

August 11, 2017

Mr. Mark Dennen
Principal Environmental Scientist
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908-5767

Re: Quarterly Report – 2nd Quarter 2017
Former Portsmouth Landfill

Dear: Mr. Dennen:

This Quarterly Report is submitted on behalf of AP Enterprise, LLC (APE) regarding the Portsmouth Landfill (the Property) per the Beneficial Use Determination Approval (BUDA) which was issued by the Rhode Island Department of Environmental Management (RIDEM) on September 20, 2010, amended on March 11, 2011 and March 18, 2014 and most recently renewed on September 9, 2014. On September 20, 2015 the BUDA expired.

This report covers activities conducted during the period of April 1 to June 30, 2017.

Construction Activities

Construction activities during this reporting period consisted of:

- The delivery and management of newly accepted final capping soil;
- The delivery and management of soils per Appendix A of the RIDEM Rules and Regulations for Composting and Solid Waste Management Facilities (the Appendix A Soils); and
- Erosion control activities.

Photos of the Property are attached as Appendix A.

Soil Accepted

The attached table summarizes the soils delivered to the Property during this reporting period. The supporting laboratory analysis data reports for the soil reported on the table (with the exception of the Appendix A soils) is provided electronically on the enclosed disk. Please note that the data package also contains data for soil that was not taken to the landfill. In order

identify the data for the soil accepted at Portsmouth, a table developed by the generator's consultant is included with the data package.

Complaints

No complaints were received directly by APE during this reporting period.

Schedule

The APE project team estimates that approximately 12,000 cubic yards will be required to complete the capping project. It is important to note that due to settlement and compaction, the final volume of capping soil required to cap the landfill is driven by existing conditions and the elevations in the approved final site grading plan and will not be determined until the project is very close to meeting the elevations in the grading plan.

Monitoring

Enclosed is a copy of the Limited Surface Investigation & Groundwater & Landfill Gas Monitoring Report, dated July 31, 2017 by ATC Group Services LLC. The next round of sampling will take place in August 2017.

Please feel free to contact me should you have any questions regarding this matter.

Sincerely

TIM O'CONNOR & COMPANY, LLC

Timothy M. O'Connor, PE, LEED-AP
Principal

**Former Portsmouth Landfill Soils Accepted
2nd Quarter 2017**

Delivery Dates	Source	Consultant	Quantity (tons)
April 19, 20, 21	Weir Street, Tauton, MA	Brighter Horizons	1,359.03
May 8, 9, 10, 11	* Department of Public Works Oxford, MA	Capital Environmental LLC	1,644.99
May 9	* Department of Public Works Uxbridge, MA	Capital Environmental LLC	403.8
May 30	* Department of Public Works Douglas, MA	Capital Environmental LLC	151.02
May 30, 31, June 1	* Department of Public Works Northborough, Ma	Capital Environmental LLC	528.91
June 21 & 23	162 Chandler Street; Naval Station Newport	Riverhawk Environmental	225
		Total	4,312.75

Notes

- * - Indicates soils regulated per Appendix A of the RIDEM Rules and Regulations for Composting and Solid Waste Management Facilities

Appendix A – Photographs



Photo 1 – Along Park Avenue Looking Northeast



Photo 2 – Along Eastern Limit of Disturbance



Photo 3 – Along Eastern Limit of Disturbance Looking South



Photo 4 – Central Portion of Site Looking North



Photo 5 – North-Western Limit of Disturbance



Photo 6 – Near Northern Limit of Disturbance

Appendix B – Analytical Data

(on disk)



CERTIFICATE OF ANALYSIS

William Kenney
River Hawk Environmental, LLC
2183 Ocean Street, Suite 2
Marshfield, MA 02050

RE: General Public Works Projects (1070105)
ESS Laboratory Work Order Number: 1611473

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED

By ESS Laboratory at 4:42 pm, Nov 28, 2016

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

Subcontracted Analyses

CTS - Cranston, RI
ProScience Analytical Services, Inc. -
Woburn, MA

Particle Size
Asbestos



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

SAMPLE RECEIPT

The following samples were received on November 16, 2016 for the analyses specified on the enclosed Chain of Custody Record.

Low Level VOA vials were frozen by ESS Laboratory on November 16, 2016 at 17:30.

<u>Lab Number</u>	<u>Sample Name</u>	<u>Matrix</u>	<u>Analysis</u>
1611473-01	Stockpile #104	Soil	§, 1010, 1311, 1311/6010C, 1311/7470A, 1311/8081B, 1311/8151A, 1311/8260B, 1311/8270D, 6010C, 6020A, 7.3.3.2, 7.3.4.1, 7196A, 7471B, 8081B, 8082A, 8100M, 8260B Low, 8270D, 9014, 9045, 9050A, CALC



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

PROJECT NARRATIVE

1311/8260B Volatile TCLP Compounds

CK62138-BS1 Blank Spike recovery is above upper control limit (B+).
Vinyl Chloride (133% @ 70-130%)

1311/8270D Semi Volatile TCLP Compounds

CK61836-BLK1 Surrogate recovery(ies) above upper control limit (S+).
2,4,6-Tribromophenol (114% @ 15-110%)

CK61836-BS1 Surrogate recovery(ies) above upper control limit (S+).
2,4,6-Tribromophenol (121% @ 15-110%)

CK61836-BSD1 Surrogate recovery(ies) above upper control limit (S+).
2,4,6-Tribromophenol (121% @ 15-110%)

CZK0334-CCV1 Calibration required quadratic regression (Q).
Pentachlorophenol (125% @ 80-120%)

CZK0334-CCV1 Continuing Calibration %Diff/Drift is above control limit (CD+).
2,4,6-Tribromophenol (24% @ 20%), Pentachlorophenol (25% @ 20%)

5035/8260B Volatile Organic Compounds / Low Level

CK61825-BSD1 Relative percent difference for duplicate is outside of criteria (D+).
Acetone (26% @ 25%)

8081B Organochlorine Pesticides

CZK0227-CCV9 Continuing Calibration %Diff/Drift is below control limit (CD-).
Decachlorobiphenyl (35% @ 20%), Decachlorobiphenyl [2C] (37% @ 20%)

CZK0306-CCV1 Continuing Calibration %Diff/Drift is below control limit (CD-).
Decachlorobiphenyl [2C] (24% @ 20%)

CZK0306-CCV3 Continuing Calibration %Diff/Drift is below control limit (CD-).
Decachlorobiphenyl (27% @ 20%), Decachlorobiphenyl [2C] (28% @ 20%)

CZK0306-CCV5 Continuing Calibration %Diff/Drift is above control limit (CD+).
Decachlorobiphenyl (30% @ 20%)

8100M Total Petroleum Hydrocarbons

CZK0243-CCV2 Continuing Calibration %Diff/Drift is above control limit (CD+).
Triacontane (C30) (25% @ 20%)

8270D Semi-Volatile Organic Compounds

CK61612-BSD1 Relative percent difference for duplicate is outside of criteria (D+).
Hexachlorocyclopentadiene (32% @ 30%)

CZK0238-CCV1 Calibration required quadratic regression (Q).
2,4-Dinitrophenol (82% @ 80-120%), Benzoic Acid (90% @ 80-120%), Pentachlorophenol (91% @ 80-120%)

CZK0238-CCV1 Continuing Calibration %Diff/Drift is below control limit (CD-).
Hexachlorocyclopentadiene (30% @ 20%)

CZK0238-CCV1 Surrogate recovery(ies) above upper control limit (S+).



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

CZK0312-CCV1 2-Fluorophenol (124% @ 80-120%)
Continuing Calibration %Diff/Drift is above control limit (CD+).
2,4,5-Trichlorophenol (22% @ 20%), 2,4,6-Trichlorophenol (24% @ 20%), Benzoic Acid (37% @ 20%),
Pentachlorophenol (23% @ 20%)
CZK0312-CCV1 **Continuing Calibration %Diff/Drift is below control limit (CD-).**
Hexachlorocyclopentadiene (22% @ 20%)

Total Metals

CK61712-BSD1 **Blank Spike recovery is above upper control limit (B+).**
Antimony (129% @ 80-120%)
CK61712-BSD1 **Blank Spike recovery is below lower control limit (B-).**
Arsenic (75% @ 80-120%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

- [Definitions of Quality Control Parameters](#)
- [Semivolatile Organics Internal Standard Information](#)
- [Semivolatile Organics Surrogate Information](#)
- [Volatile Organics Internal Standard Information](#)
- [Volatile Organics Surrogate Information](#)
- [EPH and VPH Alkane Lists](#)



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

- 1010A - Flashpoint
- 6010C - ICP
- 6020A - ICP MS
- 7010 - Graphite Furnace
- 7196A - Hexavalent Chromium
- 7470A - Aqueous Mercury
- 7471B - Solid Mercury
- 8011 - EDB/DBCP/TCP
- 8015C - GRO/DRO
- 8081B - Pesticides
- 8082A - PCB
- 8100M - TPH
- 8151A - Herbicides
- 8260B - VOA
- 8270D - SVOA
- 8270D SIM - SVOA Low Level
- 9014 - Cyanide
- 9038 - Sulfate
- 9040C - Aqueous pH
- 9045D - Solid pH (Corrosivity)
- 9050A - Specific Conductance
- 9056A - Anions (IC)
- 9060A - TOC
- 9095B - Paint Filter
- MADEP 04-1.1 - EPH / VPH

Prep Methods

- 3005A - Aqueous ICP Digestion
- 3020A - Aqueous Graphite Furnace / ICP MS Digestion
- 3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
- 3060A - Solid Hexavalent Chromium Digestion
- 3510C - Separatory Funnel Extraction
- 3520C - Liquid / Liquid Extraction
- 3540C - Manual Soxhlet Extraction
- 3541 - Automated Soxhlet Extraction
- 3546 - Microwave Extraction
- 3580A - Waste Dilution
- 5030B - Aqueous Purge and Trap
- 5030C - Aqueous Purge and Trap
- 5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: 3050B

Total Metals

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (0.48)		6020A		20	NAR	11/18/16 22:31	2.18	100	CK61712
Arsenic	ND (2.40)		6010C		1	KJK	11/22/16 17:34	2.18	100	CK61712
Barium	12.9 (2.40)		6010C		1	KJK	11/20/16 2:43	2.18	100	CK61712
Beryllium	0.17 (0.11)		6010C		1	KJK	11/20/16 2:43	2.18	100	CK61712
Cadmium	ND (0.48)		6010C		1	KJK	11/20/16 2:43	2.18	100	CK61712
Chromium	6.3 (1.0)		6010C		1	KJK	11/20/16 2:43	2.18	100	CK61712
Copper	6.77 (2.40)		6010C		1	KJK	11/20/16 2:43	2.18	100	CK61712
Lead	ND (4.80)		6010C		1	KJK	11/20/16 2:43	2.18	100	CK61712
Manganese	97.8 (0.96)		6010C		1	KJK	11/20/16 2:43	2.18	100	CK61712
Mercury	ND (0.030)		7471B		1	MJV	11/18/16 14:14	0.69	40	CK61713
Nickel	2.74 (2.40)		6010C		1	KJK	11/20/16 2:43	2.18	100	CK61712
Selenium	ND (0.48)		6020A		20	NAR	11/18/16 22:31	2.18	100	CK61712
Silver	ND (0.48)		6010C		1	KJK	11/20/16 2:43	2.18	100	CK61712
Thallium	ND (0.48)		6020A		20	NAR	11/18/16 22:31	2.18	100	CK61712
Vanadium	6.30 (0.96)		6010C		1	KJK	11/20/16 2:43	2.18	100	CK61712
Zinc	20.6 (2.40)		6010C		1	KJK	11/20/16 2:43	2.18	100	CK61712



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96
Initial Volume: 100
Final Volume: 5
Extraction Method: 3510C

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/L
Analyst: JXS
Prepared: 11/23/16 10:30

1311/8081B Pesticide TCLP Compounds

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>TCLP Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Chlordane (Total)	ND (0.00500)		1311/8081B		1	11/23/16 13:44	CZK0394	CK62303
Endrin	ND (0.00050)		1311/8081B		1	11/23/16 13:44	CZK0394	CK62303
gamma-BHC (Lindane)	ND (0.00050)		1311/8081B		1	11/23/16 13:44	CZK0394	CK62303
Heptachlor	ND (0.00050)		1311/8081B		1	11/23/16 13:44	CZK0394	CK62303
Heptachlor Epoxide	ND (0.00050)		1311/8081B		1	11/23/16 13:44	CZK0394	CK62303
Methoxychlor	ND (0.00050)		1311/8081B		1	11/23/16 13:44	CZK0394	CK62303
Toxaphene	ND (0.0130)		1311/8081B		1	11/23/16 13:44	CZK0394	CK62303

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: Decachlorobiphenyl</i>	<i>96 %</i>		<i>30-150</i>
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>98 %</i>		<i>30-150</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>75 %</i>		<i>30-150</i>
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>77 %</i>		<i>30-150</i>



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/L

Extraction Method: 3005A TCLP

1311 TCLP Metals

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>TCLP Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (0.050)		1311/6010C		1	NAR	11/21/16 19:48	50	50	CK61840
Barium	0.141 (0.050)		1311/6010C		1	KJK	11/20/16 0:55	50	50	CK61840
Cadmium	ND (0.0100)		1311/6010C		1	KJK	11/20/16 0:55	50	50	CK61840
Chromium	ND (0.020)		1311/6010C		1	KJK	11/20/16 0:55	50	50	CK61840
Lead	ND (0.050)		1311/6010C		1	KJK	11/20/16 0:55	50	50	CK61840
Mercury	ND (0.00050)		1311/7470A		1	AA	11/21/16 13:58	20	40	CK61706
Selenium	ND (0.050)		1311/6010C		1	KJK	11/20/16 0:55	50	50	CK61840
Silver	ND (0.010)		1311/6010C		1	KJK	11/20/16 0:55	50	50	CK61840



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96
Initial Volume: 35
Final Volume: 4
Extraction Method: 3510C

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/L
Analyst: JXS
Prepared: 11/22/16 15:30

1311/8151A TCLP Herbicide Compounds

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>TCLP Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2,4,5-TP (Silvex)	ND (0.002)		1311/8151A		1	11/22/16 22:36	CZK0363	CK62244
2,4-D	ND (0.009)		1311/8151A		1	11/22/16 22:36	CZK0363	CK62244
		<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				
<i>Surrogate: DCAA</i>		111 %		30-150				
<i>Surrogate: DCAA [2C]</i>		91 %		30-150				



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/L
Analyst: GEM

1311/8260B Volatile TCLP Compounds

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>TCLP Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,1-Dichloroethene	ND (0.100)		1311/8260B		100	11/21/16 21:42	CZK0330	CK62138
1,2-Dichloroethane	ND (0.100)		1311/8260B		100	11/21/16 21:42	CZK0330	CK62138
1,4-Dichlorobenzene	ND (0.100)		1311/8260B		100	11/21/16 21:42	CZK0330	CK62138
2-Butanone	ND (2.50)		1311/8260B		100	11/21/16 21:42	CZK0330	CK62138
Benzene	ND (0.100)		1311/8260B		100	11/21/16 21:42	CZK0330	CK62138
Carbon Tetrachloride	ND (0.100)		1311/8260B		100	11/21/16 21:42	CZK0330	CK62138
Chlorobenzene	ND (0.100)		1311/8260B		100	11/21/16 21:42	CZK0330	CK62138
Chloroform	ND (0.100)		1311/8260B		100	11/21/16 21:42	CZK0330	CK62138
Tetrachloroethene	ND (0.100)		1311/8260B		100	11/21/16 21:42	CZK0330	CK62138
Trichloroethene	ND (0.100)		1311/8260B		100	11/21/16 21:42	CZK0330	CK62138
Vinyl Chloride	ND (0.100)		1311/8260B		100	11/21/16 21:42	CZK0330	CK62138

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>113 %</i>		<i>70-130</i>
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>105 %</i>		<i>70-130</i>
<i>Surrogate: Dibromofluoromethane</i>	<i>100 %</i>		<i>70-130</i>
<i>Surrogate: Toluene-d8</i>	<i>112 %</i>		<i>70-130</i>



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96
Initial Volume: 200
Final Volume: 1
Extraction Method: 3520C

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/L
Analyst: TJ
Prepared: 11/18/16 16:22

1311/8270D Semi Volatile TCLP Compounds

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>TCLP Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2,4,5-Trichlorophenol	ND (0.05)		1311/8270D		1	11/22/16 1:47	CZK0334	CK61836
2,4,6-Trichlorophenol	ND (0.05)		1311/8270D		1	11/22/16 1:47	CZK0334	CK61836
2,4-Dinitrotoluene	ND (0.05)		1311/8270D		1	11/22/16 1:47	CZK0334	CK61836
2-Methylphenol	ND (0.05)		1311/8270D		1	11/22/16 1:47	CZK0334	CK61836
3+4-Methylphenol	ND (0.10)		1311/8270D		1	11/22/16 1:47	CZK0334	CK61836
Hexachlorobenzene	ND (0.05)		1311/8270D		1	11/22/16 1:47	CZK0334	CK61836
Hexachlorobutadiene	ND (0.05)		1311/8270D		1	11/22/16 1:47	CZK0334	CK61836
Hexachloroethane	ND (0.02)		1311/8270D		1	11/22/16 1:47	CZK0334	CK61836
Nitrobenzene	ND (0.05)		1311/8270D		1	11/22/16 1:47	CZK0334	CK61836
Pentachlorophenol	ND (0.25)		1311/8270D		1	11/22/16 1:47	CZK0334	CK61836
Pyridine	ND (0.50)		1311/8270D		1	11/22/16 1:47	CZK0334	CK61836

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	72 %		30-130
<i>Surrogate: 2,4,6-Tribromophenol</i>	109 %		15-110
<i>Surrogate: 2-Chlorophenol-d4</i>	73 %		15-110
<i>Surrogate: 2-Fluorobiphenyl</i>	81 %		30-130
<i>Surrogate: 2-Fluorophenol</i>	70 %		15-110
<i>Surrogate: Nitrobenzene-d5</i>	82 %		30-130
<i>Surrogate: Phenol-d6</i>	81 %		15-110
<i>Surrogate: p-Terphenyl-d14</i>	93 %		30-130



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/kg dry

Extraction Method: [CALC]

Total Metals Solid

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Chromium (III)	6.3 (1.5)		CALC		1	EEM	11/22/16 14:00	1	1	[CALC]



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96
Initial Volume: 8.5
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: MEK

5035/8260B Volatile Organic Compounds / Low Level

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,1,1,2-Tetrachloroethane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,1,1-Trichloroethane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,1,2,2-Tetrachloroethane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,1,2-Trichloroethane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,1-Dichloroethane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,1-Dichloroethene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,1-Dichloropropene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,2,3-Trichlorobenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,2,3-Trichloropropane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,2,4-Trichlorobenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,2,4-Trimethylbenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,2-Dibromo-3-Chloropropane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,2-Dibromoethane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,2-Dichlorobenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,2-Dichloroethane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,2-Dichloropropane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,3,5-Trimethylbenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,3-Dichlorobenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,3-Dichloropropane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,4-Dichlorobenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1,4-Dioxane	ND (0.0616)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
1-Chlorohexane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
2,2-Dichloropropane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
2-Butanone	ND (0.0308)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
2-Chlorotoluene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
2-Hexanone	ND (0.0308)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
4-Chlorotoluene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
4-Isopropyltoluene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
4-Methyl-2-Pentanone	ND (0.0308)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Acetone	ND (0.0308)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Benzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Bromobenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96
Initial Volume: 8.5
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: MEK

5035/8260B Volatile Organic Compounds / Low Level

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Bromochloromethane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Bromodichloromethane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Bromoform	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Bromomethane	ND (0.0062)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Carbon Disulfide	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Carbon Tetrachloride	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Chlorobenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Chloroethane	ND (0.0062)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Chloroform	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Chloromethane	ND (0.0062)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
cis-1,2-Dichloroethene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
cis-1,3-Dichloropropene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Dibromochloromethane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Dibromomethane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Dichlorodifluoromethane	ND (0.0062)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Diethyl Ether	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Di-isopropyl ether	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Ethyl tertiary-butyl ether	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Ethylbenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Hexachlorobutadiene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Isopropylbenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Methyl tert-Butyl Ether	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Methylene Chloride	ND (0.0154)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Naphthalene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
n-Butylbenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
n-Propylbenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
sec-Butylbenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Styrene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
tert-Butylbenzene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Tertiary-amyl methyl ether	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Tetrachloroethene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Tetrahydrofuran	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
 Client Project ID: General Public Works Projects
 Client Sample ID: Stockpile #104
 Date Sampled: 11/15/16 14:20
 Percent Solids: 96
 Initial Volume: 8.5
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 1611473
 ESS Laboratory Sample ID: 1611473-01
 Sample Matrix: Soil
 Units: mg/kg dry
 Analyst: MEK

5035/8260B Volatile Organic Compounds / Low Level

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Toluene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
trans-1,2-Dichloroethene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
trans-1,3-Dichloropropene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Trichloroethene	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Trichlorofluoromethane	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Vinyl Acetate	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Vinyl Chloride	ND (0.0062)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Xylene O	ND (0.0031)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Xylene P,M	ND (0.0062)		8260B Low		1	11/18/16 17:43	CZK0291	CK61825
Xylenes (Total)	ND (0.0062)		8260B Low		1	11/18/16 17:43		[CALC]

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichloroethane-d4</i>	116 %		70-130
<i>Surrogate: 4-Bromofluorobenzene</i>	108 %		70-130
<i>Surrogate: Dibromofluoromethane</i>	101 %		70-130
<i>Surrogate: Toluene-d8</i>	102 %		70-130



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96
Initial Volume: 20.1
Final Volume: 5
Extraction Method: 3546

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: JXS
Prepared: 11/17/16 10:00

8081B Organochlorine Pesticides

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Chlordane (Total)	ND (0.0313)		8081B		1	11/19/16 1:42	CZK0306	CK61609
Dieldrin	ND (0.0026)		8081B		1	11/19/16 1:42	CZK0306	CK61609

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: Decachlorobiphenyl</i>	60 %		30-150
<i>Surrogate: Decachlorobiphenyl [2C]</i>	60 %		30-150
<i>Surrogate: Tetrachloro-m-xylene</i>	79 %		30-150
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	74 %		30-150



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SMR
Prepared: 11/17/16 11:02

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.0529)		8082A		1	11/18/16 14:12		CK61607
Aroclor 1221	ND (0.0529)		8082A		1	11/18/16 14:12		CK61607
Aroclor 1232	ND (0.0529)		8082A		1	11/18/16 14:12		CK61607
Aroclor 1242	ND (0.0529)		8082A		1	11/18/16 14:12		CK61607
Aroclor 1248	ND (0.0529)		8082A		1	11/18/16 14:12		CK61607
Aroclor 1254	ND (0.0529)		8082A		1	11/18/16 14:12		CK61607
Aroclor 1260	ND (0.0529)		8082A		1	11/18/16 14:12		CK61607
Aroclor 1262	ND (0.0529)		8082A		1	11/18/16 14:12		CK61607
Aroclor 1268	ND (0.0529)		8082A		1	11/18/16 14:12		CK61607

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: Decachlorobiphenyl</i>	64 %		30-150
<i>Surrogate: Decachlorobiphenyl [2C]</i>	57 %		30-150
<i>Surrogate: Tetrachloro-m-xylene</i>	66 %		30-150
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	67 %		30-150



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96
Initial Volume: 20.6
Final Volume: 1
Extraction Method: 3546

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: DPS
Prepared: 11/17/16 10:00

8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Total Petroleum Hydrocarbons	89.0 (38.1)		8100M		1	11/17/16 17:04	CZK0265	CK61611
		<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				
<i>Surrogate: O-Terphenyl</i>		83 %		40-140				



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
 Client Project ID: General Public Works Projects
 Client Sample ID: Stockpile #104
 Date Sampled: 11/15/16 14:20
 Percent Solids: 96
 Initial Volume: 15.3
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 1611473
 ESS Laboratory Sample ID: 1611473-01
 Sample Matrix: Soil
 Units: mg/kg dry
 Analyst: TJ
 Prepared: 11/17/16 10:00

8270D Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,1-Biphenyl	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
1,2,4-Trichlorobenzene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
1,2-Dichlorobenzene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
1,3-Dichlorobenzene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
1,4-Dichlorobenzene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2,3,4,6-Tetrachlorophenol	ND (1.71)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2,4,5-Trichlorophenol	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2,4,6-Trichlorophenol	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2,4-Dichlorophenol	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2,4-Dimethylphenol	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2,4-Dinitrophenol	ND (1.71)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2,4-Dinitrotoluene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2,6-Dinitrotoluene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2-Chloronaphthalene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2-Chlorophenol	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2-Methylnaphthalene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2-Methylphenol	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2-Nitroaniline	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
2-Nitrophenol	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
3,3'-Dichlorobenzidine	ND (0.685)		8270D		1	11/19/16 20:24	CZK0312	CK61612
3+4-Methylphenol	ND (0.685)		8270D		1	11/19/16 20:24	CZK0312	CK61612
3-Nitroaniline	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
4,6-Dinitro-2-Methylphenol	ND (1.71)		8270D		1	11/19/16 20:24	CZK0312	CK61612
4-Bromophenyl-phenylether	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
4-Chloro-3-Methylphenol	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
4-Chloroaniline	ND (0.685)		8270D		1	11/19/16 20:24	CZK0312	CK61612
4-Chloro-phenyl-phenyl ether	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
4-Nitroaniline	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
4-Nitrophenol	ND (1.71)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Acenaphthene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Acenaphthylene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Acetophenone	ND (0.685)		8270D		1	11/19/16 20:24	CZK0312	CK61612



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96
Initial Volume: 15.3
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 11/17/16 10:00

8270D Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aniline	ND (0.685)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Anthracene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Azobenzene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Benzo(a)anthracene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Benzo(a)pyrene	ND (0.171)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Benzo(b)fluoranthene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Benzo(g,h,i)perylene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Benzo(k)fluoranthene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Benzoic Acid	ND (1.71)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Benzyl Alcohol	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
bis(2-Chloroethoxy)methane	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
bis(2-Chloroethyl)ether	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
bis(2-chloroisopropyl)Ether	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
bis(2-Ethylhexyl)phthalate	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Butylbenzylphthalate	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Carbazole	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Chrysene	ND (0.171)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Dibenzo(a,h)Anthracene	ND (0.171)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Dibenzofuran	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Diethylphthalate	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Dimethylphthalate	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Di-n-butylphthalate	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Di-n-octylphthalate	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Fluoranthene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Fluorene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Hexachlorobenzene	ND (0.171)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Hexachlorobutadiene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Hexachlorocyclopentadiene	ND (1.71)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Hexachloroethane	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Indeno(1,2,3-cd)Pyrene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Isophorone	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Naphthalene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96
Initial Volume: 15.3
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TJ
Prepared: 11/17/16 10:00

8270D Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Nitrobenzene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
N-Nitrosodimethylamine	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
N-Nitroso-Di-n-Propylamine	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
N-nitrosodiphenylamine	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Pentachlorophenol	ND (1.71)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Phenanthrene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Phenol	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Pyrene	ND (0.342)		8270D		1	11/19/16 20:24	CZK0312	CK61612
Pyridine	ND (1.71)		8270D		1	11/19/16 20:24	CZK0312	CK61612

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	71 %		30-130
<i>Surrogate: 2,4,6-Tribromophenol</i>	98 %		30-130
<i>Surrogate: 2-Chlorophenol-d4</i>	77 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	73 %		30-130
<i>Surrogate: 2-Fluorophenol</i>	74 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	69 %		30-130
<i>Surrogate: Phenol-d6</i>	83 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	87 %		30-130



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil

Classical Chemistry

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Units</u>	<u>Batch</u>
Conductivity	WL 73500 (5)		9050A		1	JLK	11/22/16 16:00	umhos/cm	CK62236
Corrosivity (pH)	8.25 (N/A)		9045		1	JLK	11/16/16 22:34	S.U.	CK61644
Corrosivity (pH) Sample Temp	Soil pH measured in water at 20.8 °C.								
Flashpoint	> 200 (N/A)		1010		1	CRR	11/17/16 13:35	°F	CK61742
Hexavalent Chromium	ND (0.6)		7196A		1	EEM	11/22/16 14:00	mg/kg dry	CK62223
Particle Size	See Attached (N/A)								
Reactive Cyanide	ND (2.0)		7.3.3.2		1	EEM	11/22/16 14:01	mg/kg	CK62226
Reactive Sulfide	ND (2.0)		7.3.4.1		1	EEM	11/22/16 14:01	mg/kg	CK62226
Total Cyanide	4.08 (1.03)		9014		1	EEM	11/18/16 11:20	mg/kg dry	CK61823



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: %

Subcontracted Analysis

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Frequency</u>	<u>Batch</u>
Asbestos	See Attached (N/A)								



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96
Initial Volume: 100
Final Volume: 2000
Extraction Method: 1311

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: °C
Analyst: LAB
Prepared: 11/17/16 18:00

TCLP Extraction by 1311

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Batch</u>
Temperature (Min C)	19.6 (N/A)		1311		1	LAB	11/18/16 10:40	CK61758
Temperature (Min C)	19.6 (N/A)		1311		1	LAB	11/18/16 10:40	CK61758
Temperature (Max C)	23.8 (N/A)		1311		1	LAB	11/18/16 10:40	CK61758
Temperature (Max C)	23.8 (N/A)		1311		1	LAB	11/18/16 10:40	CK61758
Temperature (Range)	Temperature is not within 23 +/-2 °C. (N/A)							
Temperature (Range)	Temperature is not within 23 +/-2 °C. (N/A)							



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects
Client Sample ID: Stockpile #104
Date Sampled: 11/15/16 14:20
Percent Solids: 96
Initial Volume: 1
Final Volume: 1
Extraction Method: 1311/ZHE

ESS Laboratory Work Order: 1611473
ESS Laboratory Sample ID: 1611473-01
Sample Matrix: Soil
Units: °C
Analyst: GEM
Prepared: 11/17/16 18:50

ZHE Extraction by 1311

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>TCLP Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Batch</u>
Temperature (Min C)	21.5 (N/A)		1311		1	GEM	11/18/16 12:10	CK62228
Temperature (Max C)	22.0 (N/A)		1311		1	GEM	11/18/16 12:10	CK62228
Temperature (Range)	Temperature is within 23 +/-2 °C. (N/A)							



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
 Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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Total Metals

Batch CK61712 - 3050B

Blank

Antimony	ND	0.50	mg/kg wet
Arsenic	ND	2.50	mg/kg wet
Barium	ND	2.50	mg/kg wet
Beryllium	ND	0.11	mg/kg wet
Cadmium	ND	0.50	mg/kg wet
Chromium	ND	1.0	mg/kg wet
Copper	ND	2.50	mg/kg wet
Lead	ND	5.00	mg/kg wet
Manganese	ND	1.00	mg/kg wet
Nickel	ND	2.50	mg/kg wet
Selenium	ND	0.50	mg/kg wet
Silver	ND	0.50	mg/kg wet
Thallium	ND	0.50	mg/kg wet
Vanadium	ND	1.00	mg/kg wet
Zinc	ND	2.50	mg/kg wet

LCS

Antimony	117	21.6	mg/kg wet	100.0	117	80-120
Arsenic	131	8.62	mg/kg wet	161.0	81	80-120
Barium	329	8.62	mg/kg wet	351.0	94	80-120
Beryllium	84.3	0.38	mg/kg wet	89.40	94	80-120
Cadmium	167	1.72	mg/kg wet	190.0	88	80-120
Chromium	81.3	3.4	mg/kg wet	87.90	92	80-120
Copper	233	8.62	mg/kg wet	258.0	90	80-120
Lead	130	17.2	mg/kg wet	138.0	94	80-120
Nickel	125	8.62	mg/kg wet	127.0	99	80-120
Selenium	282	21.6	mg/kg wet	305.0	93	80-120
Silver	56.2	1.72	mg/kg wet	58.00	97	80-120
Thallium	75.1	21.6	mg/kg wet	89.80	84	80-120
Vanadium	76.1	3.45	mg/kg wet	81.60	93	80-120
Zinc	159	8.62	mg/kg wet	173.0	92	80-120

LCS

Manganese	366	3.23	mg/kg wet	400.0	91	80-120
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LCS Dup

Antimony	129	21.2	mg/kg wet	100.0	129	80-120	10	30	B+
Arsenic	121	8.47	mg/kg wet	161.0	75	80-120	8	20	B-
Barium	349	8.47	mg/kg wet	351.0	99	80-120	6	20	
Beryllium	87.7	0.37	mg/kg wet	89.40	98	80-120	4	20	
Cadmium	173	1.69	mg/kg wet	190.0	91	80-120	3	20	
Chromium	84.6	3.4	mg/kg wet	87.90	96	80-120	4	20	
Copper	241	8.47	mg/kg wet	258.0	94	80-120	3	20	
Lead	136	16.9	mg/kg wet	138.0	99	80-120	5	20	
Nickel	134	8.47	mg/kg wet	127.0	106	80-120	7	20	
Selenium	310	21.2	mg/kg wet	305.0	102	80-120	9	30	
Silver	59.0	1.69	mg/kg wet	58.00	102	80-120	5	20	



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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Total Metals

