyl perfluorooctane sulfonamidoacetic acid	9.67	8.00	121	57-159
N-Methyl perfluorooctane sulfonamidoacetic acid	8.25	8.00	103	69-162
Perfluorobutane sulfonic acid (PFBS)	9.54	7.10	134	48-148
Perfluorobutanoic acid (PFBA)	10.1	8.00	127	29-179
Perfluorodecane sulfonic acid (PFDS)	9.27	7.72	120	83-152
Perfluorodecanoic acid (PFDA)	10.3	8.00	129	73-142
Perfluorododecanoic acid (PFDoDA)	9.31	8.00	116	69-150
Perfluoroheptane sulfonic acid (PFHpS)	10.6	7.63	139	69-173
Perfluoroheptanoic acid (PFHpA)	8.71	8.00	109	73-136
Perfluorohexane sulfonic acid (PFHxS)	8.40	7.30	115	75-142
Perfluorohexanoic acid (PFHxA)	10.7	8.00	134	68-148
Perfluorononanoic acid (PFNA)	10.3	8.00	129	63-160
Perfluorooctane sulfonamide (FOSA)	8.06	8.00	101	63-138
Perfluorooctane sulfonic acid (PFOS)	8.50	7.43	114	72-141
Perfluorooctanoic acid (PFOA)	10.6	8.00	132	77-151
Perfluoropentanoic acid (PFPeA)	10.7	8.00	134 *	64-131
Perfluorotetradecanoic acid (PFTeDA)	10.1	8.00	127	70-143
Perfluorotridecanoic acid (PFTrDA)	9.59	8.00	120	63-134
Perfluoroundecanoic acid (PFUnDA)	9.72	8.00	121	69-147



June 16, 2020

Service Request No:R2004209

Mr. Jim Hayward
EA Engineering, Science, and Technology
269 W. Jefferson Street
Syracuse, NY 13202

Laboratory Results for: NYSDEC / Admiral Cleaners

Dear Mr.Hayward,

Enclosed are the results of the sample(s) submitted to our laboratory May 20, 2020
For your reference, these analyses have been assigned our service request number **R2004209**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Meghan.Pedro@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Meghan Pedro
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners
Sample Matrix: Soil, Water

Service Request: R2004209
Date Received: 05/20/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Twenty soil, water samples were received for analysis at ALS Environmental on 05/20/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements. Coolers were all received out of temperature as noted on the cooler receipt form, samples will be processed as per your request.

Semivolatiles by GC/MS:

Method 8270D, 05/27/2020: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) above the MRL in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Method 8270D, 05/27/2020: The upper control criterion was exceeded for one or more analytes in the Matrix Spike/Matrix Spike Duplicate (MS/MSD). There were no detections of the analyte(s) above the MRL in the associated field samples. The sample data is not significantly affected. No further corrective action was appropriate.

Method 8270D, R2004209-009, -009MS, -009MSD: The upper control limit was exceeded for one or more surrogates due to matrix interference. Since no target analytes were detected in the sample(s), the quality of the sample data is not significantly affected. No further corrective action was appropriate.

Method 8270D, 05/28/2020: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) above the MRL in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Method 8270D, R2004209-003: The control limits for one or more surrogates in the sample are not applicable. The chromatogram indicated the presence of target/non-target background components that masked the surrogate, which prevented adequate resolution for quantitation. No corrective action was appropriate.

Method 8270D, 05/28/2020, R2004209-003: The recovery of one or more internal standards was outside control limits because of known matrix interference. 1,4-dioxane is the only target for this sample. The internal standard associated with this compound is within limits, therefore sample was reported at lowest possible dilution.

Method 8270D, R2004209-003: The Method Reporting Limit (MRL) is elevated for all target analytes. The sample was extracted using less than the usual mass of sample due to problems created by the sample matrix during preparation.

Method 8270D SIM, 05/26/2020: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) above the MRL in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Method 8270D SIM, 05/26/2020: The upper control criterion was exceeded for one or more analytes in the Matrix Spike/Matrix

Approved by _____

Date 06/16/2020



Spike Duplicate (MS/MSD). There were no detections of the analyte(s) above the MRL in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

General Chemistry:

No significant anomalies were noted with this analysis.

Subcontracted Analytical Parameters:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

Method 8260C, 05/26/2020: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 06/01/2020: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 06/01/2020: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 06/01/2020: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) above the MRL in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Method 8260C, 05/28/2020: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Meghan Pedro

Approved by _____

Date 06/16/2020



SAMPLE DETECTION SUMMARY

CLIENT ID: PD1-SB-08 - (8-9) Lab ID: R2004209-001

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	84.1				Percent	ALS SOP
Tetrachloroethene (PCE)	1200		24	510	ug/Kg	8260C
cis-1,2-Dichloroethene	100	J	21	510	ug/Kg	8260C

CLIENT ID: PD1-SB-09 - (7-8) Lab ID: R2004209-002

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	81.9				Percent	ALS SOP
cis-1,2-Dichloroethene	2000		27	650	ug/Kg	8260C

CLIENT ID: PD1-SB-10 - (8-9) Lab ID: R2004209-003

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	80.7				Percent	ALS SOP
Chloroform	570	J	510	13000	ug/Kg	8260C
Cyclohexane	1900	J	660	13000	ug/Kg	8260C
Ethylbenzene	19000		510	13000	ug/Kg	8260C
Isopropylbenzene (Cumene)	26000		510	13000	ug/Kg	8260C
Methylcyclohexane	5300	J	790	13000	ug/Kg	8260C
Tetrachloroethene (PCE)	80000		590	13000	ug/Kg	8260C
Toluene	1700	J	510	13000	ug/Kg	8260C
Trichloroethene (TCE)	7400	J	560	13000	ug/Kg	8260C
Xylenes, Total	57000		1400	38000	ug/Kg	8260C
cis-1,2-Dichloroethene	86000		510	13000	ug/Kg	8260C

CLIENT ID: PD1-SB-11 - (7-8) Lab ID: R2004209-004

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	85.3				Percent	ALS SOP
Cyclohexane	190	J	110	2100	ug/Kg	8260C
Ethylbenzene	740	J	85	2100	ug/Kg	8260C
Isopropylbenzene (Cumene)	1200	J	85	2100	ug/Kg	8260C
Methylcyclohexane	600	J	140	2100	ug/Kg	8260C
Toluene	96	J	85	2100	ug/Kg	8260C
Xylenes, Total	2100	J	220	6300	ug/Kg	8260C
cis-1,2-Dichloroethene	8600		85	2100	ug/Kg	8260C

CLIENT ID: PD1-SB-13 - (4-5) Lab ID: R2004209-005

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	72.4				Percent	ALS SOP
Ethylbenzene	4300		29	700	ug/Kg	8260C
Isopropylbenzene (Cumene)	5800		29	700	ug/Kg	8260C
Methylcyclohexane	91	J	44	700	ug/Kg	8260C
Tetrachloroethene (PCE)	2900		33	700	ug/Kg	8260C
Toluene	120	J	29	700	ug/Kg	8260C
Trichloroethene (TCE)	230	J	31	700	ug/Kg	8260C

SAMPLE DETECTION SUMMARY

CLIENT ID: PD1-SB-13 - (4-5)	Lab ID: R2004209-005
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Xylenes, Total	12000		73	2100	ug/Kg	8260C
cis-1,2-Dichloroethene	8200		29	700	ug/Kg	8260C
trans-1,2-Dichloroethene	80	J	29	700	ug/Kg	8260C

CLIENT ID: PD1-SB-14 - (4-5)	Lab ID: R2004209-006
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	74.5				Percent	ALS SOP
Methyl Acetate	270	BJ	110	620	ug/Kg	8260C
Tetrachloroethene (PCE)	450	J	29	620	ug/Kg	8260C
Trichloroethene (TCE)	210	J	28	620	ug/Kg	8260C
cis-1,2-Dichloroethene	1000		25	620	ug/Kg	8260C

CLIENT ID: PD1-SB-15 - (7-8)	Lab ID: R2004209-007
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	79.8				Percent	ALS SOP
Ethylbenzene	40	J	26	630	ug/Kg	8260C
Isopropylbenzene (Cumene)	50	J	26	630	ug/Kg	8260C
Tetrachloroethene (PCE)	150	J	30	630	ug/Kg	8260C
Trichloroethene (TCE)	54	J	28	630	ug/Kg	8260C
cis-1,2-Dichloroethene	2700		26	630	ug/Kg	8260C

CLIENT ID: PD1-SB-16 - (8-9)	Lab ID: R2004209-008
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	90.1				Percent	ALS SOP
Ethylbenzene	4100	J	190	4700	ug/Kg	8260C
Isopropylbenzene (Cumene)	5500		190	4700	ug/Kg	8260C
Methylcyclohexane	1200	J	300	4700	ug/Kg	8260C
Tetrachloroethene (PCE)	150000		220	4700	ug/Kg	8260C
Toluene	430	J	190	4700	ug/Kg	8260C
Trichloroethene (TCE)	6600		210	4700	ug/Kg	8260C
Xylenes, Total	12000	J	500	14000	ug/Kg	8260C
cis-1,2-Dichloroethene	14000		190	4700	ug/Kg	8260C
trans-1,2-Dichloroethene	280	J	190	4700	ug/Kg	8260C

CLIENT ID: PD1-SB-17 - (7-8)	Lab ID: R2004209-009
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	85.4				Percent	ALS SOP
Isopropylbenzene (Cumene)	62	J	43	1100	ug/Kg	8260C
Tetrachloroethene (PCE)	32000		50	1100	ug/Kg	8260C
Trichloroethene (TCE)	530	J	47	1100	ug/Kg	8260C
Xylenes, Total	150	J	120	3200	ug/Kg	8260C
cis-1,2-Dichloroethene	1900		43	1100	ug/Kg	8260C



SAMPLE DETECTION SUMMARY

CLIENT ID: PD1-DUP2-5-19-20	Lab ID: R2004209-010
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	84.5				Percent	ALS SOP

CLIENT ID: PD1-SB-18 - (7-8)	Lab ID: R2004209-011
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	83.7				Percent	ALS SOP
cis-1,2-Dichloroethene	750		21	500	ug/Kg	8260C

CLIENT ID: PD1-SB-19 - (10-11)	Lab ID: R2004209-012
---------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	85.3				Percent	ALS SOP
2-Butanone (MEK)	6.2		1.6	3.9	ug/Kg	8260C
Acetone	50		3.7	3.9	ug/Kg	8260C
Carbon Disulfide	0.67	J	0.23	3.9	ug/Kg	8260C
Chloroethane	0.64	BJ	0.16	3.9	ug/Kg	8260C
Methyl Acetate	1.9	J	0.66	3.9	ug/Kg	8260C
Tetrachloroethene (PCE)	0.41	J	0.19	3.9	ug/Kg	8260C
Toluene	0.31	J	0.16	3.9	ug/Kg	8260C
cis-1,2-Dichloroethene	26		0.16	3.9	ug/Kg	8260C
trans-1,2-Dichloroethene	0.16	J	0.16	3.9	ug/Kg	8260C

CLIENT ID: PD1-SB-20 - (5-6)	Lab ID: R2004209-013
-------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	79.1				Percent	ALS SOP
Chloroethane	0.73	BJ	0.21	5.1	ug/Kg	8260C
Chloroform	0.24	BJ	0.21	5.1	ug/Kg	8260C
Styrene	0.30	J	0.21	5.1	ug/Kg	8260C
Tetrachloroethene (PCE)	110		0.24	5.1	ug/Kg	8260C
Toluene	0.21	J	0.21	5.1	ug/Kg	8260C
Trichloroethene (TCE)	2.5	J	0.23	5.1	ug/Kg	8260C
cis-1,2-Dichloroethene	2.6	J	0.21	5.1	ug/Kg	8260C

CLIENT ID: PD1-DUP3-5-19-20	Lab ID: R2004209-014
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	78.9				Percent	ALS SOP
2-Butanone (MEK)	3.5	J	2.3	5.7	ug/Kg	8260C
Acetone	35		5.4	5.7	ug/Kg	8260C
Chloroethane	0.72	BJ	0.23	5.7	ug/Kg	8260C
Chloroform	0.24	BJ	0.23	5.7	ug/Kg	8260C
Tetrachloroethene (PCE)	71		0.27	5.7	ug/Kg	8260C
Trichloroethene (TCE)	2.2	J	0.26	5.7	ug/Kg	8260C
cis-1,2-Dichloroethene	2.0	J	0.23	5.7	ug/Kg	8260C



SAMPLE DETECTION SUMMARY

CLIENT ID: PD1-SB-21 - (5-6)			Lab ID: R2004209-015			
------------------------------	--	--	----------------------	--	--	--

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	77.3				Percent	ALS SOP
Tetrachloroethene (PCE)	11000		32	680	ug/Kg	8260C
Trichloroethene (TCE)	93	J	30	680	ug/Kg	8260C

CLIENT ID: PD1-SB-22 - (6-7)			Lab ID: R2004209-016			
------------------------------	--	--	----------------------	--	--	--

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	85.3				Percent	ALS SOP
2-Butanone (MEK)	9.0		2.3	5.5	ug/Kg	8260C
Acetone	65		5.2	5.5	ug/Kg	8260C
Carbon Disulfide	0.41	J	0.32	5.5	ug/Kg	8260C
Chloroethane	0.65	BJ	0.23	5.5	ug/Kg	8260C
Cyclohexane	3.6	J	0.29	5.5	ug/Kg	8260C
Ethylbenzene	0.29	J	0.23	5.5	ug/Kg	8260C
Isopropylbenzene (Cumene)	0.92	J	0.23	5.5	ug/Kg	8260C
Methylcyclohexane	9.0		0.35	5.5	ug/Kg	8260C
Tetrachloroethene (PCE)	0.35	J	0.26	5.5	ug/Kg	8260C
Toluene	0.24	J	0.23	5.5	ug/Kg	8260C
Vinyl Chloride	0.61	J	0.51	5.5	ug/Kg	8260C
cis-1,2-Dichloroethene	110		0.23	5.5	ug/Kg	8260C
trans-1,2-Dichloroethene	2.5	J	0.23	5.5	ug/Kg	8260C

CLIENT ID: PD1-SB-23 - (7-8)			Lab ID: R2004209-017			
------------------------------	--	--	----------------------	--	--	--

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	78.7				Percent	ALS SOP
1,1-Dichloroethene (1,1-DCE)	0.46	J	0.33	5.6	ug/Kg	8260C
2-Butanone (MEK)	17		2.3	5.6	ug/Kg	8260C
Acetone	130		5.3	5.6	ug/Kg	8260C
Benzene	0.38	J	0.23	5.6	ug/Kg	8260C
Carbon Disulfide	0.41	J	0.33	5.6	ug/Kg	8260C
Chloroethane	0.59	BJ	0.23	5.6	ug/Kg	8260C
Cyclohexane	7.6		0.30	5.6	ug/Kg	8260C
Ethylbenzene	0.40	J	0.23	5.6	ug/Kg	8260C
Isopropylbenzene (Cumene)	0.44	J	0.23	5.6	ug/Kg	8260C
Methylcyclohexane	16		0.35	5.6	ug/Kg	8260C
Tetrachloroethene (PCE)	0.29	J	0.26	5.6	ug/Kg	8260C
Toluene	0.47	J	0.23	5.6	ug/Kg	8260C
Vinyl Chloride	3.2	J	0.52	5.6	ug/Kg	8260C
Xylenes, Total	0.70	J	0.59	17	ug/Kg	8260C
cis-1,2-Dichloroethene	120		0.23	5.6	ug/Kg	8260C
trans-1,2-Dichloroethene	2.7	J	0.23	5.6	ug/Kg	8260C



SAMPLE DETECTION SUMMARY

CLIENT ID: PD1-RB-5-19-20				Lab ID: R2004209-018		
---------------------------	--	--	--	----------------------	--	--

Analyte	Results	Flag	MDL	MRL	Units	Method
Dichloromethane	0.67	J	0.36	5.0	ug/L	8260C

CLIENT ID: PD1-SB-12- 6-7				Lab ID: R2004209-020		
---------------------------	--	--	--	----------------------	--	--

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	82.6				Percent	ALS SOP
cis-1,2-Dichloroethene	5400		25	610	ug/Kg	8260C



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504

Service Request:R2004209

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R2004209-001	PD1-SB-08 - (8-9)	5/19/2020	0900
R2004209-002	PD1-SB-09 - (7-8)	5/19/2020	0932
R2004209-003	PD1-SB-10 - (8-9)	5/19/2020	1005
R2004209-004	PD1-SB-11 - (7-8)	5/19/2020	1040
R2004209-005	PD1-SB-13 - (4-5)	5/19/2020	1118
R2004209-006	PD1-SB-14 - (4-5)	5/19/2020	1200
R2004209-007	PD1-SB-15 - (7-8)	5/19/2020	1215
R2004209-008	PD1-SB-16 - (8-9)	5/19/2020	1315
R2004209-009	PD1-SB-17 - (7-8)	5/19/2020	1347
R2004209-010	PD1-DUP2-5-19-20	5/19/2020	1347
R2004209-011	PD1-SB-18 - (7-8)	5/19/2020	1400
R2004209-012	PD1-SB-19 - (10-11)	5/19/2020	1440
R2004209-013	PD1-SB-20 - (5-6)	5/19/2020	1500
R2004209-014	PD1-DUP3-5-19-20	5/19/2020	1500
R2004209-015	PD1-SB-21 - (5-6)	5/19/2020	1530
R2004209-016	PD1-SB-22 - (6-7)	5/19/2020	1550
R2004209-017	PD1-SB-23 - (7-8)	5/19/2020	1620
R2004209-018	PD1-RB-5-19-20	5/19/2020	1635
R2004209-019	PD1-TB-5-19-20	5/19/2020	1640
R2004209-020	PD1-SB-12- 6-7	5/19/2020	1230



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

000558

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 3

Project Name NYSDEC / Admiral		Project Number 1620504		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																
Project Manager Chris Schroer		Report CC		PRESERVATIVE																
Company/Address EA Engineering CSchroer@eaest.com				NUMBER OF CONTAINERS	GC/MS VOCs • 8260 • 824 • CLP GC/MS SVOCs • 8270 • 825 GC VOCs • 8021 • 801/802 PESTICIDES • 8081 • 808 PCBs • 8082 • 808 METALS, TOTAL (List in comments below) METALS, DISSOLVED (List in comments below) 1,4-dioxane PFA's	PRESERVATIVE KEY 0. NONE 1. HCL 2. HNO ₃ 3. H ₂ SO ₄ 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO ₄ 8. Other _____														
Phone # 315-415-4152		Email dkibe@eaest.com				REMARKS/ ALTERNATE DESCRIPTION														
Sampler's Signature 		Sampler's Printed Name Danny Kibe																		
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE TIME		MATRIX																
PDI-SB-08-(81-91)		5/17/20	0900	4	X															
PDI-SB-09-(7481)		5/19/20	0932	4	X															
PDI-SB-10-(81-91)		5/19/20	1005	6	X															
PDI-SB-10-MS-(81-91)		5/19/20	1005	4	X															
PDI-SB-10-MSD-(81-91)		5/19/20	1005	4	X															
PDI-SB-11-(71-81)		5/19/20	1040	4	X															
PDI-SB-13-(41-51)		5/19/20	1118	4	X															
PDI-SB-14-(41-51)		5/19/20	1200	4	X															
PDI-SB-15-(71-81)		5/19/20	1215	4	X															
PDI-SB-16-(81-91)		5/19/20	1315	4	X															
PDI-SB-17-(7481)		5/19/20	1347	4	X															
SPECIAL INSTRUCTIONS/COMMENTS Metals MS = Matrix Spike MSD = Matrix Spike Duplicate					TURNAROUND REQUIREMENTS RUSH/SURCHARGES APPLY 14 day TAT 1 day 2 day 3 day 4 day 5 day Standard (10 business days-No Surcharge) REQUESTED REPORT DATE					REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data Edats Yes No					INVOICE INFORMATION PO # BILL TO:					
See QAPP ☐																				
STATE WHERE SAMPLES WERE COLLECTED																				
RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY						
Signature 		Signature 		Signature		Signature		Signature		Signature		Signature		Signature						
Printed Name Danny Kibe		Printed Name Gary Kibe		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name						
Firm EA		Firm EA		Firm		Firm		Firm		Firm		Firm		Firm						
Date/Time 5/20/20 1000		Date/Time 5/20/20 1110		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time						





CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

000559

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 3

Project Name NYSDEC / Admiral		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																	
Project Manager Chris Schroer		Report CC		PRESERVATIVE																	
Company/Address EA Engineering cschroer@eatest.com				NUMBER OF CONTAINERS	GC/MS VOCs • 8260 • 824 • CLP GC/MS SVOCs • 8270 • 825 GC/MS • 8021 • 801/802 PESTICIDES • 8081 • 808 PCBs • 8082 • 808 METALS, TOTAL (List in comments below) METALS, DISSOLVED (List in comments below) 1,4-dioxane PTAS																Preservative Key 0. NONE 1. HCL 2. HNO ₃ 3. H ₂ SO ₄ 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO ₄ 8. Other _____ REMARKS/ ALTERNATE DESCRIPTION
Phone # 315 415 4152		Email dkite@eatest.com																			
Sampler's Signature 		Sampler's Printed Name Danny Kite																			
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE		TIME	MATRIX																
PDI-DUP2-5-17-20		5/19/20		1347	2																
PDI-SB-18-(7-81)		5/19/20		1400	4	X															
PDI-SB-19-(10-11)		5/19/20		1440	6	X															
PDI-SB-19-MS-(10-11)		5/19/20		1440	2																
PDI-SB-19-MSD-(10-11)		5/19/20		1440	2																
PDI-SB-20-(5-6)		5/19/20		1500	4	X															
PDI-DUP3-5-17-20		5/19/20		1500	4	X															
PDI-SB-21-(5-6)		5/19/20		1530	6	X															
PDI-SB-21-MS-(5-6)		5/19/20		1530	4	X															
PDI-SB-21-MS-(5-6)		5/19/20		1530	4	X															
PDI-SB-22-(7-71)		5/19/20		1550	4	X															
SPECIAL INSTRUCTIONS/COMMENTS Metals MS = Matrix Spike MSD = Matrix Spike Dup.						TURNAROUND REQUIREMENTS						REPORT REQUIREMENTS						INVOICE INFORMATION			
						(SURCHARGES APPLY) 14 day TAT 1 day 2 day 3 day 4 day 5 day Standard (10 business days-No Surcharge) REQUESTED REPORT DATE _____						I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data Edata Yes No						PO # BILL TO:			
STATE WHERE SAMPLES WERE COLLECTED																					
RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY			
Signature 		Signature 		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature			
Printed Name Danny Kite		Printed Name Danny Kite		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name			
Firm EA		Firm EA		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm			
Date/Time 5/20/20 1000		Date/Time 5/20/20 1110		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time			

Distribution: White - Lab Copy; Yellow - Return to Originator

R2004209
 EA Engineering, Science, and Technology
 NYSDEC / Admiral Cleaners

5



[illegible]



Cooler Receipt and Preservation Check Form

R2004209

5

EA Engineering, Science, and Technology
NYSDEC / Admiral Cleaners



Project/Client EA Engineering Folder Number _____

Cooler received on 5/20/2020 by: AP/1E COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y <u>(N)</u>
2	Custody papers properly completed (ink, signed)?	Y <u>(N)</u>
3	Did all bottles arrive in good condition (unbroken)?	Y <u>(N)</u>
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	Y <u>(N)</u>

5a	Perchlorate samples have required headspace?	Y N <u>(NA)</u>
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	Y <u>(N)</u> NA
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as: Bulk Encore <u>5035set</u> NA	

8. Temperature Readings Date: 5/20/2020 Time: 1120 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>7.6</u>	<u>8.2</u>	<u>13.4</u>				
Within 0-6°C?	Y <u>(N)</u>	Y <u>(N)</u>	Y <u>(N)</u>	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by AP on 5/20/2020 at 1130
5035 samples placed in storage location: E-09 by 1E on 5/20/2020 at 1109 within 48 hours of sampling? (Y) N

Cooler Breakdown/Preservation Check**: Date: 5/20/2020 Time: 1405 by: AP

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES (NO) N/A
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved?	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH	Yes No						
≤2		HNO ₃							
≤2		H ₂ SO ₄							
<4		NaHSO ₄							
5-9		For 608pest		No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522		If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃							
		ZnAcetate	- -						
		HCl	** **						

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 090919-15R, 010620-1134

Explain all Discrepancies/ Other Comments:

*PFAS not in separate cooler.
Some 5035 sets have extra labels
headspace: 4 of 6 TB vials*

Labels secondary reviewed by: AP

PC Secondary Review: AP

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

HPROD	BULK
HTR	FLDT
<u>SUB</u>	HGFB
ALS	LL3541



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504

Service Request: R2004209

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
ALS SOP	Soil	Total Solids

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504

Service Request: R2004209

Sample Name: PD1-SB-08 - (8-9)
Lab Code: R2004209-001
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

Sample Name: PD1-SB-09 - (7-8)
Lab Code: R2004209-002
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

Sample Name: PD1-SB-10 - (8-9)
Lab Code: R2004209-003
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
160.3 Modified
8260C
8270D
ALS SOP
PFC/537M

Extracted/Digested By

KSERCU
BDAVIS

Analyzed By
SCHAPPELLE
FNAEGLER
JMISIUREWICZ
KWONG
CMULLER

Sample Name: PD1-SB-10 - (8-9)
Lab Code: R2004209-003.R01
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8270D

Extracted/Digested By
KSERCU

Analyzed By
JMISIUREWICZ

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504

Service Request: R2004209

Sample Name: PD1-SB-11 - (7-8)
Lab Code: R2004209-004
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

Sample Name: PD1-SB-13 - (4-5)
Lab Code: R2004209-005
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

Sample Name: PD1-SB-14 - (4-5)
Lab Code: R2004209-006
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

Sample Name: PD1-SB-15 - (7-8)
Lab Code: R2004209-007
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504

Service Request: R2004209

Sample Name: PD1-SB-16 - (8-9)
Lab Code: R2004209-008
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

Sample Name: PD1-SB-17 - (7-8)
Lab Code: R2004209-009
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
160.3 Modified
8260C
8270D
ALS SOP
PFC/537M

Extracted/Digested By

Analyzed By
SCHAPPELLE
FNAEGLER
JMISIUREWICZ
KWONG
CMULLER

Sample Name: PD1-DUP2-5-19-20
Lab Code: R2004209-010
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
160.3 Modified
8270D
ALS SOP
PFC/537M

Extracted/Digested By

Analyzed By
SCHAPPELLE
JMISIUREWICZ
KWONG
CMULLER

Sample Name: PD1-SB-18 - (7-8)
Lab Code: R2004209-011
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504

Service Request: R2004209

Sample Name: PD1-SB-19 - (10-11)
Lab Code: R2004209-012
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method

160.3 Modified
8260C
8270D
ALS SOP
PFC/537M

Extracted/Digested By

KSERCU

BDAVIS

Analyzed By

SCHAPPELLE
FNAEGLER
JMISIUREWICZ
KWONG
CMULLER

Sample Name: PD1-SB-20 - (5-6)
Lab Code: R2004209-013
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method

8260C
ALS SOP

Extracted/Digested By

Analyzed By

FNAEGLER
KWONG

Sample Name: PD1-DUP3-5-19-20
Lab Code: R2004209-014
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method

8260C
ALS SOP

Extracted/Digested By

Analyzed By

FNAEGLER
KWONG

Sample Name: PD1-SB-21 - (5-6)
Lab Code: R2004209-015
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method

160.3 Modified
8260C
8270D
ALS SOP

Extracted/Digested By

KSERCU

Analyzed By

SCHAPPELLE
FNAEGLER
JMISIUREWICZ
KWONG

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504

Service Request: R2004209

Sample Name: PD1-SB-21 - (5-6)
Lab Code: R2004209-015
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
PFC/537M

Extracted/Digested By
BDAVIS

Analyzed By
CMULLER

Sample Name: PD1-SB-22 - (6-7)
Lab Code: R2004209-016
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

Sample Name: PD1-SB-23 - (7-8)
Lab Code: R2004209-017
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG

Sample Name: PD1-RB-5-19-20
Lab Code: R2004209-018
Sample Matrix: Water

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8260C
8270D SIM
PFC/537M

Extracted/Digested By

JMISIUREWICZ
KLMILLER

Analyzed By
KRUEST
JMISIUREWICZ
CMULLER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504

Service Request: R2004209

Sample Name: PD1-TB-5-19-20
Lab Code: R2004209-019
Sample Matrix: Water

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8260C
PFC/537M

Extracted/Digested By

KLMILLER

Analyzed By
KRUEST
CMULLER

Sample Name: PD1-SB-12- 6-7
Lab Code: R2004209-020
Sample Matrix: Soil

Date Collected: 05/19/20
Date Received: 05/20/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KWONG



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 09:00
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-08 - (8-9)
Lab Code: R2004209-001

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	21 U	510	21	86.5	05/27/20 14:26	
1,1,2,2-Tetrachloroethane	21 U	510	21	86.5	05/27/20 14:26	
1,1,2-Trichloroethane	21 U	510	21	86.5	05/27/20 14:26	
1,1,2-Trichloro-1,2,2-trifluoroethane	21 U	510	21	86.5	05/27/20 14:26	
1,1-Dichloroethane (1,1-DCA)	21 U	510	21	86.5	05/27/20 14:26	
1,1-Dichloroethene (1,1-DCE)	30 U	510	30	86.5	05/27/20 14:26	
1,2,4-Trichlorobenzene	44 U	510	44	86.5	05/27/20 14:26	
1,2-Dibromo-3-chloropropane (DBCP)	30 U	510	30	86.5	05/27/20 14:26	
1,2-Dibromoethane	21 U	510	21	86.5	05/27/20 14:26	
1,2-Dichlorobenzene	21 U	510	21	86.5	05/27/20 14:26	
1,2-Dichloroethane	21 U	510	21	86.5	05/27/20 14:26	
1,2-Dichloropropane	21 U	510	21	86.5	05/27/20 14:26	
1,3-Dichlorobenzene	21 U	510	21	86.5	05/27/20 14:26	
1,4-Dichlorobenzene	23 U	510	23	86.5	05/27/20 14:26	
2-Butanone (MEK)	210 U	510	210	86.5	05/27/20 14:26	
2-Hexanone	38 U	510	38	86.5	05/27/20 14:26	
4-Methyl-2-pentanone	24 U	510	24	86.5	05/27/20 14:26	
Acetone	490 U	510	490	86.5	05/27/20 14:26	
Benzene	21 U	510	21	86.5	05/27/20 14:26	
Bromodichloromethane	21 U	510	21	86.5	05/27/20 14:26	
Bromoform	52 U	510	52	86.5	05/27/20 14:26	
Bromomethane	220 U	510	220	86.5	05/27/20 14:26	
Carbon Disulfide	30 U	510	30	86.5	05/27/20 14:26	
Carbon Tetrachloride	27 U	510	27	86.5	05/27/20 14:26	
Chlorobenzene	21 U	510	21	86.5	05/27/20 14:26	
Chloroethane	21 U	510	21	86.5	05/27/20 14:26	
Chloroform	21 U	510	21	86.5	05/27/20 14:26	
Chloromethane	150 U	510	150	86.5	05/27/20 14:26	
Cyclohexane	27 U	510	27	86.5	05/27/20 14:26	
Dibromochloromethane	21 U	510	21	86.5	05/27/20 14:26	
Dichlorodifluoromethane (CFC 12)	34 U	510	34	86.5	05/27/20 14:26	
Dichloromethane	290 U	510	290	86.5	05/27/20 14:26	
Ethylbenzene	21 U	510	21	86.5	05/27/20 14:26	
Isopropylbenzene (Cumene)	21 U	510	21	86.5	05/27/20 14:26	
Methyl Acetate	87 U	510	87	86.5	05/27/20 14:26	
Methyl tert-Butyl Ether	21 U	510	21	86.5	05/27/20 14:26	
Methylcyclohexane	32 U	510	32	86.5	05/27/20 14:26	
Styrene	21 U	510	21	86.5	05/27/20 14:26	
Tetrachloroethene (PCE)	1200	510	24	86.5	05/27/20 14:26	
Toluene	21 U	510	21	86.5	05/27/20 14:26	
Trichloroethene (TCE)	23 U	510	23	86.5	05/27/20 14:26	
Trichlorofluoromethane (CFC 11)	27 U	510	27	86.5	05/27/20 14:26	
Vinyl Chloride	48 U	510	48	86.5	05/27/20 14:26	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 09:00
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-08 - (8-9)
Lab Code: R2004209-001

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	54 U	1500	54	86.5	05/27/20 14:26	
cis-1,2-Dichloroethene	100 J	510	21	86.5	05/27/20 14:26	
cis-1,3-Dichloropropene	21 U	510	21	86.5	05/27/20 14:26	
trans-1,2-Dichloroethene	21 U	510	21	86.5	05/27/20 14:26	
trans-1,3-Dichloropropene	21 U	510	21	86.5	05/27/20 14:26	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	31 - 154	05/27/20 14:26	
Dibromofluoromethane	88	63 - 138	05/27/20 14:26	
Toluene-d8	101	66 - 138	05/27/20 14:26	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 09:32
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-09 - (7-8)
Lab Code: R2004209-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	27 U	650	27	106.5	05/27/20 14:48	
1,1,2,2-Tetrachloroethane	27 U	650	27	106.5	05/27/20 14:48	
1,1,2-Trichloroethane	27 U	650	27	106.5	05/27/20 14:48	
1,1,2-Trichloro-1,2,2-trifluoroethane	27 U	650	27	106.5	05/27/20 14:48	
1,1-Dichloroethane (1,1-DCA)	27 U	650	27	106.5	05/27/20 14:48	
1,1-Dichloroethene (1,1-DCE)	38 U	650	38	106.5	05/27/20 14:48	
1,2,4-Trichlorobenzene	55 U	650	55	106.5	05/27/20 14:48	
1,2-Dibromo-3-chloropropane (DBCP)	38 U	650	38	106.5	05/27/20 14:48	
1,2-Dibromoethane	27 U	650	27	106.5	05/27/20 14:48	
1,2-Dichlorobenzene	27 U	650	27	106.5	05/27/20 14:48	
1,2-Dichloroethane	27 U	650	27	106.5	05/27/20 14:48	
1,2-Dichloropropane	27 U	650	27	106.5	05/27/20 14:48	
1,3-Dichlorobenzene	27 U	650	27	106.5	05/27/20 14:48	
1,4-Dichlorobenzene	29 U	650	29	106.5	05/27/20 14:48	
2-Butanone (MEK)	270 U	650	270	106.5	05/27/20 14:48	
2-Hexanone	47 U	650	47	106.5	05/27/20 14:48	
4-Methyl-2-pentanone	30 U	650	30	106.5	05/27/20 14:48	
Acetone	620 U	650	620	106.5	05/27/20 14:48	
Benzene	27 U	650	27	106.5	05/27/20 14:48	
Bromodichloromethane	27 U	650	27	106.5	05/27/20 14:48	
Bromoform	66 U	650	66	106.5	05/27/20 14:48	
Bromomethane	280 U	650	280	106.5	05/27/20 14:48	
Carbon Disulfide	38 U	650	38	106.5	05/27/20 14:48	
Carbon Tetrachloride	34 U	650	34	106.5	05/27/20 14:48	
Chlorobenzene	27 U	650	27	106.5	05/27/20 14:48	
Chloroethane	27 U	650	27	106.5	05/27/20 14:48	
Chloroform	27 U	650	27	106.5	05/27/20 14:48	
Chloromethane	190 U	650	190	106.5	05/27/20 14:48	
Cyclohexane	34 U	650	34	106.5	05/27/20 14:48	
Dibromochloromethane	27 U	650	27	106.5	05/27/20 14:48	
Dichlorodifluoromethane (CFC 12)	43 U	650	43	106.5	05/27/20 14:48	
Dichloromethane	370 U	650	370	106.5	05/27/20 14:48	
Ethylbenzene	27 U	650	27	106.5	05/27/20 14:48	
Isopropylbenzene (Cumene)	27 U	650	27	106.5	05/27/20 14:48	
Methyl Acetate	110 U	650	110	106.5	05/27/20 14:48	
Methyl tert-Butyl Ether	27 U	650	27	106.5	05/27/20 14:48	
Methylcyclohexane	41 U	650	41	106.5	05/27/20 14:48	
Styrene	27 U	650	27	106.5	05/27/20 14:48	
Tetrachloroethene (PCE)	30 U	650	30	106.5	05/27/20 14:48	
Toluene	27 U	650	27	106.5	05/27/20 14:48	
Trichloroethene (TCE)	29 U	650	29	106.5	05/27/20 14:48	
Trichlorofluoromethane (CFC 11)	34 U	650	34	106.5	05/27/20 14:48	
Vinyl Chloride	60 U	650	60	106.5	05/27/20 14:48	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 09:32
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-09 - (7-8)
Lab Code: R2004209-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	68 U	2000	68	106.5	05/27/20 14:48	
cis-1,2-Dichloroethene	2000	650	27	106.5	05/27/20 14:48	
cis-1,3-Dichloropropene	27 U	650	27	106.5	05/27/20 14:48	
trans-1,2-Dichloroethene	27 U	650	27	106.5	05/27/20 14:48	
trans-1,3-Dichloropropene	27 U	650	27	106.5	05/27/20 14:48	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	31 - 154	05/27/20 14:48	
Dibromofluoromethane	90	63 - 138	05/27/20 14:48	
Toluene-d8	102	66 - 138	05/27/20 14:48	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 10:05
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-10 - (8-9)
Lab Code: R2004209-003

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	510 U	13000	510	2040	05/26/20 20:27	
1,1,2,2-Tetrachloroethane	510 U	13000	510	2040	05/26/20 20:27	
1,1,2-Trichloroethane	510 U	13000	510	2040	05/26/20 20:27	
1,1,2-Trichloro-1,2,2-trifluoroethane	510 U	13000	510	2040	05/26/20 20:27	
1,1-Dichloroethane (1,1-DCA)	510 U	13000	510	2040	05/26/20 20:27	
1,1-Dichloroethene (1,1-DCE)	740 U	13000	740	2040	05/26/20 20:27	
1,2,4-Trichlorobenzene	1100 U	13000	1100	2040	05/26/20 20:27	
1,2-Dibromo-3-chloropropane (DBCP)	740 U	13000	740	2040	05/26/20 20:27	
1,2-Dibromoethane	510 U	13000	510	2040	05/26/20 20:27	
1,2-Dichlorobenzene	510 U	13000	510	2040	05/26/20 20:27	
1,2-Dichloroethane	510 U	13000	510	2040	05/26/20 20:27	
1,2-Dichloropropane	510 U	13000	510	2040	05/26/20 20:27	
1,3-Dichlorobenzene	510 U	13000	510	2040	05/26/20 20:27	
1,4-Dichlorobenzene	560 U	13000	560	2040	05/26/20 20:27	
2-Butanone (MEK)	5100 U	13000	5100	2040	05/26/20 20:27	
2-Hexanone	920 U	13000	920	2040	05/26/20 20:27	
4-Methyl-2-pentanone	590 U	13000	590	2040	05/26/20 20:27	
Acetone	12000 U	13000	12000	2040	05/26/20 20:27	
Benzene	510 U	13000	510	2040	05/26/20 20:27	
Bromodichloromethane	510 U	13000	510	2040	05/26/20 20:27	
Bromoform	1300 U	13000	1300	2040	05/26/20 20:27	
Bromomethane	5400 U	13000	5400	2040	05/26/20 20:27	
Carbon Disulfide	740 U	13000	740	2040	05/26/20 20:27	
Carbon Tetrachloride	660 U	13000	660	2040	05/26/20 20:27	
Chlorobenzene	510 U	13000	510	2040	05/26/20 20:27	
Chloroethane	510 U	13000	510	2040	05/26/20 20:27	
Chloroform	570 J	13000	510	2040	05/26/20 20:27	
Chloromethane	3600 U	13000	3600	2040	05/26/20 20:27	
Cyclohexane	1900 J	13000	660	2040	05/26/20 20:27	
Dibromochloromethane	510 U	13000	510	2040	05/26/20 20:27	
Dichlorodifluoromethane (CFC 12)	840 U	13000	840	2040	05/26/20 20:27	
Dichloromethane	7100 U	13000	7100	2040	05/26/20 20:27	
Ethylbenzene	19000	13000	510	2040	05/26/20 20:27	
Isopropylbenzene (Cumene)	26000	13000	510	2040	05/26/20 20:27	
Methyl Acetate	2200 U	13000	2200	2040	05/26/20 20:27	
Methyl tert-Butyl Ether	510 U	13000	510	2040	05/26/20 20:27	
Methylcyclohexane	5300 J	13000	790	2040	05/26/20 20:27	
Styrene	510 U	13000	510	2040	05/26/20 20:27	
Tetrachloroethene (PCE)	80000	13000	590	2040	05/26/20 20:27	
Toluene	1700 J	13000	510	2040	05/26/20 20:27	
Trichloroethene (TCE)	7400 J	13000	560	2040	05/26/20 20:27	
Trichlorofluoromethane (CFC 11)	660 U	13000	660	2040	05/26/20 20:27	
Vinyl Chloride	1200 U	13000	1200	2040	05/26/20 20:27	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 10:05
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-10 - (8-9)
Lab Code: R2004209-003

