

## Clementine Dulieu

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**From:** Clementine Dulieu  
**Sent:** Friday, May 10, 2019 6:29 PM  
**To:** David Costello  
**Cc:** Larry Mastera; Julia Redden  
**Subject:** Wayland Property Owner Data Transmittal - April 2019  
**Attachments:** ERM Lab Reports\_April 2019.pdf; IESI Lab Reports\_April 2019.pdf; National Development BWSC-123 Form.pdf

Hi David,

ERM and Innovative Engineering Solutions, Inc. (IESI) collected groundwater samples from monitoring wells located on National Development property at the former Raytheon Facility located at 430 Boston Post Road in Wayland, MA in April 2019. The analytical results and BWSC-123 form are attached to this email.

These results are being sent for National Development's records.

Please let me know if you have any questions or require any additional information.

Thanks,

Clementine Dulieu  
Project Geologist

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**Massachusetts Department of Environmental Protection**  
*Bureau of Waste Site Cleanup*

**BWSC123**

This Notice is Related to:  
Release Tracking Number

**NOTICE OF ENVIRONMENTAL SAMPLING**

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

-

**A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):**

1. Street Address: \_\_\_\_\_  
City/Town: \_\_\_\_\_ Zip Code: \_\_\_\_\_

**B. This notice is being provided to the following party:**

1. Name: \_\_\_\_\_  
2. Street Address: \_\_\_\_\_  
City/Town: \_\_\_\_\_ Zip Code: \_\_\_\_\_

**C. This notice is being given to inform its recipient (the party listed in Section B):**

1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.
2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

**D. Location of the property where the environmental sampling will be/has been conducted:**

1. Street Address: \_\_\_\_\_  
City/Town: \_\_\_\_\_ Zip Code: \_\_\_\_\_
2. MCP phase of work during which the sampling will be/has been conducted:
- |  |   |
|--|---|
| Immediate Response Action              | Phase III Feasibility Evaluation                              |
| Release Abatement Measure              | Phase IV Remedy Implementation Plan                           |
| Utility-related Abatement Measure      | Phase V/Remedy Operation Status                               |
| Phase I Initial Site Investigation     | Post-Temporary Solution Operation, Maintenance and Monitoring |
| Phase II Comprehensive Site Assessment | Other _____   |
- (specify)
3. Description of property where sampling will be/has been conducted:  
residential      commercial      industrial      school/playground      Other \_\_\_\_\_  
(specify)
4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

**E. Contact information related to the party providing this notice:**

Contact Name: \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City/Town: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Email: \_\_\_\_\_



**Massachusetts Department of Environmental Protection**  
*Bureau of Waste Site Cleanup*

**BWSC123**

This Notice is Related to:  
Release Tracking Number

-

**NOTICE OF ENVIRONMENTAL SAMPLING**

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

**Section C** on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

**Section D** on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/eea/agencies/massdep/cleanup>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://public.dep.state.ma.us/SearchableSites2/Search.aspx> to view site-specific files on-line or <http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

## ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Tel: (716)691-2600

Laboratory Job ID: 480-151403-1  
Client Project/Site: IDS Wayland

For:  
ERM-Northeast  
One Beacon Steet  
5th Floor  
Boston, Massachusetts 02108

Attn: Lyndsey Colburn



Authorized for release by:  
4/12/2019 8:23:49 AM

Becky Mason, Project Manager II  
(413)572-4000  
[becky.mason@testamericainc.com](mailto:becky.mason@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



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# Definitions/Glossary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
*	LCS or LCSD is outside acceptance limits.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Job ID: 480-151403-1

### Laboratory: Eurofins TestAmerica, Buffalo

#### Narrative

#### Job Narrative 480-151403-1

#### Receipt

The samples were received on 4/5/2019 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1° C.

#### GC/MS VOA

Method 8260C: Due to the dilutions required, per question G on the MassDEP Analytical Protocol Certification Form, the CAM reporting limits specified in this CAM protocol could not be achieved for some or all samples/analytes.

Method 8260C: With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for 1,2-dibromo-3-chloropropane, Carbon Disulfide, Isopropyl Ether, Naphthalene, tert-Amyl Methyl Ether and Tetrahydrofuran.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-466672 recovered outside the MCP control limit criteria for the following analytes: 1,1,1,2-Tetrachloroethane, 2,2-Dichloropropane, Acetone and Carbon tetrachloride. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following samples were affected : MW-1003-20190403-01 (480-151403-1), MW-1004-20190403-01 (480-151403-2), MW-1005-20190403-01 (480-151403-3), MW-1006-20190403-01 (480-151403-4), MW-1010M-20190403-01 (480-151403-5), MW-1010D-20190403-01 (480-151403-6), MW-1011-20190403-01 (480-151403-7), MW-1015D-20190403-01 (480-151403-8), MW-1016D-20190403-01 (480-151403-9), MW-1017D-20190403-01 (480-151403-10), MW-1018-20190403-01 (480-151403-11), MW-1019B-20190403-01 (480-151403-12), MW-1024D-20190403-01 (480-151403-13), MW-1025D-20190403-01 (480-151403-14) and MW-1027-20190403-01 (480-151403-15).

Method 8260C: The laboratory control sample (LCS) and/or the laboratory control sample duplicate (LCSD) for batch 480-466672 recovered outside control limits but were greater than 10% for the following analytes: Acetone and Carbon tetrachloride. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples are impacted: MW-1003-20190403-01 (480-151403-1), MW-1004-20190403-01 (480-151403-2), MW-1005-20190403-01 (480-151403-3), MW-1006-20190403-01 (480-151403-4), MW-1010M-20190403-01 (480-151403-5), MW-1010D-20190403-01 (480-151403-6), MW-1011-20190403-01 (480-151403-7), MW-1015D-20190403-01 (480-151403-8), MW-1016D-20190403-01 (480-151403-9), MW-1017D-20190403-01 (480-151403-10), MW-1018-20190403-01 (480-151403-11), MW-1019B-20190403-01 (480-151403-12), MW-1024D-20190403-01 (480-151403-13), MW-1025D-20190403-01 (480-151403-14) and MW-1027-20190403-01 (480-151403-15).

Method 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 480-466672 exceeded control limits for the following analytes: 2-Butanone and Tetrahydrofuran. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and Methacrylonitrile in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected : MW-1003-20190403-01 (480-151403-1), MW-1004-20190403-01 (480-151403-2), MW-1005-20190403-01 (480-151403-3), MW-1006-20190403-01 (480-151403-4), MW-1010M-20190403-01 (480-151403-5), MW-1010D-20190403-01 (480-151403-6), MW-1011-20190403-01 (480-151403-7), MW-1015D-20190403-01 (480-151403-8), MW-1016D-20190403-01 (480-151403-9), MW-1017D-20190403-01 (480-151403-10), MW-1018-20190403-01 (480-151403-11), MW-1019B-20190403-01 (480-151403-12), MW-1024D-20190403-01 (480-151403-13), MW-1025D-20190403-01 (480-151403-14) and MW-1027-20190403-01 (480-151403-15).

Method 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 480-466672 recovered outside control limits for the following analyte: 1,4-Dioxane.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-466874 recovered outside the MCP control limit criteria for the following analytes: 1,1,1,2-Tetrachloroethane, 1,4-Dioxane, 2,2-Dichloropropane, Acetone and Carbon tetrachloride. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following samples are impacted: MW-1028-20190403-01 (480-151403-16), MW-1030-20190403-01 (480-151403-17), MW-1031-20190403-01 (480-151403-18), MW-1032-20190403-01

# Case Narrative

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Job ID: 480-151403-1 (Continued)

### Laboratory: Eurofins TestAmerica, Buffalo (Continued)

(480-151403-19), MW-1035-20190403-01 (480-151403-20) and TB-001-20190403-01 (480-151403-23).

Method 8260C: The laboratory control sample duplicate (LCSD) for batch 480-466874 recovered outside control limits but were greater than 10% for the following analytes: Acetone and Carbon tetrachloride. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples are impacted: MW-1028-20190403-01 (480-151403-16), MW-1030-20190403-01 (480-151403-17), MW-1031-20190403-01 (480-151403-18), MW-1032-20190403-01 (480-151403-19), MW-1035-20190403-01 (480-151403-20) and TB-001-20190403-01 (480-151403-23).

Method 8260C: The laboratory control sample (LCS) and/or the laboratory control sample duplicate (LCSD) for batch 480-466874 exceeded control limits for the following analyte: 2-Butanone and Tetrahydrofuran. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and Methacrylonitrile in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected: MW-1028-20190403-01 (480-151403-16), MW-1030-20190403-01 (480-151403-17), MW-1031-20190403-01 (480-151403-18), MW-1032-20190403-01 (480-151403-19), MW-1035-20190403-01 (480-151403-20) and TB-001-20190403-01 (480-151403-23).

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-1011-20190403-01 (480-151403-7). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) for Carbon disulfide associated with batch 480-467051 recovered outside the MCP control limit criteria. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following samples were affected : MW-1037-20190403-01 (480-151403-21), MW-1038-20190403-01 (480-151403-22), DUP-001-20190403-01 (480-151403-24) and DUP-002-20190403-01 (480-151403-25).

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-467051 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected : MW-1037-20190403-01 (480-151403-21), MW-1038-20190403-01 (480-151403-22), DUP-001-20190403-01 (480-151403-24) and DUP-002-20190403-01 (480-151403-25).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Buffalo** Project #: **480-151403-1**

Project Location: **Wayland MA** RTN:

**This form provides certifications for the data set for the following Laboratory Sample ID Number(s):**  
**480-1514031-1[1-25]**

Matrices:  Groundwater/Surface Water  Soil/Sediment  Drinking Water  Air  Other:

### CAM Protocols (check all that apply below):

8260 VOC CAM II A <input checked="" type="checkbox"/>	7470/7471 Hg CAM III B <input type="checkbox"/>	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9012 / 9014/ 4500CN Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	

### Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

<b>A</b>	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 time.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>D</b>	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"?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>E</b>	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). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>F</b>	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)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

### Responses to Questions G, H and I below are required for "Presumptive Certainty" status


<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>
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**Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350**

<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>

<sup>1</sup> All negative responses must be addressed in an attached laboratory narrative.

**I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.**

Signature:  Position: Project Manager

Printed Name: Becky Mason Date: 4/12/19 8:22

This form has been electronically signed and approved

# Detection Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Client Sample ID: MW-1003-20190403-01

Lab Sample ID: 480-151403-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	64	*	50		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.1		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	2.1		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1004-20190403-01

Lab Sample ID: 480-151403-2

No Detections.

## Client Sample ID: MW-1005-20190403-01

Lab Sample ID: 480-151403-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	8.2		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	5.3		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1006-20190403-01

Lab Sample ID: 480-151403-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	4.0		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1010M-20190403-01

Lab Sample ID: 480-151403-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	11		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1010D-20190403-01

Lab Sample ID: 480-151403-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	4.1		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1011-20190403-01

Lab Sample ID: 480-151403-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	38		1.0		ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.2		1.0		ug/L	1		8260C	Total/NA
1,1-Dichloroethene	1.8		1.0		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	3.0		1.0		ug/L	1		8260C	Total/NA
Trichloroethene - DL	140		5.0		ug/L	5		8260C	Total/NA

## Client Sample ID: MW-1015D-20190403-01

Lab Sample ID: 480-151403-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.5		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	8.4		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1016D-20190403-01

Lab Sample ID: 480-151403-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.5		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	16		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1017D-20190403-01

Lab Sample ID: 480-151403-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	24		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	13		1.0		ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

# Detection Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Client Sample ID: MW-1018-20190403-01

Lab Sample ID: 480-151403-11

No Detections.

## Client Sample ID: MW-1019B-20190403-01

Lab Sample ID: 480-151403-12

No Detections.

## Client Sample ID: MW-1024D-20190403-01

Lab Sample ID: 480-151403-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.4		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	5.8		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1025D-20190403-01

Lab Sample ID: 480-151403-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.4		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1027-20190403-01

Lab Sample ID: 480-151403-15

No Detections.

## Client Sample ID: MW-1028-20190403-01

Lab Sample ID: 480-151403-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	3.9		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1030-20190403-01

Lab Sample ID: 480-151403-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	2.7		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1031-20190403-01

Lab Sample ID: 480-151403-18

No Detections.

## Client Sample ID: MW-1032-20190403-01

Lab Sample ID: 480-151403-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.1		1.0		ug/L	1		8260C	Total/NA
1,1-Dichloroethene	1.3		1.0		ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	59		1.0		ug/L	1		8260C	Total/NA
Tert-amyl methyl ether	16		5.0		ug/L	1		8260C	Total/NA
Trichloroethene	6.9		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1035-20190403-01

Lab Sample ID: 480-151403-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	6.9		1.0		ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	2.1		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	28		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1037-20190403-01

Lab Sample ID: 480-151403-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	18		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	59		1.0		ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

# Detection Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Client Sample ID: MW-1038-20190403-01

Lab Sample ID: 480-151403-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	15		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	47		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: TB-001-20190403-01

Lab Sample ID: 480-151403-23

No Detections.

## Client Sample ID: DUP-001-20190403-01

Lab Sample ID: 480-151403-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	8.4		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	5.2		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: DUP-002-20190403-01

Lab Sample ID: 480-151403-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.3		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	15		1.0		ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1003-20190403-01**

**Lab Sample ID: 480-151403-1**

Date Collected: 04/03/19 11:45

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 13:13	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 13:13	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 13:13	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 13:13	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 13:13	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 13:13	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 13:13	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 13:13	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 13:13	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 13:13	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 13:13	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 13:13	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 13:13	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 13:13	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 13:13	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 13:13	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 13:13	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 13:13	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 13:13	1
1,4-Dioxane	ND *		50		ug/L			04/08/19 13:13	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 13:13	1
2-Butanone (MEK)	ND *		10		ug/L			04/08/19 13:13	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 13:13	1
2-Hexanone	ND		10		ug/L			04/08/19 13:13	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 13:13	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 13:13	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 13:13	1
<b>Acetone</b>	<b>64 *</b>		50		ug/L			04/08/19 13:13	1
Benzene	ND		1.0		ug/L			04/08/19 13:13	1
Bromobenzene	ND		1.0		ug/L			04/08/19 13:13	1
Bromoform	ND		1.0		ug/L			04/08/19 13:13	1
Bromomethane	ND		2.0		ug/L			04/08/19 13:13	1
Carbon disulfide	ND		10		ug/L			04/08/19 13:13	1
Carbon tetrachloride	ND *		1.0		ug/L			04/08/19 13:13	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 13:13	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 13:13	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 13:13	1
Chloroethane	ND		2.0		ug/L			04/08/19 13:13	1
Chloroform	ND		1.0		ug/L			04/08/19 13:13	1
Chloromethane	ND		2.0		ug/L			04/08/19 13:13	1
<b>cis-1,2-Dichloroethene</b>	<b>1.1</b>		1.0		ug/L			04/08/19 13:13	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 13:13	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 13:13	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 13:13	1
Ethyl ether	ND		1.0		ug/L			04/08/19 13:13	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 13:13	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 13:13	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 13:13	1
Isopropyl ether	ND		10		ug/L			04/08/19 13:13	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1003-20190403-01**

**Lab Sample ID: 480-151403-1**

Date Collected: 04/03/19 11:45

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			04/08/19 13:13	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 13:13	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 13:13	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 13:13	1
Naphthalene	ND		5.0		ug/L			04/08/19 13:13	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 13:13	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 13:13	1
o-Xylene	ND		1.0		ug/L			04/08/19 13:13	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 13:13	1
Styrene	ND		1.0		ug/L			04/08/19 13:13	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 13:13	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 13:13	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 13:13	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 13:13	1
Tetrahydrofuran	ND	*	10		ug/L			04/08/19 13:13	1
Toluene	ND		1.0		ug/L			04/08/19 13:13	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 13:13	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 13:13	1
<b>Trichloroethene</b>	<b>2.1</b>		1.0		ug/L			04/08/19 13:13	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 13:13	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 13:13	1
Dibromomethane	ND		1.0		ug/L			04/08/19 13:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130		04/08/19 13:13	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 130		04/08/19 13:13	1
4-Bromofluorobenzene (Surr)	97		70 - 130		04/08/19 13:13	1

**Client Sample ID: MW-1004-20190403-01**

**Lab Sample ID: 480-151403-2**

Date Collected: 04/03/19 11:05

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 13:37	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 13:37	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 13:37	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 13:37	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 13:37	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 13:37	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 13:37	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 13:37	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 13:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 13:37	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 13:37	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 13:37	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 13:37	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 13:37	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 13:37	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 13:37	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1004-20190403-01**

**Lab Sample ID: 480-151403-2**

Date Collected: 04/03/19 11:05

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 13:37	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 13:37	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 13:37	1
1,4-Dioxane	ND	*	50		ug/L			04/08/19 13:37	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 13:37	1
2-Butanone (MEK)	ND	*	10		ug/L			04/08/19 13:37	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 13:37	1
2-Hexanone	ND		10		ug/L			04/08/19 13:37	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 13:37	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 13:37	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 13:37	1
Acetone	ND	*	50		ug/L			04/08/19 13:37	1
Benzene	ND		1.0		ug/L			04/08/19 13:37	1
Bromobenzene	ND		1.0		ug/L			04/08/19 13:37	1
Bromoform	ND		1.0		ug/L			04/08/19 13:37	1
Bromomethane	ND		2.0		ug/L			04/08/19 13:37	1
Carbon disulfide	ND		10		ug/L			04/08/19 13:37	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/08/19 13:37	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 13:37	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 13:37	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 13:37	1
Chloroethane	ND		2.0		ug/L			04/08/19 13:37	1
Chloroform	ND		1.0		ug/L			04/08/19 13:37	1
Chloromethane	ND		2.0		ug/L			04/08/19 13:37	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 13:37	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 13:37	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 13:37	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 13:37	1
Ethyl ether	ND		1.0		ug/L			04/08/19 13:37	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 13:37	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 13:37	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 13:37	1
Isopropyl ether	ND		10		ug/L			04/08/19 13:37	1
Isopropylbenzene	ND		1.0		ug/L			04/08/19 13:37	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 13:37	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 13:37	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 13:37	1
Naphthalene	ND		5.0		ug/L			04/08/19 13:37	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 13:37	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 13:37	1
o-Xylene	ND		1.0		ug/L			04/08/19 13:37	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 13:37	1
Styrene	ND		1.0		ug/L			04/08/19 13:37	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 13:37	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 13:37	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 13:37	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 13:37	1
Tetrahydrofuran	ND	*	10		ug/L			04/08/19 13:37	1
Toluene	ND		1.0		ug/L			04/08/19 13:37	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1004-20190403-01**

**Lab Sample ID: 480-151403-2**

Date Collected: 04/03/19 11:05

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 13:37	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 13:37	1
Trichloroethene	ND		1.0		ug/L			04/08/19 13:37	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 13:37	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 13:37	1
Dibromomethane	ND		1.0		ug/L			04/08/19 13:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		04/08/19 13:37	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 130		04/08/19 13:37	1
4-Bromofluorobenzene (Surr)	97		70 - 130		04/08/19 13:37	1

**Client Sample ID: MW-1005-20190403-01**

**Lab Sample ID: 480-151403-3**

Date Collected: 04/03/19 10:45

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 14:01	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 14:01	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 14:01	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 14:01	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 14:01	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 14:01	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 14:01	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 14:01	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 14:01	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 14:01	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 14:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 14:01	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 14:01	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 14:01	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 14:01	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 14:01	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 14:01	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 14:01	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 14:01	1
1,4-Dioxane	ND *		50		ug/L			04/08/19 14:01	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 14:01	1
2-Butanone (MEK)	ND *		10		ug/L			04/08/19 14:01	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 14:01	1
2-Hexanone	ND		10		ug/L			04/08/19 14:01	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 14:01	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 14:01	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 14:01	1
Acetone	ND *		50		ug/L			04/08/19 14:01	1
Benzene	ND		1.0		ug/L			04/08/19 14:01	1
Bromobenzene	ND		1.0		ug/L			04/08/19 14:01	1
Bromoform	ND		1.0		ug/L			04/08/19 14:01	1
Bromomethane	ND		2.0		ug/L			04/08/19 14:01	1

Eurofins TestAmerica, Buffalo



# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1005-20190403-01**

**Lab Sample ID: 480-151403-3**

Date Collected: 04/03/19 10:45

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		10		ug/L			04/08/19 14:01	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/08/19 14:01	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 14:01	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 14:01	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 14:01	1
Chloroethane	ND		2.0		ug/L			04/08/19 14:01	1
Chloroform	ND		1.0		ug/L			04/08/19 14:01	1
Chloromethane	ND		2.0		ug/L			04/08/19 14:01	1
<b>cis-1,2-Dichloroethene</b>	<b>8.2</b>		1.0		ug/L			04/08/19 14:01	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 14:01	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 14:01	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 14:01	1
Ethyl ether	ND		1.0		ug/L			04/08/19 14:01	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 14:01	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 14:01	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 14:01	1
Isopropyl ether	ND		10		ug/L			04/08/19 14:01	1
Isopropylbenzene	ND		1.0		ug/L			04/08/19 14:01	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 14:01	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 14:01	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 14:01	1
Naphthalene	ND		5.0		ug/L			04/08/19 14:01	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 14:01	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 14:01	1
o-Xylene	ND		1.0		ug/L			04/08/19 14:01	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 14:01	1
Styrene	ND		1.0		ug/L			04/08/19 14:01	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 14:01	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 14:01	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 14:01	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 14:01	1
Tetrahydrofuran	ND	*	10		ug/L			04/08/19 14:01	1
Toluene	ND		1.0		ug/L			04/08/19 14:01	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 14:01	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 14:01	1
<b>Trichloroethene</b>	<b>5.3</b>		1.0		ug/L			04/08/19 14:01	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 14:01	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 14:01	1
Dibromomethane	ND		1.0		ug/L			04/08/19 14:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130		04/08/19 14:01	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 130		04/08/19 14:01	1
4-Bromofluorobenzene (Surr)	99		70 - 130		04/08/19 14:01	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1006-20190403-01**

**Lab Sample ID: 480-151403-4**

Date Collected: 04/03/19 10:05

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 14:25	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 14:25	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 14:25	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 14:25	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 14:25	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 14:25	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 14:25	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 14:25	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 14:25	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 14:25	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 14:25	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 14:25	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 14:25	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 14:25	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 14:25	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 14:25	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 14:25	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 14:25	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 14:25	1
1,4-Dioxane	ND *		50		ug/L			04/08/19 14:25	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 14:25	1
2-Butanone (MEK)	ND *		10		ug/L			04/08/19 14:25	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 14:25	1
2-Hexanone	ND		10		ug/L			04/08/19 14:25	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 14:25	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 14:25	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 14:25	1
Acetone	ND *		50		ug/L			04/08/19 14:25	1
Benzene	ND		1.0		ug/L			04/08/19 14:25	1
Bromobenzene	ND		1.0		ug/L			04/08/19 14:25	1
Bromoform	ND		1.0		ug/L			04/08/19 14:25	1
Bromomethane	ND		2.0		ug/L			04/08/19 14:25	1
Carbon disulfide	ND		10		ug/L			04/08/19 14:25	1
Carbon tetrachloride	ND *		1.0		ug/L			04/08/19 14:25	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 14:25	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 14:25	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 14:25	1
Chloroethane	ND		2.0		ug/L			04/08/19 14:25	1
Chloroform	ND		1.0		ug/L			04/08/19 14:25	1
Chloromethane	ND		2.0		ug/L			04/08/19 14:25	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 14:25	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 14:25	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 14:25	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 14:25	1
Ethyl ether	ND		1.0		ug/L			04/08/19 14:25	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 14:25	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 14:25	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 14:25	1
Isopropyl ether	ND		10		ug/L			04/08/19 14:25	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1006-20190403-01**

**Lab Sample ID: 480-151403-4**

Date Collected: 04/03/19 10:05

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			04/08/19 14:25	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 14:25	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 14:25	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 14:25	1
Naphthalene	ND		5.0		ug/L			04/08/19 14:25	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 14:25	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 14:25	1
o-Xylene	ND		1.0		ug/L			04/08/19 14:25	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 14:25	1
Styrene	ND		1.0		ug/L			04/08/19 14:25	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 14:25	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 14:25	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 14:25	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 14:25	1
Tetrahydrofuran	ND	*	10		ug/L			04/08/19 14:25	1
Toluene	ND		1.0		ug/L			04/08/19 14:25	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 14:25	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 14:25	1
<b>Trichloroethene</b>	<b>4.0</b>		1.0		ug/L			04/08/19 14:25	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 14:25	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 14:25	1
Dibromomethane	ND		1.0		ug/L			04/08/19 14:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		04/08/19 14:25	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 130		04/08/19 14:25	1
4-Bromofluorobenzene (Surr)	99		70 - 130		04/08/19 14:25	1

**Client Sample ID: MW-1010M-20190403-01**

**Lab Sample ID: 480-151403-5**

Date Collected: 04/03/19 13:15

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 14:49	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 14:49	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 14:49	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 14:49	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 14:49	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 14:49	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 14:49	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 14:49	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 14:49	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 14:49	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 14:49	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 14:49	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 14:49	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 14:49	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 14:49	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 14:49	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1010M-20190403-01**

**Lab Sample ID: 480-151403-5**

Date Collected: 04/03/19 13:15

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 14:49	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 14:49	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 14:49	1
1,4-Dioxane	ND	*	50		ug/L			04/08/19 14:49	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 14:49	1
2-Butanone (MEK)	ND	*	10		ug/L			04/08/19 14:49	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 14:49	1
2-Hexanone	ND		10		ug/L			04/08/19 14:49	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 14:49	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 14:49	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 14:49	1
Acetone	ND	*	50		ug/L			04/08/19 14:49	1
Benzene	ND		1.0		ug/L			04/08/19 14:49	1
Bromobenzene	ND		1.0		ug/L			04/08/19 14:49	1
Bromoform	ND		1.0		ug/L			04/08/19 14:49	1
Bromomethane	ND		2.0		ug/L			04/08/19 14:49	1
Carbon disulfide	ND		10		ug/L			04/08/19 14:49	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/08/19 14:49	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 14:49	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 14:49	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 14:49	1
Chloroethane	ND		2.0		ug/L			04/08/19 14:49	1
Chloroform	ND		1.0		ug/L			04/08/19 14:49	1
Chloromethane	ND		2.0		ug/L			04/08/19 14:49	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 14:49	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 14:49	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 14:49	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 14:49	1
Ethyl ether	ND		1.0		ug/L			04/08/19 14:49	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 14:49	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 14:49	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 14:49	1
Isopropyl ether	ND		10		ug/L			04/08/19 14:49	1
Isopropylbenzene	ND		1.0		ug/L			04/08/19 14:49	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 14:49	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 14:49	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 14:49	1
Naphthalene	ND		5.0		ug/L			04/08/19 14:49	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 14:49	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 14:49	1
o-Xylene	ND		1.0		ug/L			04/08/19 14:49	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 14:49	1
Styrene	ND		1.0		ug/L			04/08/19 14:49	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 14:49	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 14:49	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 14:49	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 14:49	1
Tetrahydrofuran	ND	*	10		ug/L			04/08/19 14:49	1
Toluene	ND		1.0		ug/L			04/08/19 14:49	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1010M-20190403-01**

**Lab Sample ID: 480-151403-5**

Date Collected: 04/03/19 13:15

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 14:49	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 14:49	1
<b>Trichloroethene</b>	<b>11</b>		1.0		ug/L			04/08/19 14:49	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 14:49	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 14:49	1
Dibromomethane	ND		1.0		ug/L			04/08/19 14:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130					04/08/19 14:49	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 130					04/08/19 14:49	1
4-Bromofluorobenzene (Surr)	98		70 - 130					04/08/19 14:49	1

**Client Sample ID: MW-1010D-20190403-01**

**Lab Sample ID: 480-151403-6**

Date Collected: 04/03/19 13:35

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 15:13	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 15:13	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 15:13	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 15:13	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 15:13	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 15:13	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 15:13	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 15:13	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 15:13	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 15:13	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 15:13	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 15:13	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 15:13	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 15:13	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 15:13	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 15:13	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 15:13	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 15:13	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 15:13	1
1,4-Dioxane	ND *		50		ug/L			04/08/19 15:13	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 15:13	1
2-Butanone (MEK)	ND *		10		ug/L			04/08/19 15:13	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 15:13	1
2-Hexanone	ND		10		ug/L			04/08/19 15:13	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 15:13	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 15:13	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 15:13	1
Acetone	ND *		50		ug/L			04/08/19 15:13	1
Benzene	ND		1.0		ug/L			04/08/19 15:13	1
Bromobenzene	ND		1.0		ug/L			04/08/19 15:13	1
Bromoform	ND		1.0		ug/L			04/08/19 15:13	1
Bromomethane	ND		2.0		ug/L			04/08/19 15:13	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1010D-20190403-01**

**Lab Sample ID: 480-151403-6**

Date Collected: 04/03/19 13:35

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		10		ug/L			04/08/19 15:13	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/08/19 15:13	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 15:13	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 15:13	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 15:13	1
Chloroethane	ND		2.0		ug/L			04/08/19 15:13	1
Chloroform	ND		1.0		ug/L			04/08/19 15:13	1
Chloromethane	ND		2.0		ug/L			04/08/19 15:13	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 15:13	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 15:13	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 15:13	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 15:13	1
Ethyl ether	ND		1.0		ug/L			04/08/19 15:13	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 15:13	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 15:13	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 15:13	1
Isopropyl ether	ND		10		ug/L			04/08/19 15:13	1
Isopropylbenzene	ND		1.0		ug/L			04/08/19 15:13	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 15:13	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 15:13	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 15:13	1
Naphthalene	ND		5.0		ug/L			04/08/19 15:13	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 15:13	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 15:13	1
o-Xylene	ND		1.0		ug/L			04/08/19 15:13	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 15:13	1
Styrene	ND		1.0		ug/L			04/08/19 15:13	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 15:13	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 15:13	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 15:13	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 15:13	1
Tetrahydrofuran	ND	*	10		ug/L			04/08/19 15:13	1
Toluene	ND		1.0		ug/L			04/08/19 15:13	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 15:13	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 15:13	1
<b>Trichloroethene</b>	<b>4.1</b>		1.0		ug/L			04/08/19 15:13	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 15:13	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 15:13	1
Dibromomethane	ND		1.0		ug/L			04/08/19 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		70 - 130		04/08/19 15:13	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 130		04/08/19 15:13	1
4-Bromofluorobenzene (Surr)	97		70 - 130		04/08/19 15:13	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1011-20190403-01**

**Lab Sample ID: 480-151403-7**

Date Collected: 04/03/19 08:18

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 15:37	1
<b>1,1,1-Trichloroethane</b>	<b>38</b>		1.0		ug/L			04/08/19 15:37	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 15:37	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 15:37	1
<b>1,1-Dichloroethane</b>	<b>1.2</b>		1.0		ug/L			04/08/19 15:37	1
<b>1,1-Dichloroethene</b>	<b>1.8</b>		1.0		ug/L			04/08/19 15:37	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 15:37	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 15:37	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 15:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 15:37	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 15:37	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 15:37	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 15:37	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 15:37	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 15:37	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 15:37	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 15:37	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 15:37	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 15:37	1
1,4-Dioxane	ND *		50		ug/L			04/08/19 15:37	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 15:37	1
2-Butanone (MEK)	ND *		10		ug/L			04/08/19 15:37	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 15:37	1
2-Hexanone	ND		10		ug/L			04/08/19 15:37	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 15:37	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 15:37	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 15:37	1
Acetone	ND *		50		ug/L			04/08/19 15:37	1
Benzene	ND		1.0		ug/L			04/08/19 15:37	1
Bromobenzene	ND		1.0		ug/L			04/08/19 15:37	1
Bromoform	ND		1.0		ug/L			04/08/19 15:37	1
Bromomethane	ND		2.0		ug/L			04/08/19 15:37	1
Carbon disulfide	ND		10		ug/L			04/08/19 15:37	1
Carbon tetrachloride	ND *		1.0		ug/L			04/08/19 15:37	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 15:37	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 15:37	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 15:37	1
Chloroethane	ND		2.0		ug/L			04/08/19 15:37	1
Chloroform	ND		1.0		ug/L			04/08/19 15:37	1
Chloromethane	ND		2.0		ug/L			04/08/19 15:37	1
<b>cis-1,2-Dichloroethene</b>	<b>3.0</b>		1.0		ug/L			04/08/19 15:37	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 15:37	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 15:37	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 15:37	1
Ethyl ether	ND		1.0		ug/L			04/08/19 15:37	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 15:37	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 15:37	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 15:37	1
Isopropyl ether	ND		10		ug/L			04/08/19 15:37	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1011-20190403-01**

**Lab Sample ID: 480-151403-7**

Date Collected: 04/03/19 08:18

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			04/08/19 15:37	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 15:37	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 15:37	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 15:37	1
Naphthalene	ND		5.0		ug/L			04/08/19 15:37	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 15:37	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 15:37	1
o-Xylene	ND		1.0		ug/L			04/08/19 15:37	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 15:37	1
Styrene	ND		1.0		ug/L			04/08/19 15:37	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 15:37	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 15:37	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 15:37	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 15:37	1
Tetrahydrofuran	ND	*	10		ug/L			04/08/19 15:37	1
Toluene	ND		1.0		ug/L			04/08/19 15:37	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 15:37	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 15:37	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 15:37	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 15:37	1
Dibromomethane	ND		1.0		ug/L			04/08/19 15:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		04/08/19 15:37	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 130		04/08/19 15:37	1
4-Bromofluorobenzene (Surr)	100		70 - 130		04/08/19 15:37	1

**Method: 8260C - Volatile Organic Compounds (GC/MS) - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	140		5.0		ug/L			04/09/19 13:20	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		04/09/19 13:20	5
1,2-Dichloroethane-d4 (Surr)	116		70 - 130		04/09/19 13:20	5
4-Bromofluorobenzene (Surr)	95		70 - 130		04/09/19 13:20	5

**Client Sample ID: MW-1015D-20190403-01**

**Lab Sample ID: 480-151403-8**

Date Collected: 04/03/19 09:40

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 16:00	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 16:00	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 16:00	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 16:00	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 16:00	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 16:00	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 16:00	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 16:00	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 16:00	1

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# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1015D-20190403-01**

**Lab Sample ID: 480-151403-8**

Date Collected: 04/03/19 09:40

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 16:00	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 16:00	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 16:00	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 16:00	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 16:00	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 16:00	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 16:00	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 16:00	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 16:00	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 16:00	1
1,4-Dioxane	ND	*	50		ug/L			04/08/19 16:00	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 16:00	1
2-Butanone (MEK)	ND	*	10		ug/L			04/08/19 16:00	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 16:00	1
2-Hexanone	ND		10		ug/L			04/08/19 16:00	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 16:00	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 16:00	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 16:00	1
Acetone	ND	*	50		ug/L			04/08/19 16:00	1
Benzene	ND		1.0		ug/L			04/08/19 16:00	1
Bromobenzene	ND		1.0		ug/L			04/08/19 16:00	1
Bromoform	ND		1.0		ug/L			04/08/19 16:00	1
Bromomethane	ND		2.0		ug/L			04/08/19 16:00	1
Carbon disulfide	ND		10		ug/L			04/08/19 16:00	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/08/19 16:00	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 16:00	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 16:00	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 16:00	1
Chloroethane	ND		2.0		ug/L			04/08/19 16:00	1
Chloroform	ND		1.0		ug/L			04/08/19 16:00	1
Chloromethane	ND		2.0		ug/L			04/08/19 16:00	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 16:00	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 16:00	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 16:00	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 16:00	1
Ethyl ether	ND		1.0		ug/L			04/08/19 16:00	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 16:00	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 16:00	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 16:00	1
Isopropyl ether	ND		10		ug/L			04/08/19 16:00	1
Isopropylbenzene	ND		1.0		ug/L			04/08/19 16:00	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 16:00	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 16:00	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 16:00	1
Naphthalene	ND		5.0		ug/L			04/08/19 16:00	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 16:00	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 16:00	1
o-Xylene	ND		1.0		ug/L			04/08/19 16:00	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 16:00	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1015D-20190403-01**

**Lab Sample ID: 480-151403-8**

Date Collected: 04/03/19 09:40

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0		ug/L			04/08/19 16:00	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 16:00	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 16:00	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 16:00	1
<b>Tetrachloroethene</b>	<b>1.5</b>		1.0		ug/L			04/08/19 16:00	1
Tetrahydrofuran	ND	*	10		ug/L			04/08/19 16:00	1
Toluene	ND		1.0		ug/L			04/08/19 16:00	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 16:00	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 16:00	1
<b>Trichloroethene</b>	<b>8.4</b>		1.0		ug/L			04/08/19 16:00	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 16:00	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 16:00	1
Dibromomethane	ND		1.0		ug/L			04/08/19 16:00	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Toluene-d8 (Surr)</i>	100		70 - 130					04/08/19 16:00	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	109		70 - 130					04/08/19 16:00	1
<i>4-Bromofluorobenzene (Surr)</i>	98		70 - 130					04/08/19 16:00	1

**Client Sample ID: MW-1016D-20190403-01**

**Lab Sample ID: 480-151403-9**

Date Collected: 04/03/19 14:35

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 16:24	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 16:24	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 16:24	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 16:24	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 16:24	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 16:24	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 16:24	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 16:24	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 16:24	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 16:24	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 16:24	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 16:24	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 16:24	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 16:24	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 16:24	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 16:24	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 16:24	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 16:24	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 16:24	1
1,4-Dioxane	ND	*	50		ug/L			04/08/19 16:24	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 16:24	1
2-Butanone (MEK)	ND	*	10		ug/L			04/08/19 16:24	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 16:24	1
2-Hexanone	ND		10		ug/L			04/08/19 16:24	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 16:24	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1016D-20190403-01**

**Lab Sample ID: 480-151403-9**

Date Collected: 04/03/19 14:35

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 16:24	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 16:24	1
Acetone	ND	*	50		ug/L			04/08/19 16:24	1
Benzene	ND		1.0		ug/L			04/08/19 16:24	1
Bromobenzene	ND		1.0		ug/L			04/08/19 16:24	1
Bromoform	ND		1.0		ug/L			04/08/19 16:24	1
Bromomethane	ND		2.0		ug/L			04/08/19 16:24	1
Carbon disulfide	ND		10		ug/L			04/08/19 16:24	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/08/19 16:24	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 16:24	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 16:24	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 16:24	1
Chloroethane	ND		2.0		ug/L			04/08/19 16:24	1
Chloroform	ND		1.0		ug/L			04/08/19 16:24	1
Chloromethane	ND		2.0		ug/L			04/08/19 16:24	1
<b>cis-1,2-Dichloroethene</b>	<b>1.5</b>		1.0		ug/L			04/08/19 16:24	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 16:24	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 16:24	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 16:24	1
Ethyl ether	ND		1.0		ug/L			04/08/19 16:24	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 16:24	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 16:24	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 16:24	1
Isopropyl ether	ND		10		ug/L			04/08/19 16:24	1
Isopropylbenzene	ND		1.0		ug/L			04/08/19 16:24	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 16:24	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 16:24	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 16:24	1
Naphthalene	ND		5.0		ug/L			04/08/19 16:24	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 16:24	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 16:24	1
o-Xylene	ND		1.0		ug/L			04/08/19 16:24	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 16:24	1
Styrene	ND		1.0		ug/L			04/08/19 16:24	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 16:24	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 16:24	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 16:24	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 16:24	1
Tetrahydrofuran	ND	*	10		ug/L			04/08/19 16:24	1
Toluene	ND		1.0		ug/L			04/08/19 16:24	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 16:24	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 16:24	1
<b>Trichloroethene</b>	<b>16</b>		1.0		ug/L			04/08/19 16:24	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 16:24	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 16:24	1
Dibromomethane	ND		1.0		ug/L			04/08/19 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		04/08/19 16:24	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 130		04/08/19 16:24	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1016D-20190403-01**

**Lab Sample ID: 480-151403-9**

Date Collected: 04/03/19 14:35

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130		04/08/19 16:24	1

**Client Sample ID: MW-1017D-20190403-01**

**Lab Sample ID: 480-151403-10**

Date Collected: 04/03/19 14:15

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 16:48	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 16:48	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 16:48	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 16:48	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 16:48	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 16:48	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 16:48	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 16:48	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 16:48	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 16:48	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 16:48	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 16:48	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 16:48	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 16:48	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 16:48	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 16:48	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 16:48	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 16:48	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 16:48	1
1,4-Dioxane	ND *		50		ug/L			04/08/19 16:48	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 16:48	1
2-Butanone (MEK)	ND *		10		ug/L			04/08/19 16:48	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 16:48	1
2-Hexanone	ND		10		ug/L			04/08/19 16:48	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 16:48	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 16:48	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 16:48	1
Acetone	ND *		50		ug/L			04/08/19 16:48	1
Benzene	ND		1.0		ug/L			04/08/19 16:48	1
Bromobenzene	ND		1.0		ug/L			04/08/19 16:48	1
Bromoform	ND		1.0		ug/L			04/08/19 16:48	1
Bromomethane	ND		2.0		ug/L			04/08/19 16:48	1
Carbon disulfide	ND		10		ug/L			04/08/19 16:48	1
Carbon tetrachloride	ND *		1.0		ug/L			04/08/19 16:48	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 16:48	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 16:48	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 16:48	1
Chloroethane	ND		2.0		ug/L			04/08/19 16:48	1
Chloroform	ND		1.0		ug/L			04/08/19 16:48	1
Chloromethane	ND		2.0		ug/L			04/08/19 16:48	1
<b>cis-1,2-Dichloroethene</b>	<b>24</b>		1.0		ug/L			04/08/19 16:48	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1017D-20190403-01**

**Lab Sample ID: 480-151403-10**

Date Collected: 04/03/19 14:15

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 16:48	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 16:48	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 16:48	1
Ethyl ether	ND		1.0		ug/L			04/08/19 16:48	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 16:48	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 16:48	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 16:48	1
Isopropyl ether	ND		10		ug/L			04/08/19 16:48	1
Isopropylbenzene	ND		1.0		ug/L			04/08/19 16:48	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 16:48	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 16:48	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 16:48	1
Naphthalene	ND		5.0		ug/L			04/08/19 16:48	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 16:48	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 16:48	1
o-Xylene	ND		1.0		ug/L			04/08/19 16:48	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 16:48	1
Styrene	ND		1.0		ug/L			04/08/19 16:48	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 16:48	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 16:48	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 16:48	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 16:48	1
Tetrahydrofuran	ND *		10		ug/L			04/08/19 16:48	1
Toluene	ND		1.0		ug/L			04/08/19 16:48	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 16:48	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 16:48	1
<b>Trichloroethene</b>	<b>13</b>		1.0		ug/L			04/08/19 16:48	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 16:48	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 16:48	1
Dibromomethane	ND		1.0		ug/L			04/08/19 16:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130					04/08/19 16:48	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 130					04/08/19 16:48	1
4-Bromofluorobenzene (Surr)	96		70 - 130					04/08/19 16:48	1