Batch CK61712 - 3050B

Thallium	81.0	21.2	mg/kg wet	89.80		90	80-120	8	30	
Vanadium	79.0	3.39	mg/kg wet	81.60		97	80-120	4	20	
Zinc	168	8.47	mg/kg wet	173.0		97	80-120	5	20	

LCS Dup

Manganese	383	3.57	mg/kg wet	400.0		96	80-120	5	20	
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Batch CK61713 - 7471B

Blank

Mercury	ND	0.033	mg/kg wet							
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LCS

Mercury	16.2	1.90	mg/kg wet	15.90		102	80-120			
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LCS Dup

Mercury	15.6	1.87	mg/kg wet	15.90		98	80-120	4	20	
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1311/8081B Pesticide TCLP Compounds

Batch CK62303 - 3510C

Blank

Chlordane (Total)	ND	0.00500	mg/L							
Endrin	ND	0.00050	mg/L							
gamma-BHC (Lindane)	ND	0.00050	mg/L							
Heptachlor	ND	0.00050	mg/L							
Heptachlor Epoxide	ND	0.00050	mg/L							
Methoxychlor	ND	0.00050	mg/L							
Toxaphene	ND	0.0130	mg/L							

Surrogate: Decachlorobiphenyl	0.00227		mg/L	0.002500		91	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.00228		mg/L	0.002500		91	30-150			
Surrogate: Tetrachloro-m-xylene	0.00198		mg/L	0.002500		79	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.00202		mg/L	0.002500		81	30-150			

Blank

Chlordane (Total)	ND	0.00500	mg/L							
Endrin	ND	0.00050	mg/L							
gamma-BHC (Lindane)	ND	0.00050	mg/L							
Heptachlor	ND	0.00050	mg/L							
Heptachlor Epoxide	ND	0.00050	mg/L							
Methoxychlor	ND	0.00050	mg/L							
Toxaphene	ND	0.0130	mg/L							

Surrogate: Decachlorobiphenyl	0.00247		mg/L	0.002500		99	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.00250		mg/L	0.002500		100	30-150			
Surrogate: Tetrachloro-m-xylene	0.00217		mg/L	0.002500		87	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.00222		mg/L	0.002500		89	30-150			

Blank

Chlordane (Total)	ND	0.00500	mg/L							
Endrin	ND	0.00050	mg/L							



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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1311/8081B Pesticide TCLP Compounds

Batch CK62303 - 3510C

gamma-BHC (Lindane)	ND	0.00050	mg/L							
Heptachlor	ND	0.00050	mg/L							
Heptachlor Epoxide	ND	0.00050	mg/L							
Methoxychlor	ND	0.00050	mg/L							
Toxaphene	ND	0.0130	mg/L							
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.00197</i>		mg/L	<i>0.002500</i>		<i>79</i>	<i>30-150</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.00225</i>		mg/L	<i>0.002500</i>		<i>90</i>	<i>30-150</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.00180</i>		mg/L	<i>0.002500</i>		<i>72</i>	<i>30-150</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.00191</i>		mg/L	<i>0.002500</i>		<i>76</i>	<i>30-150</i>			

LCS

Chlordane (Total)	ND	0.00050	mg/L				40-140			
Endrin	0.00024	0.00005	mg/L	0.0002500		96	40-140			
gamma-BHC (Lindane)	0.00022	0.00005	mg/L	0.0002500		89	40-140			
Heptachlor	0.00020	0.00005	mg/L	0.0002500		80	40-140			
Heptachlor Epoxide	0.00024	0.00005	mg/L	0.0002500		96	40-140			
Methoxychlor	0.00025	0.00005	mg/L	0.0002500		102	40-140			
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.000203</i>		mg/L	<i>0.0002500</i>		<i>81</i>	<i>30-150</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.000204</i>		mg/L	<i>0.0002500</i>		<i>82</i>	<i>30-150</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.000208</i>		mg/L	<i>0.0002500</i>		<i>83</i>	<i>30-150</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.000208</i>		mg/L	<i>0.0002500</i>		<i>83</i>	<i>30-150</i>			

LCS Dup

Chlordane (Total)	ND	0.00050	mg/L				40-140		20	
Endrin	0.00025	0.00005	mg/L	0.0002500		100	40-140	5	20	
gamma-BHC (Lindane)	0.00024	0.00005	mg/L	0.0002500		95	40-140	7	20	
Heptachlor	0.00022	0.00005	mg/L	0.0002500		89	40-140	11	20	
Heptachlor Epoxide	0.00025	0.00005	mg/L	0.0002500		101	40-140	6	20	
Methoxychlor	0.00026	0.00005	mg/L	0.0002500		105	40-140	3	20	
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.000226</i>		mg/L	<i>0.0002500</i>		<i>90</i>	<i>30-150</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.000228</i>		mg/L	<i>0.0002500</i>		<i>91</i>	<i>30-150</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.000226</i>		mg/L	<i>0.0002500</i>		<i>90</i>	<i>30-150</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.000228</i>		mg/L	<i>0.0002500</i>		<i>91</i>	<i>30-150</i>			

1311 TCLP Metals

Batch CK61706 - 245.1/7470A

Blank

Mercury	ND	0.00050	mg/L							
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Blank

Mercury	ND	0.00050	mg/L							
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LCS

Mercury	0.00691	0.00050	mg/L	0.006000		115	80-120			
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LCS Dup

Mercury	0.00691	0.00050	mg/L	0.006000		115	80-120	0.1	20	
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CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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1311 TCLP Metals

Batch CK61840 - 3005A_TCLP

Blank

Arsenic	ND	0.050	mg/L
Barium	ND	0.050	mg/L
Cadmium	ND	0.0100	mg/L
Chromium	ND	0.020	mg/L
Lead	ND	0.050	mg/L
Selenium	ND	0.050	mg/L
Silver	ND	0.010	mg/L

LCS

Arsenic	0.436	0.050	mg/L	0.5000	87	80-120
Barium	0.458	0.050	mg/L	0.5000	92	80-120
Cadmium	0.227	0.0100	mg/L	0.2500	91	80-120
Chromium	0.460	0.020	mg/L	0.5000	92	80-120
Lead	0.455	0.050	mg/L	0.5000	91	80-120
Selenium	0.989	0.050	mg/L	1.000	99	80-120
Silver	0.243	0.010	mg/L	0.2500	97	80-120

LCS Dup

Arsenic	0.467	0.050	mg/L	0.5000	93	80-120	7	20
Barium	0.467	0.050	mg/L	0.5000	93	80-120	2	20
Cadmium	0.236	0.0100	mg/L	0.2500	94	80-120	4	20
Chromium	0.473	0.020	mg/L	0.5000	95	80-120	3	20
Lead	0.474	0.050	mg/L	0.5000	95	80-120	4	20
Selenium	1.02	0.050	mg/L	1.000	102	80-120	3	20
Silver	0.250	0.010	mg/L	0.2500	100	80-120	3	20

1311/8151A TCLP Herbicide Compounds

Batch CK62244 - 3510C

Blank

2,4,5-TP (Silvex)	ND	0.002	mg/L
2,4,5-TP (Silvex) [2C]	ND	0.002	mg/L
2,4-D	ND	0.009	mg/L
2,4-D [2C]	ND	0.009	mg/L

Surrogate: DCAA	6.15		mg/L	5.714	108	30-150
Surrogate: DCAA [2C]	4.72		mg/L	5.714	83	30-150

Blank

2,4,5-TP (Silvex)	ND	0.002	mg/L
2,4,5-TP (Silvex) [2C]	ND	0.002	mg/L
2,4-D	ND	0.009	mg/L
2,4-D [2C]	ND	0.009	mg/L

Surrogate: DCAA	7.22		mg/L	5.714	126	30-150
Surrogate: DCAA [2C]	5.75		mg/L	5.714	101	30-150

LCS



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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1311/8151A TCLP Herbicide Compounds

Batch CK62244 - 3510C

2,4,5-TP (Silvex)	0.004	0.002	mg/L	0.005429		76	40-140			
2,4,5-TP (Silvex) [2C]	0.004	0.002	mg/L	0.005429		66	40-140			
2,4-D	0.042	0.009	mg/L	0.05371		79	40-140			
2,4-D [2C]	0.041	0.009	mg/L	0.05371		77	40-140			

Surrogate: DCAA	7.82		mg/L	5.714		137	30-150			
Surrogate: DCAA [2C]	6.43		mg/L	5.714		113	30-150			

LCS Dup

2,4,5-TP (Silvex)	0.004	0.002	mg/L	0.005429		76	40-140	0	20	
2,4,5-TP (Silvex) [2C]	0.004	0.002	mg/L	0.005429		70	40-140	6	20	
2,4-D	0.043	0.009	mg/L	0.05371		80	40-140	1	20	
2,4-D [2C]	0.042	0.009	mg/L	0.05371		79	40-140	2	20	

Surrogate: DCAA	6.75		mg/L	5.714		118	30-150			
Surrogate: DCAA [2C]	5.49		mg/L	5.714		96	30-150			

1311/8260B Volatile TCLP Compounds

Batch CK62138 - 5030B

Blank

1,1-Dichloroethene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
2-Butanone	ND	0.0250	mg/L							
Benzene	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroform	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Surrogate: 1,2-Dichloroethane-d4	0.0269		mg/L	0.02500		108	70-130			
Surrogate: 4-Bromofluorobenzene	0.0233		mg/L	0.02500		93	70-130			
Surrogate: Dibromofluoromethane	0.0245		mg/L	0.02500		98	70-130			
Surrogate: Toluene-d8	0.0278		mg/L	0.02500		111	70-130			

LCS

1,1-Dichloroethene	11.3		ug/L	10.00		113	70-130			
1,2-Dichloroethane	10.2		ug/L	10.00		102	70-130			
1,4-Dichlorobenzene	9.74		ug/L	10.00		97	70-130			
2-Butanone	55.1		ug/L	50.00		110	70-130			
Benzene	10.3		ug/L	10.00		103	70-130			
Carbon Tetrachloride	8.09		ug/L	10.00		81	70-130			
Chlorobenzene	9.85		ug/L	10.00		98	70-130			
Chloroform	10.6		ug/L	10.00		106	70-130			
Tetrachloroethene	10.1		ug/L	10.00		101	70-130			
Trichloroethene	9.14		ug/L	10.00		91	70-130			



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1311/8260B Volatile TCLP Compounds

Batch CK62138 - 5030B

Vinyl Chloride	13.3		ug/L	10.00		133	70-130			B+
Surrogate: 1,2-Dichloroethane-d4	0.0254		mg/L	0.02500		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.0209		mg/L	0.02500		84	70-130			
Surrogate: Dibromofluoromethane	0.0235		mg/L	0.02500		94	70-130			
Surrogate: Toluene-d8	0.0245		mg/L	0.02500		98	70-130			

LCS Dup

1,1-Dichloroethene	12.4		ug/L	10.00		124	70-130	10	25	
1,2-Dichloroethane	10.8		ug/L	10.00		108	70-130	6	25	
1,4-Dichlorobenzene	9.42		ug/L	10.00		94	70-130	3	25	
2-Butanone	54.9		ug/L	50.00		110	70-130	0.5	25	
Benzene	10.7		ug/L	10.00		107	70-130	3	25	
Carbon Tetrachloride	8.37		ug/L	10.00		84	70-130	3	25	
Chlorobenzene	10.0		ug/L	10.00		100	70-130	2	25	
Chloroform	10.4		ug/L	10.00		104	70-130	1	25	
Tetrachloroethene	10.2		ug/L	10.00		102	70-130	0.8	25	
Trichloroethene	9.43		ug/L	10.00		94	70-130	3	25	
Vinyl Chloride	12.4		ug/L	10.00		124	70-130	7	25	
Surrogate: 1,2-Dichloroethane-d4	0.0249		mg/L	0.02500		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.0216		mg/L	0.02500		86	70-130			
Surrogate: Dibromofluoromethane	0.0240		mg/L	0.02500		96	70-130			
Surrogate: Toluene-d8	0.0245		mg/L	0.02500		98	70-130			

1311/8270D Semi Volatile TCLP Compounds

Batch CK61836 - 3520C

Blank

2,4,5-Trichlorophenol	ND	0.05	mg/L							
2,4,6-Trichlorophenol	ND	0.05	mg/L							
2,4-Dinitrotoluene	ND	0.05	mg/L							
2-Methylphenol	ND	0.05	mg/L							
3+4-Methylphenol	ND	0.10	mg/L							
Hexachlorobenzene	ND	0.05	mg/L							
Hexachlorobutadiene	ND	0.05	mg/L							
Hexachloroethane	ND	0.02	mg/L							
Nitrobenzene	ND	0.05	mg/L							
Pentachlorophenol	ND	0.25	mg/L							
Pyridine	ND	0.50	mg/L							
Surrogate: 1,2-Dichlorobenzene-d4	0.369		mg/L	0.5000		74	30-130			
Surrogate: 2,4,6-Tribromophenol	0.857		mg/L	0.7500		114	15-110			S+
Surrogate: 2-Chlorophenol-d4	0.509		mg/L	0.7500		68	15-110			
Surrogate: 2-Fluorobiphenyl	0.429		mg/L	0.5000		86	30-130			
Surrogate: 2-Fluorophenol	0.415		mg/L	0.7500		55	15-110			
Surrogate: Nitrobenzene-d5	0.431		mg/L	0.5000		86	30-130			
Surrogate: Phenol-d6	0.565		mg/L	0.7500		75	15-110			
Surrogate: p-Terphenyl-d14	0.510		mg/L	0.5000		102	30-130			

LCS



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1311/8270D Semi Volatile TCLP Compounds

Batch CK61836 - 3520C

2,4,5-Trichlorophenol	0.11	0.01	mg/L	0.1000		108	30-130			
2,4,6-Trichlorophenol	0.10	0.01	mg/L	0.1000		100	30-130			
2,4-Dinitrotoluene	0.10	0.01	mg/L	0.1000		102	40-140			
2-Methylphenol	0.08	0.01	mg/L	0.1000		82	30-130			
3+4-Methylphenol	0.17	0.02	mg/L	0.2000		86	30-130			
Hexachlorobenzene	0.09	0.01	mg/L	0.1000		94	40-140			
Hexachlorobutadiene	0.08	0.01	mg/L	0.1000		80	40-140			
Hexachloroethane	0.07	0.005	mg/L	0.1000		75	40-140			
Nitrobenzene	0.09	0.01	mg/L	0.1000		88	40-140			
Pentachlorophenol	0.12	0.05	mg/L	0.1000		122	30-130			
Pyridine	0.07	0.10	mg/L	0.1000		71	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	0.0749		mg/L	0.1000		75	30-130			
Surrogate: 2,4,6-Tribromophenol	0.181		mg/L	0.1500		121	15-110			S+
Surrogate: 2-Chlorophenol-d4	0.111		mg/L	0.1500		74	15-110			
Surrogate: 2-Fluorobiphenyl	0.0874		mg/L	0.1000		87	30-130			
Surrogate: 2-Fluorophenol	0.0970		mg/L	0.1500		65	15-110			
Surrogate: Nitrobenzene-d5	0.0868		mg/L	0.1000		87	30-130			
Surrogate: Phenol-d6	0.120		mg/L	0.1500		80	15-110			
Surrogate: p-Terphenyl-d14	0.0997		mg/L	0.1000		100	30-130			

LCS Dup

2,4,5-Trichlorophenol	0.11	0.01	mg/L	0.1000		108	30-130	0.5	20	
2,4,6-Trichlorophenol	0.10	0.01	mg/L	0.1000		100	30-130	0.1	20	
2,4-Dinitrotoluene	0.10	0.01	mg/L	0.1000		101	40-140	1	20	
2-Methylphenol	0.08	0.01	mg/L	0.1000		83	30-130	1	20	
3+4-Methylphenol	0.16	0.02	mg/L	0.2000		82	30-130	5	20	
Hexachlorobenzene	0.09	0.01	mg/L	0.1000		92	40-140	1	20	
Hexachlorobutadiene	0.08	0.01	mg/L	0.1000		79	40-140	1	20	
Hexachloroethane	0.07	0.005	mg/L	0.1000		74	40-140	1	20	
Nitrobenzene	0.09	0.01	mg/L	0.1000		86	40-140	2	20	
Pentachlorophenol	0.12	0.05	mg/L	0.1000		121	30-130	1	20	
Pyridine	0.07	0.10	mg/L	0.1000		68	40-140	4	20	
Surrogate: 1,2-Dichlorobenzene-d4	0.0729		mg/L	0.1000		73	30-130			
Surrogate: 2,4,6-Tribromophenol	0.181		mg/L	0.1500		121	15-110			S+
Surrogate: 2-Chlorophenol-d4	0.115		mg/L	0.1500		77	15-110			
Surrogate: 2-Fluorobiphenyl	0.0857		mg/L	0.1000		86	30-130			
Surrogate: 2-Fluorophenol	0.103		mg/L	0.1500		69	15-110			
Surrogate: Nitrobenzene-d5	0.0858		mg/L	0.1000		86	30-130			
Surrogate: Phenol-d6	0.126		mg/L	0.1500		84	15-110			
Surrogate: p-Terphenyl-d14	0.0999		mg/L	0.1000		100	30-130			

Total Metals Solid

Batch CK61712 - [CALC]

Blank

Chromium (III)	ND	1.0	mg/kg wet
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LCS



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Total Metals Solid

Batch CK61712 - [CALC]

Chromium (III)	81.3	3.4	mg/kg wet							
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LCS Dup

Chromium (III)	84.6	3.4	mg/kg wet							
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Batch CK62223 - [CALC]

Blank

Chromium (III)	ND	0.9	mg/kg wet							
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LCS

Chromium (III)	ND	0.9	mg/kg wet							
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LCS Dup

Chromium (III)	ND	0.9	mg/kg wet							
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Reference

Chromium (III)	ND	2.7	mg/kg wet							
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5035/8260B Volatile Organic Compounds / Low Level

Batch CK61825 - 5035

Blank

1,1,1,2-Tetrachloroethane	ND	0.0050	mg/kg wet
1,1,1-Trichloroethane	ND	0.0050	mg/kg wet
1,1,2,2-Tetrachloroethane	ND	0.0050	mg/kg wet
1,1,2-Trichloroethane	ND	0.0050	mg/kg wet
1,1-Dichloroethane	ND	0.0050	mg/kg wet
1,1-Dichloroethene	ND	0.0050	mg/kg wet
1,1-Dichloropropene	ND	0.0050	mg/kg wet
1,2,3-Trichlorobenzene	ND	0.0050	mg/kg wet
1,2,3-Trichloropropane	ND	0.0050	mg/kg wet
1,2,4-Trichlorobenzene	ND	0.0050	mg/kg wet
1,2,4-Trimethylbenzene	ND	0.0050	mg/kg wet
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/kg wet
1,2-Dibromoethane	ND	0.0050	mg/kg wet
1,2-Dichlorobenzene	ND	0.0050	mg/kg wet
1,2-Dichloroethane	ND	0.0050	mg/kg wet
1,2-Dichloropropane	ND	0.0050	mg/kg wet
1,3,5-Trimethylbenzene	ND	0.0050	mg/kg wet
1,3-Dichlorobenzene	ND	0.0050	mg/kg wet
1,3-Dichloropropane	ND	0.0050	mg/kg wet
1,4-Dichlorobenzene	ND	0.0050	mg/kg wet
1,4-Dioxane	ND	0.100	mg/kg wet
1-Chlorohexane	ND	0.0050	mg/kg wet
2,2-Dichloropropane	ND	0.0050	mg/kg wet
2-Butanone	ND	0.0500	mg/kg wet
2-Chlorotoluene	ND	0.0050	mg/kg wet
2-Hexanone	ND	0.0500	mg/kg wet
4-Chlorotoluene	ND	0.0050	mg/kg wet



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5035/8260B Volatile Organic Compounds / Low Level

Batch CK61825 - 5035

4-Isopropyltoluene	ND	0.0050	mg/kg wet
4-Methyl-2-Pentanone	ND	0.0500	mg/kg wet
Acetone	ND	0.0500	mg/kg wet
Benzene	ND	0.0050	mg/kg wet
Bromobenzene	ND	0.0050	mg/kg wet
Bromochloromethane	ND	0.0050	mg/kg wet
Bromodichloromethane	ND	0.0050	mg/kg wet
Bromoform	ND	0.0050	mg/kg wet
Bromomethane	ND	0.0100	mg/kg wet
Carbon Disulfide	ND	0.0050	mg/kg wet
Carbon Tetrachloride	ND	0.0050	mg/kg wet
Chlorobenzene	ND	0.0050	mg/kg wet
Chloroethane	ND	0.0100	mg/kg wet
Chloroform	ND	0.0050	mg/kg wet
Chloromethane	ND	0.0100	mg/kg wet
cis-1,2-Dichloroethene	ND	0.0050	mg/kg wet
cis-1,3-Dichloropropene	ND	0.0050	mg/kg wet
Dibromochloromethane	ND	0.0050	mg/kg wet
Dibromomethane	ND	0.0050	mg/kg wet
Dichlorodifluoromethane	ND	0.0100	mg/kg wet
Diethyl Ether	ND	0.0050	mg/kg wet
Di-isopropyl ether	ND	0.0050	mg/kg wet
Ethyl tertiary-butyl ether	ND	0.0050	mg/kg wet
Ethylbenzene	ND	0.0050	mg/kg wet
Hexachlorobutadiene	ND	0.0050	mg/kg wet
Isopropylbenzene	ND	0.0050	mg/kg wet
Methyl tert-Butyl Ether	ND	0.0050	mg/kg wet
Methylene Chloride	ND	0.0250	mg/kg wet
Naphthalene	ND	0.0050	mg/kg wet
n-Butylbenzene	ND	0.0050	mg/kg wet
n-Propylbenzene	ND	0.0050	mg/kg wet
sec-Butylbenzene	ND	0.0050	mg/kg wet
Styrene	ND	0.0050	mg/kg wet
tert-Butylbenzene	ND	0.0050	mg/kg wet
Tertiary-amyl methyl ether	ND	0.0050	mg/kg wet
Tetrachloroethene	ND	0.0050	mg/kg wet
Tetrahydrofuran	ND	0.0050	mg/kg wet
Toluene	ND	0.0050	mg/kg wet
trans-1,2-Dichloroethene	ND	0.0050	mg/kg wet
trans-1,3-Dichloropropene	ND	0.0050	mg/kg wet
Trichloroethene	ND	0.0050	mg/kg wet
Trichlorofluoromethane	ND	0.0050	mg/kg wet
Vinyl Acetate	ND	0.0050	mg/kg wet
Vinyl Chloride	ND	0.0100	mg/kg wet
Xylene O	ND	0.0050	mg/kg wet



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5035/8260B Volatile Organic Compounds / Low Level

Batch CK61825 - 5035

Xylene P,M	ND	0.0100	mg/kg wet							
Xylenes (Total)	ND	0.0100	mg/kg wet							
Surrogate: 1,2-Dichloroethane-d4	0.0517		mg/kg wet	0.05000		103	70-130			
Surrogate: 4-Bromofluorobenzene	0.0506		mg/kg wet	0.05000		101	70-130			
Surrogate: Dibromofluoromethane	0.0476		mg/kg wet	0.05000		95	70-130			
Surrogate: Toluene-d8	0.0515		mg/kg wet	0.05000		103	70-130			

LCS

1,1,1,2-Tetrachloroethane	0.0495	0.0050	mg/kg wet	0.05000		99	70-130			
1,1,1-Trichloroethane	0.0542	0.0050	mg/kg wet	0.05000		108	70-130			
1,1,2,2-Tetrachloroethane	0.0518	0.0050	mg/kg wet	0.05000		104	70-130			
1,1,2-Trichloroethane	0.0455	0.0050	mg/kg wet	0.05000		91	70-130			
1,1-Dichloroethane	0.0531	0.0050	mg/kg wet	0.05000		106	70-130			
1,1-Dichloroethene	0.0565	0.0050	mg/kg wet	0.05000		113	70-130			
1,1-Dichloropropene	0.0561	0.0050	mg/kg wet	0.05000		112	70-130			
1,2,3-Trichlorobenzene	0.0522	0.0050	mg/kg wet	0.05000		104	70-130			
1,2,3-Trichloropropane	0.0457	0.0050	mg/kg wet	0.05000		91	70-130			
1,2,4-Trichlorobenzene	0.0532	0.0050	mg/kg wet	0.05000		106	70-130			
1,2,4-Trimethylbenzene	0.0547	0.0050	mg/kg wet	0.05000		109	70-130			
1,2-Dibromo-3-Chloropropane	0.0488	0.0050	mg/kg wet	0.05000		98	70-130			
1,2-Dibromoethane	0.0474	0.0050	mg/kg wet	0.05000		95	70-130			
1,2-Dichlorobenzene	0.0499	0.0050	mg/kg wet	0.05000		100	70-130			
1,2-Dichloroethane	0.0544	0.0050	mg/kg wet	0.05000		109	70-130			
1,2-Dichloropropane	0.0498	0.0050	mg/kg wet	0.05000		100	70-130			
1,3,5-Trimethylbenzene	0.0554	0.0050	mg/kg wet	0.05000		111	70-130			
1,3-Dichlorobenzene	0.0502	0.0050	mg/kg wet	0.05000		100	70-130			
1,3-Dichloropropane	0.0535	0.0050	mg/kg wet	0.05000		107	70-130			
1,4-Dichlorobenzene	0.0503	0.0050	mg/kg wet	0.05000		101	70-130			
1,4-Dioxane	0.820	0.100	mg/kg wet	1.000		82	70-130			
1-Chlorohexane	0.0552	0.0050	mg/kg wet	0.05000		110	70-130			
2,2-Dichloropropane	0.0522	0.0050	mg/kg wet	0.05000		104	70-130			
2-Butanone	0.237	0.0500	mg/kg wet	0.2500		95	70-130			
2-Chlorotoluene	0.0548	0.0050	mg/kg wet	0.05000		110	70-130			
2-Hexanone	0.223	0.0500	mg/kg wet	0.2500		89	70-130			
4-Chlorotoluene	0.0529	0.0050	mg/kg wet	0.05000		106	70-130			
4-Isopropyltoluene	0.0559	0.0050	mg/kg wet	0.05000		112	70-130			
4-Methyl-2-Pentanone	0.210	0.0500	mg/kg wet	0.2500		84	70-130			
Acetone	0.245	0.0500	mg/kg wet	0.2500		98	70-130			
Benzene	0.0521	0.0050	mg/kg wet	0.05000		104	70-130			
Bromobenzene	0.0516	0.0050	mg/kg wet	0.05000		103	70-130			
Bromochloromethane	0.0511	0.0050	mg/kg wet	0.05000		102	70-130			
Bromodichloromethane	0.0487	0.0050	mg/kg wet	0.05000		97	70-130			
Bromoform	0.0461	0.0050	mg/kg wet	0.05000		92	70-130			
Bromomethane	0.0520	0.0100	mg/kg wet	0.05000		104	70-130			
Carbon Disulfide	0.0538	0.0050	mg/kg wet	0.05000		108	70-130			
Carbon Tetrachloride	0.0543	0.0050	mg/kg wet	0.05000		109	70-130			



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5035/8260B Volatile Organic Compounds / Low Level

Batch CK61825 - 5035

Chlorobenzene	0.0505	0.0050	mg/kg wet	0.05000		101	70-130			
Chloroethane	0.0527	0.0100	mg/kg wet	0.05000		105	70-130			
Chloroform	0.0542	0.0050	mg/kg wet	0.05000		108	70-130			
Chloromethane	0.0581	0.0100	mg/kg wet	0.05000		116	70-130			
cis-1,2-Dichloroethene	0.0521	0.0050	mg/kg wet	0.05000		104	70-130			
cis-1,3-Dichloropropene	0.0486	0.0050	mg/kg wet	0.05000		97	70-130			
Dibromochloromethane	0.0482	0.0050	mg/kg wet	0.05000		96	70-130			
Dibromomethane	0.0515	0.0050	mg/kg wet	0.05000		103	70-130			
Dichlorodifluoromethane	0.0541	0.0100	mg/kg wet	0.05000		108	70-130			
Diethyl Ether	0.0522	0.0050	mg/kg wet	0.05000		104	70-130			
Di-isopropyl ether	0.0523	0.0050	mg/kg wet	0.05000		105	70-130			
Ethyl tertiary-butyl ether	0.0510	0.0050	mg/kg wet	0.05000		102	70-130			
Ethylbenzene	0.0554	0.0050	mg/kg wet	0.05000		111	70-130			
Hexachlorobutadiene	0.0538	0.0050	mg/kg wet	0.05000		108	70-130			
Isopropylbenzene	0.0461	0.0050	mg/kg wet	0.05000		92	70-130			
Methyl tert-Butyl Ether	0.0508	0.0050	mg/kg wet	0.05000		102	70-130			
Methylene Chloride	0.0538	0.0250	mg/kg wet	0.05000		108	70-130			
Naphthalene	0.0451	0.0050	mg/kg wet	0.05000		90	70-130			
n-Butylbenzene	0.0574	0.0050	mg/kg wet	0.05000		115	70-130			
n-Propylbenzene	0.0560	0.0050	mg/kg wet	0.05000		112	70-130			
sec-Butylbenzene	0.0538	0.0050	mg/kg wet	0.05000		108	70-130			
Styrene	0.0475	0.0050	mg/kg wet	0.05000		95	70-130			
tert-Butylbenzene	0.0545	0.0050	mg/kg wet	0.05000		109	70-130			
Tertiary-amyl methyl ether	0.0438	0.0050	mg/kg wet	0.05000		88	70-130			
Tetrachloroethene	0.0520	0.0050	mg/kg wet	0.05000		104	70-130			
Tetrahydrofuran	0.0464	0.0050	mg/kg wet	0.05000		93	70-130			
Toluene	0.0521	0.0050	mg/kg wet	0.05000		104	70-130			
trans-1,2-Dichloroethene	0.0541	0.0050	mg/kg wet	0.05000		108	70-130			
trans-1,3-Dichloropropene	0.0454	0.0050	mg/kg wet	0.05000		91	70-130			
Trichloroethene	0.0536	0.0050	mg/kg wet	0.05000		107	70-130			
Trichlorofluoromethane	0.0513	0.0050	mg/kg wet	0.05000		103	70-130			
Vinyl Acetate	0.0456	0.0050	mg/kg wet	0.05000		91	70-130			
Vinyl Chloride	0.0613	0.0100	mg/kg wet	0.05000		123	70-130			
Xylene O	0.0527	0.0050	mg/kg wet	0.05000		105	70-130			
Xylene P,M	0.106	0.0100	mg/kg wet	0.1000		106	70-130			
Xylenes (Total)	0.159	0.0100	mg/kg wet							
Surrogate: 1,2-Dichloroethane-d4	0.0491		mg/kg wet	0.05000		98	70-130			
Surrogate: 4-Bromofluorobenzene	0.0467		mg/kg wet	0.05000		93	70-130			
Surrogate: Dibromofluoromethane	0.0455		mg/kg wet	0.05000		91	70-130			
Surrogate: Toluene-d8	0.0475		mg/kg wet	0.05000		95	70-130			

LCS Dup

1,1,1,2-Tetrachloroethane	0.0508	0.0050	mg/kg wet	0.05000		102	70-130	3	25	
1,1,1-Trichloroethane	0.0559	0.0050	mg/kg wet	0.05000		112	70-130	3	25	
1,1,2,2-Tetrachloroethane	0.0562	0.0050	mg/kg wet	0.05000		112	70-130	8	25	
1,1,2-Trichloroethane	0.0485	0.0050	mg/kg wet	0.05000		97	70-130	6	25	