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	57000	38000	1400	2040	05/26/20 20:27	
cis-1,2-Dichloroethene	86000	13000	510	2040	05/26/20 20:27	
cis-1,3-Dichloropropene	510 U	13000	510	2040	05/26/20 20:27	
trans-1,2-Dichloroethene	510 U	13000	510	2040	05/26/20 20:27	
trans-1,3-Dichloropropene	510 U	13000	510	2040	05/26/20 20:27	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	111	31 - 154	05/26/20 20:27	
Dibromofluoromethane	99	63 - 138	05/26/20 20:27	
Toluene-d8	107	66 - 138	05/26/20 20:27	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 10:40
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-11 - (7-8)
Lab Code: R2004209-004

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	85 U	2100	85	360	05/27/20 16:16	
1,1,2,2-Tetrachloroethane	85 U	2100	85	360	05/27/20 16:16	
1,1,2-Trichloroethane	85 U	2100	85	360	05/27/20 16:16	
1,1,2-Trichloro-1,2,2-trifluoroethane	85 U	2100	85	360	05/27/20 16:16	
1,1-Dichloroethane (1,1-DCA)	85 U	2100	85	360	05/27/20 16:16	
1,1-Dichloroethene (1,1-DCE)	130 U	2100	130	360	05/27/20 16:16	
1,2,4-Trichlorobenzene	180 U	2100	180	360	05/27/20 16:16	
1,2-Dibromo-3-chloropropane (DBCP)	130 U	2100	130	360	05/27/20 16:16	
1,2-Dibromoethane	85 U	2100	85	360	05/27/20 16:16	
1,2-Dichlorobenzene	85 U	2100	85	360	05/27/20 16:16	
1,2-Dichloroethane	85 U	2100	85	360	05/27/20 16:16	
1,2-Dichloropropane	85 U	2100	85	360	05/27/20 16:16	
1,3-Dichlorobenzene	85 U	2100	85	360	05/27/20 16:16	
1,4-Dichlorobenzene	93 U	2100	93	360	05/27/20 16:16	
2-Butanone (MEK)	850 U	2100	850	360	05/27/20 16:16	
2-Hexanone	160 U	2100	160	360	05/27/20 16:16	
4-Methyl-2-pentanone	98 U	2100	98	360	05/27/20 16:16	
Acetone	2000 U	2100	2000	360	05/27/20 16:16	
Benzene	85 U	2100	85	360	05/27/20 16:16	
Bromodichloromethane	85 U	2100	85	360	05/27/20 16:16	
Bromoform	220 U	2100	220	360	05/27/20 16:16	
Bromomethane	890 U	2100	890	360	05/27/20 16:16	
Carbon Disulfide	130 U	2100	130	360	05/27/20 16:16	
Carbon Tetrachloride	110 U	2100	110	360	05/27/20 16:16	
Chlorobenzene	85 U	2100	85	360	05/27/20 16:16	
Chloroethane	85 U	2100	85	360	05/27/20 16:16	
Chloroform	85 U	2100	85	360	05/27/20 16:16	
Chloromethane	600 U	2100	600	360	05/27/20 16:16	
Cyclohexane	190 J	2100	110	360	05/27/20 16:16	
Dibromochloromethane	85 U	2100	85	360	05/27/20 16:16	
Dichlorodifluoromethane (CFC 12)	140 U	2100	140	360	05/27/20 16:16	
Dichloromethane	1200 U	2100	1200	360	05/27/20 16:16	
Ethylbenzene	740 J	2100	85	360	05/27/20 16:16	
Isopropylbenzene (Cumene)	1200 J	2100	85	360	05/27/20 16:16	
Methyl Acetate	360 U	2100	360	360	05/27/20 16:16	
Methyl tert-Butyl Ether	85 U	2100	85	360	05/27/20 16:16	
Methylcyclohexane	600 J	2100	140	360	05/27/20 16:16	
Styrene	85 U	2100	85	360	05/27/20 16:16	
Tetrachloroethene (PCE)	98 U	2100	98	360	05/27/20 16:16	
Toluene	96 J	2100	85	360	05/27/20 16:16	
Trichloroethene (TCE)	93 U	2100	93	360	05/27/20 16:16	
Trichlorofluoromethane (CFC 11)	110 U	2100	110	360	05/27/20 16:16	
Vinyl Chloride	200 U	2100	200	360	05/27/20 16:16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 10:40
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-11 - (7-8)
Lab Code: R2004209-004

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	2100 J	6300	220	360	05/27/20 16:16	
cis-1,2-Dichloroethene	8600	2100	85	360	05/27/20 16:16	
cis-1,3-Dichloropropene	85 U	2100	85	360	05/27/20 16:16	
trans-1,2-Dichloroethene	85 U	2100	85	360	05/27/20 16:16	
trans-1,3-Dichloropropene	85 U	2100	85	360	05/27/20 16:16	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	31 - 154	05/27/20 16:16	
Dibromofluoromethane	95	63 - 138	05/27/20 16:16	
Toluene-d8	104	66 - 138	05/27/20 16:16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 11:18
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-13 - (4-5)
Lab Code: R2004209-005

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	29 U	700	29	101.5	05/26/20 20:05	
1,1,2,2-Tetrachloroethane	29 U	700	29	101.5	05/26/20 20:05	
1,1,2-Trichloroethane	29 U	700	29	101.5	05/26/20 20:05	
1,1,2-Trichloro-1,2,2-trifluoroethane	29 U	700	29	101.5	05/26/20 20:05	
1,1-Dichloroethane (1,1-DCA)	29 U	700	29	101.5	05/26/20 20:05	
1,1-Dichloroethene (1,1-DCE)	41 U	700	41	101.5	05/26/20 20:05	
1,2,4-Trichlorobenzene	59 U	700	59	101.5	05/26/20 20:05	
1,2-Dibromo-3-chloropropane (DBCP)	41 U	700	41	101.5	05/26/20 20:05	
1,2-Dibromoethane	29 U	700	29	101.5	05/26/20 20:05	
1,2-Dichlorobenzene	29 U	700	29	101.5	05/26/20 20:05	
1,2-Dichloroethane	29 U	700	29	101.5	05/26/20 20:05	
1,2-Dichloropropane	29 U	700	29	101.5	05/26/20 20:05	
1,3-Dichlorobenzene	29 U	700	29	101.5	05/26/20 20:05	
1,4-Dichlorobenzene	31 U	700	31	101.5	05/26/20 20:05	
2-Butanone (MEK)	290 U	700	290	101.5	05/26/20 20:05	
2-Hexanone	51 U	700	51	101.5	05/26/20 20:05	
4-Methyl-2-pentanone	33 U	700	33	101.5	05/26/20 20:05	
Acetone	660 U	700	660	101.5	05/26/20 20:05	
Benzene	29 U	700	29	101.5	05/26/20 20:05	
Bromodichloromethane	29 U	700	29	101.5	05/26/20 20:05	
Bromoform	71 U	700	71	101.5	05/26/20 20:05	
Bromomethane	300 U	700	300	101.5	05/26/20 20:05	
Carbon Disulfide	41 U	700	41	101.5	05/26/20 20:05	
Carbon Tetrachloride	37 U	700	37	101.5	05/26/20 20:05	
Chlorobenzene	29 U	700	29	101.5	05/26/20 20:05	
Chloroethane	29 U	700	29	101.5	05/26/20 20:05	
Chloroform	29 U	700	29	101.5	05/26/20 20:05	
Chloromethane	200 U	700	200	101.5	05/26/20 20:05	
Cyclohexane	37 U	700	37	101.5	05/26/20 20:05	
Dibromochloromethane	29 U	700	29	101.5	05/26/20 20:05	
Dichlorodifluoromethane (CFC 12)	47 U	700	47	101.5	05/26/20 20:05	
Dichloromethane	400 U	700	400	101.5	05/26/20 20:05	
Ethylbenzene	4300	700	29	101.5	05/26/20 20:05	
Isopropylbenzene (Cumene)	5800	700	29	101.5	05/26/20 20:05	
Methyl Acetate	120 U	700	120	101.5	05/26/20 20:05	
Methyl tert-Butyl Ether	29 U	700	29	101.5	05/26/20 20:05	
Methylcyclohexane	91 J	700	44	101.5	05/26/20 20:05	
Styrene	29 U	700	29	101.5	05/26/20 20:05	
Tetrachloroethene (PCE)	2900	700	33	101.5	05/26/20 20:05	
Toluene	120 J	700	29	101.5	05/26/20 20:05	
Trichloroethene (TCE)	230 J	700	31	101.5	05/26/20 20:05	
Trichlorofluoromethane (CFC 11)	37 U	700	37	101.5	05/26/20 20:05	
Vinyl Chloride	65 U	700	65	101.5	05/26/20 20:05	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 11:18
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-13 - (4-5)
Lab Code: R2004209-005

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	12000	2100	73	101.5	05/26/20 20:05	
cis-1,2-Dichloroethene	8200	700	29	101.5	05/26/20 20:05	
cis-1,3-Dichloropropene	29 U	700	29	101.5	05/26/20 20:05	
trans-1,2-Dichloroethene	80 J	700	29	101.5	05/26/20 20:05	
trans-1,3-Dichloropropene	29 U	700	29	101.5	05/26/20 20:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	113	31 - 154	05/26/20 20:05	
Dibromofluoromethane	93	63 - 138	05/26/20 20:05	
Toluene-d8	104	66 - 138	05/26/20 20:05	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 12:00
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-14 - (4-5)
Lab Code: R2004209-006

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	25 U	620	25	92	05/27/20 12:14	
1,1,2,2-Tetrachloroethane	25 U	620	25	92	05/27/20 12:14	
1,1,2-Trichloroethane	25 U	620	25	92	05/27/20 12:14	
1,1,2-Trichloro-1,2,2-trifluoroethane	25 U	620	25	92	05/27/20 12:14	
1,1-Dichloroethane (1,1-DCA)	25 U	620	25	92	05/27/20 12:14	
1,1-Dichloroethene (1,1-DCE)	36 U	620	36	92	05/27/20 12:14	
1,2,4-Trichlorobenzene	52 U	620	52	92	05/27/20 12:14	
1,2-Dibromo-3-chloropropane (DBCP)	36 U	620	36	92	05/27/20 12:14	
1,2-Dibromoethane	25 U	620	25	92	05/27/20 12:14	
1,2-Dichlorobenzene	25 U	620	25	92	05/27/20 12:14	
1,2-Dichloroethane	25 U	620	25	92	05/27/20 12:14	
1,2-Dichloropropane	25 U	620	25	92	05/27/20 12:14	
1,3-Dichlorobenzene	25 U	620	25	92	05/27/20 12:14	
1,4-Dichlorobenzene	28 U	620	28	92	05/27/20 12:14	
2-Butanone (MEK)	250 U	620	250	92	05/27/20 12:14	
2-Hexanone	45 U	620	45	92	05/27/20 12:14	
4-Methyl-2-pentanone	29 U	620	29	92	05/27/20 12:14	
Acetone	590 U	620	590	92	05/27/20 12:14	
Benzene	25 U	620	25	92	05/27/20 12:14	
Bromodichloromethane	25 U	620	25	92	05/27/20 12:14	
Bromoform	62 U	620	62	92	05/27/20 12:14	
Bromomethane	260 U	620	260	92	05/27/20 12:14	
Carbon Disulfide	36 U	620	36	92	05/27/20 12:14	
Carbon Tetrachloride	33 U	620	33	92	05/27/20 12:14	
Chlorobenzene	25 U	620	25	92	05/27/20 12:14	
Chloroethane	25 U	620	25	92	05/27/20 12:14	
Chloroform	25 U	620	25	92	05/27/20 12:14	
Chloromethane	180 U	620	180	92	05/27/20 12:14	
Cyclohexane	33 U	620	33	92	05/27/20 12:14	
Dibromochloromethane	25 U	620	25	92	05/27/20 12:14	
Dichlorodifluoromethane (CFC 12)	41 U	620	41	92	05/27/20 12:14	
Dichloromethane	350 U	620	350	92	05/27/20 12:14	
Ethylbenzene	25 U	620	25	92	05/27/20 12:14	
Isopropylbenzene (Cumene)	25 U	620	25	92	05/27/20 12:14	
Methyl Acetate	270 BJ	620	110	92	05/27/20 12:14	
Methyl tert-Butyl Ether	25 U	620	25	92	05/27/20 12:14	
Methylcyclohexane	39 U	620	39	92	05/27/20 12:14	
Styrene	25 U	620	25	92	05/27/20 12:14	
Tetrachloroethene (PCE)	450 J	620	29	92	05/27/20 12:14	
Toluene	25 U	620	25	92	05/27/20 12:14	
Trichloroethene (TCE)	210 J	620	28	92	05/27/20 12:14	
Trichlorofluoromethane (CFC 11)	33 U	620	33	92	05/27/20 12:14	
Vinyl Chloride	57 U	620	57	92	05/27/20 12:14	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 12:00
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-14 - (4-5)
Lab Code: R2004209-006

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	65 U	1900	65	92	05/27/20 12:14	
cis-1,2-Dichloroethene	1000	620	25	92	05/27/20 12:14	
cis-1,3-Dichloropropene	25 U	620	25	92	05/27/20 12:14	
trans-1,2-Dichloroethene	25 U	620	25	92	05/27/20 12:14	
trans-1,3-Dichloropropene	25 U	620	25	92	05/27/20 12:14	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	31 - 154	05/27/20 12:14	
Dibromofluoromethane	89	63 - 138	05/27/20 12:14	
Toluene-d8	102	66 - 138	05/27/20 12:14	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 12:15
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-15 - (7-8)
Lab Code: R2004209-007

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	26 U	630	26	101	05/27/20 15:54	
1,1,2,2-Tetrachloroethane	26 U	630	26	101	05/27/20 15:54	
1,1,2-Trichloroethane	26 U	630	26	101	05/27/20 15:54	
1,1,2-Trichloro-1,2,2-trifluoroethane	26 U	630	26	101	05/27/20 15:54	
1,1-Dichloroethane (1,1-DCA)	26 U	630	26	101	05/27/20 15:54	
1,1-Dichloroethene (1,1-DCE)	37 U	630	37	101	05/27/20 15:54	
1,2,4-Trichlorobenzene	54 U	630	54	101	05/27/20 15:54	
1,2-Dibromo-3-chloropropane (DBCP)	37 U	630	37	101	05/27/20 15:54	
1,2-Dibromoethane	26 U	630	26	101	05/27/20 15:54	
1,2-Dichlorobenzene	26 U	630	26	101	05/27/20 15:54	
1,2-Dichloroethane	26 U	630	26	101	05/27/20 15:54	
1,2-Dichloropropane	26 U	630	26	101	05/27/20 15:54	
1,3-Dichlorobenzene	26 U	630	26	101	05/27/20 15:54	
1,4-Dichlorobenzene	28 U	630	28	101	05/27/20 15:54	
2-Butanone (MEK)	260 U	630	260	101	05/27/20 15:54	
2-Hexanone	46 U	630	46	101	05/27/20 15:54	
4-Methyl-2-pentanone	30 U	630	30	101	05/27/20 15:54	
Acetone	600 U	630	600	101	05/27/20 15:54	
Benzene	26 U	630	26	101	05/27/20 15:54	
Bromodichloromethane	26 U	630	26	101	05/27/20 15:54	
Bromoform	64 U	630	64	101	05/27/20 15:54	
Bromomethane	270 U	630	270	101	05/27/20 15:54	
Carbon Disulfide	37 U	630	37	101	05/27/20 15:54	
Carbon Tetrachloride	33 U	630	33	101	05/27/20 15:54	
Chlorobenzene	26 U	630	26	101	05/27/20 15:54	
Chloroethane	26 U	630	26	101	05/27/20 15:54	
Chloroform	26 U	630	26	101	05/27/20 15:54	
Chloromethane	180 U	630	180	101	05/27/20 15:54	
Cyclohexane	33 U	630	33	101	05/27/20 15:54	
Dibromochloromethane	26 U	630	26	101	05/27/20 15:54	
Dichlorodifluoromethane (CFC 12)	42 U	630	42	101	05/27/20 15:54	
Dichloromethane	360 U	630	360	101	05/27/20 15:54	
Ethylbenzene	40 J	630	26	101	05/27/20 15:54	
Isopropylbenzene (Cumene)	50 J	630	26	101	05/27/20 15:54	
Methyl Acetate	110 U	630	110	101	05/27/20 15:54	
Methyl tert-Butyl Ether	26 U	630	26	101	05/27/20 15:54	
Methylcyclohexane	40 U	630	40	101	05/27/20 15:54	
Styrene	26 U	630	26	101	05/27/20 15:54	
Tetrachloroethene (PCE)	150 J	630	30	101	05/27/20 15:54	
Toluene	26 U	630	26	101	05/27/20 15:54	
Trichloroethene (TCE)	54 J	630	28	101	05/27/20 15:54	
Trichlorofluoromethane (CFC 11)	33 U	630	33	101	05/27/20 15:54	
Vinyl Chloride	59 U	630	59	101	05/27/20 15:54	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 12:15
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-15 - (7-8)
Lab Code: R2004209-007

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	66 U	1900	66	101	05/27/20 15:54	
cis-1,2-Dichloroethene	2700	630	26	101	05/27/20 15:54	
cis-1,3-Dichloropropene	26 U	630	26	101	05/27/20 15:54	
trans-1,2-Dichloroethene	26 U	630	26	101	05/27/20 15:54	
trans-1,3-Dichloropropene	26 U	630	26	101	05/27/20 15:54	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	31 - 154	05/27/20 15:54	
Dibromofluoromethane	90	63 - 138	05/27/20 15:54	
Toluene-d8	103	66 - 138	05/27/20 15:54	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 13:15
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-16 - (8-9)
Lab Code: R2004209-008

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	190 U	4700	190	855	05/27/20 16:38	
1,1,2,2-Tetrachloroethane	190 U	4700	190	855	05/27/20 16:38	
1,1,2-Trichloroethane	190 U	4700	190	855	05/27/20 16:38	
1,1,2-Trichloro-1,2,2-trifluoroethane	190 U	4700	190	855	05/27/20 16:38	
1,1-Dichloroethane (1,1-DCA)	190 U	4700	190	855	05/27/20 16:38	
1,1-Dichloroethene (1,1-DCE)	280 U	4700	280	855	05/27/20 16:38	
1,2,4-Trichlorobenzene	400 U	4700	400	855	05/27/20 16:38	
1,2-Dibromo-3-chloropropane (DBCP)	280 U	4700	280	855	05/27/20 16:38	
1,2-Dibromoethane	190 U	4700	190	855	05/27/20 16:38	
1,2-Dichlorobenzene	190 U	4700	190	855	05/27/20 16:38	
1,2-Dichloroethane	190 U	4700	190	855	05/27/20 16:38	
1,2-Dichloropropane	190 U	4700	190	855	05/27/20 16:38	
1,3-Dichlorobenzene	190 U	4700	190	855	05/27/20 16:38	
1,4-Dichlorobenzene	210 U	4700	210	855	05/27/20 16:38	
2-Butanone (MEK)	1900 U	4700	1900	855	05/27/20 16:38	
2-Hexanone	350 U	4700	350	855	05/27/20 16:38	
4-Methyl-2-pentanone	220 U	4700	220	855	05/27/20 16:38	
Acetone	4500 U	4700	4500	855	05/27/20 16:38	
Benzene	190 U	4700	190	855	05/27/20 16:38	
Bromodichloromethane	190 U	4700	190	855	05/27/20 16:38	
Bromoform	480 U	4700	480	855	05/27/20 16:38	
Bromomethane	2000 U	4700	2000	855	05/27/20 16:38	
Carbon Disulfide	280 U	4700	280	855	05/27/20 16:38	
Carbon Tetrachloride	250 U	4700	250	855	05/27/20 16:38	
Chlorobenzene	190 U	4700	190	855	05/27/20 16:38	
Chloroethane	190 U	4700	190	855	05/27/20 16:38	
Chloroform	190 U	4700	190	855	05/27/20 16:38	
Chloromethane	1400 U	4700	1400	855	05/27/20 16:38	
Cyclohexane	250 U	4700	250	855	05/27/20 16:38	
Dibromochloromethane	190 U	4700	190	855	05/27/20 16:38	
Dichlorodifluoromethane (CFC 12)	320 U	4700	320	855	05/27/20 16:38	
Dichloromethane	2700 U	4700	2700	855	05/27/20 16:38	
Ethylbenzene	4100 J	4700	190	855	05/27/20 16:38	
Isopropylbenzene (Cumene)	5500	4700	190	855	05/27/20 16:38	
Methyl Acetate	800 U	4700	800	855	05/27/20 16:38	
Methyl tert-Butyl Ether	190 U	4700	190	855	05/27/20 16:38	
Methylcyclohexane	1200 J	4700	300	855	05/27/20 16:38	
Styrene	190 U	4700	190	855	05/27/20 16:38	
Tetrachloroethene (PCE)	150000	4700	220	855	05/27/20 16:38	
Toluene	430 J	4700	190	855	05/27/20 16:38	
Trichloroethene (TCE)	6600	4700	210	855	05/27/20 16:38	
Trichlorofluoromethane (CFC 11)	250 U	4700	250	855	05/27/20 16:38	
Vinyl Chloride	440 U	4700	440	855	05/27/20 16:38	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 13:15
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-16 - (8-9)
Lab Code: R2004209-008

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	12000 J	14000	500	855	05/27/20 16:38	
cis-1,2-Dichloroethene	14000	4700	190	855	05/27/20 16:38	
cis-1,3-Dichloropropene	190 U	4700	190	855	05/27/20 16:38	
trans-1,2-Dichloroethene	280 J	4700	190	855	05/27/20 16:38	
trans-1,3-Dichloropropene	190 U	4700	190	855	05/27/20 16:38	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	31 - 154	05/27/20 16:38	
Dibromofluoromethane	99	63 - 138	05/27/20 16:38	
Toluene-d8	106	66 - 138	05/27/20 16:38	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 13:47
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-17 - (7-8)
Lab Code: R2004209-009

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	43 U	1100	43	182.0	05/28/20 19:04	
1,1,2,2-Tetrachloroethane	43 U	1100	43	182.0	05/28/20 19:04	
1,1,2-Trichloroethane	43 U	1100	43	182.0	05/28/20 19:04	
1,1,2-Trichloro-1,2,2-trifluoroethane	43 U	1100	43	182.0	05/28/20 19:04	
1,1-Dichloroethane (1,1-DCA)	43 U	1100	43	182.0	05/28/20 19:04	
1,1-Dichloroethene (1,1-DCE)	62 U	1100	62	182.0	05/28/20 19:04	
1,2,4-Trichlorobenzene	90 U	1100	90	182.0	05/28/20 19:04	
1,2-Dibromo-3-chloropropane (DBCP)	62 U	1100	62	182.0	05/28/20 19:04	
1,2-Dibromoethane	43 U	1100	43	182.0	05/28/20 19:04	
1,2-Dichlorobenzene	43 U	1100	43	182.0	05/28/20 19:04	
1,2-Dichloroethane	43 U	1100	43	182.0	05/28/20 19:04	
1,2-Dichloropropane	43 U	1100	43	182.0	05/28/20 19:04	
1,3-Dichlorobenzene	43 U	1100	43	182.0	05/28/20 19:04	
1,4-Dichlorobenzene	47 U	1100	47	182.0	05/28/20 19:04	
2-Butanone (MEK)	430 U	1100	430	182.0	05/28/20 19:04	
2-Hexanone	77 U	1100	77	182.0	05/28/20 19:04	
4-Methyl-2-pentanone	50 U	1100	50	182.0	05/28/20 19:04	
Acetone	1100 U	1100	1100	182.0	05/28/20 19:04	
Benzene	43 U	1100	43	182.0	05/28/20 19:04	
Bromodichloromethane	43 U	1100	43	182.0	05/28/20 19:04	
Bromoform	110 U	1100	110	182.0	05/28/20 19:04	
Bromomethane	450 U	1100	450	182.0	05/28/20 19:04	
Carbon Disulfide	62 U	1100	62	182.0	05/28/20 19:04	
Carbon Tetrachloride	56 U	1100	56	182.0	05/28/20 19:04	
Chlorobenzene	43 U	1100	43	182.0	05/28/20 19:04	
Chloroethane	43 U	1100	43	182.0	05/28/20 19:04	
Chloroform	43 U	1100	43	182.0	05/28/20 19:04	
Chloromethane	300 U	1100	300	182.0	05/28/20 19:04	
Cyclohexane	56 U	1100	56	182.0	05/28/20 19:04	
Dibromochloromethane	43 U	1100	43	182.0	05/28/20 19:04	
Dichlorodifluoromethane (CFC 12)	71 U	1100	71	182.0	05/28/20 19:04	
Dichloromethane	600 U	1100	600	182.0	05/28/20 19:04	
Ethylbenzene	43 U	1100	43	182.0	05/28/20 19:04	
Isopropylbenzene (Cumene)	62 J	1100	43	182.0	05/28/20 19:04	
Methyl Acetate	180 U	1100	180	182.0	05/28/20 19:04	
Methyl tert-Butyl Ether	43 U	1100	43	182.0	05/28/20 19:04	
Methylcyclohexane	67 U	1100	67	182.0	05/28/20 19:04	
Styrene	43 U	1100	43	182.0	05/28/20 19:04	
Tetrachloroethene (PCE)	32000	1100	50	182.0	05/28/20 19:04	
Toluene	43 U	1100	43	182.0	05/28/20 19:04	
Trichloroethene (TCE)	530 J	1100	47	182.0	05/28/20 19:04	
Trichlorofluoromethane (CFC 11)	56 U	1100	56	182.0	05/28/20 19:04	
Vinyl Chloride	99 U	1100	99	182.0	05/28/20 19:04	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 13:47
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-17 - (7-8)
Lab Code: R2004209-009

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	150 J	3200	120	182.0	05/28/20 19:04	
cis-1,2-Dichloroethene	1900	1100	43	182.0	05/28/20 19:04	
cis-1,3-Dichloropropene	43 U	1100	43	182.0	05/28/20 19:04	
trans-1,2-Dichloroethene	43 U	1100	43	182.0	05/28/20 19:04	
trans-1,3-Dichloropropene	43 U	1100	43	182.0	05/28/20 19:04	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	31 - 154	05/28/20 19:04	
Dibromofluoromethane	92	63 - 138	05/28/20 19:04	
Toluene-d8	102	66 - 138	05/28/20 19:04	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 14:00
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-18 - (7-8)
Lab Code: R2004209-011

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	21 U	500	21	84	05/27/20 12:36	
1,1,2,2-Tetrachloroethane	21 U	500	21	84	05/27/20 12:36	
1,1,2-Trichloroethane	21 U	500	21	84	05/27/20 12:36	
1,1,2-Trichloro-1,2,2-trifluoroethane	21 U	500	21	84	05/27/20 12:36	
1,1-Dichloroethane (1,1-DCA)	21 U	500	21	84	05/27/20 12:36	
1,1-Dichloroethene (1,1-DCE)	30 U	500	30	84	05/27/20 12:36	
1,2,4-Trichlorobenzene	43 U	500	43	84	05/27/20 12:36	
1,2-Dibromo-3-chloropropane (DBCP)	30 U	500	30	84	05/27/20 12:36	
1,2-Dibromoethane	21 U	500	21	84	05/27/20 12:36	
1,2-Dichlorobenzene	21 U	500	21	84	05/27/20 12:36	
1,2-Dichloroethane	21 U	500	21	84	05/27/20 12:36	
1,2-Dichloropropane	21 U	500	21	84	05/27/20 12:36	
1,3-Dichlorobenzene	21 U	500	21	84	05/27/20 12:36	
1,4-Dichlorobenzene	23 U	500	23	84	05/27/20 12:36	
2-Butanone (MEK)	210 U	500	210	84	05/27/20 12:36	
2-Hexanone	37 U	500	37	84	05/27/20 12:36	
4-Methyl-2-pentanone	24 U	500	24	84	05/27/20 12:36	
Acetone	480 U	500	480	84	05/27/20 12:36	
Benzene	21 U	500	21	84	05/27/20 12:36	
Bromodichloromethane	21 U	500	21	84	05/27/20 12:36	
Bromoform	51 U	500	51	84	05/27/20 12:36	
Bromomethane	220 U	500	220	84	05/27/20 12:36	
Carbon Disulfide	30 U	500	30	84	05/27/20 12:36	
Carbon Tetrachloride	27 U	500	27	84	05/27/20 12:36	
Chlorobenzene	21 U	500	21	84	05/27/20 12:36	
Chloroethane	21 U	500	21	84	05/27/20 12:36	
Chloroform	21 U	500	21	84	05/27/20 12:36	
Chloromethane	150 U	500	150	84	05/27/20 12:36	
Cyclohexane	27 U	500	27	84	05/27/20 12:36	
Dibromochloromethane	21 U	500	21	84	05/27/20 12:36	
Dichlorodifluoromethane (CFC 12)	34 U	500	34	84	05/27/20 12:36	
Dichloromethane	290 U	500	290	84	05/27/20 12:36	
Ethylbenzene	21 U	500	21	84	05/27/20 12:36	
Isopropylbenzene (Cumene)	21 U	500	21	84	05/27/20 12:36	
Methyl Acetate	85 U	500	85	84	05/27/20 12:36	
Methyl tert-Butyl Ether	21 U	500	21	84	05/27/20 12:36	
Methylcyclohexane	32 U	500	32	84	05/27/20 12:36	
Styrene	21 U	500	21	84	05/27/20 12:36	
Tetrachloroethene (PCE)	24 U	500	24	84	05/27/20 12:36	
Toluene	21 U	500	21	84	05/27/20 12:36	
Trichloroethene (TCE)	23 U	500	23	84	05/27/20 12:36	
Trichlorofluoromethane (CFC 11)	27 U	500	27	84	05/27/20 12:36	
Vinyl Chloride	47 U	500	47	84	05/27/20 12:36	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 14:00
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-18 - (7-8)
Lab Code: R2004209-011

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	53 U	1500	53	84	05/27/20 12:36	
cis-1,2-Dichloroethene	750	500	21	84	05/27/20 12:36	
cis-1,3-Dichloropropene	21 U	500	21	84	05/27/20 12:36	
trans-1,2-Dichloroethene	21 U	500	21	84	05/27/20 12:36	
trans-1,3-Dichloropropene	21 U	500	21	84	05/27/20 12:36	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	31 - 154	05/27/20 12:36	
Dibromofluoromethane	93	63 - 138	05/27/20 12:36	
Toluene-d8	105	66 - 138	05/27/20 12:36	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 14:40
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-19 - (10-11)
Lab Code: R2004209-012

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.16 U	3.9	0.16	.67	06/01/20 15:29	
1,1,2,2-Tetrachloroethane	0.16 U	3.9	0.16	.67	06/01/20 15:29	
1,1,2-Trichloroethane	0.16 U	3.9	0.16	.67	06/01/20 15:29	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.16 U	3.9	0.16	.67	06/01/20 15:29	
1,1-Dichloroethane (1,1-DCA)	0.16 U	3.9	0.16	.67	06/01/20 15:29	
1,1-Dichloroethene (1,1-DCE)	0.23 U	3.9	0.23	.67	06/01/20 15:29	
1,2,4-Trichlorobenzene	0.33 U	3.9	0.33	.67	06/01/20 15:29	
1,2-Dibromo-3-chloropropane (DBCP)	0.23 U	3.9	0.23	.67	06/01/20 15:29	
1,2-Dibromoethane	0.16 U	3.9	0.16	.67	06/01/20 15:29	
1,2-Dichlorobenzene	0.16 U	3.9	0.16	.67	06/01/20 15:29	
1,2-Dichloroethane	0.16 U	3.9	0.16	.67	06/01/20 15:29	
1,2-Dichloropropane	0.16 U	3.9	0.16	.67	06/01/20 15:29	
1,3-Dichlorobenzene	0.16 U	3.9	0.16	.67	06/01/20 15:29	
1,4-Dichlorobenzene	0.18 U	3.9	0.18	.67	06/01/20 15:29	
2-Butanone (MEK)	6.2	3.9	1.6	.67	06/01/20 15:29	
2-Hexanone	0.29 U	3.9	0.29	.67	06/01/20 15:29	
4-Methyl-2-pentanone	0.19 U	3.9	0.19	.67	06/01/20 15:29	
Acetone	50	3.9	3.7	.67	06/01/20 15:29	
Benzene	0.16 U	3.9	0.16	.67	06/01/20 15:29	
Bromodichloromethane	0.16 U	3.9	0.16	.67	06/01/20 15:29	
Bromoform	0.40 U	3.9	0.40	.67	06/01/20 15:29	
Bromomethane	1.7 U	3.9	1.7	.67	06/01/20 15:29	
Carbon Disulfide	0.67 J	3.9	0.23	.67	06/01/20 15:29	
Carbon Tetrachloride	0.21 U	3.9	0.21	.67	06/01/20 15:29	
Chlorobenzene	0.16 U	3.9	0.16	.67	06/01/20 15:29	
Chloroethane	0.64 BJ	3.9	0.16	.67	06/01/20 15:29	
Chloroform	0.16 U	3.9	0.16	.67	06/01/20 15:29	
Chloromethane	1.1 U	3.9	1.1	.67	06/01/20 15:29	
Cyclohexane	0.21 U	3.9	0.21	.67	06/01/20 15:29	
Dibromochloromethane	0.16 U	3.9	0.16	.67	06/01/20 15:29	
Dichlorodifluoromethane (CFC 12)	0.26 U	3.9	0.26	.67	06/01/20 15:29	
Dichloromethane	2.2 U	3.9	2.2	.67	06/01/20 15:29	
Ethylbenzene	0.16 U	3.9	0.16	.67	06/01/20 15:29	
Isopropylbenzene (Cumene)	0.16 U	3.9	0.16	.67	06/01/20 15:29	
Methyl Acetate	1.9 J	3.9	0.66	.67	06/01/20 15:29	
Methyl tert-Butyl Ether	0.16 U	3.9	0.16	.67	06/01/20 15:29	
Methylcyclohexane	0.25 U	3.9	0.25	.67	06/01/20 15:29	
Styrene	0.16 U	3.9	0.16	.67	06/01/20 15:29	
Tetrachloroethene (PCE)	0.41 J	3.9	0.19	.67	06/01/20 15:29	
Toluene	0.31 J	3.9	0.16	.67	06/01/20 15:29	
Trichloroethene (TCE)	0.18 U	3.9	0.18	.67	06/01/20 15:29	
Trichlorofluoromethane (CFC 11)	0.21 U	3.9	0.21	.67	06/01/20 15:29	
Vinyl Chloride	0.37 U	3.9	0.37	.67	06/01/20 15:29	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 14:40
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-19 - (10-11)
Lab Code: R2004209-012

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.41 U	12	0.41	.67	06/01/20 15:29	
cis-1,2-Dichloroethene	26	3.9	0.16	.67	06/01/20 15:29	
cis-1,3-Dichloropropene	0.16 U	3.9	0.16	.67	06/01/20 15:29	
trans-1,2-Dichloroethene	0.16 J	3.9	0.16	.67	06/01/20 15:29	
trans-1,3-Dichloropropene	0.16 U	3.9	0.16	.67	06/01/20 15:29	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	31 - 154	06/01/20 15:29	
Dibromofluoromethane	100	63 - 138	06/01/20 15:29	
Toluene-d8	107	66 - 138	06/01/20 15:29	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 15:00
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-20 - (5-6)
Lab Code: R2004209-013

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.21 U	5.1	0.21	.8	06/01/20 16:23	
1,1,2,2-Tetrachloroethane	0.21 U	5.1	0.21	.8	06/01/20 16:23	
1,1,2-Trichloroethane	0.21 U	5.1	0.21	.8	06/01/20 16:23	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.21 U	5.1	0.21	.8	06/01/20 16:23	
1,1-Dichloroethane (1,1-DCA)	0.21 U	5.1	0.21	.8	06/01/20 16:23	
1,1-Dichloroethene (1,1-DCE)	0.30 U	5.1	0.30	.8	06/01/20 16:23	
1,2,4-Trichlorobenzene	0.43 U	5.1	0.43	.8	06/01/20 16:23	
1,2-Dibromo-3-chloropropane (DBCP)	0.30 U	5.1	0.30	.8	06/01/20 16:23	
1,2-Dibromoethane	0.21 U	5.1	0.21	.8	06/01/20 16:23	
1,2-Dichlorobenzene	0.21 U	5.1	0.21	.8	06/01/20 16:23	
1,2-Dichloroethane	0.21 U	5.1	0.21	.8	06/01/20 16:23	
1,2-Dichloropropane	0.21 U	5.1	0.21	.8	06/01/20 16:23	
1,3-Dichlorobenzene	0.21 U	5.1	0.21	.8	06/01/20 16:23	
1,4-Dichlorobenzene	0.23 U	5.1	0.23	.8	06/01/20 16:23	
2-Butanone (MEK)	2.1 U	5.1	2.1	.8	06/01/20 16:23	
2-Hexanone	0.37 U	5.1	0.37	.8	06/01/20 16:23	
4-Methyl-2-pentanone	0.24 U	5.1	0.24	.8	06/01/20 16:23	
Acetone	4.8 U	5.1	4.8	.8	06/01/20 16:23	
Benzene	0.21 U	5.1	0.21	.8	06/01/20 16:23	
Bromodichloromethane	0.21 U	5.1	0.21	.8	06/01/20 16:23	
Bromoform	0.51 U	5.1	0.51	.8	06/01/20 16:23	
Bromomethane	2.2 U	5.1	2.2	.8	06/01/20 16:23	
Carbon Disulfide	0.30 U	5.1	0.30	.8	06/01/20 16:23	
Carbon Tetrachloride	0.27 U	5.1	0.27	.8	06/01/20 16:23	
Chlorobenzene	0.21 U	5.1	0.21	.8	06/01/20 16:23	
Chloroethane	0.73 BJ	5.1	0.21	.8	06/01/20 16:23	
Chloroform	0.24 BJ	5.1	0.21	.8	06/01/20 16:23	
Chloromethane	1.5 U	5.1	1.5	.8	06/01/20 16:23	
Cyclohexane	0.27 U	5.1	0.27	.8	06/01/20 16:23	
Dibromochloromethane	0.21 U	5.1	0.21	.8	06/01/20 16:23	
Dichlorodifluoromethane (CFC 12)	0.34 U	5.1	0.34	.8	06/01/20 16:23	
Dichloromethane	2.9 U	5.1	2.9	.8	06/01/20 16:23	
Ethylbenzene	0.21 U	5.1	0.21	.8	06/01/20 16:23	
Isopropylbenzene (Cumene)	0.21 U	5.1	0.21	.8	06/01/20 16:23	
Methyl Acetate	0.85 U	5.1	0.85	.8	06/01/20 16:23	
Methyl tert-Butyl Ether	0.21 U	5.1	0.21	.8	06/01/20 16:23	
Methylcyclohexane	0.32 U	5.1	0.32	.8	06/01/20 16:23	
Styrene	0.30 J	5.1	0.21	.8	06/01/20 16:23	
Tetrachloroethene (PCE)	110	5.1	0.24	.8	06/01/20 16:23	
Toluene	0.21 J	5.1	0.21	.8	06/01/20 16:23	
Trichloroethene (TCE)	2.5 J	5.1	0.23	.8	06/01/20 16:23	
Trichlorofluoromethane (CFC 11)	0.27 U	5.1	0.27	.8	06/01/20 16:23	
Vinyl Chloride	0.47 U	5.1	0.47	.8	06/01/20 16:23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 15:00
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-20 - (5-6)
Lab Code: R2004209-013

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.53 U	15	0.53	.8	06/01/20 16:23	
cis-1,2-Dichloroethene	2.6 J	5.1	0.21	.8	06/01/20 16:23	
cis-1,3-Dichloropropene	0.21 U	5.1	0.21	.8	06/01/20 16:23	
trans-1,2-Dichloroethene	0.21 U	5.1	0.21	.8	06/01/20 16:23	
trans-1,3-Dichloropropene	0.21 U	5.1	0.21	.8	06/01/20 16:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	31 - 154	06/01/20 16:23	
Dibromofluoromethane	99	63 - 138	06/01/20 16:23	
Toluene-d8	106	66 - 138	06/01/20 16:23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 15:00
Date Received: 05/20/20 11:10