**Client Sample ID: MW-1018-20190403-01**

**Lab Sample ID: 480-151403-11**

Date Collected: 04/03/19 15:35

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 17:12	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 17:12	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 17:12	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 17:12	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 17:12	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 17:12	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 17:12	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 17:12	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1018-20190403-01**

**Lab Sample ID: 480-151403-11**

Date Collected: 04/03/19 15:35

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 17:12	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 17:12	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 17:12	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 17:12	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 17:12	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 17:12	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 17:12	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 17:12	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 17:12	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 17:12	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 17:12	1
1,4-Dioxane	ND	*	50		ug/L			04/08/19 17:12	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 17:12	1
2-Butanone (MEK)	ND	*	10		ug/L			04/08/19 17:12	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 17:12	1
2-Hexanone	ND		10		ug/L			04/08/19 17:12	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 17:12	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 17:12	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 17:12	1
Acetone	ND	*	50		ug/L			04/08/19 17:12	1
Benzene	ND		1.0		ug/L			04/08/19 17:12	1
Bromobenzene	ND		1.0		ug/L			04/08/19 17:12	1
Bromoform	ND		1.0		ug/L			04/08/19 17:12	1
Bromomethane	ND		2.0		ug/L			04/08/19 17:12	1
Carbon disulfide	ND		10		ug/L			04/08/19 17:12	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/08/19 17:12	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 17:12	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 17:12	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 17:12	1
Chloroethane	ND		2.0		ug/L			04/08/19 17:12	1
Chloroform	ND		1.0		ug/L			04/08/19 17:12	1
Chloromethane	ND		2.0		ug/L			04/08/19 17:12	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 17:12	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 17:12	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 17:12	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 17:12	1
Ethyl ether	ND		1.0		ug/L			04/08/19 17:12	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 17:12	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 17:12	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 17:12	1
Isopropyl ether	ND		10		ug/L			04/08/19 17:12	1
Isopropylbenzene	ND		1.0		ug/L			04/08/19 17:12	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 17:12	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 17:12	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 17:12	1
Naphthalene	ND		5.0		ug/L			04/08/19 17:12	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 17:12	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 17:12	1
o-Xylene	ND		1.0		ug/L			04/08/19 17:12	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1018-20190403-01**

**Lab Sample ID: 480-151403-11**

Date Collected: 04/03/19 15:35

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 17:12	1
Styrene	ND		1.0		ug/L			04/08/19 17:12	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 17:12	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 17:12	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 17:12	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 17:12	1
Tetrahydrofuran	ND	*	10		ug/L			04/08/19 17:12	1
Toluene	ND		1.0		ug/L			04/08/19 17:12	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 17:12	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 17:12	1
Trichloroethene	ND		1.0		ug/L			04/08/19 17:12	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 17:12	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 17:12	1
Dibromomethane	ND		1.0		ug/L			04/08/19 17:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130					04/08/19 17:12	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 130					04/08/19 17:12	1
4-Bromofluorobenzene (Surr)	97		70 - 130					04/08/19 17:12	1

**Client Sample ID: MW-1019B-20190403-01**

**Lab Sample ID: 480-151403-12**

Date Collected: 04/03/19 13:45

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 17:36	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 17:36	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 17:36	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 17:36	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 17:36	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 17:36	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 17:36	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 17:36	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 17:36	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 17:36	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 17:36	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 17:36	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 17:36	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 17:36	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 17:36	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 17:36	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 17:36	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 17:36	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 17:36	1
1,4-Dioxane	ND	*	50		ug/L			04/08/19 17:36	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 17:36	1
2-Butanone (MEK)	ND	*	10		ug/L			04/08/19 17:36	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 17:36	1
2-Hexanone	ND		10		ug/L			04/08/19 17:36	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1019B-20190403-01**

**Lab Sample ID: 480-151403-12**

Date Collected: 04/03/19 13:45

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 17:36	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 17:36	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 17:36	1
Acetone	ND	*	50		ug/L			04/08/19 17:36	1
Benzene	ND		1.0		ug/L			04/08/19 17:36	1
Bromobenzene	ND		1.0		ug/L			04/08/19 17:36	1
Bromoform	ND		1.0		ug/L			04/08/19 17:36	1
Bromomethane	ND		2.0		ug/L			04/08/19 17:36	1
Carbon disulfide	ND		10		ug/L			04/08/19 17:36	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/08/19 17:36	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 17:36	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 17:36	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 17:36	1
Chloroethane	ND		2.0		ug/L			04/08/19 17:36	1
Chloroform	ND		1.0		ug/L			04/08/19 17:36	1
Chloromethane	ND		2.0		ug/L			04/08/19 17:36	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 17:36	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 17:36	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 17:36	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 17:36	1
Ethyl ether	ND		1.0		ug/L			04/08/19 17:36	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 17:36	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 17:36	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 17:36	1
Isopropyl ether	ND		10		ug/L			04/08/19 17:36	1
Isopropylbenzene	ND		1.0		ug/L			04/08/19 17:36	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 17:36	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 17:36	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 17:36	1
Naphthalene	ND		5.0		ug/L			04/08/19 17:36	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 17:36	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 17:36	1
o-Xylene	ND		1.0		ug/L			04/08/19 17:36	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 17:36	1
Styrene	ND		1.0		ug/L			04/08/19 17:36	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 17:36	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 17:36	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 17:36	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 17:36	1
Tetrahydrofuran	ND	*	10		ug/L			04/08/19 17:36	1
Toluene	ND		1.0		ug/L			04/08/19 17:36	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 17:36	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 17:36	1
Trichloroethene	ND		1.0		ug/L			04/08/19 17:36	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 17:36	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 17:36	1
Dibromomethane	ND		1.0		ug/L			04/08/19 17:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130		04/08/19 17:36	1

Eurofins TestAmerica, Buffalo



# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1019B-20190403-01**

**Lab Sample ID: 480-151403-12**

Date Collected: 04/03/19 13:45

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 130		04/08/19 17:36	1
4-Bromofluorobenzene (Surr)	98		70 - 130		04/08/19 17:36	1

**Client Sample ID: MW-1024D-20190403-01**

**Lab Sample ID: 480-151403-13**

Date Collected: 04/03/19 16:20

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 18:00	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 18:00	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 18:00	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 18:00	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 18:00	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 18:00	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 18:00	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 18:00	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 18:00	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 18:00	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 18:00	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 18:00	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 18:00	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 18:00	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 18:00	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 18:00	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 18:00	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 18:00	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 18:00	1
1,4-Dioxane	ND *		50		ug/L			04/08/19 18:00	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 18:00	1
2-Butanone (MEK)	ND *		10		ug/L			04/08/19 18:00	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 18:00	1
2-Hexanone	ND		10		ug/L			04/08/19 18:00	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 18:00	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 18:00	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 18:00	1
Acetone	ND *		50		ug/L			04/08/19 18:00	1
Benzene	ND		1.0		ug/L			04/08/19 18:00	1
Bromobenzene	ND		1.0		ug/L			04/08/19 18:00	1
Bromoform	ND		1.0		ug/L			04/08/19 18:00	1
Bromomethane	ND		2.0		ug/L			04/08/19 18:00	1
Carbon disulfide	ND		10		ug/L			04/08/19 18:00	1
Carbon tetrachloride	ND *		1.0		ug/L			04/08/19 18:00	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 18:00	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 18:00	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 18:00	1
Chloroethane	ND		2.0		ug/L			04/08/19 18:00	1
Chloroform	ND		1.0		ug/L			04/08/19 18:00	1
Chloromethane	ND		2.0		ug/L			04/08/19 18:00	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1024D-20190403-01**

**Lab Sample ID: 480-151403-13**

Date Collected: 04/03/19 16:20

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>cis-1,2-Dichloroethene</b>	<b>2.4</b>		1.0		ug/L			04/08/19 18:00	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 18:00	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 18:00	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 18:00	1
Ethyl ether	ND		1.0		ug/L			04/08/19 18:00	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 18:00	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 18:00	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 18:00	1
Isopropyl ether	ND		10		ug/L			04/08/19 18:00	1
Isopropylbenzene	ND		1.0		ug/L			04/08/19 18:00	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 18:00	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 18:00	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 18:00	1
Naphthalene	ND		5.0		ug/L			04/08/19 18:00	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 18:00	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 18:00	1
o-Xylene	ND		1.0		ug/L			04/08/19 18:00	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 18:00	1
Styrene	ND		1.0		ug/L			04/08/19 18:00	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 18:00	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 18:00	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 18:00	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 18:00	1
Tetrahydrofuran	ND *		10		ug/L			04/08/19 18:00	1
Toluene	ND		1.0		ug/L			04/08/19 18:00	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 18:00	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 18:00	1
<b>Trichloroethene</b>	<b>5.8</b>		1.0		ug/L			04/08/19 18:00	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 18:00	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 18:00	1
Dibromomethane	ND		1.0		ug/L			04/08/19 18:00	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Toluene-d8 (Surr)</i>	100		70 - 130					04/08/19 18:00	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	113		70 - 130					04/08/19 18:00	1
<i>4-Bromofluorobenzene (Surr)</i>	95		70 - 130					04/08/19 18:00	1

**Client Sample ID: MW-1025D-20190403-01**

**Lab Sample ID: 480-151403-14**

Date Collected: 04/03/19 11:50

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 18:24	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 18:24	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 18:24	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 18:24	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 18:24	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 18:24	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 18:24	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1025D-20190403-01**

**Lab Sample ID: 480-151403-14**

Date Collected: 04/03/19 11:50

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 18:24	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 18:24	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 18:24	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 18:24	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 18:24	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 18:24	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 18:24	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 18:24	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 18:24	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 18:24	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 18:24	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 18:24	1
1,4-Dioxane	ND	*	50		ug/L			04/08/19 18:24	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 18:24	1
2-Butanone (MEK)	ND	*	10		ug/L			04/08/19 18:24	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 18:24	1
2-Hexanone	ND		10		ug/L			04/08/19 18:24	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 18:24	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 18:24	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 18:24	1
Acetone	ND	*	50		ug/L			04/08/19 18:24	1
Benzene	ND		1.0		ug/L			04/08/19 18:24	1
Bromobenzene	ND		1.0		ug/L			04/08/19 18:24	1
Bromoform	ND		1.0		ug/L			04/08/19 18:24	1
Bromomethane	ND		2.0		ug/L			04/08/19 18:24	1
Carbon disulfide	ND		10		ug/L			04/08/19 18:24	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/08/19 18:24	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 18:24	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 18:24	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 18:24	1
Chloroethane	ND		2.0		ug/L			04/08/19 18:24	1
Chloroform	ND		1.0		ug/L			04/08/19 18:24	1
Chloromethane	ND		2.0		ug/L			04/08/19 18:24	1
<b>cis-1,2-Dichloroethene</b>	<b>1.4</b>		1.0		ug/L			04/08/19 18:24	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 18:24	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 18:24	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 18:24	1
Ethyl ether	ND		1.0		ug/L			04/08/19 18:24	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 18:24	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 18:24	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 18:24	1
Isopropyl ether	ND		10		ug/L			04/08/19 18:24	1
Isopropylbenzene	ND		1.0		ug/L			04/08/19 18:24	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 18:24	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 18:24	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 18:24	1
Naphthalene	ND		5.0		ug/L			04/08/19 18:24	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 18:24	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 18:24	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1025D-20190403-01**

**Lab Sample ID: 480-151403-14**

Date Collected: 04/03/19 11:50

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0		ug/L			04/08/19 18:24	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 18:24	1
Styrene	ND		1.0		ug/L			04/08/19 18:24	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 18:24	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 18:24	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 18:24	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 18:24	1
Tetrahydrofuran	ND	*	10		ug/L			04/08/19 18:24	1
Toluene	ND		1.0		ug/L			04/08/19 18:24	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 18:24	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 18:24	1
Trichloroethene	ND		1.0		ug/L			04/08/19 18:24	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 18:24	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 18:24	1
Dibromomethane	ND		1.0		ug/L			04/08/19 18:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130					04/08/19 18:24	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 130					04/08/19 18:24	1
4-Bromofluorobenzene (Surr)	97		70 - 130					04/08/19 18:24	1

**Client Sample ID: MW-1027-20190403-01**

**Lab Sample ID: 480-151403-15**

Date Collected: 04/03/19 13:05

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 18:48	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 18:48	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 18:48	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 18:48	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 18:48	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 18:48	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 18:48	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 18:48	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 18:48	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 18:48	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 18:48	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 18:48	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 18:48	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 18:48	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 18:48	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 18:48	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 18:48	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 18:48	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 18:48	1
1,4-Dioxane	ND	*	50		ug/L			04/08/19 18:48	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 18:48	1
2-Butanone (MEK)	ND	*	10		ug/L			04/08/19 18:48	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 18:48	1

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# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1027-20190403-01**

**Lab Sample ID: 480-151403-15**

Date Collected: 04/03/19 13:05

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		10		ug/L			04/08/19 18:48	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 18:48	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 18:48	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 18:48	1
Acetone	ND	*	50		ug/L			04/08/19 18:48	1
Benzene	ND		1.0		ug/L			04/08/19 18:48	1
Bromobenzene	ND		1.0		ug/L			04/08/19 18:48	1
Bromoform	ND		1.0		ug/L			04/08/19 18:48	1
Bromomethane	ND		2.0		ug/L			04/08/19 18:48	1
Carbon disulfide	ND		10		ug/L			04/08/19 18:48	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/08/19 18:48	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 18:48	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 18:48	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 18:48	1
Chloroethane	ND		2.0		ug/L			04/08/19 18:48	1
Chloroform	ND		1.0		ug/L			04/08/19 18:48	1
Chloromethane	ND		2.0		ug/L			04/08/19 18:48	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 18:48	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 18:48	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 18:48	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 18:48	1
Ethyl ether	ND		1.0		ug/L			04/08/19 18:48	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 18:48	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 18:48	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 18:48	1
Isopropyl ether	ND		10		ug/L			04/08/19 18:48	1
Isopropylbenzene	ND		1.0		ug/L			04/08/19 18:48	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 18:48	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 18:48	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 18:48	1
Naphthalene	ND		5.0		ug/L			04/08/19 18:48	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 18:48	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 18:48	1
o-Xylene	ND		1.0		ug/L			04/08/19 18:48	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 18:48	1
Styrene	ND		1.0		ug/L			04/08/19 18:48	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 18:48	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 18:48	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 18:48	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 18:48	1
Tetrahydrofuran	ND	*	10		ug/L			04/08/19 18:48	1
Toluene	ND		1.0		ug/L			04/08/19 18:48	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 18:48	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 18:48	1
Trichloroethene	ND		1.0		ug/L			04/08/19 18:48	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 18:48	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 18:48	1
Dibromomethane	ND		1.0		ug/L			04/08/19 18:48	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1027-20190403-01**

**Lab Sample ID: 480-151403-15**

Date Collected: 04/03/19 13:05

Matrix: Water

Date Received: 04/05/19 01:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130		04/08/19 18:48	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 130		04/08/19 18:48	1
4-Bromofluorobenzene (Surr)	95		70 - 130		04/08/19 18:48	1

**Client Sample ID: MW-1028-20190403-01**

**Lab Sample ID: 480-151403-16**

Date Collected: 04/03/19 13:17

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/09/19 13:44	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/09/19 13:44	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/09/19 13:44	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/09/19 13:44	1
1,1-Dichloroethane	ND		1.0		ug/L			04/09/19 13:44	1
1,1-Dichloroethene	ND		1.0		ug/L			04/09/19 13:44	1
1,1-Dichloropropene	ND		1.0		ug/L			04/09/19 13:44	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/09/19 13:44	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/09/19 13:44	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/09/19 13:44	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/09/19 13:44	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/09/19 13:44	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/09/19 13:44	1
1,2-Dichloroethane	ND		1.0		ug/L			04/09/19 13:44	1
1,2-Dichloropropane	ND		1.0		ug/L			04/09/19 13:44	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/09/19 13:44	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/09/19 13:44	1
1,3-Dichloropropane	ND		1.0		ug/L			04/09/19 13:44	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/09/19 13:44	1
1,4-Dioxane	ND		50		ug/L			04/09/19 13:44	1
2,2-Dichloropropane	ND		1.0		ug/L			04/09/19 13:44	1
2-Butanone (MEK)	ND	*	10		ug/L			04/09/19 13:44	1
2-Chlorotoluene	ND		1.0		ug/L			04/09/19 13:44	1
2-Hexanone	ND		10		ug/L			04/09/19 13:44	1
4-Chlorotoluene	ND		1.0		ug/L			04/09/19 13:44	1
4-Isopropyltoluene	ND		1.0		ug/L			04/09/19 13:44	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/09/19 13:44	1
Acetone	ND	*	50		ug/L			04/09/19 13:44	1
Benzene	ND		1.0		ug/L			04/09/19 13:44	1
Bromobenzene	ND		1.0		ug/L			04/09/19 13:44	1
Bromoform	ND		1.0		ug/L			04/09/19 13:44	1
Bromomethane	ND		2.0		ug/L			04/09/19 13:44	1
Carbon disulfide	ND		10		ug/L			04/09/19 13:44	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/09/19 13:44	1
Chlorobenzene	ND		1.0		ug/L			04/09/19 13:44	1
Chlorobromomethane	ND		1.0		ug/L			04/09/19 13:44	1
Chlorodibromomethane	ND		0.50		ug/L			04/09/19 13:44	1
Chloroethane	ND		2.0		ug/L			04/09/19 13:44	1
Chloroform	ND		1.0		ug/L			04/09/19 13:44	1
Chloromethane	ND		2.0		ug/L			04/09/19 13:44	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1028-20190403-01**

**Lab Sample ID: 480-151403-16**

Date Collected: 04/03/19 13:17

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 13:44	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 13:44	1
Dichlorobromomethane	ND		0.50		ug/L			04/09/19 13:44	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/09/19 13:44	1
Ethyl ether	ND		1.0		ug/L			04/09/19 13:44	1
Ethylbenzene	ND		1.0		ug/L			04/09/19 13:44	1
Ethylene Dibromide	ND		1.0		ug/L			04/09/19 13:44	1
Hexachlorobutadiene	ND		0.40		ug/L			04/09/19 13:44	1
Isopropyl ether	ND		10		ug/L			04/09/19 13:44	1
Isopropylbenzene	ND		1.0		ug/L			04/09/19 13:44	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/09/19 13:44	1
Methylene Chloride	ND		1.0		ug/L			04/09/19 13:44	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/09/19 13:44	1
Naphthalene	ND		5.0		ug/L			04/09/19 13:44	1
n-Butylbenzene	ND		1.0		ug/L			04/09/19 13:44	1
N-Propylbenzene	ND		1.0		ug/L			04/09/19 13:44	1
o-Xylene	ND		1.0		ug/L			04/09/19 13:44	1
sec-Butylbenzene	ND		1.0		ug/L			04/09/19 13:44	1
Styrene	ND		1.0		ug/L			04/09/19 13:44	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/09/19 13:44	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/09/19 13:44	1
tert-Butylbenzene	ND		1.0		ug/L			04/09/19 13:44	1
Tetrachloroethene	ND		1.0		ug/L			04/09/19 13:44	1
Tetrahydrofuran	ND *		10		ug/L			04/09/19 13:44	1
Toluene	ND		1.0		ug/L			04/09/19 13:44	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 13:44	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 13:44	1
<b>Trichloroethene</b>	<b>3.9</b>		1.0		ug/L			04/09/19 13:44	1
Trichlorofluoromethane	ND		1.0		ug/L			04/09/19 13:44	1
Vinyl chloride	ND		1.0		ug/L			04/09/19 13:44	1
Dibromomethane	ND		1.0		ug/L			04/09/19 13:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130		04/09/19 13:44	1
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		04/09/19 13:44	1
4-Bromofluorobenzene (Surr)	95		70 - 130		04/09/19 13:44	1

**Client Sample ID: MW-1030-20190403-01**

**Lab Sample ID: 480-151403-17**

Date Collected: 04/03/19 11:00

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/09/19 14:09	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/09/19 14:09	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/09/19 14:09	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/09/19 14:09	1
1,1-Dichloroethane	ND		1.0		ug/L			04/09/19 14:09	1
1,1-Dichloroethene	ND		1.0		ug/L			04/09/19 14:09	1
1,1-Dichloropropene	ND		1.0		ug/L			04/09/19 14:09	1

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# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1030-20190403-01**

**Lab Sample ID: 480-151403-17**

Date Collected: 04/03/19 11:00

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/09/19 14:09	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/09/19 14:09	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/09/19 14:09	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/09/19 14:09	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/09/19 14:09	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/09/19 14:09	1
1,2-Dichloroethane	ND		1.0		ug/L			04/09/19 14:09	1
1,2-Dichloropropane	ND		1.0		ug/L			04/09/19 14:09	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/09/19 14:09	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/09/19 14:09	1
1,3-Dichloropropane	ND		1.0		ug/L			04/09/19 14:09	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/09/19 14:09	1
1,4-Dioxane	ND		50		ug/L			04/09/19 14:09	1
2,2-Dichloropropane	ND		1.0		ug/L			04/09/19 14:09	1
2-Butanone (MEK)	ND	*	10		ug/L			04/09/19 14:09	1
2-Chlorotoluene	ND		1.0		ug/L			04/09/19 14:09	1
2-Hexanone	ND		10		ug/L			04/09/19 14:09	1
4-Chlorotoluene	ND		1.0		ug/L			04/09/19 14:09	1
4-Isopropyltoluene	ND		1.0		ug/L			04/09/19 14:09	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/09/19 14:09	1
Acetone	ND	*	50		ug/L			04/09/19 14:09	1
Benzene	ND		1.0		ug/L			04/09/19 14:09	1
Bromobenzene	ND		1.0		ug/L			04/09/19 14:09	1
Bromoform	ND		1.0		ug/L			04/09/19 14:09	1
Bromomethane	ND		2.0		ug/L			04/09/19 14:09	1
Carbon disulfide	ND		10		ug/L			04/09/19 14:09	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/09/19 14:09	1
Chlorobenzene	ND		1.0		ug/L			04/09/19 14:09	1
Chlorobromomethane	ND		1.0		ug/L			04/09/19 14:09	1
Chlorodibromomethane	ND		0.50		ug/L			04/09/19 14:09	1
Chloroethane	ND		2.0		ug/L			04/09/19 14:09	1
Chloroform	ND		1.0		ug/L			04/09/19 14:09	1
Chloromethane	ND		2.0		ug/L			04/09/19 14:09	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 14:09	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 14:09	1
Dichlorobromomethane	ND		0.50		ug/L			04/09/19 14:09	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/09/19 14:09	1
Ethyl ether	ND		1.0		ug/L			04/09/19 14:09	1
Ethylbenzene	ND		1.0		ug/L			04/09/19 14:09	1
Ethylene Dibromide	ND		1.0		ug/L			04/09/19 14:09	1
Hexachlorobutadiene	ND		0.40		ug/L			04/09/19 14:09	1
Isopropyl ether	ND		10		ug/L			04/09/19 14:09	1
Isopropylbenzene	ND		1.0		ug/L			04/09/19 14:09	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/09/19 14:09	1
Methylene Chloride	ND		1.0		ug/L			04/09/19 14:09	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/09/19 14:09	1
Naphthalene	ND		5.0		ug/L			04/09/19 14:09	1
n-Butylbenzene	ND		1.0		ug/L			04/09/19 14:09	1
N-Propylbenzene	ND		1.0		ug/L			04/09/19 14:09	1



# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1030-20190403-01**

**Lab Sample ID: 480-151403-17**

Date Collected: 04/03/19 11:00

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0		ug/L			04/09/19 14:09	1
sec-Butylbenzene	ND		1.0		ug/L			04/09/19 14:09	1
Styrene	ND		1.0		ug/L			04/09/19 14:09	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/09/19 14:09	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/09/19 14:09	1
tert-Butylbenzene	ND		1.0		ug/L			04/09/19 14:09	1
Tetrachloroethene	ND		1.0		ug/L			04/09/19 14:09	1
Tetrahydrofuran	ND	*	10		ug/L			04/09/19 14:09	1
Toluene	ND		1.0		ug/L			04/09/19 14:09	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 14:09	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 14:09	1
<b>Trichloroethene</b>	<b>2.7</b>		1.0		ug/L			04/09/19 14:09	1
Trichlorofluoromethane	ND		1.0		ug/L			04/09/19 14:09	1
Vinyl chloride	ND		1.0		ug/L			04/09/19 14:09	1
Dibromomethane	ND		1.0		ug/L			04/09/19 14:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130					04/09/19 14:09	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 130					04/09/19 14:09	1
4-Bromofluorobenzene (Surr)	96		70 - 130					04/09/19 14:09	1

**Client Sample ID: MW-1031-20190403-01**

**Lab Sample ID: 480-151403-18**

Date Collected: 04/03/19 11:20

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/09/19 14:33	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/09/19 14:33	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/09/19 14:33	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/09/19 14:33	1
1,1-Dichloroethane	ND		1.0		ug/L			04/09/19 14:33	1
1,1-Dichloroethene	ND		1.0		ug/L			04/09/19 14:33	1
1,1-Dichloropropene	ND		1.0		ug/L			04/09/19 14:33	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/09/19 14:33	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/09/19 14:33	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/09/19 14:33	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/09/19 14:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/09/19 14:33	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/09/19 14:33	1
1,2-Dichloroethane	ND		1.0		ug/L			04/09/19 14:33	1
1,2-Dichloropropane	ND		1.0		ug/L			04/09/19 14:33	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/09/19 14:33	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/09/19 14:33	1
1,3-Dichloropropane	ND		1.0		ug/L			04/09/19 14:33	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/09/19 14:33	1
1,4-Dioxane	ND		50		ug/L			04/09/19 14:33	1
2,2-Dichloropropane	ND		1.0		ug/L			04/09/19 14:33	1
2-Butanone (MEK)	ND	*	10		ug/L			04/09/19 14:33	1
2-Chlorotoluene	ND		1.0		ug/L			04/09/19 14:33	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1031-20190403-01**

**Lab Sample ID: 480-151403-18**

Date Collected: 04/03/19 11:20

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		10		ug/L			04/09/19 14:33	1
4-Chlorotoluene	ND		1.0		ug/L			04/09/19 14:33	1
4-Isopropyltoluene	ND		1.0		ug/L			04/09/19 14:33	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/09/19 14:33	1
Acetone	ND	*	50		ug/L			04/09/19 14:33	1
Benzene	ND		1.0		ug/L			04/09/19 14:33	1
Bromobenzene	ND		1.0		ug/L			04/09/19 14:33	1
Bromoform	ND		1.0		ug/L			04/09/19 14:33	1
Bromomethane	ND		2.0		ug/L			04/09/19 14:33	1
Carbon disulfide	ND		10		ug/L			04/09/19 14:33	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/09/19 14:33	1
Chlorobenzene	ND		1.0		ug/L			04/09/19 14:33	1
Chlorobromomethane	ND		1.0		ug/L			04/09/19 14:33	1
Chlorodibromomethane	ND		0.50		ug/L			04/09/19 14:33	1
Chloroethane	ND		2.0		ug/L			04/09/19 14:33	1
Chloroform	ND		1.0		ug/L			04/09/19 14:33	1
Chloromethane	ND		2.0		ug/L			04/09/19 14:33	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 14:33	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 14:33	1
Dichlorobromomethane	ND		0.50		ug/L			04/09/19 14:33	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/09/19 14:33	1
Ethyl ether	ND		1.0		ug/L			04/09/19 14:33	1
Ethylbenzene	ND		1.0		ug/L			04/09/19 14:33	1
Ethylene Dibromide	ND		1.0		ug/L			04/09/19 14:33	1
Hexachlorobutadiene	ND		0.40		ug/L			04/09/19 14:33	1
Isopropyl ether	ND		10		ug/L			04/09/19 14:33	1
Isopropylbenzene	ND		1.0		ug/L			04/09/19 14:33	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/09/19 14:33	1
Methylene Chloride	ND		1.0		ug/L			04/09/19 14:33	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/09/19 14:33	1
Naphthalene	ND		5.0		ug/L			04/09/19 14:33	1
n-Butylbenzene	ND		1.0		ug/L			04/09/19 14:33	1
N-Propylbenzene	ND		1.0		ug/L			04/09/19 14:33	1
o-Xylene	ND		1.0		ug/L			04/09/19 14:33	1
sec-Butylbenzene	ND		1.0		ug/L			04/09/19 14:33	1
Styrene	ND		1.0		ug/L			04/09/19 14:33	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/09/19 14:33	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/09/19 14:33	1
tert-Butylbenzene	ND		1.0		ug/L			04/09/19 14:33	1
Tetrachloroethene	ND		1.0		ug/L			04/09/19 14:33	1
Tetrahydrofuran	ND	*	10		ug/L			04/09/19 14:33	1
Toluene	ND		1.0		ug/L			04/09/19 14:33	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 14:33	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 14:33	1
Trichloroethene	ND		1.0		ug/L			04/09/19 14:33	1
Trichlorofluoromethane	ND		1.0		ug/L			04/09/19 14:33	1
Vinyl chloride	ND		1.0		ug/L			04/09/19 14:33	1
Dibromomethane	ND		1.0		ug/L			04/09/19 14:33	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1031-20190403-01**

**Lab Sample ID: 480-151403-18**

Date Collected: 04/03/19 11:20

Matrix: Water

Date Received: 04/05/19 01:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		04/09/19 14:33	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 130		04/09/19 14:33	1
4-Bromofluorobenzene (Surr)	100		70 - 130		04/09/19 14:33	1

**Client Sample ID: MW-1032-20190403-01**

**Lab Sample ID: 480-151403-19**

Date Collected: 04/03/19 11:34

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/09/19 14:57	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/09/19 14:57	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/09/19 14:57	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/09/19 14:57	1
<b>1,1-Dichloroethane</b>	<b>1.1</b>		1.0		ug/L			04/09/19 14:57	1
<b>1,1-Dichloroethene</b>	<b>1.3</b>		1.0		ug/L			04/09/19 14:57	1
1,1-Dichloropropene	ND		1.0		ug/L			04/09/19 14:57	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/09/19 14:57	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/09/19 14:57	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/09/19 14:57	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/09/19 14:57	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/09/19 14:57	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/09/19 14:57	1
1,2-Dichloroethane	ND		1.0		ug/L			04/09/19 14:57	1
1,2-Dichloropropane	ND		1.0		ug/L			04/09/19 14:57	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/09/19 14:57	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/09/19 14:57	1
1,3-Dichloropropane	ND		1.0		ug/L			04/09/19 14:57	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/09/19 14:57	1
1,4-Dioxane	ND		50		ug/L			04/09/19 14:57	1
2,2-Dichloropropane	ND		1.0		ug/L			04/09/19 14:57	1
2-Butanone (MEK)	ND *		10		ug/L			04/09/19 14:57	1
2-Chlorotoluene	ND		1.0		ug/L			04/09/19 14:57	1
2-Hexanone	ND		10		ug/L			04/09/19 14:57	1
4-Chlorotoluene	ND		1.0		ug/L			04/09/19 14:57	1
4-Isopropyltoluene	ND		1.0		ug/L			04/09/19 14:57	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/09/19 14:57	1
Acetone	ND *		50		ug/L			04/09/19 14:57	1
Benzene	ND		1.0		ug/L			04/09/19 14:57	1
Bromobenzene	ND		1.0		ug/L			04/09/19 14:57	1
Bromoform	ND		1.0		ug/L			04/09/19 14:57	1
Bromomethane	ND		2.0		ug/L			04/09/19 14:57	1
Carbon disulfide	ND		10		ug/L			04/09/19 14:57	1
Carbon tetrachloride	ND *		1.0		ug/L			04/09/19 14:57	1
Chlorobenzene	ND		1.0		ug/L			04/09/19 14:57	1
Chlorobromomethane	ND		1.0		ug/L			04/09/19 14:57	1
Chlorodibromomethane	ND		0.50		ug/L			04/09/19 14:57	1
Chloroethane	ND		2.0		ug/L			04/09/19 14:57	1
Chloroform	ND		1.0		ug/L			04/09/19 14:57	1
Chloromethane	ND		2.0		ug/L			04/09/19 14:57	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1032-20190403-01**

**Lab Sample ID: 480-151403-19**

Date Collected: 04/03/19 11:34

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 14:57	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 14:57	1
Dichlorobromomethane	ND		0.50		ug/L			04/09/19 14:57	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/09/19 14:57	1
Ethyl ether	ND		1.0		ug/L			04/09/19 14:57	1
Ethylbenzene	ND		1.0		ug/L			04/09/19 14:57	1
Ethylene Dibromide	ND		1.0		ug/L			04/09/19 14:57	1
Hexachlorobutadiene	ND		0.40		ug/L			04/09/19 14:57	1
Isopropyl ether	ND		10		ug/L			04/09/19 14:57	1
Isopropylbenzene	ND		1.0		ug/L			04/09/19 14:57	1
<b>Methyl tert-butyl ether</b>	<b>59</b>		1.0		ug/L			04/09/19 14:57	1
Methylene Chloride	ND		1.0		ug/L			04/09/19 14:57	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/09/19 14:57	1
Naphthalene	ND		5.0		ug/L			04/09/19 14:57	1
n-Butylbenzene	ND		1.0		ug/L			04/09/19 14:57	1
N-Propylbenzene	ND		1.0		ug/L			04/09/19 14:57	1
o-Xylene	ND		1.0		ug/L			04/09/19 14:57	1
sec-Butylbenzene	ND		1.0		ug/L			04/09/19 14:57	1
Styrene	ND		1.0		ug/L			04/09/19 14:57	1
<b>Tert-amyl methyl ether</b>	<b>16</b>		5.0		ug/L			04/09/19 14:57	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/09/19 14:57	1
tert-Butylbenzene	ND		1.0		ug/L			04/09/19 14:57	1
Tetrachloroethene	ND		1.0		ug/L			04/09/19 14:57	1
Tetrahydrofuran	ND *		10		ug/L			04/09/19 14:57	1
Toluene	ND		1.0		ug/L			04/09/19 14:57	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 14:57	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 14:57	1
<b>Trichloroethene</b>	<b>6.9</b>		1.0		ug/L			04/09/19 14:57	1
Trichlorofluoromethane	ND		1.0		ug/L			04/09/19 14:57	1
Vinyl chloride	ND		1.0		ug/L			04/09/19 14:57	1
Dibromomethane	ND		1.0		ug/L			04/09/19 14:57	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Toluene-d8 (Surr)</i>	101		70 - 130					04/09/19 14:57	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	112		70 - 130					04/09/19 14:57	1
<i>4-Bromofluorobenzene (Surr)</i>	95		70 - 130					04/09/19 14:57	1

**Client Sample ID: MW-1035-20190403-01**

**Lab Sample ID: 480-151403-20**

Date Collected: 04/03/19 15:55

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/09/19 15:21	1
<b>1,1,1-Trichloroethane</b>	<b>6.9</b>		1.0		ug/L			04/09/19 15:21	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/09/19 15:21	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/09/19 15:21	1
1,1-Dichloroethane	ND		1.0		ug/L			04/09/19 15:21	1
1,1-Dichloroethene	ND		1.0		ug/L			04/09/19 15:21	1
1,1-Dichloropropene	ND		1.0		ug/L			04/09/19 15:21	1

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# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1035-20190403-01**

**Lab Sample ID: 480-151403-20**

Date Collected: 04/03/19 15:55

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/09/19 15:21	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/09/19 15:21	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/09/19 15:21	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/09/19 15:21	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/09/19 15:21	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/09/19 15:21	1
1,2-Dichloroethane	ND		1.0		ug/L			04/09/19 15:21	1
1,2-Dichloropropane	ND		1.0		ug/L			04/09/19 15:21	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/09/19 15:21	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/09/19 15:21	1
1,3-Dichloropropane	ND		1.0		ug/L			04/09/19 15:21	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/09/19 15:21	1
1,4-Dioxane	ND		50		ug/L			04/09/19 15:21	1
2,2-Dichloropropane	ND		1.0		ug/L			04/09/19 15:21	1
2-Butanone (MEK)	ND	*	10		ug/L			04/09/19 15:21	1
2-Chlorotoluene	ND		1.0		ug/L			04/09/19 15:21	1
2-Hexanone	ND		10		ug/L			04/09/19 15:21	1
4-Chlorotoluene	ND		1.0		ug/L			04/09/19 15:21	1
4-Isopropyltoluene	ND		1.0		ug/L			04/09/19 15:21	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/09/19 15:21	1
Acetone	ND	*	50		ug/L			04/09/19 15:21	1
Benzene	ND		1.0		ug/L			04/09/19 15:21	1
Bromobenzene	ND		1.0		ug/L			04/09/19 15:21	1
Bromoform	ND		1.0		ug/L			04/09/19 15:21	1
Bromomethane	ND		2.0		ug/L			04/09/19 15:21	1
Carbon disulfide	ND		10		ug/L			04/09/19 15:21	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/09/19 15:21	1
Chlorobenzene	ND		1.0		ug/L			04/09/19 15:21	1
Chlorobromomethane	ND		1.0		ug/L			04/09/19 15:21	1
Chlorodibromomethane	ND		0.50		ug/L			04/09/19 15:21	1
Chloroethane	ND		2.0		ug/L			04/09/19 15:21	1
Chloroform	ND		1.0		ug/L			04/09/19 15:21	1
Chloromethane	ND		2.0		ug/L			04/09/19 15:21	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 15:21	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 15:21	1
Dichlorobromomethane	ND		0.50		ug/L			04/09/19 15:21	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/09/19 15:21	1
Ethyl ether	ND		1.0		ug/L			04/09/19 15:21	1
Ethylbenzene	ND		1.0		ug/L			04/09/19 15:21	1
Ethylene Dibromide	ND		1.0		ug/L			04/09/19 15:21	1
Hexachlorobutadiene	ND		0.40		ug/L			04/09/19 15:21	1
Isopropyl ether	ND		10		ug/L			04/09/19 15:21	1
Isopropylbenzene	ND		1.0		ug/L			04/09/19 15:21	1
<b>Methyl tert-butyl ether</b>	<b>2.1</b>		1.0		ug/L			04/09/19 15:21	1
Methylene Chloride	ND		1.0		ug/L			04/09/19 15:21	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/09/19 15:21	1
Naphthalene	ND		5.0		ug/L			04/09/19 15:21	1
n-Butylbenzene	ND		1.0		ug/L			04/09/19 15:21	1
N-Propylbenzene	ND		1.0		ug/L			04/09/19 15:21	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1035-20190403-01**

**Lab Sample ID: 480-151403-20**

Date Collected: 04/03/19 15:55

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0		ug/L			04/09/19 15:21	1
sec-Butylbenzene	ND		1.0		ug/L			04/09/19 15:21	1
Styrene	ND		1.0		ug/L			04/09/19 15:21	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/09/19 15:21	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/09/19 15:21	1
tert-Butylbenzene	ND		1.0		ug/L			04/09/19 15:21	1
Tetrachloroethene	ND		1.0		ug/L			04/09/19 15:21	1
Tetrahydrofuran	ND	*	10		ug/L			04/09/19 15:21	1
Toluene	ND		1.0		ug/L			04/09/19 15:21	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 15:21	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 15:21	1
<b>Trichloroethene</b>	<b>28</b>		1.0		ug/L			04/09/19 15:21	1
Trichlorofluoromethane	ND		1.0		ug/L			04/09/19 15:21	1
Vinyl chloride	ND		1.0		ug/L			04/09/19 15:21	1
Dibromomethane	ND		1.0		ug/L			04/09/19 15:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130					04/09/19 15:21	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 130					04/09/19 15:21	1
4-Bromofluorobenzene (Surr)	100		70 - 130					04/09/19 15:21	1

**Client Sample ID: MW-1037-20190403-01**

**Lab Sample ID: 480-151403-21**

Date Collected: 04/03/19 15:32

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/10/19 02:37	1
<b>1,1,1-Trichloroethane</b>	<b>18</b>		1.0		ug/L			04/10/19 02:37	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			04/10/19 02:37	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/10/19 02:37	1
1,1-Dichloroethane	ND		1.0		ug/L			04/10/19 02:37	1
1,1-Dichloroethene	ND		1.0		ug/L			04/10/19 02:37	1
1,1-Dichloropropene	ND		1.0		ug/L			04/10/19 02:37	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/10/19 02:37	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/10/19 02:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/10/19 02:37	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/10/19 02:37	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/10/19 02:37	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/10/19 02:37	1
1,2-Dichloroethane	ND		1.0		ug/L			04/10/19 02:37	1
1,2-Dichloropropane	ND		1.0		ug/L			04/10/19 02:37	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/10/19 02:37	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/10/19 02:37	1
1,3-Dichloropropane	ND		1.0		ug/L			04/10/19 02:37	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/10/19 02:37	1
1,4-Dioxane	ND		50		ug/L			04/10/19 02:37	1
2,2-Dichloropropane	ND		1.0		ug/L			04/10/19 02:37	1
2-Butanone (MEK)	ND	*	10		ug/L			04/10/19 02:37	1
2-Chlorotoluene	ND		1.0		ug/L			04/10/19 02:37	1

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# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1037-20190403-01**

**Lab Sample ID: 480-151403-21**

Date Collected: 04/03/19 15:32

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		10		ug/L			04/10/19 02:37	1
4-Chlorotoluene	ND		1.0		ug/L			04/10/19 02:37	1
4-Isopropyltoluene	ND		1.0		ug/L			04/10/19 02:37	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/10/19 02:37	1
Acetone	ND		50		ug/L			04/10/19 02:37	1
Benzene	ND		1.0		ug/L			04/10/19 02:37	1
Bromobenzene	ND		1.0		ug/L			04/10/19 02:37	1
Bromoform	ND		1.0		ug/L			04/10/19 02:37	1
Bromomethane	ND		2.0		ug/L			04/10/19 02:37	1
Carbon disulfide	ND		10		ug/L			04/10/19 02:37	1
Carbon tetrachloride	ND		1.0		ug/L			04/10/19 02:37	1
Chlorobenzene	ND		1.0		ug/L			04/10/19 02:37	1
Chlorobromomethane	ND		1.0		ug/L			04/10/19 02:37	1
Chlorodibromomethane	ND		0.50		ug/L			04/10/19 02:37	1
Chloroethane	ND		2.0		ug/L			04/10/19 02:37	1
Chloroform	ND		1.0		ug/L			04/10/19 02:37	1
Chloromethane	ND		2.0		ug/L			04/10/19 02:37	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/10/19 02:37	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/10/19 02:37	1
Dichlorobromomethane	ND		0.50		ug/L			04/10/19 02:37	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/10/19 02:37	1
Ethyl ether	ND		1.0		ug/L			04/10/19 02:37	1
Ethylbenzene	ND		1.0		ug/L			04/10/19 02:37	1
Ethylene Dibromide	ND		1.0		ug/L			04/10/19 02:37	1
Hexachlorobutadiene	ND		0.40		ug/L			04/10/19 02:37	1
Isopropyl ether	ND		10		ug/L			04/10/19 02:37	1
Isopropylbenzene	ND		1.0		ug/L			04/10/19 02:37	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/10/19 02:37	1
Methylene Chloride	ND		1.0		ug/L			04/10/19 02:37	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/10/19 02:37	1
Naphthalene	ND		5.0		ug/L			04/10/19 02:37	1
n-Butylbenzene	ND		1.0		ug/L			04/10/19 02:37	1
N-Propylbenzene	ND		1.0		ug/L			04/10/19 02:37	1
o-Xylene	ND		1.0		ug/L			04/10/19 02:37	1
sec-Butylbenzene	ND		1.0		ug/L			04/10/19 02:37	1
Styrene	ND		1.0		ug/L			04/10/19 02:37	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/10/19 02:37	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/10/19 02:37	1
tert-Butylbenzene	ND		1.0		ug/L			04/10/19 02:37	1
Tetrachloroethene	ND		1.0		ug/L			04/10/19 02:37	1
Tetrahydrofuran	ND		10		ug/L			04/10/19 02:37	1
Toluene	ND		1.0		ug/L			04/10/19 02:37	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/10/19 02:37	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/10/19 02:37	1
<b>Trichloroethene</b>	<b>59</b>		1.0		ug/L			04/10/19 02:37	1
Trichlorofluoromethane	ND		1.0		ug/L			04/10/19 02:37	1
Vinyl chloride	ND		1.0		ug/L			04/10/19 02:37	1
Dibromomethane	ND		1.0		ug/L			04/10/19 02:37	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1037-20190403-01**