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch CK61825 - 5035

1,1-Dichloroethane	0.0556	0.0050	mg/kg wet	0.05000		111	70-130	5	25	
1,1-Dichloroethene	0.0592	0.0050	mg/kg wet	0.05000		118	70-130	5	25	
1,1-Dichloropropene	0.0590	0.0050	mg/kg wet	0.05000		118	70-130	5	25	
1,2,3-Trichlorobenzene	0.0573	0.0050	mg/kg wet	0.05000		115	70-130	9	25	
1,2,3-Trichloropropane	0.0502	0.0050	mg/kg wet	0.05000		100	70-130	9	25	
1,2,4-Trichlorobenzene	0.0575	0.0050	mg/kg wet	0.05000		115	70-130	8	25	
1,2,4-Trimethylbenzene	0.0569	0.0050	mg/kg wet	0.05000		114	70-130	4	25	
1,2-Dibromo-3-Chloropropane	0.0550	0.0050	mg/kg wet	0.05000		110	70-130	12	25	
1,2-Dibromoethane	0.0491	0.0050	mg/kg wet	0.05000		98	70-130	4	25	
1,2-Dichlorobenzene	0.0534	0.0050	mg/kg wet	0.05000		107	70-130	7	25	
1,2-Dichloroethane	0.0577	0.0050	mg/kg wet	0.05000		115	70-130	6	25	
1,2-Dichloropropane	0.0527	0.0050	mg/kg wet	0.05000		105	70-130	6	25	
1,3,5-Trimethylbenzene	0.0578	0.0050	mg/kg wet	0.05000		116	70-130	4	25	
1,3-Dichlorobenzene	0.0530	0.0050	mg/kg wet	0.05000		106	70-130	5	25	
1,3-Dichloropropane	0.0550	0.0050	mg/kg wet	0.05000		110	70-130	3	25	
1,4-Dichlorobenzene	0.0537	0.0050	mg/kg wet	0.05000		107	70-130	7	25	
1,4-Dioxane	0.969	0.100	mg/kg wet	1.000		97	70-130	17	20	
1-Chlorohexane	0.0540	0.0050	mg/kg wet	0.05000		108	70-130	2	25	
2,2-Dichloropropane	0.0535	0.0050	mg/kg wet	0.05000		107	70-130	3	25	
2-Butanone	0.267	0.0500	mg/kg wet	0.2500		107	70-130	12	25	
2-Chlorotoluene	0.0561	0.0050	mg/kg wet	0.05000		112	70-130	2	25	
2-Hexanone	0.253	0.0500	mg/kg wet	0.2500		101	70-130	13	25	
4-Chlorotoluene	0.0556	0.0050	mg/kg wet	0.05000		111	70-130	5	25	
4-Isopropyltoluene	0.0577	0.0050	mg/kg wet	0.05000		115	70-130	3	25	
4-Methyl-2-Pentanone	0.239	0.0500	mg/kg wet	0.2500		96	70-130	13	25	
Acetone	0.320	0.0500	mg/kg wet	0.2500		128	70-130	26	25	D+
Benzene	0.0551	0.0050	mg/kg wet	0.05000		110	70-130	6	25	
Bromobenzene	0.0550	0.0050	mg/kg wet	0.05000		110	70-130	6	25	
Bromochloromethane	0.0547	0.0050	mg/kg wet	0.05000		109	70-130	7	25	
Bromodichloromethane	0.0514	0.0050	mg/kg wet	0.05000		103	70-130	5	25	
Bromoform	0.0489	0.0050	mg/kg wet	0.05000		98	70-130	6	25	
Bromomethane	0.0532	0.0100	mg/kg wet	0.05000		106	70-130	2	25	
Carbon Disulfide	0.0562	0.0050	mg/kg wet	0.05000		112	70-130	4	25	
Carbon Tetrachloride	0.0570	0.0050	mg/kg wet	0.05000		114	70-130	5	25	
Chlorobenzene	0.0515	0.0050	mg/kg wet	0.05000		103	70-130	2	25	
Chloroethane	0.0558	0.0100	mg/kg wet	0.05000		112	70-130	6	25	
Chloroform	0.0567	0.0050	mg/kg wet	0.05000		113	70-130	5	25	
Chloromethane	0.0612	0.0100	mg/kg wet	0.05000		122	70-130	5	25	
cis-1,2-Dichloroethene	0.0544	0.0050	mg/kg wet	0.05000		109	70-130	4	25	
cis-1,3-Dichloropropene	0.0519	0.0050	mg/kg wet	0.05000		104	70-130	6	25	
Dibromochloromethane	0.0501	0.0050	mg/kg wet	0.05000		100	70-130	4	25	
Dibromomethane	0.0557	0.0050	mg/kg wet	0.05000		111	70-130	8	25	
Dichlorodifluoromethane	0.0569	0.0100	mg/kg wet	0.05000		114	70-130	5	25	
Diethyl Ether	0.0549	0.0050	mg/kg wet	0.05000		110	70-130	5	25	
Di-isopropyl ether	0.0558	0.0050	mg/kg wet	0.05000		112	70-130	7	25	



CERTIFICATE OF ANALYSIS

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Quality Control Data

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5035/8260B Volatile Organic Compounds / Low Level

Batch CK61825 - 5035

Ethyl tertiary-butyl ether	0.0548	0.0050	mg/kg wet	0.05000		110	70-130	7	25	
Ethylbenzene	0.0555	0.0050	mg/kg wet	0.05000		111	70-130	0.3	25	
Hexachlorobutadiene	0.0559	0.0050	mg/kg wet	0.05000		112	70-130	4	25	
Isopropylbenzene	0.0476	0.0050	mg/kg wet	0.05000		95	70-130	3	25	
Methyl tert-Butyl Ether	0.0546	0.0050	mg/kg wet	0.05000		109	70-130	7	25	
Methylene Chloride	0.0575	0.0250	mg/kg wet	0.05000		115	70-130	7	25	
Naphthalene	0.0555	0.0050	mg/kg wet	0.05000		111	70-130	21	25	
n-Butylbenzene	0.0610	0.0050	mg/kg wet	0.05000		122	70-130	6	25	
n-Propylbenzene	0.0581	0.0050	mg/kg wet	0.05000		116	70-130	4	25	
sec-Butylbenzene	0.0566	0.0050	mg/kg wet	0.05000		113	70-130	5	25	
Styrene	0.0487	0.0050	mg/kg wet	0.05000		97	70-130	2	25	
tert-Butylbenzene	0.0563	0.0050	mg/kg wet	0.05000		113	70-130	3	25	
Tertiary-amyl methyl ether	0.0470	0.0050	mg/kg wet	0.05000		94	70-130	7	25	
Tetrachloroethene	0.0534	0.0050	mg/kg wet	0.05000		107	70-130	3	25	
Tetrahydrofuran	0.0522	0.0050	mg/kg wet	0.05000		104	70-130	12	25	
Toluene	0.0545	0.0050	mg/kg wet	0.05000		109	70-130	4	25	
trans-1,2-Dichloroethene	0.0561	0.0050	mg/kg wet	0.05000		112	70-130	4	25	
trans-1,3-Dichloropropene	0.0487	0.0050	mg/kg wet	0.05000		97	70-130	7	25	
Trichloroethene	0.0555	0.0050	mg/kg wet	0.05000		111	70-130	4	25	
Trichlorofluoromethane	0.0530	0.0050	mg/kg wet	0.05000		106	70-130	3	25	
Vinyl Acetate	0.0497	0.0050	mg/kg wet	0.05000		99	70-130	9	25	
Vinyl Chloride	0.0636	0.0100	mg/kg wet	0.05000		127	70-130	4	25	
Xylene O	0.0533	0.0050	mg/kg wet	0.05000		107	70-130	1	25	
Xylene P,M	0.108	0.0100	mg/kg wet	0.1000		108	70-130	1	25	
Xylenes (Total)	0.161	0.0100	mg/kg wet							
Surrogate: 1,2-Dichloroethane-d4	0.0501		mg/kg wet	0.05000		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.0461		mg/kg wet	0.05000		92	70-130			
Surrogate: Dibromofluoromethane	0.0465		mg/kg wet	0.05000		93	70-130			
Surrogate: Toluene-d8	0.0464		mg/kg wet	0.05000		93	70-130			

8081B Organochlorine Pesticides

Batch CK61609 - 3546

Blank										
Chlordane (Total)	ND	0.0300	mg/kg wet							
Chlordane (Total) [2C]	ND	0.0300	mg/kg wet							
Dieldrin	ND	0.0025	mg/kg wet							
Dieldrin [2C]	ND	0.0025	mg/kg wet							
Surrogate: Decachlorobiphenyl	0.0122		mg/kg wet	0.01250		97	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0123		mg/kg wet	0.01250		98	30-150			
Surrogate: Tetrachloro-m-xylene	0.0129		mg/kg wet	0.01250		103	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0132		mg/kg wet	0.01250		106	30-150			

LCS										
Dieldrin	0.0138	0.0025	mg/kg wet	0.01250		110	40-140			
Dieldrin [2C]	0.0141	0.0025	mg/kg wet	0.01250		113	40-140			



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Quality Control Data

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8081B Organochlorine Pesticides

Batch CK61609 - 3546

Surrogate: Decachlorobiphenyl	0.0127		mg/kg wet	0.01250		101	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0127		mg/kg wet	0.01250		101	30-150			
Surrogate: Tetrachloro-m-xylene	0.0130		mg/kg wet	0.01250		104	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0132		mg/kg wet	0.01250		106	30-150			

LCS Dup

Dieldrin	0.0133	0.0025	mg/kg wet	0.01250		107	40-140	3	30	
Dieldrin [2C]	0.0138	0.0025	mg/kg wet	0.01250		110	40-140	3	30	

Surrogate: Decachlorobiphenyl	0.0124		mg/kg wet	0.01250		99	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0124		mg/kg wet	0.01250		100	30-150			
Surrogate: Tetrachloro-m-xylene	0.0129		mg/kg wet	0.01250		103	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0130		mg/kg wet	0.01250		104	30-150			

8082A Polychlorinated Biphenyls (PCB)

Batch CK61607 - 3540C

Blank

Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

Surrogate: Decachlorobiphenyl	0.0270		mg/kg wet	0.02500		108	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0228		mg/kg wet	0.02500		91	30-150			
Surrogate: Tetrachloro-m-xylene	0.0199		mg/kg wet	0.02500		80	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0198		mg/kg wet	0.02500		79	30-150			

LCS

Aroclor 1016	0.432	0.0500	mg/kg wet	0.5000		86	40-140			
Aroclor 1260	0.430	0.0500	mg/kg wet	0.5000		86	40-140			

Surrogate: Decachlorobiphenyl	0.0248		mg/kg wet	0.02500		99	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0237		mg/kg wet	0.02500		95	30-150			
Surrogate: Tetrachloro-m-xylene	0.0212		mg/kg wet	0.02500		85	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0200		mg/kg wet	0.02500		80	30-150			

LCS Dup

Aroclor 1016	0.442	0.0500	mg/kg wet	0.5000		88	40-140	2	30	
Aroclor 1260	0.436	0.0500	mg/kg wet	0.5000		87	40-140	1	30	

Surrogate: Decachlorobiphenyl	0.0245		mg/kg wet	0.02500		98	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0237		mg/kg wet	0.02500		95	30-150			
Surrogate: Tetrachloro-m-xylene	0.0215		mg/kg wet	0.02500		86	30-150			



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8082A Polychlorinated Biphenyls (PCB)

Batch CK61607 - 3540C

Surrogate: Tetrachloro-m-xylene [2C] 0.0202 mg/kg wet 0.02500 81 30-150

8100M Total Petroleum Hydrocarbons

Batch CK61611 - 3546

Blank

Decane (C10)	ND	0.2	mg/kg wet
Docosane (C22)	ND	0.2	mg/kg wet
Dodecane (C12)	ND	0.2	mg/kg wet
Eicosane (C20)	ND	0.2	mg/kg wet
Hexacosane (C26)	ND	0.2	mg/kg wet
Hexadecane (C16)	ND	0.2	mg/kg wet
Nonadecane (C19)	ND	0.2	mg/kg wet
Nonane (C9)	ND	0.2	mg/kg wet
Octacosane (C28)	ND	0.2	mg/kg wet
Octadecane (C18)	ND	0.2	mg/kg wet
Tetracosane (C24)	ND	0.2	mg/kg wet
Tetradecane (C14)	ND	0.2	mg/kg wet
Total Petroleum Hydrocarbons	ND	37.5	mg/kg wet
Triacontane (C30)	ND	0.2	mg/kg wet

Surrogate: O-Terphenyl 4.40 mg/kg wet 5.000 88 40-140

LCS

Decane (C10)	1.7	0.2	mg/kg wet	2.500	68	40-140
Docosane (C22)	2.0	0.2	mg/kg wet	2.500	78	40-140
Dodecane (C12)	1.7	0.2	mg/kg wet	2.500	67	40-140
Eicosane (C20)	1.9	0.2	mg/kg wet	2.500	77	40-140
Hexacosane (C26)	2.0	0.2	mg/kg wet	2.500	81	40-140
Hexadecane (C16)	1.9	0.2	mg/kg wet	2.500	77	40-140
Nonadecane (C19)	2.0	0.2	mg/kg wet	2.500	78	40-140
Nonane (C9)	1.5	0.2	mg/kg wet	2.500	60	30-140
Octacosane (C28)	2.1	0.2	mg/kg wet	2.500	84	40-140
Octadecane (C18)	1.9	0.2	mg/kg wet	2.500	75	40-140
Tetracosane (C24)	2.0	0.2	mg/kg wet	2.500	80	40-140
Tetradecane (C14)	1.8	0.2	mg/kg wet	2.500	74	40-140
Total Petroleum Hydrocarbons	25.9	37.5	mg/kg wet	35.00	74	40-140
Triacontane (C30)	2.2	0.2	mg/kg wet	2.500	87	40-140

Surrogate: O-Terphenyl 3.97 mg/kg wet 5.000 79 40-140

LCS Dup

Decane (C10)	2.0	0.2	mg/kg wet	2.500	79	40-140	15	25
Docosane (C22)	2.2	0.2	mg/kg wet	2.500	89	40-140	13	25
Dodecane (C12)	2.0	0.2	mg/kg wet	2.500	79	40-140	16	25
Eicosane (C20)	2.2	0.2	mg/kg wet	2.500	87	40-140	12	25
Hexacosane (C26)	2.3	0.2	mg/kg wet	2.500	92	40-140	13	25



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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8100M Total Petroleum Hydrocarbons										
Batch CK61611 - 3546										
Hexadecane (C16)	2.1	0.2	mg/kg wet	2.500		85	40-140	9	25	
Nonadecane (C19)	2.2	0.2	mg/kg wet	2.500		88	40-140	12	25	
Nonane (C9)	1.7	0.2	mg/kg wet	2.500		68	30-140	13	25	
Octacosane (C28)	2.4	0.2	mg/kg wet	2.500		94	40-140	12	25	
Octadecane (C18)	2.1	0.2	mg/kg wet	2.500		85	40-140	12	25	
Tetracosane (C24)	2.2	0.2	mg/kg wet	2.500		90	40-140	12	25	
Tetradecane (C14)	2.1	0.2	mg/kg wet	2.500		85	40-140	14	25	
Total Petroleum Hydrocarbons	29.4	37.5	mg/kg wet	35.00		84	40-140	13	25	
Triacotane (C30)	2.4	0.2	mg/kg wet	2.500		98	40-140	12	25	

Surrogate: O-Terphenyl 4.38 mg/kg wet 5.000 88 40-140

8270D Semi-Volatile Organic Compounds

Batch CK61612 - 3546

Blank			
1,1-Biphenyl	ND	0.333	mg/kg wet
1,2,4-Trichlorobenzene	ND	0.333	mg/kg wet
1,2-Dichlorobenzene	ND	0.333	mg/kg wet
1,3-Dichlorobenzene	ND	0.333	mg/kg wet
1,4-Dichlorobenzene	ND	0.333	mg/kg wet
2,3,4,6-Tetrachlorophenol	ND	1.67	mg/kg wet
2,4,5-Trichlorophenol	ND	0.333	mg/kg wet
2,4,6-Trichlorophenol	ND	0.333	mg/kg wet
2,4-Dichlorophenol	ND	0.333	mg/kg wet
2,4-Dimethylphenol	ND	0.333	mg/kg wet
2,4-Dinitrophenol	ND	1.67	mg/kg wet
2,4-Dinitrotoluene	ND	0.333	mg/kg wet
2,6-Dinitrotoluene	ND	0.333	mg/kg wet
2-Chloronaphthalene	ND	0.333	mg/kg wet
2-Chlorophenol	ND	0.333	mg/kg wet
2-Methylnaphthalene	ND	0.333	mg/kg wet
2-Methylphenol	ND	0.333	mg/kg wet
2-Nitroaniline	ND	0.333	mg/kg wet
2-Nitrophenol	ND	0.333	mg/kg wet
3,3'-Dichlorobenzidine	ND	0.667	mg/kg wet
3+4-Methylphenol	ND	0.667	mg/kg wet
3-Nitroaniline	ND	0.333	mg/kg wet
4,6-Dinitro-2-Methylphenol	ND	1.67	mg/kg wet
4-Bromophenyl-phenylether	ND	0.333	mg/kg wet
4-Chloro-3-Methylphenol	ND	0.333	mg/kg wet
4-Chloroaniline	ND	0.667	mg/kg wet
4-Chloro-phenyl-phenyl ether	ND	0.333	mg/kg wet
4-Nitroaniline	ND	0.333	mg/kg wet
4-Nitrophenol	ND	1.67	mg/kg wet
Acenaphthene	ND	0.333	mg/kg wet



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270D Semi-Volatile Organic Compounds

Batch CK61612 - 3546

Acenaphthylene	ND	0.333	mg/kg wet							
Acetophenone	ND	0.667	mg/kg wet							
Aniline	ND	0.667	mg/kg wet							
Anthracene	ND	0.333	mg/kg wet							
Azobenzene	ND	0.333	mg/kg wet							
Benzo(a)anthracene	ND	0.333	mg/kg wet							
Benzo(a)pyrene	ND	0.167	mg/kg wet							
Benzo(b)fluoranthene	ND	0.333	mg/kg wet							
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet							
Benzo(k)fluoranthene	ND	0.333	mg/kg wet							
Benzoic Acid	ND	1.67	mg/kg wet							
Benzyl Alcohol	ND	0.333	mg/kg wet							
bis(2-Chloroethoxy)methane	ND	0.333	mg/kg wet							
bis(2-Chloroethyl)ether	ND	0.333	mg/kg wet							
bis(2-chloroisopropyl)Ether	ND	0.333	mg/kg wet							
bis(2-Ethylhexyl)phthalate	ND	0.333	mg/kg wet							
Butylbenzylphthalate	ND	0.333	mg/kg wet							
Carbazole	ND	0.333	mg/kg wet							
Chrysene	ND	0.167	mg/kg wet							
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet							
Dibenzofuran	ND	0.333	mg/kg wet							
Diethylphthalate	ND	0.333	mg/kg wet							
Dimethylphthalate	ND	0.333	mg/kg wet							
Di-n-butylphthalate	ND	0.333	mg/kg wet							
Di-n-octylphthalate	ND	0.333	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Hexachlorobenzene	ND	0.167	mg/kg wet							
Hexachlorobutadiene	ND	0.333	mg/kg wet							
Hexachlorocyclopentadiene	ND	1.67	mg/kg wet							
Hexachloroethane	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Isophorone	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Nitrobenzene	ND	0.333	mg/kg wet							
N-Nitrosodimethylamine	ND	0.333	mg/kg wet							
N-Nitroso-Di-n-Propylamine	ND	0.333	mg/kg wet							
N-nitrosodiphenylamine	ND	0.333	mg/kg wet							
Pentachlorophenol	ND	1.67	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Phenol	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Pyridine	ND	1.67	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.33		mg/kg wet	3.333		70	30-130			
Surrogate: 2,4,6-Tribromophenol	3.65		mg/kg wet	5.000		73	30-130			



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270D Semi-Volatile Organic Compounds

Batch CK61612 - 3546

Surrogate: 2-Chlorophenol-d4	3.64		mg/kg wet	5.000		73	30-130			
Surrogate: 2-Fluorobiphenyl	2.09		mg/kg wet	3.333		63	30-130			
Surrogate: 2-Fluorophenol	3.59		mg/kg wet	5.000		72	30-130			
Surrogate: Nitrobenzene-d5	2.43		mg/kg wet	3.333		73	30-130			
Surrogate: Phenol-d6	3.75		mg/kg wet	5.000		75	30-130			
Surrogate: p-Terphenyl-d14	3.09		mg/kg wet	3.333		93	30-130			

LCS

1,1-Biphenyl	2.35	0.333	mg/kg wet	3.333		70	40-140			
1,2,4-Trichlorobenzene	2.07	0.333	mg/kg wet	3.333		62	40-140			
1,2-Dichlorobenzene	2.00	0.333	mg/kg wet	3.333		60	40-140			
1,3-Dichlorobenzene	2.03	0.333	mg/kg wet	3.333		61	40-140			
1,4-Dichlorobenzene	1.99	0.333	mg/kg wet	3.333		60	40-140			
2,3,4,6-Tetrachlorophenol	2.43	1.67	mg/kg wet	3.333		73	30-130			
2,4,5-Trichlorophenol	2.96	0.333	mg/kg wet	3.333		89	30-130			
2,4,6-Trichlorophenol	2.76	0.333	mg/kg wet	3.333		83	30-130			
2,4-Dichlorophenol	2.27	0.333	mg/kg wet	3.333		68	30-130			
2,4-Dimethylphenol	2.42	0.333	mg/kg wet	3.333		73	30-130			
2,4-Dinitrophenol	1.97	1.67	mg/kg wet	3.333		59	30-130			
2,4-Dinitrotoluene	2.75	0.333	mg/kg wet	3.333		82	40-140			
2,6-Dinitrotoluene	2.71	0.333	mg/kg wet	3.333		81	40-140			
2-Chloronaphthalene	2.14	0.333	mg/kg wet	3.333		64	40-140			
2-Chlorophenol	1.99	0.333	mg/kg wet	3.333		60	30-130			
2-Methylnaphthalene	2.52	0.333	mg/kg wet	3.333		76	40-140			
2-Methylphenol	2.09	0.333	mg/kg wet	3.333		63	30-130			
2-Nitroaniline	2.53	0.333	mg/kg wet	3.333		76	40-140			
2-Nitrophenol	2.04	0.333	mg/kg wet	3.333		61	30-130			
3,3'-Dichlorobenzidine	2.47	0.667	mg/kg wet	3.333		74	40-140			
3+4-Methylphenol	4.25	0.667	mg/kg wet	6.667		64	30-130			
3-Nitroaniline	2.81	0.333	mg/kg wet	3.333		84	40-140			
4,6-Dinitro-2-Methylphenol	2.44	1.67	mg/kg wet	3.333		73	30-130			
4-Bromophenyl-phenylether	2.71	0.333	mg/kg wet	3.333		81	40-140			
4-Chloro-3-Methylphenol	3.11	0.333	mg/kg wet	3.333		93	30-130			
4-Chloroaniline	2.20	0.667	mg/kg wet	3.333		66	40-140			
4-Chloro-phenyl-phenyl ether	2.53	0.333	mg/kg wet	3.333		76	40-140			
4-Nitroaniline	2.93	0.333	mg/kg wet	3.333		88	40-140			
4-Nitrophenol	2.50	1.67	mg/kg wet	3.333		75	30-130			
Acenaphthene	2.42	0.333	mg/kg wet	3.333		72	40-140			
Acenaphthylene	2.43	0.333	mg/kg wet	3.333		73	40-140			
Acetophenone	2.07	0.667	mg/kg wet	3.333		62	40-140			
Aniline	1.83	0.667	mg/kg wet	3.333		55	40-140			
Anthracene	2.82	0.333	mg/kg wet	3.333		85	40-140			
Azobenzene	2.93	0.333	mg/kg wet	3.333		88	40-140			
Benzo(a)anthracene	2.78	0.333	mg/kg wet	3.333		83	40-140			
Benzo(a)pyrene	2.94	0.167	mg/kg wet	3.333		88	40-140			
Benzo(b)fluoranthene	2.89	0.333	mg/kg wet	3.333		87	40-140			



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270D Semi-Volatile Organic Compounds

Batch CK61612 - 3546

Benzo(g,h,i)perylene	3.31	0.333	mg/kg wet	3.333		99	40-140			
Benzo(k)fluoranthene	2.87	0.333	mg/kg wet	3.333		86	40-140			
Benzoic Acid	2.14	1.67	mg/kg wet	3.333		64	40-140			
Benzyl Alcohol	2.53	0.333	mg/kg wet	3.333		76	40-140			
bis(2-Chloroethoxy)methane	2.15	0.333	mg/kg wet	3.333		65	40-140			
bis(2-Chloroethyl)ether	1.97	0.333	mg/kg wet	3.333		59	40-140			
bis(2-chloroisopropyl)Ether	2.08	0.333	mg/kg wet	3.333		62	40-140			
bis(2-Ethylhexyl)phthalate	2.85	0.333	mg/kg wet	3.333		86	40-140			
Butylbenzylphthalate	2.84	0.333	mg/kg wet	3.333		85	40-140			
Carbazole	2.48	0.333	mg/kg wet	3.333		74	40-140			
Chrysene	2.81	0.167	mg/kg wet	3.333		84	40-140			
Dibenzo(a,h)Anthracene	3.28	0.167	mg/kg wet	3.333		98	40-140			
Dibenzofuran	2.44	0.333	mg/kg wet	3.333		73	40-140			
Diethylphthalate	2.90	0.333	mg/kg wet	3.333		87	40-140			
Dimethylphthalate	2.74	0.333	mg/kg wet	3.333		82	40-140			
Di-n-butylphthalate	2.56	0.333	mg/kg wet	3.333		77	40-140			
Di-n-octylphthalate	3.05	0.333	mg/kg wet	3.333		92	40-140			
Fluoranthene	2.52	0.333	mg/kg wet	3.333		76	40-140			
Fluorene	2.60	0.333	mg/kg wet	3.333		78	40-140			
Hexachlorobenzene	2.77	0.167	mg/kg wet	3.333		83	40-140			
Hexachlorobutadiene	2.09	0.333	mg/kg wet	3.333		63	40-140			
Hexachlorocyclopentadiene	2.10	1.67	mg/kg wet	3.333		63	40-140			
Hexachloroethane	2.02	0.333	mg/kg wet	3.333		61	40-140			
Indeno(1,2,3-cd)Pyrene	3.24	0.333	mg/kg wet	3.333		97	40-140			
Isophorone	2.16	0.333	mg/kg wet	3.333		65	40-140			
Naphthalene	2.02	0.333	mg/kg wet	3.333		61	40-140			
Nitrobenzene	2.15	0.333	mg/kg wet	3.333		65	40-140			
N-Nitrosodimethylamine	1.79	0.333	mg/kg wet	3.333		54	40-140			
N-Nitroso-Di-n-Propylamine	2.15	0.333	mg/kg wet	3.333		64	40-140			
N-nitrosodiphenylamine	2.82	0.333	mg/kg wet	3.333		85	40-140			
Pentachlorophenol	2.99	1.67	mg/kg wet	3.333		90	30-130			
Phenanthrene	2.81	0.333	mg/kg wet	3.333		84	40-140			
Phenol	1.94	0.333	mg/kg wet	3.333		58	30-130			
Pyrene	2.86	0.333	mg/kg wet	3.333		86	40-140			
Pyridine	1.59	1.67	mg/kg wet	3.333		48	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.02		mg/kg wet	3.333		61	30-130			
Surrogate: 2,4,6-Tribromophenol	4.20		mg/kg wet	5.000		84	30-130			
Surrogate: 2-Chlorophenol-d4	3.14		mg/kg wet	5.000		63	30-130			
Surrogate: 2-Fluorobiphenyl	2.33		mg/kg wet	3.333		70	30-130			
Surrogate: 2-Fluorophenol	3.02		mg/kg wet	5.000		60	30-130			
Surrogate: Nitrobenzene-d5	2.17		mg/kg wet	3.333		65	30-130			
Surrogate: Phenol-d6	3.20		mg/kg wet	5.000		64	30-130			
Surrogate: p-Terphenyl-d14	2.89		mg/kg wet	3.333		87	30-130			

LCS Dup										
1,1-Biphenyl	2.88	0.333	mg/kg wet	3.333		86	40-140	20	30	



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270D Semi-Volatile Organic Compounds

Batch CK61612 - 3546

1,2,4-Trichlorobenzene	2.70	0.333	mg/kg wet	3.333		81	40-140	26	30	
1,2-Dichlorobenzene	2.52	0.333	mg/kg wet	3.333		76	40-140	23	30	
1,3-Dichlorobenzene	2.57	0.333	mg/kg wet	3.333		77	40-140	24	30	
1,4-Dichlorobenzene	2.49	0.333	mg/kg wet	3.333		75	40-140	22	30	
2,3,4,6-Tetrachlorophenol	2.76	1.67	mg/kg wet	3.333		83	30-130	13	30	
2,4,5-Trichlorophenol	3.37	0.333	mg/kg wet	3.333		101	30-130	13	30	
2,4,6-Trichlorophenol	3.27	0.333	mg/kg wet	3.333		98	30-130	17	30	
2,4-Dichlorophenol	2.93	0.333	mg/kg wet	3.333		88	30-130	25	30	
2,4-Dimethylphenol	3.07	0.333	mg/kg wet	3.333		92	30-130	24	30	
2,4-Dinitrophenol	2.08	1.67	mg/kg wet	3.333		62	30-130	5	30	
2,4-Dinitrotoluene	3.09	0.333	mg/kg wet	3.333		93	40-140	12	30	
2,6-Dinitrotoluene	2.98	0.333	mg/kg wet	3.333		89	40-140	9	30	
2-Chloronaphthalene	2.63	0.333	mg/kg wet	3.333		79	40-140	21	30	
2-Chlorophenol	2.51	0.333	mg/kg wet	3.333		75	30-130	23	30	
2-Methylnaphthalene	2.69	0.333	mg/kg wet	3.333		81	40-140	7	30	
2-Methylphenol	2.64	0.333	mg/kg wet	3.333		79	30-130	23	30	
2-Nitroaniline	2.72	0.333	mg/kg wet	3.333		82	40-140	7	30	
2-Nitrophenol	2.63	0.333	mg/kg wet	3.333		79	30-130	25	30	
3,3'-Dichlorobenzidine	2.69	0.667	mg/kg wet	3.333		81	40-140	9	30	
3+4-Methylphenol	4.70	0.667	mg/kg wet	6.667		71	30-130	10	30	
3-Nitroaniline	3.10	0.333	mg/kg wet	3.333		93	40-140	10	30	
4,6-Dinitro-2-Methylphenol	2.26	1.67	mg/kg wet	3.333		68	30-130	8	30	
4-Bromophenyl-phenylether	3.03	0.333	mg/kg wet	3.333		91	40-140	11	30	
4-Chloro-3-Methylphenol	3.02	0.333	mg/kg wet	3.333		91	30-130	3	30	
4-Chloroaniline	2.85	0.667	mg/kg wet	3.333		85	40-140	26	30	
4-Chloro-phenyl-phenyl ether	2.95	0.333	mg/kg wet	3.333		89	40-140	15	30	
4-Nitroaniline	2.63	0.333	mg/kg wet	3.333		79	40-140	11	30	
4-Nitrophenol	2.60	1.67	mg/kg wet	3.333		78	30-130	4	30	
Acenaphthene	2.87	0.333	mg/kg wet	3.333		86	40-140	17	30	
Acenaphthylene	2.92	0.333	mg/kg wet	3.333		88	40-140	18	30	
Acetophenone	2.62	0.667	mg/kg wet	3.333		78	40-140	23	30	
Aniline	2.36	0.667	mg/kg wet	3.333		71	40-140	25	30	
Anthracene	3.08	0.333	mg/kg wet	3.333		93	40-140	9	30	
Azobenzene	3.20	0.333	mg/kg wet	3.333		96	40-140	9	30	
Benzo(a)anthracene	2.98	0.333	mg/kg wet	3.333		89	40-140	7	30	
Benzo(a)pyrene	3.15	0.167	mg/kg wet	3.333		95	40-140	7	30	
Benzo(b)fluoranthene	3.10	0.333	mg/kg wet	3.333		93	40-140	7	30	
Benzo(g,h,i)perylene	3.51	0.333	mg/kg wet	3.333		105	40-140	6	30	
Benzo(k)fluoranthene	3.03	0.333	mg/kg wet	3.333		91	40-140	6	30	
Benzoic Acid	2.35	1.67	mg/kg wet	3.333		70	40-140	9	30	
Benzyl Alcohol	3.32	0.333	mg/kg wet	3.333		100	40-140	27	30	
bis(2-Chloroethoxy)methane	2.79	0.333	mg/kg wet	3.333		84	40-140	26	30	
bis(2-Chloroethyl)ether	2.54	0.333	mg/kg wet	3.333		76	40-140	25	30	
bis(2-chloroisopropyl)Ether	2.63	0.333	mg/kg wet	3.333		79	40-140	23	30	
bis(2-Ethylhexyl)phthalate	3.05	0.333	mg/kg wet	3.333		92	40-140	7	30	



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270D Semi-Volatile Organic Compounds

Batch CK61612 - 3546

Butylbenzylphthalate	3.03	0.333	mg/kg wet	3.333		91	40-140	6	30	
Carbazole	3.29	0.333	mg/kg wet	3.333		99	40-140	28	30	
Chrysene	2.93	0.167	mg/kg wet	3.333		88	40-140	4	30	
Dibenzo(a,h)Anthracene	3.49	0.167	mg/kg wet	3.333		105	40-140	6	30	
Dibenzofuran	2.87	0.333	mg/kg wet	3.333		86	40-140	16	30	
Diethylphthalate	3.01	0.333	mg/kg wet	3.333		90	40-140	4	30	
Dimethylphthalate	2.96	0.333	mg/kg wet	3.333		89	40-140	8	30	
Di-n-butylphthalate	3.08	0.333	mg/kg wet	3.333		92	40-140	18	30	
Di-n-octylphthalate	3.29	0.333	mg/kg wet	3.333		99	40-140	7	30	
Fluoranthene	2.67	0.333	mg/kg wet	3.333		80	40-140	6	30	
Fluorene	2.98	0.333	mg/kg wet	3.333		89	40-140	14	30	
Hexachlorobenzene	3.07	0.167	mg/kg wet	3.333		92	40-140	10	30	
Hexachlorobutadiene	2.71	0.333	mg/kg wet	3.333		81	40-140	26	30	
Hexachlorocyclopentadiene	2.90	1.67	mg/kg wet	3.333		87	40-140	32	30	D+
Hexachloroethane	2.51	0.333	mg/kg wet	3.333		75	40-140	22	30	
Indeno(1,2,3-cd)Pyrene	3.45	0.333	mg/kg wet	3.333		103	40-140	6	30	
Isophorone	2.80	0.333	mg/kg wet	3.333		84	40-140	26	30	
Naphthalene	2.61	0.333	mg/kg wet	3.333		78	40-140	26	30	
Nitrobenzene	2.78	0.333	mg/kg wet	3.333		84	40-140	26	30	
N-Nitrosodimethylamine	2.25	0.333	mg/kg wet	3.333		68	40-140	23	30	
N-Nitroso-Di-n-Propylamine	2.69	0.333	mg/kg wet	3.333		81	40-140	22	30	
N-nitrosodiphenylamine	2.63	0.333	mg/kg wet	3.333		79	40-140	7	30	
Pentachlorophenol	3.12	1.67	mg/kg wet	3.333		94	30-130	4	30	
Phenanthrene	2.99	0.333	mg/kg wet	3.333		90	40-140	6	30	
Phenol	2.52	0.333	mg/kg wet	3.333		76	30-130	26	30	
Pyrene	3.12	0.333	mg/kg wet	3.333		93	40-140	8	30	
Pyridine	2.07	1.67	mg/kg wet	3.333		62	40-140	26	30	
Surrogate: 1,2-Dichlorobenzene-d4	2.46		mg/kg wet	3.333		74	30-130			
Surrogate: 2,4,6-Tribromophenol	4.54		mg/kg wet	5.000		91	30-130			
Surrogate: 2-Chlorophenol-d4	3.90		mg/kg wet	5.000		78	30-130			
Surrogate: 2-Fluorobiphenyl	2.79		mg/kg wet	3.333		84	30-130			
Surrogate: 2-Fluorophenol	3.76		mg/kg wet	5.000		75	30-130			
Surrogate: Nitrobenzene-d5	2.73		mg/kg wet	3.333		82	30-130			
Surrogate: Phenol-d6	3.87		mg/kg wet	5.000		77	30-130			
Surrogate: p-Terphenyl-d14	3.00		mg/kg wet	3.333		90	30-130			