Sample Name: PD1-DUP3-5-19-20
Lab Code: R2004209-014

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.23 U	5.7	0.23	.9	06/01/20 17:09	
1,1,2,2-Tetrachloroethane	0.23 U	5.7	0.23	.9	06/01/20 17:09	
1,1,2-Trichloroethane	0.23 U	5.7	0.23	.9	06/01/20 17:09	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.23 U	5.7	0.23	.9	06/01/20 17:09	
1,1-Dichloroethane (1,1-DCA)	0.23 U	5.7	0.23	.9	06/01/20 17:09	
1,1-Dichloroethene (1,1-DCE)	0.34 U	5.7	0.34	.9	06/01/20 17:09	
1,2,4-Trichlorobenzene	0.48 U	5.7	0.48	.9	06/01/20 17:09	
1,2-Dibromo-3-chloropropane (DBCP)	0.34 U	5.7	0.34	.9	06/01/20 17:09	
1,2-Dibromoethane	0.23 U	5.7	0.23	.9	06/01/20 17:09	
1,2-Dichlorobenzene	0.23 U	5.7	0.23	.9	06/01/20 17:09	
1,2-Dichloroethane	0.23 U	5.7	0.23	.9	06/01/20 17:09	
1,2-Dichloropropane	0.23 U	5.7	0.23	.9	06/01/20 17:09	
1,3-Dichlorobenzene	0.23 U	5.7	0.23	.9	06/01/20 17:09	
1,4-Dichlorobenzene	0.26 U	5.7	0.26	.9	06/01/20 17:09	
2-Butanone (MEK)	3.5 J	5.7	2.3	.9	06/01/20 17:09	
2-Hexanone	0.42 U	5.7	0.42	.9	06/01/20 17:09	
4-Methyl-2-pentanone	0.27 U	5.7	0.27	.9	06/01/20 17:09	
Acetone	35	5.7	5.4	.9	06/01/20 17:09	
Benzene	0.23 U	5.7	0.23	.9	06/01/20 17:09	
Bromodichloromethane	0.23 U	5.7	0.23	.9	06/01/20 17:09	
Bromoform	0.58 U	5.7	0.58	.9	06/01/20 17:09	
Bromomethane	2.4 U	5.7	2.4	.9	06/01/20 17:09	
Carbon Disulfide	0.34 U	5.7	0.34	.9	06/01/20 17:09	
Carbon Tetrachloride	0.30 U	5.7	0.30	.9	06/01/20 17:09	
Chlorobenzene	0.23 U	5.7	0.23	.9	06/01/20 17:09	
Chloroethane	0.72 BJ	5.7	0.23	.9	06/01/20 17:09	
Chloroform	0.24 BJ	5.7	0.23	.9	06/01/20 17:09	
Chloromethane	1.6 U	5.7	1.6	.9	06/01/20 17:09	
Cyclohexane	0.30 U	5.7	0.30	.9	06/01/20 17:09	
Dibromochloromethane	0.23 U	5.7	0.23	.9	06/01/20 17:09	
Dichlorodifluoromethane (CFC 12)	0.38 U	5.7	0.38	.9	06/01/20 17:09	
Dichloromethane	3.2 U	5.7	3.2	.9	06/01/20 17:09	
Ethylbenzene	0.23 U	5.7	0.23	.9	06/01/20 17:09	
Isopropylbenzene (Cumene)	0.23 U	5.7	0.23	.9	06/01/20 17:09	
Methyl Acetate	0.96 U	5.7	0.96	.9	06/01/20 17:09	
Methyl tert-Butyl Ether	0.23 U	5.7	0.23	.9	06/01/20 17:09	
Methylcyclohexane	0.36 U	5.7	0.36	.9	06/01/20 17:09	
Styrene	0.23 U	5.7	0.23	.9	06/01/20 17:09	
Tetrachloroethene (PCE)	71	5.7	0.27	.9	06/01/20 17:09	
Toluene	0.23 U	5.7	0.23	.9	06/01/20 17:09	
Trichloroethene (TCE)	2.2 J	5.7	0.26	.9	06/01/20 17:09	
Trichlorofluoromethane (CFC 11)	0.30 U	5.7	0.30	.9	06/01/20 17:09	
Vinyl Chloride	0.53 U	5.7	0.53	.9	06/01/20 17:09	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 15:00
Date Received: 05/20/20 11:10

Sample Name: PD1-DUP3-5-19-20
Lab Code: R2004209-014

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.60 U	17	0.60	.9	06/01/20 17:09	
cis-1,2-Dichloroethene	2.0 J	5.7	0.23	.9	06/01/20 17:09	
cis-1,3-Dichloropropene	0.23 U	5.7	0.23	.9	06/01/20 17:09	
trans-1,2-Dichloroethene	0.23 U	5.7	0.23	.9	06/01/20 17:09	
trans-1,3-Dichloropropene	0.23 U	5.7	0.23	.9	06/01/20 17:09	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	31 - 154	06/01/20 17:09	
Dibromofluoromethane	103	63 - 138	06/01/20 17:09	
Toluene-d8	109	66 - 138	06/01/20 17:09	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 15:30
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-21 - (5-6)
Lab Code: R2004209-015

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	28 U	680	28	105	05/27/20 15:10	
1,1,2,2-Tetrachloroethane	28 U	680	28	105	05/27/20 15:10	
1,1,2-Trichloroethane	28 U	680	28	105	05/27/20 15:10	
1,1,2-Trichloro-1,2,2-trifluoroethane	28 U	680	28	105	05/27/20 15:10	
1,1-Dichloroethane (1,1-DCA)	28 U	680	28	105	05/27/20 15:10	
1,1-Dichloroethene (1,1-DCE)	40 U	680	40	105	05/27/20 15:10	
1,2,4-Trichlorobenzene	58 U	680	58	105	05/27/20 15:10	
1,2-Dibromo-3-chloropropane (DBCP)	40 U	680	40	105	05/27/20 15:10	
1,2-Dibromoethane	28 U	680	28	105	05/27/20 15:10	
1,2-Dichlorobenzene	28 U	680	28	105	05/27/20 15:10	
1,2-Dichloroethane	28 U	680	28	105	05/27/20 15:10	
1,2-Dichloropropane	28 U	680	28	105	05/27/20 15:10	
1,3-Dichlorobenzene	28 U	680	28	105	05/27/20 15:10	
1,4-Dichlorobenzene	30 U	680	30	105	05/27/20 15:10	
2-Butanone (MEK)	280 U	680	280	105	05/27/20 15:10	
2-Hexanone	49 U	680	49	105	05/27/20 15:10	
4-Methyl-2-pentanone	32 U	680	32	105	05/27/20 15:10	
Acetone	640 U	680	640	105	05/27/20 15:10	
Benzene	28 U	680	28	105	05/27/20 15:10	
Bromodichloromethane	28 U	680	28	105	05/27/20 15:10	
Bromoform	68 U	680	68	105	05/27/20 15:10	
Bromomethane	290 U	680	290	105	05/27/20 15:10	
Carbon Disulfide	40 U	680	40	105	05/27/20 15:10	
Carbon Tetrachloride	36 U	680	36	105	05/27/20 15:10	
Chlorobenzene	28 U	680	28	105	05/27/20 15:10	
Chloroethane	28 U	680	28	105	05/27/20 15:10	
Chloroform	28 U	680	28	105	05/27/20 15:10	
Chloromethane	200 U	680	200	105	05/27/20 15:10	
Cyclohexane	36 U	680	36	105	05/27/20 15:10	
Dibromochloromethane	28 U	680	28	105	05/27/20 15:10	
Dichlorodifluoromethane (CFC 12)	45 U	680	45	105	05/27/20 15:10	
Dichloromethane	390 U	680	390	105	05/27/20 15:10	
Ethylbenzene	28 U	680	28	105	05/27/20 15:10	
Isopropylbenzene (Cumene)	28 U	680	28	105	05/27/20 15:10	
Methyl Acetate	120 U	680	120	105	05/27/20 15:10	
Methyl tert-Butyl Ether	28 U	680	28	105	05/27/20 15:10	
Methylcyclohexane	43 U	680	43	105	05/27/20 15:10	
Styrene	28 U	680	28	105	05/27/20 15:10	
Tetrachloroethene (PCE)	11000	680	32	105	05/27/20 15:10	
Toluene	28 U	680	28	105	05/27/20 15:10	
Trichloroethene (TCE)	93 J	680	30	105	05/27/20 15:10	
Trichlorofluoromethane (CFC 11)	36 U	680	36	105	05/27/20 15:10	
Vinyl Chloride	63 U	680	63	105	05/27/20 15:10	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 15:30
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-21 - (5-6)
Lab Code: R2004209-015

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	71 U	2000	71	105	05/27/20 15:10	
cis-1,2-Dichloroethene	28 U	680	28	105	05/27/20 15:10	
cis-1,3-Dichloropropene	28 U	680	28	105	05/27/20 15:10	
trans-1,2-Dichloroethene	28 U	680	28	105	05/27/20 15:10	
trans-1,3-Dichloropropene	28 U	680	28	105	05/27/20 15:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	31 - 154	05/27/20 15:10	
Dibromofluoromethane	92	63 - 138	05/27/20 15:10	
Toluene-d8	104	66 - 138	05/27/20 15:10	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 15:50
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-22 - (6-7)
Lab Code: R2004209-016

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.23 U	5.5	0.23	.94	06/01/20 17:54	
1,1,2,2-Tetrachloroethane	0.23 U	5.5	0.23	.94	06/01/20 17:54	
1,1,2-Trichloroethane	0.23 U	5.5	0.23	.94	06/01/20 17:54	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.23 U	5.5	0.23	.94	06/01/20 17:54	
1,1-Dichloroethane (1,1-DCA)	0.23 U	5.5	0.23	.94	06/01/20 17:54	
1,1-Dichloroethene (1,1-DCE)	0.32 U	5.5	0.32	.94	06/01/20 17:54	
1,2,4-Trichlorobenzene	0.47 U	5.5	0.47	.94	06/01/20 17:54	
1,2-Dibromo-3-chloropropane (DBCP)	0.32 U	5.5	0.32	.94	06/01/20 17:54	
1,2-Dibromoethane	0.23 U	5.5	0.23	.94	06/01/20 17:54	
1,2-Dichlorobenzene	0.23 U	5.5	0.23	.94	06/01/20 17:54	
1,2-Dichloroethane	0.23 U	5.5	0.23	.94	06/01/20 17:54	
1,2-Dichloropropane	0.23 U	5.5	0.23	.94	06/01/20 17:54	
1,3-Dichlorobenzene	0.23 U	5.5	0.23	.94	06/01/20 17:54	
1,4-Dichlorobenzene	0.25 U	5.5	0.25	.94	06/01/20 17:54	
2-Butanone (MEK)	9.0	5.5	2.3	.94	06/01/20 17:54	
2-Hexanone	0.40 U	5.5	0.40	.94	06/01/20 17:54	
4-Methyl-2-pentanone	0.26 U	5.5	0.26	.94	06/01/20 17:54	
Acetone	65	5.5	5.2	.94	06/01/20 17:54	
Benzene	0.23 U	5.5	0.23	.94	06/01/20 17:54	
Bromodichloromethane	0.23 U	5.5	0.23	.94	06/01/20 17:54	
Bromoform	0.56 U	5.5	0.56	.94	06/01/20 17:54	
Bromomethane	2.4 U	5.5	2.4	.94	06/01/20 17:54	
Carbon Disulfide	0.41 J	5.5	0.32	.94	06/01/20 17:54	
Carbon Tetrachloride	0.29 U	5.5	0.29	.94	06/01/20 17:54	
Chlorobenzene	0.23 U	5.5	0.23	.94	06/01/20 17:54	
Chloroethane	0.65 BJ	5.5	0.23	.94	06/01/20 17:54	
Chloroform	0.23 U	5.5	0.23	.94	06/01/20 17:54	
Chloromethane	1.6 U	5.5	1.6	.94	06/01/20 17:54	
Cyclohexane	3.6 J	5.5	0.29	.94	06/01/20 17:54	
Dibromochloromethane	0.23 U	5.5	0.23	.94	06/01/20 17:54	
Dichlorodifluoromethane (CFC 12)	0.37 U	5.5	0.37	.94	06/01/20 17:54	
Dichloromethane	3.1 U	5.5	3.1	.94	06/01/20 17:54	
Ethylbenzene	0.29 J	5.5	0.23	.94	06/01/20 17:54	
Isopropylbenzene (Cumene)	0.92 J	5.5	0.23	.94	06/01/20 17:54	
Methyl Acetate	0.93 U	5.5	0.93	.94	06/01/20 17:54	
Methyl tert-Butyl Ether	0.23 U	5.5	0.23	.94	06/01/20 17:54	
Methylcyclohexane	9.0	5.5	0.35	.94	06/01/20 17:54	
Styrene	0.23 U	5.5	0.23	.94	06/01/20 17:54	
Tetrachloroethene (PCE)	0.35 J	5.5	0.26	.94	06/01/20 17:54	
Toluene	0.24 J	5.5	0.23	.94	06/01/20 17:54	
Trichloroethene (TCE)	0.25 U	5.5	0.25	.94	06/01/20 17:54	
Trichlorofluoromethane (CFC 11)	0.29 U	5.5	0.29	.94	06/01/20 17:54	
Vinyl Chloride	0.61 J	5.5	0.51	.94	06/01/20 17:54	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 15:50
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-22 - (6-7)
Lab Code: R2004209-016

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.58 U	17	0.58	.94	06/01/20 17:54	
cis-1,2-Dichloroethene	110	5.5	0.23	.94	06/01/20 17:54	
cis-1,3-Dichloropropene	0.23 U	5.5	0.23	.94	06/01/20 17:54	
trans-1,2-Dichloroethene	2.5 J	5.5	0.23	.94	06/01/20 17:54	
trans-1,3-Dichloropropene	0.23 U	5.5	0.23	.94	06/01/20 17:54	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	31 - 154	06/01/20 17:54	
Dibromofluoromethane	100	63 - 138	06/01/20 17:54	
Toluene-d8	107	66 - 138	06/01/20 17:54	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 16:20
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-23 - (7-8)
Lab Code: R2004209-017

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.23 U	5.6	0.23	.88	06/01/20 18:40	
1,1,2,2-Tetrachloroethane	0.23 U	5.6	0.23	.88	06/01/20 18:40	
1,1,2-Trichloroethane	0.23 U	5.6	0.23	.88	06/01/20 18:40	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.23 U	5.6	0.23	.88	06/01/20 18:40	
1,1-Dichloroethane (1,1-DCA)	0.23 U	5.6	0.23	.88	06/01/20 18:40	
1,1-Dichloroethene (1,1-DCE)	0.46 J	5.6	0.33	.88	06/01/20 18:40	
1,2,4-Trichlorobenzene	0.47 U	5.6	0.47	.88	06/01/20 18:40	
1,2-Dibromo-3-chloropropane (DBCP)	0.33 U	5.6	0.33	.88	06/01/20 18:40	
1,2-Dibromoethane	0.23 U	5.6	0.23	.88	06/01/20 18:40	
1,2-Dichlorobenzene	0.23 U	5.6	0.23	.88	06/01/20 18:40	
1,2-Dichloroethane	0.23 U	5.6	0.23	.88	06/01/20 18:40	
1,2-Dichloropropane	0.23 U	5.6	0.23	.88	06/01/20 18:40	
1,3-Dichlorobenzene	0.23 U	5.6	0.23	.88	06/01/20 18:40	
1,4-Dichlorobenzene	0.25 U	5.6	0.25	.88	06/01/20 18:40	
2-Butanone (MEK)	17	5.6	2.3	.88	06/01/20 18:40	
2-Hexanone	0.41 U	5.6	0.41	.88	06/01/20 18:40	
4-Methyl-2-pentanone	0.26 U	5.6	0.26	.88	06/01/20 18:40	
Acetone	130	5.6	5.3	.88	06/01/20 18:40	
Benzene	0.38 J	5.6	0.23	.88	06/01/20 18:40	
Bromodichloromethane	0.23 U	5.6	0.23	.88	06/01/20 18:40	
Bromoform	0.56 U	5.6	0.56	.88	06/01/20 18:40	
Bromomethane	2.4 U	5.6	2.4	.88	06/01/20 18:40	
Carbon Disulfide	0.41 J	5.6	0.33	.88	06/01/20 18:40	
Carbon Tetrachloride	0.30 U	5.6	0.30	.88	06/01/20 18:40	
Chlorobenzene	0.23 U	5.6	0.23	.88	06/01/20 18:40	
Chloroethane	0.59 BJ	5.6	0.23	.88	06/01/20 18:40	
Chloroform	0.23 U	5.6	0.23	.88	06/01/20 18:40	
Chloromethane	1.6 U	5.6	1.6	.88	06/01/20 18:40	
Cyclohexane	7.6	5.6	0.30	.88	06/01/20 18:40	
Dibromochloromethane	0.23 U	5.6	0.23	.88	06/01/20 18:40	
Dichlorodifluoromethane (CFC 12)	0.37 U	5.6	0.37	.88	06/01/20 18:40	
Dichloromethane	3.2 U	5.6	3.2	.88	06/01/20 18:40	
Ethylbenzene	0.40 J	5.6	0.23	.88	06/01/20 18:40	
Isopropylbenzene (Cumene)	0.44 J	5.6	0.23	.88	06/01/20 18:40	
Methyl Acetate	0.94 U	5.6	0.94	.88	06/01/20 18:40	
Methyl tert-Butyl Ether	0.23 U	5.6	0.23	.88	06/01/20 18:40	
Methylcyclohexane	16	5.6	0.35	.88	06/01/20 18:40	
Styrene	0.23 U	5.6	0.23	.88	06/01/20 18:40	
Tetrachloroethene (PCE)	0.29 J	5.6	0.26	.88	06/01/20 18:40	
Toluene	0.47 J	5.6	0.23	.88	06/01/20 18:40	
Trichloroethene (TCE)	0.25 U	5.6	0.25	.88	06/01/20 18:40	
Trichlorofluoromethane (CFC 11)	0.30 U	5.6	0.30	.88	06/01/20 18:40	
Vinyl Chloride	3.2 J	5.6	0.52	.88	06/01/20 18:40	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 16:20
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-23 - (7-8)
Lab Code: R2004209-017

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.70 J	17	0.59	.88	06/01/20 18:40	
cis-1,2-Dichloroethene	120	5.6	0.23	.88	06/01/20 18:40	
cis-1,3-Dichloropropene	0.23 U	5.6	0.23	.88	06/01/20 18:40	
trans-1,2-Dichloroethene	2.7 J	5.6	0.23	.88	06/01/20 18:40	
trans-1,3-Dichloropropene	0.23 U	5.6	0.23	.88	06/01/20 18:40	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	31 - 154	06/01/20 18:40	
Dibromofluoromethane	99	63 - 138	06/01/20 18:40	
Toluene-d8	107	66 - 138	06/01/20 18:40	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: 05/19/20 16:35
Date Received: 05/20/20 11:10

Sample Name: PD1-RB-5-19-20
Lab Code: R2004209-018

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.21 U	5.0	0.21	1	05/26/20 13:32	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	05/26/20 13:32	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	05/26/20 13:32	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	05/26/20 13:32	
1,1-Dichloroethane (1,1-DCA)	0.20 U	5.0	0.20	1	05/26/20 13:32	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	05/26/20 13:32	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	05/26/20 13:32	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	05/26/20 13:32	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	05/26/20 13:32	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	05/26/20 13:32	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	05/26/20 13:32	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	05/26/20 13:32	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	05/26/20 13:32	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	05/26/20 13:32	
2-Butanone (MEK)	0.78 U	10	0.78	1	05/26/20 13:32	
2-Hexanone	0.20 U	10	0.20	1	05/26/20 13:32	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	05/26/20 13:32	
Acetone	2.1 U	10	2.1	1	05/26/20 13:32	
Benzene	0.20 U	5.0	0.20	1	05/26/20 13:32	
Bromodichloromethane	0.22 U	5.0	0.22	1	05/26/20 13:32	
Bromoform	0.25 U	5.0	0.25	1	05/26/20 13:32	
Bromomethane	0.70 U	5.0	0.70	1	05/26/20 13:32	
Carbon Disulfide	0.25 U	10	0.25	1	05/26/20 13:32	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	05/26/20 13:32	
Chlorobenzene	0.20 U	5.0	0.20	1	05/26/20 13:32	
Chloroethane	0.23 U	5.0	0.23	1	05/26/20 13:32	
Chloroform	0.24 U	5.0	0.24	1	05/26/20 13:32	
Chloromethane	0.28 U	5.0	0.28	1	05/26/20 13:32	
Cyclohexane	0.26 U	10	0.26	1	05/26/20 13:32	
Dibromochloromethane	0.20 U	5.0	0.20	1	05/26/20 13:32	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	05/26/20 13:32	
Dichloromethane	0.67 J	5.0	0.36	1	05/26/20 13:32	
Ethylbenzene	0.20 U	5.0	0.20	1	05/26/20 13:32	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	05/26/20 13:32	
Methyl Acetate	0.33 U	10	0.33	1	05/26/20 13:32	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	05/26/20 13:32	
Methylcyclohexane	0.20 U	10	0.20	1	05/26/20 13:32	
Styrene	0.20 U	5.0	0.20	1	05/26/20 13:32	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	05/26/20 13:32	
Toluene	0.20 U	5.0	0.20	1	05/26/20 13:32	
Trichloroethene (TCE)	0.20 U	5.0	0.20	1	05/26/20 13:32	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	05/26/20 13:32	
Vinyl Chloride	0.20 U	5.0	0.20	1	05/26/20 13:32	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: 05/19/20 16:35
Date Received: 05/20/20 11:10

Sample Name: PD1-RB-5-19-20
Lab Code: R2004209-018

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.23 U	5.0	0.23	1	05/26/20 13:32	
cis-1,2-Dichloroethene	0.23 U	5.0	0.23	1	05/26/20 13:32	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	05/26/20 13:32	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	05/26/20 13:32	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	05/26/20 13:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	05/26/20 13:32	
Dibromofluoromethane	94	89 - 119	05/26/20 13:32	
Toluene-d8	96	87 - 121	05/26/20 13:32	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: 05/19/20 16:40
Date Received: 05/20/20 11:10

Sample Name: PD1-TB-5-19-20
Lab Code: R2004209-019

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.21 U	5.0	0.21	1	05/26/20 13:10	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	05/26/20 13:10	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	05/26/20 13:10	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	05/26/20 13:10	
1,1-Dichloroethane (1,1-DCA)	0.20 U	5.0	0.20	1	05/26/20 13:10	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	05/26/20 13:10	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	05/26/20 13:10	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	05/26/20 13:10	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	05/26/20 13:10	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	05/26/20 13:10	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	05/26/20 13:10	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	05/26/20 13:10	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	05/26/20 13:10	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	05/26/20 13:10	
2-Butanone (MEK)	0.78 U	10	0.78	1	05/26/20 13:10	
2-Hexanone	0.20 U	10	0.20	1	05/26/20 13:10	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	05/26/20 13:10	
Acetone	2.1 U	10	2.1	1	05/26/20 13:10	
Benzene	0.20 U	5.0	0.20	1	05/26/20 13:10	
Bromodichloromethane	0.22 U	5.0	0.22	1	05/26/20 13:10	
Bromoform	0.25 U	5.0	0.25	1	05/26/20 13:10	
Bromomethane	0.70 U	5.0	0.70	1	05/26/20 13:10	
Carbon Disulfide	0.25 U	10	0.25	1	05/26/20 13:10	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	05/26/20 13:10	
Chlorobenzene	0.20 U	5.0	0.20	1	05/26/20 13:10	
Chloroethane	0.23 U	5.0	0.23	1	05/26/20 13:10	
Chloroform	0.24 U	5.0	0.24	1	05/26/20 13:10	
Chloromethane	0.28 U	5.0	0.28	1	05/26/20 13:10	
Cyclohexane	0.26 U	10	0.26	1	05/26/20 13:10	
Dibromochloromethane	0.20 U	5.0	0.20	1	05/26/20 13:10	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	05/26/20 13:10	
Dichloromethane	0.36 U	5.0	0.36	1	05/26/20 13:10	
Ethylbenzene	0.20 U	5.0	0.20	1	05/26/20 13:10	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	05/26/20 13:10	
Methyl Acetate	0.33 U	10	0.33	1	05/26/20 13:10	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	05/26/20 13:10	
Methylcyclohexane	0.20 U	10	0.20	1	05/26/20 13:10	
Styrene	0.20 U	5.0	0.20	1	05/26/20 13:10	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	05/26/20 13:10	
Toluene	0.20 U	5.0	0.20	1	05/26/20 13:10	
Trichloroethene (TCE)	0.20 U	5.0	0.20	1	05/26/20 13:10	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	05/26/20 13:10	
Vinyl Chloride	0.20 U	5.0	0.20	1	05/26/20 13:10	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: 05/19/20 16:40
Date Received: 05/20/20 11:10

Sample Name: PD1-TB-5-19-20
Lab Code: R2004209-019

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.23 U	5.0	0.23	1	05/26/20 13:10	
cis-1,2-Dichloroethene	0.23 U	5.0	0.23	1	05/26/20 13:10	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	05/26/20 13:10	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	05/26/20 13:10	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	05/26/20 13:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	05/26/20 13:10	
Dibromofluoromethane	96	89 - 119	05/26/20 13:10	
Toluene-d8	99	87 - 121	05/26/20 13:10	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 12:30
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-12- 6-7
Lab Code: R2004209-020

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	25 U	610	25	100	05/26/20 19:43	
1,1,2,2-Tetrachloroethane	25 U	610	25	100	05/26/20 19:43	
1,1,2-Trichloroethane	25 U	610	25	100	05/26/20 19:43	
1,1,2-Trichloro-1,2,2-trifluoroethane	25 U	610	25	100	05/26/20 19:43	
1,1-Dichloroethane (1,1-DCA)	25 U	610	25	100	05/26/20 19:43	
1,1-Dichloroethene (1,1-DCE)	36 U	610	36	100	05/26/20 19:43	
1,2,4-Trichlorobenzene	51 U	610	51	100	05/26/20 19:43	
1,2-Dibromo-3-chloropropane (DBCP)	36 U	610	36	100	05/26/20 19:43	
1,2-Dibromoethane	25 U	610	25	100	05/26/20 19:43	
1,2-Dichlorobenzene	25 U	610	25	100	05/26/20 19:43	
1,2-Dichloroethane	25 U	610	25	100	05/26/20 19:43	
1,2-Dichloropropane	25 U	610	25	100	05/26/20 19:43	
1,3-Dichlorobenzene	25 U	610	25	100	05/26/20 19:43	
1,4-Dichlorobenzene	27 U	610	27	100	05/26/20 19:43	
2-Butanone (MEK)	250 U	610	250	100	05/26/20 19:43	
2-Hexanone	44 U	610	44	100	05/26/20 19:43	
4-Methyl-2-pentanone	28 U	610	28	100	05/26/20 19:43	
Acetone	570 U	610	570	100	05/26/20 19:43	
Benzene	25 U	610	25	100	05/26/20 19:43	
Bromodichloromethane	25 U	610	25	100	05/26/20 19:43	
Bromoform	61 U	610	61	100	05/26/20 19:43	
Bromomethane	260 U	610	260	100	05/26/20 19:43	
Carbon Disulfide	36 U	610	36	100	05/26/20 19:43	
Carbon Tetrachloride	32 U	610	32	100	05/26/20 19:43	
Chlorobenzene	25 U	610	25	100	05/26/20 19:43	
Chloroethane	25 U	610	25	100	05/26/20 19:43	
Chloroform	25 U	610	25	100	05/26/20 19:43	
Chloromethane	170 U	610	170	100	05/26/20 19:43	
Cyclohexane	32 U	610	32	100	05/26/20 19:43	
Dibromochloromethane	25 U	610	25	100	05/26/20 19:43	
Dichlorodifluoromethane (CFC 12)	40 U	610	40	100	05/26/20 19:43	
Dichloromethane	340 U	610	340	100	05/26/20 19:43	
Ethylbenzene	25 U	610	25	100	05/26/20 19:43	
Isopropylbenzene (Cumene)	25 U	610	25	100	05/26/20 19:43	
Methyl Acetate	110 U	610	110	100	05/26/20 19:43	
Methyl tert-Butyl Ether	25 U	610	25	100	05/26/20 19:43	
Methylcyclohexane	38 U	610	38	100	05/26/20 19:43	
Styrene	25 U	610	25	100	05/26/20 19:43	
Tetrachloroethene (PCE)	28 U	610	28	100	05/26/20 19:43	
Toluene	25 U	610	25	100	05/26/20 19:43	
Trichloroethene (TCE)	27 U	610	27	100	05/26/20 19:43	
Trichlorofluoromethane (CFC 11)	32 U	610	32	100	05/26/20 19:43	
Vinyl Chloride	56 U	610	56	100	05/26/20 19:43	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 12:30
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-12- 6-7
Lab Code: R2004209-020

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	63 U	1800	63	100	05/26/20 19:43	
cis-1,2-Dichloroethene	5400	610	25	100	05/26/20 19:43	
cis-1,3-Dichloropropene	25 U	610	25	100	05/26/20 19:43	
trans-1,2-Dichloroethene	25 U	610	25	100	05/26/20 19:43	
trans-1,3-Dichloropropene	25 U	610	25	100	05/26/20 19:43	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	31 - 154	05/26/20 19:43	
Dibromofluoromethane	95	63 - 138	05/26/20 19:43	
Toluene-d8	105	66 - 138	05/26/20 19:43	



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 10:05
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-10 - (8-9)
Lab Code: R2004209-003

Units: ug/Kg
Basis: Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	270 U	1800	270	10	05/28/20 18:15	5/27/20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	81	10 - 115	05/28/20 18:15	
Nitrobenzene-d5	9779 *	10 - 130	05/28/20 18:15	*
p-Terphenyl-d14	37	10 - 130	05/28/20 18:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 13:47
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-17 - (7-8)
Lab Code: R2004209-009

Units: ug/Kg
Basis: Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	12 U	81	12	1	05/27/20 16:29	5/26/20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	72	10 - 115	05/27/20 16:29	
Nitrobenzene-d5	154 *	10 - 130	05/27/20 16:29	*
p-Terphenyl-d14	48	10 - 130	05/27/20 16:29	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 13:47
Date Received: 05/20/20 11:10

Sample Name: PD1-DUP2-5-19-20
Lab Code: R2004209-010

Units: ug/Kg
Basis: Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	12 U	81	12	1	05/26/20 11:43	5/21/20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	37	10 - 115	05/26/20 11:43	
Nitrobenzene-d5	39	10 - 130	05/26/20 11:43	
p-Terphenyl-d14	63	10 - 130	05/26/20 11:43	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 14:40
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-19 - (10-11)
Lab Code: R2004209-012

Units: ug/Kg
Basis: Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	12 U	78	12	1	05/26/20 12:12	5/21/20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	73	10 - 115	05/26/20 12:12	
Nitrobenzene-d5	63	10 - 130	05/26/20 12:12	
p-Terphenyl-d14	67	10 - 130	05/26/20 12:12	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-21 - (5-6)
Lab Code: R2004209-015

Service Request: R2004209
Date Collected: 05/19/20 15:30
Date Received: 05/20/20 11:10

Units: ug/Kg
Basis: Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	12 U	79	12	1	05/26/20 13:43	5/21/20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	44	10 - 115	05/26/20 13:43	
Nitrobenzene-d5	37	10 - 130	05/26/20 13:43	
p-Terphenyl-d14	40	10 - 130	05/26/20 13:43	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: 05/19/20 16:35
Date Received: 05/20/20 11:10

Sample Name: PD1-RB-5-19-20
Lab Code: R2004209-018

Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.027 U	0.040	0.027	1	05/26/20 16:51	5/26/20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	104	64 - 124	05/26/20 16:51	



General Chemistry

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-08 - (8-9)
Lab Code: R2004209-001

Service Request: R2004209
Date Collected: 05/19/20 09:00
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	84.1	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-09 - (7-8)
Lab Code: R2004209-002

Service Request: R2004209
Date Collected: 05/19/20 09:32
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	81.9	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-10 - (8-9)
Lab Code: R2004209-003

Service Request: R2004209
Date Collected: 05/19/20 10:05
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	80.7	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-11 - (7-8)
Lab Code: R2004209-004

Service Request: R2004209
Date Collected: 05/19/20 10:40
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	85.3	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil
Sample Name: PD1-SB-13 - (4-5)
Lab Code: R2004209-005

Service Request: R2004209
Date Collected: 05/19/20 11:18
Date Received: 05/20/20 11:10
Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	72.4	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-14 - (4-5)
Lab Code: R2004209-006

Service Request: R2004209
Date Collected: 05/19/20 12:00
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	74.5	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-15 - (7-8)
Lab Code: R2004209-007

Service Request: R2004209
Date Collected: 05/19/20 12:15
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	79.8	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-16 - (8-9)
Lab Code: R2004209-008

Service Request: R2004209
Date Collected: 05/19/20 13:15
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	90.1	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-17 - (7-8)
Lab Code: R2004209-009

Service Request: R2004209
Date Collected: 05/19/20 13:47
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	85.4	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-DUP2-5-19-20
Lab Code: R2004209-010

Service Request: R2004209
Date Collected: 05/19/20 13:47
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	84.5	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil
Sample Name: PD1-SB-18 - (7-8)
Lab Code: R2004209-011

Service Request: R2004209
Date Collected: 05/19/20 14:00
Date Received: 05/20/20 11:10
Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	83.7	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-19 - (10-11)
Lab Code: R2004209-012

Service Request: R2004209
Date Collected: 05/19/20 14:40
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	85.3	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-20 - (5-6)
Lab Code: R2004209-013

Service Request: R2004209
Date Collected: 05/19/20 15:00
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	79.1	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-DUP3-5-19-20
Lab Code: R2004209-014

Service Request: R2004209
Date Collected: 05/19/20 15:00
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	78.9	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-21 - (5-6)
Lab Code: R2004209-015

Service Request: R2004209
Date Collected: 05/19/20 15:30
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	77.3	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil
Sample Name: PD1-SB-22 - (6-7)
Lab Code: R2004209-016

Service Request: R2004209
Date Collected: 05/19/20 15:50
Date Received: 05/20/20 11:10
Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	85.3	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-23 - (7-8)
Lab Code: R2004209-017

Service Request: R2004209
Date Collected: 05/19/20 16:20
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	78.7	Percent	-	1	05/27/20 09:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Sample Name: PD1-SB-12- 6-7
Lab Code: R2004209-020

Service Request: R2004209
Date Collected: 05/19/20 12:30
Date Received: 05/20/20 11:10

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	82.6	Percent	-	1	05/27/20 09:45	



QC Summary Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5035A

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		31-154	63-138	66-138
PD1-SB-08 - (8-9)	R2004209-001	99	88	101
PD1-SB-09 - (7-8)	R2004209-002	101	90	102
PD1-SB-10 - (8-9)	R2004209-003	111	99	107
PD1-SB-11 - (7-8)	R2004209-004	102	95	104
PD1-SB-13 - (4-5)	R2004209-005	113	93	104
PD1-SB-14 - (4-5)	R2004209-006	102	89	102
PD1-SB-15 - (7-8)	R2004209-007	99	90	103
PD1-SB-16 - (8-9)	R2004209-008	104	99	106
PD1-SB-17 - (7-8)	R2004209-009	101	92	102
PD1-SB-18 - (7-8)	R2004209-011	104	93	105
PD1-SB-19 - (10-11)	R2004209-012	90	100	107
PD1-SB-20 - (5-6)	R2004209-013	98	99	106
PD1-DUP3-5-19-20	R2004209-014	97	103	109
PD1-SB-21 - (5-6)	R2004209-015	99	92	104
PD1-SB-22 - (6-7)	R2004209-016	98	100	107
PD1-SB-23 - (7-8)	R2004209-017	96	99	107
PD1-SB-12- 6-7	R2004209-020	102	95	105
Method Blank	RQ2005358-04	99	91	100
Method Blank	RQ2005441-04	97	91	100
Method Blank	RQ2005502-04	99	89	99
Method Blank	RQ2005667-04	98	100	106
Lab Control Sample	RQ2005358-03	100	99	102
Lab Control Sample	RQ2005441-03	102	99	100
Lab Control Sample	RQ2005502-03	97	95	96
Lab Control Sample	RQ2005667-03	101	101	107
PD1-SB-10 - (8-9) MS	RQ2005358-05	125	105	107
PD1-SB-10 - (8-9) DMS	RQ2005358-06	130	102	104
PD1-SB-21 - (5-6) MS	RQ2005441-05	106	100	103
PD1-SB-21 - (5-6) DMS	RQ2005441-06	107	102	104

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5035A

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		31-154	63-138	66-138
PD1-RB-5-19-20	R2004209-018	90	94	96
PD1-TB-5-19-20	R2004209-019	95	96	99
Method Blank	RQ2005357-04	90	90	95
Lab Control Sample	RQ2005357-03	100	100	100

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20
Date Received: 05/20/20
Date Analyzed: 05/26/20
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: PD1-SB-10 - (8-9)
Lab Code: R2004209-003
Analysis Method: 8260C
Prep Method: EPA 5035A

Units: ug/Kg
Basis: Dry

Analyte Name	Sample Result	Matrix Spike RQ2005358-05			Duplicate Matrix Spike RQ2005358-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	510 U	111000	126000	88	118000	126000	93	44-124	6	30
1,1,2,2-Tetrachloroethane	510 U	187000	126000	148	201000	126000	159 *	41-155	7	30
1,1,2-Trichloroethane	510 U	138000	126000	109	141000	126000	112	48-124	3	30
1,1,2-Trichloro-1,2,2-trifluoroethane	510 U	125000	126000	99	130000	126000	103	40-117	4	30
1,1-Dichloroethane (1,1-DCA)	510 U	129000	126000	102	134000	126000	106	41-138	4	30
1,1-Dichloroethene (1,1-DCE)	740 U	121000	126000	96	128000	126000	101	46-124	5	30
1,2,4-Trichlorobenzene	1100 U	158000	126000	125	158000	126000	125	10-169	<1	30
1,2-Dibromo-3-chloropropane (DBCP)	740 U	120000	126000	95	126000	126000	100	30-136	5	30
1,2-Dibromoethane	510 U	131000	126000	103	134000	126000	106	38-129	3	30
1,2-Dichlorobenzene	510 U	138000	126000	109	139000	126000	110	11-152	<1	30
1,2-Dichloroethane	510 U	133000	126000	105	134000	126000	106	49-119	<1	30
1,2-Dichloropropane	510 U	143000	126000	113	142000	126000	113	60-126	<1	30
1,3-Dichlorobenzene	510 U	138000	126000	109	138000	126000	109	13-151	<1	30
1,4-Dichlorobenzene	560 U	135000	126000	107	134000	126000	106	10-151	<1	30
2-Butanone (MEK)	5100 U	155000	126000	123	165000	126000	131	13-176	6	30
2-Hexanone	920 U	167000	126000	132	171000	126000	135	12-163	2	30
4-Methyl-2-pentanone	590 U	170000	126000	135	175000	126000	138	38-148	2	30
Acetone	12000 U	170000	126000	135	173000	126000	137	11-183	1	30
Benzene	510 U	138000	126000	109	140000	126000	111	51-123	2	30
Bromodichloromethane	510 U	124000	126000	98	128000	126000	102	39-122	4	30
Bromoform	1300 U	115000	126000	91	127000	126000	100	16-135	9	30
Bromomethane	5400 U	87600	126000	69	86700	126000	69	10-150	<1	30
Carbon Disulfide	740 U	96800	126000	77	113000	126000	90	44-139	16	30
Carbon Tetrachloride	660 U	110000	126000	87	116000	126000	92	46-137	6	30
Chlorobenzene	510 U	129000	126000	102	130000	126000	103	25-129	<1	30
Chloroethane	510 U	123000	126000	97	124000	126000	98	10-166	1	30
Chloroform	570 J	121000	126000	95	125000	126000	99	55-118	4	30
Chloromethane	3600 U	152000	126000	120	164000	126000	130	10-139	8	30
Cyclohexane	1900 J	156000	126000	122	162000	126000	127 *	28-126	4	30
Dibromochloromethane	510 U	119000	126000	94	125000	126000	99	36-125	5	30
Dichlorodifluoromethane (CFC 12)	840 U	146000	126000	116	151000	126000	120	51-144	3	30
Dichloromethane	7100 U	131000	126000	104	132000	126000	105	49-125	<1	30
Ethylbenzene	19000	149000	126000	103	147000	126000	102	23-132	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20
Date Received: 05/20/20
Date Analyzed: 05/26/20
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: PD1-SB-10 - (8-9)
Lab Code: R2004209-003
Analysis Method: 8260C
Prep Method: EPA 5035A

Units: ug/Kg
Basis: Dry

Analyte Name	Sample Result	Matrix Spike RQ2005358-05			Duplicate Matrix Spike RQ2005358-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Isopropylbenzene (Cumene)	26000	169000	126000	113	176000	126000	119	18-133	5	30
Methyl Acetate	2200 U	153000	126000	121	163000	126000	129	10-200	6	30
Methyl tert-Butyl Ether	510 U	133000	126000	106	142000	126000	112	62-130	6	30
Methylcyclohexane	5300 J	155000	126000	118	164000	126000	126	12-134	7	30
Styrene	510 U	146000	126000	115	150000	126000	119	15-160	3	30
Tetrachloroethene (PCE)	80000	214000	126000	106	211000	126000	104	21-137	2	30
Toluene	1700 J	140000	126000	109	140000	126000	109	11-152	<1	30
Trichloroethene (TCE)	7400 J	148000	126000	111	142000	126000	107	23-140	4	30
Trichlorofluoromethane (CFC 11)	660 U	131000	126000	103	139000	126000	110	47-129	7	30
Vinyl Chloride	1200 U	139000	126000	110	142000	126000	112	59-153	2	30
cis-1,2-Dichloroethene	86000	211000	126000	99	220000	126000	106	42-129	7	30
cis-1,3-Dichloropropene	510 U	126000	126000	100	130000	126000	103	14-139	3	30
trans-1,2-Dichloroethene	510 U	119000	126000	94	128000	126000	101	34-128	7	30
trans-1,3-Dichloropropene	510 U	117000	126000	92	125000	126000	99	17-155	7	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20
Date Received: 05/20/20
Date Analyzed: 05/27/20
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: PD1-SB-21 - (5-6)
Lab Code: R2004209-015
Analysis Method: 8260C
Prep Method: EPA 5035A