**Lab Sample ID: 480-151403-21**

Date Collected: 04/03/19 15:32

Matrix: Water

Date Received: 04/05/19 01:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130		04/10/19 02:37	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 130		04/10/19 02:37	1
4-Bromofluorobenzene (Surr)	96		70 - 130		04/10/19 02:37	1

**Client Sample ID: MW-1038-20190403-01**

**Lab Sample ID: 480-151403-22**

Date Collected: 04/03/19 15:15

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/10/19 03:01	1
<b>1,1,1-Trichloroethane</b>	<b>15</b>		1.0		ug/L			04/10/19 03:01	1
1,1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/10/19 03:01	1
1,1,1,2-Trichloroethane	ND		1.0		ug/L			04/10/19 03:01	1
1,1-Dichloroethane	ND		1.0		ug/L			04/10/19 03:01	1
1,1-Dichloroethene	ND		1.0		ug/L			04/10/19 03:01	1
1,1-Dichloropropene	ND		1.0		ug/L			04/10/19 03:01	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/10/19 03:01	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/10/19 03:01	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/10/19 03:01	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/10/19 03:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/10/19 03:01	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/10/19 03:01	1
1,2-Dichloroethane	ND		1.0		ug/L			04/10/19 03:01	1
1,2-Dichloropropane	ND		1.0		ug/L			04/10/19 03:01	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/10/19 03:01	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/10/19 03:01	1
1,3-Dichloropropane	ND		1.0		ug/L			04/10/19 03:01	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/10/19 03:01	1
1,4-Dioxane	ND		50		ug/L			04/10/19 03:01	1
2,2-Dichloropropane	ND		1.0		ug/L			04/10/19 03:01	1
2-Butanone (MEK)	ND *		10		ug/L			04/10/19 03:01	1
2-Chlorotoluene	ND		1.0		ug/L			04/10/19 03:01	1
2-Hexanone	ND		10		ug/L			04/10/19 03:01	1
4-Chlorotoluene	ND		1.0		ug/L			04/10/19 03:01	1
4-Isopropyltoluene	ND		1.0		ug/L			04/10/19 03:01	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/10/19 03:01	1
Acetone	ND		50		ug/L			04/10/19 03:01	1
Benzene	ND		1.0		ug/L			04/10/19 03:01	1
Bromobenzene	ND		1.0		ug/L			04/10/19 03:01	1
Bromoform	ND		1.0		ug/L			04/10/19 03:01	1
Bromomethane	ND		2.0		ug/L			04/10/19 03:01	1
Carbon disulfide	ND		10		ug/L			04/10/19 03:01	1
Carbon tetrachloride	ND		1.0		ug/L			04/10/19 03:01	1
Chlorobenzene	ND		1.0		ug/L			04/10/19 03:01	1
Chlorobromomethane	ND		1.0		ug/L			04/10/19 03:01	1
Chlorodibromomethane	ND		0.50		ug/L			04/10/19 03:01	1
Chloroethane	ND		2.0		ug/L			04/10/19 03:01	1
Chloroform	ND		1.0		ug/L			04/10/19 03:01	1
Chloromethane	ND		2.0		ug/L			04/10/19 03:01	1



# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1038-20190403-01**

**Lab Sample ID: 480-151403-22**

Date Collected: 04/03/19 15:15

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/10/19 03:01	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/10/19 03:01	1
Dichlorobromomethane	ND		0.50		ug/L			04/10/19 03:01	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/10/19 03:01	1
Ethyl ether	ND		1.0		ug/L			04/10/19 03:01	1
Ethylbenzene	ND		1.0		ug/L			04/10/19 03:01	1
Ethylene Dibromide	ND		1.0		ug/L			04/10/19 03:01	1
Hexachlorobutadiene	ND		0.40		ug/L			04/10/19 03:01	1
Isopropyl ether	ND		10		ug/L			04/10/19 03:01	1
Isopropylbenzene	ND		1.0		ug/L			04/10/19 03:01	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/10/19 03:01	1
Methylene Chloride	ND		1.0		ug/L			04/10/19 03:01	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/10/19 03:01	1
Naphthalene	ND		5.0		ug/L			04/10/19 03:01	1
n-Butylbenzene	ND		1.0		ug/L			04/10/19 03:01	1
N-Propylbenzene	ND		1.0		ug/L			04/10/19 03:01	1
o-Xylene	ND		1.0		ug/L			04/10/19 03:01	1
sec-Butylbenzene	ND		1.0		ug/L			04/10/19 03:01	1
Styrene	ND		1.0		ug/L			04/10/19 03:01	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/10/19 03:01	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/10/19 03:01	1
tert-Butylbenzene	ND		1.0		ug/L			04/10/19 03:01	1
Tetrachloroethene	ND		1.0		ug/L			04/10/19 03:01	1
Tetrahydrofuran	ND		10		ug/L			04/10/19 03:01	1
Toluene	ND		1.0		ug/L			04/10/19 03:01	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/10/19 03:01	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/10/19 03:01	1
<b>Trichloroethene</b>	<b>47</b>		1.0		ug/L			04/10/19 03:01	1
Trichlorofluoromethane	ND		1.0		ug/L			04/10/19 03:01	1
Vinyl chloride	ND		1.0		ug/L			04/10/19 03:01	1
Dibromomethane	ND		1.0		ug/L			04/10/19 03:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130		04/10/19 03:01	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 130		04/10/19 03:01	1
4-Bromofluorobenzene (Surr)	93		70 - 130		04/10/19 03:01	1

**Client Sample ID: TB-001-20190403-01**

**Lab Sample ID: 480-151403-23**

Date Collected: 04/03/19 00:00

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/09/19 16:33	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/09/19 16:33	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/09/19 16:33	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/09/19 16:33	1
1,1-Dichloroethane	ND		1.0		ug/L			04/09/19 16:33	1
1,1-Dichloroethene	ND		1.0		ug/L			04/09/19 16:33	1
1,1-Dichloropropene	ND		1.0		ug/L			04/09/19 16:33	1

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# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: TB-001-20190403-01**

**Lab Sample ID: 480-151403-23**

Date Collected: 04/03/19 00:00

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/09/19 16:33	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/09/19 16:33	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/09/19 16:33	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/09/19 16:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/09/19 16:33	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/09/19 16:33	1
1,2-Dichloroethane	ND		1.0		ug/L			04/09/19 16:33	1
1,2-Dichloropropane	ND		1.0		ug/L			04/09/19 16:33	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/09/19 16:33	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/09/19 16:33	1
1,3-Dichloropropane	ND		1.0		ug/L			04/09/19 16:33	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/09/19 16:33	1
1,4-Dioxane	ND		50		ug/L			04/09/19 16:33	1
2,2-Dichloropropane	ND		1.0		ug/L			04/09/19 16:33	1
2-Butanone (MEK)	ND	*	10		ug/L			04/09/19 16:33	1
2-Chlorotoluene	ND		1.0		ug/L			04/09/19 16:33	1
2-Hexanone	ND		10		ug/L			04/09/19 16:33	1
4-Chlorotoluene	ND		1.0		ug/L			04/09/19 16:33	1
4-Isopropyltoluene	ND		1.0		ug/L			04/09/19 16:33	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/09/19 16:33	1
Acetone	ND	*	50		ug/L			04/09/19 16:33	1
Benzene	ND		1.0		ug/L			04/09/19 16:33	1
Bromobenzene	ND		1.0		ug/L			04/09/19 16:33	1
Bromoform	ND		1.0		ug/L			04/09/19 16:33	1
Bromomethane	ND		2.0		ug/L			04/09/19 16:33	1
Carbon disulfide	ND		10		ug/L			04/09/19 16:33	1
Carbon tetrachloride	ND	*	1.0		ug/L			04/09/19 16:33	1
Chlorobenzene	ND		1.0		ug/L			04/09/19 16:33	1
Chlorobromomethane	ND		1.0		ug/L			04/09/19 16:33	1
Chlorodibromomethane	ND		0.50		ug/L			04/09/19 16:33	1
Chloroethane	ND		2.0		ug/L			04/09/19 16:33	1
Chloroform	ND		1.0		ug/L			04/09/19 16:33	1
Chloromethane	ND		2.0		ug/L			04/09/19 16:33	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 16:33	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 16:33	1
Dichlorobromomethane	ND		0.50		ug/L			04/09/19 16:33	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/09/19 16:33	1
Ethyl ether	ND		1.0		ug/L			04/09/19 16:33	1
Ethylbenzene	ND		1.0		ug/L			04/09/19 16:33	1
Ethylene Dibromide	ND		1.0		ug/L			04/09/19 16:33	1
Hexachlorobutadiene	ND		0.40		ug/L			04/09/19 16:33	1
Isopropyl ether	ND		10		ug/L			04/09/19 16:33	1
Isopropylbenzene	ND		1.0		ug/L			04/09/19 16:33	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/09/19 16:33	1
Methylene Chloride	ND		1.0		ug/L			04/09/19 16:33	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/09/19 16:33	1
Naphthalene	ND		5.0		ug/L			04/09/19 16:33	1
n-Butylbenzene	ND		1.0		ug/L			04/09/19 16:33	1
N-Propylbenzene	ND		1.0		ug/L			04/09/19 16:33	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: TB-001-20190403-01**

**Lab Sample ID: 480-151403-23**

Date Collected: 04/03/19 00:00

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0		ug/L			04/09/19 16:33	1
sec-Butylbenzene	ND		1.0		ug/L			04/09/19 16:33	1
Styrene	ND		1.0		ug/L			04/09/19 16:33	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/09/19 16:33	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/09/19 16:33	1
tert-Butylbenzene	ND		1.0		ug/L			04/09/19 16:33	1
Tetrachloroethene	ND		1.0		ug/L			04/09/19 16:33	1
Tetrahydrofuran	ND	*	10		ug/L			04/09/19 16:33	1
Toluene	ND		1.0		ug/L			04/09/19 16:33	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 16:33	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 16:33	1
Trichloroethene	ND		1.0		ug/L			04/09/19 16:33	1
Trichlorofluoromethane	ND		1.0		ug/L			04/09/19 16:33	1
Vinyl chloride	ND		1.0		ug/L			04/09/19 16:33	1
Dibromomethane	ND		1.0		ug/L			04/09/19 16:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130					04/09/19 16:33	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 130					04/09/19 16:33	1
4-Bromofluorobenzene (Surr)	96		70 - 130					04/09/19 16:33	1

**Client Sample ID: DUP-001-20190403-01**

**Lab Sample ID: 480-151403-24**

Date Collected: 04/03/19 12:00

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/10/19 03:25	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/10/19 03:25	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/10/19 03:25	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/10/19 03:25	1
1,1-Dichloroethane	ND		1.0		ug/L			04/10/19 03:25	1
1,1-Dichloroethene	ND		1.0		ug/L			04/10/19 03:25	1
1,1-Dichloropropene	ND		1.0		ug/L			04/10/19 03:25	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/10/19 03:25	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/10/19 03:25	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/10/19 03:25	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/10/19 03:25	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/10/19 03:25	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/10/19 03:25	1
1,2-Dichloroethane	ND		1.0		ug/L			04/10/19 03:25	1
1,2-Dichloropropane	ND		1.0		ug/L			04/10/19 03:25	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/10/19 03:25	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/10/19 03:25	1
1,3-Dichloropropane	ND		1.0		ug/L			04/10/19 03:25	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/10/19 03:25	1
1,4-Dioxane	ND		50		ug/L			04/10/19 03:25	1
2,2-Dichloropropane	ND		1.0		ug/L			04/10/19 03:25	1
2-Butanone (MEK)	ND	*	10		ug/L			04/10/19 03:25	1
2-Chlorotoluene	ND		1.0		ug/L			04/10/19 03:25	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: DUP-001-20190403-01**

**Lab Sample ID: 480-151403-24**

Date Collected: 04/03/19 12:00

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		10		ug/L			04/10/19 03:25	1
4-Chlorotoluene	ND		1.0		ug/L			04/10/19 03:25	1
4-Isopropyltoluene	ND		1.0		ug/L			04/10/19 03:25	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/10/19 03:25	1
Acetone	ND		50		ug/L			04/10/19 03:25	1
Benzene	ND		1.0		ug/L			04/10/19 03:25	1
Bromobenzene	ND		1.0		ug/L			04/10/19 03:25	1
Bromoform	ND		1.0		ug/L			04/10/19 03:25	1
Bromomethane	ND		2.0		ug/L			04/10/19 03:25	1
Carbon disulfide	ND		10		ug/L			04/10/19 03:25	1
Carbon tetrachloride	ND		1.0		ug/L			04/10/19 03:25	1
Chlorobenzene	ND		1.0		ug/L			04/10/19 03:25	1
Chlorobromomethane	ND		1.0		ug/L			04/10/19 03:25	1
Chlorodibromomethane	ND		0.50		ug/L			04/10/19 03:25	1
Chloroethane	ND		2.0		ug/L			04/10/19 03:25	1
Chloroform	ND		1.0		ug/L			04/10/19 03:25	1
Chloromethane	ND		2.0		ug/L			04/10/19 03:25	1
<b>cis-1,2-Dichloroethene</b>	<b>8.4</b>		1.0		ug/L			04/10/19 03:25	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/10/19 03:25	1
Dichlorobromomethane	ND		0.50		ug/L			04/10/19 03:25	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/10/19 03:25	1
Ethyl ether	ND		1.0		ug/L			04/10/19 03:25	1
Ethylbenzene	ND		1.0		ug/L			04/10/19 03:25	1
Ethylene Dibromide	ND		1.0		ug/L			04/10/19 03:25	1
Hexachlorobutadiene	ND		0.40		ug/L			04/10/19 03:25	1
Isopropyl ether	ND		10		ug/L			04/10/19 03:25	1
Isopropylbenzene	ND		1.0		ug/L			04/10/19 03:25	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/10/19 03:25	1
Methylene Chloride	ND		1.0		ug/L			04/10/19 03:25	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/10/19 03:25	1
Naphthalene	ND		5.0		ug/L			04/10/19 03:25	1
n-Butylbenzene	ND		1.0		ug/L			04/10/19 03:25	1
N-Propylbenzene	ND		1.0		ug/L			04/10/19 03:25	1
o-Xylene	ND		1.0		ug/L			04/10/19 03:25	1
sec-Butylbenzene	ND		1.0		ug/L			04/10/19 03:25	1
Styrene	ND		1.0		ug/L			04/10/19 03:25	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/10/19 03:25	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/10/19 03:25	1
tert-Butylbenzene	ND		1.0		ug/L			04/10/19 03:25	1
Tetrachloroethene	ND		1.0		ug/L			04/10/19 03:25	1
Tetrahydrofuran	ND		10		ug/L			04/10/19 03:25	1
Toluene	ND		1.0		ug/L			04/10/19 03:25	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/10/19 03:25	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/10/19 03:25	1
<b>Trichloroethene</b>	<b>5.2</b>		1.0		ug/L			04/10/19 03:25	1
Trichlorofluoromethane	ND		1.0		ug/L			04/10/19 03:25	1
Vinyl chloride	ND		1.0		ug/L			04/10/19 03:25	1
Dibromomethane	ND		1.0		ug/L			04/10/19 03:25	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: DUP-001-20190403-01**

**Lab Sample ID: 480-151403-24**

Date Collected: 04/03/19 12:00

Matrix: Water

Date Received: 04/05/19 01:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130		04/10/19 03:25	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 130		04/10/19 03:25	1
4-Bromofluorobenzene (Surr)	97		70 - 130		04/10/19 03:25	1

**Client Sample ID: DUP-002-20190403-01**

**Lab Sample ID: 480-151403-25**

Date Collected: 04/03/19 13:00

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/10/19 03:49	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/10/19 03:49	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/10/19 03:49	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/10/19 03:49	1
1,1-Dichloroethane	ND		1.0		ug/L			04/10/19 03:49	1
1,1-Dichloroethene	ND		1.0		ug/L			04/10/19 03:49	1
1,1-Dichloropropene	ND		1.0		ug/L			04/10/19 03:49	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/10/19 03:49	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/10/19 03:49	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/10/19 03:49	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/10/19 03:49	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/10/19 03:49	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/10/19 03:49	1
1,2-Dichloroethane	ND		1.0		ug/L			04/10/19 03:49	1
1,2-Dichloropropane	ND		1.0		ug/L			04/10/19 03:49	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/10/19 03:49	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/10/19 03:49	1
1,3-Dichloropropane	ND		1.0		ug/L			04/10/19 03:49	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/10/19 03:49	1
1,4-Dioxane	ND		50		ug/L			04/10/19 03:49	1
2,2-Dichloropropane	ND		1.0		ug/L			04/10/19 03:49	1
2-Butanone (MEK)	ND *		10		ug/L			04/10/19 03:49	1
2-Chlorotoluene	ND		1.0		ug/L			04/10/19 03:49	1
2-Hexanone	ND		10		ug/L			04/10/19 03:49	1
4-Chlorotoluene	ND		1.0		ug/L			04/10/19 03:49	1
4-Isopropyltoluene	ND		1.0		ug/L			04/10/19 03:49	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/10/19 03:49	1
Acetone	ND		50		ug/L			04/10/19 03:49	1
Benzene	ND		1.0		ug/L			04/10/19 03:49	1
Bromobenzene	ND		1.0		ug/L			04/10/19 03:49	1
Bromoform	ND		1.0		ug/L			04/10/19 03:49	1
Bromomethane	ND		2.0		ug/L			04/10/19 03:49	1
Carbon disulfide	ND		10		ug/L			04/10/19 03:49	1
Carbon tetrachloride	ND		1.0		ug/L			04/10/19 03:49	1
Chlorobenzene	ND		1.0		ug/L			04/10/19 03:49	1
Chlorobromomethane	ND		1.0		ug/L			04/10/19 03:49	1
Chlorodibromomethane	ND		0.50		ug/L			04/10/19 03:49	1
Chloroethane	ND		2.0		ug/L			04/10/19 03:49	1
Chloroform	ND		1.0		ug/L			04/10/19 03:49	1
Chloromethane	ND		2.0		ug/L			04/10/19 03:49	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: DUP-002-20190403-01**

**Lab Sample ID: 480-151403-25**

Date Collected: 04/03/19 13:00

Matrix: Water

Date Received: 04/05/19 01:00

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>cis-1,2-Dichloroethene</b>	<b>1.3</b>		1.0		ug/L			04/10/19 03:49	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/10/19 03:49	1
Dichlorobromomethane	ND		0.50		ug/L			04/10/19 03:49	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/10/19 03:49	1
Ethyl ether	ND		1.0		ug/L			04/10/19 03:49	1
Ethylbenzene	ND		1.0		ug/L			04/10/19 03:49	1
Ethylene Dibromide	ND		1.0		ug/L			04/10/19 03:49	1
Hexachlorobutadiene	ND		0.40		ug/L			04/10/19 03:49	1
Isopropyl ether	ND		10		ug/L			04/10/19 03:49	1
Isopropylbenzene	ND		1.0		ug/L			04/10/19 03:49	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/10/19 03:49	1
Methylene Chloride	ND		1.0		ug/L			04/10/19 03:49	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/10/19 03:49	1
Naphthalene	ND		5.0		ug/L			04/10/19 03:49	1
n-Butylbenzene	ND		1.0		ug/L			04/10/19 03:49	1
N-Propylbenzene	ND		1.0		ug/L			04/10/19 03:49	1
o-Xylene	ND		1.0		ug/L			04/10/19 03:49	1
sec-Butylbenzene	ND		1.0		ug/L			04/10/19 03:49	1
Styrene	ND		1.0		ug/L			04/10/19 03:49	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/10/19 03:49	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/10/19 03:49	1
tert-Butylbenzene	ND		1.0		ug/L			04/10/19 03:49	1
Tetrachloroethene	ND		1.0		ug/L			04/10/19 03:49	1
Tetrahydrofuran	ND		10		ug/L			04/10/19 03:49	1
Toluene	ND		1.0		ug/L			04/10/19 03:49	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/10/19 03:49	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/10/19 03:49	1
<b>Trichloroethene</b>	<b>15</b>		1.0		ug/L			04/10/19 03:49	1
Trichlorofluoromethane	ND		1.0		ug/L			04/10/19 03:49	1
Vinyl chloride	ND		1.0		ug/L			04/10/19 03:49	1
Dibromomethane	ND		1.0		ug/L			04/10/19 03:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130		04/10/19 03:49	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 130		04/10/19 03:49	1
4-Bromofluorobenzene (Surr)	91		70 - 130		04/10/19 03:49	1

# Surrogate Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	DCA (70-130)	BFB (70-130)
480-151403-1	MW-1003-20190403-01	97	111	97
480-151403-2	MW-1004-20190403-01	100	111	97
480-151403-3	MW-1005-20190403-01	101	117	99
480-151403-4	MW-1006-20190403-01	100	115	99
480-151403-5	MW-1010M-20190403-01	99	114	98
480-151403-6	MW-1010D-20190403-01	102	112	97
480-151403-7	MW-1011-20190403-01	100	109	100
480-151403-7 - DL	MW-1011-20190403-01	99	116	95
480-151403-8	MW-1015D-20190403-01	100	109	98
480-151403-9	MW-1016D-20190403-01	99	113	94
480-151403-10	MW-1017D-20190403-01	98	109	96
480-151403-11	MW-1018-20190403-01	99	117	97
480-151403-12	MW-1019B-20190403-01	98	110	98
480-151403-13	MW-1024D-20190403-01	100	113	95
480-151403-14	MW-1025D-20190403-01	101	110	97
480-151403-15	MW-1027-20190403-01	98	113	95
480-151403-16	MW-1028-20190403-01	98	106	95
480-151403-17	MW-1030-20190403-01	99	112	96
480-151403-18	MW-1031-20190403-01	99	112	100
480-151403-19	MW-1032-20190403-01	101	112	95
480-151403-20	MW-1035-20190403-01	98	114	100
480-151403-21	MW-1037-20190403-01	101	110	96
480-151403-22	MW-1038-20190403-01	101	112	93
480-151403-23	TB-001-20190403-01	98	114	96
480-151403-24	DUP-001-20190403-01	101	113	97
480-151403-25	DUP-002-20190403-01	98	109	91
LCS 480-466672/5	Lab Control Sample	100	115	104
LCS 480-466874/5	Lab Control Sample	102	109	100
LCS 480-467051/5	Lab Control Sample	100	113	97
LCSD 480-466672/6	Lab Control Sample Dup	102	115	102
LCSD 480-466874/6	Lab Control Sample Dup	102	114	106
LCSD 480-467051/9	Lab Control Sample Dup	101	103	101
MB 480-466672/8	Method Blank	100	110	96
MB 480-466874/8	Method Blank	102	110	101
MB 480-467051/7	Method Blank	100	111	95

### Surrogate Legend

TOL = Toluene-d8 (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-466672/8

Matrix: Water

Analysis Batch: 466672

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/08/19 11:41	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/08/19 11:41	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/08/19 11:41	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/08/19 11:41	1
1,1-Dichloroethane	ND		1.0		ug/L			04/08/19 11:41	1
1,1-Dichloroethene	ND		1.0		ug/L			04/08/19 11:41	1
1,1-Dichloropropene	ND		1.0		ug/L			04/08/19 11:41	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/08/19 11:41	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/08/19 11:41	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/08/19 11:41	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/08/19 11:41	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/08/19 11:41	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/08/19 11:41	1
1,2-Dichloroethane	ND		1.0		ug/L			04/08/19 11:41	1
1,2-Dichloropropane	ND		1.0		ug/L			04/08/19 11:41	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/08/19 11:41	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/08/19 11:41	1
1,3-Dichloropropane	ND		1.0		ug/L			04/08/19 11:41	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/08/19 11:41	1
1,4-Dioxane	ND		50		ug/L			04/08/19 11:41	1
2,2-Dichloropropane	ND		1.0		ug/L			04/08/19 11:41	1
2-Butanone (MEK)	ND		10		ug/L			04/08/19 11:41	1
2-Chlorotoluene	ND		1.0		ug/L			04/08/19 11:41	1
2-Hexanone	ND		10		ug/L			04/08/19 11:41	1
4-Chlorotoluene	ND		1.0		ug/L			04/08/19 11:41	1
4-Isopropyltoluene	ND		1.0		ug/L			04/08/19 11:41	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/08/19 11:41	1
Acetone	ND		50		ug/L			04/08/19 11:41	1
Benzene	ND		1.0		ug/L			04/08/19 11:41	1
Bromobenzene	ND		1.0		ug/L			04/08/19 11:41	1
Bromoform	ND		1.0		ug/L			04/08/19 11:41	1
Bromomethane	ND		2.0		ug/L			04/08/19 11:41	1
Carbon disulfide	ND		10		ug/L			04/08/19 11:41	1
Carbon tetrachloride	ND		1.0		ug/L			04/08/19 11:41	1
Chlorobenzene	ND		1.0		ug/L			04/08/19 11:41	1
Chlorobromomethane	ND		1.0		ug/L			04/08/19 11:41	1
Chlorodibromomethane	ND		0.50		ug/L			04/08/19 11:41	1
Chloroethane	ND		2.0		ug/L			04/08/19 11:41	1
Chloroform	ND		1.0		ug/L			04/08/19 11:41	1
Chloromethane	ND		2.0		ug/L			04/08/19 11:41	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 11:41	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 11:41	1
Dichlorobromomethane	ND		0.50		ug/L			04/08/19 11:41	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/08/19 11:41	1
Ethyl ether	ND		1.0		ug/L			04/08/19 11:41	1
Ethylbenzene	ND		1.0		ug/L			04/08/19 11:41	1
Ethylene Dibromide	ND		1.0		ug/L			04/08/19 11:41	1
Hexachlorobutadiene	ND		0.40		ug/L			04/08/19 11:41	1

Eurofins TestAmerica, Buffalo



# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-466672/8

Matrix: Water

Analysis Batch: 466672

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Isopropyl ether	ND		10		ug/L			04/08/19 11:41	1
Isopropylbenzene	ND		1.0		ug/L			04/08/19 11:41	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/08/19 11:41	1
Methylene Chloride	ND		1.0		ug/L			04/08/19 11:41	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/08/19 11:41	1
Naphthalene	ND		5.0		ug/L			04/08/19 11:41	1
n-Butylbenzene	ND		1.0		ug/L			04/08/19 11:41	1
N-Propylbenzene	ND		1.0		ug/L			04/08/19 11:41	1
o-Xylene	ND		1.0		ug/L			04/08/19 11:41	1
sec-Butylbenzene	ND		1.0		ug/L			04/08/19 11:41	1
Styrene	ND		1.0		ug/L			04/08/19 11:41	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/08/19 11:41	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/08/19 11:41	1
tert-Butylbenzene	ND		1.0		ug/L			04/08/19 11:41	1
Tetrachloroethene	ND		1.0		ug/L			04/08/19 11:41	1
Tetrahydrofuran	ND		10		ug/L			04/08/19 11:41	1
Toluene	ND		1.0		ug/L			04/08/19 11:41	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/08/19 11:41	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/08/19 11:41	1
Trichloroethene	ND		1.0		ug/L			04/08/19 11:41	1
Trichlorofluoromethane	ND		1.0		ug/L			04/08/19 11:41	1
Vinyl chloride	ND		1.0		ug/L			04/08/19 11:41	1
Dibromomethane	ND		1.0		ug/L			04/08/19 11:41	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	100		70 - 130		04/08/19 11:41	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 130		04/08/19 11:41	1
4-Bromofluorobenzene (Surr)	96		70 - 130		04/08/19 11:41	1

Lab Sample ID: LCS 480-466672/5

Matrix: Water

Analysis Batch: 466672

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	29.8		ug/L		119	70 - 130
1,1,2,2-Tetrachloroethane	25.0	23.6		ug/L		94	70 - 130
1,1,2-Trichloroethane	25.0	23.4		ug/L		94	70 - 130
1,1-Dichloroethane	25.0	27.9		ug/L		111	70 - 130
1,1-Dichloroethene	25.0	24.7		ug/L		99	70 - 130
1,1-Dichloropropene	25.0	27.2		ug/L		109	70 - 130
1,2,3-Trichlorobenzene	25.0	25.0		ug/L		100	70 - 130
1,2,3-Trichloropropane	25.0	22.9		ug/L		91	70 - 130
1,2,4-Trichlorobenzene	25.0	24.7		ug/L		99	70 - 130
1,2,4-Trimethylbenzene	25.0	27.4		ug/L		110	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.4		ug/L		98	70 - 130
1,2-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
1,2-Dichloroethane	25.0	27.2		ug/L		109	70 - 130

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-466672/5

Matrix: Water

Analysis Batch: 466672

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	25.0	27.2		ug/L		109	70 - 130
1,3,5-Trimethylbenzene	25.0	28.0		ug/L		112	70 - 130
1,3-Dichlorobenzene	25.0	25.9		ug/L		103	70 - 130
1,3-Dichloropropane	25.0	24.3		ug/L		97	70 - 130
1,4-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130
1,4-Dioxane	500	460		ug/L		92	70 - 130
2,2-Dichloropropane	25.0	32.1		ug/L		128	70 - 130
2-Butanone (MEK)	125	260	*	ug/L		208	70 - 130
2-Chlorotoluene	25.0	26.8		ug/L		107	70 - 130
2-Hexanone	125	151		ug/L		121	70 - 130
4-Chlorotoluene	25.0	27.6		ug/L		110	70 - 130
4-Isopropyltoluene	25.0	28.4		ug/L		114	70 - 130
4-Methyl-2-pentanone (MIBK)	125	135		ug/L		108	70 - 130
Acetone	125	164	*	ug/L		131	70 - 130
Benzene	25.0	25.2		ug/L		101	70 - 130
Bromobenzene	25.0	25.0		ug/L		100	70 - 130
Bromoform	25.0	27.7		ug/L		111	70 - 130
Bromomethane	25.0	21.6		ug/L		87	70 - 130
Carbon disulfide	25.0	23.8		ug/L		95	70 - 130
Carbon tetrachloride	25.0	33.8	*	ug/L		135	70 - 130
Chlorobenzene	25.0	24.9		ug/L		99	70 - 130
Chlorobromomethane	25.0	26.2		ug/L		105	70 - 130
Chlorodibromomethane	25.0	28.3		ug/L		113	70 - 130
Chloroethane	25.0	21.6		ug/L		86	70 - 130
Chloroform	25.0	25.7		ug/L		103	70 - 130
Chloromethane	25.0	22.0		ug/L		88	70 - 130
cis-1,2-Dichloroethene	25.0	24.7		ug/L		99	70 - 130
cis-1,3-Dichloropropene	25.0	29.9		ug/L		120	70 - 130
Dichlorobromomethane	25.0	28.3		ug/L		113	70 - 130
Dichlorodifluoromethane	25.0	22.7		ug/L		91	70 - 130
Ethyl ether	25.0	25.9		ug/L		103	70 - 130
Ethylbenzene	25.0	25.8		ug/L		103	70 - 130
Ethylene Dibromide	25.0	24.1		ug/L		96	70 - 130
Hexachlorobutadiene	25.0	26.3		ug/L		105	70 - 130
Isopropyl ether	25.0	31.6		ug/L		126	70 - 130
Isopropylbenzene	25.0	27.0		ug/L		108	70 - 130
Methyl tert-butyl ether	25.0	26.4		ug/L		105	70 - 130
Methylene Chloride	25.0	23.7		ug/L		95	70 - 130
m-Xylene & p-Xylene	25.0	24.4		ug/L		97	70 - 130
Naphthalene	25.0	23.8		ug/L		95	70 - 130
n-Butylbenzene	25.0	28.3		ug/L		113	70 - 130
N-Propylbenzene	25.0	27.4		ug/L		109	70 - 130
o-Xylene	25.0	24.2		ug/L		97	70 - 130
sec-Butylbenzene	25.0	27.0		ug/L		108	70 - 130
Styrene	25.0	25.6		ug/L		103	70 - 130
Tert-amyl methyl ether	25.0	27.3		ug/L		109	70 - 130
Tert-butyl ethyl ether	25.0	30.0		ug/L		120	70 - 130
tert-Butylbenzene	25.0	27.4		ug/L		109	70 - 130
Tetrachloroethene	25.0	26.3		ug/L		105	70 - 130

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-466672/5

Matrix: Water

Analysis Batch: 466672

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrahydrofuran	50.0	70.0	*	ug/L		140	70 - 130
Toluene	25.0	25.1		ug/L		101	70 - 130
trans-1,2-Dichloroethene	25.0	25.6		ug/L		103	70 - 130
trans-1,3-Dichloropropene	25.0	29.6		ug/L		119	70 - 130
Trichloroethene	25.0	26.4		ug/L		106	70 - 130
Trichlorofluoromethane	25.0	24.0		ug/L		96	70 - 130
Vinyl chloride	25.0	22.4		ug/L		90	70 - 130
Dibromomethane	25.0	25.0		ug/L		100	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	115		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 480-466672/6

Matrix: Water

Analysis Batch: 466672

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	30.9		ug/L		124	70 - 130	2	20
1,1,1-Trichloroethane	25.0	28.4		ug/L		113	70 - 130	5	20
1,1,1,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 130	1	20
1,1,2-Trichloroethane	25.0	23.5		ug/L		94	70 - 130	0	20
1,1-Dichloroethane	25.0	27.2		ug/L		109	70 - 130	3	20
1,1-Dichloroethane	25.0	22.9		ug/L		91	70 - 130	8	20
1,1-Dichloropropene	25.0	26.0		ug/L		104	70 - 130	5	20
1,2,3-Trichlorobenzene	25.0	24.7		ug/L		99	70 - 130	1	20
1,2,3-Trichloropropane	25.0	22.2		ug/L		89	70 - 130	3	20
1,2,4-Trichlorobenzene	25.0	25.5		ug/L		102	70 - 130	3	20
1,2,4-Trimethylbenzene	25.0	26.7		ug/L		107	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	25.0	25.9		ug/L		104	70 - 130	6	20
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130	1	20
1,2-Dichloroethane	25.0	26.2		ug/L		105	70 - 130	4	20
1,2-Dichloropropane	25.0	26.0		ug/L		104	70 - 130	5	20
1,3,5-Trimethylbenzene	25.0	27.6		ug/L		110	70 - 130	1	20
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130	1	20
1,3-Dichloropropane	25.0	24.2		ug/L		97	70 - 130	0	20
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130	2	20
1,4-Dioxane	500	572	*	ug/L		114	70 - 130	22	20
2,2-Dichloropropane	25.0	30.3		ug/L		121	70 - 130	6	20
2-Butanone (MEK)	125	260	*	ug/L		208	70 - 130	0	20
2-Chlorotoluene	25.0	26.1		ug/L		104	70 - 130	3	20
2-Hexanone	125	152		ug/L		122	70 - 130	1	20
4-Chlorotoluene	25.0	26.7		ug/L		107	70 - 130	3	20
4-Isopropyltoluene	25.0	27.7		ug/L		111	70 - 130	2	20
4-Methyl-2-pentanone (MIBK)	125	137		ug/L		110	70 - 130	1	20
Acetone	125	164	*	ug/L		132	70 - 130	0	20
Benzene	25.0	24.2		ug/L		97	70 - 130	4	20

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-466672/6

Matrix: Water

Analysis Batch: 466672

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	25.0	25.4		ug/L		102	70 - 130	2	20
Bromoform	25.0	28.6		ug/L		114	70 - 130	3	20
Bromomethane	25.0	20.9		ug/L		84	70 - 130	3	20
Carbon disulfide	25.0	22.8		ug/L		91	70 - 130	4	20
Carbon tetrachloride	25.0	32.5		ug/L		130	70 - 130	4	20
Chlorobenzene	25.0	24.9		ug/L		100	70 - 130	0	20
Chlorobromomethane	25.0	25.4		ug/L		102	70 - 130	3	20
Chlorodibromomethane	25.0	29.1		ug/L		116	70 - 130	3	20
Chloroethane	25.0	20.5		ug/L		82	70 - 130	5	20
Chloroform	25.0	24.7		ug/L		99	70 - 130	4	20
Chloromethane	25.0	21.7		ug/L		87	70 - 130	1	20
cis-1,2-Dichloroethene	25.0	24.5		ug/L		98	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	29.2		ug/L		117	70 - 130	3	20
Dichlorobromomethane	25.0	27.6		ug/L		110	70 - 130	3	20
Dichlorodifluoromethane	25.0	21.0		ug/L		84	70 - 130	8	20
Ethyl ether	25.0	24.9		ug/L		100	70 - 130	4	20
Ethylbenzene	25.0	25.5		ug/L		102	70 - 130	1	20
Ethylene Dibromide	25.0	23.9		ug/L		96	70 - 130	1	20
Hexachlorobutadiene	25.0	25.9		ug/L		103	70 - 130	2	20
Isopropyl ether	25.0	31.0		ug/L		124	70 - 130	2	20
Isopropylbenzene	25.0	26.0		ug/L		104	70 - 130	4	20
Methyl tert-butyl ether	25.0	25.6		ug/L		102	70 - 130	3	20
Methylene Chloride	25.0	23.4		ug/L		94	70 - 130	1	20
m-Xylene & p-Xylene	25.0	24.0		ug/L		96	70 - 130	1	20
Naphthalene	25.0	24.4		ug/L		98	70 - 130	2	20
n-Butylbenzene	25.0	27.9		ug/L		112	70 - 130	1	20
N-Propylbenzene	25.0	26.5		ug/L		106	70 - 130	3	20
o-Xylene	25.0	23.4		ug/L		94	70 - 130	3	20
sec-Butylbenzene	25.0	26.5		ug/L		106	70 - 130	2	20
Styrene	25.0	25.7		ug/L		103	70 - 130	0	20
Tert-amyl methyl ether	25.0	27.5		ug/L		110	70 - 130	1	20
Tert-butyl ethyl ether	25.0	29.5		ug/L		118	70 - 130	2	20
tert-Butylbenzene	25.0	26.8		ug/L		107	70 - 130	2	20
Tetrachloroethene	25.0	26.4		ug/L		106	70 - 130	0	20
Tetrahydrofuran	50.0	70.8 *		ug/L		142	70 - 130	1	20
Toluene	25.0	24.4		ug/L		98	70 - 130	3	20
trans-1,2-Dichloroethene	25.0	25.1		ug/L		100	70 - 130	2	20
trans-1,3-Dichloropropene	25.0	30.3		ug/L		121	70 - 130	2	20
Trichloroethene	25.0	25.5		ug/L		102	70 - 130	4	20
Trichlorofluoromethane	25.0	22.9		ug/L		92	70 - 130	5	20
Vinyl chloride	25.0	21.3		ug/L		85	70 - 130	5	20
Dibromomethane	25.0	24.2		ug/L		97	70 - 130	3	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	115		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-466874/8

Matrix: Water

Analysis Batch: 466874

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/09/19 11:06	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/09/19 11:06	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/09/19 11:06	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/09/19 11:06	1
1,1-Dichloroethane	ND		1.0		ug/L			04/09/19 11:06	1
1,1-Dichloroethene	ND		1.0		ug/L			04/09/19 11:06	1
1,1-Dichloropropene	ND		1.0		ug/L			04/09/19 11:06	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/09/19 11:06	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/09/19 11:06	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/09/19 11:06	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/09/19 11:06	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/09/19 11:06	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/09/19 11:06	1
1,2-Dichloroethane	ND		1.0		ug/L			04/09/19 11:06	1
1,2-Dichloropropane	ND		1.0		ug/L			04/09/19 11:06	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/09/19 11:06	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/09/19 11:06	1
1,3-Dichloropropane	ND		1.0		ug/L			04/09/19 11:06	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/09/19 11:06	1
1,4-Dioxane	ND		50		ug/L			04/09/19 11:06	1
2,2-Dichloropropane	ND		1.0		ug/L			04/09/19 11:06	1
2-Butanone (MEK)	ND		10		ug/L			04/09/19 11:06	1
2-Chlorotoluene	ND		1.0		ug/L			04/09/19 11:06	1
2-Hexanone	ND		10		ug/L			04/09/19 11:06	1
4-Chlorotoluene	ND		1.0		ug/L			04/09/19 11:06	1
4-Isopropyltoluene	ND		1.0		ug/L			04/09/19 11:06	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/09/19 11:06	1
Acetone	ND		50		ug/L			04/09/19 11:06	1
Benzene	ND		1.0		ug/L			04/09/19 11:06	1
Bromobenzene	ND		1.0		ug/L			04/09/19 11:06	1
Bromoform	ND		1.0		ug/L			04/09/19 11:06	1
Bromomethane	ND		2.0		ug/L			04/09/19 11:06	1
Carbon disulfide	ND		10		ug/L			04/09/19 11:06	1
Carbon tetrachloride	ND		1.0		ug/L			04/09/19 11:06	1
Chlorobenzene	ND		1.0		ug/L			04/09/19 11:06	1
Chlorobromomethane	ND		1.0		ug/L			04/09/19 11:06	1
Chlorodibromomethane	ND		0.50		ug/L			04/09/19 11:06	1
Chloroethane	ND		2.0		ug/L			04/09/19 11:06	1
Chloroform	ND		1.0		ug/L			04/09/19 11:06	1
Chloromethane	ND		2.0		ug/L			04/09/19 11:06	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 11:06	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 11:06	1
Dichlorobromomethane	ND		0.50		ug/L			04/09/19 11:06	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/09/19 11:06	1
Ethyl ether	ND		1.0		ug/L			04/09/19 11:06	1
Ethylbenzene	ND		1.0		ug/L			04/09/19 11:06	1
Ethylene Dibromide	ND		1.0		ug/L			04/09/19 11:06	1
Hexachlorobutadiene	ND		0.40		ug/L			04/09/19 11:06	1