Classical Chemistry

Batch CK61742 - General Preparation

Reference

Flashpoint	81		°F	81.00		100	97.9-102.1			
------------	----	--	----	-------	--	-----	------------	--	--	--

Batch CK61823 - TCN Prep

Blank

Total Cyanide	ND	1.00	mg/kg wet							
---------------	----	------	-----------	--	--	--	--	--	--	--

LCS



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Classical Chemistry										
Batch CK61823 - TCN Prep										
Total Cyanide	5.04	1.00	mg/kg wet	5.015		101	90-110			
Reference										
Total Cyanide	49.5	4.93	mg/kg wet	48.40		102	36.1577-206.6 12			
Reference										
Total Cyanide	48.9	4.96	mg/kg wet	48.40		101	36.1577-206.6 12			
Batch CK62223 - General Preparation										
Blank										
Hexavalent Chromium	ND	0.9	mg/kg wet							
LCS										
Hexavalent Chromium	32.8	0.9	mg/kg wet	33.32		98	80-120			
LCS Dup										
Hexavalent Chromium	33.0	0.9	mg/kg wet	33.32		99	80-120	0.5	20	
Reference										
Hexavalent Chromium	69.5	2.7	mg/kg wet	71.00		98	20.3-222.5			
Batch CK62226 - General Preparation										
Blank										
Reactive Cyanide	ND	2.0	mg/kg							
Reactive Sulfide	ND	2.0	mg/kg							
LCS										
Reactive Cyanide	4.0	2.0	mg/kg	100.3		4	0.68-5.41			
Reactive Sulfide	0.2	2.0	mg/kg	10.00		2	0-44			
Batch CK62236 - General Preparation										
Blank										
Conductivity	ND	5	umhos/cm							
LCS										
Conductivity	1420		umhos/cm	1411		101	90-110			



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

Notes and Definitions

- Z18 Temperature is not within 23 +/-2 °C.
- Z17 Temperature is within 23 +/-2 °C.
- Z-10 Soil pH measured in water at 20.8 °C.
- Z-08 See Attached
- WL Results obtained from a deionized water leach of the sample.
- U Analyte included in the analysis, but not detected
- S+ Surrogate recovery(ies) above upper control limit (S+).
- Q Calibration required quadratic regression (Q).
- D+ Relative percent difference for duplicate is outside of criteria (D+).
- D Diluted.
- CD+ Continuing Calibration %Diff/Drift is above control limit (CD+).
- CD- Continuing Calibration %Diff/Drift is below control limit (CD-).
- B+ Blank Spike recovery is above upper control limit (B+).
- B- Blank Spike recovery is below lower control limit (B-).
- > Greater than.
- ND Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- DL Detection Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- [CALC] Calculated Analyte
- SUB Subcontracted analysis; see attached report



CERTIFICATE OF ANALYSIS

Client Name: River Hawk Environmental, LLC
Client Project ID: General Public Works Projects

ESS Laboratory Work Order: 1611473

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179

<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750

http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutOfStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002

<http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls>

Massachusetts Potable and Non Potable Water: M-RI002

<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424

<http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313

<http://www.wadsworth.org/labcert/elap/comm.html>

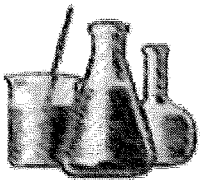
New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006

http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752

http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095



ProScience Analytical Services, Inc

Shawn Morrell
ESS Laboratory
185 Frances Ave.
Cranston, RI 02910

November 22, 2016

Dear Shawn Morrell,

The enclosed analytical results have been obtained using the EPA/600/R-93/116 method. However the sample preparation technique used was in accordance with the US EPA office of Environmental Evaluation and Measurement -Region 1 requirements. This technique implies the elimination of interfering particles through several steps which include the homogenization of the sample, separation of different fractions and mandatory examination under the stereomicroscope. Asbestos content less than 1% is recorded on the report as "TR"(Trace).

The quality control data related to the samples analyzed is available upon client's written request. ProScience Analytical Services Inc., assumes no responsibility for potential sample contamination that may have occurred during the sample collection process or erroneous data provided by the client.

The enclosed results may not be used under any circumstances as product endorsement by any US government agency including NIST/NVLAP.

All Laboratory records are retained for at least three years unless otherwise directed in writing by the client. The actual samples are retained for a period of two months and written request is necessary in order to be retained for a longer period of time. All analytical results and records are considered strictly confidential and will not be released under any circumstances to anyone except the actual client. The analytical results included in this report apply only to the items tested.

If you have any questions please contact the Laboratory Manager or the Laboratory Director.

Sincerely,

Patricia Weakley, Optical Asbestos Manager

Aimee Cormier, Laboratory Director

Enclosure:

LAB BATCH ID: S 102927 CLIENT PROJECT ID: 1611473

Client Ref: N/A

AIHA ID# 102754; CT ID# PH-0209; MA ID# AA000156; ME ID# LB-055; ME ID# LA-056; NVLAP Lab Code 200090-0; RI ID # AAL-093; VT ID# AL016876

ProScience Analytical Services, Inc.

Client #: 2118
 Client Project: 1611473
 Client Reference: N/A
 Client Name: ESS Laboratory
 Method: EPA/600/R-93/116; ENV.EVAL. and MEAS.- REGION 1 Requirements

Batch: S 102927
 Date Sampled: 11/15/2016
 Date Received: 11/18/2016
 Date Analyzed: 11/22/2016
 Date of Report: 11/22/2016

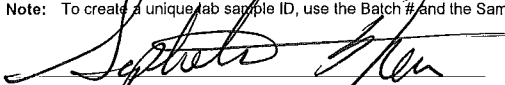
Sample ID	Color	ASBESTOS %						NON-ASBESTOS %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
1611473-01	Brown	0	0	0	0	0	0	0	0	0	0	0	0	100
Description: Soil Location: N/A Comments: Analyzed: Yes														

Asbestos Codes: CHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite

Non-Asbestos Codes: FBG = Fiberglass MNW = Mineral Wool CEL = Cellulose HAR = Hair SYN = Synthetic OTH = Other NON = Non-Fibrous Minerals

Note: To create a unique lab sample ID, use the Batch # and the Sample ID (example: [Batch #] - [Sample ID]).

* All results are in percentage


 Sophetra Ken, Analyst

Client Name: ESS Laboratory
 Client Project #: 1611473
 Client Reference: N/A

Batch: S 102927
 Date Received: 11/18/2016
 Date Due: 11/23/2016
 Stop on first pos: Yes or No

Batch: S 102927

Sample ID	Description	Analyst	Stereo Scope				Optical Properties				RI		Asbestos Percent						Non-Asbestos Percent									
			SSAPE	Color	Homogeneity	Texture	Friable	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	Parallel	Perpendicular	Chrysotile	Amosite	Crocidolite	Tremolite	Anthophyllite	Actinolite	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous	
1611473-01	Soil	S. J. ...																										100

Analyzed By / Date: S. J. ...

[Handwritten Signature]

QC By / Date: ...

[Handwritten Signature]

Fax, Email, Verbal Results By / Date: ...

[Handwritten Signature]

of Samples: 1

Comments:

SSAPE = Stereo Scope Asbestos Percentage Estimate

Birefringence L= less than .010, M= .011-.029, H= greater than .03; Microscope Olympus BH-2, Serial # circle 1-242277, 229027, 235000, 230663

Page 1 of 1

ESS Laboratory PROSCIENCE CHAIN OF CUSTODY

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston RI 02910-2211

Tel. (401)461-7181 Fax (401)461-4486

www.esslaboratory.com

S102927

Turn Time Standard **DUE 11/23/16**

Regulatory State: MA RI CT NH NJ NY ME Other

Is this project for any of the following: (please circle)

MA-MCP Navy USACE CT DEP Other

Project #

1611473

Project Name

Proj. Location

City, State

Zip

PO #

B02412

email: smorrell@thielsch.com

Analysis

Asbestos PLM (EPA Screening Protocol)

Electronic Deliverables Excel Access PDF

ESS Lab # 1611473

Reporting Limits

ESS Lab ID	Date	Collection Time	Grab-G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container
	11/15/16	1440	C	S	1611473-01	1	1	AG	2oz

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present Yes No Internal Use Only

Seals Intact Yes No NA: [] Pickup

Cooler Temperature: [] Technician

Reinquired by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

Reinquired by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

Reinquired by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

Reinquired by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

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Received by: (Signature, Date & Time)

Reinquired by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

Reinquired by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

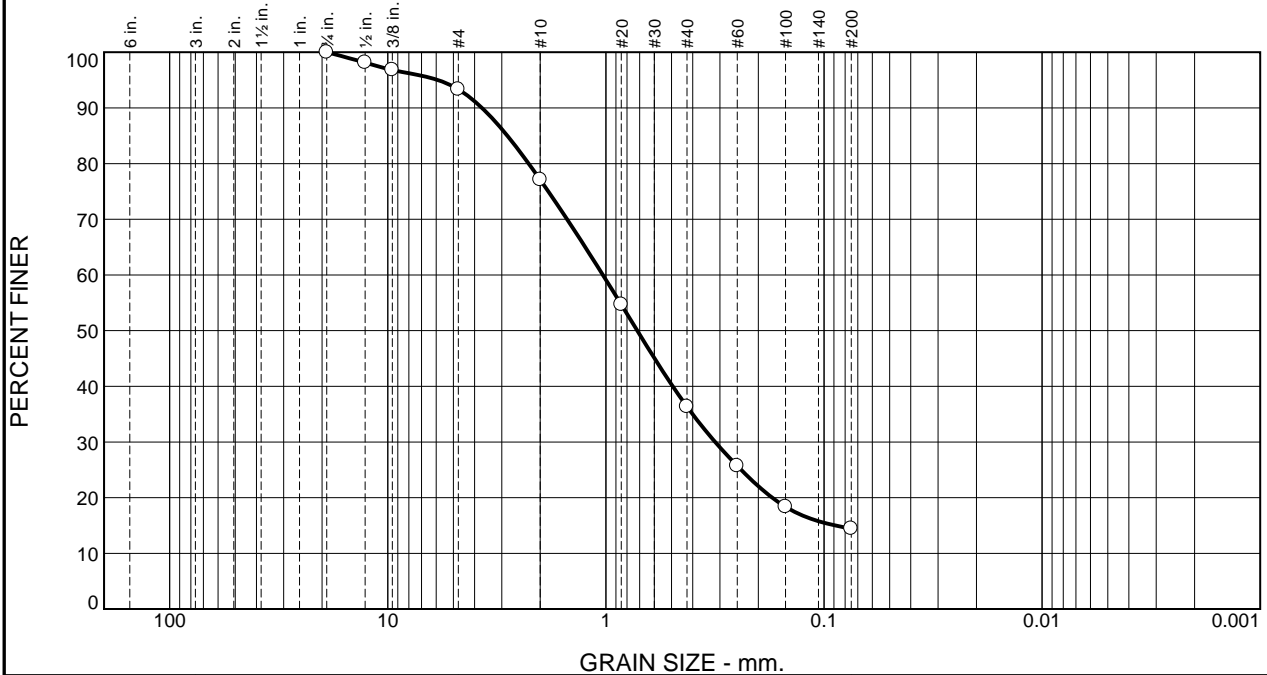
Reinquired by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Report Method Blank & Laboratory Control Sample Results

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	6.7	16.2	40.8	21.9	14.4	

TEST RESULTS (D422)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.75	100.0		
0.5	98.1		
.375	96.8		
#4	93.3		
#10	77.1		
#20	54.7		
#40	36.3		
#60	25.7		
#100	18.3		
#200	14.4		

Material Description

Grey silty sand

Atterberg Limits (ASTM D 4318)

PL= NP LL= NV PI=

Classification

USCS (D 2487)= SM AASHTO (M 145)= A-1-b

Coefficients

D₉₀= 3.6975 D₈₅= 2.8290 D₆₀= 1.0324
D₅₀= 0.7179 D₃₀= 0.3155 D₁₅= 0.0885
D₁₀= C_u= C_c=

Remarks

Date Received: 11.16.16 Date Tested: 11.21.16

Tested By: IA

Checked By: Matthew Colman, P.E.

Title: Laboratory Manager

* (no specification provided)

Source of Sample: Stockpile Depth: Composite Date Sampled: 11.15.16
Sample Number: Stockpile X104

Thielsch Engineering Inc. Cranston, RI	Client: River Hawk Environmental, LLC Project: General Public Works Project Marshfield, MA Project No: 1611473 Figure 1611473-01
---	--

SOILS LABORATORY TESTING ASSIGNMENT SHEET



195 Frances Ave., Cranston, RI 02910
401-467-6454

Client Company River Hawk Environmental, LLC

Site Location _____

Assigned By _____

Date Assigned 11/16/2016

Project Name General Public Works Project

ESS Project No. 1611473

Project Manager Michelle Mirenda

Date Received 11/15/2016 (by _____)

Collected By _____

Date Required 11/23/2016

Sample Information				Identification Tests										Soil Strength				Consol.		Notes	
Boring/ Test Pit No.	Sample or depth	Sample date	ESS Sample ID	Water Cont. %	LL & PL %	Org. %	Bulk %	Sieve -200 %	Hyd -2μ %	G _s	Tube Density	Sand	Clay	Mod. Std. CBR	Unconfined	UU	CIU	Stand. E.O.P.	#		
				D2216	D4318	D2974	D422	D854	D2434	D5084	D1557	D698	D1883	D2166	D2850	D4767	D2435	D2435			
Stockpile #104	11/15/16		1611473-01				X														

Notes: ** = 6" minimum

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston RI 02910
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time	5	Days
Regulatory State	Rhode Island	
is this project for any of the following?:		

ESS Lab # **1611473**

Reporting Limits Residential Direct Exposure Criteria (RI DEM)

Company Name River Hawk Environmental, LLC	Project # 1070105	Project Name General Public Works Projects
Contact Person William Kenney	Address 2183 Ocean Street	
City Marshfield	State MA	Zip Code 01070
Telephone Number 781-636-4639	FAX Number N/A	PO # 1070105
Collection Date 11/15/2016	Collection Time 2:40	Email Address bkenney@riverhawkllc.com
		Sample ID Stockpile #104

ESS Lab ID	Sample Type	Sample Matrix	Sample ID	Analysis
01	Composite	Soil	Stockpile #104	Asbestos
				Cyanide
				Chlordane and Dieldrin
				Polychlorinated Biphenyls
				Volatile Organic Compounds
				Semi-Volatile Organic Compounds
				Total Petroleum Hydrocarbons
				Particle Size (6" minimum)
				Corrosivity
				Ignitability
				Reactivity
				Conductivity
				TCLP Metals (if 20X rule ap)
				Sr, As, Br, Ba, Cd, Cr, Hg, Ni, Pb, Se, Zn, V, Zn
				Cd, Pb, Mn, Hg, Ni, Se, Ag, Tr, V, Zn

Container Type: AC-Air Cassette AG-Amber Glass B-BOD Bottle C-Cubitainer J-Jar O-Other P-Poly S-Sterile V-Vial
 Container Volume: 1-100 mL 2-2.5 gal 3-250 mL 4-300 mL 5-500 mL 6-1L 7-VOA 8-2 oz 9-4 oz 10-8 oz 11-Other
 Preservation Code: 1-Non Preserved 2-HCl 3-H2SO4 4-HNO3 5-NaOH 6-Methanol 7-Na2S2O3 8-ZnAcAc, NaOH 9-NH4Cl 10-DI H2O 11-Other

Laboratory Use Only

Cooler Present:

Seals Intact:

Cooler Temperature: 1.4 °C ice 4.5

Relinquished by: (Signature, Date & Time) 11/16/16 @ 10:38

Relinquished by: (Signature, Date & Time) 11/17/16 @ 11:20

Relinquished by: (Signature, Date & Time) 11/17/16 17:30

Relinquished by: (Signature, Date & Time) 11/17/16 17:34

Number of Containers per Sample: _____

Sampled by: _____

Comments: Please specify "Other" preservative and containers types in this space

Received By: (Signature, Date & Time) _____

Relinquished By: (Signature, Date & Time) _____

ESS Laboratory Sample and Cooler Receipt Checklist

Client: River Hawk Environmental, LLC - TB/MM

ESS Project ID: 1611473

Date Received: 11/16/2016

Project Due Date: 11/23/2016

Days for Project: 5 Day

Shipped/Delivered Via: ESS Courier

1. Air bill manifest present? No
Air No.: NA

6. Does COC match bottles? Yes

2. Were custody seals present? No

7. Is COC complete and correct? Yes

3. Is radiation count <100 CPM? Yes

8. Were samples received intact? Yes

4. Is a Cooler Present? Yes
Temp: 1.8 Iced with: Ice

9. Were labs informed about **short holds & rushes**? Yes / No / NA

5. Was COC signed and dated by client? Yes

10. Were any analyses received outside of hold time? Yes No

11. Any Subcontracting needed? Yes / No
ESS Sample IDs: 01
Analysis: Gran Size Asbestos
TAT: STD

12. Were VOAs received? Yes / No
a. Air bubbles in aqueous VOAs? Yes / No
b. Does methanol cover soil completely? Yes / No / NA

13. Are the samples properly preserved? Yes / No
a. If metals preserved upon receipt: Date: 11/16/16 Time: 1730 By: JL
b. Low Level VOA vials frozen: Date: 11/16/16 Time: 1730 By: JL

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes / No
a. Was there a need to contact the client? Yes / No
Who was contacted? _____ Date: _____ Time: _____ By: _____

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
01	84721	Yes	NA	Yes	4 oz. Jar - Unpres	NP	
01	84722	Yes	NA	Yes	4 oz. Jar - Unpres	NP	
01	84723	Yes	NA	Yes	4 oz. Jar - Unpres	NP	
01	84724	Yes	NA	Yes	VOA Vial - Methanol	MeOH	
01	84725	Yes	NA	Yes	VOA Vial - Other	Other	
01	84726	Yes	NA	Yes	VOA Vial - Other	Other	

2nd Review
Are barcode labels on correct containers? Yes / No

Completed By: [Signature] Date & Time: 11/16/16 1711
Reviewed By: [Signature] Date & Time: 11/16/16 1730
Delivered By: [Signature] Date & Time: 11/16/16 1730

ESS Laboratory Sample and Cooler Receipt Checklist

Client: River Hawk Environmental, LLC - TB/MM

ESS Project ID: 1611473

Date Received: 11/16/2016

Shipped/Delivered Via: ESS Courier

Project Due Date: 11/23/2016

Days for Project: 5 Day

1. Air bill manifest present? No
Air No.: NA

6. Does COC match bottles? Yes

2. Were custody seals present? No

7. Is COC complete and correct? Yes

3. Is radiation count <100 CPM? Yes

8. Were samples received intact? Yes

4. Is a Cooler Present? Yes
Temp: 1.8 Iced with: Ice

9. Were labs informed about short holds & rushes? Yes / No / NA

5. Was COC signed and dated by client? Yes

10. Were any analyses received outside of hold time? Yes / No

11. Any Subcontracting needed? Yes / No
ESS Sample IDs: _____
Analysis: _____
TAT: _____

12. Were VOAs received? Yes / No
a. Air bubbles in aqueous VOAs? Yes / No
b. Does methanol cover soil completely? Yes / No / NA

13. Are the samples properly preserved? Yes / No
a. If metals preserved upon receipt: Date: _____ Time: _____ By: _____
b. Low Level VOA vials frozen: Date: _____ Time: _____ By: _____

Sample Receiving Notes:

Added 3-8oz jars + 1-4oz jar per MM w/ 11/17/16

14. Was there a need to contact Project Manager? Yes / No
a. Was there a need to contact the client? Yes / No
Who was contacted? _____ Date: _____ Time: _____ By: _____

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
01	84721	Yes	NA	Yes	4 oz. Jar - Unpres	NP	
01	84722	Yes	NA	Yes	4 oz. Jar - Unpres	NP	
01	84723	Yes	NA	Yes	4 oz. Jar - Unpres	NP	
01	84724	Yes	NA	Yes	VOA Vial - Methanol	MeOH	
01	84725	Yes	NA	Yes	VOA Vial - Other	Other	
01	84726	Yes	NA	Yes	VOA Vial - Other	Other	
01	85012	Yes	NA	Yes	2 oz. Jar - Unpres	NP	
01	85565	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
01	85566	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
01	85567	Yes	NA	Yes	8 oz. Jar - Unpres	NP	
01	85568	Yes	NA	Yes	4 oz. Jar - Unpres	NP	

2nd Review
Are barcode labels on correct containers? Yes / No

Completed By: [Signature] Date & Time: 11/17/16 1726
Reviewed By: [Signature] Date & Time: 11/17/16 1933
Delivered By: [Signature] Date & Time: 11/17/16 1933

REV.

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston RI 02910
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time 5 Days
Regulatory State Rhode Island
Is this project for any of the following?:

ESS Lab # 1611473
Reporting Limits Residential Direct Exposure Criteria (RIDEM)

Company Name River Hawk Environmental, LLC		Project Name General Public Works Projects	
Contact Person William Kenney		Address 2183 Ocean Street	
City Marshfield	State MA	Zip Code	PO # 1070105
Telephone Number 781-538-4639	FAX Number N/A	Email Address pkennet@riverhawk.com	Sample ID
Collection Date 11/15/2016	Collection Time 2:40	Sample Type Composite	Sample Matrix Soil
Container Type: AC-Air Cassette AG-Amber Glass B-BOD Bottle C-Cubitainer J-Jar O-Other P-Poly S-Sterile V-Vial			
Container Volume: 1-100 mL 2-2.5 gal 3-250 mL 4-300 mL 5-500 mL 6-1L 7-VOA 8-2 oz 9-4 oz 10-8 oz 11-Other*			
Preservation Code: 1-Non Preserved 2-HCl 3-H2SO4 4-HNO3 5-NaOH 6-Methanol 7-Na2S2O3 8-ZnAc2, NaOH 9-NH4Cl 10-DI H2O 11-Other*			
Number of Containers per Sample:			

Analysis	Asbestos	Cyanide	Chlordane and Dieldrin	Polychlorinated Biphenyls	Volatile Organic Compounds	Semi-Volatile Organic Compounds	Total Petroleum Hydrocarbons	Particle Size (6" minimum)	Corrosivity	Ignitability	Reactivity	Conductivity	TCLP Metals (if 20x rule app)	1 - As Ba, Pb, Cd, Cr, Vanadium Hexavalent C	1 - As Ba, Pb, Cd, Cr, Vanadium Hexavalent C
	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Laboratory Use Only

Cooler Present:
Seals Intact: _____
Cooler Temperature: _____ °C

Sampled by:

Comments:

TCLP list - See attached w/ 11/16/14

Received By: (Signature, Date & Time)	Relinquished By: (Signature, Date & Time)	Received By: (Signature, Date & Time)
<i>[Signature]</i> 11/16/16 10:38	<i>[Signature]</i> 11/16/16 10:38	
Received By: (Signature, Date & Time)	Relinquished By: (Signature, Date & Time)	Received By: (Signature, Date & Time)

ESS Laboratory

Division of Thielsch Engineering, Inc.
 185 Frances Avenue, Cranston RI 02910
 Tel. (401) 461-7181 Fax (401) 461-4486
 www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time: 5 Days
 Regulatory State: Rhode Island
 Is this project for any of the following?:

ESS Lab # 1611473
 Residential Direct Exposure Criteria (RI DEM)

Reporting Limits
 Electronic Deliverables

Company Name		Project Name		Project Address		Project PO #	
River Hawk Environmental, LLC		General Public Works Projects		2183 Ocean Street		1070105	
Contact Person		State		Zip Code		Email Address	
William Kenney		MA				bkenney@riverhawkllc.com	
City		FAX Number		Sample Matrix		Sample ID	
Marshfield		N/A		Soil		Stockpile #104	
ESS Lab ID	Collection Date	Collection Time	Sample Type	Sample Matrix	Sample ID	Analysis	
01	11/15/2016	2:40	Composite	Soil	Stockpile #104	Cyanide	x
						Chlordane and Dieldrin	x
						Polychlorinated Biphenyls	x
						Volatile Organic Compounds	x
						Semi-Volatile Organic Compounds	x
						Total Petroleum Hydrocarbons	x
						Particle Size (6" minimum)	x
						Corrosivity	x
						Ignitability	x
						Reactivity	x
						Conductivity	x
						TCLP Metals (if 20x rule app)	x
						Sb, As, Ba, Be, Cd, Cr, Hexavalent Cr, Hg, Mn, Ni, Pb, Se, V, Zn	x

Container Type: AC-Air Cassette AG-Amber Glass B-BOD Bottle C-Cubitainer J-Jar O-Other P-Poly S-Sterile V-Vial
 Container Volume: 1-100 mL 2-2.5 gal 3-250 mL 4-300 mL 5-500 mL 6-1L 7-VOA 8-2 oz 9-4 oz 10-8 oz 11-Other*
 Preservation Code: 1-Non Preserved 2-HCl 3-H2SO4 4-HNO3 5-NaOH 6-Methanol 7-Na2S2O3 8-ZnAcAc, NaOH 9-NH4Cl 10-DI H2O 11-Other*
 Number of Containers per Sample:

Sampled by: _____
 Comments: Please specify "Other" preservative and containers types in this space

Cooler Present:
 Seals Intact: _____
 Cooler Temperature: 1.8 °C ice bag

Received By: (Signature, Date & Time) 11/16/16 @ 10:38
 Relinquished By: (Signature, Date & Time) Full on 11/16/16 15:40

Received By: (Signature, Date & Time) [Signature] 11/16/16 16:55
 Relinquished By: (Signature, Date & Time) [Signature] 11/16/16 15:40



ANALYTICAL REPORT

Lab Number:	L1640071
Client:	Beta Group, Inc. 6 Blackstone Valley Place Bldg 101 Lincoln, RI 02865
ATTN:	Joe McLoughlin
Phone:	(401) 333-2382
Project Name:	ARLINGTON STREET
Project Number:	Not Specified
Report Date:	01/16/17

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1640071-01	WEIR COMP-1	SOIL	TAUNTON, MA	12/09/16 10:22	12/09/16
L1640071-02	WEIR COMP-2	SOIL	TAUNTON, MA	12/09/16 10:58	12/09/16
L1640071-03	WEIR COMP-3	SOIL	TAUNTON, MA	12/09/16 11:43	12/09/16
L1640071-04	WEIR COMP-4	SOIL	TAUNTON, MA	12/09/16 12:17	12/09/16
L1640071-05	WEIR COMP-5	SOIL	TAUNTON, MA	12/09/16 13:11	12/09/16
L1640071-06	S-6	SOIL	TAUNTON, MA	12/09/16 10:29	12/09/16
L1640071-07	S-19	SOIL	TAUNTON, MA	12/09/16 11:06	12/09/16
L1640071-08	S-25	SOIL	TAUNTON, MA	12/09/16 14:51	12/09/16
L1640071-09	S-40	SOIL	TAUNTON, MA	12/09/16 12:24	12/09/16
L1640071-10	S-49	SOIL	TAUNTON, MA	12/09/16 13:21	12/09/16



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

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

Please contact Client Services at 800-624-9220 with any questions.

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Case Narrative (continued)

Report Submission

This report replaces the report issued December 18, 2016. The following elements were added to the metals analysis on L1640071-01: Antimony, Beryllium, Nickel, Thallium, Vanadium, and Zinc. In addition, the answer to question G has been changed.

MCP Related Narratives

Sample Receipt

In reference to question H:

A Matrix Spike was not submitted for the analysis of Metals.

Volatile Organics

In reference to question H:

The initial calibration, associated with L1640071-06 through -09, did not meet the method required minimum response factor on the lowest calibration standard for acetone (0.0700), 2-butanone (0.0895), 4-methyl-2-pentanone (0.0902), and 1,4-dioxane (0.0021), as well as the average response factor for acetone and 1,4-dioxane. The initial calibration verification is outside acceptance criteria for dichlorodifluoromethane (146%), but within overall method criteria.

The initial calibration, associated with L1640071-10, did not meet the method required minimum response factor on the lowest calibration standard for 4-methyl-2-pentanone (0.0959).

The continuing calibration standards, associated with L1640071-06 through -10, are outside the acceptance criteria for several compounds; however, they are within overall method allowances. Copies of the continuing calibration standards are included as an addendum to this report.

Pesticides

A copy of the Degradation Standards for 4,4'-DDT and Endrin breakdown products is included as an addendum.

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Case Narrative (continued)

Herbicides

In reference to question H:

The WG960687-2/-3 LCS/LCSD recoveries, associated with L1640071-01 through -05, are below the acceptance criteria for dinoseb (5%/5%); however, the recoveries are due to a noted method interference caused by the hydrolysis step of the extraction procedure. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for this compound.