Units: ug/Kg
Basis: Dry

Analyte Name	Sample Result	Matrix Spike RQ2005441-05			Duplicate Matrix Spike RQ2005441-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	28 U	5070	6790	75	5810	6790	86	44-124	14	30
1,1,2,2-Tetrachloroethane	28 U	7120	6790	105	7510	6790	111	41-155	6	30
1,1,2-Trichloroethane	28 U	6860	6790	101	7420	6790	109	48-124	8	30
1,1,2-Trichloro-1,2,2-trifluoroethane	28 U	5730	6790	84	6470	6790	95	40-117	12	30
1,1-Dichloroethane (1,1-DCA)	28 U	6070	6790	89	6720	6790	99	41-138	11	30
1,1-Dichloroethene (1,1-DCE)	40 U	5590	6790	82	6320	6790	93	46-124	13	30
1,2,4-Trichlorobenzene	58 U	7640	6790	112	8440	6790	124	10-169	10	30
1,2-Dibromo-3-chloropropane (DBCP)	40 U	5470	6790	81	6120	6790	90	30-136	11	30
1,2-Dibromoethane	28 U	6560	6790	97	6810	6790	100	38-129	3	30
1,2-Dichlorobenzene	28 U	6710	6790	99	7330	6790	108	11-152	9	30
1,2-Dichloroethane	28 U	6470	6790	95	6960	6790	102	49-119	7	30
1,2-Dichloropropane	28 U	6980	6790	103	7290	6790	107	60-126	4	30
1,3-Dichlorobenzene	28 U	6660	6790	98	7330	6790	108	13-151	10	30
1,4-Dichlorobenzene	30 U	6520	6790	96	7020	6790	103	10-151	7	30
2-Butanone (MEK)	280 U	7060	6790	104	7350	6790	108	13-176	4	30
2-Hexanone	49 U	8330	6790	123	8770	6790	129	12-163	5	30
4-Methyl-2-pentanone	32 U	8430	6790	124	8830	6790	130	38-148	5	30
Acetone	640 U	7880	6790	116	8370	6790	123	11-183	6	30
Benzene	28 U	6640	6790	98	7200	6790	106	51-123	8	30
Bromodichloromethane	28 U	5630	6790	83	6390	6790	94	39-122	12	30
Bromoform	68 U	5310	6790	78	5940	6790	87	16-135	11	30
Bromomethane	290 U	3350	6790	49	3670	6790	54	10-150	10	30
Carbon Disulfide	40 U	4180	6790	62	4930	6790	73	44-139	16	30
Carbon Tetrachloride	36 U	4710	6790	69	5530	6790	81	46-137	16	30
Chlorobenzene	28 U	6310	6790	93	6690	6790	98	25-129	5	30
Chloroethane	28 U	3740	6790	55	4040	6790	59	10-166	7	30
Chloroform	28 U	5780	6790	85	6320	6790	93	55-118	9	30
Chloromethane	200 U	6320	6790	93	7070	6790	104	10-139	11	30
Cyclohexane	36 U	7590	6790	112	8100	6790	119	28-126	6	30
Dibromochloromethane	28 U	5550	6790	82	6140	6790	90	36-125	9	30
Dichlorodifluoromethane (CFC 12)	45 U	6290	6790	93	6900	6790	102	51-144	9	30
Dichloromethane	390 U	6350	6790	93	7010	6790	103	49-125	10	30
Ethylbenzene	28 U	6230	6790	92	6630	6790	98	23-132	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20
Date Received: 05/20/20
Date Analyzed: 05/27/20
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: PD1-SB-21 - (5-6)
Lab Code: R2004209-015
Analysis Method: 8260C
Prep Method: EPA 5035A

Units: ug/Kg
Basis: Dry

Analyte Name	Matrix Spike RQ2005441-05				Duplicate Matrix Spike RQ2005441-06				RPD	RPD Limit
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits		
Isopropylbenzene (Cumene)	28 U	6510	6790	96	6830	6790	101	18-133	5	30
Methyl Acetate	120 U	8610	6790	127	9160	6790	135	10-200	6	30
Methyl tert-Butyl Ether	28 U	6540	6790	96	7140	6790	105	62-130	9	30
Methylcyclohexane	43 U	7330	6790	108	7680	6790	113	12-134	5	30
Styrene	28 U	6760	6790	100	7210	6790	106	15-160	6	30
Tetrachloroethene (PCE)	11000	16700	6790	88	16900	6790	92	21-137	4	30
Toluene	28 U	6520	6790	96	7150	6790	105	11-152	9	30
Trichloroethene (TCE)	93 J	6220	6790	90	6840	6790	99	23-140	10	30
Trichlorofluoromethane (CFC 11)	36 U	6830	6790	101	7680	6790	113	47-129	11	30
Vinyl Chloride	63 U	4730	6790	70	5470	6790	80	59-153	13	30
cis-1,2-Dichloroethene	28 U	6410	6790	94	6750	6790	99	42-129	5	30
cis-1,3-Dichloropropene	28 U	6160	6790	91	6770	6790	100	14-139	9	30
trans-1,2-Dichloroethene	28 U	5500	6790	81	6180	6790	91	34-128	12	30
trans-1,3-Dichloropropene	28 U	5810	6790	86	6620	6790	97	17-155	12	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005357-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.21 U	5.0	0.21	1	05/26/20 12:32	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	05/26/20 12:32	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	05/26/20 12:32	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	05/26/20 12:32	
1,1-Dichloroethane (1,1-DCA)	0.20 U	5.0	0.20	1	05/26/20 12:32	
1,1-Dichloroethene (1,1-DCE)	0.25 U	5.0	0.25	1	05/26/20 12:32	
1,2,4-Trichlorobenzene	0.25 U	5.0	0.25	1	05/26/20 12:32	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	05/26/20 12:32	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	05/26/20 12:32	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	05/26/20 12:32	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	05/26/20 12:32	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	05/26/20 12:32	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	05/26/20 12:32	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	05/26/20 12:32	
2-Butanone (MEK)	0.78 U	10	0.78	1	05/26/20 12:32	
2-Hexanone	0.20 U	10	0.20	1	05/26/20 12:32	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	05/26/20 12:32	
Acetone	2.1 U	10	2.1	1	05/26/20 12:32	
Benzene	0.20 U	5.0	0.20	1	05/26/20 12:32	
Bromodichloromethane	0.22 U	5.0	0.22	1	05/26/20 12:32	
Bromoform	0.25 U	5.0	0.25	1	05/26/20 12:32	
Bromomethane	0.70 U	5.0	0.70	1	05/26/20 12:32	
Carbon Disulfide	0.25 U	10	0.25	1	05/26/20 12:32	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	05/26/20 12:32	
Chlorobenzene	0.20 U	5.0	0.20	1	05/26/20 12:32	
Chloroethane	0.23 U	5.0	0.23	1	05/26/20 12:32	
Chloroform	0.24 U	5.0	0.24	1	05/26/20 12:32	
Chloromethane	0.28 U	5.0	0.28	1	05/26/20 12:32	
Cyclohexane	0.26 U	10	0.26	1	05/26/20 12:32	
Dibromochloromethane	0.20 U	5.0	0.20	1	05/26/20 12:32	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	05/26/20 12:32	
Dichloromethane	0.36 U	5.0	0.36	1	05/26/20 12:32	
Ethylbenzene	0.20 U	5.0	0.20	1	05/26/20 12:32	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	05/26/20 12:32	
Methyl Acetate	0.33 U	10	0.33	1	05/26/20 12:32	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	05/26/20 12:32	
Methylcyclohexane	0.20 U	10	0.20	1	05/26/20 12:32	
Styrene	0.20 U	5.0	0.20	1	05/26/20 12:32	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	05/26/20 12:32	
Toluene	0.20 U	5.0	0.20	1	05/26/20 12:32	
Trichloroethene (TCE)	0.20 U	5.0	0.20	1	05/26/20 12:32	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	05/26/20 12:32	
Vinyl Chloride	0.20 U	5.0	0.20	1	05/26/20 12:32	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005357-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.23 U	5.0	0.23	1	05/26/20 12:32	
cis-1,2-Dichloroethene	0.23 U	5.0	0.23	1	05/26/20 12:32	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	05/26/20 12:32	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	05/26/20 12:32	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	05/26/20 12:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	05/26/20 12:32	
Dibromofluoromethane	90	89 - 119	05/26/20 12:32	
Toluene-d8	95	87 - 121	05/26/20 12:32	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005358-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	10 U	250	10	50	05/26/20 12:52	
1,1,2,2-Tetrachloroethane	10 U	250	10	50	05/26/20 12:52	
1,1,2-Trichloroethane	10 U	250	10	50	05/26/20 12:52	
1,1,2-Trichloro-1,2,2-trifluoroethane	10 U	250	10	50	05/26/20 12:52	
1,1-Dichloroethane (1,1-DCA)	10 U	250	10	50	05/26/20 12:52	
1,1-Dichloroethene (1,1-DCE)	15 U	250	15	50	05/26/20 12:52	
1,2,4-Trichlorobenzene	21 U	250	21	50	05/26/20 12:52	
1,2-Dibromo-3-chloropropane (DBCP)	15 U	250	15	50	05/26/20 12:52	
1,2-Dibromoethane	10 U	250	10	50	05/26/20 12:52	
1,2-Dichlorobenzene	10 U	250	10	50	05/26/20 12:52	
1,2-Dichloroethane	10 U	250	10	50	05/26/20 12:52	
1,2-Dichloropropane	10 U	250	10	50	05/26/20 12:52	
1,3-Dichlorobenzene	10 U	250	10	50	05/26/20 12:52	
1,4-Dichlorobenzene	11 U	250	11	50	05/26/20 12:52	
2-Butanone (MEK)	100 U	250	100	50	05/26/20 12:52	
2-Hexanone	18 U	250	18	50	05/26/20 12:52	
4-Methyl-2-pentanone	12 U	250	12	50	05/26/20 12:52	
Acetone	240 U	250	240	50	05/26/20 12:52	
Benzene	10 U	250	10	50	05/26/20 12:52	
Bromodichloromethane	10 U	250	10	50	05/26/20 12:52	
Bromoform	25 U	250	25	50	05/26/20 12:52	
Bromomethane	110 U	250	110	50	05/26/20 12:52	
Carbon Disulfide	15 U	250	15	50	05/26/20 12:52	
Carbon Tetrachloride	13 U	250	13	50	05/26/20 12:52	
Chlorobenzene	10 U	250	10	50	05/26/20 12:52	
Chloroethane	10 U	250	10	50	05/26/20 12:52	
Chloroform	10 U	250	10	50	05/26/20 12:52	
Chloromethane	70 U	250	70	50	05/26/20 12:52	
Cyclohexane	13 U	250	13	50	05/26/20 12:52	
Dibromochloromethane	10 U	250	10	50	05/26/20 12:52	
Dichlorodifluoromethane (CFC 12)	17 U	250	17	50	05/26/20 12:52	
Dichloromethane	140 U	250	140	50	05/26/20 12:52	
Ethylbenzene	10 U	250	10	50	05/26/20 12:52	
Isopropylbenzene (Cumene)	10 U	250	10	50	05/26/20 12:52	
Methyl Acetate	76 J	250	42	50	05/26/20 12:52	
Methyl tert-Butyl Ether	10 U	250	10	50	05/26/20 12:52	
Methylcyclohexane	16 U	250	16	50	05/26/20 12:52	
Styrene	10 U	250	10	50	05/26/20 12:52	
Tetrachloroethene (PCE)	12 U	250	12	50	05/26/20 12:52	
Toluene	10 U	250	10	50	05/26/20 12:52	
Trichloroethene (TCE)	11 U	250	11	50	05/26/20 12:52	
Trichlorofluoromethane (CFC 11)	13 U	250	13	50	05/26/20 12:52	
Vinyl Chloride	23 U	250	23	50	05/26/20 12:52	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005358-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	26 U	750	26	50	05/26/20 12:52	
cis-1,2-Dichloroethene	10 U	250	10	50	05/26/20 12:52	
cis-1,3-Dichloropropene	10 U	250	10	50	05/26/20 12:52	
trans-1,2-Dichloroethene	10 U	250	10	50	05/26/20 12:52	
trans-1,3-Dichloropropene	10 U	250	10	50	05/26/20 12:52	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	31 - 154	05/26/20 12:52	
Dibromofluoromethane	91	63 - 138	05/26/20 12:52	
Toluene-d8	100	66 - 138	05/26/20 12:52	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005441-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	10 U	250	10	50	05/27/20 11:50	
1,1,2,2-Tetrachloroethane	10 U	250	10	50	05/27/20 11:50	
1,1,2-Trichloroethane	10 U	250	10	50	05/27/20 11:50	
1,1,2-Trichloro-1,2,2-trifluoroethane	10 U	250	10	50	05/27/20 11:50	
1,1-Dichloroethane (1,1-DCA)	10 U	250	10	50	05/27/20 11:50	
1,1-Dichloroethene (1,1-DCE)	15 U	250	15	50	05/27/20 11:50	
1,2,4-Trichlorobenzene	21 U	250	21	50	05/27/20 11:50	
1,2-Dibromo-3-chloropropane (DBCP)	15 U	250	15	50	05/27/20 11:50	
1,2-Dibromoethane	10 U	250	10	50	05/27/20 11:50	
1,2-Dichlorobenzene	10 U	250	10	50	05/27/20 11:50	
1,2-Dichloroethane	10 U	250	10	50	05/27/20 11:50	
1,2-Dichloropropane	10 U	250	10	50	05/27/20 11:50	
1,3-Dichlorobenzene	10 U	250	10	50	05/27/20 11:50	
1,4-Dichlorobenzene	11 U	250	11	50	05/27/20 11:50	
2-Butanone (MEK)	100 U	250	100	50	05/27/20 11:50	
2-Hexanone	18 U	250	18	50	05/27/20 11:50	
4-Methyl-2-pentanone	12 U	250	12	50	05/27/20 11:50	
Acetone	240 U	250	240	50	05/27/20 11:50	
Benzene	10 U	250	10	50	05/27/20 11:50	
Bromodichloromethane	10 U	250	10	50	05/27/20 11:50	
Bromoform	25 U	250	25	50	05/27/20 11:50	
Bromomethane	110 U	250	110	50	05/27/20 11:50	
Carbon Disulfide	15 U	250	15	50	05/27/20 11:50	
Carbon Tetrachloride	13 U	250	13	50	05/27/20 11:50	
Chlorobenzene	10 U	250	10	50	05/27/20 11:50	
Chloroethane	10 U	250	10	50	05/27/20 11:50	
Chloroform	10 U	250	10	50	05/27/20 11:50	
Chloromethane	70 U	250	70	50	05/27/20 11:50	
Cyclohexane	13 U	250	13	50	05/27/20 11:50	
Dibromochloromethane	10 U	250	10	50	05/27/20 11:50	
Dichlorodifluoromethane (CFC 12)	17 U	250	17	50	05/27/20 11:50	
Dichloromethane	140 U	250	140	50	05/27/20 11:50	
Ethylbenzene	10 U	250	10	50	05/27/20 11:50	
Isopropylbenzene (Cumene)	10 U	250	10	50	05/27/20 11:50	
Methyl Acetate	67 J	250	42	50	05/27/20 11:50	
Methyl tert-Butyl Ether	10 U	250	10	50	05/27/20 11:50	
Methylcyclohexane	16 U	250	16	50	05/27/20 11:50	
Styrene	10 U	250	10	50	05/27/20 11:50	
Tetrachloroethene (PCE)	12 U	250	12	50	05/27/20 11:50	
Toluene	10 U	250	10	50	05/27/20 11:50	
Trichloroethene (TCE)	11 U	250	11	50	05/27/20 11:50	
Trichlorofluoromethane (CFC 11)	13 U	250	13	50	05/27/20 11:50	
Vinyl Chloride	23 U	250	23	50	05/27/20 11:50	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005441-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	26 U	750	26	50	05/27/20 11:50	
cis-1,2-Dichloroethene	10 U	250	10	50	05/27/20 11:50	
cis-1,3-Dichloropropene	10 U	250	10	50	05/27/20 11:50	
trans-1,2-Dichloroethene	10 U	250	10	50	05/27/20 11:50	
trans-1,3-Dichloropropene	10 U	250	10	50	05/27/20 11:50	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	31 - 154	05/27/20 11:50	
Dibromofluoromethane	91	63 - 138	05/27/20 11:50	
Toluene-d8	100	66 - 138	05/27/20 11:50	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005502-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	10 U	250	10	50	05/28/20 13:36	
1,1,2,2-Tetrachloroethane	10 U	250	10	50	05/28/20 13:36	
1,1,2-Trichloroethane	10 U	250	10	50	05/28/20 13:36	
1,1,2-Trichloro-1,2,2-trifluoroethane	10 U	250	10	50	05/28/20 13:36	
1,1-Dichloroethane (1,1-DCA)	10 U	250	10	50	05/28/20 13:36	
1,1-Dichloroethene (1,1-DCE)	15 U	250	15	50	05/28/20 13:36	
1,2,4-Trichlorobenzene	21 U	250	21	50	05/28/20 13:36	
1,2-Dibromo-3-chloropropane (DBCP)	15 U	250	15	50	05/28/20 13:36	
1,2-Dibromoethane	10 U	250	10	50	05/28/20 13:36	
1,2-Dichlorobenzene	10 U	250	10	50	05/28/20 13:36	
1,2-Dichloroethane	10 U	250	10	50	05/28/20 13:36	
1,2-Dichloropropane	10 U	250	10	50	05/28/20 13:36	
1,3-Dichlorobenzene	10 U	250	10	50	05/28/20 13:36	
1,4-Dichlorobenzene	11 U	250	11	50	05/28/20 13:36	
2-Butanone (MEK)	100 U	250	100	50	05/28/20 13:36	
2-Hexanone	18 U	250	18	50	05/28/20 13:36	
4-Methyl-2-pentanone	12 U	250	12	50	05/28/20 13:36	
Acetone	240 U	250	240	50	05/28/20 13:36	
Benzene	10 U	250	10	50	05/28/20 13:36	
Bromodichloromethane	10 U	250	10	50	05/28/20 13:36	
Bromoform	25 U	250	25	50	05/28/20 13:36	
Bromomethane	110 U	250	110	50	05/28/20 13:36	
Carbon Disulfide	15 U	250	15	50	05/28/20 13:36	
Carbon Tetrachloride	13 U	250	13	50	05/28/20 13:36	
Chlorobenzene	10 U	250	10	50	05/28/20 13:36	
Chloroethane	10 U	250	10	50	05/28/20 13:36	
Chloroform	10 U	250	10	50	05/28/20 13:36	
Chloromethane	70 U	250	70	50	05/28/20 13:36	
Cyclohexane	13 U	250	13	50	05/28/20 13:36	
Dibromochloromethane	10 U	250	10	50	05/28/20 13:36	
Dichlorodifluoromethane (CFC 12)	17 U	250	17	50	05/28/20 13:36	
Dichloromethane	140 U	250	140	50	05/28/20 13:36	
Ethylbenzene	10 U	250	10	50	05/28/20 13:36	
Isopropylbenzene (Cumene)	10 U	250	10	50	05/28/20 13:36	
Methyl Acetate	89 J	250	42	50	05/28/20 13:36	
Methyl tert-Butyl Ether	10 U	250	10	50	05/28/20 13:36	
Methylcyclohexane	16 U	250	16	50	05/28/20 13:36	
Styrene	10 U	250	10	50	05/28/20 13:36	
Tetrachloroethene (PCE)	12 U	250	12	50	05/28/20 13:36	
Toluene	10 U	250	10	50	05/28/20 13:36	
Trichloroethene (TCE)	11 U	250	11	50	05/28/20 13:36	
Trichlorofluoromethane (CFC 11)	13 U	250	13	50	05/28/20 13:36	
Vinyl Chloride	23 U	250	23	50	05/28/20 13:36	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005502-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	26 U	750	26	50	05/28/20 13:36	
cis-1,2-Dichloroethene	10 U	250	10	50	05/28/20 13:36	
cis-1,3-Dichloropropene	10 U	250	10	50	05/28/20 13:36	
trans-1,2-Dichloroethene	10 U	250	10	50	05/28/20 13:36	
trans-1,3-Dichloropropene	10 U	250	10	50	05/28/20 13:36	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	31 - 154	05/28/20 13:36	
Dibromofluoromethane	89	63 - 138	05/28/20 13:36	
Toluene-d8	99	66 - 138	05/28/20 13:36	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005667-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.20 U	5.0	0.20	1	06/01/20 12:58	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	06/01/20 12:58	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	06/01/20 12:58	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	06/01/20 12:58	
1,1-Dichloroethane (1,1-DCA)	0.20 U	5.0	0.20	1	06/01/20 12:58	
1,1-Dichloroethene (1,1-DCE)	0.29 U	5.0	0.29	1	06/01/20 12:58	
1,2,4-Trichlorobenzene	0.42 U	5.0	0.42	1	06/01/20 12:58	
1,2-Dibromo-3-chloropropane (DBCP)	0.29 U	5.0	0.29	1	06/01/20 12:58	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	06/01/20 12:58	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	06/01/20 12:58	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	06/01/20 12:58	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	06/01/20 12:58	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	06/01/20 12:58	
1,4-Dichlorobenzene	0.22 U	5.0	0.22	1	06/01/20 12:58	
2-Butanone (MEK)	2.0 U	5.0	2.0	1	06/01/20 12:58	
2-Hexanone	0.36 U	5.0	0.36	1	06/01/20 12:58	
4-Methyl-2-pentanone	0.23 U	5.0	0.23	1	06/01/20 12:58	
Acetone	4.7 U	5.0	4.7	1	06/01/20 12:58	
Benzene	0.20 U	5.0	0.20	1	06/01/20 12:58	
Bromodichloromethane	0.20 U	5.0	0.20	1	06/01/20 12:58	
Bromoform	0.50 U	5.0	0.50	1	06/01/20 12:58	
Bromomethane	2.1 U	5.0	2.1	1	06/01/20 12:58	
Carbon Disulfide	0.29 U	5.0	0.29	1	06/01/20 12:58	
Carbon Tetrachloride	0.26 U	5.0	0.26	1	06/01/20 12:58	
Chlorobenzene	0.20 U	5.0	0.20	1	06/01/20 12:58	
Chloroethane	0.59 J	5.0	0.20	1	06/01/20 12:58	
Chloroform	0.35 J	5.0	0.20	1	06/01/20 12:58	
Chloromethane	1.4 U	5.0	1.4	1	06/01/20 12:58	
Cyclohexane	0.26 U	5.0	0.26	1	06/01/20 12:58	
Dibromochloromethane	0.20 U	5.0	0.20	1	06/01/20 12:58	
Dichlorodifluoromethane (CFC 12)	0.33 U	5.0	0.33	1	06/01/20 12:58	
Dichloromethane	2.8 U	5.0	2.8	1	06/01/20 12:58	
Ethylbenzene	0.20 U	5.0	0.20	1	06/01/20 12:58	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	06/01/20 12:58	
Methyl Acetate	0.84 U	5.0	0.84	1	06/01/20 12:58	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	06/01/20 12:58	
Methylcyclohexane	0.31 U	5.0	0.31	1	06/01/20 12:58	
Styrene	0.20 U	5.0	0.20	1	06/01/20 12:58	
Tetrachloroethene (PCE)	0.23 U	5.0	0.23	1	06/01/20 12:58	
Toluene	0.20 U	5.0	0.20	1	06/01/20 12:58	
Trichloroethene (TCE)	0.22 U	5.0	0.22	1	06/01/20 12:58	
Trichlorofluoromethane (CFC 11)	0.26 U	5.0	0.26	1	06/01/20 12:58	
Vinyl Chloride	0.46 U	5.0	0.46	1	06/01/20 12:58	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005667-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.52 U	15	0.52	1	06/01/20 12:58	
cis-1,2-Dichloroethene	0.20 U	5.0	0.20	1	06/01/20 12:58	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	06/01/20 12:58	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	06/01/20 12:58	
trans-1,3-Dichloropropene	0.20 U	5.0	0.20	1	06/01/20 12:58	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	31 - 154	06/01/20 12:58	
Dibromofluoromethane	100	63 - 138	06/01/20 12:58	
Toluene-d8	106	66 - 138	06/01/20 12:58	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Analyzed: 05/26/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2005357-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	21.6	20.0	108	75-125
1,1,2,2-Tetrachloroethane	8260C	23.6	20.0	118	78-126
1,1,2-Trichloroethane	8260C	21.5	20.0	108	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	21.6	20.0	108	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	22.0	20.0	110	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	20.9	20.0	104	71-118
1,2,4-Trichlorobenzene	8260C	20.0	20.0	100	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	21.2	20.0	106	55-136
1,2-Dibromoethane	8260C	20.9	20.0	104	82-127
1,2-Dichlorobenzene	8260C	21.0	20.0	105	80-119
1,2-Dichloroethane	8260C	21.3	20.0	106	71-127
1,2-Dichloropropane	8260C	20.7	20.0	103	80-119
1,3-Dichlorobenzene	8260C	20.2	20.0	101	83-121
1,4-Dichlorobenzene	8260C	20.8	20.0	104	79-119
2-Butanone (MEK)	8260C	22.4	20.0	112	61-137
2-Hexanone	8260C	19.4	20.0	97	63-124
4-Methyl-2-pentanone	8260C	20.6	20.0	103	66-124
Acetone	8260C	26.1	20.0	130	40-161
Benzene	8260C	21.3	20.0	106	79-119
Bromodichloromethane	8260C	22.6	20.0	113	81-123
Bromoform	8260C	23.3	20.0	116	65-146
Bromomethane	8260C	21.2	20.0	106	42-166
Carbon Disulfide	8260C	20.3	20.0	102	66-128
Carbon Tetrachloride	8260C	21.1	20.0	105	70-127
Chlorobenzene	8260C	20.9	20.0	105	80-121
Chloroethane	8260C	19.8	20.0	99	62-131
Chloroform	8260C	20.0	20.0	100	79-120
Chloromethane	8260C	20.1	20.0	101	65-135
Cyclohexane	8260C	20.8	20.0	104	69-120
Dibromochloromethane	8260C	22.4	20.0	112	72-128
Dichlorodifluoromethane (CFC 12)	8260C	22.4	20.0	112	59-155
Dichloromethane	8260C	21.6	20.0	108	73-122
Ethylbenzene	8260C	20.4	20.0	102	76-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Analyzed: 05/26/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2005357-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	21.6	20.0	108	77-128
Methyl Acetate	8260C	20.6	20.0	103	40-112
Methyl tert-Butyl Ether	8260C	22.4	20.0	112	75-118
Methylcyclohexane	8260C	21.6	20.0	108	51-129
Styrene	8260C	20.8	20.0	104	80-124
Tetrachloroethene (PCE)	8260C	19.6	20.0	98	72-125
Toluene	8260C	21.8	20.0	109	79-119
Trichloroethene (TCE)	8260C	18.2	20.0	91	74-122
Trichlorofluoromethane (CFC 11)	8260C	21.0	20.0	105	71-136
Vinyl Chloride	8260C	20.2	20.0	101	74-159
cis-1,2-Dichloroethene	8260C	21.3	20.0	107	80-121
cis-1,3-Dichloropropene	8260C	21.0	20.0	105	77-122
trans-1,2-Dichloroethene	8260C	20.2	20.0	101	73-118
trans-1,3-Dichloropropene	8260C	21.1	20.0	105	71-133

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Analyzed: 05/26/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005358-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	15.2	20.0	76	68-123
1,1,2,2-Tetrachloroethane	8260C	18.5	20.0	92	78-121
1,1,2-Trichloroethane	8260C	19.4	20.0	97	84-117
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	17.8	20.0	89	54-121
1,1-Dichloroethane (1,1-DCA)	8260C	17.5	20.0	88	76-123
1,1-Dichloroethene (1,1-DCE)	8260C	17.8	20.0	89	65-115
1,2,4-Trichlorobenzene	8260C	20.5	20.0	103	62-130
1,2-Dibromo-3-chloropropane (DBCP)	8260C	12.8	20.0	64	54-135
1,2-Dibromoethane	8260C	17.4	20.0	87	77-117
1,2-Dichlorobenzene	8260C	18.6	20.0	93	75-116
1,2-Dichloroethane	8260C	18.2	20.0	91	74-116
1,2-Dichloropropane	8260C	18.4	20.0	92	79-112
1,3-Dichlorobenzene	8260C	19.2	20.0	96	72-118
1,4-Dichlorobenzene	8260C	18.5	20.0	93	72-117
2-Butanone (MEK)	8260C	17.6	20.0	88	67-129
2-Hexanone	8260C	18.9	20.0	95	68-118
4-Methyl-2-pentanone	8260C	19.5	20.0	97	64-123
Acetone	8260C	18.6	20.0	93	32-154
Benzene	8260C	20.2	20.0	101	77-114
Bromodichloromethane	8260C	16.1	20.0	81	72-118
Bromoform	8260C	14.4	20.0	72	55-134
Bromomethane	8260C	12.4	20.0	62	10-150
Carbon Disulfide	8260C	15.3	20.0	77	44-139
Carbon Tetrachloride	8260C	14.8	20.0	74	51-123
Chlorobenzene	8260C	18.1	20.0	90	79-115
Chloroethane	8260C	13.9	20.0	69	10-140
Chloroform	8260C	16.7	20.0	83	76-115
Chloromethane	8260C	18.4	20.0	92	10-131
Cyclohexane	8260C	21.3	20.0	107	67-122
Dibromochloromethane	8260C	15.7	20.0	79	68-121
Dichlorodifluoromethane (CFC 12)	8260C	19.4	20.0	97	51-144
Dichloromethane	8260C	18.0	20.0	90	72-118
Ethylbenzene	8260C	17.9	20.0	89	64-118

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Analyzed: 05/26/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005358-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	18.3	20.0	92	60-123
Methyl Acetate	8260C	18.4	20.0	92	31-122
Methyl tert-Butyl Ether	8260C	17.3	20.0	86	76-118
Methylcyclohexane	8260C	21.2	20.0	106	70-124
Styrene	8260C	18.8	20.0	94	74-117
Tetrachloroethene (PCE)	8260C	19.3	20.0	97	58-124
Toluene	8260C	19.1	20.0	96	72-116
Trichloroethene (TCE)	8260C	18.1	20.0	90	69-118
Trichlorofluoromethane (CFC 11)	8260C	20.9	20.0	105	52-127
Vinyl Chloride	8260C	14.4	20.0	72	59-153
cis-1,2-Dichloroethene	8260C	17.8	20.0	89	79-113
cis-1,3-Dichloropropene	8260C	16.1	20.0	81	66-117
trans-1,2-Dichloroethene	8260C	16.6	20.0	83	73-114
trans-1,3-Dichloropropene	8260C	14.6	20.0	73	57-135

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Analyzed: 05/27/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005441-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	16.8	20.0	84	68-123
1,1,2,2-Tetrachloroethane	8260C	20.7	20.0	103	78-121
1,1,2-Trichloroethane	8260C	21.1	20.0	105	84-117
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	20.0	20.0	100	54-121
1,1-Dichloroethane (1,1-DCA)	8260C	19.9	20.0	99	76-123
1,1-Dichloroethene (1,1-DCE)	8260C	19.9	20.0	99	65-115
1,2,4-Trichlorobenzene	8260C	25.6	20.0	128	62-130
1,2-Dibromo-3-chloropropane (DBCP)	8260C	14.9	20.0	75	54-135
1,2-Dibromoethane	8260C	18.9	20.0	95	77-117
1,2-Dichlorobenzene	8260C	21.4	20.0	107	75-116
1,2-Dichloroethane	8260C	19.4	20.0	97	74-116
1,2-Dichloropropane	8260C	22.0	20.0	110	79-112
1,3-Dichlorobenzene	8260C	21.9	20.0	110	72-118
1,4-Dichlorobenzene	8260C	21.7	20.0	109	72-117
2-Butanone (MEK)	8260C	19.1	20.0	95	67-129
2-Hexanone	8260C	21.2	20.0	106	68-118
4-Methyl-2-pentanone	8260C	20.3	20.0	102	64-123
Acetone	8260C	20.1	20.0	100	32-154
Benzene	8260C	21.9	20.0	110	77-114
Bromodichloromethane	8260C	18.1	20.0	91	72-118
Bromoform	8260C	16.4	20.0	82	55-134
Bromomethane	8260C	13.1	20.0	65	10-150
Carbon Disulfide	8260C	13.8	20.0	69	44-139
Carbon Tetrachloride	8260C	16.9	20.0	84	51-123
Chlorobenzene	8260C	20.5	20.0	102	79-115
Chloroethane	8260C	14.6	20.0	73	10-140
Chloroform	8260C	18.3	20.0	91	76-115
Chloromethane	8260C	21.3	20.0	107	10-131
Cyclohexane	8260C	20.5	20.0	103	67-122
Dibromochloromethane	8260C	17.6	20.0	88	68-121
Dichlorodifluoromethane (CFC 12)	8260C	22.6	20.0	113	51-144
Dichloromethane	8260C	19.4	20.0	97	72-118
Ethylbenzene	8260C	20.7	20.0	103	64-118

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Analyzed: 05/27/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005441-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	22.2	20.0	111	60-123
Methyl Acetate	8260C	19.2	20.0	96	31-122
Methyl tert-Butyl Ether	8260C	19.4	20.0	97	76-118
Methylcyclohexane	8260C	20.4	20.0	102	70-124
Styrene	8260C	21.7	20.0	109	74-117
Tetrachloroethene (PCE)	8260C	22.9	20.0	115	58-124
Toluene	8260C	21.6	20.0	108	72-116
Trichloroethene (TCE)	8260C	21.3	20.0	106	69-118
Trichlorofluoromethane (CFC 11)	8260C	22.5	20.0	113	52-127
Vinyl Chloride	8260C	16.7	20.0	84	59-153
cis-1,2-Dichloroethene	8260C	19.0	20.0	95	79-113
cis-1,3-Dichloropropene	8260C	18.5	20.0	92	66-117
trans-1,2-Dichloroethene	8260C	18.5	20.0	92	73-114
trans-1,3-Dichloropropene	8260C	16.8	20.0	84	57-135

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Analyzed: 05/28/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005502-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	15.6	20.0	78	68-123
1,1,2,2-Tetrachloroethane	8260C	18.1	20.0	90	78-121
1,1,2-Trichloroethane	8260C	18.7	20.0	93	84-117
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	17.6	20.0	88	54-121
1,1-Dichloroethane (1,1-DCA)	8260C	18.2	20.0	91	76-123
1,1-Dichloroethene (1,1-DCE)	8260C	17.1	20.0	85	65-115
1,2,4-Trichlorobenzene	8260C	22.4	20.0	112	62-130
1,2-Dibromo-3-chloropropane (DBCP)	8260C	11.8	20.0	59	54-135
1,2-Dibromoethane	8260C	17.2	20.0	86	77-117
1,2-Dichlorobenzene	8260C	19.7	20.0	98	75-116
1,2-Dichloroethane	8260C	18.7	20.0	93	74-116
1,2-Dichloropropane	8260C	19.6	20.0	98	79-112
1,3-Dichlorobenzene	8260C	19.6	20.0	98	72-118
1,4-Dichlorobenzene	8260C	19.4	20.0	97	72-117
2-Butanone (MEK)	8260C	17.4	20.0	87	67-129
2-Hexanone	8260C	18.5	20.0	92	68-118
4-Methyl-2-pentanone	8260C	20.0	20.0	100	64-123
Acetone	8260C	17.9	20.0	90	32-154
Benzene	8260C	19.6	20.0	98	77-114
Bromodichloromethane	8260C	15.9	20.0	79	72-118
Bromoform	8260C	14.2	20.0	71	55-134
Bromomethane	8260C	12.3	20.0	62	10-150
Carbon Disulfide	8260C	14.4	20.0	72	44-139
Carbon Tetrachloride	8260C	14.7	20.0	73	51-123
Chlorobenzene	8260C	18.0	20.0	90	79-115
Chloroethane	8260C	13.0	20.0	65	10-140
Chloroform	8260C	16.7	20.0	83	76-115
Chloromethane	8260C	18.9	20.0	94	10-131
Cyclohexane	8260C	21.1	20.0	106	67-122
Dibromochloromethane	8260C	15.6	20.0	78	68-121
Dichlorodifluoromethane (CFC 12)	8260C	19.7	20.0	98	51-144
Dichloromethane	8260C	18.0	20.0	90	72-118
Ethylbenzene	8260C	17.8	20.0	89	64-118

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Analyzed: 05/28/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005502-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	19.3	20.0	97	60-123
Methyl Acetate	8260C	17.7	20.0	88	31-122
Methyl tert-Butyl Ether	8260C	17.4	20.0	87	76-118
Methylcyclohexane	8260C	21.0	20.0	105	70-124
Styrene	8260C	19.3	20.0	97	74-117
Tetrachloroethene (PCE)	8260C	19.7	20.0	99	58-124
Toluene	8260C	19.2	20.0	96	72-116
Trichloroethene (TCE)	8260C	17.7	20.0	88	69-118
Trichlorofluoromethane (CFC 11)	8260C	21.4	20.0	107	52-127
Vinyl Chloride	8260C	14.7	20.0	73	59-153
cis-1,2-Dichloroethene	8260C	18.2	20.0	91	79-113
cis-1,3-Dichloropropene	8260C	16.5	20.0	82	66-117
trans-1,2-Dichloroethene	8260C	16.9	20.0	84	73-114
trans-1,3-Dichloropropene	8260C	15.2	20.0	76	57-135

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Analyzed: 06/01/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005667-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	14.8	20.0	74	68-123
1,1,2,2-Tetrachloroethane	8260C	24.3	20.0	122 *	78-121
1,1,2-Trichloroethane	8260C	19.3	20.0	96	84-117
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	17.8	20.0	89	54-121
1,1-Dichloroethane (1,1-DCA)	8260C	18.7	20.0	93	76-123
1,1-Dichloroethene (1,1-DCE)	8260C	18.1	20.0	90	65-115
1,2,4-Trichlorobenzene	8260C	20.0	20.0	100	62-130
1,2-Dibromo-3-chloropropane (DBCP)	8260C	17.1	20.0	86	54-135
1,2-Dibromoethane	8260C	17.4	20.0	87	77-117
1,2-Dichlorobenzene	8260C	18.5	20.0	93	75-116
1,2-Dichloroethane	8260C	16.7	20.0	83	74-116
1,2-Dichloropropane	8260C	19.5	20.0	97	79-112
1,3-Dichlorobenzene	8260C	18.4	20.0	92	72-118
1,4-Dichlorobenzene	8260C	18.5	20.0	93	72-117
2-Butanone (MEK)	8260C	21.2	20.0	106	67-129
2-Hexanone	8260C	19.6	20.0	98	68-118
4-Methyl-2-pentanone	8260C	19.7	20.0	98	64-123
Acetone	8260C	23.2	20.0	116	32-154
Benzene	8260C	19.4	20.0	97	77-114
Bromodichloromethane	8260C	16.1	20.0	81	72-118
Bromoform	8260C	14.3	20.0	71	55-134
Bromomethane	8260C	15.8	20.0	79	10-150
Carbon Disulfide	8260C	16.9	20.0	85	44-139
Carbon Tetrachloride	8260C	12.9	20.0	65	51-123
Chlorobenzene	8260C	18.0	20.0	90	79-115
Chloroethane	8260C	18.9	20.0	94	10-140
Chloroform	8260C	18.3	20.0	92	76-115
Chloromethane	8260C	25.0	20.0	125	10-131
Cyclohexane	8260C	21.3	20.0	107	67-122
Dibromochloromethane	8260C	15.2	20.0	76	68-121
Dichlorodifluoromethane (CFC 12)	8260C	18.1	20.0	90	51-144
Dichloromethane	8260C	17.3	20.0	87	72-118
Ethylbenzene	8260C	17.8	20.0	89	64-118

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Analyzed: 06/01/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2005667-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	17.0	20.0	85	60-123
Methyl Acetate	8260C	20.6	20.0	103	31-122
Methyl tert-Butyl Ether	8260C	17.0	20.0	85	76-118
Methylcyclohexane	8260C	22.9	20.0	114	70-124
Styrene	8260C	17.2	20.0	86	74-117
Tetrachloroethene (PCE)	8260C	16.9	20.0	84	58-124
Toluene	8260C	18.3	20.0	91	72-116
Trichloroethene (TCE)	8260C	15.5	20.0	77	69-118
Trichlorofluoromethane (CFC 11)	8260C	16.5	20.0	82	52-127
Vinyl Chloride	8260C	20.1	20.0	101	59-153
cis-1,2-Dichloroethene	8260C	19.0	20.0	95	79-113
cis-1,3-Dichloropropene	8260C	15.1	20.0	75	66-117
trans-1,2-Dichloroethene	8260C	18.6	20.0	93	73-114
trans-1,3-Dichloropropene	8260C	13.3	20.0	66	57-135



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209

SURROGATE RECOVERY SUMMARY
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3541

Sample Name	Lab Code	2-Fluorobiphenyl	Nitrobenzene-d5	p-Terphenyl-d14
		10-115	10-130	10-130
PD1-SB-10 - (8-9)	R2004209-003	81	9779*	37
PD1-SB-17 - (7-8)	R2004209-009	72	154*	48
PD1-DUP2-5-19-20	R2004209-010	37	39	63
PD1-SB-19 - (10-11)	R2004209-012	73	63	67
PD1-SB-21 - (5-6)	R2004209-015	44	37	40
Method Blank	RQ2005180-01	84	78	70
Method Blank	RQ2005340-01	80	77	51
Method Blank	RQ2005389-01	49	56	44
Lab Control Sample	RQ2005180-02	49	25	65
Duplicate Lab Control Sample	RQ2005180-03	90	78	71
Lab Control Sample	RQ2005340-02	85	85	62
Duplicate Lab Control Sample	RQ2005340-03	41	27	37
Lab Control Sample	RQ2005389-02	97	107	81
Duplicate Lab Control Sample	RQ2005389-03	94	103	80
PD1-SB-19 - (10-11) MS	RQ2005180-04	78	67	65
PD1-SB-19 - (10-11) DMS	RQ2005180-05	80	66	65
PD1-SB-17 - (7-8) MS	RQ2005340-04	68	165*	44
PD1-SB-17 - (7-8) DMS	RQ2005340-05	78	173*	51

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20
Date Received: 05/20/20
Date Analyzed: 05/26/20
Date Extracted: 05/21/20

Duplicate Matrix Spike Summary
Low Level Semivolatile Organic Compounds by GC/MS

Sample Name: PD1-SB-19 - (10-11) **Units:** ug/Kg
Lab Code: R2004209-012 **Basis:** Dry
Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Sample Result	Result	Matrix Spike RQ2005180-04		Result	Duplicate Matrix Spike RQ2005180-05		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
1,4-Dioxane	12 U	511	241	212 *	529	241	219 *	13-91	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20
Date Received: 05/20/20
Date Analyzed: 05/27/20
Date Extracted: 05/26/20

Duplicate Matrix Spike Summary
Low Level Semivolatile Organic Compounds by GC/MS

Sample Name: PD1-SB-17 - (7-8) **Units:** ug/Kg
Lab Code: R2004209-009 **Basis:** Dry
Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Sample Result	Result	Matrix Spike RQ2005340-04		Result	Duplicate Matrix Spike RQ2005340-05		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
1,4-Dioxane	12 U	657	234	281 *	724	241	300 *	13-91	10	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005180-01

Units: ug/Kg
Basis: Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	9.7 U	66	9.7	1	05/26/20 09:17	5/21/20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	84	10 - 115	05/26/20 09:17	
Nitrobenzene-d5	78	10 - 130	05/26/20 09:17	
p-Terphenyl-d14	70	10 - 130	05/26/20 09:17	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005340-01

Units: ug/Kg
Basis: Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	9.7 U	65	9.7	1	05/27/20 14:59	5/26/20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	80	10 - 115	05/27/20 14:59	
Nitrobenzene-d5	77	10 - 130	05/27/20 14:59	
p-Terphenyl-d14	51	10 - 130	05/27/20 14:59	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005389-01

Units: ug/Kg
Basis: Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	9.8 U	67	9.8	1	05/28/20 16:48	5/27/20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	49	10 - 115	05/28/20 16:48	
Nitrobenzene-d5	56	10 - 130	05/28/20 16:48	
p-Terphenyl-d14	44	10 - 130	05/28/20 16:48	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Analyzed: 05/26/20

Duplicate Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

			Lab Control Sample			Duplicate Lab Control Sample				
			RQ2005180-02			RQ2005180-03				
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,4-Dioxane	8270D	183	204	90	586	200	292 *	24-101	105*	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Analyzed: 05/27/20

Duplicate Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

			Lab Control Sample			Duplicate Lab Control Sample				
			RQ2005340-02			RQ2005340-03				
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,4-Dioxane	8270D	616	204	303 *	220	199	110 *	24-101	95*	30

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Analyzed: 05/28/20

Duplicate Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Units:ug/Kg**Basis:**Dry

			Lab Control Sample			Duplicate Lab Control Sample				
			RQ2005389-02			RQ2005389-03				
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,4-Dioxane	8270D	744 E	195	380 *	735 E	200	367 *	24-101	1	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209

SURROGATE RECOVERY SUMMARY
1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Extraction Method: EPA 3535A

Sample Name	Lab Code	1,4-Dioxane-d8
		64-124
PD1-RB-5-19-20	R2004209-018	104
Method Blank	RQ2005343-01	97
Lab Control Sample	RQ2005343-02	100
Duplicate Lab Control Sample	RQ2005343-03	103

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2005343-01

Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.027 U	0.040	0.027	1	05/26/20 13:48	5/26/20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	97	64 - 124	05/26/20 13:48	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Analyzed: 05/26/20

Duplicate Lab Control Sample Summary
1,4-Dioxane by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample RQ2005343-02					Duplicate Lab Control Sample RQ2005343-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,4-Dioxane	8270D SIM	11.2	10.0	112	10.9	10.0	109	58-124	3	30



General Chemistry

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209**Date Collected:** 05/19/20**Date Received:** 05/20/20**Date Analyzed:** 05/27/20**Replicate Sample Summary
General Chemistry Parameters****Sample Name:** PD1-SB-10 - (8-9)**Units:** Percent**Lab Code:** R2004209-003**Basis:** As Received

				Duplicate Sample R2004209- 003DUP			
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
Total Solids	ALS SOP	-	80.7	79.3	80.0	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209**Date Collected:** 05/19/20**Date Received:** 05/20/20**Date Analyzed:** 05/27/20**Replicate Sample Summary
General Chemistry Parameters****Sample Name:** PD1-SB-21 - (5-6)**Units:** Percent**Lab Code:** R2004209-015**Basis:** As Received

				Duplicate Sample R2004209- 015DUP			
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
Total Solids	ALS SOP	-	77.3	77.8	77.5	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



Subcontracted Analytical Parameters

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T : +1 360 577 7222
F : +1 360 636 1068
www.alsglobal.com

June 01, 2020

Analytical Report for Service Request No: R2004209

Meghan Pedro
ALS Environmental
1565 Jefferson Rd, Building 300
Suite 360
Rochester, NY 14623

RE: NYSDEC / Admiral Cleaners / 1620504

Dear Meghan Pedro,

Enclosed are the results of the sample(s) submitted to our laboratory May 23, 2020
For your reference, these analyses have been assigned our service request number **R2004209**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions, my extension is 3327. You may also contact me via email at Mark.Harris@ALSGlobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager



ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T : +1 360 577 7222
F : +1 360 636 1068
www.alsglobal.com

Table of Contents

Acronyms

Qualifiers

State Certifications, Accreditations, And Licenses

Case Narrative

Chain of Custody

PFAS by HPLC/MS/MS

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdwlabservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners
Sample Matrix: Soil, Water

Service Request: R2004209
Date Received: 05/23/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level II requested by the client.