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-466874/8

Matrix: Water

Analysis Batch: 466874

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Isopropyl ether	ND		10		ug/L			04/09/19 11:06	1
Isopropylbenzene	ND		1.0		ug/L			04/09/19 11:06	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/09/19 11:06	1
Methylene Chloride	ND		1.0		ug/L			04/09/19 11:06	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/09/19 11:06	1
Naphthalene	ND		5.0		ug/L			04/09/19 11:06	1
n-Butylbenzene	ND		1.0		ug/L			04/09/19 11:06	1
N-Propylbenzene	ND		1.0		ug/L			04/09/19 11:06	1
o-Xylene	ND		1.0		ug/L			04/09/19 11:06	1
sec-Butylbenzene	ND		1.0		ug/L			04/09/19 11:06	1
Styrene	ND		1.0		ug/L			04/09/19 11:06	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/09/19 11:06	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/09/19 11:06	1
tert-Butylbenzene	ND		1.0		ug/L			04/09/19 11:06	1
Tetrachloroethene	ND		1.0		ug/L			04/09/19 11:06	1
Tetrahydrofuran	ND		10		ug/L			04/09/19 11:06	1
Toluene	ND		1.0		ug/L			04/09/19 11:06	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 11:06	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 11:06	1
Trichloroethene	ND		1.0		ug/L			04/09/19 11:06	1
Trichlorofluoromethane	ND		1.0		ug/L			04/09/19 11:06	1
Vinyl chloride	ND		1.0		ug/L			04/09/19 11:06	1
Dibromomethane	ND		1.0		ug/L			04/09/19 11:06	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	102		70 - 130		04/09/19 11:06	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 130		04/09/19 11:06	1
4-Bromofluorobenzene (Surr)	101		70 - 130		04/09/19 11:06	1

Lab Sample ID: LCS 480-466874/5

Matrix: Water

Analysis Batch: 466874

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
1,1,1,2-Tetrachloroethane	25.0	29.4		ug/L		117	70 - 130
1,1,1-Trichloroethane	25.0	27.1		ug/L		108	70 - 130
1,1,2,2-Tetrachloroethane	25.0	22.6		ug/L		90	70 - 130
1,1,2-Trichloroethane	25.0	23.5		ug/L		94	70 - 130
1,1-Dichloroethane	25.0	25.7		ug/L		103	70 - 130
1,1-Dichloroethene	25.0	21.6		ug/L		87	70 - 130
1,1-Dichloropropene	25.0	24.9		ug/L		100	70 - 130
1,2,3-Trichlorobenzene	25.0	24.0		ug/L		96	70 - 130
1,2,3-Trichloropropane	25.0	23.0		ug/L		92	70 - 130
1,2,4-Trichlorobenzene	25.0	23.6		ug/L		94	70 - 130
1,2,4-Trimethylbenzene	25.0	26.0		ug/L		104	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	23.5		ug/L		94	70 - 130
1,2-Dichlorobenzene	25.0	24.6		ug/L		98	70 - 130
1,2-Dichloroethane	25.0	25.4		ug/L		102	70 - 130

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-466874/5

Matrix: Water

Analysis Batch: 466874

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	25.0	24.4		ug/L		98	70 - 130
1,3,5-Trimethylbenzene	25.0	25.9		ug/L		104	70 - 130
1,3-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
1,3-Dichloropropane	25.0	23.6		ug/L		94	70 - 130
1,4-Dichlorobenzene	25.0	24.4		ug/L		98	70 - 130
1,4-Dioxane	500	495		ug/L		99	70 - 130
2,2-Dichloropropane	25.0	28.9		ug/L		116	70 - 130
2-Butanone (MEK)	125	248	*	ug/L		198	70 - 130
2-Chlorotoluene	25.0	25.4		ug/L		102	70 - 130
2-Hexanone	125	144		ug/L		115	70 - 130
4-Chlorotoluene	25.0	25.1		ug/L		100	70 - 130
4-Isopropyltoluene	25.0	27.0		ug/L		108	70 - 130
4-Methyl-2-pentanone (MIBK)	125	129		ug/L		104	70 - 130
Acetone	125	155		ug/L		124	70 - 130
Benzene	25.0	23.6		ug/L		94	70 - 130
Bromobenzene	25.0	23.4		ug/L		94	70 - 130
Bromoform	25.0	24.9		ug/L		99	70 - 130
Bromomethane	25.0	20.0		ug/L		80	70 - 130
Carbon disulfide	25.0	21.5		ug/L		86	70 - 130
Carbon tetrachloride	25.0	31.2		ug/L		125	70 - 130
Chlorobenzene	25.0	23.9		ug/L		96	70 - 130
Chlorobromomethane	25.0	23.9		ug/L		96	70 - 130
Chlorodibromomethane	25.0	27.1		ug/L		109	70 - 130
Chloroethane	25.0	18.5		ug/L		74	70 - 130
Chloroform	25.0	23.9		ug/L		96	70 - 130
Chloromethane	25.0	22.6		ug/L		90	70 - 130
cis-1,2-Dichloroethene	25.0	23.5		ug/L		94	70 - 130
cis-1,3-Dichloropropene	25.0	27.2		ug/L		109	70 - 130
Dichlorobromomethane	25.0	25.5		ug/L		102	70 - 130
Dichlorodifluoromethane	25.0	23.3		ug/L		93	70 - 130
Ethyl ether	25.0	24.0		ug/L		96	70 - 130
Ethylbenzene	25.0	24.5		ug/L		98	70 - 130
Ethylene Dibromide	25.0	23.3		ug/L		93	70 - 130
Hexachlorobutadiene	25.0	24.8		ug/L		99	70 - 130
Isopropyl ether	25.0	28.4		ug/L		114	70 - 130
Isopropylbenzene	25.0	25.3		ug/L		101	70 - 130
Methyl tert-butyl ether	25.0	24.3		ug/L		97	70 - 130
Methylene Chloride	25.0	21.7		ug/L		87	70 - 130
m-Xylene & p-Xylene	25.0	23.9		ug/L		96	70 - 130
Naphthalene	25.0	23.2		ug/L		93	70 - 130
n-Butylbenzene	25.0	26.8		ug/L		107	70 - 130
N-Propylbenzene	25.0	25.7		ug/L		103	70 - 130
o-Xylene	25.0	22.8		ug/L		91	70 - 130
sec-Butylbenzene	25.0	25.9		ug/L		104	70 - 130
Styrene	25.0	24.9		ug/L		99	70 - 130
Tert-amyl methyl ether	25.0	25.7		ug/L		103	70 - 130
Tert-butyl ethyl ether	25.0	27.5		ug/L		110	70 - 130
tert-Butylbenzene	25.0	25.6		ug/L		102	70 - 130
Tetrachloroethene	25.0	25.3		ug/L		101	70 - 130

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-466874/5

Matrix: Water

Analysis Batch: 466874

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrahydrofuran	50.0	64.5		ug/L		129	70 - 130
Toluene	25.0	23.6		ug/L		94	70 - 130
trans-1,2-Dichloroethene	25.0	23.6		ug/L		94	70 - 130
trans-1,3-Dichloropropene	25.0	28.7		ug/L		115	70 - 130
Trichloroethene	25.0	24.7		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	21.6		ug/L		86	70 - 130
Vinyl chloride	25.0	20.9		ug/L		83	70 - 130
Dibromomethane	25.0	23.2		ug/L		93	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	109		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 480-466874/6

Matrix: Water

Analysis Batch: 466874

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	30.1		ug/L		121	70 - 130	3	20
1,1,1-Trichloroethane	25.0	29.2		ug/L		117	70 - 130	7	20
1,1,1,2,2-Tetrachloroethane	25.0	22.8		ug/L		91	70 - 130	1	20
1,1,2-Trichloroethane	25.0	22.7		ug/L		91	70 - 130	4	20
1,1-Dichloroethane	25.0	27.5		ug/L		110	70 - 130	7	20
1,1-Dichloroethane	25.0	24.0		ug/L		96	70 - 130	11	20
1,1-Dichloropropene	25.0	27.0		ug/L		108	70 - 130	8	20
1,2,3-Trichlorobenzene	25.0	24.6		ug/L		98	70 - 130	2	20
1,2,3-Trichloropropane	25.0	22.6		ug/L		90	70 - 130	2	20
1,2,4-Trichlorobenzene	25.0	24.6		ug/L		99	70 - 130	4	20
1,2,4-Trimethylbenzene	25.0	26.5		ug/L		106	70 - 130	2	20
1,2-Dibromo-3-Chloropropane	25.0	23.6		ug/L		94	70 - 130	1	20
1,2-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130	3	20
1,2-Dichloroethane	25.0	26.0		ug/L		104	70 - 130	2	20
1,2-Dichloropropane	25.0	25.4		ug/L		102	70 - 130	4	20
1,3,5-Trimethylbenzene	25.0	27.3		ug/L		109	70 - 130	5	20
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130	4	20
1,3-Dichloropropane	25.0	23.9		ug/L		96	70 - 130	2	20
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130	3	20
1,4-Dioxane	500	529		ug/L		106	70 - 130	7	20
2,2-Dichloropropane	25.0	31.5		ug/L		126	70 - 130	9	20
2-Butanone (MEK)	125	256	*	ug/L		205	70 - 130	3	20
2-Chlorotoluene	25.0	26.2		ug/L		105	70 - 130	3	20
2-Hexanone	125	146		ug/L		117	70 - 130	1	20
4-Chlorotoluene	25.0	27.8		ug/L		111	70 - 130	10	20
4-Isopropyltoluene	25.0	27.8		ug/L		111	70 - 130	3	20
4-Methyl-2-pentanone (MIBK)	125	130		ug/L		104	70 - 130	0	20
Acetone	125	164	*	ug/L		131	70 - 130	6	20
Benzene	25.0	24.3		ug/L		97	70 - 130	3	20

Eurofins TestAmerica, Buffalo



# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-466874/6

Matrix: Water

Analysis Batch: 466874

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	25.0	24.6		ug/L		99	70 - 130	5	20
Bromoform	25.0	26.2		ug/L		105	70 - 130	5	20
Bromomethane	25.0	21.8		ug/L		87	70 - 130	9	20
Carbon disulfide	25.0	22.9		ug/L		92	70 - 130	6	20
Carbon tetrachloride	25.0	33.1	*	ug/L		132	70 - 130	6	20
Chlorobenzene	25.0	24.7		ug/L		99	70 - 130	3	20
Chlorobromomethane	25.0	24.8		ug/L		99	70 - 130	4	20
Chlorodibromomethane	25.0	26.7		ug/L		107	70 - 130	1	20
Chloroethane	25.0	20.5		ug/L		82	70 - 130	10	20
Chloroform	25.0	25.5		ug/L		102	70 - 130	6	20
Chloromethane	25.0	23.0		ug/L		92	70 - 130	2	20
cis-1,2-Dichloroethene	25.0	23.9		ug/L		95	70 - 130	2	20
cis-1,3-Dichloropropene	25.0	28.7		ug/L		115	70 - 130	5	20
Dichlorobromomethane	25.0	27.0		ug/L		108	70 - 130	6	20
Dichlorodifluoromethane	25.0	24.8		ug/L		99	70 - 130	6	20
Ethyl ether	25.0	24.0		ug/L		96	70 - 130	0	20
Ethylbenzene	25.0	25.6		ug/L		102	70 - 130	4	20
Ethylene Dibromide	25.0	24.0		ug/L		96	70 - 130	3	20
Hexachlorobutadiene	25.0	25.8		ug/L		103	70 - 130	4	20
Isopropyl ether	25.0	29.3		ug/L		117	70 - 130	3	20
Isopropylbenzene	25.0	26.4		ug/L		106	70 - 130	4	20
Methyl tert-butyl ether	25.0	25.2		ug/L		101	70 - 130	4	20
Methylene Chloride	25.0	23.8		ug/L		95	70 - 130	10	20
m-Xylene & p-Xylene	25.0	23.8		ug/L		95	70 - 130	0	20
Naphthalene	25.0	23.8		ug/L		95	70 - 130	3	20
n-Butylbenzene	25.0	28.4		ug/L		113	70 - 130	6	20
N-Propylbenzene	25.0	26.9		ug/L		108	70 - 130	5	20
o-Xylene	25.0	24.5		ug/L		98	70 - 130	7	20
sec-Butylbenzene	25.0	27.4		ug/L		110	70 - 130	5	20
Styrene	25.0	25.4		ug/L		102	70 - 130	2	20
Tert-amyl methyl ether	25.0	26.5		ug/L		106	70 - 130	3	20
Tert-butyl ethyl ether	25.0	28.7		ug/L		115	70 - 130	4	20
tert-Butylbenzene	25.0	26.7		ug/L		107	70 - 130	4	20
Tetrachloroethene	25.0	27.1		ug/L		109	70 - 130	7	20
Tetrahydrofuran	50.0	66.0	*	ug/L		132	70 - 130	2	20
Toluene	25.0	25.0		ug/L		100	70 - 130	6	20
trans-1,2-Dichloroethene	25.0	24.8		ug/L		99	70 - 130	5	20
trans-1,3-Dichloropropene	25.0	29.0		ug/L		116	70 - 130	1	20
Trichloroethene	25.0	25.7		ug/L		103	70 - 130	4	20
Trichlorofluoromethane	25.0	22.5		ug/L		90	70 - 130	4	20
Vinyl chloride	25.0	22.9		ug/L		92	70 - 130	9	20
Dibromomethane	25.0	24.7		ug/L		99	70 - 130	6	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	114		70 - 130
4-Bromofluorobenzene (Surr)	106		70 - 130

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-467051/7

Matrix: Water

Analysis Batch: 467051

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/09/19 22:02	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/09/19 22:02	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/09/19 22:02	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/09/19 22:02	1
1,1-Dichloroethane	ND		1.0		ug/L			04/09/19 22:02	1
1,1-Dichloroethene	ND		1.0		ug/L			04/09/19 22:02	1
1,1-Dichloropropene	ND		1.0		ug/L			04/09/19 22:02	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/09/19 22:02	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/09/19 22:02	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/09/19 22:02	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/09/19 22:02	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/09/19 22:02	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/09/19 22:02	1
1,2-Dichloroethane	ND		1.0		ug/L			04/09/19 22:02	1
1,2-Dichloropropane	ND		1.0		ug/L			04/09/19 22:02	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/09/19 22:02	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/09/19 22:02	1
1,3-Dichloropropane	ND		1.0		ug/L			04/09/19 22:02	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/09/19 22:02	1
1,4-Dioxane	ND		50		ug/L			04/09/19 22:02	1
2,2-Dichloropropane	ND		1.0		ug/L			04/09/19 22:02	1
2-Butanone (MEK)	ND		10		ug/L			04/09/19 22:02	1
2-Chlorotoluene	ND		1.0		ug/L			04/09/19 22:02	1
2-Hexanone	ND		10		ug/L			04/09/19 22:02	1
4-Chlorotoluene	ND		1.0		ug/L			04/09/19 22:02	1
4-Isopropyltoluene	ND		1.0		ug/L			04/09/19 22:02	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/09/19 22:02	1
Acetone	ND		50		ug/L			04/09/19 22:02	1
Benzene	ND		1.0		ug/L			04/09/19 22:02	1
Bromobenzene	ND		1.0		ug/L			04/09/19 22:02	1
Bromoform	ND		1.0		ug/L			04/09/19 22:02	1
Bromomethane	ND		2.0		ug/L			04/09/19 22:02	1
Carbon disulfide	ND		10		ug/L			04/09/19 22:02	1
Carbon tetrachloride	ND		1.0		ug/L			04/09/19 22:02	1
Chlorobenzene	ND		1.0		ug/L			04/09/19 22:02	1
Chlorobromomethane	ND		1.0		ug/L			04/09/19 22:02	1
Chlorodibromomethane	ND		0.50		ug/L			04/09/19 22:02	1
Chloroethane	ND		2.0		ug/L			04/09/19 22:02	1
Chloroform	ND		1.0		ug/L			04/09/19 22:02	1
Chloromethane	ND		2.0		ug/L			04/09/19 22:02	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 22:02	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 22:02	1
Dichlorobromomethane	ND		0.50		ug/L			04/09/19 22:02	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/09/19 22:02	1
Ethyl ether	ND		1.0		ug/L			04/09/19 22:02	1
Ethylbenzene	ND		1.0		ug/L			04/09/19 22:02	1
Ethylene Dibromide	ND		1.0		ug/L			04/09/19 22:02	1
Hexachlorobutadiene	ND		0.40		ug/L			04/09/19 22:02	1

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-467051/7

Matrix: Water

Analysis Batch: 467051

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Isopropyl ether	ND		10		ug/L			04/09/19 22:02	1
Isopropylbenzene	ND		1.0		ug/L			04/09/19 22:02	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/09/19 22:02	1
Methylene Chloride	ND		1.0		ug/L			04/09/19 22:02	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/09/19 22:02	1
Naphthalene	ND		5.0		ug/L			04/09/19 22:02	1
n-Butylbenzene	ND		1.0		ug/L			04/09/19 22:02	1
N-Propylbenzene	ND		1.0		ug/L			04/09/19 22:02	1
o-Xylene	ND		1.0		ug/L			04/09/19 22:02	1
sec-Butylbenzene	ND		1.0		ug/L			04/09/19 22:02	1
Styrene	ND		1.0		ug/L			04/09/19 22:02	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/09/19 22:02	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/09/19 22:02	1
tert-Butylbenzene	ND		1.0		ug/L			04/09/19 22:02	1
Tetrachloroethene	ND		1.0		ug/L			04/09/19 22:02	1
Tetrahydrofuran	ND		10		ug/L			04/09/19 22:02	1
Toluene	ND		1.0		ug/L			04/09/19 22:02	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/09/19 22:02	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/09/19 22:02	1
Trichloroethene	ND		1.0		ug/L			04/09/19 22:02	1
Trichlorofluoromethane	ND		1.0		ug/L			04/09/19 22:02	1
Vinyl chloride	ND		1.0		ug/L			04/09/19 22:02	1
Dibromomethane	ND		1.0		ug/L			04/09/19 22:02	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	100		70 - 130		04/09/19 22:02	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 130		04/09/19 22:02	1
4-Bromofluorobenzene (Surr)	95		70 - 130		04/09/19 22:02	1

Lab Sample ID: LCS 480-467051/5

Matrix: Water

Analysis Batch: 467051

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
1,1,1,2-Tetrachloroethane	25.0	26.5		ug/L		106	70 - 130
1,1,1-Trichloroethane	25.0	25.7		ug/L		103	70 - 130
1,1,2,2-Tetrachloroethane	25.0	21.6		ug/L		86	70 - 130
1,1,2-Trichloroethane	25.0	20.5		ug/L		82	70 - 130
1,1-Dichloroethane	25.0	24.8		ug/L		99	70 - 130
1,1-Dichloroethene	25.0	20.9		ug/L		84	70 - 130
1,1-Dichloropropene	25.0	23.9		ug/L		95	70 - 130
1,2,3-Trichlorobenzene	25.0	22.1		ug/L		88	70 - 130
1,2,3-Trichloropropane	25.0	20.1		ug/L		80	70 - 130
1,2,4-Trichlorobenzene	25.0	21.9		ug/L		87	70 - 130
1,2,4-Trimethylbenzene	25.0	24.2		ug/L		97	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	21.9		ug/L		88	70 - 130
1,2-Dichlorobenzene	25.0	23.1		ug/L		92	70 - 130
1,2-Dichloroethane	25.0	23.6		ug/L		94	70 - 130

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-467051/5

Matrix: Water

Analysis Batch: 467051

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	25.0	23.9		ug/L		95	70 - 130
1,3,5-Trimethylbenzene	25.0	24.1		ug/L		96	70 - 130
1,3-Dichlorobenzene	25.0	22.7		ug/L		91	70 - 130
1,3-Dichloropropane	25.0	21.3		ug/L		85	70 - 130
1,4-Dichlorobenzene	25.0	22.7		ug/L		91	70 - 130
1,4-Dioxane	500	398		ug/L		80	70 - 130
2,2-Dichloropropane	25.0	27.6		ug/L		110	70 - 130
2-Butanone (MEK)	125	233 *		ug/L		186	70 - 130
2-Chlorotoluene	25.0	23.0		ug/L		92	70 - 130
2-Hexanone	125	129		ug/L		103	70 - 130
4-Chlorotoluene	25.0	23.9		ug/L		96	70 - 130
4-Isopropyltoluene	25.0	24.8		ug/L		99	70 - 130
4-Methyl-2-pentanone (MIBK)	125	115		ug/L		92	70 - 130
Acetone	125	146		ug/L		117	70 - 130
Benzene	25.0	22.3		ug/L		89	70 - 130
Bromobenzene	25.0	21.7		ug/L		87	70 - 130
Bromoform	25.0	22.7		ug/L		91	70 - 130
Bromomethane	25.0	21.0		ug/L		84	70 - 130
Carbon disulfide	25.0	19.8		ug/L		79	70 - 130
Carbon tetrachloride	25.0	28.5		ug/L		114	70 - 130
Chlorobenzene	25.0	21.9		ug/L		88	70 - 130
Chlorobromomethane	25.0	22.8		ug/L		91	70 - 130
Chlorodibromomethane	25.0	23.5		ug/L		94	70 - 130
Chloroethane	25.0	20.7		ug/L		83	70 - 130
Chloroform	25.0	23.1		ug/L		92	70 - 130
Chloromethane	25.0	22.9		ug/L		92	70 - 130
cis-1,2-Dichloroethene	25.0	22.3		ug/L		89	70 - 130
cis-1,3-Dichloropropene	25.0	26.6		ug/L		106	70 - 130
Dichlorobromomethane	25.0	24.7		ug/L		99	70 - 130
Dichlorodifluoromethane	25.0	25.0		ug/L		100	70 - 130
Ethyl ether	25.0	20.7		ug/L		83	70 - 130
Ethylbenzene	25.0	22.5		ug/L		90	70 - 130
Ethylene Dibromide	25.0	21.1		ug/L		85	70 - 130
Hexachlorobutadiene	25.0	23.5		ug/L		94	70 - 130
Isopropyl ether	25.0	27.7		ug/L		111	70 - 130
Isopropylbenzene	25.0	23.6		ug/L		94	70 - 130
Methyl tert-butyl ether	25.0	22.4		ug/L		89	70 - 130
Methylene Chloride	25.0	21.5		ug/L		86	70 - 130
m-Xylene & p-Xylene	25.0	21.0		ug/L		84	70 - 130
Naphthalene	25.0	21.3		ug/L		85	70 - 130
n-Butylbenzene	25.0	25.2		ug/L		101	70 - 130
N-Propylbenzene	25.0	23.8		ug/L		95	70 - 130
o-Xylene	25.0	20.8		ug/L		83	70 - 130
sec-Butylbenzene	25.0	24.1		ug/L		96	70 - 130
Styrene	25.0	22.7		ug/L		91	70 - 130
Tert-amyl methyl ether	25.0	25.0		ug/L		100	70 - 130
Tert-butyl ethyl ether	25.0	26.2		ug/L		105	70 - 130
tert-Butylbenzene	25.0	23.8		ug/L		95	70 - 130
Tetrachloroethene	25.0	23.1		ug/L		92	70 - 130

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-467051/5

Matrix: Water

Analysis Batch: 467051

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrahydrofuran	50.0	61.3		ug/L		123	70 - 130
Toluene	25.0	21.8		ug/L		87	70 - 130
trans-1,2-Dichloroethene	25.0	22.8		ug/L		91	70 - 130
trans-1,3-Dichloropropene	25.0	26.0		ug/L		104	70 - 130
Trichloroethene	25.0	23.5		ug/L		94	70 - 130
Trichlorofluoromethane	25.0	23.8		ug/L		95	70 - 130
Vinyl chloride	25.0	23.0		ug/L		92	70 - 130
Dibromomethane	25.0	22.2		ug/L		89	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	113		70 - 130
4-Bromofluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 480-467051/9

Matrix: Water

Analysis Batch: 467051

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	27.2		ug/L		109	70 - 130	2	20
1,1,1-Trichloroethane	25.0	24.7		ug/L		99	70 - 130	4	20
1,1,1,2,2-Tetrachloroethane	25.0	21.5		ug/L		86	70 - 130	1	20
1,1,1,2-Trichloroethane	25.0	22.2		ug/L		89	70 - 130	8	20
1,1-Dichloroethane	25.0	22.7		ug/L		91	70 - 130	9	20
1,1-Dichloroethane	25.0	19.7		ug/L		79	70 - 130	6	20
1,1-Dichloropropene	25.0	22.8		ug/L		91	70 - 130	4	20
1,2,3-Trichlorobenzene	25.0	22.5		ug/L		90	70 - 130	2	20
1,2,3-Trichloropropane	25.0	19.7		ug/L		79	70 - 130	2	20
1,2,4-Trichlorobenzene	25.0	22.1		ug/L		88	70 - 130	1	20
1,2,4-Trimethylbenzene	25.0	24.0		ug/L		96	70 - 130	1	20
1,2-Dibromo-3-Chloropropane	25.0	21.1		ug/L		84	70 - 130	4	20
1,2-Dichlorobenzene	25.0	22.9		ug/L		91	70 - 130	1	20
1,2-Dichloroethane	25.0	22.6		ug/L		91	70 - 130	4	20
1,2-Dichloropropane	25.0	22.5		ug/L		90	70 - 130	6	20
1,3,5-Trimethylbenzene	25.0	24.2		ug/L		97	70 - 130	0	20
1,3-Dichlorobenzene	25.0	22.8		ug/L		91	70 - 130	0	20
1,3-Dichloropropane	25.0	22.1		ug/L		88	70 - 130	3	20
1,4-Dichlorobenzene	25.0	22.4		ug/L		89	70 - 130	1	20
1,4-Dioxane	500	459		ug/L		92	70 - 130	14	20
2,2-Dichloropropane	25.0	25.9		ug/L		104	70 - 130	6	20
2-Butanone (MEK)	125	225	*	ug/L		180	70 - 130	3	20
2-Chlorotoluene	25.0	24.3		ug/L		97	70 - 130	6	20
2-Hexanone	125	132		ug/L		106	70 - 130	2	20
4-Chlorotoluene	25.0	24.6		ug/L		99	70 - 130	3	20
4-Isopropyltoluene	25.0	25.2		ug/L		101	70 - 130	2	20
4-Methyl-2-pentanone (MIBK)	125	117		ug/L		94	70 - 130	2	20
Acetone	125	138		ug/L		111	70 - 130	6	20
Benzene	25.0	21.0		ug/L		84	70 - 130	6	20

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-467051/9

Matrix: Water

Analysis Batch: 467051

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	25.0	21.6		ug/L		86	70 - 130	1	20
Bromoform	25.0	23.0		ug/L		92	70 - 130	1	20
Bromomethane	25.0	20.1		ug/L		81	70 - 130	4	20
Carbon disulfide	25.0	18.5		ug/L		74	70 - 130	7	20
Carbon tetrachloride	25.0	28.0		ug/L		112	70 - 130	2	20
Chlorobenzene	25.0	22.1		ug/L		88	70 - 130	1	20
Chlorobromomethane	25.0	21.9		ug/L		87	70 - 130	4	20
Chlorodibromomethane	25.0	25.0		ug/L		100	70 - 130	6	20
Chloroethane	25.0	19.7		ug/L		79	70 - 130	5	20
Chloroform	25.0	21.7		ug/L		87	70 - 130	6	20
Chloromethane	25.0	21.9		ug/L		87	70 - 130	5	20
cis-1,2-Dichloroethene	25.0	21.0		ug/L		84	70 - 130	6	20
cis-1,3-Dichloropropene	25.0	24.5		ug/L		98	70 - 130	8	20
Dichlorobromomethane	25.0	23.2		ug/L		93	70 - 130	6	20
Dichlorodifluoromethane	25.0	23.6		ug/L		95	70 - 130	6	20
Ethyl ether	25.0	20.2		ug/L		81	70 - 130	3	20
Ethylbenzene	25.0	22.9		ug/L		92	70 - 130	2	20
Ethylene Dibromide	25.0	21.7		ug/L		87	70 - 130	3	20
Hexachlorobutadiene	25.0	23.6		ug/L		94	70 - 130	0	20
Isopropyl ether	25.0	26.2		ug/L		105	70 - 130	5	20
Isopropylbenzene	25.0	23.6		ug/L		94	70 - 130	0	20
Methyl tert-butyl ether	25.0	21.4		ug/L		86	70 - 130	4	20
Methylene Chloride	25.0	20.1		ug/L		80	70 - 130	6	20
m-Xylene & p-Xylene	25.0	21.8		ug/L		87	70 - 130	3	20
Naphthalene	25.0	21.4		ug/L		86	70 - 130	1	20
n-Butylbenzene	25.0	25.9		ug/L		104	70 - 130	3	20
N-Propylbenzene	25.0	24.0		ug/L		96	70 - 130	1	20
o-Xylene	25.0	21.5		ug/L		86	70 - 130	4	20
sec-Butylbenzene	25.0	24.3		ug/L		97	70 - 130	1	20
Styrene	25.0	23.1		ug/L		92	70 - 130	2	20
Tert-amyl methyl ether	25.0	24.0		ug/L		96	70 - 130	4	20
Tert-butyl ethyl ether	25.0	25.2		ug/L		101	70 - 130	4	20
tert-Butylbenzene	25.0	23.9		ug/L		96	70 - 130	0	20
Tetrachloroethene	25.0	24.1		ug/L		97	70 - 130	5	20
Tetrahydrofuran	50.0	57.7		ug/L		115	70 - 130	6	20
Toluene	25.0	22.2		ug/L		89	70 - 130	2	20
trans-1,2-Dichloroethene	25.0	21.5		ug/L		86	70 - 130	6	20
trans-1,3-Dichloropropene	25.0	26.8		ug/L		107	70 - 130	3	20
Trichloroethene	25.0	22.2		ug/L		89	70 - 130	5	20
Trichlorofluoromethane	25.0	22.1		ug/L		88	70 - 130	7	20
Vinyl chloride	25.0	21.7		ug/L		87	70 - 130	6	20
Dibromomethane	25.0	21.2		ug/L		85	70 - 130	4	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130

# QC Association Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

## GC/MS VOA

### Analysis Batch: 466672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151403-1	MW-1003-20190403-01	Total/NA	Water	8260C	
480-151403-2	MW-1004-20190403-01	Total/NA	Water	8260C	
480-151403-3	MW-1005-20190403-01	Total/NA	Water	8260C	
480-151403-4	MW-1006-20190403-01	Total/NA	Water	8260C	
480-151403-5	MW-1010M-20190403-01	Total/NA	Water	8260C	
480-151403-6	MW-1010D-20190403-01	Total/NA	Water	8260C	
480-151403-7	MW-1011-20190403-01	Total/NA	Water	8260C	
480-151403-8	MW-1015D-20190403-01	Total/NA	Water	8260C	
480-151403-9	MW-1016D-20190403-01	Total/NA	Water	8260C	
480-151403-10	MW-1017D-20190403-01	Total/NA	Water	8260C	
480-151403-11	MW-1018-20190403-01	Total/NA	Water	8260C	
480-151403-12	MW-1019B-20190403-01	Total/NA	Water	8260C	
480-151403-13	MW-1024D-20190403-01	Total/NA	Water	8260C	
480-151403-14	MW-1025D-20190403-01	Total/NA	Water	8260C	
480-151403-15	MW-1027-20190403-01	Total/NA	Water	8260C	
MB 480-466672/8	Method Blank	Total/NA	Water	8260C	
LCS 480-466672/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-466672/6	Lab Control Sample Dup	Total/NA	Water	8260C	

### Analysis Batch: 466874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151403-7 - DL	MW-1011-20190403-01	Total/NA	Water	8260C	
480-151403-16	MW-1028-20190403-01	Total/NA	Water	8260C	
480-151403-17	MW-1030-20190403-01	Total/NA	Water	8260C	
480-151403-18	MW-1031-20190403-01	Total/NA	Water	8260C	
480-151403-19	MW-1032-20190403-01	Total/NA	Water	8260C	
480-151403-20	MW-1035-20190403-01	Total/NA	Water	8260C	
480-151403-23	TB-001-20190403-01	Total/NA	Water	8260C	
MB 480-466874/8	Method Blank	Total/NA	Water	8260C	
LCS 480-466874/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-466874/6	Lab Control Sample Dup	Total/NA	Water	8260C	

### Analysis Batch: 467051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151403-21	MW-1037-20190403-01	Total/NA	Water	8260C	
480-151403-22	MW-1038-20190403-01	Total/NA	Water	8260C	
480-151403-24	DUP-001-20190403-01	Total/NA	Water	8260C	
480-151403-25	DUP-002-20190403-01	Total/NA	Water	8260C	
MB 480-467051/7	Method Blank	Total/NA	Water	8260C	
LCS 480-467051/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-467051/9	Lab Control Sample Dup	Total/NA	Water	8260C	

# Lab Chronicle

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1003-20190403-01**

**Lab Sample ID: 480-151403-1**

Date Collected: 04/03/19 11:45

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 13:13	AEM	TAL BUF

**Client Sample ID: MW-1004-20190403-01**

**Lab Sample ID: 480-151403-2**

Date Collected: 04/03/19 11:05

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 13:37	AEM	TAL BUF

**Client Sample ID: MW-1005-20190403-01**

**Lab Sample ID: 480-151403-3**

Date Collected: 04/03/19 10:45

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 14:01	AEM	TAL BUF

**Client Sample ID: MW-1006-20190403-01**

**Lab Sample ID: 480-151403-4**

Date Collected: 04/03/19 10:05

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 14:25	AEM	TAL BUF

**Client Sample ID: MW-1010M-20190403-01**

**Lab Sample ID: 480-151403-5**

Date Collected: 04/03/19 13:15

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 14:49	AEM	TAL BUF

**Client Sample ID: MW-1010D-20190403-01**

**Lab Sample ID: 480-151403-6**

Date Collected: 04/03/19 13:35

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 15:13	AEM	TAL BUF

**Client Sample ID: MW-1011-20190403-01**

**Lab Sample ID: 480-151403-7**

Date Collected: 04/03/19 08:18

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 15:37	AEM	TAL BUF
Total/NA	Analysis	8260C	DL	5	466874	04/09/19 13:20	AEM	TAL BUF



# Lab Chronicle

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1015D-20190403-01**

**Lab Sample ID: 480-151403-8**

Date Collected: 04/03/19 09:40

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 16:00	AEM	TAL BUF

**Client Sample ID: MW-1016D-20190403-01**

**Lab Sample ID: 480-151403-9**

Date Collected: 04/03/19 14:35

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 16:24	AEM	TAL BUF

**Client Sample ID: MW-1017D-20190403-01**

**Lab Sample ID: 480-151403-10**

Date Collected: 04/03/19 14:15

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 16:48	AEM	TAL BUF

**Client Sample ID: MW-1018-20190403-01**

**Lab Sample ID: 480-151403-11**

Date Collected: 04/03/19 15:35

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 17:12	AEM	TAL BUF

**Client Sample ID: MW-1019B-20190403-01**

**Lab Sample ID: 480-151403-12**

Date Collected: 04/03/19 13:45

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 17:36	AEM	TAL BUF

**Client Sample ID: MW-1024D-20190403-01**

**Lab Sample ID: 480-151403-13**

Date Collected: 04/03/19 16:20

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 18:00	AEM	TAL BUF

**Client Sample ID: MW-1025D-20190403-01**

**Lab Sample ID: 480-151403-14**

Date Collected: 04/03/19 11:50

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466672	04/08/19 18:24	AEM	TAL BUF

Eurofins TestAmerica, Buffalo

# Lab Chronicle

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1027-20190403-01**

**Lab Sample ID: 480-151403-15**

Date Collected: 04/03/19 13:05

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466872	04/08/19 18:48	AEM	TAL BUF

**Client Sample ID: MW-1028-20190403-01**

**Lab Sample ID: 480-151403-16**

Date Collected: 04/03/19 13:17

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466874	04/09/19 13:44	AEM	TAL BUF

**Client Sample ID: MW-1030-20190403-01**

**Lab Sample ID: 480-151403-17**

Date Collected: 04/03/19 11:00

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466874	04/09/19 14:09	AEM	TAL BUF

**Client Sample ID: MW-1031-20190403-01**

**Lab Sample ID: 480-151403-18**

Date Collected: 04/03/19 11:20

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466874	04/09/19 14:33	AEM	TAL BUF

**Client Sample ID: MW-1032-20190403-01**

**Lab Sample ID: 480-151403-19**

Date Collected: 04/03/19 11:34

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466874	04/09/19 14:57	AEM	TAL BUF

**Client Sample ID: MW-1035-20190403-01**

**Lab Sample ID: 480-151403-20**

Date Collected: 04/03/19 15:55

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466874	04/09/19 15:21	AEM	TAL BUF

**Client Sample ID: MW-1037-20190403-01**

**Lab Sample ID: 480-151403-21**

Date Collected: 04/03/19 15:32

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	467051	04/10/19 02:37	KMN	TAL BUF

# Lab Chronicle

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

**Client Sample ID: MW-1038-20190403-01**

**Lab Sample ID: 480-151403-22**

Date Collected: 04/03/19 15:15

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	467051	04/10/19 03:01	KMN	TAL BUF

**Client Sample ID: TB-001-20190403-01**

**Lab Sample ID: 480-151403-23**

Date Collected: 04/03/19 00:00

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	466874	04/09/19 16:33	AEM	TAL BUF

**Client Sample ID: DUP-001-20190403-01**

**Lab Sample ID: 480-151403-24**

Date Collected: 04/03/19 12:00

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	467051	04/10/19 03:25	KMN	TAL BUF

**Client Sample ID: DUP-002-20190403-01**

**Lab Sample ID: 480-151403-25**

Date Collected: 04/03/19 13:00

Matrix: Water

Date Received: 04/05/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	467051	04/10/19 03:49	KMN	TAL BUF

**Laboratory References:**

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Accreditation/Certification Summary

Client: ERM-Northeast  
 Project/Site: IDS Wayland

Job ID: 480-151403-1

## Laboratory: Eurofins TestAmerica, Buffalo

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-19
California	State Program	9	2931	04-01-19 *
Connecticut	State Program	1	PH-0568	09-30-20
Florida	NELAP	4	E87672	06-30-19
Georgia	State Program	4	10026 (NY)	03-31-20
Illinois	NELAP	5	200003	09-30-19
Iowa	State Program	7	374	02-28-19 *
Kansas	NELAP	7	E-10187	01-31-20
Kentucky (DW)	State Program	4	90029	12-31-19
Kentucky (UST)	State Program	4	30	03-31-19 *
Kentucky (WW)	State Program	4	90029	12-31-19
Louisiana	NELAP	6	02031	06-30-19
Maryland	State Program	3	294	03-31-20
Massachusetts	State Program	1	M-NY044	06-30-19
Michigan	State Program	5	9937	03-31-19 *
Minnesota	NELAP	5	036-999-337	12-31-19
New Hampshire	NELAP	1	2337	11-17-19
New Jersey	NELAP	2	NY455	06-30-19
New York	NELAP	2	10026	03-31-20
North Dakota	State Program	8	R-176	03-31-19 *
Oklahoma	State Program	6	9421	08-31-19
Oregon	NELAP	10	NY200003	06-09-19 *
Pennsylvania	NELAP	3	68-00281	07-31-19
Rhode Island	State Program	1	LAO00328	12-30-19
Tennessee	State Program	4	TN02970	03-31-20
Texas	NELAP	6	T104704412-15-6	07-31-19
USDA	Federal		P330-11-00386	02-06-21
Virginia	NELAP	3	460185	09-14-19
Washington	State Program	10	C784	02-10-20
Wisconsin	State Program	5	998310390	08-31-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

**Protocol References:**

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600



# Sample Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151403-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-151403-1	MW-1003-20190403-01	Water	04/03/19 11:45	04/05/19 01:00
480-151403-2	MW-1004-20190403-01	Water	04/03/19 11:05	04/05/19 01:00
480-151403-3	MW-1005-20190403-01	Water	04/03/19 10:45	04/05/19 01:00
480-151403-4	MW-1006-20190403-01	Water	04/03/19 10:05	04/05/19 01:00
480-151403-5	MW-1010M-20190403-01	Water	04/03/19 13:15	04/05/19 01:00
480-151403-6	MW-1010D-20190403-01	Water	04/03/19 13:35	04/05/19 01:00
480-151403-7	MW-1011-20190403-01	Water	04/03/19 08:18	04/05/19 01:00
480-151403-8	MW-1015D-20190403-01	Water	04/03/19 09:40	04/05/19 01:00
480-151403-9	MW-1016D-20190403-01	Water	04/03/19 14:35	04/05/19 01:00
480-151403-10	MW-1017D-20190403-01	Water	04/03/19 14:15	04/05/19 01:00
480-151403-11	MW-1018-20190403-01	Water	04/03/19 15:35	04/05/19 01:00
480-151403-12	MW-1019B-20190403-01	Water	04/03/19 13:45	04/05/19 01:00
480-151403-13	MW-1024D-20190403-01	Water	04/03/19 16:20	04/05/19 01:00
480-151403-14	MW-1025D-20190403-01	Water	04/03/19 11:50	04/05/19 01:00
480-151403-15	MW-1027-20190403-01	Water	04/03/19 13:05	04/05/19 01:00
480-151403-16	MW-1028-20190403-01	Water	04/03/19 13:17	04/05/19 01:00
480-151403-17	MW-1030-20190403-01	Water	04/03/19 11:00	04/05/19 01:00
480-151403-18	MW-1031-20190403-01	Water	04/03/19 11:20	04/05/19 01:00
480-151403-19	MW-1032-20190403-01	Water	04/03/19 11:34	04/05/19 01:00
480-151403-20	MW-1035-20190403-01	Water	04/03/19 15:55	04/05/19 01:00
480-151403-21	MW-1037-20190403-01	Water	04/03/19 15:32	04/05/19 01:00
480-151403-22	MW-1038-20190403-01	Water	04/03/19 15:15	04/05/19 01:00
480-151403-23	TB-001-20190403-01	Water	04/03/19 00:00	04/05/19 01:00
480-151403-24	DUP-001-20190403-01	Water	04/03/19 12:00	04/05/19 01:00
480-151403-25	DUP-002-20190403-01	Water	04/03/19 13:00	04/05/19 01:00

## Login Sample Receipt Checklist

Client: ERM-Northeast

Job Number: 480-151403-1

**Login Number: 151403**

**List Source: Eurofins TestAmerica, Buffalo**

**List Number: 1**

**Creator: Kolb, Chris M**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ERM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

### Chain of Custody Record

<b>Client Information</b> Client Contact: <b>Larry Mastera</b> Company: <b>ERM-Northeast</b>		Sampler: <b>J. Redden</b> Lab PM: <b>Mason, Becky C</b> Phone: <b>508-498-5311</b> E-Mail: <b>becky.mason@testamericainc.com</b>		Carrier Tracking No(s): COC No: <b>480-127995-28903.5</b> Page: <b>Page 5 of 6</b> Job #: <b>50 Pg 1 of 3</b>	
Address: <b>One Beacon Steet 5th Floor</b> City: <b>Boston</b> State, Zip: <b>MA, 02108</b> Phone: <b>617-646-7800</b> Email: <b>larry.mastera@erm.com</b> <b>lyndsey.colburn@erm.com</b>		Due Date Requested: TAT Requested (days): PO #: <b>0484298.01</b> WO #:		Analysis Requested Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid M - Hexane N - None O - AsNaO2 P - Na2O4S	
Project Name: <b>IDS Wayland</b> Project #: <b>48007117</b> SSOW#:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 826MCP - (MOD) Pick a reference price 522 - Local Method 610MCP - Chromium		Barcode: <b>480-151403 Chain of Custody</b> anhydrate (fy)	
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Preservation Code:	Matrix (W=water, S=solid, O=wastefl, BT=issue, A=air)
MW-1003-20190403-01	04/28/19	11:45	G		Water
MW-1004-20190403-01		11:05			Water
MW-1005-20190403-01		10:45			Water
MW-1006-20190403-01		10:05			Water
<del>MW-1006-20190403-01</del>					<del>Water</del>
MW-1010M-20190403-01		13:15			Water
MW-1010D-20190403-01		13:35			Water
MW-1011-20190403-01		08:18			Water
MW-1015D-20190403-01		09:40			Water
MW-1016D-20190403-01		14:35			Water
MW-1017D-20190403-01		14:15			Water
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
<b>Special Instructions/OC Requirements:</b>					
Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____ Relinquished by: _____ Date/Time: 4/28/19 17:15 Company: <b>ERM</b> Relinquished by: _____ Date/Time: 4-28-19 18:00 Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact: _____ Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: <b>3.1 #</b>					





### Chain of Custody Record

<b>Client Information</b> Client Contact: <u>Larry Mastera</u> Company: <u>ERM-Northeast</u> Address: <u>One Beacon Steet 5th Floor</u> City: <u>Boston</u> State, Zip: <u>MA, 02108</u> Phone: <u>617-646-7805</u> Email: <u>larry.mastera@erm.com</u> Project Name: <u>IDS Wayland</u> Site: <u>Wayland</u>		Sampler: <u>J. Redden</u> Lab PM: <u>Mason, Becky C</u> Phone: <u>508-498-53M</u> E-Mail: <u>becky.mason@testamericainc.com</u>		Carrier Tracking No(s): COC No: <u>480-127995-28903.3</u> Page: <u>Page 3 of 6</u> Job #: <u>Py 2 of 3</u>	
Due Date Requested: TAT Requested (days): PO #: <u>0484298.01</u> WO #: _____ Project #: <u>48007117</u> SSOW#: _____		<b>Analysis Requested</b> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 826MCP - (MOD) Pick a reference price 522 - Local Method 610MCP - Chromium Total Number of Containers: _____			
<b>Sample Identification</b> Sample ID: <u>MW-1018-20190403-01</u> Sample ID: <u>MW-1019B-20190403-01</u> Sample ID: <u>MW-1024D-20190403-01</u> Sample ID: <u>MW-1025D-20190403-01</u> Sample ID: <u>MW-1027-20190403-01</u> Sample ID: <u>MW-1028-20190403-01</u> Sample ID: <u>MW-1030-20190403-01</u> Sample ID: <u>MW-1031-20190403-01</u> Sample ID: <u>MW-1038-20190403-01</u> Sample ID: <u>MW-1035-20190403-01</u> Sample ID: <u>MW-1037-20190403-01</u>		Sample Date: <u>4/3/19</u> Sample Time: <u>15:35</u> <u>13:45</u> <u>16:20</u> <u>11:50</u> <u>13:05</u> <u>13:17</u> <u>11:00</u> <u>11:20</u> <u>11:34</u> <u>15:58</u> <u>15:38</u>		Matrix (Water, Soil, etc.) Sample Type (C=comp, G=grab) Preservation Code: Water Water Water Water Water Water Water Water Water Water Water	
<b>Possible Hazard Identification</b> <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify) _____		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/OC Requirements: _____			
<b>Empty Kit Relinquished by:</b> Relinquished by: _____ Date/Time: _____		<b>Method of Shipment:</b> Received by: _____ Date/Time: <u>4/3/19 17:15</u> Company: <u>ERM</u>			
<b>Custody Seals Intact:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		Relinquished by: _____ Date/Time: <u>4-4-19 10:00</u> Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Cooler Temperature(s) °C and Other Remarks: <u>3.1 #1</u>			





## ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Tel: (716)691-2600

Laboratory Job ID: 480-151456-1  
Client Project/Site: IDS Wayland

For:  
ERM-Northeast  
One Beacon Steet  
5th Floor  
Boston, Massachusetts 02108

Attn: Lyndsey Colburn



Authorized for release by:  
4/16/2019 8:48:14 AM

Becky Mason, Project Manager II  
(413)572-4000  
[becky.mason@testamericainc.com](mailto:becky.mason@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



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## Definitions/Glossary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151456-1

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151456-1

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**Job ID: 480-151456-1**

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**Laboratory: Eurofins TestAmerica, Buffalo**

## Narrative

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**Job Narrative**  
**480-151456-1**

## Receipt

The samples were received on 4/6/2019 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

## Metals

Method 6010: At the request of the client, an abbreviated MCP analyte list was reported for this job.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

## MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Buffalo** Project #: **480-151456-1**

Project Location: **Wayland MA** RTN:

**This form provides certifications for the data set for the following Laboratory Sample ID Number(s):**  
**480-151456-1[1-5]**

Matrices:  Groundwater/Surface Water  Soil/Sediment  Drinking Water  Air  Other:

### CAM Protocols (check all that apply below):

8260 VOC CAM II A <input type="checkbox"/>	7470/7471 Hg CAM III B <input type="checkbox"/>	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9012 / 9014/ 4500CN Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	

### Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

<b>A</b>	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 time.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>D</b>	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"?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>E</b>	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). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>F</b>	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)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

### Responses to Questions G, H and I below are required for "Presumptive Certainty" status


<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
----------	---	--

**Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350**

<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>

<sup>1</sup> All negative responses must be addressed in an attached laboratory narrative.