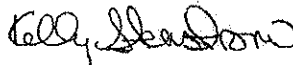
Metals

In reference to question I:

L1640071-02 through -05 were analyzed for a subset of MCP analytes per the Chain of Custody.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 01/16/17



ORGANICS

VOLATILES

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-06
Client ID: S-6
Sample Location: TAUNTON, MA
Matrix: Soil
Analytical Method: 97,8260C
Analytical Date: 12/14/16 23:44
Analyst: MV
Percent Solids: 77%

Date Collected: 12/09/16 10:29
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MGP Volatile Organics by 8260/5035 - Westborough Lab

Methylene chloride	ND		ug/kg	22	--	1
1,1-Dichloroethane	ND		ug/kg	3.2	--	1
Chloroform	ND		ug/kg	3.2	--	1
Carbon tetrachloride	ND		ug/kg	2.2	--	1
1,2-Dichloropropane	ND		ug/kg	7.6	--	1
Dibromochloromethane	ND		ug/kg	2.2	--	1
1,1,2-Trichloroethane	ND		ug/kg	3.2	--	1
Tetrachloroethene	ND		ug/kg	2.2	--	1
Chlorobenzene	ND		ug/kg	2.2	--	1
Trichlorofluoromethane	ND		ug/kg	8.7	--	1
1,2-Dichloroethane	ND		ug/kg	2.2	--	1
1,1,1-Trichloroethane	ND		ug/kg	2.2	--	1
Bromodichloromethane	ND		ug/kg	2.2	--	1
trans-1,3-Dichloropropene	ND		ug/kg	2.2	--	1
cis-1,3-Dichloropropene	ND		ug/kg	2.2	--	1
1,3-Dichloropropene, Total	ND		ug/kg	2.2	--	1
1,1-Dichloropropene	ND		ug/kg	8.7	--	1
Bromoform	ND		ug/kg	8.7	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.2	--	1
Benzene	ND		ug/kg	2.2	--	1
Toluene	ND		ug/kg	3.2	--	1
Ethylbenzene	ND		ug/kg	2.2	--	1
Chloromethane	ND		ug/kg	8.7	--	1
Bromomethane	ND		ug/kg	4.3	--	1
Vinyl chloride	ND		ug/kg	4.3	--	1
Chloroethane	ND		ug/kg	4.3	--	1
1,1-Dichloroethene	ND		ug/kg	2.2	--	1
trans-1,2-Dichloroethene	ND		ug/kg	3.2	--	1
Trichloroethene	ND		ug/kg	2.2	--	1
1,2-Dichlorobenzene	ND		ug/kg	8.7	--	1



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-06

Date Collected: 12/09/16 10:29

Client ID: S-6

Date Received: 12/09/16

Sample Location: TAUNTON, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	8.7	--	1
1,4-Dichlorobenzene	ND		ug/kg	8.7	--	1
Methyl tert butyl ether	ND		ug/kg	4.3	--	1
p/m-Xylene	ND		ug/kg	4.3	--	1
o-Xylene	ND		ug/kg	4.3	--	1
Xylenes, Total	ND		ug/kg	4.3	--	1
cis-1,2-Dichloroethene	ND		ug/kg	2.2	--	1
1,2-Dichloroethene, Total	ND		ug/kg	2.2	--	1
Dibromomethane	ND		ug/kg	8.7	--	1
1,2,3-Trichloropropane	ND		ug/kg	8.7	--	1
Styrene	ND		ug/kg	4.3	--	1
Dichlorodifluoromethane	ND		ug/kg	22	--	1
Acetone	ND		ug/kg	78	--	1
Carbon disulfide	ND		ug/kg	8.7	--	1
Methyl ethyl ketone	ND		ug/kg	22	--	1
Methyl isobutyl ketone	ND		ug/kg	22	--	1
2-Hexanone	ND		ug/kg	22	--	1
Bromochloromethane	ND		ug/kg	8.7	--	1
Tetrahydrofuran	ND		ug/kg	8.7	--	1
2,2-Dichloropropane	ND		ug/kg	11	--	1
1,2-Dibromoethane	ND		ug/kg	8.7	--	1
1,3-Dichloropropane	ND		ug/kg	8.7	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	2.2	--	1
Bromobenzene	ND		ug/kg	11	--	1
n-Butylbenzene	ND		ug/kg	2.2	--	1
sec-Butylbenzene	ND		ug/kg	2.2	--	1
tert-Butylbenzene	ND		ug/kg	8.7	--	1
o-Chlorotoluene	ND		ug/kg	8.7	--	1
p-Chlorotoluene	ND		ug/kg	8.7	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	8.7	--	1
Hexachlorobutadiene	ND		ug/kg	8.7	--	1
Isopropylbenzene	ND		ug/kg	2.2	--	1
p-Isopropyltoluene	ND		ug/kg	2.2	--	1
Naphthalene	ND		ug/kg	8.7	--	1
n-Propylbenzene	ND		ug/kg	2.2	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	8.7	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	8.7	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	8.7	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	8.7	--	1

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-06
Client ID: S-6
Sample Location: TAUNTON, MA

Date Collected: 12/09/16 10:29
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Diethyl ether	ND		ug/kg	11	--	1
Diisopropyl Ether	ND		ug/kg	8.7	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	8.7	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	8.7	--	1
1,4-Dioxane	ND		ug/kg	87	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	98		70-130



Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-07
 Client ID: S-19
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 12/15/16 00:09
 Analyst: MV
 Percent Solids: 75%

Date Collected: 12/09/16 11:06
 Date Received: 12/09/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

MCP Volatile Organics by 8260/5035 - Westborough Lab

Methylene chloride	ND		ug/kg	16	--	1
1,1-Dichloroethane	ND		ug/kg	2.4	--	1
Chloroform	ND		ug/kg	2.4	--	1
Carbon tetrachloride	ND		ug/kg	1.6	--	1
1,2-Dichloropropane	ND		ug/kg	5.7	--	1
Dibromochloromethane	ND		ug/kg	1.6	--	1
1,1,2-Trichloroethane	ND		ug/kg	2.4	--	1
Tetrachloroethene	ND		ug/kg	1.6	--	1
Chlorobenzene	ND		ug/kg	1.6	--	1
Trichlorofluoromethane	ND		ug/kg	6.5	--	1
1,2-Dichloroethane	ND		ug/kg	1.6	--	1
1,1,1-Trichloroethane	ND		ug/kg	1.6	--	1
Bromodichloromethane	ND		ug/kg	1.6	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.6	--	1
cis-1,3-Dichloropropene	ND		ug/kg	1.6	--	1
1,3-Dichloropropene, Total	ND		ug/kg	1.6	--	1
1,1-Dichloropropene	ND		ug/kg	6.5	--	1
Bromoform	ND		ug/kg	6.5	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.6	--	1
Benzene	ND		ug/kg	1.6	--	1
Toluene	ND		ug/kg	2.4	--	1
Ethylbenzene	ND		ug/kg	1.6	--	1
Chloromethane	ND		ug/kg	6.5	--	1
Bromomethane	ND		ug/kg	3.2	--	1
Vinyl chloride	ND		ug/kg	3.2	--	1
Chloroethane	ND		ug/kg	3.2	--	1
1,1-Dichloroethene	ND		ug/kg	1.6	--	1
trans-1,2-Dichloroethene	ND		ug/kg	2.4	--	1
Trichloroethene	ND		ug/kg	1.6	--	1
1,2-Dichlorobenzene	ND		ug/kg	6.5	--	1

Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-07

Date Collected: 12/09/16 11:06

Client ID: S-19

Date Received: 12/09/16

Sample Location: TAUNTON, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	6.5	--	1
1,4-Dichlorobenzene	ND		ug/kg	6.5	--	1
Methyl tert butyl ether	ND		ug/kg	3.2	--	1
p/m-Xylene	ND		ug/kg	3.2	--	1
o-Xylene	ND		ug/kg	3.2	--	1
Xylenes, Total	ND		ug/kg	3.2	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.6	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.6	--	1
Dibromomethane	ND		ug/kg	6.5	--	1
1,2,3-Trichloropropane	ND		ug/kg	6.5	--	1
Styrene	ND		ug/kg	3.2	--	1
Dichlorodifluoromethane	ND		ug/kg	16	--	1
Acetone	ND		ug/kg	59	--	1
Carbon disulfide	ND		ug/kg	6.5	--	1
Methyl ethyl ketone	ND		ug/kg	16	--	1
Methyl isobutyl ketone	ND		ug/kg	16	--	1
2-Hexanone	ND		ug/kg	16	--	1
Bromochloromethane	ND		ug/kg	6.5	--	1
Tetrahydrofuran	ND		ug/kg	6.5	--	1
2,2-Dichloropropane	ND		ug/kg	8.1	--	1
1,2-Dibromoethane	ND		ug/kg	6.5	--	1
1,3-Dichloropropane	ND		ug/kg	6.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.6	--	1
Bromobenzene	ND		ug/kg	8.1	--	1
n-Butylbenzene	ND		ug/kg	1.6	--	1
sec-Butylbenzene	6.2		ug/kg	1.6	--	1
tert-Butylbenzene	ND		ug/kg	6.5	--	1
o-Chlorotoluene	ND		ug/kg	6.5	--	1
p-Chlorotoluene	ND		ug/kg	6.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.5	--	1
Hexachlorobutadiene	ND		ug/kg	6.5	--	1
Isopropylbenzene	ND		ug/kg	1.6	--	1
p-Isopropyltoluene	6.4		ug/kg	1.6	--	1
Naphthalene	ND		ug/kg	6.5	--	1
n-Propylbenzene	ND		ug/kg	1.6	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.5	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.5	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.5	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.5	--	1

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-07
Client ID: S-19
Sample Location: TAUNTON, MA

Date Collected: 12/09/16 11:06
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics by 8260/5035 - Westborough Lab

Diethyl ether	ND		ug/kg	8.1	--	1
Diisopropyl Ether	ND		ug/kg	6.5	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	6.5	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	6.5	--	1
1,4-Dioxane	ND		ug/kg	65	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	111		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	100		70-130



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-08
 Client ID: S-25
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 12/15/16 00:35
 Analyst: MV
 Percent Solids: 75%

Date Collected: 12/09/16 14:51
 Date Received: 12/09/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

MCP Volatile Organics by 8260/5035 - Westborough Lab

Methylene chloride	ND		ug/kg	18	--	1
1,1-Dichloroethane	ND		ug/kg	2.6	--	1
Chloroform	ND		ug/kg	2.6	--	1
Carbon tetrachloride	ND		ug/kg	1.8	--	1
1,2-Dichloropropane	ND		ug/kg	6.2	--	1
Dibromochloromethane	ND		ug/kg	1.8	--	1
1,1,2-Trichloroethane	ND		ug/kg	2.6	--	1
Tetrachloroethene	ND		ug/kg	1.8	--	1
Chlorobenzene	ND		ug/kg	1.8	--	1
Trichlorofluoromethane	ND		ug/kg	7.1	--	1
1,2-Dichloroethane	ND		ug/kg	1.8	--	1
1,1,1-Trichloroethane	ND		ug/kg	1.8	--	1
Bromodichloromethane	ND		ug/kg	1.8	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.8	--	1
cis-1,3-Dichloropropene	ND		ug/kg	1.8	--	1
1,3-Dichloropropene, Total	ND		ug/kg	1.8	--	1
1,1-Dichloropropene	ND		ug/kg	7.1	--	1
Bromoform	ND		ug/kg	7.1	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.8	--	1
Benzene	ND		ug/kg	1.8	--	1
Toluene	ND		ug/kg	2.6	--	1
Ethylbenzene	4.4		ug/kg	1.8	--	1
Chloromethane	ND		ug/kg	7.1	--	1
Bromomethane	ND		ug/kg	3.5	--	1
Vinyl chloride	ND		ug/kg	3.5	--	1
Chloroethane	ND		ug/kg	3.5	--	1
1,1-Dichloroethene	ND		ug/kg	1.8	--	1
trans-1,2-Dichloroethene	ND		ug/kg	2.6	--	1
Trichloroethene	ND		ug/kg	1.8	--	1
1,2-Dichlorobenzene	ND		ug/kg	7.1	--	1



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-08
 Client ID: S-25
 Sample Location: TAUNTON, MA

Date Collected: 12/09/16 14:51
 Date Received: 12/09/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	7.1	--	1
1,4-Dichlorobenzene	ND		ug/kg	7.1	--	1
Methyl tert butyl ether	ND		ug/kg	3.5	--	1
p/m-Xylene	9.8		ug/kg	3.5	--	1
o-Xylene	3.7		ug/kg	3.5	--	1
Xylenes, Total	14		ug/kg	3.5	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.8	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.8	--	1
Dibromomethane	ND		ug/kg	7.1	--	1
1,2,3-Trichloropropane	ND		ug/kg	7.1	--	1
Styrene	ND		ug/kg	3.5	--	1
Dichlorodifluoromethane	ND		ug/kg	18	--	1
Acetone	ND		ug/kg	64	--	1
Carbon disulfide	ND		ug/kg	7.1	--	1
Methyl ethyl ketone	ND		ug/kg	18	--	1
Methyl isobutyl ketone	ND		ug/kg	18	--	1
2-Hexanone	ND		ug/kg	18	--	1
Bromochloromethane	ND		ug/kg	7.1	--	1
Tetrahydrofuran	ND		ug/kg	7.1	--	1
2,2-Dichloropropane	ND		ug/kg	8.8	--	1
1,2-Dibromoethane	ND		ug/kg	7.1	--	1
1,3-Dichloropropane	ND		ug/kg	7.1	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.8	--	1
Bromobenzene	ND		ug/kg	8.8	--	1
n-Butylbenzene	15		ug/kg	1.8	--	1
sec-Butylbenzene	10		ug/kg	1.8	--	1
tert-Butylbenzene	ND		ug/kg	7.1	--	1
o-Chlorotoluene	ND		ug/kg	7.1	--	1
p-Chlorotoluene	ND		ug/kg	7.1	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	7.1	--	1
Hexachlorobutadiene	ND		ug/kg	7.1	--	1
Isopropylbenzene	5.9		ug/kg	1.8	--	1
p-Isopropyltoluene	12		ug/kg	1.8	--	1
Naphthalene	18		ug/kg	7.1	--	1
n-Propylbenzene	21		ug/kg	1.8	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	7.1	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	7.1	--	1
1,3,5-Trimethylbenzene	55		ug/kg	7.1	--	1
1,2,4-Trimethylbenzene	110		ug/kg	7.1	--	1

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-08
 Client ID: S-25
 Sample Location: TAUNTON, MA

Date Collected: 12/09/16 14:51
 Date Received: 12/09/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Diethyl ether	ND		ug/kg	8.8	--	1
Diisopropyl Ether	ND		ug/kg	7.1	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	7.1	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	7.1	--	1
1,4-Dioxane	ND		ug/kg	71	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	97		70-130



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-09
 Client ID: S-40
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 12/15/16 01:00
 Analyst: MV
 Percent Solids: 92%

Date Collected: 12/09/16 12:24
 Date Received: 12/09/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	12	--	1
1,1-Dichloroethane	ND		ug/kg	1.8	--	1
Chloroform	ND		ug/kg	1.8	--	1
Carbon tetrachloride	ND		ug/kg	1.2	--	1
1,2-Dichloropropane	ND		ug/kg	4.3	--	1
Dibromochloromethane	ND		ug/kg	1.2	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	--	1
Tetrachloroethene	ND		ug/kg	1.2	--	1
Chlorobenzene	ND		ug/kg	1.2	--	1
Trichlorofluoromethane	ND		ug/kg	5.0	--	1
1,2-Dichloroethane	ND		ug/kg	1.2	--	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	--	1
Bromodichloromethane	ND		ug/kg	1.2	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	--	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	--	1
1,3-Dichloropropene, Total	ND		ug/kg	1.2	--	1
1,1-Dichloropropene	ND		ug/kg	5.0	--	1
Bromoform	ND		ug/kg	5.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	--	1
Benzene	ND		ug/kg	1.2	--	1
Toluene	ND		ug/kg	1.8	--	1
Ethylbenzene	ND		ug/kg	1.2	--	1
Chloromethane	ND		ug/kg	5.0	--	1
Bromomethane	ND		ug/kg	2.5	--	1
Vinyl chloride	ND		ug/kg	2.5	--	1
Chloroethane	ND		ug/kg	2.5	--	1
1,1-Dichloroethene	ND		ug/kg	1.2	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	--	1
Trichloroethene	ND		ug/kg	1.2	--	1
1,2-Dichlorobenzene	ND		ug/kg	5.0	--	1

Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-09
 Client ID: S-40
 Sample Location: TAUNTON, MA

Date Collected: 12/09/16 12:24
 Date Received: 12/09/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.0	--	1
1,4-Dichlorobenzene	ND		ug/kg	5.0	--	1
Methyl tert butyl ether	ND		ug/kg	2.5	--	1
p/m-Xylene	ND		ug/kg	2.5	--	1
o-Xylene	ND		ug/kg	2.5	--	1
Xylenes, Total	ND		ug/kg	2.5	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	--	1
Dibromomethane	ND		ug/kg	5.0	--	1
1,2,3-Trichloropropane	ND		ug/kg	5.0	--	1
Styrene	ND		ug/kg	2.5	--	1
Dichlorodifluoromethane	ND		ug/kg	12	--	1
Acetone	ND		ug/kg	45	--	1
Carbon disulfide	ND		ug/kg	5.0	--	1
Methyl ethyl ketone	ND		ug/kg	12	--	1
Methyl isobutyl ketone	ND		ug/kg	12	--	1
2-Hexanone	ND		ug/kg	12	--	1
Bromochloromethane	ND		ug/kg	5.0	--	1
Tetrahydrofuran	ND		ug/kg	5.0	--	1
2,2-Dichloropropane	ND		ug/kg	6.2	--	1
1,2-Dibromoethane	ND		ug/kg	5.0	--	1
1,3-Dichloropropane	ND		ug/kg	5.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	--	1
Bromobenzene	ND		ug/kg	6.2	--	1
n-Butylbenzene	ND		ug/kg	1.2	--	1
sec-Butylbenzene	ND		ug/kg	1.2	--	1
tert-Butylbenzene	ND		ug/kg	5.0	--	1
o-Chlorotoluene	ND		ug/kg	5.0	--	1
p-Chlorotoluene	ND		ug/kg	5.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	--	1
Hexachlorobutadiene	ND		ug/kg	5.0	--	1
Isopropylbenzene	ND		ug/kg	1.2	--	1
p-Isopropyltoluene	ND		ug/kg	1.2	--	1
Naphthalene	ND		ug/kg	5.0	--	1
n-Propylbenzene	ND		ug/kg	1.2	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	--	1

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-09
Client ID: S-40
Sample Location: TAUNTON, MA

Date Collected: 12/09/16 12:24
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Diethyl ether	ND		ug/kg	6.2	--	1
Diisopropyl Ether	ND		ug/kg	5.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	5.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	5.0	--	1
1,4-Dioxane	ND		ug/kg	50	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	95		70-130



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-10
 Client ID: S-49
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 12/15/16 17:16
 Analyst: KD
 Percent Solids: 80%

Date Collected: 12/09/16 13:21
 Date Received: 12/09/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics by 8260/5035 - Westborough Lab

Methylene chloride	ND		ug/kg	16	--	1
1,1-Dichloroethane	ND		ug/kg	2.5	--	1
Chloroform	ND		ug/kg	2.5	--	1
Carbon tetrachloride	ND		ug/kg	1.6	--	1
1,2-Dichloropropane	ND		ug/kg	5.8	--	1
Dibromochloromethane	ND		ug/kg	1.6	--	1
1,1,2-Trichloroethane	ND		ug/kg	2.5	--	1
Tetrachloroethene	ND		ug/kg	1.6	--	1
Chlorobenzene	ND		ug/kg	1.6	--	1
Trichlorofluoromethane	ND		ug/kg	6.6	--	1
1,2-Dichloroethane	ND		ug/kg	1.6	--	1
1,1,1-Trichloroethane	ND		ug/kg	1.6	--	1
Bromodichloromethane	ND		ug/kg	1.6	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.6	--	1
cis-1,3-Dichloropropene	ND		ug/kg	1.6	--	1
1,3-Dichloropropene, Total	ND		ug/kg	1.6	--	1
1,1-Dichloropropene	ND		ug/kg	6.6	--	1
Bromoform	ND		ug/kg	6.6	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.6	--	1
Benzene	ND		ug/kg	1.6	--	1
Toluene	ND		ug/kg	2.5	--	1
Ethylbenzene	ND		ug/kg	1.6	--	1
Chloromethane	ND		ug/kg	6.6	--	1
Bromomethane	ND		ug/kg	3.3	--	1
Vinyl chloride	ND		ug/kg	3.3	--	1
Chloroethane	ND		ug/kg	3.3	--	1
1,1-Dichloroethene	ND		ug/kg	1.6	--	1
trans-1,2-Dichloroethene	ND		ug/kg	2.5	--	1
Trichloroethene	ND		ug/kg	1.6	--	1
1,2-Dichlorobenzene	ND		ug/kg	6.6	--	1

Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-10

Date Collected: 12/09/16 13:21

Client ID: S-49

Date Received: 12/09/16

Sample Location: TAUNTON, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	6.6	--	1
1,4-Dichlorobenzene	ND		ug/kg	6.6	--	1
Methyl tert butyl ether	ND		ug/kg	3.3	--	1
p/m-Xylene	ND		ug/kg	3.3	--	1
o-Xylene	ND		ug/kg	3.3	--	1
Xylenes, Total	ND		ug/kg	3.3	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.6	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.6	--	1
Dibromomethane	ND		ug/kg	6.6	--	1
1,2,3-Trichloropropane	ND		ug/kg	6.6	--	1
Styrene	ND		ug/kg	3.3	--	1
Dichlorodifluoromethane	ND		ug/kg	16	--	1
Acetone	ND		ug/kg	59	--	1
Carbon disulfide	ND		ug/kg	6.6	--	1
Methyl ethyl ketone	ND		ug/kg	16	--	1
Methyl isobutyl ketone	ND		ug/kg	16	--	1
2-Hexanone	ND		ug/kg	16	--	1
Bromochloromethane	ND		ug/kg	6.6	--	1
Tetrahydrofuran	ND		ug/kg	6.6	--	1
2,2-Dichloropropane	ND		ug/kg	8.2	--	1
1,2-Dibromoethane	ND		ug/kg	6.6	--	1
1,3-Dichloropropane	ND		ug/kg	6.6	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.6	--	1
Bromobenzene	ND		ug/kg	8.2	--	1
n-Butylbenzene	ND		ug/kg	1.6	--	1
sec-Butylbenzene	3.2		ug/kg	1.6	--	1
tert-Butylbenzene	ND		ug/kg	6.6	--	1
o-Chlorotoluene	ND		ug/kg	6.6	--	1
p-Chlorotoluene	ND		ug/kg	6.6	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.6	--	1
Hexachlorobutadiene	ND		ug/kg	6.6	--	1
Isopropylbenzene	ND		ug/kg	1.6	--	1
p-Isopropyltoluene	ND		ug/kg	1.6	--	1
Naphthalene	ND		ug/kg	6.6	--	1
n-Propylbenzene	ND		ug/kg	1.6	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.6	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.6	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.6	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.6	--	1



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-10

Date Collected: 12/09/16 13:21

Client ID: S-49

Date Received: 12/09/16

Sample Location: TAUNTON, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Diethyl ether	ND		ug/kg	8.2	--	1
Diisopropyl Ether	ND		ug/kg	6.6	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	6.6	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	6.6	--	1
1,4-Dioxane	ND		ug/kg	66	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	109		70-130



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 12/14/16 19:55
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 06-09 Batch: WG961460-5					
Methylene chloride	ND		ug/kg	10	--
1,1-Dichloroethane	ND		ug/kg	1.5	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	3.5	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.5	--
Tetrachloroethene	ND		ug/kg	1.0	--
Chlorobenzene	ND		ug/kg	1.0	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	1.0	--
Bromodichloromethane	ND		ug/kg	1.0	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	1.0	--
1,3-Dichloropropene, Total	ND		ug/kg	1.0	--
1,1-Dichloropropene	ND		ug/kg	4.0	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	--
Benzene	ND		ug/kg	1.0	--
Toluene	ND		ug/kg	1.5	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	2.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	1.0	--

Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 12/14/16 19:55
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 06-09 Batch: WG961460-5					
1,2-Dichlorobenzene	ND		ug/kg	4.0	--
1,3-Dichlorobenzene	ND		ug/kg	4.0	--
1,4-Dichlorobenzene	ND		ug/kg	4.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	2.0	--
Xylenes, Total	ND		ug/kg	2.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	4.0	--
1,4-Dichlorobutane	ND		ug/kg	10	--
1,2,3-Trichloropropane	ND		ug/kg	4.0	--
Styrene	ND		ug/kg	2.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	36	--
Carbon disulfide	ND		ug/kg	4.0	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Ethyl methacrylate	ND		ug/kg	10	--
Acrylonitrile	ND		ug/kg	4.0	--
Bromochloromethane	ND		ug/kg	4.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	5.0	--
1,2-Dibromoethane	ND		ug/kg	4.0	--
1,3-Dichloropropane	ND		ug/kg	4.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	--
Bromobenzene	ND		ug/kg	5.0	--
n-Butylbenzene	ND		ug/kg	1.0	--

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 12/14/16 19:55
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 06-09 Batch: WG961460-5					
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	4.0	--
o-Chlorotoluene	ND		ug/kg	4.0	--
p-Chlorotoluene	ND		ug/kg	4.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	4.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	4.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	4.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	4.0	--
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	--
Diethyl ether	ND		ug/kg	5.0	--
Diisopropyl Ether	ND		ug/kg	4.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	--
1,4-Dioxane	ND		ug/kg	40	--
2-Chloroethylvinyl ether	ND		ug/kg	20	--
Halothane	ND		ug/kg	40	--
Ethyl Acetate	ND		ug/kg	20	--
Freon-113	ND		ug/kg	20	--
Vinyl acetate	ND		ug/kg	10	--

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 12/14/16 19:55
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 06-09 Batch: WG961460-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	83		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	91		70-130



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 12/15/16 08:33
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 10 Batch: WG961701-5					
Methylene chloride	ND		ug/kg	10	--
1,1-Dichloroethane	ND		ug/kg	1.5	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	3.5	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.5	--
Tetrachloroethene	ND		ug/kg	1.0	--
Chlorobenzene	ND		ug/kg	1.0	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	1.0	--
Bromodichloromethane	ND		ug/kg	1.0	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	1.0	--
1,3-Dichloropropene, Total	ND		ug/kg	1.0	--
1,1-Dichloropropene	ND		ug/kg	4.0	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	--
Benzene	ND		ug/kg	1.0	--
Toluene	ND		ug/kg	1.5	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	2.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	1.0	--

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 97.8260C
 Analytical Date: 12/15/16 08:33
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 10 Batch: WG961701-5					
1,2-Dichlorobenzene	ND		ug/kg	4.0	--
1,3-Dichlorobenzene	ND		ug/kg	4.0	--
1,4-Dichlorobenzene	ND		ug/kg	4.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	2.0	--
Xylenes, Total	ND		ug/kg	2.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	4.0	--
1,4-Dichlorobutane	ND		ug/kg	10	--
1,2,3-Trichloropropane	ND		ug/kg	4.0	--
Styrene	ND		ug/kg	2.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	36	--
Carbon disulfide	ND		ug/kg	4.0	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Ethyl methacrylate	ND		ug/kg	10	--
Acrylonitrile	ND		ug/kg	4.0	--
Bromochloromethane	ND		ug/kg	4.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	5.0	--
1,2-Dibromoethane	ND		ug/kg	4.0	--
1,3-Dichloropropane	ND		ug/kg	4.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	--
Bromobenzene	ND		ug/kg	5.0	--
n-Butylbenzene	ND		ug/kg	1.0	--

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 12/15/16 08:33
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s)					
				10	Batch: WG961701-5
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	4.0	--
o-Chlorotoluene	ND		ug/kg	4.0	--
p-Chlorotoluene	ND		ug/kg	4.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	4.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	4.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	4.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	4.0	--
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	--
Diethyl ether	ND		ug/kg	5.0	--
Diisopropyl Ether	ND		ug/kg	4.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	--
1,4-Dioxane	ND		ug/kg	40	--
Halothane	ND		ug/kg	40	--
Ethyl Acetate	ND		ug/kg	20	--
Freon-113	ND		ug/kg	20	--
Vinyl acetate	ND		ug/kg	10	--

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 12/15/16 08:33
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 10 Batch: WG961701-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	108		70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	Limits	Limits			
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s) 06-09 Batch: WG961460-3 WG961460-4									
Methylene chloride	88		87		70-130		1		20
1,1-Dichloroethane	85		81		70-130		5		20
Chloroform	87		84		70-130		4		20
Carbon tetrachloride	87		81		70-130		7		20
1,2-Dichloropropane	84		85		70-130		1		20
Dibromochloromethane	96		96		70-130		0		20
1,1,1-Trichloroethane	97		98		70-130		1		20
Tetrachloroethene	111		106		70-130		5		20
Chlorobenzene	103		99		70-130		4		20
Trichlorofluoromethane	86		81		70-130		6		20
1,2-Dichloroethane	79		79		70-130		0		20
1,1,1-Trichloroethane	87		82		70-130		6		20
Bromodichloromethane	81		82		70-130		1		20
trans-1,3-Dichloropropene	90		89		70-130		1		20
cis-1,3-Dichloropropene	85		83		70-130		2		20
1,1-Dichloropropene	88		83		70-130		6		20
Bromoform	99		104		70-130		5		20
1,1,2,2-Tetrachloroethane	94		96		70-130		2		20
Benzene	90		87		70-130		3		20
Toluene	99		96		70-130		3		20
Ethylbenzene	98		94		70-130		4		20



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits			
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 06-09 Batch: WG961460-3 WG961460-4									
Chloromethane	80		76		70-130		5		20
Bromomethane	92		87		70-130		6		20
Vinyl chloride	81		79		70-130		3		20
Chloroethane	90		87		70-130		3		20
1,1-Dichloroethene	94		91		70-130		3		20
trans-1,2-Dichloroethene	94		92		70-130		2		20
Trichloroethene	90		86		70-130		5		20
1,2-Dichlorobenzene	106		103		70-130		3		20
1,3-Dichlorobenzene	108		104		70-130		4		20
1,4-Dichlorobenzene	107		103		70-130		4		20
Methyl tert butyl ether	84		85		70-130		1		20
p/m-Xylene	105		100		70-130		5		20
o-Xylene	104		99		70-130		5		20
cis-1,2-Dichloroethene	94		93		70-130		1		20
Dibromomethane	87		88		70-130		1		20
1,4-Dichlorobutane	87		86		70-130		1		20
1,2,3-Trichloropropane	91		89		70-130		2		20
Styrene	103		99		70-130		4		20
Dichlorodifluoromethane	74		66	Q	70-130		11		20
Acetone	70		74		70-130		6		20
Carbon disulfide	79		78		70-130		1		20



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits			
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s) 06-09 Batch: WG961460-3 WG961460-4									
Methyl ethyl ketone	70		72		70-130		3		20
Methyl isobutyl ketone	81		87		70-130		7		20
2-Hexanone	73		75		70-130		3		20
Ethyl methacrylate	89		90		70-130		1		20
Acrylonitrile	80		84		70-130		5		20
Bromochloromethane	99		102		70-130		3		20
Tetrahydrofuran	77		80		70-130		4		20
2,2-Dichloropropane	84		79		70-130		6		20
1,2-Dibromoethane	98		100		70-130		2		20
1,3-Dichloropropane	94		95		70-130		1		20
1,1,1,2-Tetrachloroethane	99		98		70-130		1		20
Bromobenzene	107		104		70-130		3		20
n-Butylbenzene	99		92		70-130		7		20
sec-Butylbenzene	103		96		70-130		7		20
tert-Butylbenzene	103		97		70-130		6		20
o-Chlorotoluene	99		92		70-130		7		20
p-Chlorotoluene	98		91		70-130		7		20
1,2-Dibromo-3-chloropropane	95		97		70-130		2		20
Hexachlorobutadiene	108		101		70-130		7		20
Isopropylbenzene	102		95		70-130		7		20
p-Isopropyltoluene	105		98		70-130		7		20



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Parameter	LCS		LCS D		%Recovery Limits		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits			
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s) 06-09 Batch: WG961460-3 WG961460-4									
Naphthalene	104		104		70-130		0		20
n-Propylbenzene	99		92		70-130		7		20
1,2,3-Trichlorobenzene	113		109		70-130		4		20
1,2,4-Trichlorobenzene	113		108		70-130		5		20
1,3,5-Trimethylbenzene	104		96		70-130		8		20
1,2,4-Trimethylbenzene	102		95		70-130		7		20
trans-1,4-Dichloro-2-butene	71		81		70-130		13		20
Diethyl ether	86		88		70-130		2		20
Diisopropyl Ether	78		75		70-130		4		20
tert-Butyl Alcohol	74		81		70-130		9		20
Ethyl-Tert-Butyl-Ether	83		82		70-130		1		20
Tertiary-Amyl Methyl Ether	85		86		70-130		1		20
1,4-Dioxane	89		97		70-130		9		20
2-Chloroethyvinyl ether	79		85		70-130		7		20
Halothane	99		95		70-130		4		20
Ethyl Acetate	72		76		70-130		5		20
Freon-113	94		89		70-130		5		20
Vinyl acetate	74		75		70-130		1		20



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s) 06-09 Batch WG961460-3 WG961460-4

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	83		85		70-130
Toluene-d8	104		104		70-130
4-Bromofluorobenzene	92		91		70-130
Dibromofluoromethane	95		99		70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual			
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s) 10 Batch: WG961701-3 WG961701-4									
Methylene chloride	112		112		70-130		0		20
1,1-Dichloroethane	109		112		70-130		3		20
Chloroform	102		102		70-130		0		20
Carbon tetrachloride	86		80		70-130		7		20
1,2-Dichloropropane	107		108		70-130		1		20
Dibromochloromethane	100		100		70-130		0		20
1,1,2-Trichloroethane	105		104		70-130		1		20
Tetrachloroethene	102		96		70-130		6		20
Chlorobenzene	103		100		70-130		3		20
Trichlorofluoromethane	128		116		70-130		10		20
1,2-Dichloroethane	116		117		70-130		1		20
1,1,1-Trichloroethane	104		98		70-130		6		20
Bromodichloromethane	99		100		70-130		1		20
trans-1,3-Dichloropropene	104		104		70-130		0		20
cis-1,3-Dichloropropene	97		99		70-130		2		20
1,1-Dichloropropene	99		94		70-130		5		20
Bromoform	85		92		70-130		8		20
1,1,2,2-Tetrachloroethane	109		103		70-130		6		20
Benzene	97		94		70-130		3		20
Toluene	103		99		70-130		4		20
Ethylbenzene	106		102		70-130		4		20



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 10 Batch: WG961701-3 WG961701-4								
Chloromethane	133	Q	126		70-130	5		20
Bromomethane	99		96		70-130	3		20
Vinyl chloride	124		113		70-130	9		20
Chloroethane	148	Q	142	Q	70-130	4		20
1,1-Dichloroethene	128		116		70-130	10		20
trans-1,2-Dichloroethene	115		110		70-130	4		20
Trichloroethene	101		98		70-130	3		20
1,2-Dichlorobenzene	96		103		70-130	7		20
1,3-Dichlorobenzene	105		104		70-130	1		20
1,4-Dichlorobenzene	106		104		70-130	2		20
Methyl tert butyl ether	110		116		70-130	5		20
p/m-Xylene	104		101		70-130	3		20
o-Xylene	103		100		70-130	3		20
cis-1,2-Dichloroethene	97		96		70-130	1		20
Dibromomethane	103		103		70-130	0		20
1,4-Dichlorobutane	120		122		70-130	2		20
1,2,3-Trichloropropane	113		106		70-130	6		20
Styrene	104		103		70-130	1		20
Dichlorodifluoromethane	85		76		70-130	11		20
Acetone	162	Q	154	Q	70-130	5		20
Carbon disulfide	106		98		70-130	8		20