Sample Receipt:

Seven soil, water samples were received for analysis at ALS Environmental on 05/23/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Organic LC:

Method PFC/537M, 05/28/2020: The upper control criterion was exceeded for Perfluoroheptane sulfonic acid (PFHpS) in Continuing Calibration Verification (CCV) KQ2007118-01. The field samples analyzed in this sequence did not contain the analytes in question. Since the apparent problem indicated a potential high bias, the data quality was not affected. No further corrective action was required.

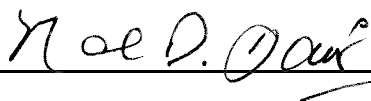
Method PFC/537M, 05/28/2020: The upper control criterion was exceeded for the following analytes in PD1-SB-19 - (10-11) Matrix Spike (MS) KQ2006943-05 and Matrix Spike Duplicate (MSD) KQ2006943-06: Perfluoropentanoic acid (PFPeA) and Perfluorotridecanoic acid (PFTTrDA). The analytes in question were not detected in the associated field samples. The error associated with elevated recovery indicated a high bias. The sample data was not significantly affected. No further corrective action was appropriate.

Method PFC/537M, 05/28/2020: The upper control criterion was exceeded for Perfluoropentanoic acid (PFPeA) in Laboratory Control Sample (LCS) KQ2006943-03. The analyte in question was not detected in the associated field samples. The error associated with elevated recovery indicated a high bias. The sample data was not significantly affected. No further corrective action was appropriate.

Method PFC/537M, 05/28/2020: The upper control criterion was exceeded for one or more surrogates in samples PD1-SB-10 - (8-9), PD1-SB-17 - (7-8), PD1-DUP2-5-19-20, PD1-SB-19 - (10-11) and PD1-SB-21 - (5-6). The associated native analytes were not detected above the Method Reporting Limit (MRL) in this sample. The error associated with an elevated recovery equated to a high bias. Assuming the native analytes performed similar to the labeled analogs, the effect on the reported results was minimal. The quality of the sample data was not significantly affected. No further corrective action was appropriate.

Method PFC/537M, 05/28/2020: Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

Approved by



Date

06/01/2020



Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Intra-Network Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

ALS Contact: Meghan Pedro

Project Name: NYSDEC / Admiral Cleaners
Project Number: 1620504
Project Manager: Jim Hayward
Company: EA Engineering, Science, and Technology
QAP: LAB QAP

PFAS
PFC/537M

Lab Code	Client Sample ID	# of Cont.	Matrix	Sample Date	Time	Date Received	Send To	
R2004209-003	PD1-SB-10 - (8-9)	1	Soil	5/19/20	1005	5/20/20	KELSO	IV
R2004209-010	PD1-DUP2-5-19-20	1	Soil	5/19/20	1347	5/20/20	KELSO	IV
R2004209-012	PD1-SB-19 - (10-11) <i>QC</i>	<i>3</i>	Soil	5/19/20	1440	5/20/20	KELSO	IV
R2004209-015	PD1-SB-21 - (5-6)	1	Soil	5/19/20	1530	5/20/20	KELSO	IV
R2004209-018	PD1-RB-5-19-20	1	Water	5/19/20	1635	5/20/20	KELSO	IV
R2004209-019	PD1-TB-5-19-20	1	Water	5/19/20	1640	5/20/20	KELSO	IV

R2004209-009 PD1-SB-17 (7-8) 1 Soil 5/19/20 1347 5/20/20 Kelso IV

Test Comments

PFAS - PFC/537M

R2004209-018,19

NY list of 21 PFOA and PFOS to 2 ppt

Run QC on sample R2004209-012 for PFC/537M/PFAS

Special Instructions/Comments pH Checked _____	Turnaround Requirements ____ RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 ____ STANDARD Requested FAX Date: _____ Requested Report Date: <u>06/01/20</u>	Report Requirements ____ I. Results Only ☒ II. Results + QC Summaries ____ III. Results + QC and Calibration Summaries ☒ IV. Data Validation Report with Raw Data PQL/MDL/J <u>Y</u> EDD <u>Y</u> <i>NYSDEC Equis 4</i>	Invoice Information
			PO# 58R2004209 Bill to

Relinquished By: *[Signature]* 5/22/20/1325

Received By: *[Signature]* ALS Kelso 5/23/20 1020

Airbill Number: _____

PC mt

Cooler Receipt and Preservation Form

Client ALS-Rochester Service Request K20 R2004209
Received: 5/23/20 Opened: 5/23/20 By: KW Unloaded: 5/23/20 By: KW

1. Samples were received via? USPS Fed-Ex UPS DHL PDX Courier Hand Delivered
2. Samples were received in: (circle) Cooler Box Envelope Other NA
3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 Front
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID	NA	Tracking Number	NA	Filed
<u>N/A</u>	<u>6.9</u>	<u>2.9</u>	<u>10.0</u>	<u>9.8</u>	<u>IR01</u>			<u>173024306270</u>		

4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
5. Were custody papers properly filled out (ink, signed, etc.)? partially Filled NA Y N
6. Were samples received in good condition (temperature, unbroken)? Indicate in the table below. NA Y N
If applicable, tissue samples were received: Frozen Partially Thawed Thawed
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
11. Were VOA vials received without headspace? Indicate in the table below. NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____



PFAS by HPLC/MS/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 10:05
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-10 - (8-9)
Lab Code: R2004209-003

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	1.2 U	1.2	0.26	1	05/28/20 01:21	5/27/20	
Perfluorohexane sulfonic acid (PFHxS)	1.2 U	1.2	0.35	1	05/28/20 01:21	5/27/20	
Perfluoroheptane sulfonic acid (PFHpS)	1.2 U	1.2	0.072	1	05/28/20 01:21	5/27/20	*
Perfluorooctane sulfonic acid (PFOS)	0.18 J	1.2	0.15	1	05/28/20 01:21	5/27/20	
Perfluorodecane sulfonic acid (PFDS)	1.2 U	1.2	0.20	1	05/28/20 01:21	5/27/20	
Perfluoroalkane Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	1.2 U	1.2	0.45	1	05/28/20 01:21	5/27/20	
Perfluoropentanoic acid (PFPeA)	1.2 U	1.2	0.25	1	05/28/20 01:21	5/27/20	*
Perfluorohexanoic acid (PFHxA)	1.2 U	1.2	0.36	1	05/28/20 01:21	5/27/20	
Perfluoroheptanoic acid (PFHpA)	1.2 U	1.2	0.22	1	05/28/20 01:21	5/27/20	
Perfluorooctanoic acid (PFOA)	1.2 U	1.2	0.15	1	05/28/20 01:21	5/27/20	
Perfluorononanoic acid (PFNA)	1.2 U	1.2	0.39	1	05/28/20 01:21	5/27/20	
Perfluorodecanoic acid (PFDA)	1.2 U	1.2	0.30	1	05/28/20 01:21	5/27/20	
Perfluoroundecanoic acid (PFUnDA)	1.2 U	1.2	0.21	1	05/28/20 01:21	5/27/20	
Perfluorododecanoic acid (PFDoDA)	1.2 U	1.2	0.32	1	05/28/20 01:21	5/27/20	
Perfluorotridecanoic acid (PFTrDA)	1.2 U	1.2	0.25	1	05/28/20 01:21	5/27/20	
Perfluorotetradecanoic acid (PFTeDA)	1.2 U	1.2	0.21	1	05/28/20 01:21	5/27/20	
Perfluoroalkyl Sulfonamides							
Perfluorooctane sulfonamide (FOSA)	1.2 U	1.2	0.078	1	05/28/20 01:21	5/27/20	
N-Methyl perfluorooctane sulfonamidoacetic acid	1.2 U	1.2	0.32	1	05/28/20 01:21	5/27/20	
N-Ethyl perfluorooctane sulfonamidoacetic acid	0.26 J	1.2	0.24	1	05/28/20 01:21	5/27/20	
(n:2) Fluorotelomer Sulfonic Acids							
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	1.2 U	1.2	0.18	1	05/28/20 01:21	5/27/20	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	1.2 U	1.2	0.034	1	05/28/20 01:21	5/27/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 10:05
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-10 - (8-9)
Lab Code: R2004209-003

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	55	33 - 109	05/28/20 01:21	
18O2-PFHxS	65	36 - 120	05/28/20 01:21	
13C4-PFOS	71	32 - 130	05/28/20 01:21	
13C4-PFBA	61	34 - 116	05/28/20 01:21	
13C5-PFPeA	50	39 - 133	05/28/20 01:21	
13C2-PFHxA	68	32 - 136	05/28/20 01:21	
13C4-PFHpA	72	36 - 133	05/28/20 01:21	
13C4-PFOA	69	31 - 134	05/28/20 01:21	
13C5-PFNA	84	27 - 133	05/28/20 01:21	
13C2-PFDA	92	30 - 137	05/28/20 01:21	
13C2-PFUnDA	93	32 - 146	05/28/20 01:21	
13C2-PFDoDA	88	36 - 136	05/28/20 01:21	
13C2-PFTeDA	64	39 - 138	05/28/20 01:21	
13C8-FOSA	83	40 - 132	05/28/20 01:21	
D3-MeFOSAA	251	20 - 154	05/28/20 01:21	*
D5-EtFOSAA	260	29 - 153	05/28/20 01:21	*
13C2-6:2 FTS	252	30 - 140	05/28/20 01:21	*
13C2-8:2 FTS	692	9 - 171	05/28/20 01:21	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 13:47
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-17 - (7-8)
Lab Code: R2004209-009

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	1.1 U	1.1	0.25	1	05/28/20 01:31	5/27/20	
Perfluorohexane sulfonic acid (PFHxS)	1.1 U	1.1	0.34	1	05/28/20 01:31	5/27/20	
Perfluoroheptane sulfonic acid (PFHpS)	1.1 U	1.1	0.069	1	05/28/20 01:31	5/27/20	*
Perfluorooctane sulfonic acid (PFOS)	1.1 U	1.1	0.15	1	05/28/20 01:31	5/27/20	
Perfluorodecane sulfonic acid (PFDS)	1.1 U	1.1	0.19	1	05/28/20 01:31	5/27/20	
Perfluoroalkane Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	1.1 U	1.1	0.44	1	05/28/20 01:31	5/27/20	
Perfluoropentanoic acid (PFPeA)	1.1 U	1.1	0.24	1	05/28/20 01:31	5/27/20	*
Perfluorohexanoic acid (PFHxA)	1.1 U	1.1	0.35	1	05/28/20 01:31	5/27/20	
Perfluoroheptanoic acid (PFHpA)	1.1 U	1.1	0.22	1	05/28/20 01:31	5/27/20	
Perfluorooctanoic acid (PFOA)	1.1 U	1.1	0.15	1	05/28/20 01:31	5/27/20	
Perfluorononanoic acid (PFNA)	1.1 U	1.1	0.37	1	05/28/20 01:31	5/27/20	
Perfluorodecanoic acid (PFDA)	1.1 U	1.1	0.29	1	05/28/20 01:31	5/27/20	
Perfluoroundecanoic acid (PFUnDA)	1.1 U	1.1	0.20	1	05/28/20 01:31	5/27/20	
Perfluorododecanoic acid (PFDoDA)	1.1 U	1.1	0.30	1	05/28/20 01:31	5/27/20	
Perfluorotridecanoic acid (PFTrDA)	1.1 U	1.1	0.24	1	05/28/20 01:31	5/27/20	
Perfluorotetradecanoic acid (PFTeDA)	1.1 U	1.1	0.20	1	05/28/20 01:31	5/27/20	
Perfluoroalkyl Sulfonamides							
Perfluorooctane sulfonamide (FOSA)	1.1 U	1.1	0.075	1	05/28/20 01:31	5/27/20	
N-Methyl perfluorooctane sulfonamidoacetic acid	1.1 U	1.1	0.30	1	05/28/20 01:31	5/27/20	
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.1 U	1.1	0.23	1	05/28/20 01:31	5/27/20	
(n:2) Fluorotelomer Sulfonic Acids							
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	1.1 U	1.1	0.17	1	05/28/20 01:31	5/27/20	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	1.1 U	1.1	0.033	1	05/28/20 01:31	5/27/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 13:47
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-17 - (7-8)
Lab Code: R2004209-009

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	53	33 - 109	05/28/20 01:31	
18O2-PFHxS	61	36 - 120	05/28/20 01:31	
13C4-PFOS	66	32 - 130	05/28/20 01:31	
13C4-PFBA	57	34 - 116	05/28/20 01:31	
13C5-PFPeA	49	39 - 133	05/28/20 01:31	
13C2-PFHxA	65	32 - 136	05/28/20 01:31	
13C4-PFHpA	72	36 - 133	05/28/20 01:31	
13C4-PFOA	62	31 - 134	05/28/20 01:31	
13C5-PFNA	77	27 - 133	05/28/20 01:31	
13C2-PFDA	81	30 - 137	05/28/20 01:31	
13C2-PFUnDA	85	32 - 146	05/28/20 01:31	
13C2-PFDoDA	81	36 - 136	05/28/20 01:31	
13C2-PFTeDA	62	39 - 138	05/28/20 01:31	
13C8-FOSA	79	40 - 132	05/28/20 01:31	
D3-MeFOSAA	212	20 - 154	05/28/20 01:31	*
D5-EtFOSAA	227	29 - 153	05/28/20 01:31	*
13C2-6:2 FTS	174	30 - 140	05/28/20 01:31	*
13C2-8:2 FTS	546	9 - 171	05/28/20 01:31	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 13:47
Date Received: 05/20/20 11:10

Sample Name: PD1-DUP2-5-19-20
Lab Code: R2004209-010

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	1.2 U	1.2	0.26	1	05/28/20 01:42	5/27/20	
Perfluorohexane sulfonic acid (PFHxS)	1.2 U	1.2	0.35	1	05/28/20 01:42	5/27/20	
Perfluoroheptane sulfonic acid (PFHpS)	1.2 U	1.2	0.072	1	05/28/20 01:42	5/27/20	*
Perfluorooctane sulfonic acid (PFOS)	0.18 J	1.2	0.16	1	05/28/20 01:42	5/27/20	
Perfluorodecane sulfonic acid (PFDS)	1.2 U	1.2	0.20	1	05/28/20 01:42	5/27/20	
Perfluoroalkane Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	1.2 U	1.2	0.46	1	05/28/20 01:42	5/27/20	
Perfluoropentanoic acid (PFPeA)	1.2 U	1.2	0.25	1	05/28/20 01:42	5/27/20	*
Perfluorohexanoic acid (PFHxA)	1.2 U	1.2	0.36	1	05/28/20 01:42	5/27/20	
Perfluoroheptanoic acid (PFHpA)	1.2 U	1.2	0.23	1	05/28/20 01:42	5/27/20	
Perfluorooctanoic acid (PFOA)	1.2 U	1.2	0.16	1	05/28/20 01:42	5/27/20	
Perfluorononanoic acid (PFNA)	1.2 U	1.2	0.39	1	05/28/20 01:42	5/27/20	
Perfluorodecanoic acid (PFDA)	1.2 U	1.2	0.31	1	05/28/20 01:42	5/27/20	
Perfluoroundecanoic acid (PFUnDA)	1.2 U	1.2	0.21	1	05/28/20 01:42	5/27/20	
Perfluorododecanoic acid (PFDoDA)	1.2 U	1.2	0.32	1	05/28/20 01:42	5/27/20	
Perfluorotridecanoic acid (PFTTrDA)	1.2 U	1.2	0.25	1	05/28/20 01:42	5/27/20	
Perfluorotetradecanoic acid (PFTeDA)	1.2 U	1.2	0.21	1	05/28/20 01:42	5/27/20	
Perfluoroalkyl Sulfonamides							
Perfluorooctane sulfonamide (FOSA)	1.2 U	1.2	0.078	1	05/28/20 01:42	5/27/20	
N-Methyl perfluorooctane sulfonamidoacetic acid	1.2 U	1.2	0.32	1	05/28/20 01:42	5/27/20	
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.2 U	1.2	0.24	1	05/28/20 01:42	5/27/20	
(n:2) Fluorotelomer Sulfonic Acids							
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	1.2 U	1.2	0.18	1	05/28/20 01:42	5/27/20	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	1.2 U	1.2	0.034	1	05/28/20 01:42	5/27/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 13:47
Date Received: 05/20/20 11:10

Sample Name: PD1-DUP2-5-19-20
Lab Code: R2004209-010

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	53	33 - 109	05/28/20 01:42	
18O2-PFHxS	62	36 - 120	05/28/20 01:42	
13C4-PFOS	67	32 - 130	05/28/20 01:42	
13C4-PFBA	57	34 - 116	05/28/20 01:42	
13C5-PFPeA	49	39 - 133	05/28/20 01:42	
13C2-PFHxA	61	32 - 136	05/28/20 01:42	
13C4-PFHpA	66	36 - 133	05/28/20 01:42	
13C4-PFOA	61	31 - 134	05/28/20 01:42	
13C5-PFNA	74	27 - 133	05/28/20 01:42	
13C2-PFDA	83	30 - 137	05/28/20 01:42	
13C2-PFUnDA	85	32 - 146	05/28/20 01:42	
13C2-PFDoDA	88	36 - 136	05/28/20 01:42	
13C2-PFTeDA	67	39 - 138	05/28/20 01:42	
13C8-FOSA	78	40 - 132	05/28/20 01:42	
D3-MeFOSAA	166	20 - 154	05/28/20 01:42	*
D5-EtFOSAA	204	29 - 153	05/28/20 01:42	*
13C2-6:2 FTS	113	30 - 140	05/28/20 01:42	
13C2-8:2 FTS	374	9 - 171	05/28/20 01:42	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 14:40
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-19 - (10-11)
Lab Code: R2004209-012

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	1.1 U	1.1	0.24	1	05/28/20 01:52	5/27/20	
Perfluorohexane sulfonic acid (PFHxS)	1.1 U	1.1	0.33	1	05/28/20 01:52	5/27/20	
Perfluoroheptane sulfonic acid (PFHpS)	1.1 U	1.1	0.067	1	05/28/20 01:52	5/27/20	*
Perfluorooctane sulfonic acid (PFOS)	1.1 U	1.1	0.14	1	05/28/20 01:52	5/27/20	
Perfluorodecane sulfonic acid (PFDS)	1.1 U	1.1	0.19	1	05/28/20 01:52	5/27/20	
Perfluoroalkane Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	1.1 U	1.1	0.42	1	05/28/20 01:52	5/27/20	
Perfluoropentanoic acid (PFPeA)	1.1 U	1.1	0.23	1	05/28/20 01:52	5/27/20	*
Perfluorohexanoic acid (PFHxA)	1.1 U	1.1	0.34	1	05/28/20 01:52	5/27/20	
Perfluoroheptanoic acid (PFHpA)	1.1 U	1.1	0.21	1	05/28/20 01:52	5/27/20	
Perfluorooctanoic acid (PFOA)	1.1 U	1.1	0.14	1	05/28/20 01:52	5/27/20	
Perfluorononanoic acid (PFNA)	1.1 U	1.1	0.36	1	05/28/20 01:52	5/27/20	
Perfluorodecanoic acid (PFDA)	1.1 U	1.1	0.28	1	05/28/20 01:52	5/27/20	
Perfluoroundecanoic acid (PFUnDA)	1.1 U	1.1	0.20	1	05/28/20 01:52	5/27/20	
Perfluorododecanoic acid (PFDoDA)	1.1 U	1.1	0.30	1	05/28/20 01:52	5/27/20	
Perfluorotridecanoic acid (PFTrDA)	1.1 U	1.1	0.23	1	05/28/20 01:52	5/27/20	
Perfluorotetradecanoic acid (PFTeDA)	0.21 J	1.1	0.20	1	05/28/20 01:52	5/27/20	
Perfluoroalkyl Sulfonamides							
Perfluorooctane sulfonamide (FOSA)	1.1 U	1.1	0.073	1	05/28/20 01:52	5/27/20	
N-Methyl perfluorooctane sulfonamidoacetic acid	1.1 U	1.1	0.30	1	05/28/20 01:52	5/27/20	
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.1 U	1.1	0.22	1	05/28/20 01:52	5/27/20	
(n:2) Fluorotelomer Sulfonic Acids							
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	1.1 U	1.1	0.17	1	05/28/20 01:52	5/27/20	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	1.1 U	1.1	0.032	1	05/28/20 01:52	5/27/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 14:40
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-19 - (10-11)
Lab Code: R2004209-012

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	56	33 - 109	05/28/20 01:52	
18O2-PFHxS	65	36 - 120	05/28/20 01:52	
13C4-PFOS	73	32 - 130	05/28/20 01:52	
13C4-PFBA	61	34 - 116	05/28/20 01:52	
13C5-PFPeA	51	39 - 133	05/28/20 01:52	
13C2-PFHxA	69	32 - 136	05/28/20 01:52	
13C4-PFHpA	69	36 - 133	05/28/20 01:52	
13C4-PFOA	65	31 - 134	05/28/20 01:52	
13C5-PFNA	79	27 - 133	05/28/20 01:52	
13C2-PFDA	86	30 - 137	05/28/20 01:52	
13C2-PFUnDA	90	32 - 146	05/28/20 01:52	
13C2-PFDoDA	96	36 - 136	05/28/20 01:52	
13C2-PFTeDA	73	39 - 138	05/28/20 01:52	
13C8-FOSA	82	40 - 132	05/28/20 01:52	
D3-MeFOSAA	142	20 - 154	05/28/20 01:52	
D5-EtFOSAA	176	29 - 153	05/28/20 01:52	*
13C2-6:2 FTS	101	30 - 140	05/28/20 01:52	
13C2-8:2 FTS	283	9 - 171	05/28/20 01:52	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 15:30
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-21 - (5-6)
Lab Code: R2004209-015

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	1.2 U	1.2	0.27	1	05/28/20 02:24	5/27/20	
Perfluorohexane sulfonic acid (PFHxS)	1.2 U	1.2	0.36	1	05/28/20 02:24	5/27/20	
Perfluoroheptane sulfonic acid (PFHpS)	1.2 U	1.2	0.074	1	05/28/20 02:24	5/27/20	*
Perfluorooctane sulfonic acid (PFOS)	0.18 J	1.2	0.16	1	05/28/20 02:24	5/27/20	
Perfluorodecane sulfonic acid (PFDS)	1.2 U	1.2	0.21	1	05/28/20 02:24	5/27/20	
Perfluoroalkane Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	1.2 U	1.2	0.47	1	05/28/20 02:24	5/27/20	
Perfluoropentanoic acid (PFPeA)	1.2 U	1.2	0.25	1	05/28/20 02:24	5/27/20	*
Perfluorohexanoic acid (PFHxA)	1.2 U	1.2	0.37	1	05/28/20 02:24	5/27/20	
Perfluoroheptanoic acid (PFHpA)	1.2 U	1.2	0.23	1	05/28/20 02:24	5/27/20	
Perfluorooctanoic acid (PFOA)	0.21 J	1.2	0.16	1	05/28/20 02:24	5/27/20	
Perfluorononanoic acid (PFNA)	1.2 U	1.2	0.40	1	05/28/20 02:24	5/27/20	
Perfluorodecanoic acid (PFDA)	1.2 U	1.2	0.31	1	05/28/20 02:24	5/27/20	
Perfluoroundecanoic acid (PFUnDA)	1.2 U	1.2	0.22	1	05/28/20 02:24	5/27/20	
Perfluorododecanoic acid (PFDoDA)	1.2 U	1.2	0.32	1	05/28/20 02:24	5/27/20	
Perfluorotridecanoic acid (PFTrDA)	1.2 U	1.2	0.25	1	05/28/20 02:24	5/27/20	
Perfluorotetradecanoic acid (PFTeDA)	1.2 U	1.2	0.22	1	05/28/20 02:24	5/27/20	
Perfluoroalkyl Sulfonamides							
Perfluorooctane sulfonamide (FOSA)	1.2 U	1.2	0.080	1	05/28/20 02:24	5/27/20	
N-Methyl perfluorooctane sulfonamidoacetic acid	1.2 U	1.2	0.32	1	05/28/20 02:24	5/27/20	
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.2 U	1.2	0.24	1	05/28/20 02:24	5/27/20	
(n:2) Fluorotelomer Sulfonic Acids							
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	1.2 U	1.2	0.18	1	05/28/20 02:24	5/27/20	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	1.2 U	1.2	0.035	1	05/28/20 02:24	5/27/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20 15:30
Date Received: 05/20/20 11:10

Sample Name: PD1-SB-21 - (5-6)
Lab Code: R2004209-015

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	57	33 - 109	05/28/20 02:24	
18O2-PFHxS	67	36 - 120	05/28/20 02:24	
13C4-PFOS	76	32 - 130	05/28/20 02:24	
13C4-PFBA	62	34 - 116	05/28/20 02:24	
13C5-PFPeA	51	39 - 133	05/28/20 02:24	
13C2-PFHxA	60	32 - 136	05/28/20 02:24	
13C4-PFHpA	71	36 - 133	05/28/20 02:24	
13C4-PFOA	73	31 - 134	05/28/20 02:24	
13C5-PFNA	80	27 - 133	05/28/20 02:24	
13C2-PFDA	89	30 - 137	05/28/20 02:24	
13C2-PFUnDA	96	32 - 146	05/28/20 02:24	
13C2-PFDoDA	96	36 - 136	05/28/20 02:24	
13C2-PFTeDA	83	39 - 138	05/28/20 02:24	
13C8-FOSA	85	40 - 132	05/28/20 02:24	
D3-MeFOSAA	122	20 - 154	05/28/20 02:24	
D5-EtFOSAA	144	29 - 153	05/28/20 02:24	
13C2-6:2 FTS	97	30 - 140	05/28/20 02:24	
13C2-8:2 FTS	215	9 - 171	05/28/20 02:24	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: 05/19/20 16:35
Date Received: 05/20/20 11:10

Sample Name: PD1-RB-5-19-20
Lab Code: R2004209-018

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	4.5 U	4.5	0.28	1	05/27/20 21:31	5/26/20	
Perfluorohexane sulfonic acid (PFHxS)	4.5 U	4.5	1.3	1	05/27/20 21:31	5/26/20	
Perfluoroheptane sulfonic acid (PFHpS)	4.5 U	4.5	0.44	1	05/27/20 21:31	5/26/20	
Perfluorooctane sulfonic acid (PFOS)	1.8 U	1.8	0.44	1	05/27/20 21:31	5/26/20	
Perfluorodecane sulfonic acid (PFDS)	4.5 U	4.5	0.30	1	05/27/20 21:31	5/26/20	
Perfluoroalkane Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	4.5 U	4.5	0.40	1	05/27/20 21:31	5/26/20	
Perfluoropentanoic acid (PFPeA)	4.5 U	4.5	1.7	1	05/27/20 21:31	5/26/20	
Perfluorohexanoic acid (PFHxA)	9.2 U	9.2	8.8	1	05/27/20 21:31	5/26/20	
Perfluoroheptanoic acid (PFHpA)	4.5 U	4.5	0.63	1	05/27/20 21:31	5/26/20	
Perfluorooctanoic acid (PFOA)	1.8 U	1.8	0.35	1	05/27/20 21:31	5/26/20	
Perfluorononanoic acid (PFNA)	4.5 U	4.5	1.1	1	05/27/20 21:31	5/26/20	
Perfluorodecanoic acid (PFDA)	4.5 U	4.5	1.2	1	05/27/20 21:31	5/26/20	
Perfluoroundecanoic acid (PFUnDA)	4.5 U	4.5	1.5	1	05/27/20 21:31	5/26/20	
Perfluorododecanoic acid (PFDoDA)	4.5 U	4.5	1.3	1	05/27/20 21:31	5/26/20	
Perfluorotridecanoic acid (PFTrDA)	4.5 U	4.5	1.3	1	05/27/20 21:31	5/26/20	
Perfluorotetradecanoic acid (PFTeDA)	4.5 U	4.5	2.0	1	05/27/20 21:31	5/26/20	
Perfluoroalkyl Sulfonamides							
Perfluorooctane sulfonamide (FOSA)	4.5 U	4.5	0.52	1	05/27/20 21:31	5/26/20	
N-Methyl perfluorooctane sulfonamidoacetic acid	4.5 U	4.5	1.4	1	05/27/20 21:31	5/26/20	
N-Ethyl perfluorooctane sulfonamidoacetic acid	4.5 U	4.5	0.50	1	05/27/20 21:31	5/26/20	
(n:2) Fluorotelomer Sulfonic Acids							
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	4.5 U	4.5	0.55	1	05/27/20 21:31	5/26/20	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	4.5 U	4.5	0.15	1	05/27/20 21:31	5/26/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: 05/19/20 16:35
Date Received: 05/20/20 11:10

Sample Name: PD1-RB-5-19-20
Lab Code: R2004209-018

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	58	20 - 109	05/27/20 21:31	
18O2-PFHxS	64	26 - 122	05/27/20 21:31	
13C4-PFOS	75	25 - 121	05/27/20 21:31	
13C4-PFBA	66	27 - 124	05/27/20 21:31	
13C5-PFPeA	55	27 - 138	05/27/20 21:31	
13C2-PFHxA	66	28 - 132	05/27/20 21:31	
13C4-PFHpA	67	19 - 139	05/27/20 21:31	
13C4-PFOA	81	22 - 130	05/27/20 21:31	
13C5-PFNA	76	20 - 127	05/27/20 21:31	
13C2-PFDA	80	24 - 125	05/27/20 21:31	
13C2-PFUnDA	86	22 - 125	05/27/20 21:31	
13C2-PFDoDA	93	19 - 122	05/27/20 21:31	
13C2-PFTeDA	72	13 - 124	05/27/20 21:31	
13C8-FOSA	77	18 - 109	05/27/20 21:31	
D3-MeFOSAA	91	9 - 123	05/27/20 21:31	
D5-EtFOSAA	87	12 - 126	05/27/20 21:31	
13C2-6:2 FTS	92	10 - 226	05/27/20 21:31	
13C2-8:2 FTS	109	10 - 202	05/27/20 21:31	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: 05/19/20 16:40
Date Received: 05/20/20 11:10

Sample Name: PD1-TB-5-19-20
Lab Code: R2004209-019

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	4.4 U	4.4	0.28	1	05/27/20 21:42	5/26/20	
Perfluorohexane sulfonic acid (PFHxS)	4.4 U	4.4	1.3	1	05/27/20 21:42	5/26/20	
Perfluoroheptane sulfonic acid (PFHpS)	4.4 U	4.4	0.44	1	05/27/20 21:42	5/26/20	
Perfluorooctane sulfonic acid (PFOS)	1.8 U	1.8	0.44	1	05/27/20 21:42	5/26/20	
Perfluorodecane sulfonic acid (PFDS)	4.4 U	4.4	0.30	1	05/27/20 21:42	5/26/20	
Perfluoroalkane Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	4.4 U	4.4	0.40	1	05/27/20 21:42	5/26/20	
Perfluoropentanoic acid (PFPeA)	4.4 U	4.4	1.7	1	05/27/20 21:42	5/26/20	
Perfluorohexanoic acid (PFHxA)	9.2 U	9.2	8.8	1	05/27/20 21:42	5/26/20	
Perfluoroheptanoic acid (PFHpA)	4.4 U	4.4	0.63	1	05/27/20 21:42	5/26/20	
Perfluorooctanoic acid (PFOA)	1.8 U	1.8	0.35	1	05/27/20 21:42	5/26/20	
Perfluorononanoic acid (PFNA)	4.4 U	4.4	1.1	1	05/27/20 21:42	5/26/20	
Perfluorodecanoic acid (PFDA)	4.4 U	4.4	1.2	1	05/27/20 21:42	5/26/20	
Perfluoroundecanoic acid (PFUnDA)	4.4 U	4.4	1.5	1	05/27/20 21:42	5/26/20	
Perfluorododecanoic acid (PFDoDA)	4.4 U	4.4	1.3	1	05/27/20 21:42	5/26/20	
Perfluorotridecanoic acid (PFTrDA)	4.4 U	4.4	1.3	1	05/27/20 21:42	5/26/20	
Perfluorotetradecanoic acid (PFTeDA)	4.4 U	4.4	2.0	1	05/27/20 21:42	5/26/20	
Perfluoroalkyl Sulfonamides							
Perfluorooctane sulfonamide (FOSA)	4.4 U	4.4	0.52	1	05/27/20 21:42	5/26/20	
N-Methyl perfluorooctane sulfonamidoacetic acid	4.4 U	4.4	1.4	1	05/27/20 21:42	5/26/20	
N-Ethyl perfluorooctane sulfonamidoacetic acid	4.4 U	4.4	0.50	1	05/27/20 21:42	5/26/20	
(n:2) Fluorotelomer Sulfonic Acids							
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	4.4 U	4.4	0.55	1	05/27/20 21:42	5/26/20	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	4.4 U	4.4	0.15	1	05/27/20 21:42	5/26/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: 05/19/20 16:40
Date Received: 05/20/20 11:10

Sample Name: PD1-TB-5-19-20
Lab Code: R2004209-019

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	57	20 - 109	05/27/20 21:42	
18O2-PFHxS	57	26 - 122	05/27/20 21:42	
13C4-PFOS	74	25 - 121	05/27/20 21:42	
13C4-PFBA	66	27 - 124	05/27/20 21:42	
13C5-PFPeA	53	27 - 138	05/27/20 21:42	
13C2-PFHxA	63	28 - 132	05/27/20 21:42	
13C4-PFHpA	65	19 - 139	05/27/20 21:42	
13C4-PFOA	80	22 - 130	05/27/20 21:42	
13C5-PFNA	75	20 - 127	05/27/20 21:42	
13C2-PFDA	79	24 - 125	05/27/20 21:42	
13C2-PFUnDA	79	22 - 125	05/27/20 21:42	
13C2-PFDoDA	83	19 - 122	05/27/20 21:42	
13C2-PFTeDA	73	13 - 124	05/27/20 21:42	
13C8-FOSA	75	18 - 109	05/27/20 21:42	
D3-MeFOSAA	81	9 - 123	05/27/20 21:42	
D5-EtFOSAA	78	12 - 126	05/27/20 21:42	
13C2-6:2 FTS	81	10 - 226	05/27/20 21:42	
13C2-8:2 FTS	105	10 - 202	05/27/20 21:42	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	PD1-SB-10 - (8-9)	PD1-SB-17 - (7-8)	PD1-DUP2-5-19-20
		R2004209-003	R2004209-009	R2004209-010
13C3-PFBS	33-109	55	53	53
18O2-PFHxS	36-120	65	61	62
13C4-PFOS	32-130	71	66	67
13C4-PFBA	34-116	61	57	57
13C5-PFPeA	39-133	50	49	49
13C2-PFHxA	32-136	68	65	61
13C4-PFHpA	36-133	72	72	66
13C4-PFOA	31-134	69	62	61
13C5-PFNA	27-133	84	77	74
13C2-PFDA	30-137	92	81	83
13C2-PFUnDA	32-146	93	85	85
13C2-PFDoDA	36-136	88	81	88
13C2-PFTeDA	39-138	64	62	67
13C8-FOSA	40-132	83	79	78
D3-MeFOSAA	20-154	251*	212*	166*
D5-EtFOSAA	29-153	260*	227*	204*
13C2-6:2 FTS	30-140	252*	174*	113
13C2-8:2 FTS	9-171	692*	546*	374*

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	PD1-SB-19 - (10-11)	PD1-SB-21 - (5-6)	PD1-RB-5-19-20
		R2004209-012	R2004209-015	R2004209-018
13C3-PFBS	33-109	56	57	
18O2-PFHxS	36-120	65	67	
13C4-PFOS	32-130	73	76	
13C4-PFBA	34-116	61	62	
13C5-PFPeA	39-133	51	51	
13C2-PFHxA	32-136	69	60	
13C4-PFHpA	36-133	69	71	
13C4-PFOA	31-134	65	73	
13C5-PFNA	27-133	79	80	
13C2-PFDA	30-137	86	89	
13C2-PFUnDA	32-146	90	96	
13C2-PFDoDA	36-136	96	96	
13C2-PFTeDA	39-138	73	83	
13C8-FOSA	40-132	82	85	
D3-MeFOSAA	20-154	142	122	
D5-EtFOSAA	29-153	176*	144	
13C2-6:2 FTS	30-140	101	97	
13C2-8:2 FTS	9-171	283*	215*	