**I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.**

Signature:  Position: Project Manager

Printed Name: Becky Mason Date: 4/16/19 8:47

This form has been electronically signed and approved

# Detection Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151456-1

**Client Sample ID: DUP-006-CR-20190404-01**

**Lab Sample ID: 480-151456-1**

No Detections.

**Client Sample ID: MW-1022-20190404-01**

**Lab Sample ID: 480-151456-2**

No Detections.

**Client Sample ID: MW-1013-20190404-01**

**Lab Sample ID: 480-151456-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.023		0.0050		mg/L	1		6010	Dissolved

**Client Sample ID: MW-1014-20190404-01**

**Lab Sample ID: 480-151456-4**

No Detections.

**Client Sample ID: MW-1009-20190404-01**

**Lab Sample ID: 480-151456-5**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo



# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151456-1

**Client Sample ID: DUP-006-CR-20190404-01**

**Lab Sample ID: 480-151456-1**

Date Collected: 04/04/19 12:35

Matrix: Water

Date Received: 04/06/19 01:00

**Method: 6010 - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.0050		mg/L		04/08/19 08:02	04/09/19 15:23	1

**Client Sample ID: MW-1022-20190404-01**

**Lab Sample ID: 480-151456-2**

Date Collected: 04/04/19 11:25

Matrix: Water

Date Received: 04/06/19 01:00

**Method: 6010 - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.0050		mg/L		04/08/19 08:02	04/09/19 15:38	1

**Client Sample ID: MW-1013-20190404-01**

**Lab Sample ID: 480-151456-3**

Date Collected: 04/04/19 09:03

Matrix: Water

Date Received: 04/06/19 01:00

**Method: 6010 - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.023		0.0050		mg/L		04/08/19 08:02	04/09/19 15:42	1

**Client Sample ID: MW-1014-20190404-01**

**Lab Sample ID: 480-151456-4**

Date Collected: 04/04/19 09:10

Matrix: Water

Date Received: 04/06/19 01:00

**Method: 6010 - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.0050		mg/L		04/08/19 08:02	04/09/19 15:46	1

**Client Sample ID: MW-1009-20190404-01**

**Lab Sample ID: 480-151456-5**

Date Collected: 04/04/19 12:35

Matrix: Water

Date Received: 04/06/19 01:00

**Method: 6010 - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.0050		mg/L		04/08/19 08:02	04/09/19 16:05	1

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151456-1

## Method: 6010 - Metals (ICP)

**Lab Sample ID: MB 480-466577/1-A**  
**Matrix: Water**  
**Analysis Batch: 467090**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 466577**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.0050		mg/L		04/08/19 08:02	04/09/19 15:15	1

**Lab Sample ID: LCS 480-466577/2-A**  
**Matrix: Water**  
**Analysis Batch: 467090**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 466577**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.206		mg/L		103	80 - 120

**Lab Sample ID: LCSD 480-466577/25-A**  
**Matrix: Water**  
**Analysis Batch: 467090**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 466577**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.200	0.198		mg/L		99	80 - 120	4	20

**Lab Sample ID: 480-151456-4 MS**  
**Matrix: Water**  
**Analysis Batch: 467090**

**Client Sample ID: MW-1014-20190404-01**  
**Prep Type: Dissolved**  
**Prep Batch: 466577**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	ND		0.200	0.200		mg/L		100	75 - 125

**Lab Sample ID: 480-151456-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 467090**

**Client Sample ID: MW-1014-20190404-01**  
**Prep Type: Dissolved**  
**Prep Batch: 466577**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND		0.200	0.199		mg/L		100	75 - 125	0	20

# QC Association Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151456-1

## Metals

### Prep Batch: 466577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151456-1	DUP-006-CR-20190404-01	Dissolved	Water	3005A	
480-151456-2	MW-1022-20190404-01	Dissolved	Water	3005A	
480-151456-3	MW-1013-20190404-01	Dissolved	Water	3005A	
480-151456-4	MW-1014-20190404-01	Dissolved	Water	3005A	
480-151456-5	MW-1009-20190404-01	Dissolved	Water	3005A	
MB 480-466577/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 480-466577/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 480-466577/25-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
480-151456-4 MS	MW-1014-20190404-01	Dissolved	Water	3005A	
480-151456-4 MSD	MW-1014-20190404-01	Dissolved	Water	3005A	

### Analysis Batch: 467090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-151456-1	DUP-006-CR-20190404-01	Dissolved	Water	6010	466577
480-151456-2	MW-1022-20190404-01	Dissolved	Water	6010	466577
480-151456-3	MW-1013-20190404-01	Dissolved	Water	6010	466577
480-151456-4	MW-1014-20190404-01	Dissolved	Water	6010	466577
480-151456-5	MW-1009-20190404-01	Dissolved	Water	6010	466577
MB 480-466577/1-A	Method Blank	Total Recoverable	Water	6010	466577
LCS 480-466577/2-A	Lab Control Sample	Total Recoverable	Water	6010	466577
LCSD 480-466577/25-A	Lab Control Sample Dup	Total Recoverable	Water	6010	466577
480-151456-4 MS	MW-1014-20190404-01	Dissolved	Water	6010	466577
480-151456-4 MSD	MW-1014-20190404-01	Dissolved	Water	6010	466577

# Lab Chronicle

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151456-1

**Client Sample ID: DUP-006-CR-20190404-01**

**Lab Sample ID: 480-151456-1**

Date Collected: 04/04/19 12:35

Matrix: Water

Date Received: 04/06/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			466577	04/08/19 08:02	KMP	TAL BUF
Dissolved	Analysis	6010		1	467090	04/09/19 15:23	AMH	TAL BUF

**Client Sample ID: MW-1022-20190404-01**

**Lab Sample ID: 480-151456-2**

Date Collected: 04/04/19 11:25

Matrix: Water

Date Received: 04/06/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			466577	04/08/19 08:02	KMP	TAL BUF
Dissolved	Analysis	6010		1	467090	04/09/19 15:38	AMH	TAL BUF

**Client Sample ID: MW-1013-20190404-01**

**Lab Sample ID: 480-151456-3**

Date Collected: 04/04/19 09:03

Matrix: Water

Date Received: 04/06/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			466577	04/08/19 08:02	KMP	TAL BUF
Dissolved	Analysis	6010		1	467090	04/09/19 15:42	AMH	TAL BUF

**Client Sample ID: MW-1014-20190404-01**

**Lab Sample ID: 480-151456-4**

Date Collected: 04/04/19 09:10

Matrix: Water

Date Received: 04/06/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			466577	04/08/19 08:02	KMP	TAL BUF
Dissolved	Analysis	6010		1	467090	04/09/19 15:46	AMH	TAL BUF

**Client Sample ID: MW-1009-20190404-01**

**Lab Sample ID: 480-151456-5**

Date Collected: 04/04/19 12:35

Matrix: Water

Date Received: 04/06/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			466577	04/08/19 08:02	KMP	TAL BUF
Dissolved	Analysis	6010		1	467090	04/09/19 16:05	AMH	TAL BUF

**Laboratory References:**

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

## Accreditation/Certification Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151456-1

### Laboratory: Eurofins TestAmerica, Buffalo

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-19
California	State Program	9	2931	04-01-19 *
Connecticut	State Program	1	PH-0568	09-30-20
Florida	NELAP	4	E87672	06-30-19
Georgia	State Program	4	10026 (NY)	03-31-20
Georgia	State Program	4	956	03-31-20
Illinois	NELAP	5	200003	09-30-19
Iowa	State Program	7	374	02-28-19 *
Kansas	NELAP	7	E-10187	01-31-20
Kentucky (DW)	State Program	4	90029	12-31-19
Kentucky (UST)	State Program	4	30	03-31-19 *
Kentucky (WW)	State Program	4	90029	12-31-19
Louisiana	NELAP	6	02031	06-30-19
Maryland	State Program	3	294	03-31-20
Massachusetts	State Program	1	M-NY044	06-30-19
Michigan	State Program	5	9937	03-31-19 *
Minnesota	NELAP	5	036-999-337	12-31-19
New Hampshire	NELAP	1	2337	11-17-19
New Jersey	NELAP	2	NY455	06-30-19
New York	NELAP	2	10026	03-31-20
North Dakota	State Program	8	R-176	03-31-19 *
Oklahoma	State Program	6	9421	08-31-19
Oregon	NELAP	10	NY200003	06-09-19 *
Pennsylvania	NELAP	3	68-00281	07-31-19
Rhode Island	State Program	1	LAO00328	12-30-19
Tennessee	State Program	4	TN02970	03-31-20
Texas	NELAP	6	T104704412-15-6	07-31-19
USDA	Federal		P330-11-00386	02-06-21
Virginia	NELAP	3	460185	09-14-19
Washington	State Program	10	C784	02-10-20
Wisconsin	State Program	5	998310390	08-31-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151456-1

Method	Method Description	Protocol	Laboratory
6010	Metals (ICP)	SW846	TAL BUF
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL BUF

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600



# Sample Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 480-151456-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-151456-1	DUP-006-CR-20190404-01	Water	04/04/19 12:35	04/06/19 01:00
480-151456-2	MW-1022-20190404-01	Water	04/04/19 11:25	04/06/19 01:00
480-151456-3	MW-1013-20190404-01	Water	04/04/19 09:03	04/06/19 01:00
480-151456-4	MW-1014-20190404-01	Water	04/04/19 09:10	04/06/19 01:00
480-151456-5	MW-1009-20190404-01	Water	04/04/19 12:35	04/06/19 01:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

## Login Sample Receipt Checklist

Client: ERM-Northeast

Job Number: 480-151456-1

**Login Number: 151456**

**List Source: Eurofins TestAmerica, Buffalo**


**List Number: 1**

**Creator: Velickovic, Zoran**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ERM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	



# Chain of Custody Record

<b>Client Information</b> Client Contact: <u>Lyndsey Colburn</u> Company: <u>ERM-Northeast</u> Address: <u>One Beacon Street 5th Floor</u> City: <u>Boston</u> State: <u>MA</u> Zip: <u>02108</u> PO #: <u>0484298.01</u> Email: <u>lyndsey.colburn@erm.com</u> Project Name: <u>IDS Wayland</u> Site: <u>Wayland, MA</u>		Sampler: <u>J. Redden</u> Lab PM: <u>Mason, Becky C</u> Phone: <u>508-498-5311</u> E-Mail: <u>becky.mason@testamericainc.com</u>		Carrier Tracking No(s): COC No: <u>480-128155-28931.1</u> Page: <u>1 of 1</u> Job #: <u>pg 1/1</u>						
Due Date Requested: TAT Requested (days): PO #: <u>0484298.01</u> WO #: <u>48007117</u> Project #: <u>48007117</u> SSO#:		<b>Analysis Requested</b>  480-151456 Chain of Custody								
<b>Sample Identification</b> Sample ID: <u>DWS-006-(R-20190404-01)</u> <u>MW-1022-20190404-01</u> <u>MW-1013-20190404-01</u> <u>MW-1014-20190404-01</u> <u>MW-1009-20190404-01</u>		Sample Date <u>4/4/19</u> <u>4/5/19</u> <u>4/5/19</u> <u>4/5/19</u>	Sample Time <u>12:35</u> <u>11:25</u> <u>09:03</u> <u>09:10</u> <u>12:35</u>	Sample Type (C=Comp, G=grab) <u>G</u> <u>G</u> <u>G</u> <u>G</u> <u>G</u>	Matrix (W=water, S=solid, O=wasteoil, BT=issue, A=air) <u>Water</u> <u>Water</u> <u>Water</u> <u>Water</u> <u>↓</u>					
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Dissolved (Chromium)		Total Number of Containers <table border="1"> <tr><td>1</td></tr> <tr><td>1</td></tr> <tr><td>1</td></tr> <tr><td>3</td></tr> <tr><td>1</td></tr> </table>				1	1	1	3	1
1										
1										
1										
3										
1										
Special Instructions/Note: Special Instructions/OC Requirements: <u>Separate lab report from VOCs/PAHs</u>		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)								
Empty Kit Relinquished by: <u>Sam Goeth</u> Relinquished by: <u>[Signature]</u> Relinquished by: <u>[Signature]</u>		Date/Time: <u>04/04/19 15:00</u> <u>4-5-19 18:00</u>								
Custody Seal Intact: <u>A</u> Yes <u>A</u> No Custody Seal No.: <u>2.8 #</u>		Received by: <u>[Signature]</u> Date/Time: <u>4-4-19 (Thu) 8:00</u> Date/Time: <u>04/06/19 01:00</u>								




## ANALYTICAL REPORT

Eurofins TestAmerica, Nashville  
2960 Foster Creighton Drive  
Nashville, TN 37204  
Tel: (615)726-0177

Laboratory Job ID: 490-171846-1  
Client Project/Site: IDS Wayland

For:  
ERM-Northeast  
One Beacon Steet  
5th Floor  
Boston, Massachusetts 02108

Attn: Lyndsey Colburn



Authorized for release by:  
4/18/2019 9:55:32 AM

Becky Mason, Project Manager II  
(413)572-4000  
[becky.mason@testamericainc.com](mailto:becky.mason@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



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[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



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# Definitions/Glossary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Nashville** Project #: **490-171846-1**

Project Location: **Wayland MA** RTN:

**This form provides certifications for the data set for the following Laboratory Sample ID Number(s):**  
**490-171846-1[1-27]**

Matrices:  Groundwater/Surface Water  Soil/Sediment  Drinking Water  Air  Other:

### CAM Protocols (check all that apply below):

8260 VOC CAM II A <input checked="" type="checkbox"/>	7470/7471 Hg CAM III B <input type="checkbox"/>	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9012 / 9014/ 4500CN Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	

### Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

<b>A</b>	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 time.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>D</b>	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"?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>E</b>	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). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>F</b>	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)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

### Responses to Questions G, H and I below are required for "Presumptive Certainty" status


<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>
----------	---	--

**Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350**

<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>

<sup>1</sup> All negative responses must be addressed in an attached laboratory narrative.

**I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.**

Signature:  Position: Project Manager

Printed Name: Becky Mason Date: 4/18/19 9:54

This form has been electronically signed and approved

# Case Narrative

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Job ID: 490-171846-1**

**Laboratory: Eurofins TestAmerica, Nashville**

## Narrative

### Job Narrative 490-171846-1

#### Receipt

The samples were received on 4/10/2019 9:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.4° C and 5.5° C.

#### Receipt Exceptions

Samples added to COC twice, only one set of bottles received. Will report as 480-171846-16 and 480-141846-19 per client request. DUP-007-DX-20190404-01 (490-171846-8) and MW-1020-20190404-01 (490-171846-10)

#### GC/MS VOA

Method 8260C: With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for 1,2-dibromo-3-chloropropane, Ethyl Ether, Methylene Chloride, Naphthalene, and Tetrahydrofuran.

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 490-587193 recovered outside control limits but were greater than 10% for the following analytes: Bromoform and Chloromethane . MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples are impacted: MW-1013-20190404-01 (490-171846-1), MW-1014-20190404-01 (490-171846-2), MW-1008-20190404-01 (490-171846-3), MW-1036-20190404-01 (490-171846-4), DUP-005-20190404-01 (490-171846-5), MW-1022-20190404-01 (490-171846-6), MW-1009-20190404-01 (490-171846-7), PDB-001-20190404-01 (490-171846-11), MW-1026D-20190404-01 (490-171846-13), MW-1025M-20190404-01 (490-171846-14), MW-1020-20190404-01 (490-171846-16), DUP-003-20190404-01 (490-171846-18), MW-1033-20190405-01 (490-171846-20), MW-1034-20190405-01 (490-171846-22) and MW-1039-20190405-01 (490-171846-25).

Method 8260C: The continuing calibration verification (CCV) associated with batch 490-587193 recovered above the upper control limit for Vinyl Chloride, Acetone, 2-Hexanone, 1,2,3-Trichloropropane, Chloromethane, N-propylbenzene, Dichlorodifluoromethane, 1,1,2,2-Tetrachloroethane, trans-1,3-Dichloropropene, 1,2-Dibromo-3-Chloropropane and Bromoform. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-1013-20190404-01 (490-171846-1), MW-1014-20190404-01 (490-171846-2), MW-1008-20190404-01 (490-171846-3), MW-1036-20190404-01 (490-171846-4), DUP-005-20190404-01 (490-171846-5), MW-1022-20190404-01 (490-171846-6), MW-1009-20190404-01 (490-171846-7), PDB-001-20190404-01 (490-171846-11), MW-1026D-20190404-01 (490-171846-13), MW-1025M-20190404-01 (490-171846-14), MW-1020-20190404-01 (490-171846-16), DUP-003-20190404-01 (490-171846-18), MW-1033-20190405-01 (490-171846-20), MW-1034-20190405-01 (490-171846-22) and MW-1039-20190405-01 (490-171846-25).

Method 8260C: Internal standard responses were outside of acceptance limits for the following sample: MW-1025M-20190404-01 (490-171846-14).

Method 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 490-587398 recovered outside control limits but were greater than 10% for the following analytes: 1,4-Dioxane. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following sample is impacted: MW-1025M-20190404-01 (490-171846-14).

Method 8260C: The continuing calibration verification (CCV) associated with batch 490-587403 recovered above the upper MCP control limit but less than 40% for trans-1,3-Dichloropropene, 1,2,3-Trichloropropane, 2-Hexanone, Acetone and 1,1,2,2-Tetrachloroethane . MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. The following samples are impacted: DUP-004-20190405-01 (490-171846-26) and TB-001-20190405-01 (490-171846-27).

Method 8260C: The continuing calibration verification (CCV) associated with batch 490-587403 recovered above the upper control limit for Bromoform. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: DUP-004-20190405-01 (490-171846-26) and TB-001-20190405-01 (490-171846-27).

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 490-587403

# Case Narrative

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

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## Job ID: 490-171846-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Nashville (Continued)

recovered outside control limits but were greater than 10% for the following analytes: 1,4-Dioxane and Bromoform . MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples are impacted: DUP-004-20190405-01 (490-171846-26) and TB-001-20190405-01 (490-171846-27).

Method 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 490-587403 recovered outside control limits for the following analytes: 1,4-Dioxane.

Method 8260C: The continuing calibration verification (CCV) associated with batch 490-587398 recovered above the upper control limit for 1,4-Dioxane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: MW-1025M-20190404-01 (490-171846-14).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

Method 522: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of 4: MW-1033-DX-20190405-01 (490-171846-21). The sample was preserved to the appropriate pH in the laboratory using 1.0mL HCl.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1013-20190404-01**

**Lab Sample ID: 490-171846-1**

No Detections.

**Client Sample ID: MW-1014-20190404-01**

**Lab Sample ID: 490-171846-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	42		25		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	7.9		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	34		1.0		ug/L	1		8260C	Total/NA

**Client Sample ID: MW-1008-20190404-01**

**Lab Sample ID: 490-171846-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	2.4		1.0		ug/L	1		8260C	Total/NA

**Client Sample ID: MW-1036-20190404-01**

**Lab Sample ID: 490-171846-4**

No Detections.

**Client Sample ID: DUP-005-20190404-01**

**Lab Sample ID: 490-171846-5**

No Detections.

**Client Sample ID: MW-1022-20190404-01**

**Lab Sample ID: 490-171846-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	2.4		1.0		ug/L	1		8260C	Total/NA

**Client Sample ID: MW-1009-20190404-01**

**Lab Sample ID: 490-171846-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichlorofluoromethane	11		1.0		ug/L	1		8260C	Total/NA

**Client Sample ID: MW-1036-DX-20190404-01**

**Lab Sample ID: 490-171846-9**

No Detections.

**Client Sample ID: PDB-001-20190404-01**

**Lab Sample ID: 490-171846-11**

No Detections.

**Client Sample ID: MW-1026D-DX-20190404-01**

**Lab Sample ID: 490-171846-12**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.58		0.20		ug/L	1		522	Total/NA

**Client Sample ID: MW-1026D-20190404-01**

**Lab Sample ID: 490-171846-13**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	26		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	26		1.0		ug/L	1		8260C	Total/NA

**Client Sample ID: MW-1025M-20190404-01**

**Lab Sample ID: 490-171846-14**

No Detections.

**Client Sample ID: MW-1025M-DX-20190404-01**

**Lab Sample ID: 490-171846-15**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.93		0.20		ug/L	1		522	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Nashville



# Detection Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Client Sample ID: MW-1020-20190404-01

Lab Sample ID: 490-171846-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	16		1.0		ug/L	1		8260C	Total/NA
Tert-amyl methyl ether	7.9		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	7.0		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1020-DX-20190404-01

Lab Sample ID: 490-171846-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.50		0.20		ug/L	1		522	Total/NA

## Client Sample ID: DUP-003-20190404-01

Lab Sample ID: 490-171846-18

No Detections.

## Client Sample ID: DUP-007-DX-20190404-01

Lab Sample ID: 490-171846-19

No Detections.

## Client Sample ID: MW-1033-20190405-01

Lab Sample ID: 490-171846-20

No Detections.

## Client Sample ID: MW-1033-DX-20190405-01

Lab Sample ID: 490-171846-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	3.7		0.20		ug/L	1		522	Total/NA

## Client Sample ID: MW-1034-20190405-01

Lab Sample ID: 490-171846-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	12		1.0		ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.4		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	31		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-1034-DX-20190405-01

Lab Sample ID: 490-171846-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.43		0.20		ug/L	1		522	Total/NA

## Client Sample ID: MW-1039-DX-20190405-01

Lab Sample ID: 490-171846-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.34		0.20		ug/L	1		522	Total/NA

## Client Sample ID: MW-1039-20190405-01

Lab Sample ID: 490-171846-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	29		1.0		ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	2.0		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	51		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: DUP-004-20190405-01

Lab Sample ID: 490-171846-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	11		1.0		ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.4		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	31		1.0		ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Nashville

# Detection Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: TB-001-20190405-01**

**Lab Sample ID: 490-171846-27**

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Nashville

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1013-20190404-01**

**Lab Sample ID: 490-171846-1**

Date Collected: 04/04/19 08:08

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 02:59	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 02:59	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 02:59	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 02:59	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 02:59	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 02:59	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 02:59	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 02:59	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 02:59	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 02:59	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 02:59	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 02:59	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 02:59	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 02:59	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 02:59	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 02:59	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 02:59	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 02:59	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 02:59	1
1,4-Dioxane	ND		200		ug/L			04/11/19 02:59	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 02:59	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 02:59	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 02:59	1
2-Hexanone	ND		10		ug/L			04/11/19 02:59	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 02:59	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 02:59	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 02:59	1
Acetone	ND		25		ug/L			04/11/19 02:59	1
Benzene	ND		1.0		ug/L			04/11/19 02:59	1
Bromobenzene	ND		1.0		ug/L			04/11/19 02:59	1
Bromoform	ND	*	1.0		ug/L			04/11/19 02:59	1
Bromomethane	ND		1.0		ug/L			04/11/19 02:59	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 02:59	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 02:59	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 02:59	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 02:59	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 02:59	1
Chloroethane	ND		1.0		ug/L			04/11/19 02:59	1
Chloroform	ND		1.0		ug/L			04/11/19 02:59	1
Chloromethane	ND	*	1.0		ug/L			04/11/19 02:59	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 02:59	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 02:59	1
Dibromomethane	ND		1.0		ug/L			04/11/19 02:59	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 02:59	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 02:59	1
Ethyl ether	ND		5.0		ug/L			04/11/19 02:59	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 02:59	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 02:59	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 02:59	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1013-20190404-01**

**Lab Sample ID: 490-171846-1**

Date Collected: 04/04/19 08:08

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 02:59	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 02:59	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 02:59	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 02:59	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 02:59	1
Naphthalene	ND		5.0		ug/L			04/11/19 02:59	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 02:59	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 02:59	1
o-Xylene	ND		1.0		ug/L			04/11/19 02:59	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 02:59	1
Styrene	ND		1.0		ug/L			04/11/19 02:59	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 02:59	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 02:59	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 02:59	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 02:59	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 02:59	1
Toluene	ND		1.0		ug/L			04/11/19 02:59	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 02:59	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 02:59	1
Trichloroethene	ND		1.0		ug/L			04/11/19 02:59	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 02:59	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 02:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	83		70 - 130		04/11/19 02:59	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		04/11/19 02:59	1
4-Bromofluorobenzene (Surr)	92		70 - 130		04/11/19 02:59	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1014-20190404-01**

**Lab Sample ID: 490-171846-2**

Date Collected: 04/04/19 08:15

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 03:26	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 03:26	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 03:26	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 03:26	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 03:26	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 03:26	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 03:26	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 03:26	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 03:26	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 03:26	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 03:26	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 03:26	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 03:26	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 03:26	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 03:26	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 03:26	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 03:26	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 03:26	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 03:26	1
1,4-Dioxane	ND		200		ug/L			04/11/19 03:26	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 03:26	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 03:26	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 03:26	1
2-Hexanone	ND		10		ug/L			04/11/19 03:26	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 03:26	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 03:26	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 03:26	1
<b>Acetone</b>	<b>42</b>		25		ug/L			04/11/19 15:17	1
Benzene	ND		1.0		ug/L			04/11/19 03:26	1
Bromobenzene	ND		1.0		ug/L			04/11/19 03:26	1
Bromoform	ND	*	1.0		ug/L			04/11/19 03:26	1
Bromomethane	ND		1.0		ug/L			04/11/19 03:26	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 03:26	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 03:26	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 03:26	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 03:26	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 03:26	1
Chloroethane	ND		1.0		ug/L			04/11/19 03:26	1
Chloroform	ND		1.0		ug/L			04/11/19 03:26	1
Chloromethane	ND	*	1.0		ug/L			04/11/19 03:26	1
<b>cis-1,2-Dichloroethene</b>	<b>7.9</b>		1.0		ug/L			04/11/19 03:26	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 03:26	1
Dibromomethane	ND		1.0		ug/L			04/11/19 03:26	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 03:26	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 03:26	1
Ethyl ether	ND		5.0		ug/L			04/11/19 03:26	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 03:26	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 03:26	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 03:26	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1014-20190404-01**

**Lab Sample ID: 490-171846-2**

Date Collected: 04/04/19 08:15

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 03:26	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 03:26	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 03:26	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 03:26	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 03:26	1
Naphthalene	ND		5.0		ug/L			04/11/19 03:26	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 03:26	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 03:26	1
o-Xylene	ND		1.0		ug/L			04/11/19 03:26	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 03:26	1
Styrene	ND		1.0		ug/L			04/11/19 03:26	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 03:26	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 03:26	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 03:26	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 03:26	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 03:26	1
Toluene	ND		1.0		ug/L			04/11/19 03:26	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 03:26	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 03:26	1
<b>Trichloroethene</b>	<b>34</b>		1.0		ug/L			04/11/19 03:26	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 03:26	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 03:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	80		70 - 130		04/11/19 03:26	1
Toluene-d8 (Surr)	103		70 - 130		04/11/19 15:17	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 130		04/11/19 03:26	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		04/11/19 15:17	1
4-Bromofluorobenzene (Surr)	104		70 - 130		04/11/19 03:26	1
4-Bromofluorobenzene (Surr)	101		70 - 130		04/11/19 15:17	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1008-20190404-01**

**Lab Sample ID: 490-171846-3**

Date Collected: 04/04/19 09:58

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 03:52	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 03:52	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 03:52	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 03:52	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 03:52	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 03:52	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 03:52	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 03:52	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 03:52	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 03:52	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 03:52	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 03:52	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 03:52	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 03:52	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 03:52	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 03:52	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 03:52	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 03:52	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 03:52	1
1,4-Dioxane	ND		200		ug/L			04/11/19 03:52	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 03:52	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 03:52	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 03:52	1
2-Hexanone	ND		10		ug/L			04/11/19 03:52	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 03:52	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 03:52	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 03:52	1
Acetone	ND		25		ug/L			04/11/19 03:52	1
Benzene	ND		1.0		ug/L			04/11/19 03:52	1
Bromobenzene	ND		1.0		ug/L			04/11/19 03:52	1
Bromoform	ND	*	1.0		ug/L			04/11/19 03:52	1
Bromomethane	ND		1.0		ug/L			04/11/19 03:52	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 03:52	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 03:52	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 03:52	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 03:52	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 03:52	1
Chloroethane	ND		1.0		ug/L			04/11/19 03:52	1
Chloroform	ND		1.0		ug/L			04/11/19 03:52	1
Chloromethane	ND	*	1.0		ug/L			04/11/19 03:52	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 03:52	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 03:52	1
Dibromomethane	ND		1.0		ug/L			04/11/19 03:52	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 03:52	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 03:52	1
Ethyl ether	ND		5.0		ug/L			04/11/19 03:52	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 03:52	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 03:52	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 03:52	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1008-20190404-01**

**Lab Sample ID: 490-171846-3**

Date Collected: 04/04/19 09:58

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 03:52	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 03:52	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 03:52	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 03:52	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 03:52	1
Naphthalene	ND		5.0		ug/L			04/11/19 03:52	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 03:52	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 03:52	1
o-Xylene	ND		1.0		ug/L			04/11/19 03:52	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 03:52	1
Styrene	ND		1.0		ug/L			04/11/19 03:52	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 03:52	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 03:52	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 03:52	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 03:52	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 03:52	1
Toluene	ND		1.0		ug/L			04/11/19 03:52	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 03:52	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 03:52	1
<b>Trichloroethene</b>	<b>2.4</b>		1.0		ug/L			04/11/19 03:52	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 03:52	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 03:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	82		70 - 130		04/11/19 03:52	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 130		04/11/19 03:52	1
4-Bromofluorobenzene (Surr)	100		70 - 130		04/11/19 03:52	1



# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1036-20190404-01**

**Lab Sample ID: 490-171846-4**

Date Collected: 04/04/19 11:26

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 04:19	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 04:19	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 04:19	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 04:19	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 04:19	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 04:19	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 04:19	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 04:19	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 04:19	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 04:19	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 04:19	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 04:19	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 04:19	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 04:19	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 04:19	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 04:19	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 04:19	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 04:19	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 04:19	1
1,4-Dioxane	ND		200		ug/L			04/11/19 04:19	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 04:19	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 04:19	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 04:19	1
2-Hexanone	ND		10		ug/L			04/11/19 04:19	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 04:19	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 04:19	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 04:19	1
Acetone	ND		25		ug/L			04/11/19 04:19	1
Benzene	ND		1.0		ug/L			04/11/19 04:19	1
Bromobenzene	ND		1.0		ug/L			04/11/19 04:19	1
Bromoform	ND	*	1.0		ug/L			04/11/19 04:19	1
Bromomethane	ND		1.0		ug/L			04/11/19 04:19	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 04:19	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 04:19	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 04:19	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 04:19	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 04:19	1
Chloroethane	ND		1.0		ug/L			04/11/19 04:19	1
Chloroform	ND		1.0		ug/L			04/11/19 04:19	1
Chloromethane	ND	*	1.0		ug/L			04/11/19 04:19	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 04:19	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 04:19	1
Dibromomethane	ND		1.0		ug/L			04/11/19 04:19	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 04:19	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 04:19	1
Ethyl ether	ND		5.0		ug/L			04/11/19 04:19	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 04:19	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 04:19	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 04:19	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1036-20190404-01**

**Lab Sample ID: 490-171846-4**

Date Collected: 04/04/19 11:26

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 04:19	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 04:19	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 04:19	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 04:19	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 04:19	1
Naphthalene	ND		5.0		ug/L			04/11/19 04:19	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 04:19	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 04:19	1
o-Xylene	ND		1.0		ug/L			04/11/19 04:19	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 04:19	1
Styrene	ND		1.0		ug/L			04/11/19 04:19	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 04:19	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 04:19	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 04:19	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 04:19	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 04:19	1
Toluene	ND		1.0		ug/L			04/11/19 04:19	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 04:19	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 04:19	1
Trichloroethene	ND		1.0		ug/L			04/11/19 04:19	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 04:19	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 04:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	85		70 - 130		04/11/19 04:19	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 130		04/11/19 04:19	1
4-Bromofluorobenzene (Surr)	107		70 - 130		04/11/19 04:19	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: DUP-005-20190404-01**

**Lab Sample ID: 490-171846-5**

Date Collected: 04/04/19 12:00

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 04:45	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 04:45	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 04:45	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 04:45	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 04:45	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 04:45	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 04:45	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 04:45	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 04:45	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 04:45	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 04:45	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 04:45	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 04:45	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 04:45	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 04:45	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 04:45	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 04:45	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 04:45	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 04:45	1
1,4-Dioxane	ND		200		ug/L			04/11/19 04:45	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 04:45	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 04:45	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 04:45	1
2-Hexanone	ND		10		ug/L			04/11/19 04:45	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 04:45	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 04:45	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 04:45	1
Acetone	ND		25		ug/L			04/11/19 04:45	1
Benzene	ND		1.0		ug/L			04/11/19 04:45	1
Bromobenzene	ND		1.0		ug/L			04/11/19 04:45	1
Bromoform	ND *		1.0		ug/L			04/11/19 04:45	1
Bromomethane	ND		1.0		ug/L			04/11/19 04:45	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 04:45	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 04:45	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 04:45	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 04:45	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 04:45	1
Chloroethane	ND		1.0		ug/L			04/11/19 04:45	1
Chloroform	ND		1.0		ug/L			04/11/19 04:45	1
Chloromethane	ND *		1.0		ug/L			04/11/19 04:45	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 04:45	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 04:45	1
Dibromomethane	ND		1.0		ug/L			04/11/19 04:45	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 04:45	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 04:45	1
Ethyl ether	ND		5.0		ug/L			04/11/19 04:45	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 04:45	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 04:45	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 04:45	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: DUP-005-20190404-01**

**Lab Sample ID: 490-171846-5**

Date Collected: 04/04/19 12:00

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 04:45	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 04:45	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 04:45	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 04:45	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 04:45	1
Naphthalene	ND		5.0		ug/L			04/11/19 04:45	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 04:45	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 04:45	1
o-Xylene	ND		1.0		ug/L			04/11/19 04:45	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 04:45	1
Styrene	ND		1.0		ug/L			04/11/19 04:45	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 04:45	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 04:45	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 04:45	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 04:45	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 04:45	1
Toluene	ND		1.0		ug/L			04/11/19 04:45	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 04:45	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 04:45	1
Trichloroethene	ND		1.0		ug/L			04/11/19 04:45	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 04:45	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 04:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	85		70 - 130		04/11/19 04:45	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		04/11/19 04:45	1
4-Bromofluorobenzene (Surr)	97		70 - 130		04/11/19 04:45	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1022-20190404-01**

**Lab Sample ID: 490-171846-6**

Date Collected: 04/04/19 10:55

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 05:12	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 05:12	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 05:12	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 05:12	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 05:12	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 05:12	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 05:12	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 05:12	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 05:12	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 05:12	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 05:12	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 05:12	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 05:12	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 05:12	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 05:12	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 05:12	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 05:12	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 05:12	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 05:12	1
1,4-Dioxane	ND		200		ug/L			04/11/19 05:12	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 05:12	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 05:12	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 05:12	1
2-Hexanone	ND		10		ug/L			04/11/19 05:12	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 05:12	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 05:12	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 05:12	1
Acetone	ND		25		ug/L			04/11/19 05:12	1
Benzene	ND		1.0		ug/L			04/11/19 05:12	1
Bromobenzene	ND		1.0		ug/L			04/11/19 05:12	1
Bromoform	ND	*	1.0		ug/L			04/11/19 05:12	1
Bromomethane	ND		1.0		ug/L			04/11/19 05:12	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 05:12	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 05:12	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 05:12	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 05:12	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 05:12	1
Chloroethane	ND		1.0		ug/L			04/11/19 05:12	1
Chloroform	ND		1.0		ug/L			04/11/19 05:12	1
Chloromethane	ND	*	1.0		ug/L			04/11/19 05:12	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 05:12	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 05:12	1
Dibromomethane	ND		1.0		ug/L			04/11/19 05:12	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 05:12	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 05:12	1
Ethyl ether	ND		5.0		ug/L			04/11/19 05:12	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 05:12	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 05:12	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 05:12	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1022-20190404-01**

**Lab Sample ID: 490-171846-6**

Date Collected: 04/04/19 10:55

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 05:12	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 05:12	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 05:12	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 05:12	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 05:12	1
Naphthalene	ND		5.0		ug/L			04/11/19 05:12	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 05:12	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 05:12	1
o-Xylene	ND		1.0		ug/L			04/11/19 05:12	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 05:12	1
Styrene	ND		1.0		ug/L			04/11/19 05:12	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 05:12	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 05:12	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 05:12	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 05:12	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 05:12	1
Toluene	ND		1.0		ug/L			04/11/19 05:12	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 05:12	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 05:12	1
<b>Trichloroethene</b>	<b>2.4</b>		1.0		ug/L			04/11/19 05:12	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 05:12	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 05:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	82		70 - 130		04/11/19 05:12	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 130		04/11/19 05:12	1
4-Bromofluorobenzene (Surr)	105		70 - 130		04/11/19 05:12	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1009-20190404-01**