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 10 Batch: WG961701-3 WG961701-4								
Methyl ethyl ketone	108		110		70-130	2		20
Methyl isobutyl ketone	118		125		70-130	6		20
2-Hexanone	126		121		70-130	4		20
Ethyl methacrylate	100		103		70-130	3		20
Acrylonitrile	120		124		70-130	3		20
Bromochloromethane	98		99		70-130	1		20
Tetrahydrofuran	121		123		70-130	2		20
2,2-Dichloropropane	103		98		70-130	5		20
1,2-Dibromoethane	101		101		70-130	0		20
1,3-Dichloropropane	105		104		70-130	1		20
1,1,1,2-Tetrachloroethane	100		100		70-130	0		20
Bromobenzene	103		100		70-130	3		20
n-Butylbenzene	108		110		70-130	2		20
sec-Butylbenzene	103		98		70-130	5		20
tert-Butylbenzene	104		97		70-130	7		20
o-Chlorotoluene	114		104		70-130	9		20
p-Chlorotoluene	108		105		70-130	3		20
1,2-Dibromo-3-chloropropane	85		94		70-130	10		20
Hexachlorobutadiene	83		84		70-130	1		20
Isopropylbenzene	96		97		70-130	1		20
p-isopropyltoluene	104		101		70-130	3		20



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits			
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 10 Batch: WG961701-3 WG961701-4									
Naphthalene	88		96		70-130		9		20
n-Propylbenzene	114		103		70-130		10		20
1,2,3-Trichlorobenzene	86		86		70-130		9		20
1,2,4-Trichlorobenzene	93		100		70-130		7		20
1,3,5-Trimethylbenzene	107		100		70-130		7		20
1,2,4-Trimethylbenzene	105		102		70-130		3		20
trans-1,4-Dichloro-2-butene	86		99		70-130		14		20
Diethyl ether	131	Q	129		70-130		2		20
Diisopropyl Ether	118		132	Q	70-130		11		20
tert-Butyl Alcohol*	104		120		70-130		14		20
Ethyl-Tert-Butyl-Ether	96		97		70-130		1		20
Tertiary-Amyl Methyl Ether	72		75		70-130		4		20
1,4-Dioxane	98		108		70-130		10		20
Halothane	88		85		70-130		3		20
Ethyl Acetate	105		107		70-130		2		20
Freon-113	111		97		70-130		13		20
Vinyl acetate	63	Q	70		70-130		11		20



Lab Control Sample Analysis

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Batch Quality Control

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

MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 10 Batch: WG961701-3 WG961701-4

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	115		117		70-130
Toluene-d8	107		106		70-130
4-Bromofluorobenzene	107		105		70-130
Dibromofluoromethane	102		104		70-130



SEMIVOLATILES

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-01
 Client ID: WEIR COMP-1
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97.8270D
 Analytical Date: 12/14/16 04:14
 Analyst: RC
 Percent Solids: 75%

Date Collected: 12/09/16 10:22
 Date Received: 12/09/16
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 12/12/16 18:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Semivolatile Organics - Westborough Lab

Acenaphthene	ND		ug/kg	170	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	220	--	1
Hexachlorobenzene	ND		ug/kg	130	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	--	1
2-Chloronaphthalene	ND		ug/kg	220	--	1
1,2-Dichlorobenzene	ND		ug/kg	220	--	1
1,3-Dichlorobenzene	ND		ug/kg	220	--	1
1,4-Dichlorobenzene	ND		ug/kg	220	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	220	--	1
2,4-Dinitrotoluene	ND		ug/kg	220	--	1
2,6-Dinitrotoluene	ND		ug/kg	220	--	1
Azobenzene	ND		ug/kg	220	--	1
Fluoranthene	ND		ug/kg	130	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	220	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	--	1
Hexachlorobutadiene	ND		ug/kg	220	--	1
Hexachloroethane	ND		ug/kg	170	--	1
Isophorone	ND		ug/kg	190	--	1
Naphthalene	ND		ug/kg	220	--	1
Nitrobenzene	ND		ug/kg	190	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	220	--	1
Butyl benzyl phthalate	ND		ug/kg	220	--	1
Di-n-butylphthalate	ND		ug/kg	220	--	1
Di-n-octylphthalate	ND		ug/kg	220	--	1
Diethyl phthalate	ND		ug/kg	220	--	1
Dimethyl phthalate	ND		ug/kg	220	--	1
Benzo(a)anthracene	ND		ug/kg	130	--	1
Benzo(a)pyrene	ND		ug/kg	170	--	1
Benzo(b)fluoranthene	ND		ug/kg	130	--	1

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-01
Client ID: WEIR COMP-1
Sample Location: TAUNTON, MA

Date Collected: 12/09/16 10:22
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Benzo(k)fluoranthene	ND		ug/kg	130	--	1
Chrysene	ND		ug/kg	130	--	1
Acenaphthylene	ND		ug/kg	170	--	1
Anthracene	ND		ug/kg	130	--	1
Benzo(ghi)perylene	ND		ug/kg	170	--	1
Fluorene	ND		ug/kg	220	--	1
Phenanthrene	ND		ug/kg	130	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	170	--	1
Pyrene	ND		ug/kg	130	--	1
Aniline	ND		ug/kg	260	--	1
4-Chloroaniline	ND		ug/kg	220	--	1
Dibenzofuran	ND		ug/kg	220	--	1
2-Methylnaphthalene	ND		ug/kg	260	--	1
Acetophenone	ND		ug/kg	220	--	1
2,4,6-Trichlorophenol	ND		ug/kg	130	--	1
2-Chlorophenol	ND		ug/kg	220	--	1
2,4-Dichlorophenol	ND		ug/kg	190	--	1
2,4-Dimethylphenol	ND		ug/kg	220	--	1
2-Nitrophenol	ND		ug/kg	470	--	1
4-Nitrophenol	ND		ug/kg	300	--	1
2,4-Dinitrophenol	ND		ug/kg	1000	--	1
Pentachlorophenol	ND		ug/kg	430	--	1
Phenol	ND		ug/kg	220	--	1
2-Methylphenol	ND		ug/kg	220	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	310	--	1
2,4,5-Trichlorophenol	ND		ug/kg	220	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	73		30-130
Phenol-d6	77		30-130
Nitrobenzene-d5	81		30-130
2-Fluorobiphenyl	68		30-130
2,4,6-Tribromophenol	77		30-130
4-Terphenyl-d14	53		30-130



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-02
 Client ID: WEIR COMP-2
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8270D
 Analytical Date: 12/14/16 02:57
 Analyst: RC
 Percent Solids: 81%

Date Collected: 12/09/16 10:58
 Date Received: 12/09/16
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 12/12/16 18:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Acenaphthene	ND		ug/kg	160	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	--	1
Hexachlorobenzene	ND		ug/kg	120	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	--	1
2-Chloronaphthalene	ND		ug/kg	200	--	1
1,2-Dichlorobenzene	ND		ug/kg	200	--	1
1,3-Dichlorobenzene	ND		ug/kg	200	--	1
1,4-Dichlorobenzene	ND		ug/kg	200	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	--	1
2,4-Dinitrotoluene	ND		ug/kg	200	--	1
2,6-Dinitrotoluene	ND		ug/kg	200	--	1
Azobenzene	ND		ug/kg	200	--	1
Fluoranthene	ND		ug/kg	120	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	--	1
Hexachlorobutadiene	ND		ug/kg	200	--	1
Hexachloroethane	ND		ug/kg	160	--	1
Isophorone	ND		ug/kg	180	--	1
Naphthalene	ND		ug/kg	200	--	1
Nitrobenzene	ND		ug/kg	180	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	--	1
Butyl benzyl phthalate	ND		ug/kg	200	--	1
Di-n-butylphthalate	ND		ug/kg	200	--	1
Di-n-octylphthalate	ND		ug/kg	200	--	1
Diethyl phthalate	ND		ug/kg	200	--	1
Dimethyl phthalate	ND		ug/kg	200	--	1
Benzo(a)anthracene	ND		ug/kg	120	--	1
Benzo(a)pyrene	ND		ug/kg	160	--	1
Benzo(b)fluoranthene	ND		ug/kg	120	--	1

Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-02

Date Collected: 12/09/16 10:58

Client ID: WEIR COMP-2

Date Received: 12/09/16

Sample Location: TAUNTON, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Benzo(k)fluoranthene	ND		ug/kg	120	--	1
Chrysene	ND		ug/kg	120	--	1
Acenaphthylene	ND		ug/kg	160	--	1
Anthracene	ND		ug/kg	120	--	1
Benzo(ghi)perylene	ND		ug/kg	160	--	1
Fluorene	ND		ug/kg	200	--	1
Phenanthrene	ND		ug/kg	120	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	--	1
Pyrene	ND		ug/kg	120	--	1
Aniline	ND		ug/kg	240	--	1
4-Chloroaniline	ND		ug/kg	200	--	1
Dibenzofuran	ND		ug/kg	200	--	1
2-Methylnaphthalene	ND		ug/kg	240	--	1
Acetophenone	ND		ug/kg	200	--	1
2,4,6-Trichlorophenol	ND		ug/kg	120	--	1
2-Chlorophenol	ND		ug/kg	200	--	1
2,4-Dichlorophenol	ND		ug/kg	180	--	1
2,4-Dimethylphenol	ND		ug/kg	200	--	1
2-Nitrophenol	ND		ug/kg	440	--	1
4-Nitrophenol	ND		ug/kg	280	--	1
2,4-Dinitrophenol	ND		ug/kg	970	--	1
Pentachlorophenol	ND		ug/kg	400	--	1
Phenol	ND		ug/kg	200	--	1
2-Methylphenol	ND		ug/kg	200	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	--	1
2,4,5-Trichlorophenol	ND		ug/kg	200	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		30-130
Phenol-d6	71		30-130
Nitrobenzene-d5	75		30-130
2-Fluorobiphenyl	66		30-130
2,4,6-Tribromophenol	68		30-130
4-Terphenyl-d14	57		30-130

Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-03
 Client ID: WEIR COMP-3
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8270D
 Analytical Date: 12/14/16 04:39
 Analyst: RC
 Percent Solids: 81%

Date Collected: 12/09/16 11:43
 Date Received: 12/09/16
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 12/12/16 18:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Acenaphthene	ND		ug/kg	160	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	--	1
Hexachlorobenzene	ND		ug/kg	120	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	--	1
2-Chloronaphthalene	ND		ug/kg	200	--	1
1,2-Dichlorobenzene	ND		ug/kg	200	--	1
1,3-Dichlorobenzene	ND		ug/kg	200	--	1
1,4-Dichlorobenzene	ND		ug/kg	200	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	--	1
2,4-Dinitrotoluene	ND		ug/kg	200	--	1
2,6-Dinitrotoluene	ND		ug/kg	200	--	1
Azobenzene	ND		ug/kg	200	--	1
Fluoranthene	ND		ug/kg	120	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	--	1
Hexachlorobutadiene	ND		ug/kg	200	--	1
Hexachloroethane	ND		ug/kg	160	--	1
Isophorone	ND		ug/kg	180	--	1
Naphthalene	ND		ug/kg	200	--	1
Nitrobenzene	ND		ug/kg	180	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	--	1
Butyl benzyl phthalate	ND		ug/kg	200	--	1
Di-n-butylphthalate	ND		ug/kg	200	--	1
Di-n-octylphthalate	ND		ug/kg	200	--	1
Diethyl phthalate	ND		ug/kg	200	--	1
Dimethyl phthalate	ND		ug/kg	200	--	1
Benzo(a)anthracene	ND		ug/kg	120	--	1
Benzo(a)pyrene	ND		ug/kg	160	--	1
Benzo(b)fluoranthene	ND		ug/kg	120	--	1



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-03
Client ID: WEIR COMP-3
Sample Location: TAUNTON, MA

Date Collected: 12/09/16 11:43
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Semivolatile Organics - Westborough Lab

Benzo(k)fluoranthene	ND		ug/kg	120	--	1
Chrysene	ND		ug/kg	120	--	1
Acenaphthylene	ND		ug/kg	160	--	1
Anthracene	ND		ug/kg	120	--	1
Benzo(ghi)perylene	ND		ug/kg	160	--	1
Fluorene	ND		ug/kg	200	--	1
Phenanthrene	ND		ug/kg	120	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	--	1
Pyrene	ND		ug/kg	120	--	1
Aniline	ND		ug/kg	250	--	1
4-Chloroaniline	ND		ug/kg	200	--	1
Dibenzofuran	ND		ug/kg	200	--	1
2-Methylnaphthalene	ND		ug/kg	250	--	1
Acetophenone	ND		ug/kg	200	--	1
2,4,6-Trichlorophenol	ND		ug/kg	120	--	1
2-Chlorophenol	ND		ug/kg	200	--	1
2,4-Dichlorophenol	ND		ug/kg	180	--	1
2,4-Dimethylphenol	ND		ug/kg	200	--	1
2-Nitrophenol	ND		ug/kg	440	--	1
4-Nitrophenol	ND		ug/kg	290	--	1
2,4-Dinitrophenol	ND		ug/kg	980	--	1
Pentachlorophenol	ND		ug/kg	410	--	1
Phenol	ND		ug/kg	200	--	1
2-Methylphenol	ND		ug/kg	200	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	--	1
2,4,5-Trichlorophenol	ND		ug/kg	200	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	77		30-130
Phenol-d6	82		30-130
Nitrobenzene-d5	87		30-130
2-Fluorobiphenyl	71		30-130
2,4,6-Tribromophenol	79		30-130
4-Terphenyl-d14	48		30-130

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-04
 Client ID: WEIR COMP-4
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97.8270D
 Analytical Date: 12/14/16 05:05
 Analyst: RC
 Percent Solids: 79%

Date Collected: 12/09/16 12:17
 Date Received: 12/09/16
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 12/12/16 18:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Semivolatile Organics - Westborough Lab

Acenaphthene	ND		ug/kg	170	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	--	1
Hexachlorobenzene	ND		ug/kg	120	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	--	1
2-Chloronaphthalene	ND		ug/kg	210	--	1
1,2-Dichlorobenzene	ND		ug/kg	210	--	1
1,3-Dichlorobenzene	ND		ug/kg	210	--	1
1,4-Dichlorobenzene	ND		ug/kg	210	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	--	1
2,4-Dinitrotoluene	ND		ug/kg	210	--	1
2,6-Dinitrotoluene	ND		ug/kg	210	--	1
Azobenzene	ND		ug/kg	210	--	1
Fluoranthene	ND		ug/kg	120	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	--	1
Hexachlorobutadiene	ND		ug/kg	210	--	1
Hexachloroethane	ND		ug/kg	170	--	1
Isophorone	ND		ug/kg	190	--	1
Naphthalene	ND		ug/kg	210	--	1
Nitrobenzene	ND		ug/kg	190	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	210	--	1
Butyl benzyl phthalate	ND		ug/kg	210	--	1
Di-n-butylphthalate	ND		ug/kg	210	--	1
Di-n-octylphthalate	ND		ug/kg	210	--	1
Diethyl phthalate	ND		ug/kg	210	--	1
Dimethyl phthalate	ND		ug/kg	210	--	1
Benzo(a)anthracene	ND		ug/kg	120	--	1
Benzo(a)pyrene	ND		ug/kg	170	--	1
Benzo(b)fluoranthene	ND		ug/kg	120	--	1



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-04
Client ID: WEIR COMP-4
Sample Location: TAUNTON, MA

Date Collected: 12/09/16 12:17
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Benzo(k)fluoranthene	ND		ug/kg	120	--	1
Chrysene	ND		ug/kg	120	--	1
Acenaphthylene	ND		ug/kg	170	--	1
Anthracene	ND		ug/kg	120	--	1
Benzo(ghi)perylene	ND		ug/kg	170	--	1
Fluorene	ND		ug/kg	210	--	1
Phenanthrene	ND		ug/kg	120	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	170	--	1
Pyrene	ND		ug/kg	120	--	1
Aniline	ND		ug/kg	250	--	1
4-Chloroaniline	ND		ug/kg	210	--	1
Dibenzofuran	ND		ug/kg	210	--	1
2-Methylnaphthalene	ND		ug/kg	250	--	1
Acetophenone	ND		ug/kg	210	--	1
2,4,6-Trichlorophenol	ND		ug/kg	120	--	1
2-Chlorophenol	ND		ug/kg	210	--	1
2,4-Dichlorophenol	ND		ug/kg	190	--	1
2,4-Dimethylphenol	ND		ug/kg	210	--	1
2-Nitrophenol	ND		ug/kg	450	--	1
4-Nitrophenol	ND		ug/kg	290	--	1
2,4-Dinitrophenol	ND		ug/kg	1000	--	1
Pentachlorophenol	ND		ug/kg	420	--	1
Phenol	ND		ug/kg	210	--	1
2-Methylphenol	ND		ug/kg	210	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	--	1
2,4,5-Trichlorophenol	ND		ug/kg	210	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		30-130
Phenol-d6	72		30-130
Nitrobenzene-d5	77		30-130
2-Fluorobiphenyl	63		30-130
2,4,6-Tribromophenol	68		30-130
4-Terphenyl-d14	49		30-130



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-05
 Client ID: WEIR COMP-5
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8270D
 Analytical Date: 12/14/16 03:48
 Analyst: RC
 Percent Solids: 79%

Date Collected: 12/09/16 13:11
 Date Received: 12/09/16
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 12/12/16 18:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
Acenaphthene	ND		ug/kg	170	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	--	1
Hexachlorobenzene	ND		ug/kg	120	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	--	1
2-Chloronaphthalene	ND		ug/kg	210	--	1
1,2-Dichlorobenzene	ND		ug/kg	210	--	1
1,3-Dichlorobenzene	ND		ug/kg	210	--	1
1,4-Dichlorobenzene	ND		ug/kg	210	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	--	1
2,4-Dinitrotoluene	ND		ug/kg	210	--	1
2,6-Dinitrotoluene	ND		ug/kg	210	--	1
Azobenzene	ND		ug/kg	210	--	1
Fluoranthene	ND		ug/kg	120	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	--	1
Hexachlorobutadiene	ND		ug/kg	210	--	1
Hexachloroethane	ND		ug/kg	170	--	1
Isophorone	ND		ug/kg	190	--	1
Naphthalene	ND		ug/kg	210	--	1
Nitrobenzene	ND		ug/kg	190	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	210	--	1
Butyl benzyl phthalate	ND		ug/kg	210	--	1
Di-n-butylphthalate	ND		ug/kg	210	--	1
Di-n-octylphthalate	ND		ug/kg	210	--	1
Diethyl phthalate	ND		ug/kg	210	--	1
Dimethyl phthalate	ND		ug/kg	210	--	1
Benzo(a)anthracene	ND		ug/kg	120	--	1
Benzo(a)pyrene	ND		ug/kg	170	--	1
Benzo(b)fluoranthene	ND		ug/kg	120	--	1

Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-05
 Client ID: WEIR COMP-5
 Sample Location: TAUNTON, MA

Date Collected: 12/09/16 13:11
 Date Received: 12/09/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Semivolatile Organics - Westborough Lab

Benzo(k)fluoranthene	ND		ug/kg	120	--	1
Chrysene	ND		ug/kg	120	--	1
Acenaphthylene	ND		ug/kg	170	--	1
Anthracene	ND		ug/kg	120	--	1
Benzo(ghi)perylene	ND		ug/kg	170	--	1
Fluorene	ND		ug/kg	210	--	1
Phenanthrene	ND		ug/kg	120	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	170	--	1
Pyrene	ND		ug/kg	120	--	1
Aniline	ND		ug/kg	250	--	1
4-Chloroaniline	ND		ug/kg	210	--	1
Dibenzofuran	ND		ug/kg	210	--	1
2-Methylnaphthalene	ND		ug/kg	250	--	1
Acetophenone	ND		ug/kg	210	--	1
2,4,6-Trichlorophenol	ND		ug/kg	120	--	1
2-Chlorophenol	ND		ug/kg	210	--	1
2,4-Dichlorophenol	ND		ug/kg	190	--	1
2,4-Dimethylphenol	ND		ug/kg	210	--	1
2-Nitrophenol	ND		ug/kg	450	--	1
4-Nitrophenol	ND		ug/kg	290	--	1
2,4-Dinitrophenol	ND		ug/kg	1000	--	1
Pentachlorophenol	ND		ug/kg	420	--	1
Phenol	ND		ug/kg	210	--	1
2-Methylphenol	ND		ug/kg	210	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	--	1
2,4,5-Trichlorophenol	ND		ug/kg	210	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		30-130
Phenol-d6	71		30-130
Nitrobenzene-d5	75		30-130
2-Fluorobiphenyl	60		30-130
2,4,6-Tribromophenol	63		30-130
4-Terphenyl-d14	40		30-130



Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 97.8270D
 Analytical Date: 12/13/16 09:57
 Analyst: ALS

Extraction Method: EPA 3546
 Extraction Date: 12/12/16 18:06

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01-05 Batch: WG960446-1					
Acenaphthene	ND		ug/kg	130	--
1,2,4-Trichlorobenzene	ND		ug/kg	160	--
Hexachlorobenzene	ND		ug/kg	99	--
Bis(2-chloroethyl)ether	ND		ug/kg	150	--
2-Chloronaphthalene	ND		ug/kg	160	--
1,2-Dichlorobenzene	ND		ug/kg	160	--
1,3-Dichlorobenzene	ND		ug/kg	160	--
1,4-Dichlorobenzene	ND		ug/kg	160	--
3,3'-Dichlorobenzidine	ND		ug/kg	160	--
2,4-Dinitrotoluene	ND		ug/kg	160	--
2,6-Dinitrotoluene	ND		ug/kg	160	--
Azobenzene	ND		ug/kg	160	--
Fluoranthene	ND		ug/kg	99	--
4-Bromophenyl phenyl ether	ND		ug/kg	160	--
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--
Hexachlorobutadiene	ND		ug/kg	160	--
Hexachloroethane	ND		ug/kg	130	--
Isophorone	ND		ug/kg	150	--
Naphthalene	ND		ug/kg	160	--
Nitrobenzene	ND		ug/kg	150	--
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	--
Butyl benzyl phthalate	ND		ug/kg	160	--
Di-n-butylphthalate	ND		ug/kg	160	--
Di-n-octylphthalate	ND		ug/kg	160	--
Diethyl phthalate	ND		ug/kg	160	--
Dimethyl phthalate	ND		ug/kg	160	--
Benzo(a)anthracene	ND		ug/kg	99	--
Benzo(a)pyrene	ND		ug/kg	130	--



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 97.8270D
Analytical Date: 12/13/16 09:57
Analyst: ALS

Extraction Method: EPA 3546
Extraction Date: 12/12/16 18:06

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01-05 Batch: WG960446-1					
Benzo(b)fluoranthene	ND		ug/kg	99	--
Benzo(k)fluoranthene	ND		ug/kg	99	--
Chrysene	ND		ug/kg	99	--
Acenaphthylene	ND		ug/kg	130	--
Anthracene	ND		ug/kg	99	--
Benzo(ghi)perylene	ND		ug/kg	130	--
Fluorene	ND		ug/kg	160	--
Phenanthrene	ND		ug/kg	99	--
Dibenzo(a,h)anthracene	ND		ug/kg	99	--
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	--
Pyrene	ND		ug/kg	99	--
Aniline	ND		ug/kg	200	--
4-Chloroaniline	ND		ug/kg	160	--
Dibenzofuran	ND		ug/kg	160	--
2-Methylnaphthalene	ND		ug/kg	200	--
Acetophenone	ND		ug/kg	160	--
2,4,6-Trichlorophenol	ND		ug/kg	99	--
2-Chlorophenol	ND		ug/kg	160	--
2,4-Dichlorophenol	ND		ug/kg	150	--
2,4-Dimethylphenol	ND		ug/kg	160	--
2-Nitrophenol	ND		ug/kg	360	--
4-Nitrophenol	ND		ug/kg	230	--
2,4-Dinitrophenol	ND		ug/kg	790	--
Pentachlorophenol	ND		ug/kg	330	--
Phenol	ND		ug/kg	160	--
2-Methylphenol	ND		ug/kg	160	--
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--
2,4,5-Trichlorophenol	ND		ug/kg	160	--

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270D
Analytical Date: 12/13/16 09:57
Analyst: ALS

Extraction Method: EPA 3546
Extraction Date: 12/12/16 18:06

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01-05 Batch: WG960446-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	81		30-130
Phenol-d6	83		30-130
Nitrobenzene-d5	85		30-130
2-Fluorobiphenyl	80		30-130
2,4,6-Tribromophenol	90		30-130
4-Terphenyl-d14	85		30-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS		LCSD		RPD	
	%Recovery	Qual	%Recovery	Qual	%Recovery	RPD
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01-05 Batch: WG960446-2 WG960446-3						
Acenaphthene	76		83		9	30
1,2,4-Trichlorobenzene	74		80		8	30
Hexachlorobenzene	78		87		11	30
Bis(2-chloroethyl)ether	74		78		3	30
2-Chloronaphthalene	77		85		10	30
1,2-Dichlorobenzene	71		74		4	30
1,3-Dichlorobenzene	71		72		1	30
1,4-Dichlorobenzene	70		74		6	30
3,3'-Dichlorobenzidine	60		66		10	30
2,4-Dinitrotoluene	84		94		11	30
2,6-Dinitrotoluene	82		93		13	30
Azobenzene	79		87		10	30
Fluoranthene	78		88		12	30
4-Bromophenyl phenyl ether	79		86		8	30
Bis(2-chloroisopropyl)ether	75		78		4	30
Bis(2-chloroethoxy)methane	77		84		9	30
Hexachlorobutadiene	73		78		7	30
Hexachloroethane	74		78		5	30
Isophorone	77		84		9	30
Naphthalene	74		79		7	30
Nitrobenzene	81		88		8	30



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	Limits	Limits			
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01-05 Batch: WG960446-2 WG960446-3									
Bis(2-ethylhexyl)phthalate	86		96		40-140		11		30
Butyl benzyl phthalate	89		100		40-140		12		30
Di-n-butylphthalate	80		91		40-140		13		30
Di-n-octylphthalate	82		92		40-140		11		30
Diethyl phthalate	79		87		40-140		10		30
Dimethyl phthalate	79		89		40-140		12		30
Benzo(a)anthracene	76		86		40-140		12		30
Benzo(a)pyrene	82		90		40-140		9		30
Benzo(b)fluoranthene	79		88		40-140		11		30
Benzo(k)fluoranthene	82		89		40-140		8		30
Chrysene	76		84		40-140		10		30
Acenaphthylene	79		88		40-140		11		30
Anthracene	78		88		40-140		12		30
Benzo(ghi)perylene	78		87		40-140		11		30
Fluorene	78		85		40-140		9		30
Phenanthrene	75		85		40-140		13		30
Dibenzo(a,h)anthracene	78		88		40-140		12		30
Indeno(1,2,3-cd)pyrene	82		92		40-140		11		30
Pyrene	78		88		40-140		12		30
Aniline	50		55		40-140		10		30
4-Chloroaniline	51		55		40-140		8		30



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits						
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01-05 Batch: WG960446-2 WG960446-3												
1-Methylnaphthalene ¹	74		82		40-140		10		30			
Dibenzofuran	77		84		40-140		9		30			
2-Methylnaphthalene	75		83		40-140		10		30			
Acetophenone	77		82		40-140		6		30			
n-Nitrosodimethylamine	70		72		22-100		3		30			
2,4,6-Trichlorophenol	82		94		30-130		14		30			
2-Chlorophenol	78		84		30-130		7		30			
2,4-Dichlorophenol	83		90		30-130		8		30			
2,4-Dimethylphenol	86		94		30-130		9		30			
2-Nitrophenol	90		98		30-130		9		30			
4-Nitrophenol	90		101		30-130		12		30			
2,4-Dinitrophenol	80		92		30-130		14		30			
Pentachlorophenol	71		80		30-130		12		30			
Phenol	76		82		30-130		8		30			
2-Methylphenol	79		87		30-130		10		30			
3-Methylphenol/4-Methylphenol	81		88		30-130		8		30			
2,4,5-Trichlorophenol	84		96		30-130		13		30			
Pyridine	56		56		30-130		0		30			
4-Chlorophenyl phenyl ether	76		83		40-140		9		30			
Hexachlorocyclopentadiene	87		95		40-140		9		30			
NitrosoDiPhenylAmine(NDPA)/DPA	79		86		40-140		8		30			



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	Limits	Limits			
MCP Semivolatile Organics - Westborough Lab Associated sample(s) 01-05 Batch: WG960446-2 WG960446-3									
n-Nitrosodi-n-propylamine	76		82		40-140		8		30
2-Nitroaniline	92		106		40-140		14		30
3-Nitroaniline	70		76		40-140		8		30
4-Nitroaniline	77		90		40-140		16		30
P-Chloro-M-Cresol	83		94		30-130		12		30
4,6-Dinitro-o-cresol	89		104		30-130		16		30
Carbazole	77		88		40-140		13		30

Surrogate	LCS		LCS D		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2-Fluorophenol	80		81		30-130
Phenol-d6	81		84		30-130
Nitrobenzene-d5	85		88		30-130
2-Fluorobiphenyl	78		83		30-130
2,4,6-Tribromophenol	92		99		30-130
4-Terphenyl-d14	79		87		30-130



PETROLEUM HYDROCARBONS

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-01
Client ID: WEIR COMP-1
Sample Location: TAUNTON, MA
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 12/14/16 11:55
Analyst: DG
Percent Solids: 75%

Date Collected: 12/09/16 10:22
Date Received: 12/09/16
Field Prep: Not Specified
Extraction Method:EPA 3546
Extraction Date: 12/11/16 22:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab

TPH	118000		ug/kg	42600	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	93		40-140



Serial_No:01161712:10

Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-02
Client ID: WEIR COMP-2
Sample Location: TAUNTON, MA
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 12/12/16 16:26
Analyst: DG
Percent Solids: 81%

Date Collected: 12/09/16 10:58
Date Received: 12/09/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/11/16 22:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab

TPH	ND		ug/kg	40800	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	79		40-140



Serial_No:01161712:10

Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-03
Client ID: WEIR COMP-3
Sample Location: TAUNTON, MA
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 12/12/16 16:59
Analyst: DG
Percent Solids: 81%

Date Collected: 12/09/16 11:43
Date Received: 12/09/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/11/16 22:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab

TPH	ND		ug/kg	40400	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	67		40-140



Serial_No:01161712:10

Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-04
Client ID: WEIR COMP-4
Sample Location: TAUNTON, MA
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 12/12/16 17:31
Analyst: DG
Percent Solids: 79%

Date Collected: 12/09/16 12:17
Date Received: 12/09/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/11/16 22:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab

TPH	70400		ug/kg	40500	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	84		40-140



Serial_No:01161712:10

Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-05
Client ID: WEIR COMP-5
Sample Location: TAUNTON, MA
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 12/12/16 18:04
Analyst: DG
Percent Solids: 79%

Date Collected: 12/09/16 13:11
Date Received: 12/09/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/11/16 22:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Petroleum Hydrocarbon Quantitation - Westborough Lab

TPH	ND		ug/kg	40700	--	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	78		40-140



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015C(M)
Analytical Date: 12/12/16 11:35
Analyst: DG

Extraction Method: EPA 3546
Extraction Date: 12/11/16 22:30

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 01-05 Batch: WG960127-1					
TPH	ND		ug/kg	31600	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	86		40-140



Lab Control Sample Analysis

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Batch Quality Control

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-05 Batch: WG960127-2

TPH	90	-	-	-	40-140	-	-	40
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Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
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o-Terphenyl	87	-	-	-	40-140
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Lab Duplicate Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG960127-3 QC Sample: L1640071-01 Client ID: WEIR COMP-1						
TPH	118000	78800	ug/kg	40		40
<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Acceptance Criteria</u>	
o-Terphenyl	93		89		40-140	



PCBS

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-01
Client ID: WEIR COMP-1
Sample Location: TAUNTON, MA
Matrix: Soil
Analytical Method: 97,8082A
Analytical Date: 12/14/16 01:13
Analyst: JW
Percent Solids: 75%

Date Collected: 12/09/16 10:22
Date Received: 12/09/16
Field Prep: Not Specified
Extraction Method:EPA 3546
Extraction Date: 12/11/16 06:03
Cleanup Method: EPA 3665A
Cleanup Date: 12/12/16
Cleanup Method: EPA 3660B
Cleanup Date: 12/13/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	44.1	--	1	A
Aroclor 1221	ND		ug/kg	44.1	--	1	A
Aroclor 1232	ND		ug/kg	44.1	--	1	A
Aroclor 1242	ND		ug/kg	44.1	--	1	A
Aroclor 1248	ND		ug/kg	44.1	--	1	A
Aroclor 1254	ND		ug/kg	44.1	--	1	A
Aroclor 1260	ND		ug/kg	44.1	--	1	A
Aroclor 1262	ND		ug/kg	44.1	--	1	A
Aroclor 1268	ND		ug/kg	44.1	--	1	A
PCBs, Total	ND		ug/kg	44.1	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	92		30-150	B



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-02
 Client ID: WEIR COMP-2
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8082A
 Analytical Date: 12/14/16 01:26
 Analyst: JW
 Percent Solids: 81%