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	PD1-TB-5-19-20	Method Blank	Method Blank
		R2004209-019	KQ2006943-04	KQ2007018-03
13C3-PFBS	33-109		61	
18O2-PFHxS	36-120		59	
13C4-PFOS	32-130		62	
13C4-PFBA	34-116		49	
13C5-PFPeA	39-133		58	
13C2-PFHxA	32-136		59	
13C4-PFHpA	36-133		73	
13C4-PFOA	31-134		56	
13C5-PFNA	27-133		63	
13C2-PFDA	30-137		69	
13C2-PFUnDA	32-146		75	
13C2-PFDoDA	36-136		76	
13C2-PFTeDA	39-138		88	
13C8-FOSA	40-132		91	
D3-MeFOSAA	20-154		97	
D5-EtFOSAA	29-153		108	
13C2-6:2 FTS	30-140		84	
13C2-8:2 FTS	9-171		122	

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	Lab Control Sample	Lab Control Sample	Duplicate Lab Control Sample
		KQ2006943-03	KQ2007018-01	KQ2007018-02
13C3-PFBS	33-109	63		
18O2-PFHxS	36-120	64		
13C4-PFOS	32-130	74		
13C4-PFBA	34-116	58		
13C5-PFPeA	39-133	58		
13C2-PFHxA	32-136	65		
13C4-PFHpA	36-133	73		
13C4-PFOA	31-134	71		
13C5-PFNA	27-133	73		
13C2-PFDA	30-137	79		
13C2-PFUnDA	32-146	85		
13C2-PFDoDA	36-136	82		
13C2-PFTeDA	39-138	91		
13C8-FOSA	40-132	94		
D3-MeFOSAA	20-154	106		
D5-EtFOSAA	29-153	114		
13C2-6:2 FTS	30-140	87		
13C2-8:2 FTS	9-171	125		

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	PD1-SB-19 - (10-11)	PD1-SB-19 - (10-11)
		KQ2006943-05	KQ2006943-06
13C3-PFBS	33-109	58	56
18O2-PFHxS	36-120	78	63
13C4-PFOS	32-130	79	72
13C4-PFBA	34-116	66	61
13C5-PFPeA	39-133	53	50
13C2-PFHxA	32-136	70	63
13C4-PFHpA	36-133	77	65
13C4-PFOA	31-134	73	66
13C5-PFNA	27-133	81	77
13C2-PFDA	30-137	88	83
13C2-PFUnDA	32-146	95	92
13C2-PFDoDA	36-136	100	92
13C2-PFTeDA	39-138	75	77
13C8-FOSA	40-132	88	82
D3-MeFOSAA	20-154	130	123
D5-EtFOSAA	29-153	148	137
13C2-6:2 FTS	30-140	106	96
13C2-8:2 FTS	9-171	223*	202*

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	PD1-SB-19 - (10-11)	PD1-SB-21 - (5-6)	PD1-RB-5-19-20
		R2004209-012	R2004209-015	R2004209-018
13C3-PFBS	20-109			58
18O2-PFHxS	26-122			64
13C4-PFOS	25-121			75
13C4-PFBA	27-124			66
13C5-PFPeA	27-138			55
13C2-PFHxA	28-132			66
13C4-PFHpA	19-139			67
13C4-PFOA	22-130			81
13C5-PFNA	20-127			76
13C2-PFDA	24-125			80
13C2-PFUnDA	22-125			86
13C2-PFDoDA	19-122			93
13C2-PFTeDA	13-124			72
13C8-FOSA	18-109			77
D3-MeFOSAA	9-123			91
D5-EtFOSAA	12-126			87
13C2-6:2 FTS	10-226			92
13C2-8:2 FTS	10-202			109

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	PD1-TB-5-19-20	Method Blank	Method Blank
		R2004209-019	KQ2006943-04	KQ2007018-03
13C3-PFBS	20-109	57		62
18O2-PFHxS	26-122	57		79
13C4-PFOS	25-121	74		80
13C4-PFBA	27-124	66		69
13C5-PFPeA	27-138	53		58
13C2-PFHxA	28-132	63		78
13C4-PFHpA	19-139	65		88
13C4-PFOA	22-130	80		83
13C5-PFNA	20-127	75		83
13C2-PFDA	24-125	79		85
13C2-PFUnDA	22-125	79		84
13C2-PFDoDA	19-122	83		88
13C2-PFTeDA	13-124	73		76
13C8-FOSA	18-109	75		84
D3-MeFOSAA	9-123	81		88
D5-EtFOSAA	12-126	78		89
13C2-6:2 FTS	10-226	81		93
13C2-8:2 FTS	10-202	105		115

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	Lab Control Sample	Lab Control Sample	Duplicate Lab Control Sample
		KQ2006943-03	KQ2007018-01	KQ2007018-02
13C3-PFBS	20-109		62	64
18O2-PFHxS	26-122		65	73
13C4-PFOS	25-121		79	84
13C4-PFBA	27-124		69	75
13C5-PFPeA	27-138		58	60
13C2-PFHxA	28-132		69	75
13C4-PFHpA	19-139		71	75
13C4-PFOA	22-130		80	88
13C5-PFNA	20-127		81	85
13C2-PFDA	24-125		82	89
13C2-PFUnDA	22-125		86	89
13C2-PFDoDA	19-122		82	91
13C2-PFTeDA	13-124		78	82
13C8-FOSA	18-109		81	87
D3-MeFOSAA	9-123		91	91
D5-EtFOSAA	12-126		91	99
13C2-6:2 FTS	10-226		97	88
13C2-8:2 FTS	10-202		108	120

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: 05/19/20
Date Received: 05/20/20
Date Analyzed: 05/28/20
Date Extracted: 05/27/20

Duplicate Matrix Spike Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: PD1-SB-19 - (10-11) **Units:** ng/g
Lab Code: R2004209-012 **Basis:** Dry
Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Sample Result	Matrix Spike KQ2006943-05			Duplicate Matrix Spike KQ2006943-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perfluorobutane sulfonic acid (PFBS)	1.1 U	10.7	8.00	134	10.7	7.96	135	48-148	<1	50
Perfluorohexane sulfonic acid (PFHxS)	1.1 U	7.54	8.23	92	8.34	8.19	102	75-142	10	50
Perfluoroheptane sulfonic acid (PFHpS)	1.1 U	9.06	8.60	105	10.8	8.56	127	69-173	18	50
Perfluorooctane sulfonic acid (PFOS)	1.1 U	8.56	8.38	102	8.75	8.34	105	72-141	2	50
Perfluorodecane sulfonic acid (PFDS)	1.1 U	8.15	8.70	94	9.52	8.66	110	83-152	15	50
Perfluorobutanoic acid (PFBA)	1.1 U	10.1	9.02	112	10.4	8.97	116	29-179	3	50
Perfluoropentanoic acid (PFPeA)	1.1 U	12.0	9.02	133 *	12.2	8.97	135 *	64-131	<1	50
Perfluorohexanoic acid (PFHxA)	1.1 U	10.7	9.02	119	11.1	8.97	124	68-148	3	50
Perfluoroheptanoic acid (PFHpA)	1.1 U	9.20	9.02	102	9.42	8.97	105	73-136	2	50
Perfluorooctanoic acid (PFOA)	1.1 U	11.4	9.02	126	11.6	8.97	130	77-151	2	50
Perfluorononanoic acid (PFNA)	1.1 U	9.41	9.02	104	9.70	8.97	108	63-160	3	50
Perfluorodecanoic acid (PFDA)	1.1 U	10.3	9.02	114	10.4	8.97	116	73-142	<1	50
Perfluoroundecanoic acid (PFUnDA)	1.1 U	9.92	9.02	110	10.0	8.97	112	69-147	1	50
Perfluorododecanoic acid (PFDoDA)	1.1 U	9.21	9.02	102	9.90	8.97	110	69-150	7	50
Perfluorotridecanoic acid (PFTTrDA)	1.1 U	13.5	9.02	150 *	13.1	8.97	146 *	63-134	3	50
Perfluorotetradecanoic acid (PFTeDA)	0.21 J	12.0	9.02	131	11.8	8.97	129	70-143	2	50
Perfluorooctane sulfonamide (FOSA)	1.1 U	8.68	9.02	96	8.84	8.97	98	63-138	2	50
N-Methyl perfluorooctane sulfonamidoacetic acid	1.1 U	9.27	9.02	103	9.36	8.97	104	69-162	<1	50
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.1 U	11.5	9.02	128	11.6	8.97	129	57-159	<1	50
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	1.1 U	12.3	8.58	144	12.4	8.54	145	69-147	<1	50
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	1.1 U	10.3	8.66	119	10.4	8.62	120	66-141	<1	50

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2006943-04

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	1.0 U	1.0	0.22	1	05/28/20 00:08	5/27/20	
Perfluorohexane sulfonic acid (PFHxS)	1.0 U	1.0	0.30	1	05/28/20 00:08	5/27/20	
Perfluoroheptane sulfonic acid (PFHpS)	1.0 U	1.0	0.062	1	05/28/20 00:08	5/27/20	
Perfluorooctane sulfonic acid (PFOS)	1.0 U	1.0	0.13	1	05/28/20 00:08	5/27/20	
Perfluorodecane sulfonic acid (PFDS)	1.0 U	1.0	0.17	1	05/28/20 00:08	5/27/20	
Perfluoroalkane Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	1.0 U	1.0	0.39	1	05/28/20 00:08	5/27/20	
Perfluoropentanoic acid (PFPeA)	1.0 U	1.0	0.21	1	05/28/20 00:08	5/27/20	
Perfluorohexanoic acid (PFHxA)	0.42 J	1.0	0.31	1	05/28/20 00:08	5/27/20	
Perfluoroheptanoic acid (PFHpA)	1.0 U	1.0	0.19	1	05/28/20 00:08	5/27/20	
Perfluorooctanoic acid (PFOA)	1.0 U	1.0	0.13	1	05/28/20 00:08	5/27/20	
Perfluorononanoic acid (PFNA)	1.0 U	1.0	0.33	1	05/28/20 00:08	5/27/20	
Perfluorodecanoic acid (PFDA)	1.0 U	1.0	0.26	1	05/28/20 00:08	5/27/20	
Perfluoroundecanoic acid (PFUnDA)	1.0 U	1.0	0.18	1	05/28/20 00:08	5/27/20	
Perfluorododecanoic acid (PFDoDA)	1.0 U	1.0	0.27	1	05/28/20 00:08	5/27/20	
Perfluorotridecanoic acid (PFTTrDA)	1.0 U	1.0	0.21	1	05/28/20 00:08	5/27/20	
Perfluorotetradecanoic acid (PFTeDA)	1.0 U	1.0	0.18	1	05/28/20 00:08	5/27/20	
Perfluoroalkyl Sulfonamides							
Perfluorooctane sulfonamide (FOSA)	1.0 U	1.0	0.067	1	05/28/20 00:08	5/27/20	
N-Methyl perfluorooctane sulfonamidoacetic acid	1.0 U	1.0	0.27	1	05/28/20 00:08	5/27/20	
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.0 U	1.0	0.20	1	05/28/20 00:08	5/27/20	
(n:2) Fluorotelomer Sulfonic Acids							
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	1.0 U	1.0	0.15	1	05/28/20 00:08	5/27/20	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.030 J	1.0	0.029	1	05/28/20 00:08	5/27/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2006943-04

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	61	33 - 109	05/28/20 00:08	
18O2-PFHxS	59	36 - 120	05/28/20 00:08	
13C4-PFOS	62	32 - 130	05/28/20 00:08	
13C4-PFBA	49	34 - 116	05/28/20 00:08	
13C5-PFPeA	58	39 - 133	05/28/20 00:08	
13C2-PFHxA	59	32 - 136	05/28/20 00:08	
13C4-PFHpA	73	36 - 133	05/28/20 00:08	
13C4-PFOA	56	31 - 134	05/28/20 00:08	
13C5-PFNA	63	27 - 133	05/28/20 00:08	
13C2-PFDA	69	30 - 137	05/28/20 00:08	
13C2-PFUnDA	75	32 - 146	05/28/20 00:08	
13C2-PFDoDA	76	36 - 136	05/28/20 00:08	
13C2-PFTeDA	88	39 - 138	05/28/20 00:08	
13C8-FOSA	91	40 - 132	05/28/20 00:08	
D3-MeFOSAA	97	20 - 154	05/28/20 00:08	
D5-EtFOSAA	108	29 - 153	05/28/20 00:08	
13C2-6:2 FTS	84	30 - 140	05/28/20 00:08	
13C2-8:2 FTS	122	9 - 171	05/28/20 00:08	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2007018-03

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids							
Perfluorobutane sulfonic acid (PFBS)	5.0 U	5.0	0.28	1	05/27/20 21:21	5/26/20	
Perfluorohexane sulfonic acid (PFHxS)	5.0 U	5.0	1.3	1	05/27/20 21:21	5/26/20	
Perfluoroheptane sulfonic acid (PFHpS)	5.0 U	5.0	0.44	1	05/27/20 21:21	5/26/20	
Perfluorooctane sulfonic acid (PFOS)	2.0 U	2.0	0.44	1	05/27/20 21:21	5/26/20	
Perfluorodecane sulfonic acid (PFDS)	5.0 U	5.0	0.30	1	05/27/20 21:21	5/26/20	
Perfluoroalkane Carboxylic Acids							
Perfluorobutanoic acid (PFBA)	5.0 U	5.0	0.40	1	05/27/20 21:21	5/26/20	
Perfluoropentanoic acid (PFPeA)	5.0 U	5.0	1.7	1	05/27/20 21:21	5/26/20	
Perfluorohexanoic acid (PFHxA)	10 U	10	8.8	1	05/27/20 21:21	5/26/20	
Perfluoroheptanoic acid (PFHpA)	5.0 U	5.0	0.63	1	05/27/20 21:21	5/26/20	
Perfluorooctanoic acid (PFOA)	2.0 U	2.0	0.35	1	05/27/20 21:21	5/26/20	
Perfluorononanoic acid (PFNA)	5.0 U	5.0	1.1	1	05/27/20 21:21	5/26/20	
Perfluorodecanoic acid (PFDA)	5.0 U	5.0	1.2	1	05/27/20 21:21	5/26/20	
Perfluoroundecanoic acid (PFUnDA)	5.0 U	5.0	1.5	1	05/27/20 21:21	5/26/20	
Perfluorododecanoic acid (PFDoDA)	5.0 U	5.0	1.3	1	05/27/20 21:21	5/26/20	
Perfluorotridecanoic acid (PFTTrDA)	5.0 U	5.0	1.3	1	05/27/20 21:21	5/26/20	
Perfluorotetradecanoic acid (PFTeDA)	5.0 U	5.0	2.0	1	05/27/20 21:21	5/26/20	
Perfluoroalkyl Sulfonamides							
Perfluorooctane sulfonamide (FOSA)	5.0 U	5.0	0.52	1	05/27/20 21:21	5/26/20	
N-Methyl perfluorooctane sulfonamidoacetic acid	5.0 U	5.0	1.4	1	05/27/20 21:21	5/26/20	
N-Ethyl perfluorooctane sulfonamidoacetic acid	0.59 J	5.0	0.50	1	05/27/20 21:21	5/26/20	
(n:2) Fluorotelomer Sulfonic Acids							
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	5.0 U	5.0	0.55	1	05/27/20 21:21	5/26/20	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	5.0 U	5.0	0.15	1	05/27/20 21:21	5/26/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2007018-03

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	62	20 - 109	05/27/20 21:21	
18O2-PFHxS	79	26 - 122	05/27/20 21:21	
13C4-PFOS	80	25 - 121	05/27/20 21:21	
13C4-PFBA	69	27 - 124	05/27/20 21:21	
13C5-PFPeA	58	27 - 138	05/27/20 21:21	
13C2-PFHxA	78	28 - 132	05/27/20 21:21	
13C4-PFHpA	88	19 - 139	05/27/20 21:21	
13C4-PFOA	83	22 - 130	05/27/20 21:21	
13C5-PFNA	83	20 - 127	05/27/20 21:21	
13C2-PFDA	85	24 - 125	05/27/20 21:21	
13C2-PFUnDA	84	22 - 125	05/27/20 21:21	
13C2-PFDoDA	88	19 - 122	05/27/20 21:21	
13C2-PFTeDA	76	13 - 124	05/27/20 21:21	
13C8-FOSA	84	18 - 109	05/27/20 21:21	
D3-MeFOSAA	88	9 - 123	05/27/20 21:21	
D5-EtFOSAA	89	12 - 126	05/27/20 21:21	
13C2-6:2 FTS	93	10 - 226	05/27/20 21:21	
13C2-8:2 FTS	115	10 - 202	05/27/20 21:21	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Soil

Service Request: R2004209
Date Analyzed: 05/27/20
Date Extracted: 05/27/20

Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Units: ng/g
Basis: Dry
Analysis Lot: 681608

Lab Control Sample
KQ2006943-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	10.4	7.61	137	69-147
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	9.34	7.68	122	66-141
N-Ethyl perfluorooctane sulfonamidoacetic acid	9.67	8.00	121	57-159
N-Methyl perfluorooctane sulfonamidoacetic acid	8.25	8.00	103	69-162
Perfluorobutane sulfonic acid (PFBS)	9.54	7.10	134	48-148
Perfluorobutanoic acid (PFBA)	10.1	8.00	127	29-179
Perfluorodecane sulfonic acid (PFDS)	9.27	7.72	120	83-152
Perfluorodecanoic acid (PFDA)	10.3	8.00	129	73-142
Perfluorododecanoic acid (PFDoDA)	9.31	8.00	116	69-150
Perfluoroheptane sulfonic acid (PFHpS)	10.6	7.63	139	69-173
Perfluoroheptanoic acid (PFHpA)	8.71	8.00	109	73-136
Perfluorohexane sulfonic acid (PFHxS)	8.40	7.30	115	75-142
Perfluorohexanoic acid (PFHxA)	10.7	8.00	134	68-148
Perfluorononanoic acid (PFNA)	10.3	8.00	129	63-160
Perfluorooctane sulfonamide (FOSA)	8.06	8.00	101	63-138
Perfluorooctane sulfonic acid (PFOS)	8.50	7.43	114	72-141
Perfluorooctanoic acid (PFOA)	10.6	8.00	132	77-151
Perfluoropentanoic acid (PFPeA)	10.7	8.00	134 *	64-131
Perfluorotetradecanoic acid (PFTeDA)	10.1	8.00	127	70-143
Perfluorotridecanoic acid (PFTrDA)	9.59	8.00	120	63-134
Perfluoroundecanoic acid (PFUnDA)	9.72	8.00	121	69-147

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/1620504
Sample Matrix: Water

Service Request: R2004209
Date Analyzed: 05/27/20
Date Extracted: 05/26/20

Duplicate Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Units: ng/L
Basis: NA
Analysis Lot: 681606

Analyte Name	Lab Control Sample KQ2007018-01			Duplicate Lab Control Sample KQ2007018-02			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	38.9	30.4	128	41.1	30.4	135	71-142	6	30
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	35.8	30.7	116	35.0	30.7	114	69-137	2	30
N-Ethyl perfluorooctane sulfonamidoacetic acid	37.4	32.0	117	36.1	32.0	113	58-155	3	30
N-Methyl perfluorooctane sulfonamidoacetic acid	29.4	32.0	92	38.3	32.0	120	69-151	26	30
Perfluorobutane sulfonic acid (PFBS)	33.4	28.4	118	34.1	28.4	120	61-140	2	30
Perfluorobutanoic acid (PFBA)	33.8	32.0	106	33.0	32.0	103	51-157	2	30
Perfluorodecane sulfonic acid (PFDS)	30.3	30.9	98	27.8	30.9	90	69-146	9	30
Perfluorodecanoic acid (PFDA)	35.5	32.0	111	34.7	32.0	108	73-136	2	30
Perfluorododecanoic acid (PFDoDA)	33.8	32.0	106	30.5	32.0	95	71-138	10	30
Perfluoroheptane sulfonic acid (PFHpS)	42.0	30.5	138	35.8	30.5	117	62-178	16	30
Perfluoroheptanoic acid (PFHpA)	30.6	32.0	96	32.2	32.0	101	72-133	5	30
Perfluorohexane sulfonic acid (PFHxS)	29.9	29.2	102	28.0	29.2	96	69-144	7	30
Perfluorohexanoic acid (PFHxA)	34.9	32.0	109	36.1	32.0	113	71-138	3	30
Perfluorononanoic acid (PFNA)	32.4	32.0	101	32.0	32.0	100	69-148	1	30
Perfluorooctane sulfonamide (FOSA)	29.6	32.0	93	29.9	32.0	94	64-135	1	30
Perfluorooctane sulfonic acid (PFOS)	29.6	29.7	100	29.2	29.7	98	71-139	1	30
Perfluorooctanoic acid (PFOA)	35.9	32.0	112	35.3	32.0	110	74-146	2	30
Perfluoropentanoic acid (PFPeA)	38.6	32.0	121	39.6	32.0	124	67-127	3	30
Perfluorotetradecanoic acid (PFTeDA)	35.4	32.0	111	37.6	32.0	117	63-139	6	30
Perfluorotridecanoic acid (PFTrDA)	36.0	32.0	113	41.7	32.0	130	65-140	15	30
Perfluoroundecanoic acid (PFUnDA)	31.7	32.0	99	32.6	32.0	102	76-134	3	30



June 29, 2020

Service Request No:R2005120

Mr. Jim Hayward
EA Engineering, Science, and Technology
269 W. Jefferson Street
Syracuse, NY 13202

Laboratory Results for: NYSDEC / Admiral Cleaners

Dear Mr.Hayward,

Enclosed are the results of the sample(s) submitted to our laboratory June 17, 2020
For your reference, these analyses have been assigned our service request number **R2005120**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Meghan.Pedro@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Meghan Pedro
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners
Sample Matrix: Soil, Water

Service Request: R2005120
Date Received: 06/17/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Six soil, water samples were received for analysis at ALS Environmental on 06/17/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

General Chemistry:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

Method 8260C, 06/24/2020: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) above the MRL in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Approved by

A handwritten signature in black ink, appearing to read 'Meghan Pedicini', is written over a horizontal line.

Date

06/29/2020



SAMPLE DETECTION SUMMARY

CLIENT ID: PDI-SB-24-(1.5-2)			Lab ID: R2005120-001			
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	87.3				Percent	ALS SOP
Tetrachloroethene (PCE)	0.61	J	0.27	5.8	ug/Kg	8260C
Toluene	0.28	J	0.24	5.8	ug/Kg	8260C

CLIENT ID: PDI-SB-25-(2-3)			Lab ID: R2005120-002			
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	75.3				Percent	ALS SOP
Tetrachloroethene (PCE)	6.5	J	0.35	7.5	ug/Kg	8260C

CLIENT ID: PDI-SB-26-(5-6)			Lab ID: R2005120-003			
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	81.7				Percent	ALS SOP
Tetrachloroethene (PCE)	3100		24	510	ug/Kg	8260C
Trichloroethene (TCE)	250	J	23	510	ug/Kg	8260C
cis-1,2-Dichloroethene	49	J	21	510	ug/Kg	8260C

CLIENT ID: RDI-DUP-06-16-2020			Lab ID: R2005120-004			
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	77.9				Percent	ALS SOP
Tetrachloroethene (PCE)	7.4		0.32	6.8	ug/Kg	8260C



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04

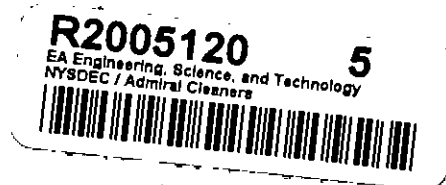
Service Request:R2005120

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R2005120-001	PDI-SB-24-(1.5-2)	6/16/2020	0944
R2005120-002	PDI-SB-25-(2-3)	6/16/2020	1113
R2005120-003	PDI-SB-26-(5-6)	6/16/2020	1315
R2005120-004	RDI-DUP-06-16-2020	6/16/2020	
R2005120-005	RB-06162020	6/16/2020	1530
R2005120-006	Trip Blank	6/16/2020	



Cooler Receipt and Preservation Check Form



Project/Client EA Engineering Folder Number _____

Cooler received on 6-17-2020 by: HE

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<u>Y</u> N
2	Custody papers properly completed (ink, signed)?	<u>Y</u> N
3	Did all bottles arrive in good condition (unbroken)?	<u>Y</u> N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<u>Y</u> N

5a	Perchlorate samples have required headspace?	Y N <u>NA</u>
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	<u>Y</u> N NA *
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	<u>NA</u>

8. Temperature Readings Date: 6-17-2020 Time: 09:50 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>4.6</u>						
Within 0-6°C?	<u>Y</u> N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by HE on 6-17-20 at 09:54
5035 samples placed in storage location: F-09 by ✓ on ✓ at ✓ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 6/17/2020 Time: 1600 by: HE

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 0538

Explain all Discrepancies/ Other Comments:

*Trip Blank: 1 of 3 vials

HPRD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: HE
PC Secondary Review: HE

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04

Service Request: R2005120

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
ALS SOP	Soil	Total Solids

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04

Service Request: R2005120

Sample Name: PDI-SB-24-(1.5-2)
Lab Code: R2005120-001
Sample Matrix: Soil

Date Collected: 06/16/20
Date Received: 06/17/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KAWONG

Sample Name: PDI-SB-25-(2-3)
Lab Code: R2005120-002
Sample Matrix: Soil

Date Collected: 06/16/20
Date Received: 06/17/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KAWONG

Sample Name: PDI-SB-26-(5-6)
Lab Code: R2005120-003
Sample Matrix: Soil

Date Collected: 06/16/20
Date Received: 06/17/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KAWONG

Sample Name: RDI-DUP-06-16-2020
Lab Code: R2005120-004
Sample Matrix: Soil

Date Collected: 06/16/20
Date Received: 06/17/20

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
KAWONG

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04

Service Request: R2005120

Sample Name: RB-06162020
Lab Code: R2005120-005
Sample Matrix: Water

Date Collected: 06/16/20
Date Received: 06/17/20

Analysis Method
8260C

Extracted/Digested By

Analyzed By
BALLGEIER

Sample Name: Trip Blank
Lab Code: R2005120-006
Sample Matrix: Water

Date Collected: 06/16/20
Date Received: 06/17/20

Analysis Method
8260C

Extracted/Digested By

Analyzed By
BALLGEIER



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: 06/16/20 09:44
Date Received: 06/17/20 09:45

Sample Name: PDI-SB-24-(1.5-2)
Lab Code: R2005120-001

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
1,1,2,2-Tetrachloroethane	0.51 U	5.8	0.51	1.01	06/27/20 14:02	
1,1,2-Trichloroethane	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
1,1-Dichloroethane (1,1-DCA)	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
1,1-Dichloroethene (1,1-DCE)	0.34 U	5.8	0.34	1.01	06/27/20 14:02	
1,2,4-Trichlorobenzene	0.49 U	5.8	0.49	1.01	06/27/20 14:02	
1,2-Dibromo-3-chloropropane (DBCP)	0.87 U	5.8	0.87	1.01	06/27/20 14:02	
1,2-Dibromoethane	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
1,2-Dichlorobenzene	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
1,2-Dichloroethane	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
1,2-Dichloropropane	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
1,3-Dichlorobenzene	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
1,4-Dichlorobenzene	0.26 U	5.8	0.26	1.01	06/27/20 14:02	
2-Butanone (MEK)	2.4 U	5.8	2.4	1.01	06/27/20 14:02	
2-Hexanone	0.42 U	5.8	0.42	1.01	06/27/20 14:02	
4-Methyl-2-pentanone	0.27 U	5.8	0.27	1.01	06/27/20 14:02	
Acetone	5.5 U	5.8	5.5	1.01	06/27/20 14:02	
Benzene	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
Bromodichloromethane	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
Bromoform	0.58 U	5.8	0.58	1.01	06/27/20 14:02	
Bromomethane	2.5 U	5.8	2.5	1.01	06/27/20 14:02	
Carbon Disulfide	0.34 U	5.8	0.34	1.01	06/27/20 14:02	
Carbon Tetrachloride	0.31 U	5.8	0.31	1.01	06/27/20 14:02	
Chlorobenzene	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
Chloroethane	0.48 U	5.8	0.48	1.01	06/27/20 14:02	
Chloroform	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
Chloromethane	1.7 U	5.8	1.7	1.01	06/27/20 14:02	
Cyclohexane	0.31 U	5.8	0.31	1.01	06/27/20 14:02	
Dibromochloromethane	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
Dichlorodifluoromethane (CFC 12)	0.39 U	5.8	0.39	1.01	06/27/20 14:02	
Dichloromethane	3.3 U	5.8	3.3	1.01	06/27/20 14:02	
Ethylbenzene	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
Isopropylbenzene (Cumene)	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
Methyl Acetate	0.98 U	5.8	0.98	1.01	06/27/20 14:02	
Methyl tert-Butyl Ether	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
Methylcyclohexane	0.36 U	5.8	0.36	1.01	06/27/20 14:02	
Styrene	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
Tetrachloroethene (PCE)	0.61 J	5.8	0.27	1.01	06/27/20 14:02	
Toluene	0.28 J	5.8	0.24	1.01	06/27/20 14:02	
Trichloroethene (TCE)	0.26 U	5.8	0.26	1.01	06/27/20 14:02	
Trichlorofluoromethane (CFC 11)	0.31 U	5.8	0.31	1.01	06/27/20 14:02	
Vinyl Chloride	0.54 U	5.8	0.54	1.01	06/27/20 14:02	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: 06/16/20 09:44
Date Received: 06/17/20 09:45

Sample Name: PDI-SB-24-(1.5-2)
Lab Code: R2005120-001

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.61 U	17	0.61	1.01	06/27/20 14:02	
cis-1,2-Dichloroethene	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
cis-1,3-Dichloropropene	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
trans-1,2-Dichloroethene	0.24 U	5.8	0.24	1.01	06/27/20 14:02	
trans-1,3-Dichloropropene	0.24 U	5.8	0.24	1.01	06/27/20 14:02	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	81	31 - 154	06/27/20 14:02	
Dibromofluoromethane	89	63 - 138	06/27/20 14:02	
Toluene-d8	97	66 - 138	06/27/20 14:02	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: 06/16/20 11:13
Date Received: 06/17/20 09:45

Sample Name: PDI-SB-25-(2-3)
Lab Code: R2005120-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
1,1,2,2-Tetrachloroethane	0.67 U	7.5	0.67	1.13	06/27/20 14:35	
1,1,2-Trichloroethane	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
1,1-Dichloroethane (1,1-DCA)	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
1,1-Dichloroethene (1,1-DCE)	0.44 U	7.5	0.44	1.13	06/27/20 14:35	
1,2,4-Trichlorobenzene	0.64 U	7.5	0.64	1.13	06/27/20 14:35	
1,2-Dibromo-3-chloropropane (DBCP)	1.2 U	7.5	1.2	1.13	06/27/20 14:35	
1,2-Dibromoethane	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
1,2-Dichlorobenzene	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
1,2-Dichloroethane	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
1,2-Dichloropropane	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
1,3-Dichlorobenzene	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
1,4-Dichlorobenzene	0.34 U	7.5	0.34	1.13	06/27/20 14:35	
2-Butanone (MEK)	3.1 U	7.5	3.1	1.13	06/27/20 14:35	
2-Hexanone	0.55 U	7.5	0.55	1.13	06/27/20 14:35	
4-Methyl-2-pentanone	0.35 U	7.5	0.35	1.13	06/27/20 14:35	
Acetone	7.1 U	7.5	7.1	1.13	06/27/20 14:35	
Benzene	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
Bromodichloromethane	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
Bromoform	0.76 U	7.5	0.76	1.13	06/27/20 14:35	
Bromomethane	3.2 U	7.5	3.2	1.13	06/27/20 14:35	
Carbon Disulfide	0.44 U	7.5	0.44	1.13	06/27/20 14:35	
Carbon Tetrachloride	0.40 U	7.5	0.40	1.13	06/27/20 14:35	
Chlorobenzene	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
Chloroethane	0.62 U	7.5	0.62	1.13	06/27/20 14:35	
Chloroform	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
Chloromethane	2.2 U	7.5	2.2	1.13	06/27/20 14:35	
Cyclohexane	0.40 U	7.5	0.40	1.13	06/27/20 14:35	
Dibromochloromethane	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
Dichlorodifluoromethane (CFC 12)	0.50 U	7.5	0.50	1.13	06/27/20 14:35	
Dichloromethane	4.3 U	7.5	4.3	1.13	06/27/20 14:35	
Ethylbenzene	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
Isopropylbenzene (Cumene)	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
Methyl Acetate	1.3 U	7.5	1.3	1.13	06/27/20 14:35	
Methyl tert-Butyl Ether	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
Methylcyclohexane	0.47 U	7.5	0.47	1.13	06/27/20 14:35	
Styrene	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
Tetrachloroethene (PCE)	6.5 J	7.5	0.35	1.13	06/27/20 14:35	
Toluene	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
Trichloroethene (TCE)	0.34 U	7.5	0.34	1.13	06/27/20 14:35	
Trichlorofluoromethane (CFC 11)	0.40 U	7.5	0.40	1.13	06/27/20 14:35	
Vinyl Chloride	0.70 U	7.5	0.70	1.13	06/27/20 14:35	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: 06/16/20 11:13
Date Received: 06/17/20 09:45

Sample Name: PDI-SB-25-(2-3)
Lab Code: R2005120-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.79 U	23	0.79	1.13	06/27/20 14:35	
cis-1,2-Dichloroethene	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
cis-1,3-Dichloropropene	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
trans-1,2-Dichloroethene	0.31 U	7.5	0.31	1.13	06/27/20 14:35	
trans-1,3-Dichloropropene	0.31 U	7.5	0.31	1.13	06/27/20 14:35	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	70	31 - 154	06/27/20 14:35	
Dibromofluoromethane	91	63 - 138	06/27/20 14:35	
Toluene-d8	95	66 - 138	06/27/20 14:35	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: 06/16/20 13:15
Date Received: 06/17/20 09:45

Sample Name: PDI-SB-26-(5-6)
Lab Code: R2005120-003

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	21 U	510	21	83	06/24/20 15:18	
1,1,2,2-Tetrachloroethane	45 U	510	45	83	06/24/20 15:18	
1,1,2-Trichloroethane	21 U	510	21	83	06/24/20 15:18	
1,1,2-Trichloro-1,2,2-trifluoroethane	21 U	510	21	83	06/24/20 15:18	
1,1-Dichloroethane (1,1-DCA)	21 U	510	21	83	06/24/20 15:18	
1,1-Dichloroethene (1,1-DCE)	30 U	510	30	83	06/24/20 15:18	
1,2,4-Trichlorobenzene	43 U	510	43	83	06/24/20 15:18	
1,2-Dibromo-3-chloropropane (DBCP)	77 U	510	77	83	06/24/20 15:18	
1,2-Dibromoethane	21 U	510	21	83	06/24/20 15:18	
1,2-Dichlorobenzene	21 U	510	21	83	06/24/20 15:18	
1,2-Dichloroethane	21 U	510	21	83	06/24/20 15:18	
1,2-Dichloropropane	21 U	510	21	83	06/24/20 15:18	
1,3-Dichlorobenzene	21 U	510	21	83	06/24/20 15:18	
1,4-Dichlorobenzene	23 U	510	23	83	06/24/20 15:18	
2-Butanone (MEK)	210 U	510	210	83	06/24/20 15:18	
2-Hexanone	37 U	510	37	83	06/24/20 15:18	
4-Methyl-2-pentanone	24 U	510	24	83	06/24/20 15:18	
Acetone	480 U	510	480	83	06/24/20 15:18	
Benzene	21 U	510	21	83	06/24/20 15:18	
Bromodichloromethane	21 U	510	21	83	06/24/20 15:18	
Bromoform	51 U	510	51	83	06/24/20 15:18	
Bromomethane	220 U	510	220	83	06/24/20 15:18	
Carbon Disulfide	30 U	510	30	83	06/24/20 15:18	
Carbon Tetrachloride	27 U	510	27	83	06/24/20 15:18	
Chlorobenzene	21 U	510	21	83	06/24/20 15:18	
Chloroethane	42 U	510	42	83	06/24/20 15:18	
Chloroform	21 U	510	21	83	06/24/20 15:18	
Chloromethane	150 U	510	150	83	06/24/20 15:18	
Cyclohexane	27 U	510	27	83	06/24/20 15:18	
Dibromochloromethane	21 U	510	21	83	06/24/20 15:18	
Dichlorodifluoromethane (CFC 12)	34 U	510	34	83	06/24/20 15:18	
Dichloromethane	290 U	510	290	83	06/24/20 15:18	
Ethylbenzene	21 U	510	21	83	06/24/20 15:18	
Isopropylbenzene (Cumene)	21 U	510	21	83	06/24/20 15:18	
Methyl Acetate	86 U	510	86	83	06/24/20 15:18	
Methyl tert-Butyl Ether	21 U	510	21	83	06/24/20 15:18	
Methylcyclohexane	32 U	510	32	83	06/24/20 15:18	
Styrene	21 U	510	21	83	06/24/20 15:18	
Tetrachloroethene (PCE)	3100	510	24	83	06/24/20 15:18	
Toluene	21 U	510	21	83	06/24/20 15:18	
Trichloroethene (TCE)	250 J	510	23	83	06/24/20 15:18	
Trichlorofluoromethane (CFC 11)	27 U	510	27	83	06/24/20 15:18	
Vinyl Chloride	47 U	510	47	83	06/24/20 15:18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: 06/16/20 13:15
Date Received: 06/17/20 09:45

Sample Name: PDI-SB-26-(5-6)
Lab Code: R2005120-003

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	53 U	1500	53	83	06/24/20 15:18	
cis-1,2-Dichloroethene	49 J	510	21	83	06/24/20 15:18	
cis-1,3-Dichloropropene	21 U	510	21	83	06/24/20 15:18	
trans-1,2-Dichloroethene	21 U	510	21	83	06/24/20 15:18	
trans-1,3-Dichloropropene	21 U	510	21	83	06/24/20 15:18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	31 - 154	06/24/20 15:18	
Dibromofluoromethane	83	63 - 138	06/24/20 15:18	
Toluene-d8	94	66 - 138	06/24/20 15:18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: 06/16/20
Date Received: 06/17/20 09:45

Sample Name: RDI-DUP-06-16-2020
Lab Code: R2005120-004

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
1,1,2,2-Tetrachloroethane	0.60 U	6.8	0.60	1.06	06/27/20 14:58	
1,1,2-Trichloroethane	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
1,1-Dichloroethane (1,1-DCA)	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
1,1-Dichloroethene (1,1-DCE)	0.40 U	6.8	0.40	1.06	06/27/20 14:58	
1,2,4-Trichlorobenzene	0.58 U	6.8	0.58	1.06	06/27/20 14:58	
1,2-Dibromo-3-chloropropane (DBCP)	1.1 U	6.8	1.1	1.06	06/27/20 14:58	
1,2-Dibromoethane	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
1,2-Dichlorobenzene	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
1,2-Dichloroethane	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
1,2-Dichloropropane	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
1,3-Dichlorobenzene	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
1,4-Dichlorobenzene	0.30 U	6.8	0.30	1.06	06/27/20 14:58	
2-Butanone (MEK)	2.8 U	6.8	2.8	1.06	06/27/20 14:58	
2-Hexanone	0.49 U	6.8	0.49	1.06	06/27/20 14:58	
4-Methyl-2-pentanone	0.32 U	6.8	0.32	1.06	06/27/20 14:58	
Acetone	6.4 U	6.8	6.4	1.06	06/27/20 14:58	
Benzene	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
Bromodichloromethane	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
Bromoform	0.69 U	6.8	0.69	1.06	06/27/20 14:58	
Bromomethane	2.9 U	6.8	2.9	1.06	06/27/20 14:58	
Carbon Disulfide	0.40 U	6.8	0.40	1.06	06/27/20 14:58	
Carbon Tetrachloride	0.36 U	6.8	0.36	1.06	06/27/20 14:58	
Chlorobenzene	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
Chloroethane	0.56 U	6.8	0.56	1.06	06/27/20 14:58	
Chloroform	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
Chloromethane	2.0 U	6.8	2.0	1.06	06/27/20 14:58	
Cyclohexane	0.36 U	6.8	0.36	1.06	06/27/20 14:58	
Dibromochloromethane	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
Dichlorodifluoromethane (CFC 12)	0.45 U	6.8	0.45	1.06	06/27/20 14:58	
Dichloromethane	3.9 U	6.8	3.9	1.06	06/27/20 14:58	
Ethylbenzene	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
Isopropylbenzene (Cumene)	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
Methyl Acetate	1.2 U	6.8	1.2	1.06	06/27/20 14:58	
Methyl tert-Butyl Ether	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
Methylcyclohexane	0.43 U	6.8	0.43	1.06	06/27/20 14:58	
Styrene	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
Tetrachloroethene (PCE)	7.4	6.8	0.32	1.06	06/27/20 14:58	
Toluene	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
Trichloroethene (TCE)	0.30 U	6.8	0.30	1.06	06/27/20 14:58	
Trichlorofluoromethane (CFC 11)	0.36 U	6.8	0.36	1.06	06/27/20 14:58	
Vinyl Chloride	0.63 U	6.8	0.63	1.06	06/27/20 14:58	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: 06/16/20
Date Received: 06/17/20 09:45