**Lab Sample ID: 490-171846-7**

Date Collected: 04/04/19 12:00

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 05:39	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 05:39	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 05:39	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 05:39	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 05:39	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 05:39	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 05:39	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 05:39	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 05:39	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 05:39	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 05:39	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 05:39	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 05:39	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 05:39	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 05:39	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 05:39	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 05:39	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 05:39	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 05:39	1
1,4-Dioxane	ND		200		ug/L			04/11/19 05:39	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 05:39	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 05:39	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 05:39	1
2-Hexanone	ND		10		ug/L			04/11/19 05:39	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 05:39	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 05:39	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 05:39	1
Acetone	ND		25		ug/L			04/11/19 14:51	1
Benzene	ND		1.0		ug/L			04/11/19 05:39	1
Bromobenzene	ND		1.0		ug/L			04/11/19 05:39	1
Bromoform	ND	*	1.0		ug/L			04/11/19 05:39	1
Bromomethane	ND		1.0		ug/L			04/11/19 05:39	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 05:39	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 05:39	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 05:39	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 05:39	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 05:39	1
Chloroethane	ND		1.0		ug/L			04/11/19 05:39	1
Chloroform	ND		1.0		ug/L			04/11/19 05:39	1
Chloromethane	ND	*	1.0		ug/L			04/11/19 05:39	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 05:39	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 05:39	1
Dibromomethane	ND		1.0		ug/L			04/11/19 05:39	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 05:39	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 05:39	1
Ethyl ether	ND		5.0		ug/L			04/11/19 05:39	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 05:39	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 05:39	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 05:39	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1009-20190404-01**

**Lab Sample ID: 490-171846-7**

Date Collected: 04/04/19 12:00

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 05:39	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 05:39	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 05:39	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 05:39	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 05:39	1
Naphthalene	ND		5.0		ug/L			04/11/19 05:39	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 05:39	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 05:39	1
o-Xylene	ND		1.0		ug/L			04/11/19 05:39	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 05:39	1
Styrene	ND		1.0		ug/L			04/11/19 05:39	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 05:39	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 05:39	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 05:39	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 05:39	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 05:39	1
Toluene	ND		1.0		ug/L			04/11/19 05:39	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 05:39	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 05:39	1
Trichloroethene	ND		1.0		ug/L			04/11/19 05:39	1
<b>Trichlorofluoromethane</b>	<b>11</b>		1.0		ug/L			04/11/19 05:39	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 05:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	85		70 - 130		04/11/19 05:39	1
Toluene-d8 (Surr)	103		70 - 130		04/11/19 14:51	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		04/11/19 05:39	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		04/11/19 14:51	1
4-Bromofluorobenzene (Surr)	107		70 - 130		04/11/19 05:39	1
4-Bromofluorobenzene (Surr)	99		70 - 130		04/11/19 14:51	1



# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1036-DX-20190404-01**

**Lab Sample ID: 490-171846-9**

Date Collected: 04/04/19 11:55

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		04/15/19 12:05	04/17/19 09:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	97		46 - 130				04/15/19 12:05	04/17/19 09:52	1

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# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: PDB-001-20190404-01**

**Lab Sample ID: 490-171846-11**

Date Collected: 04/04/19 14:24

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 06:05	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 06:05	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 06:05	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 06:05	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 06:05	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 06:05	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 06:05	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 06:05	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 06:05	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 06:05	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 06:05	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 06:05	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 06:05	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 06:05	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 06:05	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 06:05	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 06:05	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 06:05	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 06:05	1
1,4-Dioxane	ND		200		ug/L			04/11/19 06:05	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 06:05	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 06:05	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 06:05	1
2-Hexanone	ND		10		ug/L			04/11/19 06:05	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 06:05	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 06:05	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 06:05	1
Acetone	ND		25		ug/L			04/11/19 06:05	1
Benzene	ND		1.0		ug/L			04/11/19 06:05	1
Bromobenzene	ND		1.0		ug/L			04/11/19 06:05	1
Bromoform	ND *		1.0		ug/L			04/11/19 06:05	1
Bromomethane	ND		1.0		ug/L			04/11/19 06:05	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 06:05	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 06:05	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 06:05	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 06:05	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 06:05	1
Chloroethane	ND		1.0		ug/L			04/11/19 06:05	1
Chloroform	ND		1.0		ug/L			04/11/19 06:05	1
Chloromethane	ND *		1.0		ug/L			04/11/19 06:05	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 06:05	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 06:05	1
Dibromomethane	ND		1.0		ug/L			04/11/19 06:05	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 06:05	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 06:05	1
Ethyl ether	ND		5.0		ug/L			04/11/19 06:05	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 06:05	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 06:05	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 06:05	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: PDB-001-20190404-01**

**Lab Sample ID: 490-171846-11**

Date Collected: 04/04/19 14:24

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 06:05	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 06:05	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 06:05	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 06:05	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 06:05	1
Naphthalene	ND		5.0		ug/L			04/11/19 06:05	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 06:05	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 06:05	1
o-Xylene	ND		1.0		ug/L			04/11/19 06:05	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 06:05	1
Styrene	ND		1.0		ug/L			04/11/19 06:05	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 06:05	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 06:05	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 06:05	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 06:05	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 06:05	1
Toluene	ND		1.0		ug/L			04/11/19 06:05	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 06:05	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 06:05	1
Trichloroethene	ND		1.0		ug/L			04/11/19 06:05	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 06:05	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 06:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	84		70 - 130		04/11/19 06:05	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 130		04/11/19 06:05	1
4-Bromofluorobenzene (Surr)	100		70 - 130		04/11/19 06:05	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1026D-DX-20190404-01**

**Lab Sample ID: 490-171846-12**

Date Collected: 04/04/19 15:33

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.58		0.20		ug/L		04/15/19 12:05	04/17/19 10:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	101		46 - 130				04/15/19 12:05	04/17/19 10:06	1

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# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1026D-20190404-01**

**Lab Sample ID: 490-171846-13**

Date Collected: 04/04/19 14:55

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 06:32	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 06:32	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 06:32	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 06:32	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 06:32	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 06:32	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 06:32	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 06:32	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 06:32	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 06:32	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 06:32	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 06:32	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 06:32	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 06:32	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 06:32	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 06:32	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 06:32	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 06:32	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 06:32	1
1,4-Dioxane	ND		200		ug/L			04/11/19 06:32	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 06:32	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 06:32	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 06:32	1
2-Hexanone	ND		10		ug/L			04/11/19 06:32	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 06:32	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 06:32	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 06:32	1
Acetone	ND		25		ug/L			04/11/19 06:32	1
Benzene	ND		1.0		ug/L			04/11/19 06:32	1
Bromobenzene	ND		1.0		ug/L			04/11/19 06:32	1
Bromoform	ND	*	1.0		ug/L			04/11/19 06:32	1
Bromomethane	ND		1.0		ug/L			04/11/19 06:32	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 06:32	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 06:32	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 06:32	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 06:32	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 06:32	1
Chloroethane	ND		1.0		ug/L			04/11/19 06:32	1
Chloroform	ND		1.0		ug/L			04/11/19 06:32	1
Chloromethane	ND	*	1.0		ug/L			04/11/19 06:32	1
<b>cis-1,2-Dichloroethene</b>	<b>26</b>		1.0		ug/L			04/11/19 06:32	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 06:32	1
Dibromomethane	ND		1.0		ug/L			04/11/19 06:32	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 06:32	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 06:32	1
Ethyl ether	ND		5.0		ug/L			04/11/19 06:32	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 06:32	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 06:32	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 06:32	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1026D-20190404-01**

**Lab Sample ID: 490-171846-13**

Date Collected: 04/04/19 14:55

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 06:32	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 06:32	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 06:32	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 06:32	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 06:32	1
Naphthalene	ND		5.0		ug/L			04/11/19 06:32	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 06:32	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 06:32	1
o-Xylene	ND		1.0		ug/L			04/11/19 06:32	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 06:32	1
Styrene	ND		1.0		ug/L			04/11/19 06:32	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 06:32	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 06:32	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 06:32	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 06:32	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 06:32	1
Toluene	ND		1.0		ug/L			04/11/19 06:32	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 06:32	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 06:32	1
<b>Trichloroethene</b>	<b>26</b>		1.0		ug/L			04/11/19 06:32	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 06:32	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 06:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	85		70 - 130		04/11/19 06:32	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		04/11/19 06:32	1
4-Bromofluorobenzene (Surr)	97		70 - 130		04/11/19 06:32	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1025M-20190404-01**

**Lab Sample ID: 490-171846-14**

Date Collected: 04/04/19 14:00

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 06:58	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 06:58	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 06:58	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 06:58	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 06:58	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 06:58	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 06:58	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 06:58	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 06:58	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 06:58	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 06:58	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 06:58	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 06:58	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 06:58	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 06:58	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 06:58	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 06:58	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 06:58	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 06:58	1
1,4-Dioxane	ND *		200		ug/L			04/11/19 15:44	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 06:58	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 06:58	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 06:58	1
2-Hexanone	ND		10		ug/L			04/11/19 06:58	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 06:58	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 06:58	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 06:58	1
Acetone	ND		25		ug/L			04/11/19 06:58	1
Benzene	ND		1.0		ug/L			04/11/19 06:58	1
Bromobenzene	ND		1.0		ug/L			04/11/19 06:58	1
Bromoform	ND *		1.0		ug/L			04/11/19 06:58	1
Bromomethane	ND		1.0		ug/L			04/11/19 06:58	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 06:58	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 06:58	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 06:58	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 06:58	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 06:58	1
Chloroethane	ND		1.0		ug/L			04/11/19 06:58	1
Chloroform	ND		1.0		ug/L			04/11/19 06:58	1
Chloromethane	ND *		1.0		ug/L			04/11/19 06:58	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 06:58	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 06:58	1
Dibromomethane	ND		1.0		ug/L			04/11/19 06:58	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 06:58	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 06:58	1
Ethyl ether	ND		5.0		ug/L			04/11/19 06:58	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 06:58	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 06:58	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 06:58	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1025M-20190404-01**

**Lab Sample ID: 490-171846-14**

Date Collected: 04/04/19 14:00

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 06:58	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 06:58	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 06:58	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 06:58	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 06:58	1
Naphthalene	ND		5.0		ug/L			04/11/19 06:58	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 06:58	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 06:58	1
o-Xylene	ND		1.0		ug/L			04/11/19 06:58	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 06:58	1
Styrene	ND		1.0		ug/L			04/11/19 06:58	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 06:58	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 06:58	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 06:58	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 06:58	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 06:58	1
Toluene	ND		1.0		ug/L			04/11/19 06:58	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 06:58	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 06:58	1
Trichloroethene	ND		1.0		ug/L			04/11/19 06:58	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 06:58	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 06:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	82		70 - 130		04/11/19 06:58	1
Toluene-d8 (Surr)	105		70 - 130		04/11/19 15:44	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		04/11/19 06:58	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		04/11/19 15:44	1
4-Bromofluorobenzene (Surr)	94		70 - 130		04/11/19 06:58	1
4-Bromofluorobenzene (Surr)	101		70 - 130		04/11/19 15:44	1



# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1025M-DX-20190404-01**

**Lab Sample ID: 490-171846-15**

Date Collected: 04/04/19 15:25

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.93		0.20		ug/L		04/15/19 12:05	04/17/19 10:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	93		46 - 130				04/15/19 12:05	04/17/19 10:19	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1020-20190404-01**

**Lab Sample ID: 490-171846-16**

Date Collected: 04/04/19 13:48

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 07:25	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 07:25	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 07:25	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 07:25	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 07:25	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 07:25	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 07:25	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 07:25	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 07:25	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 07:25	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 07:25	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 07:25	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 07:25	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 07:25	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 07:25	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 07:25	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 07:25	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 07:25	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 07:25	1
1,4-Dioxane	ND		200		ug/L			04/11/19 07:25	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 07:25	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 07:25	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 07:25	1
2-Hexanone	ND		10		ug/L			04/11/19 07:25	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 07:25	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 07:25	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 07:25	1
Acetone	ND		25		ug/L			04/11/19 07:25	1
Benzene	ND		1.0		ug/L			04/11/19 07:25	1
Bromobenzene	ND		1.0		ug/L			04/11/19 07:25	1
Bromoform	ND	*	1.0		ug/L			04/11/19 07:25	1
Bromomethane	ND		1.0		ug/L			04/11/19 07:25	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 07:25	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 07:25	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 07:25	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 07:25	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 07:25	1
Chloroethane	ND		1.0		ug/L			04/11/19 07:25	1
Chloroform	ND		1.0		ug/L			04/11/19 07:25	1
Chloromethane	ND	*	1.0		ug/L			04/11/19 07:25	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 07:25	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 07:25	1
Dibromomethane	ND		1.0		ug/L			04/11/19 07:25	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 07:25	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 07:25	1
Ethyl ether	ND		5.0		ug/L			04/11/19 07:25	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 07:25	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 07:25	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 07:25	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1020-20190404-01**

**Lab Sample ID: 490-171846-16**

Date Collected: 04/04/19 13:48

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 07:25	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 07:25	1
<b>Methyl tert-butyl ether</b>	<b>16</b>		1.0		ug/L			04/11/19 07:25	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 07:25	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 07:25	1
Naphthalene	ND		5.0		ug/L			04/11/19 07:25	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 07:25	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 07:25	1
o-Xylene	ND		1.0		ug/L			04/11/19 07:25	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 07:25	1
Styrene	ND		1.0		ug/L			04/11/19 07:25	1
<b>Tert-amyl methyl ether</b>	<b>7.9</b>		1.0		ug/L			04/11/19 07:25	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 07:25	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 07:25	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 07:25	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 07:25	1
Toluene	ND		1.0		ug/L			04/11/19 07:25	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 07:25	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 07:25	1
<b>Trichloroethene</b>	<b>7.0</b>		1.0		ug/L			04/11/19 07:25	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 07:25	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 07:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	84		70 - 130		04/11/19 07:25	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		04/11/19 07:25	1
4-Bromofluorobenzene (Surr)	97		70 - 130		04/11/19 07:25	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1020-DX-20190404-01**

**Lab Sample ID: 490-171846-17**

Date Collected: 04/04/19 14:31

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.50		0.20		ug/L		04/15/19 12:05	04/17/19 10:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	86		46 - 130				04/15/19 12:05	04/17/19 10:32	1

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# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: DUP-003-20190404-01**

**Lab Sample ID: 490-171846-18**

Date Collected: 04/04/19 12:00

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 07:51	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 07:51	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 07:51	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 07:51	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 07:51	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 07:51	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 07:51	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 07:51	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 07:51	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 07:51	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 07:51	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 07:51	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 07:51	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 07:51	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 07:51	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 07:51	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 07:51	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 07:51	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 07:51	1
1,4-Dioxane	ND		200		ug/L			04/11/19 07:51	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 07:51	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 07:51	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 07:51	1
2-Hexanone	ND		10		ug/L			04/11/19 07:51	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 07:51	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 07:51	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 07:51	1
Acetone	ND		25		ug/L			04/11/19 07:51	1
Benzene	ND		1.0		ug/L			04/11/19 07:51	1
Bromobenzene	ND		1.0		ug/L			04/11/19 07:51	1
Bromoform	ND *		1.0		ug/L			04/11/19 07:51	1
Bromomethane	ND		1.0		ug/L			04/11/19 07:51	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 07:51	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 07:51	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 07:51	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 07:51	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 07:51	1
Chloroethane	ND		1.0		ug/L			04/11/19 07:51	1
Chloroform	ND		1.0		ug/L			04/11/19 07:51	1
Chloromethane	ND *		1.0		ug/L			04/11/19 07:51	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 07:51	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 07:51	1
Dibromomethane	ND		1.0		ug/L			04/11/19 07:51	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 07:51	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 07:51	1
Ethyl ether	ND		5.0		ug/L			04/11/19 07:51	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 07:51	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 07:51	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 07:51	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: DUP-003-20190404-01**

**Lab Sample ID: 490-171846-18**

Date Collected: 04/04/19 12:00

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 07:51	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 07:51	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 07:51	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 07:51	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 07:51	1
Naphthalene	ND		5.0		ug/L			04/11/19 07:51	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 07:51	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 07:51	1
o-Xylene	ND		1.0		ug/L			04/11/19 07:51	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 07:51	1
Styrene	ND		1.0		ug/L			04/11/19 07:51	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 07:51	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 07:51	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 07:51	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 07:51	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 07:51	1
Toluene	ND		1.0		ug/L			04/11/19 07:51	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 07:51	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 07:51	1
Trichloroethene	ND		1.0		ug/L			04/11/19 07:51	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 07:51	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 07:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	82		70 - 130		04/11/19 07:51	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		04/11/19 07:51	1
4-Bromofluorobenzene (Surr)	106		70 - 130		04/11/19 07:51	1

# Client Sample Results

Client: ERM-Northeast  
 Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: DUP-007-DX-20190404-01**

**Lab Sample ID: 490-171846-19**

Date Collected: 04/04/19 13:00

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		04/15/19 12:05	04/17/19 10:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	92		46 - 130				04/15/19 12:05	04/17/19 10:46	1

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# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1033-20190405-01**

**Lab Sample ID: 490-171846-20**

Date Collected: 04/05/19 11:03

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 08:18	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 08:18	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 08:18	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 08:18	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 08:18	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 08:18	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 08:18	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 08:18	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 08:18	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 08:18	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 08:18	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 08:18	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 08:18	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 08:18	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 08:18	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 08:18	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 08:18	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 08:18	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 08:18	1
1,4-Dioxane	ND		200		ug/L			04/11/19 08:18	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 08:18	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 08:18	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 08:18	1
2-Hexanone	ND		10		ug/L			04/11/19 08:18	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 08:18	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 08:18	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 08:18	1
Acetone	ND		25		ug/L			04/11/19 08:18	1
Benzene	ND		1.0		ug/L			04/11/19 08:18	1
Bromobenzene	ND		1.0		ug/L			04/11/19 08:18	1
Bromoform	ND	*	1.0		ug/L			04/11/19 08:18	1
Bromomethane	ND		1.0		ug/L			04/11/19 08:18	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 08:18	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 08:18	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 08:18	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 08:18	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 08:18	1
Chloroethane	ND		1.0		ug/L			04/11/19 08:18	1
Chloroform	ND		1.0		ug/L			04/11/19 08:18	1
Chloromethane	ND	*	1.0		ug/L			04/11/19 08:18	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 08:18	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 08:18	1
Dibromomethane	ND		1.0		ug/L			04/11/19 08:18	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 08:18	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 08:18	1
Ethyl ether	ND		5.0		ug/L			04/11/19 08:18	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 08:18	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 08:18	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 08:18	1



# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1033-20190405-01**

**Lab Sample ID: 490-171846-20**

Date Collected: 04/05/19 11:03

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 08:18	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 08:18	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 08:18	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 08:18	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 08:18	1
Naphthalene	ND		5.0		ug/L			04/11/19 08:18	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 08:18	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 08:18	1
o-Xylene	ND		1.0		ug/L			04/11/19 08:18	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 08:18	1
Styrene	ND		1.0		ug/L			04/11/19 08:18	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 08:18	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 08:18	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 08:18	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 08:18	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 08:18	1
Toluene	ND		1.0		ug/L			04/11/19 08:18	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 08:18	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 08:18	1
Trichloroethene	ND		1.0		ug/L			04/11/19 08:18	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 08:18	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 08:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	86		70 - 130		04/11/19 08:18	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		04/11/19 08:18	1
4-Bromofluorobenzene (Surr)	93		70 - 130		04/11/19 08:18	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1033-DX-20190405-01**

**Lab Sample ID: 490-171846-21**

Date Collected: 04/05/19 12:23

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	3.7		0.20		ug/L		04/15/19 12:05	04/17/19 10:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	99		46 - 130				04/15/19 12:05	04/17/19 10:59	1

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# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1034-20190405-01**

**Lab Sample ID: 490-171846-22**

Date Collected: 04/05/19 12:10

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 08:45	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 08:45	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 08:45	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 08:45	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 08:45	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 08:45	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 08:45	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 08:45	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 08:45	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 08:45	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 08:45	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 08:45	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 08:45	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 08:45	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 08:45	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 08:45	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 08:45	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 08:45	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 08:45	1
1,4-Dioxane	ND		200		ug/L			04/11/19 08:45	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 08:45	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 08:45	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 08:45	1
2-Hexanone	ND		10		ug/L			04/11/19 08:45	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 08:45	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 08:45	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 08:45	1
Acetone	ND		25		ug/L			04/11/19 08:45	1
Benzene	ND		1.0		ug/L			04/11/19 08:45	1
Bromobenzene	ND		1.0		ug/L			04/11/19 08:45	1
Bromoform	ND *		1.0		ug/L			04/11/19 08:45	1
Bromomethane	ND		1.0		ug/L			04/11/19 08:45	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 08:45	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 08:45	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 08:45	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 08:45	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 08:45	1
Chloroethane	ND		1.0		ug/L			04/11/19 08:45	1
Chloroform	ND		1.0		ug/L			04/11/19 08:45	1
Chloromethane	ND *		1.0		ug/L			04/11/19 08:45	1
<b>cis-1,2-Dichloroethene</b>	<b>12</b>		1.0		ug/L			04/11/19 08:45	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 08:45	1
Dibromomethane	ND		1.0		ug/L			04/11/19 08:45	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 08:45	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 08:45	1
Ethyl ether	ND		5.0		ug/L			04/11/19 08:45	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 08:45	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 08:45	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 08:45	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1034-20190405-01**

**Lab Sample ID: 490-171846-22**

Date Collected: 04/05/19 12:10

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 08:45	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 08:45	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 08:45	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 08:45	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 08:45	1
Naphthalene	ND		5.0		ug/L			04/11/19 08:45	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 08:45	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 08:45	1
o-Xylene	ND		1.0		ug/L			04/11/19 08:45	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 08:45	1
Styrene	ND		1.0		ug/L			04/11/19 08:45	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 08:45	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 08:45	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 08:45	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 08:45	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 08:45	1
Toluene	ND		1.0		ug/L			04/11/19 08:45	1
<b>trans-1,2-Dichloroethene</b>	<b>1.4</b>		1.0		ug/L			04/11/19 08:45	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 08:45	1
<b>Trichloroethene</b>	<b>31</b>		1.0		ug/L			04/11/19 08:45	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 08:45	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 08:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	83		70 - 130		04/11/19 08:45	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		04/11/19 08:45	1
4-Bromofluorobenzene (Surr)	101		70 - 130		04/11/19 08:45	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1034-DX-20190405-01**

**Lab Sample ID: 490-171846-23**

Date Collected: 04/05/19 14:18

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.43		0.20		ug/L		04/15/19 12:05	04/17/19 11:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	86		46 - 130				04/15/19 12:05	04/17/19 11:12	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1039-DX-20190405-01**

**Lab Sample ID: 490-171846-24**

Date Collected: 04/05/19 10:07

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.34		0.20		ug/L		04/15/19 12:05	04/17/19 11:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	98		46 - 130				04/15/19 12:05	04/17/19 11:26	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1039-20190405-01**

**Lab Sample ID: 490-171846-25**

Date Collected: 04/05/19 09:10

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 09:11	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 09:11	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 09:11	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 09:11	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 09:11	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 09:11	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 09:11	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 09:11	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 09:11	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 09:11	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 09:11	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 09:11	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 09:11	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 09:11	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 09:11	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 09:11	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 09:11	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 09:11	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 09:11	1
1,4-Dioxane	ND		200		ug/L			04/11/19 09:11	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 09:11	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 09:11	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 09:11	1
2-Hexanone	ND		10		ug/L			04/11/19 09:11	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 09:11	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 09:11	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 09:11	1
Acetone	ND		25		ug/L			04/11/19 09:11	1
Benzene	ND		1.0		ug/L			04/11/19 09:11	1
Bromobenzene	ND		1.0		ug/L			04/11/19 09:11	1
Bromoform	ND *		1.0		ug/L			04/11/19 09:11	1
Bromomethane	ND		1.0		ug/L			04/11/19 09:11	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 09:11	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 09:11	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 09:11	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 09:11	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 09:11	1
Chloroethane	ND		1.0		ug/L			04/11/19 09:11	1
Chloroform	ND		1.0		ug/L			04/11/19 09:11	1
Chloromethane	ND *		1.0		ug/L			04/11/19 09:11	1
<b>cis-1,2-Dichloroethene</b>	<b>29</b>		1.0		ug/L			04/11/19 09:11	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 09:11	1
Dibromomethane	ND		1.0		ug/L			04/11/19 09:11	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 09:11	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 09:11	1
Ethyl ether	ND		5.0		ug/L			04/11/19 09:11	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 09:11	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 09:11	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 09:11	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1039-20190405-01**

**Lab Sample ID: 490-171846-25**

Date Collected: 04/05/19 09:10

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 09:11	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 09:11	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 09:11	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 09:11	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 09:11	1
Naphthalene	ND		5.0		ug/L			04/11/19 09:11	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 09:11	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 09:11	1
o-Xylene	ND		1.0		ug/L			04/11/19 09:11	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 09:11	1
Styrene	ND		1.0		ug/L			04/11/19 09:11	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 09:11	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 09:11	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 09:11	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 09:11	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 09:11	1
Toluene	ND		1.0		ug/L			04/11/19 09:11	1
<b>trans-1,2-Dichloroethene</b>	<b>2.0</b>		1.0		ug/L			04/11/19 09:11	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 09:11	1
<b>Trichloroethene</b>	<b>51</b>		1.0		ug/L			04/11/19 09:11	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 09:11	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 09:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	82		70 - 130		04/11/19 09:11	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		04/11/19 09:11	1
4-Bromofluorobenzene (Surr)	95		70 - 130		04/11/19 09:11	1



# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: DUP-004-20190405-01**

**Lab Sample ID: 490-171846-26**

Date Collected: 04/05/19 12:00

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 15:17	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 15:17	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 15:17	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 15:17	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 15:17	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 15:17	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 15:17	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 15:17	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 15:17	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 15:17	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 15:17	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 15:17	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 15:17	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 15:17	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 15:17	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 15:17	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 15:17	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 15:17	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 15:17	1
1,4-Dioxane	ND *		200		ug/L			04/11/19 15:17	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 15:17	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 15:17	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 15:17	1
2-Hexanone	ND		10		ug/L			04/11/19 15:17	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 15:17	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 15:17	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 15:17	1
Acetone	ND		25		ug/L			04/11/19 15:17	1
Benzene	ND		1.0		ug/L			04/11/19 15:17	1
Bromobenzene	ND		1.0		ug/L			04/11/19 15:17	1
Bromoform	ND *		1.0		ug/L			04/11/19 15:17	1
Bromomethane	ND		1.0		ug/L			04/11/19 15:17	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 15:17	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 15:17	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 15:17	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 15:17	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 15:17	1
Chloroethane	ND		1.0		ug/L			04/11/19 15:17	1
Chloroform	ND		1.0		ug/L			04/11/19 15:17	1
Chloromethane	ND		1.0		ug/L			04/11/19 15:17	1
<b>cis-1,2-Dichloroethene</b>	<b>11</b>		1.0		ug/L			04/11/19 15:17	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 15:17	1
Dibromomethane	ND		1.0		ug/L			04/11/19 15:17	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 15:17	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 15:17	1
Ethyl ether	ND		5.0		ug/L			04/11/19 15:17	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 15:17	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 15:17	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 15:17	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: DUP-004-20190405-01**

**Lab Sample ID: 490-171846-26**

Date Collected: 04/05/19 12:00

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 15:17	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 15:17	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 15:17	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 15:17	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 15:17	1
Naphthalene	ND		5.0		ug/L			04/11/19 15:17	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 15:17	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 15:17	1
o-Xylene	ND		1.0		ug/L			04/11/19 15:17	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 15:17	1
Styrene	ND		1.0		ug/L			04/11/19 15:17	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 15:17	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 15:17	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 15:17	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 15:17	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 15:17	1
Toluene	ND		1.0		ug/L			04/11/19 15:17	1
<b>trans-1,2-Dichloroethene</b>	<b>1.4</b>		1.0		ug/L			04/11/19 15:17	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 15:17	1
<b>Trichloroethene</b>	<b>31</b>		1.0		ug/L			04/11/19 15:17	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 15:17	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 15:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	87		70 - 130		04/11/19 15:17	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		04/11/19 15:17	1
4-Bromofluorobenzene (Surr)	103		70 - 130		04/11/19 15:17	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: TB-001-20190405-01**

**Lab Sample ID: 490-171846-27**

Date Collected: 04/05/19 01:01

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 14:51	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 14:51	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 14:51	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 14:51	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 14:51	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 14:51	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 14:51	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 14:51	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 14:51	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 14:51	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 14:51	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 14:51	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 14:51	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 14:51	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 14:51	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 14:51	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 14:51	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 14:51	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 14:51	1
1,4-Dioxane	ND *		200		ug/L			04/11/19 14:51	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 14:51	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 14:51	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 14:51	1
2-Hexanone	ND		10		ug/L			04/11/19 14:51	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 14:51	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 14:51	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 14:51	1
Acetone	ND		25		ug/L			04/11/19 14:51	1
Benzene	ND		1.0		ug/L			04/11/19 14:51	1
Bromobenzene	ND		1.0		ug/L			04/11/19 14:51	1
Bromoform	ND *		1.0		ug/L			04/11/19 14:51	1
Bromomethane	ND		1.0		ug/L			04/11/19 14:51	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 14:51	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 14:51	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 14:51	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 14:51	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 14:51	1
Chloroethane	ND		1.0		ug/L			04/11/19 14:51	1
Chloroform	ND		1.0		ug/L			04/11/19 14:51	1
Chloromethane	ND		1.0		ug/L			04/11/19 14:51	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 14:51	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 14:51	1
Dibromomethane	ND		1.0		ug/L			04/11/19 14:51	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 14:51	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 14:51	1
Ethyl ether	ND		5.0		ug/L			04/11/19 14:51	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 14:51	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 14:51	1
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 14:51	1

# Client Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: TB-001-20190405-01**

**Lab Sample ID: 490-171846-27**

Date Collected: 04/05/19 01:01

Matrix: Water

Date Received: 04/10/19 09:10

**Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		2.0		ug/L			04/11/19 14:51	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 14:51	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 14:51	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 14:51	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 14:51	1
Naphthalene	ND		5.0		ug/L			04/11/19 14:51	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 14:51	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 14:51	1
o-Xylene	ND		1.0		ug/L			04/11/19 14:51	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 14:51	1
Styrene	ND		1.0		ug/L			04/11/19 14:51	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 14:51	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 14:51	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 14:51	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 14:51	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 14:51	1
Toluene	ND		1.0		ug/L			04/11/19 14:51	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 14:51	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 14:51	1
Trichloroethene	ND		1.0		ug/L			04/11/19 14:51	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 14:51	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 14:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	83		70 - 130		04/11/19 14:51	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		04/11/19 14:51	1
4-Bromofluorobenzene (Surr)	89		70 - 130		04/11/19 14:51	1

# Surrogate Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	DCA (70-130)	BFB (70-130)
490-171846-1	MW-1013-20190404-01	83	92	92
490-171846-2	MW-1014-20190404-01	80	89	104
490-171846-2	MW-1014-20190404-01	103	98	101
490-171846-3	MW-1008-20190404-01	82	88	100
490-171846-4	MW-1036-20190404-01	85	90	107
490-171846-5	DUP-005-20190404-01	85	91	97
490-171846-6	MW-1022-20190404-01	82	89	105
490-171846-7	MW-1009-20190404-01	85	92	107
490-171846-7	MW-1009-20190404-01	103	95	99
490-171846-11	PDB-001-20190404-01	84	90	100
490-171846-13	MW-1026D-20190404-01	85	93	97
490-171846-14	MW-1025M-20190404-01	82	92	94
490-171846-14	MW-1025M-20190404-01	105	95	101
490-171846-16	MW-1020-20190404-01	84	91	97
490-171846-18	DUP-003-20190404-01	82	91	106
490-171846-20	MW-1033-20190405-01	86	93	93
490-171846-22	MW-1034-20190405-01	83	93	101
490-171846-25	MW-1039-20190405-01	82	93	95
490-171846-26	DUP-004-20190405-01	87	92	103
490-171846-27	TB-001-20190405-01	83	93	89
LCS 490-587193/3	Lab Control Sample	87	86	110
LCS 490-587398/3	Lab Control Sample	102	97	101
LCS 490-587403/3	Lab Control Sample	87	88	103
LCS 490-587193/4	Lab Control Sample Dup	86	84	106
LCS 490-587398/4	Lab Control Sample Dup	102	97	99
LCS 490-587403/4	Lab Control Sample Dup	87	91	106
MB 490-587193/6	Method Blank	83	91	104
MB 490-587398/6	Method Blank	103	95	101
MB 490-587403/6	Method Blank	84	94	106

**Surrogate Legend**

TOL = Toluene-d8 (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

## Method: 522 - 1,4 Dioxane (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		DXE (46-130)
490-171846-9	MW-1036-DX-20190404-01	97
490-171846-12	MW-1026D-DX-20190404-01	101
490-171846-15	MW-1025M-DX-20190404-01	93
490-171846-17	MW-1020-DX-20190404-01	86
490-171846-19	DUP-007-DX-20190404-01	92
490-171846-21	MW-1033-DX-20190405-01	99
490-171846-23	MW-1034-DX-20190405-01	86
490-171846-24	MW-1039-DX-20190405-01	98
490-171846-24 MS	MW-1039-DX-20190405-01	95

# Surrogate Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Method: 522 - 1,4 Dioxane (GC/MS SIM) (Continued)**

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (46-130)
490-171846-24 MSD	MW-1039-DX-20190405-01	100
LCS 200-141966/2-A	Lab Control Sample	103
MB 200-141966/1-A	Method Blank	107

### Surrogate Legend

DXE = 1,4-Dioxane-d8 (Surr)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-587193/6

Matrix: Water

Analysis Batch: 587193

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 00:20	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 00:20	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 00:20	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 00:20	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 00:20	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 00:20	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 00:20	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 00:20	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 00:20	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 00:20	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 00:20	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 00:20	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 00:20	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 00:20	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 00:20	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 00:20	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 00:20	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 00:20	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 00:20	1
1,4-Dioxane	ND		200		ug/L			04/11/19 00:20	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 00:20	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 00:20	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 00:20	1
2-Hexanone	ND		10		ug/L			04/11/19 00:20	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 00:20	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 00:20	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 00:20	1
Acetone	ND		25		ug/L			04/11/19 00:20	1
Benzene	ND		1.0		ug/L			04/11/19 00:20	1
Bromobenzene	ND		1.0		ug/L			04/11/19 00:20	1
Bromoform	ND		1.0		ug/L			04/11/19 00:20	1
Bromomethane	ND		1.0		ug/L			04/11/19 00:20	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 00:20	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 00:20	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 00:20	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 00:20	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 00:20	1
Chloroethane	ND		1.0		ug/L			04/11/19 00:20	1
Chloroform	ND		1.0		ug/L			04/11/19 00:20	1
Chloromethane	ND		1.0		ug/L			04/11/19 00:20	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 00:20	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 00:20	1
Dibromomethane	ND		1.0		ug/L			04/11/19 00:20	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 00:20	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 00:20	1
Ethyl ether	ND		5.0		ug/L			04/11/19 00:20	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 00:20	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 00:20	1

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-587193/6

Matrix: Water

Analysis Batch: 587193

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 00:20	1
Isopropyl ether	ND		2.0		ug/L			04/11/19 00:20	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 00:20	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 00:20	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 00:20	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 00:20	1
Naphthalene	ND		5.0		ug/L			04/11/19 00:20	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 00:20	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 00:20	1
o-Xylene	ND		1.0		ug/L			04/11/19 00:20	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 00:20	1
Styrene	ND		1.0		ug/L			04/11/19 00:20	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 00:20	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 00:20	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 00:20	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 00:20	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 00:20	1
Toluene	ND		1.0		ug/L			04/11/19 00:20	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 00:20	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 00:20	1
Trichloroethene	ND		1.0		ug/L			04/11/19 00:20	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 00:20	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 00:20	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	83		70 - 130		04/11/19 00:20	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		04/11/19 00:20	1
4-Bromofluorobenzene (Surr)	104		70 - 130		04/11/19 00:20	1

Lab Sample ID: LCS 490-587193/3

Matrix: Water

Analysis Batch: 587193

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	19.1		ug/L		96	70 - 130
1,1,2,2-Tetrachloroethane	20.0	26.0		ug/L		130	70 - 130
1,1,2-Trichloroethane	20.0	19.6		ug/L		98	70 - 130
1,1-Dichloroethane	20.0	19.8		ug/L		99	70 - 130
1,1-Dichloroethene	20.0	19.6		ug/L		98	70 - 130
1,1-Dichloropropene	20.0	19.2		ug/L		96	70 - 130
1,2,3-Trichlorobenzene	20.0	22.1		ug/L		111	70 - 130
1,2,3-Trichloropropane	20.0	24.0		ug/L		120	70 - 130
1,2,4-Trichlorobenzene	20.0	24.2		ug/L		121	70 - 130
1,2,4-Trimethylbenzene	20.0	22.8		ug/L		114	70 - 130
1,2-Dibromo-3-Chloropropane	20.0	24.4		ug/L		122	70 - 130
1,2-Dichlorobenzene	20.0	23.5		ug/L		118	70 - 130
1,2-Dichloroethane	20.0	16.6		ug/L		83	70 - 130

Eurofins TestAmerica, Nashville



# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-587193/3

Matrix: Water

Analysis Batch: 587193

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	20.0	20.1		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	20.0	20.9		ug/L		105	70 - 130
1,3-Dichlorobenzene	20.0	22.4		ug/L		112	70 - 130
1,3-Dichloropropane	20.0	20.4		ug/L		102	70 - 130
1,4-Dichlorobenzene	20.0	20.5		ug/L		103	70 - 130
1,4-Dioxane	400	406		ug/L		102	70 - 130
2,2-Dichloropropane	20.0	18.6		ug/L		93	70 - 130
2-Butanone (MEK)	100	108		ug/L		108	70 - 130
2-Chlorotoluene	20.0	22.1		ug/L		110	70 - 130
2-Hexanone	100	126		ug/L		126	70 - 130
4-Chlorotoluene	20.0	21.3		ug/L		107	70 - 130
4-Isopropyltoluene	20.0	22.0		ug/L		110	70 - 130
4-Methyl-2-pentanone (MIBK)	100	109		ug/L		109	70 - 130
Acetone	100	118		ug/L		118	70 - 130
Benzene	20.0	20.9		ug/L		105	70 - 130
Bromobenzene	20.0	23.6		ug/L		118	70 - 130
Bromoform	20.0	31.4	*	ug/L		157	70 - 130
Bromomethane	20.0	23.7		ug/L		118	70 - 130
Carbon disulfide	20.0	22.8		ug/L		114	70 - 130
Carbon tetrachloride	20.0	19.5		ug/L		98	70 - 130
Chlorobenzene	20.0	20.7		ug/L		103	70 - 130
Chlorobromomethane	20.0	20.5		ug/L		102	70 - 130
Chlorodibromomethane	20.0	20.6		ug/L		103	70 - 130
Chloroethane	20.0	21.5		ug/L		107	70 - 130
Chloroform	20.0	19.0		ug/L		95	70 - 130
Chloromethane	20.0	26.6	*	ug/L		133	70 - 130
cis-1,2-Dichloroethene	20.0	19.3		ug/L		97	70 - 130
cis-1,3-Dichloropropene	20.0	21.5		ug/L		108	70 - 130
Dibromomethane	20.0	20.0		ug/L		100	70 - 130
Dichlorobromomethane	20.0	20.0		ug/L		100	70 - 130
Dichlorodifluoromethane	20.0	25.5		ug/L		128	70 - 130
Ethyl ether	20.0	23.0		ug/L		115	70 - 130
Ethylbenzene	20.0	21.6		ug/L		108	70 - 130
Ethylene Dibromide	20.0	22.5		ug/L		112	70 - 130
Hexachlorobutadiene	20.0	20.0		ug/L		100	70 - 130
Isopropyl ether	20.0	22.6		ug/L		113	70 - 130
Isopropylbenzene	20.0	21.8		ug/L		109	70 - 130
Methyl tert-butyl ether	20.0	20.2		ug/L		101	70 - 130
Methylene Chloride	20.0	20.6		ug/L		103	70 - 130
m-Xylene & p-Xylene	20.0	21.8		ug/L		109	70 - 130
Naphthalene	20.0	22.7		ug/L		113	70 - 130
n-Butylbenzene	20.0	21.7		ug/L		108	70 - 130
N-Propylbenzene	20.0	24.9		ug/L		125	70 - 130
o-Xylene	20.0	21.6		ug/L		108	70 - 130
sec-Butylbenzene	20.0	22.6		ug/L		113	70 - 130
Styrene	20.0	21.3		ug/L		106	70 - 130
Tert-amyl methyl ether	20.0	20.0		ug/L		100	70 - 130
Tert-butyl ethyl ether	20.0	20.7		ug/L		104	70 - 130
tert-Butylbenzene	20.0	22.1		ug/L		110	70 - 130

Eurofins TestAmerica, Nashville

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-587193/3

Matrix: Water

Analysis Batch: 587193

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	20.0	18.5		ug/L		92	70 - 130
Tetrahydrofuran	40.0	44.4		ug/L		111	70 - 130
Toluene	20.0	18.6		ug/L		93	70 - 130
trans-1,2-Dichloroethene	20.0	19.3		ug/L		97	70 - 130
trans-1,3-Dichloropropene	20.0	25.3		ug/L		127	70 - 130
Trichloroethene	20.0	20.1		ug/L		101	70 - 130
Trichlorofluoromethane	20.0	19.5		ug/L		97	70 - 130
Vinyl chloride	20.0	24.6		ug/L		123	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	87		70 - 130
1,2-Dichloroethane-d4 (Surr)	86		70 - 130
4-Bromofluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 490-587193/4

Matrix: Water

Analysis Batch: 587193

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	23.5		ug/L		117	70 - 130	1	20
1,1,1-Trichloroethane	20.0	18.5		ug/L		93	70 - 130	3	20
1,1,1,2,2-Tetrachloroethane	20.0	23.5		ug/L		118	70 - 130	10	20
1,1,2-Trichloroethane	20.0	19.3		ug/L		97	70 - 130	1	20
1,1-Dichloroethane	20.0	19.7		ug/L		99	70 - 130	0	20
1,1-Dichloroethane	20.0	19.8		ug/L		99	70 - 130	1	20
1,1-Dichloropropene	20.0	19.1		ug/L		96	70 - 130	0	20
1,2,3-Trichlorobenzene	20.0	21.4		ug/L		107	70 - 130	3	20
1,2,3-Trichloropropane	20.0	23.1		ug/L		115	70 - 130	4	20
1,2,4-Trichlorobenzene	20.0	22.8		ug/L		114	70 - 130	6	20
1,2,4-Trimethylbenzene	20.0	22.1		ug/L		110	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	20.0	23.2		ug/L		116	70 - 130	5	20
1,2-Dichlorobenzene	20.0	22.3		ug/L		112	70 - 130	5	20
1,2-Dichloroethane	20.0	16.3		ug/L		81	70 - 130	2	20
1,2-Dichloropropane	20.0	20.9		ug/L		105	70 - 130	4	20
1,3,5-Trimethylbenzene	20.0	20.9		ug/L		105	70 - 130	0	20
1,3-Dichlorobenzene	20.0	22.1		ug/L		111	70 - 130	1	20
1,3-Dichloropropane	20.0	19.4		ug/L		97	70 - 130	5	20
1,4-Dichlorobenzene	20.0	19.8		ug/L		99	70 - 130	4	20
1,4-Dioxane	400	374		ug/L		94	70 - 130	8	20
2,2-Dichloropropane	20.0	18.7		ug/L		94	70 - 130	1	20
2-Butanone (MEK)	100	107		ug/L		107	70 - 130	1	20
2-Chlorotoluene	20.0	21.7		ug/L		108	70 - 130	2	20
2-Hexanone	100	107		ug/L		107	70 - 130	17	20
4-Chlorotoluene	20.0	21.2		ug/L		106	70 - 130	1	20
4-Isopropyltoluene	20.0	21.6		ug/L		108	70 - 130	2	20
4-Methyl-2-pentanone (MIBK)	100	109		ug/L		109	70 - 130	0	20
Acetone	100	120		ug/L		120	70 - 130	1	20
Benzene	20.0	21.0		ug/L		105	70 - 130	0	20