Date Collected: 12/09/16 10:58
 Date Received: 12/09/16
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 12/11/16 06:03
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/12/16
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/13/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.9	--	1	A
Aroclor 1221	ND		ug/kg	38.9	--	1	A
Aroclor 1232	ND		ug/kg	38.9	--	1	A
Aroclor 1242	ND		ug/kg	38.9	--	1	A
Aroclor 1248	ND		ug/kg	38.9	--	1	A
Aroclor 1254	ND		ug/kg	38.9	--	1	A
Aroclor 1260	ND		ug/kg	38.9	--	1	A
Aroclor 1262	ND		ug/kg	38.9	--	1	A
Aroclor 1268	ND		ug/kg	38.9	--	1	A
PCBs, Total	ND		ug/kg	38.9	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	83		30-150	B



Project Name: ARLINGTON STREET
 Project Number: Not Specified

Serial_No:01161712:10
 Lab Number: L1640071
 Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-03
 Client ID: WEIR COMP-3
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8082A
 Analytical Date: 12/14/16 01:39
 Analyst: JW
 Percent Solids: 81%

Date Collected: 12/09/16 11:43
 Date Received: 12/09/16
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 12/11/16 06:03
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/12/16
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/13/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	40.0	--	1	A
Aroclor 1221	ND		ug/kg	40.0	--	1	A
Aroclor 1232	ND		ug/kg	40.0	--	1	A
Aroclor 1242	ND		ug/kg	40.0	--	1	A
Aroclor 1248	ND		ug/kg	40.0	--	1	A
Aroclor 1254	ND		ug/kg	40.0	--	1	A
Aroclor 1260	ND		ug/kg	40.0	--	1	A
Aroclor 1262	ND		ug/kg	40.0	--	1	A
Aroclor 1268	ND		ug/kg	40.0	--	1	A
PCBs, Total	ND		ug/kg	40.0	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	65		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	92		30-150	B



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-04
 Client ID: WEIR COMP-4
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8082A
 Analytical Date: 12/14/16 01:53
 Analyst: JW
 Percent Solids: 79%

Date Collected: 12/09/16 12:17
 Date Received: 12/09/16
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 12/11/16 06:03
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/12/16
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/13/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	41.1	--	1	A
Aroclor 1221	ND		ug/kg	41.1	--	1	A
Aroclor 1232	ND		ug/kg	41.1	--	1	A
Aroclor 1242	ND		ug/kg	41.1	--	1	A
Aroclor 1248	ND		ug/kg	41.1	--	1	A
Aroclor 1254	ND		ug/kg	41.1	--	1	A
Aroclor 1260	ND		ug/kg	41.1	--	1	A
Aroclor 1262	ND		ug/kg	41.1	--	1	A
Aroclor 1268	ND		ug/kg	41.1	--	1	A
PCBs, Total	ND		ug/kg	41.1	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	80		30-150	B



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-05
Client ID: WEIR COMP-5
Sample Location: TAUNTON, MA
Matrix: Soil
Analytical Method: 97,8082A
Analytical Date: 12/14/16 02:06
Analyst: JW
Percent Solids: 79%

Date Collected: 12/09/16 13:11
Date Received: 12/09/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/11/16 06:03
Cleanup Method: EPA 3665A
Cleanup Date: 12/12/16
Cleanup Method: EPA 3660B
Cleanup Date: 12/13/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	40.6	--	1	A
Aroclor 1221	ND		ug/kg	40.6	--	1	A
Aroclor 1232	ND		ug/kg	40.6	--	1	A
Aroclor 1242	ND		ug/kg	40.6	--	1	A
Aroclor 1248	ND		ug/kg	40.6	--	1	A
Aroclor 1254	ND		ug/kg	40.6	--	1	A
Aroclor 1260	ND		ug/kg	40.6	--	1	A
Aroclor 1262	ND		ug/kg	40.6	--	1	A
Aroclor 1268	ND		ug/kg	40.6	--	1	A
PCBs, Total	ND		ug/kg	40.6	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	69		30-150	B



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 97.8082A
Analytical Date: 12/11/16 15:09
Analyst: JA

Extraction Method: EPA 3546
Extraction Date: 12/10/16 14:39
Cleanup Method: EPA 3665A
Cleanup Date: 12/10/16
Cleanup Method: EPA 3660B
Cleanup Date: 12/11/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01-05 Batch: WG959996-1						
Aroclor 1016	ND		ug/kg	31.8	--	A
Aroclor 1221	ND		ug/kg	31.8	--	A
Aroclor 1232	ND		ug/kg	31.8	--	A
Aroclor 1242	ND		ug/kg	31.8	--	A
Aroclor 1248	ND		ug/kg	31.8	--	A
Aroclor 1254	ND		ug/kg	31.8	--	A
Aroclor 1260	ND		ug/kg	31.8	--	A
Aroclor 1262	ND		ug/kg	31.8	--	A
Aroclor 1268	ND		ug/kg	31.8	--	A
PCBs, Total	ND		ug/kg	31.8	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	96		30-150	A
Decachlorobiphenyl	95		30-150	A
2,4,5,6-Tetrachloro-m-xylene	103		30-150	B
Decachlorobiphenyl	94		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s) 01-05 Batch: WG959996-2 WG959996-3									
Aroclor 1016	96		82		40-140	16		30	A
Aroclor 1260	103		90		40-140	13		30	A

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	101		84		30-150	A
Decachlorobiphenyl	100		87		30-150	A
2,4,5,6-Tetrachloro-m-xylene	109		90		30-150	B
Decachlorobiphenyl	98		82		30-150	B



PESTICIDES

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-01
Client ID: WEIR COMP-1
Sample Location: TAUNTON, MA
Matrix: Soil
Analytical Method: 97,8081B
Analytical Date: 12/13/16 18:58
Analyst: AM
Percent Solids: 75%

Date Collected: 12/09/16 10:22
Date Received: 12/09/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/11/16 04:49
Cleanup Method: EPA 3620B
Cleanup Date: 12/13/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Organochlorine Pesticides - Westborough Lab							
Delta-BHC	ND		ug/kg	10.5	--	1	A
Lindane	ND		ug/kg	3.51	--	1	A
Alpha-BHC	ND		ug/kg	4.39	--	1	A
Beta-BHC	ND		ug/kg	10.5	--	1	A
Heptachlor	ND		ug/kg	5.27	--	1	A
Aldrin	ND		ug/kg	10.5	--	1	A
Heptachlor epoxide	ND		ug/kg	19.7	--	1	A
Endrin	ND		ug/kg	4.39	--	1	A
Endrin ketone	ND		ug/kg	10.5	--	1	A
Dieldrin	ND		ug/kg	6.58	--	1	A
4,4'-DDE	ND		ug/kg	10.5	--	1	A
4,4'-DDD	ND		ug/kg	10.5	--	1	A
4,4'-DDT	ND		ug/kg	19.7	--	1	A
Endosulfan I	ND		ug/kg	10.5	--	1	A
Endosulfan II	ND		ug/kg	10.5	--	1	A
Endosulfan sulfate	ND		ug/kg	4.39	--	1	A
Methoxychlor	ND		ug/kg	19.7	--	1	A
Chlordane	ND		ug/kg	85.6	--	1	A
Hexachlorobenzene	ND		ug/kg	10.5	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	58		30-150	B
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	61		30-150	A

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-01
Client ID: WEIR COMP-1
Sample Location: TAUNTON, MA
Matrix: Soil
Analytical Method: 97,8151A
Analytical Date: 12/16/16 10:08
Analyst: AM
Percent Solids: 75%
Methylation Date: 12/14/16 20:55

Date Collected: 12/09/16 10:22
Date Received: 12/09/16
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 12/14/16 09:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Chlorinated Herbicides - Westborough Lab							
MCPP	ND		ug/kg	4400	--	1	A
MCPA	ND		ug/kg	4400	--	1	A
Dalapon	ND		ug/kg	44	--	1	A
Dicamba	ND		ug/kg	44	--	1	A
Dichloroprop	ND		ug/kg	44	--	1	A
2,4-D	ND		ug/kg	44	--	1	A
2,4-DB	ND		ug/kg	44	--	1	A
2,4,5-T	ND		ug/kg	44	--	1	A
2,4,5-TP (Silvex)	ND		ug/kg	44	--	1	A
Dinoseb	ND		ug/kg	44	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	118		30-150	A
DCAA	80		30-150	B



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-02
Client ID: WEIR COMP-2
Sample Location: TAUNTON, MA
Matrix: Soil
Analytical Method: 97,8081B
Analytical Date: 12/13/16 19:10
Analyst: AM
Percent Solids: 81%

Date Collected: 12/09/16 10:58
Date Received: 12/09/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/11/16 04:49
Cleanup Method: EPA 3620B
Cleanup Date: 12/13/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Organochlorine Pesticides - Westborough Lab							
Delta-BHC	ND		ug/kg	9.39	--	1	A
Lindane	ND		ug/kg	3.13	--	1	A
Alpha-BHC	ND		ug/kg	3.91	--	1	A
Beta-BHC	ND		ug/kg	9.39	--	1	A
Heptachlor	ND		ug/kg	4.70	--	1	A
Aldrin	ND		ug/kg	9.39	--	1	A
Heptachlor epoxide	ND		ug/kg	17.6	--	1	A
Endrin	ND		ug/kg	3.91	--	1	A
Endrin ketone	ND		ug/kg	9.39	--	1	A
Dieldrin	ND		ug/kg	5.87	--	1	A
4,4'-DDE	ND		ug/kg	9.39	--	1	A
4,4'-DDD	ND		ug/kg	9.39	--	1	A
4,4'-DDT	ND		ug/kg	17.6	--	1	A
Endosulfan I	ND		ug/kg	9.39	--	1	A
Endosulfan II	ND		ug/kg	9.39	--	1	A
Endosulfan sulfate	ND		ug/kg	3.91	--	1	A
Methoxychlor	ND		ug/kg	17.6	--	1	A
Chlordane	ND		ug/kg	76.3	--	1	A
Hexachlorobenzene	ND		ug/kg	9.39	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	72		30-150	B
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	77		30-150	A



Project Name: ARLINGTON STREET
 Project Number: Not Specified

Serial_No:01161712:10
 Lab Number: L1640071
 Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-02
 Client ID: WEIR COMP-2
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8151A
 Analytical Date: 12/16/16 10:27
 Analyst: AM
 Percent Solids: 81%
 Methylation Date: 12/14/16 20:55

Date Collected: 12/09/16 10:58
 Date Received: 12/09/16
 Field Prep: Not Specified
 Extraction Method: EPA 8151A
 Extraction Date: 12/14/16 09:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Chlorinated Herbicides - Westborough Lab							
MCPP	ND		ug/kg	4100	--	1	A
MCPA	ND		ug/kg	4100	--	1	A
Dalapon	ND		ug/kg	41	--	1	A
Dicamba	ND		ug/kg	41	--	1	A
Dichloroprop	ND		ug/kg	41	--	1	A
2,4-D	ND		ug/kg	41	--	1	A
2,4-DB	ND		ug/kg	41	--	1	A
2,4,5-T	ND		ug/kg	41	--	1	A
2,4,5-TP (Silvex)	ND		ug/kg	41	--	1	A
Dinoseb	ND		ug/kg	41	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	106		30-150	A
DCAA	80		30-150	B



Project Name: ARLINGTON STREET

Serial_No:01161712:10

Project Number: Not Specified

Lab Number: L1640071

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-03
Client ID: WEIR COMP-3
Sample Location: TAUNTON, MA
Matrix: Soil
Analytical Method: 97,8081B
Analytical Date: 12/13/16 19:23
Analyst: AM
Percent Solids: 81%

Date Collected: 12/09/16 11:43
Date Received: 12/09/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 12/11/16 04:49
Cleanup Method: EPA 3620B
Cleanup Date: 12/13/16

Table with 8 columns: Parameter, Result, Qualifier, Units, RL, MDL, Dilution Factor, Column. Contains data for MCP Organochlorine Pesticides - Westborough Lab, listing various pesticides like Delta-BHC, Lindane, etc., with their respective results and units.

Table with 5 columns: Surrogate, % Recovery, Qualifier, Acceptance Criteria, Column. Lists surrogate compounds like 2,4,5,6-Tetrachloro-m-xylene and Decachlorobiphenyl with their recovery percentages and acceptance criteria.



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-03
 Client ID: WEIR COMP-3
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8151A
 Analytical Date: 12/16/16 10:47
 Analyst: AM
 Percent Solids: 81%
 Methylation Date: 12/14/16 20:55

Date Collected: 12/09/16 11:43
 Date Received: 12/09/16
 Field Prep: Not Specified
 Extraction Method: EPA 8151A
 Extraction Date: 12/14/16 09:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Chlorinated Herbicides - Westborough Lab							
MCPP	ND		ug/kg	4100	--	1	A
MCPA	ND		ug/kg	4100	--	1	A
Dalapon	ND		ug/kg	41	--	1	A
Dicamba	ND		ug/kg	41	--	1	A
Dichloroprop	ND		ug/kg	41	--	1	A
2,4-D	ND		ug/kg	41	--	1	A
2,4-DB	ND		ug/kg	41	--	1	A
2,4,5-T	ND		ug/kg	41	--	1	A
2,4,5-TP (Silvex)	ND		ug/kg	41	--	1	A
Dinoseb	ND		ug/kg	41	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	130		30-150	A
DCAA	90		30-150	B



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-04
 Client ID: WEIR COMP-4
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8081B
 Analytical Date: 12/13/16 19:35
 Analyst: AM
 Percent Solids: 79%

Date Collected: 12/09/16 12:17
 Date Received: 12/09/16
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 12/11/16 04:49
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/13/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Organochlorine Pesticides - Westborough Lab							
Delta-BHC	ND		ug/kg	9.56	--	1	A
Lindane	ND		ug/kg	3.19	--	1	A
Alpha-BHC	ND		ug/kg	3.98	--	1	A
Beta-BHC	ND		ug/kg	9.56	--	1	A
Heptachlor	ND		ug/kg	4.78	--	1	A
Aldrin	ND		ug/kg	9.56	--	1	A
Heptachlor epoxide	ND		ug/kg	17.9	--	1	A
Endrin	ND		ug/kg	3.98	--	1	A
Endrin ketone	ND		ug/kg	9.56	--	1	A
Dieldrin	ND		ug/kg	5.98	--	1	A
4,4'-DDE	ND		ug/kg	9.56	--	1	A
4,4'-DDD	ND		ug/kg	9.56	--	1	A
4,4'-DDT	ND		ug/kg	17.9	--	1	A
Endosulfan I	ND		ug/kg	9.56	--	1	A
Endosulfan II	ND		ug/kg	9.56	--	1	A
Endosulfan sulfate	ND		ug/kg	3.98	--	1	A
Methoxychlor	ND		ug/kg	17.9	--	1	A
Chlordane	ND		ug/kg	77.7	--	1	A
Hexachlorobenzene	ND		ug/kg	9.56	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	65		30-150	B
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	70		30-150	A



Project Name: ARLINGTON STREET
 Project Number: Not Specified

Serial_No:01161712:10
 Lab Number: L1640071
 Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-04
 Client ID: WEIR COMP-4
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8151A
 Analytical Date: 12/16/16 11:06
 Analyst: AM
 Percent Solids: 79%
 Methylation Date: 12/14/16 20:55

Date Collected: 12/09/16 12:17
 Date Received: 12/09/16
 Field Prep: Not Specified
 Extraction Method: EPA 8151A
 Extraction Date: 12/14/16 09:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Chlorinated Herbicides - Westborough Lab							
MCPP	ND		ug/kg	4100	--	1	A
MCPA	ND		ug/kg	4100	--	1	A
Dalapon	ND		ug/kg	41	--	1	A
Dicamba	ND		ug/kg	41	--	1	A
Dichloroprop	ND		ug/kg	41	--	1	A
2,4-D	ND		ug/kg	41	--	1	A
2,4-DB	ND		ug/kg	41	--	1	A
2,4,5-T	ND		ug/kg	41	--	1	A
2,4,5-TP (Silvex)	ND		ug/kg	41	--	1	A
Dinoseb	ND		ug/kg	41	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	127		30-150	A
DCAA	87		30-150	B



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-05
 Client ID: WEIR COMP-5
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Analytical Method: 97,8081B
 Analytical Date: 12/13/16 19:48
 Analyst: AM
 Percent Solids: 79%

Date Collected: 12/09/16 13:11
 Date Received: 12/09/16
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 12/11/16 04:49
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/13/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Organochlorine Pesticides - Westborough Lab							
Delta-BHC	ND		ug/kg	9.96	--	1	A
Lindane	ND		ug/kg	3.32	--	1	A
Alpha-BHC	ND		ug/kg	4.15	--	1	A
Beta-BHC	ND		ug/kg	9.96	--	1	A
Heptachlor	ND		ug/kg	4.98	--	1	A
Aldrin	ND		ug/kg	9.96	--	1	A
Heptachlor epoxide	ND		ug/kg	18.7	--	1	A
Endrin	ND		ug/kg	4.15	--	1	A
Endrin ketone	ND		ug/kg	9.96	--	1	A
Dieldrin	ND		ug/kg	6.22	--	1	A
4,4'-DDE	ND		ug/kg	9.96	--	1	A
4,4'-DDD	ND		ug/kg	9.96	--	1	A
4,4'-DDT	ND		ug/kg	18.7	--	1	A
Endosulfan I	ND		ug/kg	9.96	--	1	A
Endosulfan II	ND		ug/kg	9.96	--	1	A
Endosulfan sulfate	ND		ug/kg	4.15	--	1	A
Methoxychlor	ND		ug/kg	18.7	--	1	A
Chlordane	ND		ug/kg	80.9	--	1	A
Hexachlorobenzene	ND		ug/kg	9.96	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	39		30-150	B
Decachlorobiphenyl	36		30-150	B
2,4,5,6-Tetrachloro-m-xylene	41		30-150	A
Decachlorobiphenyl	40		30-150	A



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-05
Client ID: WEIR COMP-5
Sample Location: TAUNTON, MA
Matrix: Soil
Analytical Method: 97,8151A
Analytical Date: 12/16/16 11:26
Analyst: AM
Percent Solids: 79%
Methylation Date: 12/14/16 20:55

Date Collected: 12/09/16 13:11
Date Received: 12/09/16
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 12/14/16 09:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Chlorinated Herbicides - Westborough Lab							
MCPP	ND		ug/kg	4200	--	1	A
MCPA	ND		ug/kg	4200	--	1	A
Dalapon	ND		ug/kg	42	--	1	A
Dicamba	ND		ug/kg	42	--	1	A
Dichloroprop	ND		ug/kg	42	--	1	A
2,4-D	ND		ug/kg	42	--	1	A
2,4-DB	ND		ug/kg	42	--	1	A
2,4,5-T	ND		ug/kg	42	--	1	A
2,4,5-TP (Silvex)	ND		ug/kg	42	--	1	A
Dinoseb	ND		ug/kg	42	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	126		30-150	A
DCAA	85		30-150	B



Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Method Blank Analysis
 Batch Quality Control

Analytical Method: 97,8081B
 Analytical Date: 12/13/16 18:20
 Analyst: AM

Extraction Method: EPA 3546
 Extraction Date: 12/11/16 04:49
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/13/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Organochlorine Pesticides - Westborough Lab for sample(s): 01-05 Batch: WG960057-1						
Delta-BHC	ND		ug/kg	7.80	--	A
Lindane	ND		ug/kg	2.60	--	A
Alpha-BHC	ND		ug/kg	3.25	--	A
Beta-BHC	ND		ug/kg	7.80	--	A
Heptachlor	ND		ug/kg	3.90	--	A
Aldrin	ND		ug/kg	7.80	--	A
Heptachlor epoxide	ND		ug/kg	14.6	--	A
Endrin	ND		ug/kg	3.25	--	A
Endrin ketone	ND		ug/kg	7.80	--	A
Dieldrin	ND		ug/kg	4.87	--	A
4,4'-DDE	ND		ug/kg	7.80	--	A
4,4'-DDD	ND		ug/kg	7.80	--	A
4,4'-DDT	ND		ug/kg	14.6	--	A
Endosulfan I	ND		ug/kg	7.80	--	A
Endosulfan II	ND		ug/kg	7.80	--	A
Endosulfan sulfate	ND		ug/kg	3.25	--	A
Methoxychlor	ND		ug/kg	14.6	--	A
Chlordane	ND		ug/kg	63.4	--	A
Hexachlorobenzene	ND		ug/kg	7.80	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	74		30-150	B
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	78		30-150	A



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8151A
Analytical Date: 12/15/16 01:32
Analyst: DM

Extraction Method: EPA 8151A
Extraction Date: 12/13/16 10:38

Methylation Date: 12/14/16 02:07

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Chlorinated Herbicides - Westborough Lab for sample(s): 01-05 Batch: WG960687-1						
MCPP	ND		ug/kg	3300	--	A
MCPA	ND		ug/kg	3300	--	A
Dalapon	ND		ug/kg	33	--	A
Dicamba	ND		ug/kg	33	--	A
Dichloroprop	ND		ug/kg	33	--	A
2,4-D	ND		ug/kg	33	--	A
2,4-DB	ND		ug/kg	33	--	A
2,4,5-T	ND		ug/kg	33	--	A
2,4,5-TP (Silvex)	ND		ug/kg	33	--	A
Dinoseb	ND		ug/kg	33	--	A

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
DCAA	88		30-150	A
DCAA	78		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits	Column
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits					
MCP Organochlorine Pesticides - Westborough Lab Associated sample(s): 01-05 Batch: WG960057-2 WG960057-3											
Delta-BHC	75		84		40-140		11		30		A
Lindane	75		84		40-140		11		30		A
Alpha-BHC	82		96		40-140		16		30		A
Beta-BHC	82		91		40-140		10		30		A
Heptachlor	82		95		40-140		15		30		A
Aldrin	81		92		40-140		13		30		A
Heptachlor epoxide	77		89		40-140		14		30		A
Endrin	76		90		40-140		17		30		A
Endrin ketone	62		89		40-140		11		30		A
Dieldrin	82		96		40-140		16		30		A
4,4'-DDE	75		86		40-140		16		30		A
4,4'-DDD	76		88		40-140		15		30		A
4,4'-DDT	78		92		40-140		16		30		A
Endosulfan I	79		94		40-140		17		30		A
Endosulfan II	74		84		40-140		13		30		A
Endosulfan sulfate	50		54		40-140		8		30		A
Methoxychlor	79		95		40-140		18		30		A
Hexachlorobenzene	74		85		40-140		14		30		A
Endrin aldehyde	52		58		40-140		11		30		A
cis-Chlordane	75		86		40-140		14		30		A
trans-Chlordane	76		89		40-140		16		30		A



Lab Control Sample Analysis

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Batch Quality Control

Lab Number: L1640071
 Report Date: 01/16/17

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

MCP Organochlorine Pesticides - Westborough Lab Associated sample(s): 01-05 Batch: WG960057-2 WG960057-3

Surrogate	LCS		LCSD		Acceptance Criteria	Column
	%Recovery	Qual	%Recovery	Qual		
2,4,5,6-Tetrachloro-m-xylene	76		79		30-150	B
Decachlorobiphenyl	72		75		30-150	B
2,4,5,6-Tetrachloro-m-xylene	76		85		30-150	A
Decachlorobiphenyl	72		77		30-150	A



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

Parameter	LCS		LCSD		%Recovery Limits		RPD	Limits	Column
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits			
MCP Chlorinated Herbicides - Westborough Lab Associated sample(s) 01-05 Batch: WG960687-2 WG960687-3									
MCPP	120		113		40-140		6	30	A
MCPA	84		82		40-140		2	30	A
Dalepon	67		64		40-140		5	30	A
Dicamba	77		75		40-140		3	30	A
Dichloroprop	112		106		40-140		6	30	A
2,4-D	80		82		40-140		2	30	A
2,4-DB	74		72		40-140		3	30	A
2,4,5-T	77		75		40-140		3	30	A
2,4,5-TP (Silvex)	76		75		40-140		1	30	A
Dinoseb	5	Q	5	Q	40-140		0	30	A

Surrogate	LCS		LCSD		Acceptance Criteria	Column
	%Recovery	Qual	%Recovery	Qual		
DCAA	79		76		30-150	A
DCAA	73		78		30-150	B



METALS



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-01
 Client ID: WEIR COMP-1
 Sample Location: TAUNTON, MA
 Matrix: Soil
 Percent Solids: 75%

Date Collected: 12/09/16 10:22
 Date Received: 12/09/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/kg	2.6	--	1	12/12/16 22:00	12/14/16 10:44	EPA 3050B	97,6010C	PS
Arsenic, Total	3.0		mg/kg	0.53	--	1	12/12/16 22:00	12/14/16 10:44	EPA 3050B	97,6010C	PS
Barium, Total	22		mg/kg	0.53	--	1	12/12/16 22:00	12/14/16 10:44	EPA 3050B	97,6010C	PS
Beryllium, Total	0.35		mg/kg	0.26	--	1	12/12/16 22:00	12/14/16 10:44	EPA 3050B	97,6010C	PS
Cadmium, Total	ND		mg/kg	0.53	--	1	12/12/16 22:00	12/14/16 10:44	EPA 3050B	97,6010C	PS
Chromium, Total	18		mg/kg	0.53	--	1	12/12/16 22:00	12/14/16 10:44	EPA 3050B	97,6010C	PS
Lead, Total	11		mg/kg	2.6	--	1	12/12/16 22:00	12/14/16 10:44	EPA 3050B	97,6010C	PS
Mercury, Total	ND		mg/kg	0.086	--	1	12/10/16 10:30	12/15/16 15:31	EPA 7471B	97,7471B	BV
Nickel, Total	14		mg/kg	1.3	--	1	12/12/16 22:00	12/14/16 10:44	EPA 3050B	97,6010C	PS
Selenium, Total	ND		mg/kg	2.6	--	1	12/12/16 22:00	12/14/16 10:44	EPA 3050B	97,6010C	PS
Silver, Total	ND		mg/kg	0.53	--	1	12/12/16 22:00	12/14/16 10:44	EPA 3050B	97,6010C	PS
Thallium, Total	ND		mg/kg	2.6	--	1	12/12/16 22:00	12/14/16 10:44	EPA 3050B	97,6010C	PS
Vanadium, Total	20		mg/kg	0.53	--	1	12/12/16 22:00	12/14/16 10:44	EPA 3050B	97,6010C	PS
Zinc, Total	40		mg/kg	2.6	--	1	12/12/16 22:00	12/14/16 10:44	EPA 3050B	97,6010C	PS



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-02
Client ID: WEIR COMP-2
Sample Location: TAUNTON, MA
Matrix: Soil
Percent Solids: 81%

Date Collected: 12/09/16 10:58
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Arsenic, Total	2.6		mg/kg	0.48	--	1	12/12/16 22:00	12/14/16 10:48	EPA 3050B	97,6010C	PS
Barium, Total	23		mg/kg	0.48	--	1	12/12/16 22:00	12/14/16 10:48	EPA 3050B	97,6010C	PS
Cadmium, Total	ND		mg/kg	0.48	--	1	12/12/16 22:00	12/14/16 10:48	EPA 3050B	97,6010C	PS
Chromium, Total	16		mg/kg	0.48	--	1	12/12/16 22:00	12/14/16 10:48	EPA 3050B	97,6010C	PS
Lead, Total	7.1		mg/kg	2.4	--	1	12/12/16 22:00	12/14/16 10:48	EPA 3050B	97,6010C	PS
Mercury, Total	ND		mg/kg	0.083	--	1	12/10/16 10:30	12/15/16 15:32	EPA 7471B	97,7471B	BV
Selenium, Total	ND		mg/kg	2.4	--	1	12/12/16 22:00	12/14/16 10:48	EPA 3050B	97,6010C	PS
Silver, Total	ND		mg/kg	0.48	--	1	12/12/16 22:00	12/14/16 10:48	EPA 3050B	97,6010C	PS



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-03
Client ID: WEIR COMP-3
Sample Location: TAUNTON, MA
Matrix: Soil
Percent Solids: 81%

Date Collected: 12/09/16 11:43
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Arsenic, Total	2.7		mg/kg	0.47	--	1	12/12/16 22:00	12/14/16 10:53	EPA 3050B	97,6010C	PS
Barium, Total	29		mg/kg	0.47	--	1	12/12/16 22:00	12/14/16 10:53	EPA 3050B	97,6010C	PS
Cadmium, Total	ND		mg/kg	0.47	--	1	12/12/16 22:00	12/14/16 10:53	EPA 3050B	97,6010C	PS
Chromium, Total	19		mg/kg	0.47	--	1	12/12/16 22:00	12/14/16 10:53	EPA 3050B	97,6010C	PS
Lead, Total	8.1		mg/kg	2.4	--	1	12/12/16 22:00	12/14/16 10:53	EPA 3050B	97,6010C	PS
Mercury, Total	ND		mg/kg	0.083	--	1	12/10/16 10:30	12/15/16 15:34	EPA 7471B	97,7471B	BV
Selenium, Total	ND		mg/kg	2.4	--	1	12/12/16 22:00	12/14/16 10:53	EPA 3050B	97,6010C	PS
Silver, Total	ND		mg/kg	0.47	--	1	12/12/16 22:00	12/14/16 10:53	EPA 3050B	97,6010C	PS



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-04
Client ID: WEIR COMP-4
Sample Location: TAUNTON, MA
Matrix: Soil
Percent Solids: 79%

Date Collected: 12/09/16 12:17
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Arsenic, Total	2.6		mg/kg	0.48	--	1	12/12/16 22:00	12/14/16 10:57	EPA 3050B	97,6010C	PS
Barium, Total	18		mg/kg	0.48	--	1	12/12/16 22:00	12/14/16 10:57	EPA 3050B	97,6010C	PS
Cadmium, Total	ND		mg/kg	0.48	--	1	12/12/16 22:00	12/14/16 10:57	EPA 3050B	97,6010C	PS
Chromium, Total	14		mg/kg	0.48	--	1	12/12/16 22:00	12/14/16 10:57	EPA 3050B	97,6010C	PS
Lead, Total	9.1		mg/kg	2.4	--	1	12/12/16 22:00	12/14/16 10:57	EPA 3050B	97,6010C	PS
Mercury, Total	ND		mg/kg	0.082	--	1	12/10/16 10:30	12/15/16 15:36	EPA 7471B	97,7471B	BV
Selenium, Total	ND		mg/kg	2.4	--	1	12/12/16 22:00	12/14/16 10:57	EPA 3050B	97,6010C	PS
Silver, Total	ND		mg/kg	0.48	--	1	12/12/16 22:00	12/14/16 10:57	EPA 3050B	97,6010C	PS



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-05
Client ID: WEIR COMP-5
Sample Location: TAUNTON, MA
Matrix: Soil
Percent Solids: 79%

Date Collected: 12/09/16 13:11
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Arsenic, Total	3.5		mg/kg	0.50	--	1	12/12/16 22:00	12/14/16 11:01	EPA 3050B	97,6010C	PS
Barium, Total	21		mg/kg	0.50	--	1	12/12/16 22:00	12/14/16 11:01	EPA 3050B	97,6010C	PS
Cadmium, Total	ND		mg/kg	0.50	--	1	12/12/16 22:00	12/14/16 11:01	EPA 3050B	97,6010C	PS
Chromium, Total	15		mg/kg	0.50	--	1	12/12/16 22:00	12/14/16 11:01	EPA 3050B	97,6010C	PS
Lead, Total	8.4		mg/kg	2.5	--	1	12/12/16 22:00	12/14/16 11:01	EPA 3050B	97,6010C	PS
Mercury, Total	ND		mg/kg	0.084	--	1	12/10/16 10:30	12/15/16 15:38	EPA 7471B	97,7471B	BV
Selenium, Total	ND		mg/kg	2.5	--	1	12/12/16 22:00	12/14/16 11:01	EPA 3050B	97,6010C	PS
Silver, Total	ND		mg/kg	0.50	--	1	12/12/16 22:00	12/14/16 11:01	EPA 3050B	97,6010C	PS



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab for sample(s) 01-05 Batch: WG959906-1									
Mercury, Total	ND	mg/kg	0.083	--	1	12/10/16 10:30	12/15/16 11:14	97,7471B	BV

Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab for sample(s) 01-05 Batch: WG960443-1									
Antimony, Total	ND	mg/kg	2.0	--	1	12/12/16 22:00	12/14/16 10:28	97,6010C	PS
Arsenic, Total	ND	mg/kg	0.40	--	1	12/12/16 22:00	12/14/16 10:28	97,6010C	PS
Barium, Total	ND	mg/kg	0.40	--	1	12/12/16 22:00	12/14/16 10:28	97,6010C	PS
Beryllium, Total	ND	mg/kg	0.20	--	1	12/12/16 22:00	12/14/16 10:28	97,6010C	PS
Cadmium, Total	ND	mg/kg	0.40	--	1	12/12/16 22:00	12/14/16 10:28	97,6010C	PS
Chromium, Total	ND	mg/kg	0.40	--	1	12/12/16 22:00	12/14/16 10:28	97,6010C	PS
Lead, Total	ND	mg/kg	2.0	--	1	12/12/16 22:00	12/14/16 10:28	97,6010C	PS
Nickel, Total	ND	mg/kg	1.0	--	1	12/12/16 22:00	12/14/16 10:28	97,6010C	PS
Selenium, Total	ND	mg/kg	2.0	--	1	12/12/16 22:00	12/14/16 10:28	97,6010C	PS
Silver, Total	ND	mg/kg	0.40	--	1	12/12/16 22:00	12/14/16 10:28	97,6010C	PS
Thallium, Total	ND	mg/kg	2.0	--	1	12/12/16 22:00	12/14/16 10:28	97,6010C	PS
Vanadium, Total	ND	mg/kg	0.40	--	1	12/12/16 22:00	12/14/16 10:28	97,6010C	PS
Zinc, Total	ND	mg/kg	2.0	--	1	12/12/16 22:00	12/14/16 10:28	97,6010C	PS