Sample Name: RDI-DUP-06-16-2020
Lab Code: R2005120-004

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.71 U	20	0.71	1.06	06/27/20 14:58	
cis-1,2-Dichloroethene	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
cis-1,3-Dichloropropene	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
trans-1,2-Dichloroethene	0.28 U	6.8	0.28	1.06	06/27/20 14:58	
trans-1,3-Dichloropropene	0.28 U	6.8	0.28	1.06	06/27/20 14:58	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	72	31 - 154	06/27/20 14:58	
Dibromofluoromethane	91	63 - 138	06/27/20 14:58	
Toluene-d8	97	66 - 138	06/27/20 14:58	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Water

Service Request: R2005120
Date Collected: 06/16/20 15:30
Date Received: 06/17/20 09:45

Sample Name: RB-06162020
Lab Code: R2005120-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.20 U	5.0	0.20	1	06/24/20 22:32	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	06/24/20 22:32	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	06/24/20 22:32	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	06/24/20 22:32	
1,1-Dichloroethane (1,1-DCA)	0.20 U	5.0	0.20	1	06/24/20 22:32	
1,1-Dichloroethene (1,1-DCE)	0.20 U	5.0	0.20	1	06/24/20 22:32	
1,2,4-Trichlorobenzene	0.34 U	5.0	0.34	1	06/24/20 22:32	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	06/24/20 22:32	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	06/24/20 22:32	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	06/24/20 22:32	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	06/24/20 22:32	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	06/24/20 22:32	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	06/24/20 22:32	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	06/24/20 22:32	
2-Butanone (MEK)	0.78 U	10	0.78	1	06/24/20 22:32	
2-Hexanone	0.20 U	10	0.20	1	06/24/20 22:32	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	06/24/20 22:32	
Acetone	5.0 U	10	5.0	1	06/24/20 22:32	
Benzene	0.20 U	5.0	0.20	1	06/24/20 22:32	
Bromodichloromethane	0.20 U	5.0	0.20	1	06/24/20 22:32	
Bromoform	0.25 U	5.0	0.25	1	06/24/20 22:32	
Bromomethane	0.70 U	5.0	0.70	1	06/24/20 22:32	
Carbon Disulfide	0.42 U	10	0.42	1	06/24/20 22:32	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	06/24/20 22:32	
Chlorobenzene	0.20 U	5.0	0.20	1	06/24/20 22:32	
Chloroethane	0.23 U	5.0	0.23	1	06/24/20 22:32	
Chloroform	0.24 U	5.0	0.24	1	06/24/20 22:32	
Chloromethane	0.28 U	5.0	0.28	1	06/24/20 22:32	
Cyclohexane	0.26 U	10	0.26	1	06/24/20 22:32	
Dibromochloromethane	0.20 U	5.0	0.20	1	06/24/20 22:32	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	06/24/20 22:32	
Dichloromethane	0.65 U	5.0	0.65	1	06/24/20 22:32	
Ethylbenzene	0.20 U	5.0	0.20	1	06/24/20 22:32	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	06/24/20 22:32	
Methyl Acetate	0.33 U	10	0.33	1	06/24/20 22:32	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	06/24/20 22:32	
Methylcyclohexane	0.20 U	10	0.20	1	06/24/20 22:32	
Styrene	0.20 U	5.0	0.20	1	06/24/20 22:32	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	06/24/20 22:32	
Toluene	0.20 U	5.0	0.20	1	06/24/20 22:32	
Trichloroethene (TCE)	0.20 U	5.0	0.20	1	06/24/20 22:32	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	06/24/20 22:32	
Vinyl Chloride	0.20 U	5.0	0.20	1	06/24/20 22:32	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Water

Service Request: R2005120
Date Collected: 06/16/20 15:30
Date Received: 06/17/20 09:45

Sample Name: RB-06162020
Lab Code: R2005120-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.23 U	5.0	0.23	1	06/24/20 22:32	
cis-1,2-Dichloroethene	0.23 U	5.0	0.23	1	06/24/20 22:32	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	06/24/20 22:32	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	06/24/20 22:32	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	06/24/20 22:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/24/20 22:32	
Dibromofluoromethane	98	89 - 119	06/24/20 22:32	
Toluene-d8	102	87 - 121	06/24/20 22:32	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Water

Service Request: R2005120
Date Collected: 06/16/20
Date Received: 06/17/20 09:45

Sample Name: Trip Blank
Lab Code: R2005120-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.20 U	5.0	0.20	1	06/24/20 22:53	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	06/24/20 22:53	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	06/24/20 22:53	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	06/24/20 22:53	
1,1-Dichloroethane (1,1-DCA)	0.20 U	5.0	0.20	1	06/24/20 22:53	
1,1-Dichloroethene (1,1-DCE)	0.20 U	5.0	0.20	1	06/24/20 22:53	
1,2,4-Trichlorobenzene	0.34 U	5.0	0.34	1	06/24/20 22:53	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	06/24/20 22:53	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	06/24/20 22:53	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	06/24/20 22:53	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	06/24/20 22:53	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	06/24/20 22:53	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	06/24/20 22:53	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	06/24/20 22:53	
2-Butanone (MEK)	0.78 U	10	0.78	1	06/24/20 22:53	
2-Hexanone	0.20 U	10	0.20	1	06/24/20 22:53	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	06/24/20 22:53	
Acetone	5.0 U	10	5.0	1	06/24/20 22:53	
Benzene	0.20 U	5.0	0.20	1	06/24/20 22:53	
Bromodichloromethane	0.20 U	5.0	0.20	1	06/24/20 22:53	
Bromoform	0.25 U	5.0	0.25	1	06/24/20 22:53	
Bromomethane	0.70 U	5.0	0.70	1	06/24/20 22:53	
Carbon Disulfide	0.42 U	10	0.42	1	06/24/20 22:53	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	06/24/20 22:53	
Chlorobenzene	0.20 U	5.0	0.20	1	06/24/20 22:53	
Chloroethane	0.23 U	5.0	0.23	1	06/24/20 22:53	
Chloroform	0.24 U	5.0	0.24	1	06/24/20 22:53	
Chloromethane	0.28 U	5.0	0.28	1	06/24/20 22:53	
Cyclohexane	0.26 U	10	0.26	1	06/24/20 22:53	
Dibromochloromethane	0.20 U	5.0	0.20	1	06/24/20 22:53	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	06/24/20 22:53	
Dichloromethane	0.65 U	5.0	0.65	1	06/24/20 22:53	
Ethylbenzene	0.20 U	5.0	0.20	1	06/24/20 22:53	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	06/24/20 22:53	
Methyl Acetate	0.33 U	10	0.33	1	06/24/20 22:53	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	06/24/20 22:53	
Methylcyclohexane	0.20 U	10	0.20	1	06/24/20 22:53	
Styrene	0.20 U	5.0	0.20	1	06/24/20 22:53	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	06/24/20 22:53	
Toluene	0.20 U	5.0	0.20	1	06/24/20 22:53	
Trichloroethene (TCE)	0.20 U	5.0	0.20	1	06/24/20 22:53	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	06/24/20 22:53	
Vinyl Chloride	0.20 U	5.0	0.20	1	06/24/20 22:53	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Water

Service Request: R2005120
Date Collected: 06/16/20
Date Received: 06/17/20 09:45

Sample Name: Trip Blank
Lab Code: R2005120-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.23 U	5.0	0.23	1	06/24/20 22:53	
cis-1,2-Dichloroethene	0.23 U	5.0	0.23	1	06/24/20 22:53	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	06/24/20 22:53	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	06/24/20 22:53	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	06/24/20 22:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	06/24/20 22:53	
Dibromofluoromethane	101	89 - 119	06/24/20 22:53	
Toluene-d8	103	87 - 121	06/24/20 22:53	



General Chemistry

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Sample Name: PDI-SB-24-(1.5-2)
Lab Code: R2005120-001

Service Request: R2005120
Date Collected: 06/16/20 09:44
Date Received: 06/17/20 09:45

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	87.3	Percent	-	1	06/23/20 06:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Sample Name: PDI-SB-25-(2-3)
Lab Code: R2005120-002

Service Request: R2005120
Date Collected: 06/16/20 11:13
Date Received: 06/17/20 09:45

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	75.3	Percent	-	1	06/23/20 06:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Sample Name: PDI-SB-26-(5-6)
Lab Code: R2005120-003

Service Request: R2005120
Date Collected: 06/16/20 13:15
Date Received: 06/17/20 09:45

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	81.7	Percent	-	1	06/23/20 06:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Sample Name: RDI-DUP-06-16-2020
Lab Code: R2005120-004

Service Request: R2005120
Date Collected: 06/16/20
Date Received: 06/17/20 09:45

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	77.9	Percent	-	1	06/23/20 06:45	



QC Summary Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5035A

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		31-154	63-138	66-138
PDI-SB-24-(1.5-2)	R2005120-001	81	89	97
PDI-SB-25-(2-3)	R2005120-002	70	91	95
PDI-SB-26-(5-6)	R2005120-003	92	83	94
RDI-DUP-06-16-2020	R2005120-004	72	91	97
Method Blank	RQ2006685-04	94	85	95
Method Blank	RQ2006849-04	92	89	98
Lab Control Sample	RQ2006685-03	94	92	94
Lab Control Sample	RQ2006849-03	93	91	99
PDI-SB-24-(1.5-2) MS	RQ2006849-05	89	92	97
PDI-SB-24-(1.5-2) DMS	RQ2006849-06	88	91	96

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Water

Service Request: R2005120

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5035A

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		31-154	63-138	66-138
RB-06162020	R2005120-005	94	98	102
Trip Blank	R2005120-006	98	101	103
Method Blank	RQ2006697-04	97	100	104
Lab Control Sample	RQ2006697-03	100	104	105

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: 06/16/20
Date Received: 06/17/20
Date Analyzed: 06/27/20
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: PDI-SB-24-(1.5-2)
Lab Code: R2005120-001
Analysis Method: 8260C
Prep Method: EPA 5035A

Units: ug/Kg
Basis: Dry

Analyte Name	Sample Result	Matrix Spike RQ2006849-05			Duplicate Matrix Spike RQ2006849-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	0.25 U	59.9	62.4	96	54.6	54.4	100	44-124	4	30
1,1,2,2-Tetrachloroethane	0.55 U	87.7	62.4	140	75.7	54.4	139	41-155	<1	30
1,1,2-Trichloroethane	0.25 U	69.8	62.4	112	60.1	54.4	110	48-124	2	30
1,1,2-Trichloro-1,2,2-trifluoroethane	0.25 U	74.4	62.4	119 *	67.4	54.4	124 *	40-117	4	30
1,1-Dichloroethane (1,1-DCA)	0.25 U	68.0	62.4	109	61.2	54.4	113	41-138	4	30
1,1-Dichloroethene (1,1-DCE)	0.37 U	71.0	62.4	114	64.4	54.4	118	46-124	3	30
1,2,4-Trichlorobenzene	0.53 U	56.4	62.4	90	42.5	54.4	78	10-169	14	30
1,2-Dibromo-3-chloropropane (DBCP)	0.94 U	69.4	62.4	111	57.1	54.4	105	30-136	6	30
1,2-Dibromoethane	0.25 U	63.1	62.4	101	53.5	54.4	98	38-129	3	30
1,2-Dichlorobenzene	0.25 U	64.7	62.4	104	54.5	54.4	100	11-152	4	30
1,2-Dichloroethane	0.25 U	55.2	62.4	88	47.7	54.4	88	49-119	<1	30
1,2-Dichloropropane	0.25 U	69.2	62.4	111	61.8	54.4	114	60-126	3	30
1,3-Dichlorobenzene	0.25 U	65.6	62.4	105	55.6	54.4	102	13-151	3	30
1,4-Dichlorobenzene	0.28 U	63.2	62.4	101	53.1	54.4	98	10-151	3	30
2-Butanone (MEK)	2.5 U	54.0	62.4	87	58.9	54.4	108	13-176	22	30
2-Hexanone	0.45 U	68.3	62.4	109	56.0	54.4	103	12-163	6	30
4-Methyl-2-pentanone	0.29 U	66.2	62.4	106	55.5	54.4	102	38-148	4	30
Acetone	5.9 U	72.2	62.4	116	65.6	54.4	121	11-183	4	30
Benzene	0.25 U	72.4	62.4	116	63.8	54.4	117	51-123	<1	30
Bromodichloromethane	0.25 U	58.0	62.4	93	52.0	54.4	96	39-122	3	30
Bromoform	0.63 U	56.5	62.4	91	47.9	54.4	88	16-135	3	30
Bromomethane	2.7 U	48.1	62.4	77	44.5	54.4	82	10-150	6	30
Carbon Disulfide	0.37 U	65.2	62.4	104	58.1	54.4	107	44-139	3	30
Carbon Tetrachloride	0.33 U	55.7	62.4	89	50.9	54.4	93	46-137	4	30
Chlorobenzene	0.25 U	64.0	62.4	103	55.4	54.4	102	25-129	<1	30
Chloroethane	0.52 U	57.6	62.4	92	52.5	54.4	96	10-166	4	30
Chloroform	0.25 U	64.6	62.4	104	58.0	54.4	107	55-118	3	30
Chloromethane	1.8 U	70.6	62.4	113	62.2	54.4	114	10-139	<1	30
Cyclohexane	0.33 U	70.7	62.4	113	62.4	54.4	115	28-126	2	30
Dibromochloromethane	0.25 U	57.5	62.4	92	50.7	54.4	93	36-125	1	30
Dichlorodifluoromethane (CFC 12)	0.42 U	54.3	62.4	87	48.4	54.4	89	51-144	2	30
Dichloromethane	3.5 U	66.9	62.4	107	59.5	54.4	109	49-125	2	30
Ethylbenzene	0.25 U	67.9	62.4	109	60.8	54.4	112	23-132	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: 06/16/20
Date Received: 06/17/20
Date Analyzed: 06/27/20
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: PDI-SB-24-(1.5-2)
Lab Code: R2005120-001
Analysis Method: 8260C
Prep Method: EPA 5035A

Units: ug/Kg
Basis: Dry

Analyte Name	Matrix Spike RQ2006849-05				Duplicate Matrix Spike RQ2006849-06					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Isopropylbenzene (Cumene)	0.25 U	66.7	62.4	107	59.1	54.4	109	18-133	2	30
Methyl Acetate	1.1 U	63.5	62.4	102	53.2	54.4	98	10-200	4	30
Methyl tert-Butyl Ether	0.25 U	60.4	62.4	97	53.5	54.4	98	62-130	1	30
Methylcyclohexane	0.39 U	82.7	62.4	133	69.8	54.4	128	12-134	4	30
Styrene	0.25 U	61.9	62.4	99	53.5	54.4	98	15-160	1	30
Tetrachloroethene (PCE)	0.61 J	68.5	62.4	109	59.9	54.4	109	21-137	<1	30
Toluene	0.28 J	67.9	62.4	108	60.7	54.4	111	11-152	3	30
Trichloroethene (TCE)	0.28 U	62.6	62.4	100	55.3	54.4	102	23-140	2	30
Trichlorofluoromethane (CFC 11)	0.33 U	61.0	62.4	98	55.8	54.4	103	47-129	5	30
Vinyl Chloride	0.58 U	69.2	62.4	111	61.5	54.4	113	59-153	2	30
cis-1,2-Dichloroethene	0.25 U	70.1	62.4	112	61.9	54.4	114	42-129	2	30
cis-1,3-Dichloropropene	0.25 U	56.5	62.4	90	50.2	54.4	92	14-139	2	30
trans-1,2-Dichloroethene	0.25 U	70.6	62.4	113	62.4	54.4	115	34-128	2	30
trans-1,3-Dichloropropene	0.25 U	50.2	62.4	80	43.9	54.4	81	17-155	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2006685-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	10 U	250	10	50	06/24/20 12:22	
1,1,2,2-Tetrachloroethane	22 U	250	22	50	06/24/20 12:22	
1,1,2-Trichloroethane	10 U	250	10	50	06/24/20 12:22	
1,1,2-Trichloro-1,2,2-trifluoroethane	10 U	250	10	50	06/24/20 12:22	
1,1-Dichloroethane (1,1-DCA)	10 U	250	10	50	06/24/20 12:22	
1,1-Dichloroethene (1,1-DCE)	15 U	250	15	50	06/24/20 12:22	
1,2,4-Trichlorobenzene	21 U	250	21	50	06/24/20 12:22	
1,2-Dibromo-3-chloropropane (DBCP)	38 U	250	38	50	06/24/20 12:22	
1,2-Dibromoethane	10 U	250	10	50	06/24/20 12:22	
1,2-Dichlorobenzene	10 U	250	10	50	06/24/20 12:22	
1,2-Dichloroethane	10 U	250	10	50	06/24/20 12:22	
1,2-Dichloropropane	10 U	250	10	50	06/24/20 12:22	
1,3-Dichlorobenzene	10 U	250	10	50	06/24/20 12:22	
1,4-Dichlorobenzene	11 U	250	11	50	06/24/20 12:22	
2-Butanone (MEK)	100 U	250	100	50	06/24/20 12:22	
2-Hexanone	18 U	250	18	50	06/24/20 12:22	
4-Methyl-2-pentanone	12 U	250	12	50	06/24/20 12:22	
Acetone	240 U	250	240	50	06/24/20 12:22	
Benzene	10 U	250	10	50	06/24/20 12:22	
Bromodichloromethane	10 U	250	10	50	06/24/20 12:22	
Bromoform	25 U	250	25	50	06/24/20 12:22	
Bromomethane	110 U	250	110	50	06/24/20 12:22	
Carbon Disulfide	15 U	250	15	50	06/24/20 12:22	
Carbon Tetrachloride	13 U	250	13	50	06/24/20 12:22	
Chlorobenzene	10 U	250	10	50	06/24/20 12:22	
Chloroethane	21 U	250	21	50	06/24/20 12:22	
Chloroform	10 U	250	10	50	06/24/20 12:22	
Chloromethane	70 U	250	70	50	06/24/20 12:22	
Cyclohexane	13 U	250	13	50	06/24/20 12:22	
Dibromochloromethane	10 U	250	10	50	06/24/20 12:22	
Dichlorodifluoromethane (CFC 12)	17 U	250	17	50	06/24/20 12:22	
Dichloromethane	140 U	250	140	50	06/24/20 12:22	
Ethylbenzene	10 U	250	10	50	06/24/20 12:22	
Isopropylbenzene (Cumene)	10 U	250	10	50	06/24/20 12:22	
Methyl Acetate	77 J	250	42	50	06/24/20 12:22	
Methyl tert-Butyl Ether	10 U	250	10	50	06/24/20 12:22	
Methylcyclohexane	16 U	250	16	50	06/24/20 12:22	
Styrene	10 U	250	10	50	06/24/20 12:22	
Tetrachloroethene (PCE)	12 U	250	12	50	06/24/20 12:22	
Toluene	10 U	250	10	50	06/24/20 12:22	
Trichloroethene (TCE)	11 U	250	11	50	06/24/20 12:22	
Trichlorofluoromethane (CFC 11)	13 U	250	13	50	06/24/20 12:22	
Vinyl Chloride	23 U	250	23	50	06/24/20 12:22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2006685-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	26 U	750	26	50	06/24/20 12:22	
cis-1,2-Dichloroethene	10 U	250	10	50	06/24/20 12:22	
cis-1,3-Dichloropropene	10 U	250	10	50	06/24/20 12:22	
trans-1,2-Dichloroethene	10 U	250	10	50	06/24/20 12:22	
trans-1,3-Dichloropropene	10 U	250	10	50	06/24/20 12:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	31 - 154	06/24/20 12:22	
Dibromofluoromethane	85	63 - 138	06/24/20 12:22	
Toluene-d8	95	66 - 138	06/24/20 12:22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Water

Service Request: R2005120
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2006697-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.20 U	5.0	0.20	1	06/24/20 22:10	
1,1,2,2-Tetrachloroethane	0.20 U	5.0	0.20	1	06/24/20 22:10	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	06/24/20 22:10	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	06/24/20 22:10	
1,1-Dichloroethane (1,1-DCA)	0.20 U	5.0	0.20	1	06/24/20 22:10	
1,1-Dichloroethene (1,1-DCE)	0.20 U	5.0	0.20	1	06/24/20 22:10	
1,2,4-Trichlorobenzene	0.34 U	5.0	0.34	1	06/24/20 22:10	
1,2-Dibromo-3-chloropropane (DBCP)	0.45 U	5.0	0.45	1	06/24/20 22:10	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	06/24/20 22:10	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	06/24/20 22:10	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	06/24/20 22:10	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	06/24/20 22:10	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	06/24/20 22:10	
1,4-Dichlorobenzene	0.20 U	5.0	0.20	1	06/24/20 22:10	
2-Butanone (MEK)	0.78 U	10	0.78	1	06/24/20 22:10	
2-Hexanone	0.20 U	10	0.20	1	06/24/20 22:10	
4-Methyl-2-pentanone	0.20 U	10	0.20	1	06/24/20 22:10	
Acetone	5.0 U	10	5.0	1	06/24/20 22:10	
Benzene	0.20 U	5.0	0.20	1	06/24/20 22:10	
Bromodichloromethane	0.20 U	5.0	0.20	1	06/24/20 22:10	
Bromoform	0.25 U	5.0	0.25	1	06/24/20 22:10	
Bromomethane	0.70 U	5.0	0.70	1	06/24/20 22:10	
Carbon Disulfide	0.42 U	10	0.42	1	06/24/20 22:10	
Carbon Tetrachloride	0.34 U	5.0	0.34	1	06/24/20 22:10	
Chlorobenzene	0.20 U	5.0	0.20	1	06/24/20 22:10	
Chloroethane	0.23 U	5.0	0.23	1	06/24/20 22:10	
Chloroform	0.24 U	5.0	0.24	1	06/24/20 22:10	
Chloromethane	0.28 U	5.0	0.28	1	06/24/20 22:10	
Cyclohexane	0.26 U	10	0.26	1	06/24/20 22:10	
Dibromochloromethane	0.20 U	5.0	0.20	1	06/24/20 22:10	
Dichlorodifluoromethane (CFC 12)	0.21 U	5.0	0.21	1	06/24/20 22:10	
Dichloromethane	0.65 U	5.0	0.65	1	06/24/20 22:10	
Ethylbenzene	0.20 U	5.0	0.20	1	06/24/20 22:10	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	06/24/20 22:10	
Methyl Acetate	0.33 U	10	0.33	1	06/24/20 22:10	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	06/24/20 22:10	
Methylcyclohexane	0.20 U	10	0.20	1	06/24/20 22:10	
Styrene	0.20 U	5.0	0.20	1	06/24/20 22:10	
Tetrachloroethene (PCE)	0.21 U	5.0	0.21	1	06/24/20 22:10	
Toluene	0.20 U	5.0	0.20	1	06/24/20 22:10	
Trichloroethene (TCE)	0.20 U	5.0	0.20	1	06/24/20 22:10	
Trichlorofluoromethane (CFC 11)	0.24 U	5.0	0.24	1	06/24/20 22:10	
Vinyl Chloride	0.20 U	5.0	0.20	1	06/24/20 22:10	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Water

Service Request: R2005120
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2006697-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.23 U	5.0	0.23	1	06/24/20 22:10	
cis-1,2-Dichloroethene	0.23 U	5.0	0.23	1	06/24/20 22:10	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	06/24/20 22:10	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	06/24/20 22:10	
trans-1,3-Dichloropropene	0.23 U	5.0	0.23	1	06/24/20 22:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	06/24/20 22:10	
Dibromofluoromethane	100	89 - 119	06/24/20 22:10	
Toluene-d8	104	87 - 121	06/24/20 22:10	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2006849-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.20 U	5.0	0.20	1	06/27/20 12:53	
1,1,2,2-Tetrachloroethane	0.44 U	5.0	0.44	1	06/27/20 12:53	
1,1,2-Trichloroethane	0.20 U	5.0	0.20	1	06/27/20 12:53	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20 U	5.0	0.20	1	06/27/20 12:53	
1,1-Dichloroethane (1,1-DCA)	0.20 U	5.0	0.20	1	06/27/20 12:53	
1,1-Dichloroethene (1,1-DCE)	0.29 U	5.0	0.29	1	06/27/20 12:53	
1,2,4-Trichlorobenzene	0.42 U	5.0	0.42	1	06/27/20 12:53	
1,2-Dibromo-3-chloropropane (DBCP)	0.75 U	5.0	0.75	1	06/27/20 12:53	
1,2-Dibromoethane	0.20 U	5.0	0.20	1	06/27/20 12:53	
1,2-Dichlorobenzene	0.20 U	5.0	0.20	1	06/27/20 12:53	
1,2-Dichloroethane	0.20 U	5.0	0.20	1	06/27/20 12:53	
1,2-Dichloropropane	0.20 U	5.0	0.20	1	06/27/20 12:53	
1,3-Dichlorobenzene	0.20 U	5.0	0.20	1	06/27/20 12:53	
1,4-Dichlorobenzene	0.22 U	5.0	0.22	1	06/27/20 12:53	
2-Butanone (MEK)	2.0 U	5.0	2.0	1	06/27/20 12:53	
2-Hexanone	0.36 U	5.0	0.36	1	06/27/20 12:53	
4-Methyl-2-pentanone	0.23 U	5.0	0.23	1	06/27/20 12:53	
Acetone	4.7 U	5.0	4.7	1	06/27/20 12:53	
Benzene	0.20 U	5.0	0.20	1	06/27/20 12:53	
Bromodichloromethane	0.20 U	5.0	0.20	1	06/27/20 12:53	
Bromoform	0.50 U	5.0	0.50	1	06/27/20 12:53	
Bromomethane	2.1 U	5.0	2.1	1	06/27/20 12:53	
Carbon Disulfide	0.29 U	5.0	0.29	1	06/27/20 12:53	
Carbon Tetrachloride	0.26 U	5.0	0.26	1	06/27/20 12:53	
Chlorobenzene	0.20 U	5.0	0.20	1	06/27/20 12:53	
Chloroethane	0.41 U	5.0	0.41	1	06/27/20 12:53	
Chloroform	0.20 U	5.0	0.20	1	06/27/20 12:53	
Chloromethane	1.4 U	5.0	1.4	1	06/27/20 12:53	
Cyclohexane	0.26 U	5.0	0.26	1	06/27/20 12:53	
Dibromochloromethane	0.20 U	5.0	0.20	1	06/27/20 12:53	
Dichlorodifluoromethane (CFC 12)	0.33 U	5.0	0.33	1	06/27/20 12:53	
Dichloromethane	2.8 U	5.0	2.8	1	06/27/20 12:53	
Ethylbenzene	0.20 U	5.0	0.20	1	06/27/20 12:53	
Isopropylbenzene (Cumene)	0.20 U	5.0	0.20	1	06/27/20 12:53	
Methyl Acetate	0.84 U	5.0	0.84	1	06/27/20 12:53	
Methyl tert-Butyl Ether	0.20 U	5.0	0.20	1	06/27/20 12:53	
Methylcyclohexane	0.31 U	5.0	0.31	1	06/27/20 12:53	
Styrene	0.20 U	5.0	0.20	1	06/27/20 12:53	
Tetrachloroethene (PCE)	0.23 U	5.0	0.23	1	06/27/20 12:53	
Toluene	0.20 U	5.0	0.20	1	06/27/20 12:53	
Trichloroethene (TCE)	0.22 U	5.0	0.22	1	06/27/20 12:53	
Trichlorofluoromethane (CFC 11)	0.26 U	5.0	0.26	1	06/27/20 12:53	
Vinyl Chloride	0.46 U	5.0	0.46	1	06/27/20 12:53	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2006849-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.52 U	15	0.52	1	06/27/20 12:53	
cis-1,2-Dichloroethene	0.20 U	5.0	0.20	1	06/27/20 12:53	
cis-1,3-Dichloropropene	0.20 U	5.0	0.20	1	06/27/20 12:53	
trans-1,2-Dichloroethene	0.20 U	5.0	0.20	1	06/27/20 12:53	
trans-1,3-Dichloropropene	0.20 U	5.0	0.20	1	06/27/20 12:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	31 - 154	06/27/20 12:53	
Dibromofluoromethane	89	63 - 138	06/27/20 12:53	
Toluene-d8	98	66 - 138	06/27/20 12:53	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Analyzed: 06/24/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2006685-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	18.2	20.0	91	68-123
1,1,2,2-Tetrachloroethane	8260C	26.2	20.0	131 *	78-121
1,1,2-Trichloroethane	8260C	20.4	20.0	102	84-117
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	18.5	20.0	93	54-121
1,1-Dichloroethane (1,1-DCA)	8260C	19.1	20.0	95	76-123
1,1-Dichloroethene (1,1-DCE)	8260C	18.1	20.0	90	65-115
1,2,4-Trichlorobenzene	8260C	20.3	20.0	102	62-130
1,2-Dibromo-3-chloropropane (DBCP)	8260C	21.9	20.0	110	54-135
1,2-Dibromoethane	8260C	20.4	20.0	102	77-117
1,2-Dichlorobenzene	8260C	19.0	20.0	95	75-116
1,2-Dichloroethane	8260C	18.7	20.0	93	74-116
1,2-Dichloropropane	8260C	19.8	20.0	99	79-112
1,3-Dichlorobenzene	8260C	19.2	20.0	96	72-118
1,4-Dichlorobenzene	8260C	19.0	20.0	95	72-117
2-Butanone (MEK)	8260C	20.5	20.0	103	67-129
2-Hexanone	8260C	21.1	20.0	105	68-118
4-Methyl-2-pentanone	8260C	20.6	20.0	103	64-123
Acetone	8260C	21.3	20.0	107	32-154
Benzene	8260C	19.2	20.0	96	77-114
Bromodichloromethane	8260C	18.2	20.0	91	72-118
Bromoform	8260C	19.2	20.0	96	55-134
Bromomethane	8260C	5.88	20.0	29	10-150
Carbon Disulfide	8260C	16.8	20.0	84	44-139
Carbon Tetrachloride	8260C	16.8	20.0	84	51-123
Chlorobenzene	8260C	19.4	20.0	97	79-115
Chloroethane	8260C	10.0	20.0	50	10-140
Chloroform	8260C	18.9	20.0	95	76-115
Chloromethane	8260C	18.2	20.0	91	10-131
Cyclohexane	8260C	20.7	20.0	104	67-122
Dibromochloromethane	8260C	19.8	20.0	99	68-121
Dichlorodifluoromethane (CFC 12)	8260C	19.3	20.0	96	51-144
Dichloromethane	8260C	18.4	20.0	92	72-118
Ethylbenzene	8260C	19.3	20.0	96	64-118

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Analyzed: 06/24/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2006685-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	18.9	20.0	95	60-123
Methyl Acetate	8260C	20.0	20.0	100	31-122
Methyl tert-Butyl Ether	8260C	21.0	20.0	105	76-118
Methylcyclohexane	8260C	22.0	20.0	110	70-124
Styrene	8260C	20.1	20.0	101	74-117
Tetrachloroethene (PCE)	8260C	18.7	20.0	94	58-124
Toluene	8260C	19.2	20.0	96	72-116
Trichloroethene (TCE)	8260C	16.0	20.0	80	69-118
Trichlorofluoromethane (CFC 11)	8260C	16.7	20.0	84	52-127
Vinyl Chloride	8260C	17.9	20.0	89	59-153
cis-1,2-Dichloroethene	8260C	20.0	20.0	100	79-113
cis-1,3-Dichloropropene	8260C	19.7	20.0	99	66-117
trans-1,2-Dichloroethene	8260C	18.7	20.0	94	73-114
trans-1,3-Dichloropropene	8260C	20.5	20.0	103	57-135

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Water

Service Request: R2005120
Date Analyzed: 06/24/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2006697-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	20.9	20.0	104	75-125
1,1,2,2-Tetrachloroethane	8260C	23.3	20.0	116	78-126
1,1,2-Trichloroethane	8260C	21.2	20.0	106	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	21.9	20.0	109	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	20.6	20.0	103	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	20.7	20.0	103	71-118
1,2,4-Trichlorobenzene	8260C	21.3	20.0	107	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	22.1	20.0	110	55-136
1,2-Dibromoethane	8260C	20.6	20.0	103	82-127
1,2-Dichlorobenzene	8260C	21.2	20.0	106	80-119
1,2-Dichloroethane	8260C	19.6	20.0	98	71-127
1,2-Dichloropropane	8260C	20.6	20.0	103	80-119
1,3-Dichlorobenzene	8260C	21.0	20.0	105	83-121
1,4-Dichlorobenzene	8260C	20.2	20.0	101	79-119
2-Butanone (MEK)	8260C	21.3	20.0	106	61-137
2-Hexanone	8260C	20.1	20.0	101	63-124
4-Methyl-2-pentanone	8260C	21.4	20.0	107	66-124
Acetone	8260C	21.3	20.0	106	40-161
Benzene	8260C	21.0	20.0	105	79-119
Bromodichloromethane	8260C	20.5	20.0	102	81-123
Bromoform	8260C	20.0	20.0	100	65-146
Bromomethane	8260C	18.9	20.0	95	42-166
Carbon Disulfide	8260C	19.8	20.0	99	66-128
Carbon Tetrachloride	8260C	20.0	20.0	100	70-127
Chlorobenzene	8260C	20.8	20.0	104	80-121
Chloroethane	8260C	20.5	20.0	102	62-131
Chloroform	8260C	20.6	20.0	103	79-120
Chloromethane	8260C	20.7	20.0	103	65-135
Cyclohexane	8260C	19.0	20.0	95	69-120
Dibromochloromethane	8260C	20.5	20.0	102	72-128
Dichlorodifluoromethane (CFC 12)	8260C	22.3	20.0	111	59-155
Dichloromethane	8260C	20.2	20.0	101	73-122
Ethylbenzene	8260C	20.7	20.0	104	76-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Water

Service Request: R2005120
Date Analyzed: 06/24/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2006697-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	21.4	20.0	107	77-128
Methyl Acetate	8260C	18.3	20.0	91	61-133
Methyl tert-Butyl Ether	8260C	21.4	20.0	107	75-118
Methylcyclohexane	8260C	19.5	20.0	97	51-129
Styrene	8260C	20.9	20.0	105	80-124
Tetrachloroethene (PCE)	8260C	20.2	20.0	101	72-125
Toluene	8260C	20.9	20.0	104	79-119
Trichloroethene (TCE)	8260C	18.7	20.0	94	74-122
Trichlorofluoromethane (CFC 11)	8260C	22.4	20.0	112	71-136
Vinyl Chloride	8260C	21.0	20.0	105	74-159
cis-1,2-Dichloroethene	8260C	21.0	20.0	105	80-121
cis-1,3-Dichloropropene	8260C	19.2	20.0	96	77-122
trans-1,2-Dichloroethene	8260C	21.2	20.0	106	73-118
trans-1,3-Dichloropropene	8260C	19.5	20.0	98	71-133

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Analyzed: 06/27/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2006849-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	18.4	20.0	92	68-123
1,1,2,2-Tetrachloroethane	8260C	26.9	20.0	134 *	78-121
1,1,2-Trichloroethane	8260C	22.1	20.0	111	84-117
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	22.9	20.0	114	54-121
1,1-Dichloroethane (1,1-DCA)	8260C	21.9	20.0	110	76-123
1,1-Dichloroethene (1,1-DCE)	8260C	22.5	20.0	112	65-115
1,2,4-Trichlorobenzene	8260C	23.3	20.0	117	62-130
1,2-Dibromo-3-chloropropane (DBCP)	8260C	23.6	20.0	118	54-135
1,2-Dibromoethane	8260C	20.5	20.0	103	77-117
1,2-Dichlorobenzene	8260C	22.0	20.0	110	75-116
1,2-Dichloroethane	8260C	17.6	20.0	88	74-116
1,2-Dichloropropane	8260C	22.1	20.0	110	79-112
1,3-Dichlorobenzene	8260C	22.7	20.0	114	72-118
1,4-Dichlorobenzene	8260C	22.5	20.0	113	72-117
2-Butanone (MEK)	8260C	22.5	20.0	112	67-129
2-Hexanone	8260C	22.4	20.0	112	68-118
4-Methyl-2-pentanone	8260C	20.3	20.0	101	64-123
Acetone	8260C	20.6	20.0	103	32-154
Benzene	8260C	23.3	20.0	117 *	77-114
Bromodichloromethane	8260C	18.0	20.0	90	72-118
Bromoform	8260C	16.7	20.0	83	55-134
Bromomethane	8260C	18.6	20.0	93	10-150
Carbon Disulfide	8260C	19.3	20.0	97	44-139
Carbon Tetrachloride	8260C	16.4	20.0	82	51-123
Chlorobenzene	8260C	21.5	20.0	107	79-115
Chloroethane	8260C	20.8	20.0	104	10-140
Chloroform	8260C	21.0	20.0	105	76-115
Chloromethane	8260C	23.7	20.0	118	10-131
Cyclohexane	8260C	20.1	20.0	100	67-122
Dibromochloromethane	8260C	17.4	20.0	87	68-121
Dichlorodifluoromethane (CFC 12)	8260C	19.3	20.0	96	51-144
Dichloromethane	8260C	19.7	20.0	99	72-118
Ethylbenzene	8260C	22.2	20.0	111	64-118

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project: NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120
Date Analyzed: 06/27/20

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2006849-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	21.3	20.0	107	60-123
Methyl Acetate	8260C	20.8	20.0	104	31-122
Methyl tert-Butyl Ether	8260C	19.0	20.0	95	76-118
Methylcyclohexane	8260C	23.3	20.0	117	70-124
Styrene	8260C	20.7	20.0	103	74-117
Tetrachloroethene (PCE)	8260C	21.5	20.0	107	58-124
Toluene	8260C	21.9	20.0	109	72-116
Trichloroethene (TCE)	8260C	20.4	20.0	102	69-118
Trichlorofluoromethane (CFC 11)	8260C	19.8	20.0	99	52-127
Vinyl Chloride	8260C	22.3	20.0	112	59-153
cis-1,2-Dichloroethene	8260C	22.9	20.0	114 *	79-113
cis-1,3-Dichloropropene	8260C	17.5	20.0	87	66-117
trans-1,2-Dichloroethene	8260C	22.9	20.0	114	73-114
trans-1,3-Dichloropropene	8260C	15.6	20.0	78	57-135



General Chemistry

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: EA Engineering, Science, and Technology (EAEST)
Project NYSDEC / Admiral Cleaners/16025.04
Sample Matrix: Soil

Service Request: R2005120**Date Collected:** 06/16/20**Date Received:** 06/17/20**Date Analyzed:** 06/23/20**Replicate Sample Summary
General Chemistry Parameters****Sample Name:** PDI-SB-24-(1.5-2)**Units:** Percent**Lab Code:** R2005120-001**Basis:** As Received

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
				R2005120-001DUP Result			
Total Solids	ALS SOP	-	87.3	87.1	87.2	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



June 24, 2020

Service Request No:R2004215

Mr. Jim Hayward
EA Engineering, Science, and Technology
269 W. Jefferson Street
Syracuse, NY 13202

Laboratory Results for: Admiral Cleaners TCLP

Dear Mr.Hayward,

Enclosed are the results of the sample(s) submitted to our laboratory May 20, 2020
For your reference, these analyses have been assigned our service request number **R2004215**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Meghan.Pedro@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Meghan Pedro
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: EA Engineering, Science, and Technology (EAEST)
Project: Admiral Cleaners TCLP
Sample Matrix: Soil

Service Request: R2004215
Date Received: 05/20/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

One soil sample was received for analysis at ALS Environmental on 05/20/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.
Coolers were all received out of temperature as noted on the cooler receipt form, samples will be processed as per your request.

Subcontracted Analytical Parameters:

One or more samples were subcontracted to another laboratory for testing. The certified analytical report from the subcontractor has been included in its entirety at the end of this report and includes the name and address of the subcontracted laboratory.