Eurofins TestAmerica, Nashville

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-587193/4

Matrix: Water

Analysis Batch: 587193

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	20.0	22.7		ug/L		113	70 - 130	4	20
Bromoform	20.0	31.7	*	ug/L		159	70 - 130	1	20
Bromomethane	20.0	23.9		ug/L		119	70 - 130	1	20
Carbon disulfide	20.0	22.7		ug/L		114	70 - 130	0	20
Carbon tetrachloride	20.0	19.3		ug/L		97	70 - 130	1	20
Chlorobenzene	20.0	21.1		ug/L		106	70 - 130	2	20
Chlorobromomethane	20.0	20.1		ug/L		101	70 - 130	2	20
Chlorodibromomethane	20.0	20.3		ug/L		101	70 - 130	2	20
Chloroethane	20.0	21.1		ug/L		105	70 - 130	2	20
Chloroform	20.0	18.8		ug/L		94	70 - 130	1	20
Chloromethane	20.0	26.7	*	ug/L		134	70 - 130	0	20
cis-1,2-Dichloroethene	20.0	19.0		ug/L		95	70 - 130	2	20
cis-1,3-Dichloropropene	20.0	21.5		ug/L		108	70 - 130	0	20
Dibromomethane	20.0	18.9		ug/L		95	70 - 130	5	20
Dichlorobromomethane	20.0	19.8		ug/L		99	70 - 130	1	20
Dichlorodifluoromethane	20.0	25.4		ug/L		127	70 - 130	1	20
Ethyl ether	20.0	22.3		ug/L		112	70 - 130	3	20
Ethylbenzene	20.0	21.9		ug/L		110	70 - 130	2	20
Ethylene Dibromide	20.0	22.3		ug/L		111	70 - 130	1	20
Hexachlorobutadiene	20.0	19.0		ug/L		95	70 - 130	5	20
Isopropyl ether	20.0	22.3		ug/L		111	70 - 130	1	20
Isopropylbenzene	20.0	22.2		ug/L		111	70 - 130	2	20
Methyl tert-butyl ether	20.0	19.7		ug/L		98	70 - 130	3	20
Methylene Chloride	20.0	20.5		ug/L		102	70 - 130	0	20
m-Xylene & p-Xylene	20.0	21.8		ug/L		109	70 - 130	0	20
Naphthalene	20.0	21.4		ug/L		107	70 - 130	6	20
n-Butylbenzene	20.0	21.2		ug/L		106	70 - 130	2	20
N-Propylbenzene	20.0	24.1		ug/L		120	70 - 130	4	20
o-Xylene	20.0	21.9		ug/L		109	70 - 130	2	20
sec-Butylbenzene	20.0	21.9		ug/L		109	70 - 130	3	20
Styrene	20.0	21.6		ug/L		108	70 - 130	2	20
Tert-amyl methyl ether	20.0	19.4		ug/L		97	70 - 130	3	20
Tert-butyl ethyl ether	20.0	20.4		ug/L		102	70 - 130	2	20
tert-Butylbenzene	20.0	21.4		ug/L		107	70 - 130	3	20
Tetrachloroethene	20.0	18.4		ug/L		92	70 - 130	0	20
Tetrahydrofuran	40.0	43.3		ug/L		108	70 - 130	3	20
Toluene	20.0	18.8		ug/L		94	70 - 130	1	20
trans-1,2-Dichloroethene	20.0	19.3		ug/L		97	70 - 130	0	20
trans-1,3-Dichloropropene	20.0	25.7		ug/L		128	70 - 130	1	20
Trichloroethene	20.0	20.6		ug/L		103	70 - 130	2	20
Trichlorofluoromethane	20.0	19.5		ug/L		97	70 - 130	0	20
Vinyl chloride	20.0	24.5		ug/L		122	70 - 130	1	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	84		70 - 130
4-Bromofluorobenzene (Surr)	106		70 - 130

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-587398/6

Matrix: Water

Analysis Batch: 587398

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 14:24	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 14:24	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 14:24	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 14:24	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 14:24	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 14:24	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 14:24	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 14:24	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 14:24	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 14:24	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 14:24	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 14:24	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,4-Dioxane	ND		200		ug/L			04/11/19 14:24	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 14:24	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 14:24	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 14:24	1
2-Hexanone	ND		10		ug/L			04/11/19 14:24	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 14:24	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 14:24	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 14:24	1
Acetone	ND		25		ug/L			04/11/19 14:24	1
Benzene	ND		1.0		ug/L			04/11/19 14:24	1
Bromobenzene	ND		1.0		ug/L			04/11/19 14:24	1
Bromoform	ND		1.0		ug/L			04/11/19 14:24	1
Bromomethane	ND		1.0		ug/L			04/11/19 14:24	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 14:24	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 14:24	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 14:24	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 14:24	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 14:24	1
Chloroethane	ND		1.0		ug/L			04/11/19 14:24	1
Chloroform	ND		1.0		ug/L			04/11/19 14:24	1
Chloromethane	ND		1.0		ug/L			04/11/19 14:24	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 14:24	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 14:24	1
Dibromomethane	ND		1.0		ug/L			04/11/19 14:24	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 14:24	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 14:24	1
Ethyl ether	ND		5.0		ug/L			04/11/19 14:24	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 14:24	1

Eurofins TestAmerica, Nashville

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-587398/6

Matrix: Water

Analysis Batch: 587398

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 14:24	1
Isopropyl ether	ND		2.0		ug/L			04/11/19 14:24	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 14:24	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 14:24	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 14:24	1
Naphthalene	ND		5.0		ug/L			04/11/19 14:24	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
o-Xylene	ND		1.0		ug/L			04/11/19 14:24	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
Styrene	ND		1.0		ug/L			04/11/19 14:24	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 14:24	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 14:24	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 14:24	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 14:24	1
Toluene	ND		1.0		ug/L			04/11/19 14:24	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 14:24	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 14:24	1
Trichloroethene	ND		1.0		ug/L			04/11/19 14:24	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 14:24	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 14:24	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	103		70 - 130		04/11/19 14:24	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		04/11/19 14:24	1
4-Bromofluorobenzene (Surr)	101		70 - 130		04/11/19 14:24	1

Lab Sample ID: LCS 490-587398/3

Matrix: Water

Analysis Batch: 587398

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
1,1,1,2-Tetrachloroethane	20.0	19.9		ug/L		99	70 - 130
1,1,1-Trichloroethane	20.0	21.8		ug/L		109	70 - 130
1,1,2,2-Tetrachloroethane	20.0	22.6		ug/L		113	70 - 130
1,1,2-Trichloroethane	20.0	21.2		ug/L		106	70 - 130
1,1-Dichloroethane	20.0	24.7		ug/L		124	70 - 130
1,1-Dichloroethene	20.0	24.2		ug/L		121	70 - 130
1,1-Dichloropropene	20.0	21.6		ug/L		108	70 - 130
1,2,3-Trichlorobenzene	20.0	18.6		ug/L		93	70 - 130
1,2,3-Trichloropropane	20.0	25.1		ug/L		126	70 - 130
1,2,4-Trichlorobenzene	20.0	18.1		ug/L		91	70 - 130
1,2,4-Trimethylbenzene	20.0	16.3		ug/L		82	70 - 130
1,2-Dibromo-3-Chloropropane	20.0	18.8		ug/L		94	70 - 130
1,2-Dichlorobenzene	20.0	19.5		ug/L		98	70 - 130
1,2-Dichloroethane	20.0	18.8		ug/L		94	70 - 130

Eurofins TestAmerica, Nashville

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-587398/3

Matrix: Water

Analysis Batch: 587398

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	20.0	19.5		ug/L		97	70 - 130
1,3,5-Trimethylbenzene	20.0	16.6		ug/L		83	70 - 130
1,3-Dichlorobenzene	20.0	17.5		ug/L		88	70 - 130
1,3-Dichloropropane	20.0	19.9		ug/L		99	70 - 130
1,4-Dichlorobenzene	20.0	17.9		ug/L		89	70 - 130
1,4-Dioxane	400	615	*	ug/L		154	70 - 130
2,2-Dichloropropane	20.0	19.4		ug/L		97	70 - 130
2-Butanone (MEK)	100	115		ug/L		115	70 - 130
2-Chlorotoluene	20.0	17.3		ug/L		87	70 - 130
2-Hexanone	100	104		ug/L		104	70 - 130
4-Chlorotoluene	20.0	17.5		ug/L		87	70 - 130
4-Isopropyltoluene	20.0	15.9		ug/L		79	70 - 130
4-Methyl-2-pentanone (MIBK)	100	106		ug/L		106	70 - 130
Acetone	100	114		ug/L		114	70 - 130
Benzene	20.0	20.1		ug/L		101	70 - 130
Bromobenzene	20.0	17.7		ug/L		89	70 - 130
Bromoform	20.0	20.4		ug/L		102	70 - 130
Bromomethane	20.0	36.2	*	ug/L		181	70 - 130
Carbon disulfide	20.0	22.1		ug/L		110	70 - 130
Carbon tetrachloride	20.0	22.6		ug/L		113	70 - 130
Chlorobenzene	20.0	18.4		ug/L		92	70 - 130
Chlorobromomethane	20.0	21.8		ug/L		109	70 - 130
Chlorodibromomethane	20.0	21.2		ug/L		106	70 - 130
Chloroethane	20.0	22.5		ug/L		113	70 - 130
Chloroform	20.0	21.0		ug/L		105	70 - 130
Chloromethane	20.0	23.3		ug/L		117	70 - 130
cis-1,2-Dichloroethene	20.0	22.0		ug/L		110	70 - 130
cis-1,3-Dichloropropene	20.0	20.3		ug/L		102	70 - 130
Dibromomethane	20.0	20.0		ug/L		100	70 - 130
Dichlorobromomethane	20.0	20.0		ug/L		100	70 - 130
Dichlorodifluoromethane	20.0	22.2		ug/L		111	70 - 130
Ethyl ether	20.0	21.0		ug/L		105	70 - 130
Ethylbenzene	20.0	17.6		ug/L		88	70 - 130
Ethylene Dibromide	20.0	21.6		ug/L		108	70 - 130
Hexachlorobutadiene	20.0	16.8		ug/L		84	70 - 130
Isopropyl ether	20.0	20.9		ug/L		105	70 - 130
Isopropylbenzene	20.0	16.4		ug/L		82	70 - 130
Methyl tert-butyl ether	20.0	20.5		ug/L		102	70 - 130
Methylene Chloride	20.0	22.0		ug/L		110	70 - 130
m-Xylene & p-Xylene	20.0	17.2		ug/L		86	70 - 130
Naphthalene	20.0	19.0		ug/L		95	70 - 130
n-Butylbenzene	20.0	15.3		ug/L		76	70 - 130
N-Propylbenzene	20.0	17.0		ug/L		85	70 - 130
o-Xylene	20.0	17.1		ug/L		86	70 - 130
sec-Butylbenzene	20.0	15.9		ug/L		79	70 - 130
Styrene	20.0	16.9		ug/L		84	70 - 130
Tert-amyl methyl ether	20.0	18.4		ug/L		92	70 - 130
Tert-butyl ethyl ether	20.0	19.9		ug/L		100	70 - 130
tert-Butylbenzene	20.0	16.8		ug/L		84	70 - 130

Eurofins TestAmerica, Nashville

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-587398/3

Matrix: Water

Analysis Batch: 587398

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	20.0	20.4		ug/L		102	70 - 130
Tetrahydrofuran	40.0	51.8		ug/L		129	70 - 130
Toluene	20.0	20.3		ug/L		101	70 - 130
trans-1,2-Dichloroethene	20.0	23.0		ug/L		115	70 - 130
trans-1,3-Dichloropropene	20.0	20.3		ug/L		102	70 - 130
Trichloroethene	20.0	22.0		ug/L		110	70 - 130
Trichlorofluoromethane	20.0	24.6		ug/L		123	70 - 130
Vinyl chloride	20.0	23.6		ug/L		118	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 490-587398/4

Matrix: Water

Analysis Batch: 587398

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	19.9		ug/L		99	70 - 130	0	20
1,1,1-Trichloroethane	20.0	21.4		ug/L		107	70 - 130	2	20
1,1,1,2,2-Tetrachloroethane	20.0	21.7		ug/L		109	70 - 130	4	20
1,1,2-Trichloroethane	20.0	19.8		ug/L		99	70 - 130	7	20
1,1-Dichloroethane	20.0	24.2		ug/L		121	70 - 130	2	20
1,1-Dichloroethane	20.0	24.6		ug/L		123	70 - 130	2	20
1,1-Dichloropropene	20.0	21.0		ug/L		105	70 - 130	3	20
1,2,3-Trichlorobenzene	20.0	20.4		ug/L		102	70 - 130	10	20
1,2,3-Trichloropropane	20.0	23.4		ug/L		117	70 - 130	7	20
1,2,4-Trichlorobenzene	20.0	19.0		ug/L		95	70 - 130	5	20
1,2,4-Trimethylbenzene	20.0	16.2		ug/L		81	70 - 130	1	20
1,2-Dibromo-3-Chloropropane	20.0	17.9		ug/L		89	70 - 130	5	20
1,2-Dichlorobenzene	20.0	19.7		ug/L		98	70 - 130	1	20
1,2-Dichloroethane	20.0	18.2		ug/L		91	70 - 130	4	20
1,2-Dichloropropane	20.0	19.4		ug/L		97	70 - 130	0	20
1,3,5-Trimethylbenzene	20.0	16.9		ug/L		84	70 - 130	2	20
1,3-Dichlorobenzene	20.0	17.6		ug/L		88	70 - 130	1	20
1,3-Dichloropropane	20.0	19.7		ug/L		98	70 - 130	1	20
1,4-Dichlorobenzene	20.0	17.9		ug/L		89	70 - 130	0	20
1,4-Dioxane	400	552 *		ug/L		138	70 - 130	11	20
2,2-Dichloropropane	20.0	18.1		ug/L		90	70 - 130	7	20
2-Butanone (MEK)	100	113		ug/L		113	70 - 130	2	20
2-Chlorotoluene	20.0	17.2		ug/L		86	70 - 130	1	20
2-Hexanone	100	99.4		ug/L		99	70 - 130	5	20
4-Chlorotoluene	20.0	17.2		ug/L		86	70 - 130	1	20
4-Isopropyltoluene	20.0	16.1		ug/L		81	70 - 130	1	20
4-Methyl-2-pentanone (MIBK)	100	104		ug/L		104	70 - 130	2	20
Acetone	100	113		ug/L		113	70 - 130	1	20
Benzene	20.0	19.7		ug/L		98	70 - 130	2	20

Eurofins TestAmerica, Nashville

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-587398/4

Matrix: Water

Analysis Batch: 587398

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
		Result	Qualifier				Limits		Limit
Bromobenzene	20.0	17.5		ug/L		87	70 - 130	1	20
Bromoform	20.0	20.4		ug/L		102	70 - 130	0	20
Bromomethane	20.0	36.2	*	ug/L		181	70 - 130	0	20
Carbon disulfide	20.0	22.0		ug/L		110	70 - 130	0	20
Carbon tetrachloride	20.0	22.9		ug/L		115	70 - 130	2	20
Chlorobenzene	20.0	18.5		ug/L		92	70 - 130	0	20
Chlorobromomethane	20.0	22.2		ug/L		111	70 - 130	2	20
Chlorodibromomethane	20.0	20.7		ug/L		103	70 - 130	2	20
Chloroethane	20.0	22.3		ug/L		112	70 - 130	1	20
Chloroform	20.0	20.6		ug/L		103	70 - 130	2	20
Chloromethane	20.0	23.1		ug/L		116	70 - 130	1	20
cis-1,2-Dichloroethene	20.0	22.2		ug/L		111	70 - 130	1	20
cis-1,3-Dichloropropene	20.0	19.9		ug/L		99	70 - 130	2	20
Dibromomethane	20.0	19.7		ug/L		99	70 - 130	2	20
Dichlorobromomethane	20.0	19.1		ug/L		95	70 - 130	5	20
Dichlorodifluoromethane	20.0	21.7		ug/L		109	70 - 130	2	20
Ethyl ether	20.0	20.3		ug/L		102	70 - 130	4	20
Ethylbenzene	20.0	17.5		ug/L		88	70 - 130	1	20
Ethylene Dibromide	20.0	21.3		ug/L		107	70 - 130	1	20
Hexachlorobutadiene	20.0	18.9		ug/L		94	70 - 130	11	20
Isopropyl ether	20.0	20.2		ug/L		101	70 - 130	4	20
Isopropylbenzene	20.0	16.5		ug/L		83	70 - 130	1	20
Methyl tert-butyl ether	20.0	20.2		ug/L		101	70 - 130	1	20
Methylene Chloride	20.0	20.9		ug/L		104	70 - 130	5	20
m-Xylene & p-Xylene	20.0	17.3		ug/L		87	70 - 130	1	20
Naphthalene	20.0	19.2		ug/L		96	70 - 130	1	20
n-Butylbenzene	20.0	15.3		ug/L		77	70 - 130	0	20
N-Propylbenzene	20.0	17.0		ug/L		85	70 - 130	0	20
o-Xylene	20.0	17.2		ug/L		86	70 - 130	1	20
sec-Butylbenzene	20.0	16.2		ug/L		81	70 - 130	2	20
Styrene	20.0	17.2		ug/L		86	70 - 130	2	20
Tert-amyl methyl ether	20.0	18.3		ug/L		91	70 - 130	1	20
Tert-butyl ethyl ether	20.0	19.7		ug/L		98	70 - 130	1	20
tert-Butylbenzene	20.0	17.1		ug/L		86	70 - 130	2	20
Tetrachloroethene	20.0	20.5		ug/L		102	70 - 130	0	20
Tetrahydrofuran	40.0	50.0		ug/L		125	70 - 130	4	20
Toluene	20.0	20.3		ug/L		101	70 - 130	0	20
trans-1,2-Dichloroethene	20.0	22.3		ug/L		111	70 - 130	3	20
trans-1,3-Dichloropropene	20.0	19.6		ug/L		98	70 - 130	4	20
Trichloroethene	20.0	21.8		ug/L		109	70 - 130	1	20
Trichlorofluoromethane	20.0	24.8		ug/L		124	70 - 130	1	20
Vinyl chloride	20.0	23.8		ug/L		119	70 - 130	1	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130



# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-587403/6

Matrix: Water

Analysis Batch: 587403

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 14:24	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/19 14:24	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			04/11/19 14:24	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/19 14:24	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/19 14:24	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/19 14:24	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/19 14:24	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/19 14:24	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			04/11/19 14:24	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/19 14:24	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/19 14:24	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/19 14:24	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/19 14:24	1
1,4-Dioxane	ND		200		ug/L			04/11/19 14:24	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/19 14:24	1
2-Butanone (MEK)	ND		50		ug/L			04/11/19 14:24	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/19 14:24	1
2-Hexanone	ND		10		ug/L			04/11/19 14:24	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/19 14:24	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/19 14:24	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/19 14:24	1
Acetone	ND		25		ug/L			04/11/19 14:24	1
Benzene	ND		1.0		ug/L			04/11/19 14:24	1
Bromobenzene	ND		1.0		ug/L			04/11/19 14:24	1
Bromoform	ND		1.0		ug/L			04/11/19 14:24	1
Bromomethane	ND		1.0		ug/L			04/11/19 14:24	1
Carbon disulfide	ND		1.0		ug/L			04/11/19 14:24	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/19 14:24	1
Chlorobenzene	ND		1.0		ug/L			04/11/19 14:24	1
Chlorobromomethane	ND		1.0		ug/L			04/11/19 14:24	1
Chlorodibromomethane	ND		1.0		ug/L			04/11/19 14:24	1
Chloroethane	ND		1.0		ug/L			04/11/19 14:24	1
Chloroform	ND		1.0		ug/L			04/11/19 14:24	1
Chloromethane	ND		1.0		ug/L			04/11/19 14:24	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 14:24	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 14:24	1
Dibromomethane	ND		1.0		ug/L			04/11/19 14:24	1
Dichlorobromomethane	ND		1.0		ug/L			04/11/19 14:24	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/19 14:24	1
Ethyl ether	ND		5.0		ug/L			04/11/19 14:24	1
Ethylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/19 14:24	1

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-587403/6

Matrix: Water

Analysis Batch: 587403

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hexachlorobutadiene	ND		2.0		ug/L			04/11/19 14:24	1
Isopropyl ether	ND		2.0		ug/L			04/11/19 14:24	1
Isopropylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/19 14:24	1
Methylene Chloride	ND		5.0		ug/L			04/11/19 14:24	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/19 14:24	1
Naphthalene	ND		5.0		ug/L			04/11/19 14:24	1
n-Butylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
N-Propylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
o-Xylene	ND		1.0		ug/L			04/11/19 14:24	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
Styrene	ND		1.0		ug/L			04/11/19 14:24	1
Tert-amyl methyl ether	ND		1.0		ug/L			04/11/19 14:24	1
Tert-butyl ethyl ether	ND		1.0		ug/L			04/11/19 14:24	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/19 14:24	1
Tetrachloroethene	ND		1.0		ug/L			04/11/19 14:24	1
Tetrahydrofuran	ND		10		ug/L			04/11/19 14:24	1
Toluene	ND		1.0		ug/L			04/11/19 14:24	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/19 14:24	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/11/19 14:24	1
Trichloroethene	ND		1.0		ug/L			04/11/19 14:24	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/19 14:24	1
Vinyl chloride	ND		1.0		ug/L			04/11/19 14:24	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	84		70 - 130		04/11/19 14:24	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		04/11/19 14:24	1
4-Bromofluorobenzene (Surr)	106		70 - 130		04/11/19 14:24	1

Lab Sample ID: LCS 490-587403/3

Matrix: Water

Analysis Batch: 587403

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	18.2		ug/L		91	70 - 130
1,1,2,2-Tetrachloroethane	20.0	25.1		ug/L		126	70 - 130
1,1,2-Trichloroethane	20.0	19.7		ug/L		99	70 - 130
1,1-Dichloroethane	20.0	18.9		ug/L		94	70 - 130
1,1-Dichloroethene	20.0	18.9		ug/L		94	70 - 130
1,1-Dichloropropene	20.0	18.4		ug/L		92	70 - 130
1,2,3-Trichlorobenzene	20.0	20.6		ug/L		103	70 - 130
1,2,3-Trichloropropane	20.0	24.2		ug/L		121	70 - 130
1,2,4-Trichlorobenzene	20.0	22.1		ug/L		110	70 - 130
1,2,4-Trimethylbenzene	20.0	20.0		ug/L		100	70 - 130
1,2-Dibromo-3-Chloropropane	20.0	24.5		ug/L		122	70 - 130
1,2-Dichlorobenzene	20.0	21.2		ug/L		106	70 - 130
1,2-Dichloroethane	20.0	16.4		ug/L		82	70 - 130

Eurofins TestAmerica, Nashville

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-587403/3

Matrix: Water

Analysis Batch: 587403

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	20.0	19.7		ug/L		98	70 - 130
1,3,5-Trimethylbenzene	20.0	18.3		ug/L		91	70 - 130
1,3-Dichlorobenzene	20.0	20.4		ug/L		102	70 - 130
1,3-Dichloropropane	20.0	19.5		ug/L		97	70 - 130
1,4-Dichlorobenzene	20.0	19.2		ug/L		96	70 - 130
1,4-Dioxane	400	389		ug/L		97	70 - 130
2,2-Dichloropropane	20.0	19.0		ug/L		95	70 - 130
2-Butanone (MEK)	100	111		ug/L		111	70 - 130
2-Chlorotoluene	20.0	19.7		ug/L		99	70 - 130
2-Hexanone	100	129		ug/L		129	70 - 130
4-Chlorotoluene	20.0	19.6		ug/L		98	70 - 130
4-Isopropyltoluene	20.0	19.2		ug/L		96	70 - 130
4-Methyl-2-pentanone (MIBK)	100	118		ug/L		118	70 - 130
Acetone	100	116		ug/L		116	70 - 130
Benzene	20.0	19.8		ug/L		99	70 - 130
Bromobenzene	20.0	21.9		ug/L		109	70 - 130
Bromoform	20.0	31.9	*	ug/L		160	70 - 130
Bromomethane	20.0	22.5		ug/L		113	70 - 130
Carbon disulfide	20.0	21.9		ug/L		110	70 - 130
Carbon tetrachloride	20.0	18.7		ug/L		93	70 - 130
Chlorobenzene	20.0	19.6		ug/L		98	70 - 130
Chlorobromomethane	20.0	20.2		ug/L		101	70 - 130
Chlorodibromomethane	20.0	20.9		ug/L		104	70 - 130
Chloroethane	20.0	21.6		ug/L		108	70 - 130
Chloroform	20.0	18.0		ug/L		90	70 - 130
Chloromethane	20.0	26.0		ug/L		130	70 - 130
cis-1,2-Dichloroethene	20.0	17.9		ug/L		90	70 - 130
cis-1,3-Dichloropropene	20.0	20.7		ug/L		103	70 - 130
Dibromomethane	20.0	19.1		ug/L		95	70 - 130
Dichlorobromomethane	20.0	19.4		ug/L		97	70 - 130
Dichlorodifluoromethane	20.0	26.1		ug/L		130	70 - 130
Ethyl ether	20.0	23.5		ug/L		117	70 - 130
Ethylbenzene	20.0	20.5		ug/L		102	70 - 130
Ethylene Dibromide	20.0	23.1		ug/L		115	70 - 130
Hexachlorobutadiene	20.0	19.1		ug/L		96	70 - 130
Isopropyl ether	20.0	22.2		ug/L		111	70 - 130
Isopropylbenzene	20.0	20.6		ug/L		103	70 - 130
Methyl tert-butyl ether	20.0	20.6		ug/L		103	70 - 130
Methylene Chloride	20.0	19.7		ug/L		98	70 - 130
m-Xylene & p-Xylene	20.0	20.9		ug/L		104	70 - 130
Naphthalene	20.0	21.2		ug/L		106	70 - 130
n-Butylbenzene	20.0	20.0		ug/L		100	70 - 130
N-Propylbenzene	20.0	22.0		ug/L		110	70 - 130
o-Xylene	20.0	20.4		ug/L		102	70 - 130
sec-Butylbenzene	20.0	19.6		ug/L		98	70 - 130
Styrene	20.0	20.3		ug/L		101	70 - 130
Tert-amyl methyl ether	20.0	19.5		ug/L		97	70 - 130
Tert-butyl ethyl ether	20.0	20.5		ug/L		103	70 - 130
tert-Butylbenzene	20.0	19.4		ug/L		97	70 - 130

Eurofins TestAmerica, Nashville

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 490-587403/3**

**Matrix: Water**

**Analysis Batch: 587403**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	20.0	17.3		ug/L		86	70 - 130
Tetrahydrofuran	40.0	46.6		ug/L		116	70 - 130
Toluene	20.0	17.7		ug/L		88	70 - 130
trans-1,2-Dichloroethene	20.0	18.4		ug/L		92	70 - 130
trans-1,3-Dichloropropene	20.0	25.4		ug/L		127	70 - 130
Trichloroethene	20.0	19.0		ug/L		95	70 - 130
Trichlorofluoromethane	20.0	20.7		ug/L		103	70 - 130
Vinyl chloride	20.0	25.5		ug/L		127	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	87		70 - 130
1,2-Dichloroethane-d4 (Surr)	88		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130

**Lab Sample ID: LCSD 490-587403/4**

**Matrix: Water**

**Analysis Batch: 587403**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	21.6		ug/L		108	70 - 130	4	20
1,1,1-Trichloroethane	20.0	17.9		ug/L		90	70 - 130	2	20
1,1,1,2,2-Tetrachloroethane	20.0	25.5		ug/L		128	70 - 130	2	20
1,1,2-Trichloroethane	20.0	18.9		ug/L		95	70 - 130	4	20
1,1-Dichloroethane	20.0	19.0		ug/L		95	70 - 130	1	20
1,1-Dichloroethane	20.0	19.2		ug/L		96	70 - 130	2	20
1,1-Dichloropropene	20.0	18.1		ug/L		91	70 - 130	2	20
1,2,3-Trichlorobenzene	20.0	20.9		ug/L		105	70 - 130	1	20
1,2,3-Trichloropropane	20.0	25.0		ug/L		125	70 - 130	3	20
1,2,4-Trichlorobenzene	20.0	22.0		ug/L		110	70 - 130	0	20
1,2,4-Trimethylbenzene	20.0	20.1		ug/L		100	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	20.0	23.6		ug/L		118	70 - 130	4	20
1,2-Dichlorobenzene	20.0	21.6		ug/L		108	70 - 130	2	20
1,2-Dichloroethane	20.0	16.5		ug/L		82	70 - 130	0	20
1,2-Dichloropropane	20.0	19.3		ug/L		96	70 - 130	2	20
1,3,5-Trimethylbenzene	20.0	18.4		ug/L		92	70 - 130	1	20
1,3-Dichlorobenzene	20.0	20.5		ug/L		103	70 - 130	1	20
1,3-Dichloropropane	20.0	18.7		ug/L		94	70 - 130	4	20
1,4-Dichlorobenzene	20.0	18.7		ug/L		93	70 - 130	3	20
1,4-Dioxane	400	583	*	ug/L		146	70 - 130	40	20
2,2-Dichloropropane	20.0	19.0		ug/L		95	70 - 130	0	20
2-Butanone (MEK)	100	112		ug/L		112	70 - 130	1	20
2-Chlorotoluene	20.0	20.0		ug/L		100	70 - 130	2	20
2-Hexanone	100	119		ug/L		119	70 - 130	8	20
4-Chlorotoluene	20.0	19.7		ug/L		99	70 - 130	1	20
4-Isopropyltoluene	20.0	19.7		ug/L		98	70 - 130	2	20
4-Methyl-2-pentanone (MIBK)	100	112		ug/L		112	70 - 130	5	20
Acetone	100	119		ug/L		119	70 - 130	2	20
Benzene	20.0	19.9		ug/L		100	70 - 130	1	20

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-587403/4

Matrix: Water

Analysis Batch: 587403

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	20.0	21.4		ug/L		107	70 - 130	2	20
Bromoform	20.0	31.2	*	ug/L		156	70 - 130	2	20
Bromomethane	20.0	23.0		ug/L		115	70 - 130	2	20
Carbon disulfide	20.0	21.9		ug/L		109	70 - 130	0	20
Carbon tetrachloride	20.0	18.7		ug/L		94	70 - 130	0	20
Chlorobenzene	20.0	18.7		ug/L		94	70 - 130	4	20
Chlorobromomethane	20.0	20.0		ug/L		100	70 - 130	1	20
Chlorodibromomethane	20.0	18.5		ug/L		92	70 - 130	12	20
Chloroethane	20.0	22.1		ug/L		110	70 - 130	2	20
Chloroform	20.0	17.7		ug/L		88	70 - 130	2	20
Chloromethane	20.0	25.6		ug/L		128	70 - 130	1	20
cis-1,2-Dichloroethene	20.0	18.2		ug/L		91	70 - 130	1	20
cis-1,3-Dichloropropene	20.0	20.7		ug/L		103	70 - 130	0	20
Dibromomethane	20.0	19.1		ug/L		96	70 - 130	0	20
Dichlorobromomethane	20.0	19.3		ug/L		97	70 - 130	0	20
Dichlorodifluoromethane	20.0	25.5		ug/L		128	70 - 130	2	20
Ethyl ether	20.0	23.2		ug/L		116	70 - 130	1	20
Ethylbenzene	20.0	20.2		ug/L		101	70 - 130	1	20
Ethylene Dibromide	20.0	21.8		ug/L		109	70 - 130	5	20
Hexachlorobutadiene	20.0	18.9		ug/L		95	70 - 130	1	20
Isopropyl ether	20.0	22.6		ug/L		113	70 - 130	1	20
Isopropylbenzene	20.0	20.3		ug/L		101	70 - 130	2	20
Methyl tert-butyl ether	20.0	20.0		ug/L		100	70 - 130	3	20
Methylene Chloride	20.0	19.8		ug/L		99	70 - 130	1	20
m-Xylene & p-Xylene	20.0	20.9		ug/L		105	70 - 130	0	20
Naphthalene	20.0	21.0		ug/L		105	70 - 130	1	20
n-Butylbenzene	20.0	20.1		ug/L		101	70 - 130	1	20
N-Propylbenzene	20.0	22.2		ug/L		111	70 - 130	1	20
o-Xylene	20.0	20.5		ug/L		102	70 - 130	0	20
sec-Butylbenzene	20.0	20.2		ug/L		101	70 - 130	3	20
Styrene	20.0	20.3		ug/L		101	70 - 130	0	20
Tert-amyl methyl ether	20.0	19.6		ug/L		98	70 - 130	1	20
Tert-butyl ethyl ether	20.0	20.6		ug/L		103	70 - 130	0	20
tert-Butylbenzene	20.0	19.5		ug/L		97	70 - 130	1	20
Tetrachloroethene	20.0	17.1		ug/L		85	70 - 130	1	20
Tetrahydrofuran	40.0	44.2		ug/L		110	70 - 130	5	20
Toluene	20.0	17.0		ug/L		85	70 - 130	4	20
trans-1,2-Dichloroethene	20.0	18.3		ug/L		91	70 - 130	1	20
trans-1,3-Dichloropropene	20.0	24.8		ug/L		124	70 - 130	3	20
Trichloroethene	20.0	18.9		ug/L		95	70 - 130	0	20
Trichlorofluoromethane	20.0	21.0		ug/L		105	70 - 130	2	20
Vinyl chloride	20.0	25.0		ug/L		125	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	87		70 - 130
1,2-Dichloroethane-d4 (Surr)	91		70 - 130
4-Bromofluorobenzene (Surr)	106		70 - 130

# QC Sample Results

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## Method: 522 - 1,4 Dioxane (GC/MS SIM)

**Lab Sample ID: MB 200-141966/1-A**  
**Matrix: Water**  
**Analysis Batch: 142027**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 141966**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		04/15/19 12:05	04/17/19 09:39	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	107		46 - 130				04/15/19 12:05	04/17/19 09:39	1

**Lab Sample ID: LCS 200-141966/2-A**  
**Matrix: Water**  
**Analysis Batch: 142027**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 141966**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	2.00	2.07		ug/L		104	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,4-Dioxane-d8 (Surr)	103		46 - 130				

**Lab Sample ID: 490-171846-24 MS**  
**Matrix: Water**  
**Analysis Batch: 142027**

**Client Sample ID: MW-1039-DX-20190405-01**  
**Prep Type: Total/NA**  
**Prep Batch: 141966**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	0.34		2.00	2.27		ug/L		97	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,4-Dioxane-d8 (Surr)	95		46 - 130						

**Lab Sample ID: 490-171846-24 MSD**  
**Matrix: Water**  
**Analysis Batch: 142027**

**Client Sample ID: MW-1039-DX-20190405-01**  
**Prep Type: Total/NA**  
**Prep Batch: 141966**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	0.34		2.00	2.37		ug/L		101	70 - 130	4	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1,4-Dioxane-d8 (Surr)	100		46 - 130								

# QC Association Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

## GC/MS VOA

### Analysis Batch: 587193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-171846-1	MW-1013-20190404-01	Total/NA	Water	8260C	
490-171846-2	MW-1014-20190404-01	Total/NA	Water	8260C	
490-171846-3	MW-1008-20190404-01	Total/NA	Water	8260C	
490-171846-4	MW-1036-20190404-01	Total/NA	Water	8260C	
490-171846-5	DUP-005-20190404-01	Total/NA	Water	8260C	
490-171846-6	MW-1022-20190404-01	Total/NA	Water	8260C	
490-171846-7	MW-1009-20190404-01	Total/NA	Water	8260C	
490-171846-11	PDB-001-20190404-01	Total/NA	Water	8260C	
490-171846-13	MW-1026D-20190404-01	Total/NA	Water	8260C	
490-171846-14	MW-1025M-20190404-01	Total/NA	Water	8260C	
490-171846-16	MW-1020-20190404-01	Total/NA	Water	8260C	
490-171846-18	DUP-003-20190404-01	Total/NA	Water	8260C	
490-171846-20	MW-1033-20190405-01	Total/NA	Water	8260C	
490-171846-22	MW-1034-20190405-01	Total/NA	Water	8260C	
490-171846-25	MW-1039-20190405-01	Total/NA	Water	8260C	
MB 490-587193/6	Method Blank	Total/NA	Water	8260C	
LCS 490-587193/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-587193/4	Lab Control Sample Dup	Total/NA	Water	8260C	

### Analysis Batch: 587398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-171846-2	MW-1014-20190404-01	Total/NA	Water	8260C	
490-171846-7	MW-1009-20190404-01	Total/NA	Water	8260C	
490-171846-14	MW-1025M-20190404-01	Total/NA	Water	8260C	
MB 490-587398/6	Method Blank	Total/NA	Water	8260C	
LCS 490-587398/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-587398/4	Lab Control Sample Dup	Total/NA	Water	8260C	

### Analysis Batch: 587403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-171846-26	DUP-004-20190405-01	Total/NA	Water	8260C	
490-171846-27	TB-001-20190405-01	Total/NA	Water	8260C	
MB 490-587403/6	Method Blank	Total/NA	Water	8260C	
LCS 490-587403/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-587403/4	Lab Control Sample Dup	Total/NA	Water	8260C	

## GC/MS Semi VOA

### Prep Batch: 141966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-171846-9	MW-1036-DX-20190404-01	Total/NA	Water	522	
490-171846-12	MW-1026D-DX-20190404-01	Total/NA	Water	522	
490-171846-15	MW-1025M-DX-20190404-01	Total/NA	Water	522	
490-171846-17	MW-1020-DX-20190404-01	Total/NA	Water	522	
490-171846-19	DUP-007-DX-20190404-01	Total/NA	Water	522	
490-171846-21	MW-1033-DX-20190405-01	Total/NA	Water	522	
490-171846-23	MW-1034-DX-20190405-01	Total/NA	Water	522	
490-171846-24	MW-1039-DX-20190405-01	Total/NA	Water	522	
MB 200-141966/1-A	Method Blank	Total/NA	Water	522	
LCS 200-141966/2-A	Lab Control Sample	Total/NA	Water	522	
490-171846-24 MS	MW-1039-DX-20190405-01	Total/NA	Water	522	

# QC Association Summary

Client: ERM-Northeast  
 Project/Site: IDS Wayland

Job ID: 490-171846-1

## GC/MS Semi VOA (Continued)

### Prep Batch: 141966 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-171846-24 MSD	MW-1039-DX-20190405-01	Total/NA	Water	522	

### Analysis Batch: 142027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-171846-9	MW-1036-DX-20190404-01	Total/NA	Water	522	141966
490-171846-12	MW-1026D-DX-20190404-01	Total/NA	Water	522	141966
490-171846-15	MW-1025M-DX-20190404-01	Total/NA	Water	522	141966
490-171846-17	MW-1020-DX-20190404-01	Total/NA	Water	522	141966
490-171846-19	DUP-007-DX-20190404-01	Total/NA	Water	522	141966
490-171846-21	MW-1033-DX-20190405-01	Total/NA	Water	522	141966
490-171846-23	MW-1034-DX-20190405-01	Total/NA	Water	522	141966
490-171846-24	MW-1039-DX-20190405-01	Total/NA	Water	522	141966
MB 200-141966/1-A	Method Blank	Total/NA	Water	522	141966
LCS 200-141966/2-A	Lab Control Sample	Total/NA	Water	522	141966
490-171846-24 MS	MW-1039-DX-20190405-01	Total/NA	Water	522	141966
490-171846-24 MSD	MW-1039-DX-20190405-01	Total/NA	Water	522	141966





# Lab Chronicle

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1013-20190404-01**

**Lab Sample ID: 490-171846-1**

Date Collected: 04/04/19 08:08

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 02:59	JJR	TAL NSH

**Client Sample ID: MW-1014-20190404-01**

**Lab Sample ID: 490-171846-2**

Date Collected: 04/04/19 08:15

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 03:26	JJR	TAL NSH
Total/NA	Analysis	8260C		1	5 mL	5 mL	587398	04/11/19 15:17	RP	TAL NSH

**Client Sample ID: MW-1008-20190404-01**

**Lab Sample ID: 490-171846-3**

Date Collected: 04/04/19 09:58

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 03:52	JJR	TAL NSH

**Client Sample ID: MW-1036-20190404-01**

**Lab Sample ID: 490-171846-4**

Date Collected: 04/04/19 11:26

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 04:19	JJR	TAL NSH

**Client Sample ID: DUP-005-20190404-01**

**Lab Sample ID: 490-171846-5**

Date Collected: 04/04/19 12:00

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 04:45	JJR	TAL NSH

**Client Sample ID: MW-1022-20190404-01**

**Lab Sample ID: 490-171846-6**

Date Collected: 04/04/19 10:55

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 05:12	JJR	TAL NSH

**Client Sample ID: MW-1009-20190404-01**

**Lab Sample ID: 490-171846-7**

Date Collected: 04/04/19 12:00

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 05:39	JJR	TAL NSH
Total/NA	Analysis	8260C		1	5 mL	5 mL	587398	04/11/19 14:51	RP	TAL NSH

# Lab Chronicle

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1036-DX-20190404-01**

**Lab Sample ID: 490-171846-9**

Date Collected: 04/04/19 11:55

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	522			100 mL	2 mL	141966	04/15/19 12:05	MJW	TAL BUR
Total/NA	Analysis	522		1			142027	04/17/19 09:52	TPB	TAL BUR

**Client Sample ID: PDB-001-20190404-01**

**Lab Sample ID: 490-171846-11**

Date Collected: 04/04/19 14:24

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 06:05	JJR	TAL NSH

**Client Sample ID: MW-1026D-DX-20190404-01**

**Lab Sample ID: 490-171846-12**

Date Collected: 04/04/19 15:33

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	522			100 mL	2 mL	141966	04/15/19 12:05	MJW	TAL BUR
Total/NA	Analysis	522		1			142027	04/17/19 10:06	TPB	TAL BUR