Prep Information

Digestion Method: EPA 3050B



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS		LCS D		%Recovery Limits		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	Limits	Qual			
MCP Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG959906-2 WG959906-3 SRM Lot Number: D091-540									
Mercury, Total	101		109		72-128		8		30
MCP Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG960443-2 WG960443-3 SRM Lot Number: D091-540									
Antimony, Total	154		154		1-200		0		30
Arsenic, Total	96		90		80-121		5		30
Barium, Total	86		86		84-117		0		30
Beryllium, Total	90		88		83-117		2		30
Cadmium, Total	96		94		83-117		2		30
Chromium, Total	91		91		80-119		0		30
Lead, Total	96		85		82-118		8		30
Nickel, Total	93		93		83-117		0		30
Selenium, Total	90		90		79-121		0		30
Silver, Total	89		89		76-124		0		30
Thallium, Total	99		92		80-121		7		30
Vanadium, Total	96		87		78-122		10		30
Zinc, Total	88		88		82-118		0		30



INORGANICS & MISCELLANEOUS

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-01
Client ID: WEIR COMP-1
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 10:22
Date Received: 12/09/16
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Clay
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	12/15/16 09:21	1,1030	AB



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-02
Client ID: WEIR COMP-2
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 10:58
Date Received: 12/09/16
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Clay
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	12/15/16 09:21	1,1030	AB



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-03
Client ID: WEIR COMP-3
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 11:43
Date Received: 12/09/16
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Clay
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	12/15/16 09:21	1,1030	AB



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-04
Client ID: WEIR COMP-4
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 12:17
Date Received: 12/09/16
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Clay
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	12/15/16 09:21	1,1030	AB



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-05
Client ID: WEIR COMP-5
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 13:11
Date Received: 12/09/16
Field Prep: Not Specified

Test Material Information

Source of Material: Unknown
Description of Material: Non-Metallic - Damp Clay
Particle Size: Medium
Preliminary Burning Time (sec): 120

Parameter	Result	Date Analyzed	Analytical Method	Analyst
Ignitability of Solids - Westborough Lab				
Ignitability	NI	12/15/16 09:21	1,1030	AB



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-01
Client ID: WEIR COMP-1
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 10:22
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance @ 25 C	130		umhos/cm	10	--	1	-	12/10/16 03:00	1,9050A	KA
Solids, Total	75.1		%	0.100	NA	1	-	12/10/16 05:13	121,2540G	VB
pH (H)	5.9		SU	-	NA	1	-	12/10/16 02:00	1,9045D	VB
Cyanide, Reactive	ND		mg/kg	10	--	1	12/13/16 20:10	12/13/16 21:54	1,7.3	RP
Sulfide, Reactive	ND		mg/kg	10	--	1	12/13/16 20:10	12/13/16 21:45	1,7.3	RP



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-02
Client ID: WEIR COMP-2
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 10:58
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance @ 25 C	130		umhos/cm	10	--	1	-	12/10/16 03:00	1,9050A	KA
Solids, Total	81.0		%	0.100	NA	1	-	12/10/16 05:13	121,2540G	VB
pH (H)	7.6		SU	-	NA	1	-	12/10/16 02:00	1,9045D	VB
Cyanide, Reactive	ND		mg/kg	10	--	1	12/13/16 20:10	12/13/16 21:54	1,7.3	RP
Sulfide, Reactive	ND		mg/kg	10	--	1	12/13/16 20:10	12/13/16 21:45	1,7.3	RP



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-03
Client ID: WEIR COMP-3
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 11:43
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance @ 25 C	140		umhos/cm	10	--	1	-	12/10/16 03:00	1,9050A	KA
Solids, Total	80.9		%	0.100	NA	1	-	12/10/16 05:13	121,2540G	VB
pH (H)	7.7		SU	-	NA	1	-	12/10/16 02:00	1,9045D	VB
Cyanide, Reactive	ND		mg/kg	10	--	1	12/13/16 20:10	12/13/16 21:54	1,7.3	RP
Sulfide, Reactive	ND		mg/kg	10	--	1	12/13/16 20:10	12/13/16 21:46	1,7.3	RP



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-04
Client ID: WEIR COMP-4
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 12:17
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance @ 25 C	260		umhos/cm	10	--	1	-	12/10/16 03:00	1,9050A	KA
Solids, Total	79.4		%	0.100	NA	1	-	12/10/16 05:13	121,2540G	VB
pH (H)	8.0		SU	-	NA	1	-	12/10/16 02:00	1,9045D	VB
Cyanide, Reactive	ND		mg/kg	10	--	1	12/13/16 20:10	12/13/16 21:54	1,7.3	RP
Sulfide, Reactive	ND		mg/kg	10	--	1	12/13/16 20:10	12/13/16 21:46	1,7.3	RP



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-05
Client ID: WEIR COMP-5
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 13:11
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance @ 25 C	140		umhos/cm	10	--	1	-	12/10/16 03:00	1,9050A	KA
Solids, Total	78.7		%	0.100	NA	1	-	12/10/16 05:13	121,2540G	VB
pH (H)	7.5		SU	-	NA	1	-	12/10/16 02:00	1,9045D	VB
Cyanide, Reactive	ND		mg/kg	10	--	1	12/13/16 20:10	12/13/16 21:55	1,7.3	RP
Sulfide, Reactive	ND		mg/kg	10	--	1	12/13/16 20:10	12/13/16 21:46	1,7.3	RP



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-06
Client ID: S-6
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 10:29
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	76.8		%	0.100	NA	1	-	12/10/16 05:13	121,2540G	VB



Serial_No:01161712:10

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-07
Client ID: S-19
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 11:06
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	74.9		%	0.100	NA	1	-	12/10/16 05:13	121,2540G	VB



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-08
Client ID: S-25
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 14:51
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	74.5		%	0.100	NA	1	-	12/10/16 05:13	121,2540G	VB



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-09
Client ID: S-40
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 12:24
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.7		%	0.100	NA	1	-	12/10/16 05:13	121,2540G	VB



Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

SAMPLE RESULTS

Lab ID: L1640071-10
Client ID: S-49
Sample Location: TAUNTON, MA
Matrix: Soil

Date Collected: 12/09/16 13:21
Date Received: 12/09/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	79.8		%	0.100	NA	1	-	12/10/16 05:13	121,2540G	VB



Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Method Blank Analysis
 Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG960859-1									
Sulfide, Reactive	ND	mg/kg	10	--	1	12/13/16 20:10	12/13/16 21:45	1,7.3	RP
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG960860-1									
Cyanide, Reactive	ND	mg/kg	10	--	1	12/13/16 20:10	12/13/16 21:53	1,7.3	RP



Lab Control Sample Analysis

Batch Quality Control

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG959866-1	100		-		99-101	-		
pH								
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG959875-1	101		-		99-101	-		
Specific Conductance								
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG960859-2	98		-		60-125	-		40
Sulfide, Reactive								
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG960860-2	59		-		30-125	-		40
Cyanide, Reactive								



Lab Duplicate Analysis

Project Name: ARLINGTON STREET
 Project Number: Not Specified

Lab Number: L1640071
 Report Date: 01/16/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG959875-2 QC Sample: L1640071-05 Client ID: WEIR COMP-5	140	130	umhos/cm	7		20
Specific Conductance @ 25 C						
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG959890-1 QC Sample: L1640071-01 Client ID: WEIR COMP-1	75.1	73.3	%	2		20
Solids, Total						
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG960859-3 QC Sample: L1640071-01 Client ID: WEIR COMP-1	ND	ND	mg/kg	NC		40
Sulfide, Reactive						
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG960860-3 QC Sample: L1640071-01 Client ID: WEIR COMP-1	ND	ND	mg/kg	NC		40
Cyanide, Reactive						



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 12/09/2016 21:47

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1640071-01A	Glass 120ml/4oz unpreserved	A	N/A	4.9	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1640071-01B	Glass 250ml/8oz unpreserved	A	N/A	4.9	Y	Absent	IGNIT-1030(14),MCP-8082-10(365),REACTS(14),MCP-8081-10(14),MCP-8151-10(14),MCP-8270-10(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1640071-02A	Glass 60mL/2oz unpreserved	A	N/A	4.9	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1640071-02B	Glass 250ml/8oz unpreserved	A	N/A	4.9	Y	Absent	IGNIT-1030(14),MCP-8082-10(365),REACTS(14),MCP-8081-10(14),MCP-8151-10(14),MCP-8270-10(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1640071-03A	Glass 120ml/4oz unpreserved	A	N/A	4.9	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)

*Values in parentheses indicate holding time in days

Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1640071-03B	Glass 250ml/8oz unpreserved	A	N/A	4.9	Y	Absent	IGNIT-1030(14),MCP-8082-10(365),REACTS(14),MCP-8081-10(14),MCP-8151-10(14),MCP-8270-10(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1640071-04A	Glass 60mL/2oz unpreserved	A	N/A	4.9	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1640071-04B	Glass 250ml/8oz unpreserved	A	N/A	4.9	Y	Absent	IGNIT-1030(14),MCP-8082-10(365),REACTS(14),MCP-8081-10(14),MCP-8151-10(14),MCP-8270-10(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1640071-05A	Glass 60mL/2oz unpreserved	A	N/A	4.9	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1640071-05B	Glass 250ml/8oz unpreserved	A	N/A	4.9	Y	Absent	IGNIT-1030(14),MCP-8082-10(365),REACTS(14),MCP-8081-10(14),MCP-8151-10(14),MCP-8270-10(14),TS(7),PH-9045(1),REACTCN(14),TPH-DRO-D(14),COND-9050(28)
L1640071-06A	Vial MeOH preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-06B	Vial water preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-06C	Vial water preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-06D	Plastic 2oz unpreserved for TS	A	N/A	4.9	Y	Absent	TS(7)
L1640071-07A	Vial MeOH preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-07B	Vial water preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-07C	Vial water preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-07D	Plastic 2oz unpreserved for TS	A	N/A	4.9	Y	Absent	TS(7)
L1640071-08A	Vial MeOH preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-08B	Vial water preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-08C	Vial water preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-08D	Plastic 2oz unpreserved for TS	A	N/A	4.9	Y	Absent	TS(7)
L1640071-09A	Vial MeOH preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)

*Values in parentheses indicate holding time in days

Project Name: ARLINGTON STREET
Project Number: Not Specified

Serial_No:01161712:10
Lab Number: L1640071
Report Date: 01/16/17

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1640071-09B	Vial water preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-09C	Vial water preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-09D	Bag	A	N/A	4.9	Y	Absent	TS(7)
L1640071-10A	Vial MeOH preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-10B	Vial water preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-10C	Vial water preserved	A	N/A	4.9	Y	Absent	MCP-8260HLW-10(14)
L1640071-10D	Bag	A	N/A	4.9	Y	Absent	TS(7)

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: Data Usability Report



Project Name: ARLINGTON STREET

Lab Number: L1640071

Project Number: Not Specified

Report Date: 01/16/17

Data Qualifiers

- reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
 - D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
 - E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
 - G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
 - H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
 - I** - The lower value for the two columns has been reported due to obvious interference.
 - M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
 - NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
 - P** - The RPD between the results for the two columns exceeds the method-specified criteria.
 - Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
 - R** - Analytical results are from sample re-analysis.
 - RE** - Analytical results are from sample re-extraction.
 - S** - Analytical results are from modified screening analysis.
 - J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
 - ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: ARLINGTON STREET
Project Number: Not Specified

Lab Number: L1640071
Report Date: 01/16/17

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

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

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1: Ammonia-N, LCHAT 10-107-06-1-B: Ammonia-N, SM4500NO3-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.
Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E.

Mansfield Facility:

Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. EPA 245.1 Hg.

Non-Potable Water

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

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

CHAIN OF CUSTODY

PAGE 1 OF 1



8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-8220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: Beta Group, Inc.
Address: 6 Blackstone Valley Place
Lincoln RI 02865
Phone: 401-333-2382
Email: JMcLoughlin@beta-inc.com

Project Information

Project Name: Arington Street
Project Location: Taunton, MA
Project #: _____
Project Manager: Joe McLoughlin
ALPHA Quote #: _____

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)
Date Due: _____

Additional Project Information:

** Run TSP if exceeds tox rule*

Date Rec'd in Lab: 12/19/16

ALPHA Job #: L1640071

Report Information - Data Deliverables

ADEX EMAIL Same as Client Info PO #:

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GWI Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State / Fed Program

Criteria

Criteria

ANALYSIS	VOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 824 <input type="checkbox"/> 524.2	SVOC: <input checked="" type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCR46 <input type="checkbox"/> RCR48	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	Residues/Herbicides	Conductivity/Reactivity/Ignitability	Corrosivity	SAMPLE INFO	TOTAL # BOTTLES
	<input type="checkbox"/> 8260 <input type="checkbox"/> 824 <input type="checkbox"/> 524.2	<input type="checkbox"/> ABN <input type="checkbox"/> PAH	<input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	<input type="checkbox"/> RCR46 <input type="checkbox"/> RCR48	<input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint				Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do	
40071-01	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		2
-02	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		2
-03	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		2
-04	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		2
-05	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		2
-06	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		4
-07	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		4
-08	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		4
-09	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		4
-10	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		4
												3

- Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle
- Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₈
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Relinquished By:

Michael Davis
Joe McLoughlin

Received By:

Michael Davis
Joe McLoughlin

Date/Time: 12/19/16 15:05
Date/Time: 12/19/16 17:40
Date/Time: 12/19/16 17:40

All samples submitted are subject to Alpha's Terms and Conditions
See reverse side
FORM NO: 01-01 (rev. 12-Mar-2012)

Method Blank Summary Form 4

Client	: Beta Group, Inc.	Lab Number	: L1640071
Project Name	: ARLINGTON STREET	Project Number	:
Lab Sample ID	: WG961460-5	Lab File ID	: V11161214N05
Instrument ID	: VOA111		
Matrix	: SOIL	Analysis Date	: 12/14/16 19:55

Client Sample No.	Lab Sample ID	Analysis Date
WG961460-3LCS	WG961460-3	12/14/16 17:59
WG961460-4LCSD	WG961460-4	12/14/16 18:49
S-6	L1640071-06	12/14/16 23:44
S-19	L1640071-07	12/15/16 00:09
S-25	L1640071-08	12/15/16 00:35
S-40	L1640071-09	12/15/16 01:00

Method Blank Summary Form 4

Client	: Beta Group, Inc.	Lab Number	: L1640071
Project Name	: ARLINGTON STREET	Project Number	:
Lab Sample ID	: WG961701-5	Lab File ID	: V04161215A05
Instrument ID	: VOA104		
Matrix	: SOIL	Analysis Date	: 12/15/16 08:33

Client Sample No.	Lab Sample ID	Analysis Date
WG961701-3LCS	WG961701-3	12/15/16 07:14
WG961701-4LCSD	WG961701-4	12/15/16 07:41
S-49	L1640071-10	12/15/16 17:16

Continuing Calibration Form 7

Client : Beta Group, Inc.
 Project Name : ARLINGTON STREET
 Instrument ID : VOA111
 Lab File ID : V11161214N01
 Sample No : WG961460-2
 Channel :

Lab Number : L1640071
 Project Number :
 Calibration Date : 12/14/16 17:59
 Init. Calib. Date(s) : 11/30/16 11/30/16
 Init. Calib. Times : 08:21 11:19

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	168	0
Dichlorodifluoromethane	0.212	0.157	-	25.9*	20	110	0
Chloromethane	0.33	0.263	-	20.3*	20	127	0
Vinyl chloride	0.323	0.263	-	18.6	20	126	0
Bromomethane	0.236	0.217	-	8.1	20	152	0
Chloroethane	0.177	0.16	-	9.6	20	136	0
Trichlorofluoromethane	0.375	0.322	-	14.1	20	125	0
Ethyl ether	0.162	0.14	-	13.6	20	141	0
1,1-Dichloroethene	0.221	0.206	-	6.8	20	142	0
Carbon disulfide	20	15.89	-	20.5*	20	129	0
Freon-113	0.2	0.188	-	6	20	137	0
Acrolein	20	15.015	-	24.9*	20	127	0
Methylene chloride	0.307	0.27	-	12.1	20	142	0
Acetone	0.063	0.044	-	30.2*	20	108	0
trans-1,2-Dichloroethene	0.271	0.256	-	5.5	20	149	0
Methyl acetate	0.159	0.116	-	27*	20	118	0
Methyl tert-butyl ether	0.826	0.69	-	16.5	20	132	0
tert-Butyl alcohol	0.023	0.017	-	26.1*	20	106	0
Diisopropyl ether	1.041	0.811	-	22.1*	20	120	0
1,1-Dichloroethane	0.531	0.453	-	14.7	20	132	0
Halothane	0.17	0.168	-	1.2	20	147	0
Acrylonitrile	0.079	0.063	-	20.3*	20	121	0
Ethyl tert-butyl ether	0.942	0.78	-	17.2	20	128	-0.01
Vinyl acetate	0.647	0.478	-	26.1*	20	112	-0.01
cis-1,2-Dichloroethene	0.31	0.292	-	5.8	20	147	0
2,2-Dichloropropane	0.431	0.363	-	15.8	20	127	-0.01
Bromochloromethane	0.14	0.139	-	0.7	20	152	0
Cyclohexane	0.408	0.354	-	13.2	20	124	0
Chloroform	0.516	0.448	-	13.2	20	133	0
Ethyl acetate	0.233	0.168	-	27.9*	20	109	0
Carbon tetrachloride	0.358	0.311	-	13.1	20	126	0
Tetrahydrofuran	0.083	0.064	-	22.9*	20	116	-0.01
Dibromofluoromethane	0.255	0.243	-	4.7	20	154	0
1,1,1-Trichloroethane	0.427	0.37	-	13.3	20	131	0
2-Butanone	0.101	0.071	-	29.7*	20	104	0
1,1-Dichloropropene	0.359	0.314	-	12.5	20	132	0
Benzene	1.136	1.025	-	9.8	20	141	0
tert-Amyl methyl ether	0.81	0.689	-	14.9	20	131	0
1,2-Dichloroethane-d4	0.261	0.217	-	16.9	20	135	-0.01
1,2-Dichloroethane	0.382	0.303	-	20.7*	20	121	0
Methyl cyclohexane	0.397	0.369	-	7.1	20	138	0
Trichloroethene	0.288	0.26	-	9.7	20	140	0
Dibromomethane	0.169	0.147	-	13	20	135	0
1,2-Dichloropropane	0.308	0.26	-	15.6	20	133	0
2-Chloroethyl vinyl ether	0.173	0.137	-	20.8*	20	117	0

* Value outside of QC limits.

Continuing Calibration Form 7

Client : Beta Group, Inc.
 Project Name : ARLINGTON STREET
 Instrument ID : VOA111
 Lab File ID : V11161214N01
 Sample No : WG961460-2
 Channel :

Lab Number : L1640071
 Project Number :
 Calibration Date : 12/14/16 17:59
 Init. Calib. Date(s) : 11/30/16 11/30/16
 Init. Calib. Times : 08:21 11:19

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Bromodichloromethane	0.409	0.332	-	18.8	20	123	0
1,4-Dioxane	0.00231	0.00205	-	11.3	20	136	0
cis-1,3-Dichloropropene	0.493	0.42	-	14.8	20	129	0
Chlorobenzene-d5	1	1	-	0	20	155	0
Toluene-d8	1.23	1.273	-	-3.5	20	163	0
Toluene	0.827	0.819	-	1	20	145	0
4-Methyl-2-pentanone	0.107	0.087	-	18.7	20	115	0
Tetrachloroethene	0.346	0.384	-	-11	20	159	0
trans-1,3-Dichloropropene	0.496	0.447	-	9.9	20	126	0
Ethyl methacrylate	0.404	0.359	-	11.1	20	123	0
1,1,2-Trichloroethane	0.236	0.228	-	3.4	20	131	0
Chlorodibromomethane	0.351	0.336	-	4.3	20	134	0
1,3-Dichloropropane	0.5	0.47	-	6	20	131	0
1,2-Dibromoethane	0.272	0.265	-	2.6	20	139	0
2-Hexanone	0.185	0.135	-	27*	20	100	0
Chlorobenzene	0.959	0.986	-	-2.8	20	147	0
Ethylbenzene	1.586	1.555	-	2	20	139	0
1,1,1,2-Tetrachloroethane	0.347	0.343	-	1.2	20	137	0
p/m Xylene	0.589	0.62	-	-5.3	20	148	0
o Xylene	0.587	0.61	-	-3.9	20	146	0
Styrene	0.972	0.999	-	-2.8	20	141	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	152	0
Bromoform	0.433	0.428	-	1.2	20	133	0
Isopropylbenzene	2.968	3.025	-	-1.9	20	140	0
4-Bromofluorobenzene	0.963	0.89	-	7.6	20	140	0
Bromobenzene	0.799	0.857	-	-7.3	20	148	0
n-Propylbenzene	3.605	3.566	-	1.1	20	135	0
1,4-Dichlorobutane	0.975	0.849	-	12.9	20	117	0
1,1,2,2-Tetrachloroethane	0.67	0.63	-	6	20	124	0
4-Ethyltoluene	2.985	3.091	-	-3.6	20	141	0
2-Chlorotoluene	2.507	2.47	-	1.5	20	134	0
1,3,5-Trimethylbenzene	2.452	2.539	-	-3.5	20	140	0
1,2,3-Trichloropropane	0.532	0.485	-	8.8	20	120	0
trans-1,4-Dichloro-2-buten	0.187	0.133	-	28.9*	20	98	0
4-Chlorotoluene	2.239	2.196	-	1.9	20	132	0
tert-Butylbenzene	2.073	2.137	-	-3.1	20	141	0
1,2,4-Trimethylbenzene	2.532	2.571	-	-1.5	20	137	0
sec-Butylbenzene	3.103	3.197	-	-3	20	139	0
p-Isopropyltoluene	2.641	2.779	-	-5.2	20	141	0
1,3-Dichlorobenzene	1.478	1.6	-	-8.3	20	146	0
1,4-Dichlorobenzene	1.49	1.597	-	-7.2	20	143	0
p-Diethylbenzene	1.628	1.698	-	-4.3	20	141	0
n-Butylbenzene	2.523	2.498	-	1	20	133	0
1,2-Dichlorobenzene	1.389	1.474	-	-6.1	20	144	0
1,2,4,5-Tetramethylbenzene	2.716	2.799	-	-3.1	20	139	0

* Value outside of QC limits.

Continuing Calibration Form 7

Client	: Beta Group, Inc.	Lab Number	: L1640071
Project Name	: ARLINGTON STREET	Project Number	:
Instrument ID	: VOA111	Calibration Date	: 12/14/16 17:59
Lab File ID	: V11161214N01	Init. Calib. Date(s)	: 11/30/16 11/30/16
Sample No	: WG961460-2	Init. Calib. Times	: 08:21 11:19
Channel	:		

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dibromo-3-chloropropan	0.108	0.103	-	4.6	20	136	0
1,3,5-Trichlorobenzene	1.22	1.368	-	-12.1	20	152	0
Hexachlorobutadiene	0.591	0.638	-	-8	20	146	0
1,2,4-Trichlorobenzene	1.063	1.199	-	-12.8	20	150	0
Naphthalene	2.047	2.119	-	-3.5	20	140	0
1,2,3-Trichlorobenzene	0.96	1.082	-	-12.7	20	152	0

* Value outside of QC limits.

Continuing Calibration Form 7

Client : Beta Group, Inc.
 Project Name : ARLINGTON STREET
 Instrument ID : VOA104
 Lab File ID : V04161215A02
 Sample No : WG961701-2
 Channel :

Lab Number : L1640071
 Project Number :
 Calibration Date : 12/15/16 07:14
 Init. Calib. Date(s) : 08/05/16
 Init. Calib. Times : 21:44
 08/06/16
 00:48

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	76	-.01
Dichlorodifluoromethane	0.25	0.214	-	14.4	20	62	0
Chloromethane	20	26.607	-	-33*	20	91	0
Vinyl chloride	0.327	0.406	-	-24.2*	20	92	0
Bromomethane	0.185	0.184	-	0.5	20	76	0
Chloroethane	0.144	0.214	-	-48.6*	20	108	0
Trichlorofluoromethane	0.32	0.408	-	-27.5*	20	93	0
Ethyl ether	0.113	0.148	-	-31*	20	100	0
1,1-Dichloroethene	0.191	0.244	-	-27.7*	20	93	0
Carbon disulfide	20	21.254	-	-6.3	20	74	0
Freon-113	0.21	0.233	-	-11	20	74	0
Acrolein	0.042	0.071	-	-69*	20	131	-.01
Methylene chloride	0.305	0.341	-	-11.8	20	85	0
Acetone	20	32.483	-	-62.4*	20	117	-.01
trans-1,2-Dichloroethene	0.275	0.316	-	-14.9	20	84	0
Methyl acetate	20	24.261	-	-21.3*	20	92	0
Methyl tert-butyl ether	0.73	0.805	-	-10.3	20	83	0
tert-Butyl alcohol	0.031	0.033	-	-6.5	20	83	0
Diisopropyl ether	1.149	1.353	-	-17.8	20	88	-.01
1,1-Dichloroethane	0.551	0.601	-	-9.1	20	80	0
Halothane	0.209	0.185	-	11.5	20	66	0
Acrylonitrile	0.095	0.115	-	-21.1*	20	92	-.01
Ethyl tert-butyl ether	1.024	0.981	-	4.2	20	72	0
Vinyl acetate	20	12.527	-	37.4*	20	51	0
cis-1,2-Dichloroethene	0.308	0.3	-	2.6	20	72	0
2,2-Dichloropropane	0.398	0.411	-	-3.3	20	77	0
Bromochloromethane	0.148	0.145	-	2	20	71	0
Cyclohexane	0.529	0.582	-	-10	20	80	0
Chloroform	0.497	0.506	-	-1.8	20	76	-.01
Ethyl acetate	20	21.004	-	-5	20	76	0
Carbon tetrachloride	0.385	0.331	-	14	20	64	0
Tetrahydrofuran	0.099	0.12	-	-21.2*	20	110	-.01
Dibromofluoromethane	0.278	0.283	-	-1.8	20	79	0
1,1,1-Trichloroethane	0.424	0.44	-	-3.8	20	77	0
2-Butanone	20	21.653	-	-8.3	20	89	0
1,1-Dichloropropene	0.345	0.341	-	1.2	20	74	0
Benzene	1.063	1.031	-	3	20	71	-.01
tert-Amyl methyl ether	0.774	0.559	-	27.8*	20	54	0
1,2-Dichloroethane-d4	0.264	0.304	-	-15.2	20	89	0
1,2-Dichloroethane	0.38	0.441	-	-16.1	20	87	0
Methyl cyclohexane	0.412	0.388	-	5.8	20	68	0
Trichloroethene	0.295	0.297	-	-0.7	20	74	-.01
Dibromomethane	0.171	0.177	-	-3.5	20	77	-.01
1,2-Dichloropropane	0.322	0.346	-	-7.5	20	81	-.01
Bromodichloromethane	0.383	0.379	-	1	20	75	0

* Value outside of QC limits.

Continuing Calibration Form 7

Client : Beta Group, Inc.
 Project Name : ARLINGTON STREET
 Instrument ID : VOA104
 Lab File ID : V04161215A02
 Sample No : WG961701-2
 Channel :

Lab Number : L1640071
 Project Number :
 Calibration Date : 12/15/16 07:14
 Init. Calib. Date(s) : 08/05/16 08/06/16
 Init. Calib. Times : 21:44 00:48

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane	1000	983.961	-	1.6	20	79	-0.1
cis-1,3-Dichloropropene	0.445	0.43	-	3.4	20	73	0
Chlorobenzene-d5	1	1	-	0	20	72	-0.1
Toluene-d8	1.177	1.261	-	-7.1	20	77	-0.1
Toluene	0.821	0.845	-	-2.9	20	72	-0.1
4-Methyl-2-pentanone	0.128	0.151	-	-18	20	85	-0.1
Tetrachloroethene	0.407	0.415	-	-2	20	70	-0.1
trans-1,3-Dichloropropene	0.458	0.478	-	-4.4	20	75	0
Ethyl methacrylate	0.384	0.383	-	0.3	20	72	-0.1
1,1,2-Trichloroethane	0.244	0.256	-	-4.9	20	74	-0.1
Chlorodibromomethane	0.387	0.385	-	0.5	20	72	0
1,3-Dichloropropane	0.471	0.494	-	-4.9	20	74	0
1,2-Dibromoethane	0.318	0.321	-	-0.9	20	73	-0.1
2-Hexanone	0.218	0.275	-	-26.1*	20	93	-0.1
Chlorobenzene	0.984	1.011	-	-2.7	20	72	-0.1
Ethylbenzene	1.54	1.636	-	-6.2	20	74	-0.1
1,1,1,2-Tetrachloroethane	0.373	0.375	-	-0.5	20	71	-0.1
p/m Xylene	0.617	0.643	-	-4.2	20	72	-0.1
o Xylene	0.506	0.625	-	-3.1	20	71	-0.1
Styrene	1.009	1.052	-	-4.3	20	71	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	77	0
Bromofom	0.48	0.409	-	14.8	20	67	-0.1
Isopropylbenzene	2.889	2.759	-	4.5	20	72	-0.1
4-Bromofluorobenzene	0.854	0.918	-	-7.5	20	84	-0.1
Bromobenzene	0.826	0.85	-	-2.9	20	78	-0.1
n-Propylbenzene	3.243	3.683	-	-13.6	20	85	-0.1
1,4-Dichlorobutane	1.094	1.318	-	-20.5*	20	93	0
1,1,2,2-Tetrachloroethane	0.652	0.711	-	-9	20	86	0
4-Ethyltoluene	3.035	3.258	-	-7.3	20	81	-0.1
2-Chlorotoluene	1.98	2.256	-	-13.9	20	86	-0.1
1,3,5-Trimethylbenzene	2.465	2.647	-	-7.4	20	81	-0.1
1,2,3-Trichloropropane	0.492	0.557	-	-13.2	20	88	-0.1
trans-1,4-Dichloro-2-buten	20	17.269	-	13.7	20	72	0
4-Chlorotoluene	2.019	2.19	-	-8.5	20	83	-0.1
tert-Butylbenzene	2.066	2.148	-	-4	20	79	-0.1
1,2,4-Trimethylbenzene	2.461	2.592	-	-5.3	20	79	-0.1
sec-Butylbenzene	3.102	3.209	-	-3.4	20	78	0
p-Isopropyltoluene	2.59	2.702	-	-4.3	20	79	-0.1
1,3-Dichlorobenzene	1.507	1.587	-	-5.3	20	79	-0.1
1,4-Dichlorobenzene	1.517	1.606	-	-5.9	20	81	0
p-Diethylbenzene	1.623	1.605	-	1.1	20	75	-0.1
n-Butylbenzene	2.16	2.336	-	-8.1	20	81	-0.1
1,2-Dichlorobenzene	1.437	1.38	-	4	20	72	0
1,2,4,5-Tetramethylbenzene	2.695	2.486	-	7.8	20	71	-0.1
1,2-Dibromo-3-chloropropan	0.116	0.098	-	15.5	20	70	0

* Value outside of QC limits.



Continuing Calibration Form 7

Client	: Beta Group, Inc.	Lab Number	: L1640071
Project Name	: ARLINGTON STREET	Project Number	:
Instrument ID	: VOA104	Calibration Date	: 12/15/16 07:14
Lab File ID	: V04161215A02	Init. Calib. Date(s)	: 08/05/16 08/06/16
Sample No	: WG961701-2	Init. Calib. Times	: 21:44 00:48
Channel	:		

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,3,5-Trichlorobenzene	1.19	1.097	-	7.8	20	71	-.01
Hexachlorobutadiene	0.585	0.484	-	17.3	20	67	0
1,2,4-Trichlorobenzene	1.03	0.953	-	7.5	20	73	-.01
Naphthalene	2.192	1.923	-	12.3	20	71	-.01
1,2,3-Trichlorobenzene	0.969	0.856	-	11.7	20	70	0

* Value outside of QC limits.

I:\Pest18\161213\18161213-01.d

Data File Name 18161213-01.d
 Data File Path I:\Pest18\161213\
 Operator PEST18:am
 Date Acquired 12/13/2016 8:34
 Acq. Method File PEST.M
 Sample Name PEM1816121301,42ee,,dt
 Instrument Name Pest 18

Name	Ret Time	Response	
4,4'-DDT	4.82	274714353.2	% Breakdown
4,4'-DDE	4.15	260742.235	
4,4'-DDD	4.61	384936.837	0.23%
Endrin	4.55	141821214	% Breakdown
Endrin Aldehyde	5.01	981604.575	
Endrin Ketone	5.51	1306908.048	1.59%
4,4'-DDT	5.45	101280149	% Breakdown
4,4'-DDE	4.80	239704.63	
4,4'-DDD	5.23	411767.104	0.64%
Endrin	5.16	62098882.02	% Breakdown
Endrin Aldehyde	5.54	532753.423	
Endrin Ketone	6.10	751951.274	2.03%

wg960057-1, 2, 3

L1640071-01, 02, 03, 04, 05