Approved by Meghan Pedro

Date 06/24/2020



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

000560

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE

3 OF 3

Project Name NYSDEL / Admiral		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																
Project Manager Chris Schroer		Report CC		PRESERVATIVE																
Company/Address EA Engineering cschroer@eaest.com				NUMBER OF CONTAINERS																
Phone # 315 415 4152		Email dkite@eaest.com		PRESERVATIVE KEY 0. NONE 1. HCL 2. HNO ₃ 3. H ₂ SO ₄ 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO ₄ 8. Other _____																
Sampler's Signature 		Sampler's Printed Name Danny Kite		REMARKS/ ALTERNATE DESCRIPTION																
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE TIME		MATRIX																
PD1-SB-23-17-81		5/19/20	1620	4	X															
PD1-RB-5-19-20		5/19/20	1635	3	X															
PD1-TB-5-19-20		5/19/20	1640	2	X															
PD1-IDW-SOIL		5/19/20	1640	2																
SPECIAL INSTRUCTIONS/COMMENTS Metals 					TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 14 day TAT ____ 4 day ____ 5 day ____ Standard (10 business days-No Surcharge) REQUESTED REPORT DATE _____					REPORT REQUIREMENTS ____ I. Results Only ____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required) ____ III. Results + QC and Calibration Summaries ____ IV. Data Validation Report with Raw Data Edata ____ Yes ____ No					INVOICE INFORMATION PO # BILL TO:					
STATE WHERE SAMPLES WERE COLLECTED																				
RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY						
Signature 		Signature 		Signature 		Signature 		Signature 		Signature 		Signature 		Signature 						
Printed Name Danny Kite		Printed Name Danny Kite		Printed Name Danny Kite		Printed Name Danny Kite		Printed Name Danny Kite		Printed Name Danny Kite		Printed Name Danny Kite		Printed Name Danny Kite						
Firm EA		Firm EA		Firm EA		Firm EA		Firm EA		Firm EA		Firm EA		Firm EA						
Date/Time 5/20/2020 1100		Date/Time 5/20/2020 1110		Date/Time 5/20/2020 1110		Date/Time 5/20/2020 1110		Date/Time 5/20/2020 1110		Date/Time 5/20/2020 1110		Date/Time 5/20/2020 1110		Date/Time 5/20/2020 1110						

Distribution: White - Lab Copy; Yellow - Return to Originator

R2004215 5
EA Engineering, Science, and Technology
Admiral Cleaners TCLP



Cooler Receipt and Preservation Check Form

R2004215

5

EA Engineering, Science, and Technology
Admiral Cleaners TCLP



Project/Client EA Engineering Folder Number _____

Cooler received on 5/20/2020 by: R/16 COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y <u>(N)</u>
2	Custody papers properly completed (ink, signed)?	<u>(Y)</u> N
3	Did all bottles arrive in good condition (unbroken)?	<u>(Y)</u> N
4	Circle: <u>(Wet Ice)</u> Dry Ice Gel packs present?	<u>(Y)</u> N

5a	Perchlorate samples have required headspace?	Y N <u>(NA)</u>
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	<u>(Y)</u> N NA
6	Where did the bottles originate?	<u>(ALS/ROC)</u> CLIENT
7	Soil VOA received as: Bulk Encore <u>(5035set)</u> NA	

8. Temperature Readings Date: 5/20/2020 Time: 1120 ID: IR#7 (IR#10) From: Temp Blank (Sample Bottle)

Observed Temp (°C)	<u>7.6</u>	<u>8.2</u>	<u>13.4</u>				
Within 0-6°C?	Y <u>(N)</u>	Y <u>(N)</u>	Y <u>(N)</u>	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R002 by R on 5/20/2020 at 1130
5035 samples placed in storage location: F-09 by 16 on 5/20/2020 at 1159 within 48 hours of sampling? (Y) N

Cooler Breakdown/Preservation Check**: Date: 5/20/2020 Time: 1605 by: SLH

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? (YES) NO
10. Did all bottle labels and tags agree with custody papers? (YES) NO
11. Were correct containers used for the tests indicated? (YES) NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? (YES) (NO) N/A
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≥2		HNO ₃								
≥2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis.
Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 082604-1TW

Explain all Discrepancies/ Other Comments:

PFAS not in separate cooler.

Some 5035 sets have extra labels

headspace: 4 of 6 TB vials

HPROD	BULK
HTR	FLDT
<u>(SUB)</u>	HGFB
ALS	LL3541

Labels secondary reviewed by: SLH

PC Secondary Review: SLH

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	



Subcontracted Analytical Parameters

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



ALS Environmental



301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

June 4, 2020

Reports and Invoices
ALS Environmental
1565 Jefferson Road
Building 300, Suite 360
Rochester, NY 14623

Certificate of Analysis

Project Name: **Custom EDD, MDL, QC**

Workorder: **3104456**

Purchase Order: **58R2004215**

Workorder ID: **AER441|R2004215**

Dear Reports Invoices:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, May 27, 2020.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Sarah S Leung (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Michael Chevalier , Mr. Brady Kalkman , Ms. Janice Jaeger

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Ms. Sarah S Leung
Project Coordinator

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

**SAMPLE SUMMARY**

Workorder: 3104456 AER441|R2004215

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3104456001	PDI-IDW-Soil	Solid	5/19/2020 16:40	5/27/2020 09:31	Collected by Client

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey



ALS Environmental



301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

PROJECT SUMMARY

Workorder: 3104456 AER441|R2004215

Sample Comments

Lab ID: 3104456001

Sample ID: PDI-IDW-Soil

Sample Type: SAMPLE

The analysis for ignitability is performed using a modified method 1010A that provides a flashpoint temperature for a solid sample.

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

ANALYTICAL RESULTS

Workorder: 3104456 AER441|R2004215

Lab ID: **3104456001**
Sample ID: **PDI-IDW-Soil**

Date Collected: 5/19/2020 16:40 Matrix: Solid
Date Received: 5/27/2020 09:31

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
TCLP EPA 1311 VOLATILE ORGANIC										
Benzene	ND		ug/L	20.0	8.0	SW846 8260C		5/29/20 18:52	DPC	A
2-Butanone	ND		ug/L	200	60.0	SW846 8260C		5/29/20 18:52	DPC	A
Carbon Tetrachloride	ND		ug/L	20.0	4.0	SW846 8260C		5/29/20 18:52	DPC	A
Chlorobenzene	ND		ug/L	20.0	4.0	SW846 8260C		5/29/20 18:52	DPC	A
Chloroform	11.4J	J	ug/L	20.0	4.0	SW846 8260C		5/29/20 18:52	DPC	A
1,2-Dichloroethane	ND		ug/L	20.0	4.0	SW846 8260C		5/29/20 18:52	DPC	A
1,1-Dichloroethene	ND		ug/L	20.0	4.0	SW846 8260C		5/29/20 18:52	DPC	A
Tetrachloroethene	49.7		ug/L	20.0	8.0	SW846 8260C		5/29/20 18:52	DPC	A
Trichloroethene	ND		ug/L	20.0	4.0	SW846 8260C		5/29/20 18:52	DPC	A
Vinyl Chloride	ND		ug/L	20.0	4.0	SW846 8260C		5/29/20 18:52	DPC	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>		<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i> <i>Cntr</i>
1,2-Dichloroethane-d4 (S)	105		%	62 - 133		SW846 8260C		5/29/20 18:52	DPC	A
4-Bromofluorobenzene (S)	102		%	79 - 114		SW846 8260C		5/29/20 18:52	DPC	A
Dibromofluoromethane (S)	102		%	78 - 116		SW846 8260C		5/29/20 18:52	DPC	A
Toluene-d8 (S)	91.7		%	76 - 127		SW846 8260C		5/29/20 18:52	DPC	A
PCBs										
Total Polychlorinated Biphenyl	ND		mg/kg	0.041	0.011	SW846 8082A	5/29/20 01:40	S7M	5/31/20 14:26	EGO
Aroclor-1016	ND		mg/kg	0.041	0.0075	SW846 8082A	5/29/20 01:40	S7M	5/31/20 14:26	EGO
Aroclor-1221	ND		mg/kg	0.041	0.0037	SW846 8082A	5/29/20 01:40	S7M	5/31/20 14:26	EGO
Aroclor-1232	ND		mg/kg	0.041	0.0075	SW846 8082A	5/29/20 01:40	S7M	5/31/20 14:26	EGO
Aroclor-1242	ND		mg/kg	0.041	0.011	SW846 8082A	5/29/20 01:40	S7M	5/31/20 14:26	EGO
Aroclor-1248	ND		mg/kg	0.041	0.0075	SW846 8082A	5/29/20 01:40	S7M	5/31/20 14:26	EGO
Aroclor-1254	ND		mg/kg	0.041	0.0075	SW846 8082A	5/29/20 01:40	S7M	5/31/20 14:26	EGO
Aroclor-1260	ND		mg/kg	0.041	0.0075	SW846 8082A	5/29/20 01:40	S7M	5/31/20 14:26	EGO
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>		<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i> <i>Cntr</i>
Decachlorobiphenyl (S)	69.7		%	49 - 115		SW846 8082A	5/29/20 01:40	S7M	5/31/20 14:26	EGO
Tetrachloro-m-xylene (S)	82		%	27 - 137		SW846 8082A	5/29/20 01:40	S7M	5/31/20 14:26	EGO
WET CHEMISTRY										
Corrosivity as pH	6.65	4,5	pH_Units			SW846 9045D		5/28/20 03:48	R2B	A
Cyanide, Reactive	ND		mg/kg	10	0.011	SW-846 7.3CN	5/28/20 16:50	VXF	5/29/20 08:53	CTD A
Ignitability	See Comment	2,3	Deg. F			SW-846 1010AM		5/29/20 09:30	II	A
Moisture	22.7		%	0.1	0.01	S2540G-11		5/28/20 15:05	II	
Specific Gravity	1.83	1				S2710F-09		6/4/20 12:45	II	A
Sulfide, Reactive	4.0J	J	mg/kg	6.2	1.4	SW846 7.3	5/28/20 16:50	VXF	5/28/20 21:40	VXF A

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

ANALYTICAL RESULTS

Workorder: 3104456 AER441|R2004215

Lab ID: **3104456001**
Sample ID: **PDI-IDW-Soil**

Date Collected: 5/19/2020 16:40 Matrix: Solid
Date Received: 5/27/2020 09:31

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Total Solids	77.3	6	%	0.1	0.01	S2540G-11		5/28/20 15:05	II	
TCLP EPA 1311 METALS										
Arsenic, Total	ND		mg/L	0.14	0.046	SW846 6010C	5/30/20 17:05 AHI	6/1/20 13:08	SRT	A1
Barium, Total	ND		mg/L	2.8	0.94	SW846 6010C	5/30/20 17:05 AHI	6/1/20 13:08	SRT	A1
Cadmium, Total	ND		mg/L	0.011	0.0037	SW846 6010C	5/30/20 17:05 AHI	6/1/20 13:08	SRT	A1
Chromium, Total	ND		mg/L	0.028	0.010	SW846 6010C	5/30/20 17:05 AHI	6/1/20 13:08	SRT	A1
Lead, Total	0.062		mg/L	0.033	0.011	SW846 6010C	5/30/20 17:05 AHI	6/1/20 13:08	SRT	A1
Mercury, Total	ND		mg/L	0.0020	0.00066	SW846 7470A	5/29/20 14:05 AHI	5/30/20 13:56	AHI	A
Selenium, Total	ND		mg/L	0.11	0.037	SW846 6010C	5/30/20 17:05 AHI	6/1/20 13:08	SRT	A1
Silver, Total	ND		mg/L	0.022	0.0070	SW846 6010C	5/30/20 17:05 AHI	6/1/20 13:08	SRT	A1
TCLP EPA 1311 SEMI-VOLATILES										
mp-Cresol	ND		ug/L	60.0	10.0	SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
o-Cresol	ND		ug/L	60.0	10.0	SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
1,4-Dichlorobenzene	ND		ug/L	60.0	5.0	SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
2,4-Dinitrotoluene	ND		ug/L	60.0	5.2	SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
Hexachlorobenzene	ND		ug/L	60.0	5.0	SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
Hexachlorobutadiene	ND		ug/L	60.0	8.2	SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
Hexachloroethane	ND		ug/L	60.0	6.0	SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
Nitrobenzene	ND		ug/L	60.0	5.0	SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
Pentachlorophenol	ND		ug/L	120	10.0	SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
Pyridine	ND		ug/L	60.0	9.2	SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
2,4,5-Trichlorophenol	ND		ug/L	60.0	10.0	SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
2,4,6-Trichlorophenol	ND		ug/L	60.0	10.0	SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>		<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i> <i>Cntr</i>
2,4,6-Tribromophenol (S)	82.7		%	47 - 128		SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
2-Fluorobiphenyl (S)	69.6		%	52 - 118		SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
2-Fluorophenol (S)	47.7		%	20 - 87		SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
Nitrobenzene-d5 (S)	75.7		%	27 - 139		SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
Phenol-d5 (S)	29.8		%	10 - 81		SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
Terphenyl-d14 (S)	99.5		%	46 - 133		SW846 8270D	6/1/20 10:20 MXL	6/2/20 00:39	DHF	A
TCLP EPA 1311 PESTICIDES										
gamma-BHC	ND		ug/L	0.40	0.18	SW846 8081B	6/1/20 06:35 LEH	6/2/20 20:34	JXS	A
Chlordane	ND		ug/L	10.0	1.4	SW846 8081B	6/1/20 06:35 LEH	6/2/20 20:34	JXS	A
Endrin	ND		ug/L	0.40	0.22	SW846 8081B	6/1/20 06:35 LEH	6/2/20 20:34	JXS	A
Heptachlor	ND		ug/L	0.40	0.16	SW846 8081B	6/1/20 06:35 LEH	6/2/20 20:34	JXS	A
Heptachlor Epoxide	ND		ug/L	0.40	0.14	SW846 8081B	6/1/20 06:35 LEH	6/2/20 20:34	JXS	A
Methoxychlor	ND		ug/L	0.40	0.24	SW846 8081B	6/1/20 06:35 LEH	6/2/20 20:34	JXS	A

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

**ALS Environmental**

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343**ANALYTICAL RESULTS**

Workorder: 3104456 AER441|R2004215

Lab ID: **3104456001**
Sample ID: **PDI-IDW-Soil**Date Collected: 5/19/2020 16:40 Matrix: Solid
Date Received: 5/27/2020 09:31

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Toxaphene	ND		ug/L	20.0	4.0	SW846 8081B	6/1/20 06:35 LEH	6/2/20 20:34	JXS	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>		<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i> <i>Cntr</i>
Decachlorobiphenyl (S)	55.1		%	30 - 140		SW846 8081B	6/1/20 06:35 LEH	6/2/20 20:34	JXS	A
Tetrachloro-m-xylene (S)	65.9		%	30 - 123		SW846 8081B	6/1/20 06:35 LEH	6/2/20 20:34	JXS	A
TCPLP EPA 1311 HERBICIDES										
2,4-D	ND		ug/L	20.0	13.2	SW846 8151A	6/1/20 15:20 DXL	6/2/20 13:55	KJH	A
2,4,5-TP	ND		ug/L	4.0	1.8	SW846 8151A	6/1/20 15:20 DXL	6/2/20 13:55	KJH	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>		<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i> <i>Cntr</i>
2,4-Dichlorophenylacetic acid (S)	111		%	14 - 172		SW846 8151A	6/1/20 15:20 DXL	6/2/20 13:55	KJH	A

Ms. Sarah S Leung
Project Coordinator**ALS Environmental Laboratory Locations Across North America**Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

**ANALYTICAL RESULTS**

Workorder: 3104456 AER441|R2004215

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3104456001	1	PDI-IDW-Soil	S2710F-09	Specific Gravity
ALS-Middletown does not hold PADEP NELAP accreditation for this analyte by this method of analysis.				
3104456001	2	PDI-IDW-Soil	SW-846 1010AM	Ignitability
According to Pa/USEPA regulations, this sample is not considered to be ignitable. (Ref 40 CFR 261.21)				
3104456001	3	PDI-IDW-Soil	SW-846 1010AM	Ignitability
Sample did not flash up to 200°F				
3104456001	4	PDI-IDW-Soil	SW846 9045D	Corrosivity as pH
The corrosivity analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.				
3104456001	5	PDI-IDW-Soil	SW846 9045D	Corrosivity as pH
The solid pH of the sample was 6.646 at 20.2 degrees C.				
3104456001	6	PDI-IDW-Soil	S2540G-11	Total Solids
Analyte was analyzed past the 7 day holding time.				

ALS Environmental Laboratory Locations Across North AmericaCanada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

**ANALYSIS - PREP METHOD CROSS REFERENCE TABLE**

Workorder: 3104456 AER441|R2004215

Lab ID	Sample ID	Analysis Method	Prep Method	Leachate Method
3104456001	PDI-IDW-Soil	S2540G-11		
3104456001	PDI-IDW-Soil	S2710F-09		
3104456001	PDI-IDW-Soil	SW-846 1010AM		
3104456001	PDI-IDW-Soil	SW-846 7.3CN	SW-846 7.3CN	
3104456001	PDI-IDW-Soil	SW846 6010C	SW846 3015	SW846 1311
3104456001	PDI-IDW-Soil	SW846 7.3	SW846 7.3	
3104456001	PDI-IDW-Soil	SW846 7470A	SW846 7470A	SW846 1311
3104456001	PDI-IDW-Soil	SW846 8081B	SW846 3510C	SW846 1311
3104456001	PDI-IDW-Soil	SW846 8082A	SW846 3546	
3104456001	PDI-IDW-Soil	SW846 8151A	SW846 8151A	SW846 1311
3104456001	PDI-IDW-Soil	SW846 8260C		SW846 1311
3104456001	PDI-IDW-Soil	SW846 8270D	SW846 3510C	SW846 1311
3104456001	PDI-IDW-Soil	SW846 9045D		

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



QUALITY CONTROL DATA

Workorder: 3104456 AER441|R2004215

QC Batch: EXTR/60606

Analysis Method: SW846 8082A

QC Batch Method: SW846 3546

Associated Lab Samples: 3104456001

METHOD BLANK: 3141202

Parameter	Blank Result	Units	Reporting Limit
Aroclor-1016	ND	mg/kg	0.033
Aroclor-1221	ND	mg/kg	0.033
Aroclor-1232	ND	mg/kg	0.033
Aroclor-1242	ND	mg/kg	0.033
Aroclor-1248	ND	mg/kg	0.033
Aroclor-1254	ND	mg/kg	0.033
Aroclor-1260	ND	mg/kg	0.033
Decachlorobiphenyl (S)	94.3	%	49 - 115
Decachlorobiphenyl (S)			
Tetrachloro-m-xylene (S)	91.2	%	27 - 137
Tetrachloro-m-xylene (S)			

LABORATORY CONTROL SAMPLE: 3141203

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Aroclor-1016	79.7	mg/kg	.33	0.27	43 - 132
Aroclor-1221		mg/kg		ND	
Aroclor-1232		mg/kg		ND	
Aroclor-1242		mg/kg		ND	
Aroclor-1248		mg/kg		ND	
Aroclor-1254		mg/kg		ND	
Aroclor-1260	93.1	mg/kg	.33	0.31	53 - 134
Decachlorobiphenyl (S)					
Decachlorobiphenyl (S)	98.7	%			49 - 115
Tetrachloro-m-xylene (S)	91.8	%			27 - 137
Tetrachloro-m-xylene (S)					

SAMPLE DUPLICATE: 3141204 ORIGINAL: 3104651001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Aroclor-1016	0	mg/kg	0	NC	40
Aroclor-1221	0	mg/kg	0	NC	40
Aroclor-1232	0	mg/kg	0	NC	40

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey



QUALITY CONTROL DATA

Workorder: 3104456 AER441|R2004215

Aroclor-1242	0	mg/kg	0	NC	40
Aroclor-1248	0	mg/kg	0	NC	40
Aroclor-1254	0	mg/kg	0	NC	40
Aroclor-1260	0	mg/kg	0	NC	40

MATRIX SPIKE SAMPLE: 3141205 ORIGINAL: 3104652001

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MS % Rec	% Rec Limit
Aroclor-1016	0	mg/kg	.33	.20604	62.2	43 - 132
Aroclor-1260	0	mg/kg	.33	.23389	70.6	53 - 134
Decachlorobiphenyl (S)	78	%				49 - 115
Tetrachloro-m-xylene (S)	73.1	%				27 - 137

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



QUALITY CONTROL DATA

Workorder: 3104456 AER441|R2004215

QC Batch: EXTR/60616

Analysis Method: SW846 8081B

QC Batch Method: SW846 3510C

Associated Lab Samples: 3104456001

METHOD BLANK: 3142095

Parameter	Blank Result	Units	Reporting Limit
gamma-BHC	ND	ug/L	0.020
Chlordane	ND	ug/L	0.50
Endrin	ND	ug/L	0.020
Heptachlor	ND	ug/L	0.020
Heptachlor Epoxide	ND	ug/L	0.020
Methoxychlor	ND	ug/L	0.020
Toxaphene	ND	ug/L	1.0
Decachlorobiphenyl (S)	77.7	%	30 - 140
Tetrachloro-m-xylene (S)	70.8	%	30 - 123

LABORATORY CONTROL SAMPLE: 3142096

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
gamma-BHC	107	ug/L	.5	0.54	58 - 138
Chlordane		ug/L		ND	
Endrin	105	ug/L	.5	0.52	58 - 143
Heptachlor	89	ug/L	.5	0.45	41 - 124
Heptachlor Epoxide	99.7	ug/L	.5	0.50	62 - 131
Methoxychlor	113	ug/L	.5	0.57	56 - 140
Toxaphene		ug/L		ND	
Decachlorobiphenyl (S)	84.6	%			30 - 140
Tetrachloro-m-xylene (S)	72.4	%			30 - 123

MATRIX SPIKE: 3142097 DUPLICATE: 3142098 ORIGINAL: 3104442005

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
gamma-BHC	0	ug/L	10	9.6416	9.8119	96.4	98.1	58 - 138	1.75	30
Endrin	0	ug/L	10	9.6423	9.6535	96.4	96.5	58 - 143	.12	28
Heptachlor	0	ug/L	10	7.7836	8.2749	77.8	82.7	41 - 124	6.12	28
Heptachlor Epoxide	0	ug/L	10	8.7997	8.985	88	89.9	62 - 131	2.08	27
Methoxychlor	0	ug/L	10	11.2322	11.4633	112	115	56 - 140	2.04	21

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

**QUALITY CONTROL DATA**Workorder: 3104456 AER441|R2004215

Decachlorobiphenyl (S)	67.9	%	67.9	61.7	30 - 140
Tetrachloro-m-xylene (S)	69.8	%	69.8	72.5	30 - 123

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



QUALITY CONTROL DATA

Workorder: 3104456 AER441|R2004215

QC Batch: EXTR/60617

Analysis Method: SW846 8270D

QC Batch Method: SW846 3510C

Associated Lab Samples: 3104456001

METHOD BLANK: 3142099

Parameter	Blank Result	Units	Reporting Limit
mp-Cresol	ND	ug/L	3.0
o-Cresol	ND	ug/L	3.0
1,4-Dichlorobenzene	ND	ug/L	3.0
2,4-Dinitrotoluene	ND	ug/L	3.0
Hexachlorobenzene	ND	ug/L	3.0
Hexachlorobutadiene	ND	ug/L	3.0
Hexachloroethane	ND	ug/L	3.0
Nitrobenzene	ND	ug/L	3.0
Pentachlorophenol	ND	ug/L	6.0
Pyridine	ND	ug/L	3.0
2,4,5-Trichlorophenol	ND	ug/L	3.0
2,4,6-Trichlorophenol	ND	ug/L	3.0
2,4,6-Tribromophenol (S)	76.1	%	47 - 128
2-Fluorobiphenyl (S)	78.3	%	52 - 118
2-Fluorophenol (S)	54	%	20 - 87
Nitrobenzene-d5 (S)	90.1	%	27 - 139
Phenol-d5 (S)	36.8	%	10 - 81
Terphenyl-d14 (S)	105	%	46 - 133

LABORATORY CONTROL SAMPLE: 3142100

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
mp-Cresol	83.3	ug/L	100	83.3	28 - 128
o-Cresol	85.8	ug/L	100	85.8	34 - 136
1,4-Dichlorobenzene	59.8	ug/L	50	29.9	5 - 116
2,4-Dinitrotoluene	105	ug/L	50	52.5	49 - 138
Hexachlorobenzene	91.1	ug/L	50	45.5	59 - 109
Hexachlorobutadiene	73.5	ug/L	50	36.8	5 - 126
Hexachloroethane	63	ug/L	50	31.5	5 - 111
Nitrobenzene	98	ug/L	50	49.0	41 - 128
Pentachlorophenol	95.9	ug/L	100	95.9	41 - 149
Pyridine	68.3	ug/L	50	34.1	5 - 115
2,4,5-Trichlorophenol	92.7	ug/L	100	92.7	44 - 148
2,4,6-Trichlorophenol	93.6	ug/L	100	93.6	41 - 148
2,4,6-Tribromophenol (S)	92.3	%			47 - 128

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey



QUALITY CONTROL DATA

Workorder: 3104456 AER441|R2004215

2-Fluorobiphenyl (S)	84.2	%	52 - 118
2-Fluorophenol (S)	64	%	20 - 87
Nitrobenzene-d5 (S)	95.4	%	27 - 139
Phenol-d5 (S)	42.8	%	10 - 81
Terphenyl-d14 (S)	98.9	%	46 - 133

MATRIX SPIKE: 3142101 DUPLICATE: 3142102 ORIGINAL: 3104442003

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
mp-Cresol	0	ug/L	2000	1476.28	1569.43	73.8	78.5	28 - 128	6.12	20
o-Cresol	0	ug/L	2000	1606.79	1669.58	80.3	83.5	34 - 136	3.83	23
1,4-Dichlorobenzene	0	ug/L	1000	527.559	574.743	52.8	57.5	5 - 116	8.56	30
2,4-Dinitrotoluene	0	ug/L	1000	965.149	1058.52	96.5	106	49 - 138	9.23	22
Hexachlorobenzene	0	ug/L	1000	815.531	890.918	81.6	89.1	59 - 109	8.84	21
Hexachlorobutadiene	0	ug/L	1000	623.767	675.31	62.4	67.5	5 - 126	7.94	30
Hexachloroethane	0	ug/L	1000	530.663	568.528	53.1	56.9	5 - 111	6.89	30
Nitrobenzene	0	ug/L	1000	820.774	878.258	82.1	87.8	41 - 128	6.77	19
Pentachlorophenol	0	ug/L	2000	1870.39	1897.27	93.5	94.9	41 - 149	1.43	28
Pyridine	0	ug/L	1000	531.333	675.866	53.1	67.6	5 - 115	23.9	30
2,4,5-Trichlorophenol	0	ug/L	2000	1768.35	1868.74	88.4	93.4	44 - 148	5.52	23
2,4,6-Trichlorophenol	0	ug/L	2000	1792.86	1861.76	89.6	93.1	41 - 148	3.77	23
2,4,6-Tribromophenol (S)	86.8	%				86.8	89	47 - 128		
2-Fluorobiphenyl (S)	81.6	%				81.6	84.5	52 - 118		
2-Fluorophenol (S)	57.5	%				57.5	59.8	20 - 87		
Nitrobenzene-d5 (S)	82.7	%				82.7	89	27 - 139		
Phenol-d5 (S)	37.8	%				37.8	40.7	10 - 81		
Terphenyl-d14 (S)	95.9	%				95.9	102	46 - 133		

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey



QUALITY CONTROL DATA

Workorder: 3104456 AER441|R2004215

QC Batch: EXTR/60629 **Analysis Method:** SW846 8151A
QC Batch Method: SW846 8151A
Associated Lab Samples: 3104456001

METHOD BLANK: 3142399

Parameter	Blank Result	Units	Reporting Limit
2,4-D	ND	ug/L	1.0
2,4,5-TP	ND	ug/L	0.20
2,4-Dichlorophenylacetic acid (S)	112	%	14 - 172

LABORATORY CONTROL SAMPLE: 3142400

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
2,4-D	101	ug/L	2	2.0	56 - 156
2,4,5-TP	106	ug/L	2	2.1	58 - 123
2,4-Dichlorophenylacetic acid (S)	113	%			14 - 172

MATRIX SPIKE: 3142401 DUPLICATE: 3142402 ORIGINAL: 3104442004

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
2,4-D	0	ug/L	40	37.9902	40.1287	95	100	56 - 156	5.47	17
2,4,5-TP	0	ug/L	40	41.112	43.1473	103	108	58 - 123	4.83	16
2,4-Dichlorophenylacetic acid (S)	113	%				113	116	14 - 172		

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



QUALITY CONTROL DATA

Workorder: 3104456 AER441|R2004215

QC Batch: MDIG/83865 **Analysis Method:** SW846 7470A
QC Batch Method: SW846 7470A
Associated Lab Samples: 3104456001

METHOD BLANK: 3141650

Parameter	Blank Result	Units	Reporting Limit
Mercury, Total	ND	mg/L	0.0020

LABORATORY CONTROL SAMPLE: 3141651

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Mercury, Total	86	mg/L	.002	0.0017J	85 - 115

MATRIX SPIKE: 3141654 DUPLICATE: 3141655 ORIGINAL: 3104442001

***NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Mercury, Total	.00001	mg/L	.005	.00573	.00531	114	106	70 - 130	7.61	20

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



QUALITY CONTROL DATA

Workorder: 3104456 AER441|R2004215

QC Batch: MDIG/83882

Analysis Method: SW846 6010C

QC Batch Method: SW846 3015

Associated Lab Samples: 3104456001

METHOD BLANK: 3142057

Parameter	Blank Result	Units	Reporting Limit
Arsenic, Total	ND	mg/L	0.028
Barium, Total	ND	mg/L	0.56
Cadmium, Total	ND	mg/L	0.0022
Chromium, Total	ND	mg/L	0.0056
Lead, Total	ND	mg/L	0.0067
Selenium, Total	ND	mg/L	0.022
Silver, Total	ND	mg/L	0.0044

LABORATORY CONTROL SAMPLE: 3142058

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Arsenic, Total	106	mg/L	.11	0.12	80 - 120
Barium, Total	108	mg/L	1.1	1.2	80 - 120
Cadmium, Total	105	mg/L	.11	0.12	80 - 120
Chromium, Total	104	mg/L	.11	0.12	80 - 120
Lead, Total	104	mg/L	.11	0.12	80 - 120
Selenium, Total	105	mg/L	1.1	1.2	80 - 120
Silver, Total	104	mg/L	.11	0.12	80 - 120

MATRIX SPIKE: 3142059 DUPLICATE: 3142060 ORIGINAL: 3104687002

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Arsenic, Total	.01611	mg/L	.11	.14667	.13833	117	110	50 - 150	5.85	20
Barium, Total	.90944	mg/L	1.1	2.06887	2.13776	104	111	50 - 150	3.28	20
Cadmium, Total	.01833	mg/L	.11	.13944	.145	109	114	50 - 150	3.91	20
Chromium, Total	.00111	mg/L	.11	.12389	.13167	110	117	50 - 150	6.09	20
Lead, Total	.05667	mg/L	.11	.17444	.17778	106	109	50 - 150	1.89	20
Selenium, Total	.00889	mg/L	1.1	1.2411	1.30221	111	116	50 - 150	4.81	20
Silver, Total	.00111	mg/L	.11	.05167	.05444	45.5*	48*	50 - 150	5.24	20

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey



QUALITY CONTROL DATA

Workorder: 3104456 AER441|R2004215

QC Batch: VOMS/55175 **Analysis Method:** SW846 8260C
QC Batch Method: SW846 8260C
Associated Lab Samples: 3104456001

METHOD BLANK: 3141625

Parameter	Blank Result	Units	Reporting Limit
Benzene	ND	ug/L	1.0
2-Butanone	ND	ug/L	10.0
Carbon Tetrachloride	ND	ug/L	1.0
Chlorobenzene	ND	ug/L	1.0
Chloroform	ND	ug/L	1.0
1,2-Dichloroethane	ND	ug/L	1.0
1,1-Dichloroethene	ND	ug/L	1.0
Tetrachloroethene	ND	ug/L	1.0
Trichloroethene	ND	ug/L	1.0
Vinyl Chloride	ND	ug/L	1.0
1,2-Dichloroethane-d4 (S)	103	%	62 - 133
4-Bromofluorobenzene (S)	102	%	79 - 114
Dibromofluoromethane (S)	102	%	78 - 116
Toluene-d8 (S)	93.1	%	76 - 127

LABORATORY CONTROL SAMPLE: 3141626

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Benzene	114	ug/L	20	22.8	80 - 124
2-Butanone	111	ug/L	100	111	50 - 152
Carbon Tetrachloride	115	ug/L	20	23.0	62 - 132
Chlorobenzene	103	ug/L	20	20.5	85 - 117
Chloroform	113	ug/L	20	22.7	78 - 122
1,2-Dichloroethane	110	ug/L	20	22.0	70 - 133
1,1-Dichloroethene	116	ug/L	20	23.2	63 - 128
Tetrachloroethene	105	ug/L	20	20.9	72 - 124
Trichloroethene	115	ug/L	20	22.9	77 - 124
Vinyl Chloride	120	ug/L	20	24.0	27 - 138
1,2-Dichloroethane-d4 (S)	99.9	%			62 - 133
4-Bromofluorobenzene (S)	97.8	%			79 - 114
Dibromofluoromethane (S)	102	%			78 - 116
Toluene-d8 (S)	93.6	%			76 - 127

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



QUALITY CONTROL DATA

Workorder: 3104456 AER441|R2004215

QC Batch: WCPR/51139 **Analysis Method:** SW-846 7.3CN
QC Batch Method: SW-846 7.3CN
Associated Lab Samples: 3104456001

METHOD BLANK: 3141080

Parameter	Blank Result	Units	Reporting Limit
Cyanide, Reactive	ND	mg/kg	10

LABORATORY CONTROL SAMPLE: 3141081

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Cyanide, Reactive	8.75	mg/kg	10	0.87J	0 - 92

SAMPLE DUPLICATE: 3141082 ORIGINAL: 3104569001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Cyanide, Reactive	0	mg/kg	0	NC	20

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



QUALITY CONTROL DATA

Workorder: 3104456 AER441|R2004215

QC Batch: WCPR/51140 **Analysis Method:** SW846 7.3
QC Batch Method: SW846 7.3
Associated Lab Samples: 3104456001

METHOD BLANK: 3141083

Parameter	Blank Result	Units	Reporting Limit
Sulfide, Reactive	4.8J	mg/kg	6.2

LABORATORY CONTROL SAMPLE: 3141084

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Sulfide, Reactive	68.4	mg/kg	569	389	49 - 148

SAMPLE DUPLICATE: 3141085 ORIGINAL: 3104569001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Sulfide, Reactive	.79681	mg/kg	7.17131	160*	20

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



QUALITY CONTROL DATA

Workorder: 3104456 AER441|R2004215

QC Batch: WETC/239096 **Analysis Method:** S2540G-11
QC Batch Method: S2540G-11
Associated Lab Samples: 3104456001

SAMPLE DUPLICATE: 3140630 ORIGINAL: 3104444001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	5.1174	%	3.8985	27*	10
Total Solids	94.8825	%	96.1014	1.28	5

SAMPLE DUPLICATE: 3140631 ORIGINAL: 3104484004

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	97.0737	%	97.1126	.04	10
Total Solids	2.9262	%	2.8873	1.34	5

SAMPLE DUPLICATE: 3140632 ORIGINAL: 3104528001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	98.7205	%	98.7261	.006	10
Total Solids	1.2794	%	1.2738	.44	5

SAMPLE DUPLICATE: 3140633 ORIGINAL: 3104567001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	6.0261	%	5.6616	6.24	10
Total Solids	93.9738	%	94.3383	.39	5

SAMPLE DUPLICATE: 3140634 ORIGINAL: 3104583001

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	6.177	%	7.7009	22*	10
Total Solids	93.8229	%	92.299	1.64	5

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

**QUALITY CONTROL DATA**Workorder: 3104456 AER441|R2004215

SAMPLE DUPLICATE: 3140635 ORIGINAL: 3104626004

Parameter	Original Result	Units	DUP Result	RPD	Max RPD
Moisture	5.9322	%	8.0625	30.4*	10
Total Solids	94.0677	%	91.9374	2.29	5

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

**QUALITY CONTROL DATA**

Workorder: 3104456 AER441|R2004215

QC Batch: WETC/239132**Analysis Method:** SW846 7.3**QC Batch Method:** SW846 7.3**Associated Lab Samples:**

METHOD BLANK: 3141108

Parameter	Blank Result	Units	Reporting Limit
Sulfide, Reactive	ND	mg/kg	6.3

METHOD BLANK: 3141110

Parameter	Blank Result	Units	Reporting Limit
Sulfide, Reactive	ND	mg/kg	6.3

METHOD BLANK: 3141112

Parameter	Blank Result	Units	Reporting Limit
Sulfide, Reactive	ND	mg/kg	6.3

ALS Environmental Laboratory Locations Across North America**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 3104456 AER441|R2004215

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
3104456001	PDI-IDW-Soil			SW846 9045D	WETC/239084
3104456001	PDI-IDW-Soil			S2540G-11	WETC/239096
3104456001	PDI-IDW-Soil	SW-846 7.3CN	WCPR/51139	SW-846 7.3CN	WETC/239131
3104456001	PDI-IDW-Soil	SW846 7.3	WCPR/51140	SW846 7.3	WETC/239132
3104456001	PDI-IDW-Soil	SW846 3546	EXTR/60606	SW846 8082A	SVGC/57077
3104456001	PDI-IDW-Soil			SW846 8260C	VOMS/55175
3104456001	PDI-IDW-Soil	SW846 7470A	MDIG/83865	SW846 7470A	META/74197
3104456001	PDI-IDW-Soil	SW846 3015	MDIG/83882	SW846 6010C	META/74228
3104456001	PDI-IDW-Soil	SW846 3510C	EXTR/60616	SW846 8081B	SVGC/57100
3104456001	PDI-IDW-Soil	SW846 3510C	EXTR/60617	SW846 8270D	SVMS/35977
3104456001	PDI-IDW-Soil	SW846 8151A	EXTR/60629	SW846 8151A	SVGC/57098
3104456001	PDI-IDW-Soil			S2710F-09	WETC/239443

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

ALS Environmental Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

Project Number: R2004215
Project Manager: Meghan Pedro
QAP: LAB QAP

ALS Cont



Lab Code	Sample ID	# of Cont.	Matrix	Date	Time	Lab ID	Sample	As TCLP 6010C	As TCLP 6010C	Ba TCLP 6010C	Cd TCLP 6010C	CN React 9014	Cr TCLP 6010C	Flash 1010A Model	HERB TCLP 8151A	Hg TCLP 7470A
R2004215-001	PDI-TDW-Soil	1	Soil	5/19/20	1640	Middletown ALS		X	X	X	X	X	X	X	X	X

3104456

42 523

Special Instructions/Comments <i>Can specific gravity be done on soil?</i>	Turnaround Requirements RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 ☒ STANDARD Requested FAX Date: _____ Requested Report Date: 06/05/20	Report Requirements ☐ I. Results Only ☐ II. Results + QC Summaries ☐ III. Results + QC and Calibration Summaries ☒ IV. Data Validation Report with Raw Data PQL/MDL/1 <u>Y</u> EDD <u>Y</u> <i>NYSDEC Equis 4</i>	Invoice Information PO# 58R2004215 Bill to _____
H - Test is On Hold P - Test is Authorized for Prep Only			

Relinquished By: *Meghan Pedro* 1136 Received By: *Pedro* 50
Rev 2 *Rev 2* 1136
Airbill Number: *1136*
Page 1

R2004215-001	PDJ-IDW-Soil		Soil	5/19/20	1640	Middletown ALS	X	Pb TCLP 6010C	X	PCB 8082A	X	Pest OC TCLP 8081B	X	pH 9045D	X	Se TCLP 6010C	X	Sulfide React 9034 Modified	X	SVO TCLP 8270D	X	TCLP ZHE EPA 1311	X	TCLP EPA 1311	X
--------------	--------------	--	------	---------	------	----------------	---	------------------	---	--------------	---	-----------------------	---	-------------	---	------------------	---	--------------------------------	---	-------------------	---	----------------------	---	------------------	---

R2004215-001	PDI-IDW-Soil			Soil	5/19/20	1640	Middletown ALS	Total Solids ALS SOP	VOC TCLP 8260C
								X	X

R2004215

— Ship To: Middletown ALS
ALS Environmental - Middletown
301 Fulling Mill Rd.
Middletown, PA 17057

PC

SMO

Date

Date

5/20/20

Instructions:

Ice

Dry Ice

No Ice

Shipping:

Overnight

2nd Day

Ground

Bill to Client Account

Comments:

ALS Group USA, Corp.

www.alsglobal.com

An ALS Limited Company

ALS



301 Fulling Mill Road
Middletown, PA 17057

P: (717) 944-5541

F: (717) 944-1430

Condition of Sample Receipt Form

Client: ALS Rochester Work Order #: 3104456 Initials: GD Date: 5/27/2020

- | | | | |
|--|---------------------------------------|--------------------------------------|-------------------------------------|
| 1. Were airbills / tracking numbers present and recorded?..... | NONE | ☒ YES | NO |
| Tracking number: <u>1780 2430 0449</u> | | | |
| 2. Are Custody Seals on shipping containers intact?..... | NONE | ☒ YES | NO |
| 3. Are Custody Seals on sample containers intact?..... | ☒ NONE | YES | NO |
| 4. Is there a COC (Chain-of-Custody) present?..... | | ☒ YES | NO |
| 5. Are the COC and bottle labels complete, legible and in agreement?..... | | YES | ☒ NO |
| 5a. Does the COC contain sample locations?..... | | ☒ YES | NO |
| 5b. Does the COC contain date and time of sample collection for all samples?..... | | ☒ YES | NO |
| 5c. Does the COC contain sample collectors name?..... | | YES | ☒ NO |
| 5d. Does the COC note the type(s) of preservation for all bottles?..... | | YES | ☒ NO |
| 5e. Does the COC note the number of bottles submitted for each sample?..... | | ☒ YES | NO |
| 5f. Does the COC note the type of sample, composite or grab?..... | | YES | ☒ NO |
| 5g. Does the COC note the matrix of the sample(s)?..... | | ☒ YES | NO |
| 6. Are all aqueous samples requiring preservation preserved correctly?..... | N/A | ☒ YES | NO |
| 7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?..... | | ☒ YES | NO |
| 8. Are all samples within holding times for the requested analyses?..... | | ☒ YES | NO |
| 9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)..... | | ☒ YES | NO |
| 10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631 E (LL Hg)?..... | ☒ N/A | YES | NO |
| 11. Were the samples received on ice?..... | | ☒ YES | NO |
| 12. Were sample temperatures measured at 0.0-6.0°C..... | | ☒ YES | NO |
| 13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below:..... | | YES | ☒ NO |
| 13a. Are the samples required for SDWA compliance reporting?..... | ☒ N/A | YES | NO |
| 13b. Did the client provide a SDWA PWS ID#?..... | ☒ N/A | YES | NO |
| 13c. Are all aqueous unpreserved SDWA samples pH 5-9?..... | ☒ N/A | YES | NO |
| 13d. Did the client provide the SDWA sample location ID/Description?..... | ☒ N/A | YES | NO |
| 13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?..... | ☒ N/A | YES | NO |

Cooler #: _____

Temperature (°C): 4 _____

Thermometer ID: 523 _____

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

¹Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis

Rev 1/20/2020