**Client Sample ID: MW-1026D-20190404-01**

**Lab Sample ID: 490-171846-13**

Date Collected: 04/04/19 14:55

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 06:32	JJR	TAL NSH

**Client Sample ID: MW-1025M-20190404-01**

**Lab Sample ID: 490-171846-14**

Date Collected: 04/04/19 14:00

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 06:58	JJR	TAL NSH
Total/NA	Analysis	8260C		1	5 mL	5 mL	587398	04/11/19 15:44	RP	TAL NSH

**Client Sample ID: MW-1025M-DX-20190404-01**

**Lab Sample ID: 490-171846-15**

Date Collected: 04/04/19 15:25

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	522			100 mL	2 mL	141966	04/15/19 12:05	MJW	TAL BUR
Total/NA	Analysis	522		1			142027	04/17/19 10:19	TPB	TAL BUR

# Lab Chronicle

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1020-20190404-01**

**Lab Sample ID: 490-171846-16**

Date Collected: 04/04/19 13:48

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 07:25	JJR	TAL NSH

**Client Sample ID: MW-1020-DX-20190404-01**

**Lab Sample ID: 490-171846-17**

Date Collected: 04/04/19 14:31

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	522			100 mL	2 mL	141966	04/15/19 12:05	MJW	TAL BUR
Total/NA	Analysis	522		1			142027	04/17/19 10:32	TPB	TAL BUR

**Client Sample ID: DUP-003-20190404-01**

**Lab Sample ID: 490-171846-18**

Date Collected: 04/04/19 12:00

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 07:51	JJR	TAL NSH

**Client Sample ID: DUP-007-DX-20190404-01**

**Lab Sample ID: 490-171846-19**

Date Collected: 04/04/19 13:00

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	522			100 mL	2 mL	141966	04/15/19 12:05	MJW	TAL BUR
Total/NA	Analysis	522		1			142027	04/17/19 10:46	TPB	TAL BUR

**Client Sample ID: MW-1033-20190405-01**

**Lab Sample ID: 490-171846-20**

Date Collected: 04/05/19 11:03

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 08:18	JJR	TAL NSH

**Client Sample ID: MW-1033-DX-20190405-01**

**Lab Sample ID: 490-171846-21**

Date Collected: 04/05/19 12:23

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	522			100 mL	2 mL	141966	04/15/19 12:05	MJW	TAL BUR
Total/NA	Analysis	522		1			142027	04/17/19 10:59	TPB	TAL BUR

**Client Sample ID: MW-1034-20190405-01**

**Lab Sample ID: 490-171846-22**

Date Collected: 04/05/19 12:10

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 08:45	JJR	TAL NSH

Eurofins TestAmerica, Nashville

# Lab Chronicle

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

**Client Sample ID: MW-1034-DX-20190405-01**

**Lab Sample ID: 490-171846-23**

Date Collected: 04/05/19 14:18

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	522			100 mL	2 mL	141966	04/15/19 12:05	MJW	TAL BUR
Total/NA	Analysis	522		1			142027	04/17/19 11:12	TPB	TAL BUR

**Client Sample ID: MW-1039-DX-20190405-01**

**Lab Sample ID: 490-171846-24**

Date Collected: 04/05/19 10:07

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	522			100 mL	2 mL	141966	04/15/19 12:05	MJW	TAL BUR
Total/NA	Analysis	522		1			142027	04/17/19 11:26	TPB	TAL BUR

**Client Sample ID: MW-1039-20190405-01**

**Lab Sample ID: 490-171846-25**

Date Collected: 04/05/19 09:10

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587193	04/11/19 09:11	JJR	TAL NSH

**Client Sample ID: DUP-004-20190405-01**

**Lab Sample ID: 490-171846-26**

Date Collected: 04/05/19 12:00

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587403	04/11/19 15:17	P1B	TAL NSH

**Client Sample ID: TB-001-20190405-01**

**Lab Sample ID: 490-171846-27**

Date Collected: 04/05/19 01:01

Matrix: Water

Date Received: 04/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	587403	04/11/19 14:51	P1B	TAL NSH

**Laboratory References:**

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

## Accreditation/Certification Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

### Laboratory: Eurofins TestAmerica, Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-19
Alaska (UST)	State Program	10	UST-087	06-30-19
Arizona	State Program	9	AZ0473	05-05-19
Arkansas DEQ	State Program	6	88-0737	04-25-20
California	State Program	9	2938	06-30-19
Connecticut	State Program	1	PH-0220	12-31-19
Florida	NELAP	4	E87358	06-30-19
Georgia	State Program	4	NA: NELAP & A2LA	12-31-19
Illinois	NELAP	5	200010	12-09-18 *
Iowa	State Program	7	131	04-01-20
Kansas	NELAP	7	E-10229	10-31-19
Kentucky (UST)	State Program	4	19	06-30-19
Kentucky (WW)	State Program	4	90038	12-31-19
Louisiana	NELAP	6	30613	06-30-19
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-20
Massachusetts	State Program	1	M-TN032	06-30-19
Minnesota	NELAP	5	047-999-345	12-31-19
Mississippi	State Program	4	N/A	06-30-19
Nevada	State Program	9	TN00032	07-31-19
New Hampshire	NELAP	1	2963	10-09-19
New Jersey	NELAP	2	TN965	06-30-19
New York	NELAP	2	11342	03-31-20
North Carolina (WW/SW)	State Program	4	387	12-31-19
North Dakota	State Program	8	R-146	06-30-19
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-19
Oregon	NELAP	10	TN200001	04-26-19
Pennsylvania	NELAP	3	68-00585	07-31-19
Rhode Island	State Program	1	LAO00268	12-30-19
South Carolina	State Program	4	84009 (001)	02-28-19 *
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-19
USDA	Federal		P330-13-00306	04-10-20
Utah	NELAP	8	TN00032	07-31-19
Virginia	NELAP	3	460152	06-14-19
Washington	State Program	10	C789	07-19-19
West Virginia DEP	State Program	3	219	02-28-19 *
Wisconsin	State Program	5	998020430	08-31-19
Wyoming (UST)	A2LA	8	453.07	12-31-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Nashville

## Accreditation/Certification Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

### Laboratory: Eurofins TestAmerica, Buffalo

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-19
California	State Program	9	2931	04-01-19 *
Connecticut	State Program	1	PH-0568	09-30-20
Florida	NELAP	4	E87672	06-30-19
Georgia	State Program	4	10026 (NY)	03-31-20
Georgia	State Program	4	956	03-31-20
Illinois	NELAP	5	200003	09-30-19
Iowa	State Program	7	374	02-28-19 *
Kansas	NELAP	7	E-10187	01-31-20
Kentucky (DW)	State Program	4	90029	12-31-19
Kentucky (UST)	State Program	4	30	03-31-19 *
Kentucky (WW)	State Program	4	90029	12-31-19
Louisiana	NELAP	6	02031	06-30-19
Maryland	State Program	3	294	03-31-20
Massachusetts	State Program	1	M-NY044	06-30-19
Michigan	State Program	5	9937	03-31-19 *
Minnesota	NELAP	5	036-999-337	12-31-19
New Hampshire	NELAP	1	2337	11-17-19
New Jersey	NELAP	2	NY455	06-30-19
New York	NELAP	2	10026	03-31-20
North Dakota	State Program	8	R-176	03-31-19 *
Oklahoma	State Program	6	9421	08-31-19
Oregon	NELAP	10	NY200003	06-09-19 *
Pennsylvania	NELAP	3	68-00281	07-31-19
Rhode Island	State Program	1	LAO00328	12-30-19
Tennessee	State Program	4	TN02970	03-31-20
Texas	NELAP	6	T104704412-15-6	07-31-19
USDA	Federal		P330-11-00386	02-06-21
Virginia	NELAP	3	460185	09-14-19
Washington	State Program	10	C784	02-10-20
Wisconsin	State Program	5	998310390	08-31-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Accreditation/Certification Summary

Client: ERM-Northeast  
 Project/Site: IDS Wayland

Job ID: 490-171846-1

## Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	DoD / DOE		L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-19 *
Florida	NELAP	4	E87467	06-30-19
Maine	State Program	1	VT00008	04-17-19 *
Minnesota	NELAP	5	050-999-436	12-31-19
New Hampshire	NELAP	1	2006	12-18-19
New Jersey	NELAP	2	VT972	06-30-19
New York	NELAP	2	10391	04-01-20
Pennsylvania	NELAP	3	68-00489	04-30-19 *
Rhode Island	State Program	1	LAO00298	12-30-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-19
Virginia	NELAP	3	460209	12-14-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.



# Method Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL NSH
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
5030B	Purge and Trap	SW846	TAL NSH
522	Solid-Phase Extraction (SPE)	EPA	TAL BUR

#### Protocol References:

EPA = US Environmental Protection Agency

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



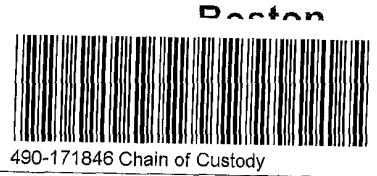
# Sample Summary

Client: ERM-Northeast  
Project/Site: IDS Wayland

Job ID: 490-171846-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-171846-1	MW-1013-20190404-01	Water	04/04/19 08:08	04/10/19 09:10
490-171846-2	MW-1014-20190404-01	Water	04/04/19 08:15	04/10/19 09:10
490-171846-3	MW-1008-20190404-01	Water	04/04/19 09:58	04/10/19 09:10
490-171846-4	MW-1036-20190404-01	Water	04/04/19 11:26	04/10/19 09:10
490-171846-5	DUP-005-20190404-01	Water	04/04/19 12:00	04/10/19 09:10
490-171846-6	MW-1022-20190404-01	Water	04/04/19 10:55	04/10/19 09:10
490-171846-7	MW-1009-20190404-01	Water	04/04/19 12:00	04/10/19 09:10
490-171846-9	MW-1036-DX-20190404-01	Water	04/04/19 11:55	04/10/19 09:10
490-171846-11	PDB-001-20190404-01	Water	04/04/19 14:24	04/10/19 09:10
490-171846-12	MW-1026D-DX-20190404-01	Water	04/04/19 15:33	04/10/19 09:10
490-171846-13	MW-1026D-20190404-01	Water	04/04/19 14:55	04/10/19 09:10
490-171846-14	MW-1025M-20190404-01	Water	04/04/19 14:00	04/10/19 09:10
490-171846-15	MW-1025M-DX-20190404-01	Water	04/04/19 15:25	04/10/19 09:10
490-171846-16	MW-1020-20190404-01	Water	04/04/19 13:48	04/10/19 09:10
490-171846-17	MW-1020-DX-20190404-01	Water	04/04/19 14:31	04/10/19 09:10
490-171846-18	DUP-003-20190404-01	Water	04/04/19 12:00	04/10/19 09:10
490-171846-19	DUP-007-DX-20190404-01	Water	04/04/19 13:00	04/10/19 09:10
490-171846-20	MW-1033-20190405-01	Water	04/05/19 11:03	04/10/19 09:10
490-171846-21	MW-1033-DX-20190405-01	Water	04/05/19 12:23	04/10/19 09:10
490-171846-22	MW-1034-20190405-01	Water	04/05/19 12:10	04/10/19 09:10
490-171846-23	MW-1034-DX-20190405-01	Water	04/05/19 14:18	04/10/19 09:10
490-171846-24	MW-1039-DX-20190405-01	Water	04/05/19 10:07	04/10/19 09:10
490-171846-25	MW-1039-20190405-01	Water	04/05/19 09:10	04/10/19 09:10
490-171846-26	DUP-004-20190405-01	Water	04/05/19 12:00	04/10/19 09:10
490-171846-27	TB-001-20190405-01	Water	04/05/19 01:01	04/10/19 09:10

**COOLER RECEIPT FORM**



Cooler Received/Opened On 4/10/2019@ 910

Time Samples Removed From Cooler 16:31 Time Samples Placed In Storage 17:08 (2 Hour Window)

1. Tracking # 4280 (last 4 digits, FedEx) Courier: FedEx  
 IR Gun ID 31470368 pH Strip Lot N/A Chlorine Strip Lot N/A
2. Temperature of rep. sample or temp blank when opened: 5.5 Degrees Celsius
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA
4. Were custody seals on outside of cooler? YES...NO...NA  
 If yes, how many and where: \_\_\_\_\_
5. Were the seals intact, signed, and dated correctly? YES...NO...NA
6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) EA

7. Were custody seals on containers: YES NO and Intact YES...NO...NA  
 Were these signed and dated correctly? YES...NO...NA
8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None
9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None
10. Did all containers arrive in good condition (unbroken)? YES...NO...NA
11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA
12. Did all container labels and tags agree with custody papers? YES...NO...NA
- 13a. Were VOA vials received? YES...NO...NA  
 b. Was there any observable headspace present in any VOA vial? YES...NO...NA



14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # \_\_\_\_\_

I certify that I unloaded the cooler and answered questions 7-14 (initial) \_\_\_\_\_

- 15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA  
 b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA
16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) \_\_\_\_\_

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA
18. Did you sign the custody papers in the appropriate place? YES...NO...NA
19. Were correct containers used for the analysis requested? YES...NO...NA
20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) \_\_\_\_\_

I certify that I attached a label with the unique LIMS number to each container (initial) \_\_\_\_\_

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...# \_\_\_\_\_



## COOLER RECEIPT FORM

# 490-171846

Cooler Received/Opened On 4/10/2019 @ 0910

Time Samples Removed From Cooler 16:31 Time Samples Placed In Storage 17:08 (2 Hour Window)

1. Tracking # 4279 (last 4 digits, FedEx) Courier: FedEx  
IR Gun ID 17960353 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 1.4 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: none

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) J.J.

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA



Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # \_\_\_\_\_

I certify that I unloaded the cooler and answered questions 7-14 (initial) \_\_\_\_\_

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) \_\_\_\_\_

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) \_\_\_\_\_

I certify that I attached a label with the unique LIMS number to each container (initial) \_\_\_\_\_

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...# \_\_\_\_\_

Client Information  
 Client Contact: Lyndsey Colburn / Clementine Dulev  
 Company: ERM-Northeast  
 Address: One Beacon Street 5th Floor  
 City: Boston  
 State, Zip: MA, 02108  
 Phone: 617-646-7800  
 Email: lyndsey.colburn@erm.com / clementine.dulev@erm.com  
 Project Name: IDS Wayland  
 Site: Wayland, MA

Sampler: J. Redden Lab PM: Mason, Becky C  
 Phone: 508-498-5311 E-Mail: becky.mason@testamericainc.com

Carrier Tracking No(s): 360325-Boston  
 COC No: 480-127995-28903.2  
 Page: Page 2 of 6 pg 1/3  
 Job #:

Due Date Requested:  
 TAT Requested (days): Standard

PO #: 0484298.01  
 WO #:   
 Project #: 48007117  
 SSOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Swab, Over-sat, Other)	Preservation Code	Field Filtered Sample (Yes or No)				8260MCP (MOD) Pick a reference price	522 - Local Method	6010MCP - Chromium	Analysis Requested				Total Number of Containers	Special Instructions/Note:		
						A	D	A	D				A	D	A	D				
MW-1013-20190404-01	4/1/19	08:08	G	Water																
MW-1014-20190404-01		08:15		Water																
MW-1008-20190404-01		09:58		Water																
MW-1036-20190404-01		11:26		Water																
DUP-005-20190404-01		12:00		Water																
MW-1022-20190404-01		10:55		Water																
MW-1009-20190404-01		12:00		Water																
DUP-007-DX-20190404-01		13:00		Water																
MW-1036-DX-20190404-01		11:55		Water																
MW-1026-20190404-01		13:48		Water																
DUP-001-20190404-01		14:24		Water																

Loc: 490  
171846

Preservation Codes:  
 M - Hexane  
 N - None  
 O - AsNaO2  
 P - Na2O4S  
 Q - Na2SO3  
 R - Na2SO3  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - pH 4-5  
 L - EDTA  
 Z - other (specify)  
 Other:

Special Instructions/Note:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Relinquished by: \_\_\_\_\_ Date: 4/19/19 11:18  
 Relinquished by: \_\_\_\_\_ Date: 4/25/19 10:00  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

Company: ERM  
 Company: ERM  
 Company: ERM

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

Company: ERM  
 Company: ERM  
 Company: ERM

Custody Seal Intact:  Yes  No  
 Custody Seal No.: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: 5.5, 1.4

**Chain of Custody Record**

360325-Boston

**TestAmerica Burlington**  
30 Community Drive  
Suite 11  
South Burlington, VT 05403-6809  
phone 802.660.1990 fax 802.660.1919

**TestAmerica Laboratories, Inc.**

360325-Boston

**Regulatory Program:**  DW  NPDES  RCRA  Other:

**Project Manager:** Larry Mastera, Clementine Duilleu  
**Tel/Fax:** 508-498-5311

**Client Contact**  
Larry Mastera / Clementine Duilleu  
ERM  
1 Beacon St, Fifth Floor  
Boston MA 02108  
(617) 646-7800  
Project Name: IDS Wayland  
Site: Wayland, MA  
P O # 0484298.01

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	522 - 1,4-Dioxane	8260MCP	Date:	Carrier:	COC No:	SAMPLER	
													Sampler:	For Lab Use Only:
MW-1026D-Dx-20190404-01	4/4/19	15:33	G	W	1							2	3	COCs
MW-1026D-20190404-01		14:55			3									
MW-1025M-20190404-01		14:00			3									
MW-1025M-Dx-20190404-01		15:25			1									
MW-1020-20190404-01		13:48			3									
MW-1020-Dx-20190404-01		14:31			1									
DUP-003-20190404-01		12:00			3									
DUP-007-Dx-20190404-01		13:00			1									
MW-1033-20190405-01	4/5/19	11:03			3									
MW-1033-Dx-20190405-01		12:23			1									
MW-1034-20190405-01		12:10			3									
MW-1034-Dx-20190405-01		14:18			1									

**Preservation Used:** 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

**Possible Hazard Identification:** Please List any EPA Waste Codes for the sample in the Comments

**Section if the lab is to dispose of the sample:**

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

Relinquished by:	Company:	Date/Time:	Relinquished by:	Company:	Date/Time:	Relinquished by:	Company:	Date/Time:	Relinquished by:	Company:	Date/Time:
<i>[Signature]</i>	ERM	4/19/19 11:18	<i>[Signature]</i>	ERM	4/19/19 11:18	<i>[Signature]</i>	ERM	4/19/19 11:18	<i>[Signature]</i>	ERM	4/19/19 11:18
<i>[Signature]</i>	ERM	4/19/19 11:18	<i>[Signature]</i>	ERM	4/19/19 11:18	<i>[Signature]</i>	ERM	4/19/19 11:18	<i>[Signature]</i>	ERM	4/19/19 11:18
<i>[Signature]</i>	ERM	4/19/19 11:18	<i>[Signature]</i>	ERM	4/19/19 11:18	<i>[Signature]</i>	ERM	4/19/19 11:18	<i>[Signature]</i>	ERM	4/19/19 11:18

TestAmerica Burlington  
30 Community Drive  
Suite 11  
South Burlington, VT 05403-6809  
phone 802.660.1990 fax 802.660.1919

Chain of Custody Record

TestAmerica  
THE LEADER IN ENVIRONMENTAL TESTING

360325-BOS THE LEADER IN ENVIRONMENTAL TESTING

360325-Boston

Regulatory Program:  RCRA  Other:  DW  NPDES

Client Contact		Project Manager: Lary Mastera, Clementine Dujieu		Site Contact: Julia Redden		Date:	
Lary Mastera / Clementine Dujieu		Tel/Fax: 508-449-5211		Lab Contact: Becky Mason		Carrier:	
ERM		Analysis Turnaround Time		Perform MS / MSD (Y / N)		Filtered Sample (Y / N)	
1 Beacon St, Fifth Floor		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		522 - 1,4-Dioxane		8260MCP	
Boston MA 02108		TAT if different from Below		NY 3			
(617) 646-7800		2 weeks		NN 3			
Project Name: IDS Wayland		1 week		NN 3			
Site: Wayland, MA		2 days		NN 2			
P O # 0484298.01		1 day					

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:
MW-1039-DX-20190405-01	4/5/19	10:07	G	W	3	
MW-1039-20190405-01	↓	09:10	↓	↓	3	
DUP-004-20190405-01	↓	12:00	↓	↓	3	
TB-001-20190405-01	↓	↓	TB	↓	2	

Loc: 490  
171846  
#1  
B

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazardous  Flammable  Skin Irritant  Poison B  Unknown

Special Instructions/QC Requirements & Comments:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client  Disposal by Lab  Archive for Months

Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Therm ID No.:
Relinquished by: <i>[Signature]</i>	Date/Time: 4-9-19
Relinquished by: <i>[Signature]</i>	Date/Time: 4-9-19
Relinquished by: <i>[Signature]</i>	Date/Time: 4-10-19 9:10

Form No. CA-C-WI-002, Rev. 4-15, dated 9/27/2017



**Chain of Custody Record**



490-171846 Chain of Custody

<b>Client Information</b>		Sampler: <u>J. Redden</u>		Lab P.M.: <u>Mason, Becky C</u>	COC No: <u>480-127995-28903.2</u>
Client Contact: <u>Clementine Diller</u>		Phone: <u>508-498-5311</u>		E-Mail: <u>becky.mason@testamericainc.com</u>	Page: <u>Page 2 of 6</u>
Company: <u>ERM-Northeast</u>		Due Date Requested:		Job #: <u>pg 1/3</u>	
Address: <u>One Beacon Steel 5th Floor</u>		TAT Requested (days): <u>Standard</u>		Preservation Codes:	
City: <u>Boston</u>	State, Zip: <u>MA, 02108</u>	PO #: <u>0484298.01</u>	WO #: <u>0484298.01</u>	A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Email: <u>lyndsey.colburn@erm.com</u>		Project Name: <u>Clementine Diller, QM, Chem</u>		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Project #: <u>48007117</u>		Site: <u>Wayland, MA</u>		Special Instructions/Note:	
SSOW#: <u>MA</u>				<u>522 1-4 Dioxane</u>	
				<u>To Burlington</u>	

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Preservation Code	Matrix (W=water, S=solid, O=oil, M=metal, BT=biological, A=air)	Field Filtered Sample (Yes or No)	8960MCP - (MOD) Pick a reference price	6010MCP - Chromium	Analysis Requested	Total Number of Containers	Special Instructions/Note
MW-1013-20190404-01	4/19/19	08:08	G		Water	X	522 - Local Method			3	
MW-1014-20190404-01		08:15			Water	X				3	
MW-1008-20190404-01		09:58			Water	X				3	
MW-1036-20190404-01		11:26			Water	X				3	
DUP-005-20190404-01		12:00			Water	X				3	
MW-1022-20190404-01		10:55			Water	X				3	
MW-1009-20190404-01		12:00			Water	X				3	
DUP-007-DX-20190404-01		13:00			Water	X				1	
MW-1036-DX-20190404-01		11:55			Water	X				1	
MW-1026-20190404-01		13:48			Water	X				3	
PDB-001-20190404-01		14:24			Water	X				3	

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <u>[Signature]</u>	Date/Time: <u>4/19/19 11:18</u>	Company: <u>ERM</u>	Received by: <u>[Signature]</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>5-5-19 10:00</u>	Company: <u>[Signature]</u>	Received by: <u>[Signature]</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>5-5-19 10:00</u>	Company: <u>[Signature]</u>	Received by: <u>[Signature]</u>
Custody Seals Intact: <u>Yes</u>	Custody Seal No.: <u>MA</u>	Cooler Temperature(s) °C and Other Remarks: <u>2.5</u>	

Regulatory Program:  DW  NPDES  RCRA  Other: \_\_\_\_\_

Project Manager: Larry Mastera, Clementine Dullieu  
Site Contact: Julia Redden  
Lab Contact: Becky Mason  
Carrier: \_\_\_\_\_  
Date: \_\_\_\_\_

Tell Fax: 508-498-5311  
Analysis Turnaround Time  
 CALENDAR DAYS  WORKING DAYS

TAT if different from Below  
 2 weeks  
 1 week  
 2 days  
 1 day

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8260MCP	522 - 1,4-Dioxane
MW-1026D-DX-20190404-01	4/4/19	15:33	G	W	1				
MW-1026D-20190404-01		14:55			3				
MW-1025M-20190404-01		14:00			3				
MW-1025M-DX-20190404-01		15:25			1				
MW-1020-20190404-01		13:48			3				
MW-1020-DX-20190404-01		14:31			1				
Sup-003-20190404-01		12:00			3				
Sup-007-DX-20190404-01		13:00			1				
MW-1033-20190405-01	4/5/19	11:03			3				
MW-1033-DX-20190405-01		12:23			1				
MW-1034-20190405-01		12:10			3				
MW-1034-DX-20190405-01		14:18		↓	1				

Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other  
Possible Hazard Identification: \_\_\_\_\_  
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments: \_\_\_\_\_  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months

Cooler Temp. (°C): \_\_\_\_\_ Obs'd: \_\_\_\_\_ Corrid: \_\_\_\_\_ Therm ID No.: \_\_\_\_\_  
Relinquished by: \_\_\_\_\_ Company: ERM Date/Time: 4/9/19 11:18  
Relinquished by: \_\_\_\_\_ Company: \_\_\_\_\_ Date/Time: 4/5/19 13:00  
Relinquished by: \_\_\_\_\_ Company: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received by: \_\_\_\_\_ Company: \_\_\_\_\_ Date/Time: 4/5/19  
Received by: \_\_\_\_\_ Company: (LA Rec.) Date/Time: 4/10/19 09:59  
Received in Laboratory by: \_\_\_\_\_ Company: \_\_\_\_\_ Date/Time: \_\_\_\_\_





Regulatory Program:  DW  NPDES  RCRA  Other:

**Client Contact**  
Larry Mastera / Clementine Dulieu  
ERM  
1 Beacon St, Fifth Floor  
Boston MA 02108  
(617) 646-7800 Phone  
Project Name: IDS Wayland  
Site: Wayland, MA  
P O # 0484298.01

**Project Manager:** Larry Mastera, Clementine Dulieu  
**Tel/Fax:** 508-498-5311

**Site Contact:** Julia Redden  
**Lab Contact:** Becky Mason

**Date:** \_\_\_\_\_  
**Carrier:** \_\_\_\_\_

**COC No:** 3 of 3 COCs

**Sampler:** \_\_\_\_\_  
**For Lab Use Only:** \_\_\_\_\_  
**Walk-in Client:** \_\_\_\_\_  
**Lab Sampling:** \_\_\_\_\_  
**Job / SDG No.:** \_\_\_\_\_

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8260MCP	522 - 1,4-Dioxane	Sample Specific Notes:
MW-1039-DX-20190405-01	4/5/19	10:07	G	W	3	N	Y	3		
MW-1039-20190405-01	↓	09:10	↓	↓	3	N	N	3		
DUP-004-20190405-01	↓	12:00	↓	↓	3	N	N	3		
TB-001-20190405-01	---	---	TB	↓	2	N	N	2		

522-1-4 Dioxane  
To Burlington-1

**Preservation Used:** 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other \_\_\_\_\_

**Possible Hazard Identification:** \_\_\_\_\_

Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months

**Custody Seals Intact:**  Yes  No

**Relinquished by:** \_\_\_\_\_  
**Relinquished by:** \_\_\_\_\_  
**Relinquished by:** \_\_\_\_\_

**Company:** \_\_\_\_\_  
**Company:** \_\_\_\_\_  
**Company:** \_\_\_\_\_

**Date/Time:** 4/19/19 11:18  
**Date/Time:** 4/19/19 11:18  
**Date/Time:** 4/19/19 11:18

**Received by:** \_\_\_\_\_  
**Received by:** \_\_\_\_\_  
**Received in Laboratory by:** \_\_\_\_\_

**Company:** \_\_\_\_\_  
**Company:** \_\_\_\_\_  
**Company:** \_\_\_\_\_

**Therm ID No.:** \_\_\_\_\_  
**Date/Time:** \_\_\_\_\_  
**Date/Time:** \_\_\_\_\_  
**Date/Time:** \_\_\_\_\_



ORIGIN ID:BXCA (781) 466-6900  
PAUL HOBART  
TESTAMERICA  
240 BEAR HILL ROAD  
SUITE 104  
WALTHAM, MA 02451  
UNITED STATES US

SHIP DATE: 09APR19  
ACTWGT: 27.25 LB  
CAD: 590687/CAFE3211

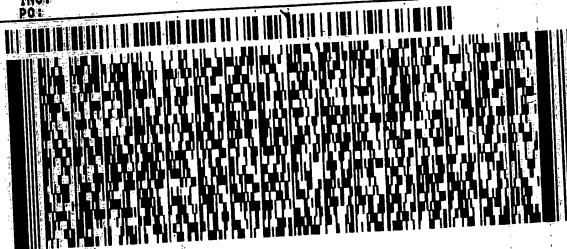
BILL RECEIPT

TO **SAMPLE RECEIVING**  
**TESTAMERICA BURLINGTON**  
**30 COMMUNITY DRIVE**  
**SUITE 11**  
**SOUTH BURLINGTON VT 05403**

(802) 660-1990  
INV:  
PO:

REF:

DEPT:



FedEx  
Express

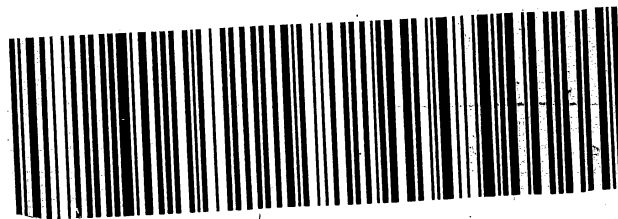


WED - 10 APR 10:30A  
PRIORITY OVERNIGHT

TRK# 4258 8394 4246  
0201

**NC BTVA**

05403  
VT-US BTV



5511/055/104C

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15

## Login Sample Receipt Checklist

Client: ERM-Northeast

Job Number: 490-171846-1

**Login Number: 171846**

**List Source: Eurofins TestAmerica, Burlington**

**List Number: 2**

**List Creation: 04/11/19 11:39 AM**

**Creator: McNabb, Robert W**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.5°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	JR
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





## ANALYTICAL REPORT

Lab Number:	L1913177
Client:	Innovative Engineering Solutions, Inc. 37 Pearl Street #1 Braintree, MA 02184
ATTN:	Vicki Pariyar
Phone:	(508) 623-1224
Project Name:	RAYTHEON WAYLAND
Project Number:	RA-008
Report Date:	04/09/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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

---

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



Project Name: RAYTHEON WAYLAND

Project Number: RA-008

Lab Number: L1913177

Report Date: 04/09/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1913177-01	MW-265S-20190402	WATER	WAYLAND, MA	04/02/19 14:00	04/02/19
L1913177-02	MW-265D-20190402	WATER	WAYLAND, MA	04/02/19 13:15	04/02/19
L1913177-03	MW-266MB-20190402	WATER	WAYLAND, MA	04/02/19 11:25	04/02/19
L1913177-04	MW-268D-20190402	WATER	WAYLAND, MA	04/02/19 07:00	04/02/19
L1913177-05	MW-551-20190402	WATER	WAYLAND, MA	04/02/19 11:35	04/02/19
L1913177-06	MW-553-20190402	WATER	WAYLAND, MA	04/02/19 12:25	04/02/19
L1913177-07	MW-560-20190402	WATER	WAYLAND, MA	04/02/19 11:15	04/02/19
L1913177-08	MW-561-20190402	WATER	WAYLAND, MA	04/02/19 11:55	04/02/19
L1913177-09	MW-562-20190402	WATER	WAYLAND, MA	04/02/19 10:35	04/02/19
L1913177-10	MW-563-20190402	WATER	WAYLAND, MA	04/02/19 09:30	04/02/19
L1913177-11	REW-1-20190402	WATER	WAYLAND, MA	04/02/19 12:15	04/02/19
L1913177-12	REW-4-20190402	WATER	WAYLAND, MA	04/02/19 12:30	04/02/19
L1913177-13	REW-5-20190402	WATER	WAYLAND, MA	04/02/19 13:00	04/02/19
L1913177-14	REW-6-20190402	WATER	WAYLAND, MA	04/02/19 08:35	04/02/19
L1913177-15	REW-7-20190402	WATER	WAYLAND, MA	04/02/19 09:05	04/02/19
L1913177-16	REW-8-20190402	WATER	WAYLAND, MA	04/02/19 09:30	04/02/19
L1913177-17	REW-9-20190402	WATER	WAYLAND, MA	04/02/19 10:05	04/02/19
L1913177-18	REW-10-20190402	WATER	WAYLAND, MA	04/02/19 10:40	04/02/19
L1913177-19	REW-11-20190402	WATER	WAYLAND, MA	04/02/19 07:35	04/02/19
L1913177-20	REW-12-20190402	WATER	WAYLAND, MA	04/02/19 10:25	04/02/19
L1913177-21	DUP2-20190402	WATER	WAYLAND, MA	04/02/19 00:00	04/02/19
L1913177-22	DUP3-20190402	WATER	WAYLAND, MA	04/02/19 00:00	04/02/19
L1913177-23	DUP4-20190402	WATER	WAYLAND, MA	04/02/19 00:00	04/02/19
L1913177-24	TRIP BLANKS	WATER	WAYLAND, MA	04/02/19 00:00	04/02/19

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

### Case Narrative

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

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

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

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

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

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

---

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

### Case Narrative (continued)

#### Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were transported to the laboratory in a cooler with ice and delivered directly from the sampling site.

#### Volatile Organics

L1913177-05: Differences were noted between the results of the analyses which have been attributed to vial discrepancies. Further re-analysis could not be performed due to the existing vials being compromised.

L1913177-19: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

#### Dissolved Gases

L1913177-19 was collected in a pre-preserved vial; however, the pH of the sample was determined to be greater than two.

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

Authorized Signature:

 Lisa Westerlind

Title: Technical Director/Representative

Date: 04/09/19

# ORGANICS



# VOLATILES

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-01  
 Client ID: MW-265S-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 14:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 12:53  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-01  
 Client ID: MW-265S-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 14:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-01  
 Client ID: MW-265S-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 14:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	104		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-02  
 Client ID: MW-265D-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 13:15  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 13:18  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

## SAMPLE RESULTS

Lab ID: L1913177-02  
 Client ID: MW-265D-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 13:15  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-02  
**Client ID:** MW-265D-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 13:15  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	105		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-03 D  
 Client ID: MW-266MB-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 11:25  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 17:06  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	6.0	--	2
1,1-Dichloroethane	ND		ug/l	1.5	--	2
Chloroform	ND		ug/l	1.5	--	2
Carbon tetrachloride	ND		ug/l	1.0	--	2
1,2-Dichloropropane	ND		ug/l	3.5	--	2
Dibromochloromethane	ND		ug/l	1.0	--	2
1,1,2-Trichloroethane	ND		ug/l	1.5	--	2
Tetrachloroethene	ND		ug/l	1.0	--	2
Chlorobenzene	ND		ug/l	1.0	--	2
Trichlorofluoromethane	ND		ug/l	5.0	--	2
1,2-Dichloroethane	ND		ug/l	1.0	--	2
1,1,1-Trichloroethane	ND		ug/l	1.0	--	2
Bromodichloromethane	ND		ug/l	1.0	--	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	--	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	--	2
1,3-Dichloropropene, Total	ND		ug/l	1.0	--	2
1,1-Dichloropropene	ND		ug/l	5.0	--	2
Bromoform	ND		ug/l	4.0	--	2
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	2
Benzene	ND		ug/l	1.0	--	2
Toluene	11		ug/l	1.5	--	2
Ethylbenzene	2.4		ug/l	1.0	--	2
Chloromethane	ND		ug/l	5.0	--	2
Bromomethane	ND		ug/l	2.0	--	2
Vinyl chloride	ND		ug/l	2.0	--	2
Chloroethane	ND		ug/l	2.0	--	2
1,1-Dichloroethene	ND		ug/l	1.0	--	2
trans-1,2-Dichloroethene	ND		ug/l	1.5	--	2



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-03 D  
 Client ID: MW-266MB-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 11:25  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	2
Trichloroethene	ND		ug/l	1.0	--	2
1,2-Dichlorobenzene	ND		ug/l	5.0	--	2
1,3-Dichlorobenzene	ND		ug/l	5.0	--	2
1,4-Dichlorobenzene	ND		ug/l	5.0	--	2
Methyl tert butyl ether	ND		ug/l	2.0	--	2
p/m-Xylene	10		ug/l	2.0	--	2
o-Xylene	2.9		ug/l	2.0	--	2
Xylenes, Total	13		ug/l	2.0	--	2
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	2
Dibromomethane	ND		ug/l	10	--	2
1,4-Dichlorobutane	ND		ug/l	10	--	2
1,2,3-Trichloropropane	ND		ug/l	10	--	2
Styrene	ND		ug/l	2.0	--	2
Dichlorodifluoromethane	ND		ug/l	10	--	2
Acetone	250		ug/l	10	--	2
Carbon disulfide	ND		ug/l	10	--	2
2-Butanone	100		ug/l	10	--	2
Vinyl acetate	ND		ug/l	10	--	2
4-Methyl-2-pentanone	ND		ug/l	10	--	2
2-Hexanone	ND		ug/l	10	--	2
Ethyl methacrylate	ND		ug/l	10	--	2
Acrylonitrile	ND		ug/l	10	--	2
Bromochloromethane	ND		ug/l	5.0	--	2
Tetrahydrofuran	ND		ug/l	10	--	2
2,2-Dichloropropane	ND		ug/l	5.0	--	2
1,2-Dibromoethane	ND		ug/l	4.0	--	2
1,3-Dichloropropane	ND		ug/l	5.0	--	2
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	2
Bromobenzene	ND		ug/l	5.0	--	2
n-Butylbenzene	ND		ug/l	1.0	--	2
sec-Butylbenzene	ND		ug/l	1.0	--	2
tert-Butylbenzene	ND		ug/l	5.0	--	2
o-Chlorotoluene	ND		ug/l	5.0	--	2
p-Chlorotoluene	ND		ug/l	5.0	--	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	--	2
Hexachlorobutadiene	ND		ug/l	1.0	--	2

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-03 D  
 Client ID: MW-266MB-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 11:25  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	1.0	--	2
p-Isopropyltoluene	ND		ug/l	1.0	--	2
Naphthalene	ND		ug/l	5.0	--	2
n-Propylbenzene	ND		ug/l	1.0	--	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	--	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2
1,3,5-Trimethylbenzene	ND		ug/l	5.0	--	2
1,2,4-Trimethylbenzene	ND		ug/l	5.0	--	2
trans-1,4-Dichloro-2-butene	ND		ug/l	5.0	--	2
Ethyl ether	ND		ug/l	5.0	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	104		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-04  
 Client ID: MW-268D-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 07:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/08/19 19:44  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	2.2		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-04  
 Client ID: MW-268D-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 07:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	2.8		ug/l	0.50	--	1
Trichloroethene	0.81		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	1.1		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	1.1		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.8		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-04  
**Client ID:** MW-268D-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 07:00  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	2.6		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	98		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-05  
 Client ID: MW-551-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 11:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 13:44  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	1.3		ug/l	0.75	--	1
Ethylbenzene	0.97		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-05  
**Client ID:** MW-551-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 11:35  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	1.1		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	1.1		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	230	E	ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	7.4		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-05  
 Client ID: MW-551-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 11:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	104		70-130



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-05 D  
 Client ID: MW-551-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 11:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/08/19 20:12  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
Acetone	160		ug/l	25	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	99		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-06  
 Client ID: MW-553-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 12:25  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 14:09  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	4.7		ug/l	0.75	--	1
Ethylbenzene	3.0		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	8.0		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

## SAMPLE RESULTS

Lab ID: L1913177-06  
 Client ID: MW-553-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 12:25  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichloroethene, Total	1.6		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	9.6		ug/l	1.0	--	1
o-Xylene	1.7		ug/l	1.0	--	1
Xylenes, Total	11		ug/l	1.0	--	1
cis-1,2-Dichloroethene	1.6		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-06  
**Client ID:** MW-553-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 12:25  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	104		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-07  
 Client ID: MW-560-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 11:15  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 14:34  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-07  
**Client ID:** MW-560-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 11:15  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-07  
 Client ID: MW-560-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 11:15  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	103		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-08  
 Client ID: MW-561-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 11:55  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 15:00  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	2.9		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-08  
**Client ID:** MW-561-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 11:55  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	10		ug/l	1.0	--	1
o-Xylene	2.1		ug/l	1.0	--	1
Xylenes, Total	12		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	46		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	9.6		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-08  
 Client ID: MW-561-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 11:55  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	104		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-09  
 Client ID: MW-562-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 15:25  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	0.89		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

## SAMPLE RESULTS

Lab ID: L1913177-09  
 Client ID: MW-562-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	3.5		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	3.5		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	14		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-09  
**Client ID:** MW-562-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 10:35  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	104		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-09  
 Client ID: MW-562-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 09:01  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	19900	E	ug/l	1.00	--	1	A
Ethene	ND		ug/l	0.500	--	1	A
Ethane	ND		ug/l	0.500	--	1	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-09 D  
 Client ID: MW-562-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 17:52  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	20600		ug/l	2.50	--	2.5	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-10  
 Client ID: MW-563-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 09:30  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 15:50  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-10  
 Client ID: MW-563-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 09:30  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-10  
 Client ID: MW-563-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 09:30  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	104		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-10  
 Client ID: MW-563-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 09:30  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 09:17  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	30800	E	ug/l	1.00	--	1	A
Ethene	0.996		ug/l	0.500	--	1	A
Ethane	2.64		ug/l	0.500	--	1	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-10 D  
 Client ID: MW-563-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 09:30  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 18:28  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	25200		ug/l	5.00	--	5	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-11  
 Client ID: REW-1-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 12:15  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 16:16  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

## SAMPLE RESULTS

Lab ID: L1913177-11  
 Client ID: REW-1-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 12:15  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-11  
**Client ID:** REW-1-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 12:15  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	105		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-12  
 Client ID: REW-4-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 12:30  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 16:41  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1



Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

## SAMPLE RESULTS

Lab ID: L1913177-12  
 Client ID: REW-4-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 12:30  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	2.3		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.3		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-12  
 Client ID: REW-4-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 12:30  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	105		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-13  
 Client ID: REW-5-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 13:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 13:58  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	2.1		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-13  
**Client ID:** REW-5-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 13:00  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	2.6		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.6		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-13  
**Client ID:** REW-5-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 13:00  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-14  
 Client ID: REW-6-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 08:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 16:57  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	2.8		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-14  
**Client ID:** REW-6-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 08:35  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	13		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	94		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-14  
 Client ID: REW-6-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 08:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	7.9		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	101		70-130



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-14  
 Client ID: REW-6-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 08:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 09:35  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	8070		ug/l	1.00	--	1	A
Ethene	ND		ug/l	0.500	--	1	A
Ethane	1.39		ug/l	0.500	--	1	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-15  
 Client ID: REW-7-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 09:05  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 14:28  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

## SAMPLE RESULTS

Lab ID: L1913177-15  
 Client ID: REW-7-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 09:05  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-15  
 Client ID: REW-7-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 09:05  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	101		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-15  
 Client ID: REW-7-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 09:05  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 10:54  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	31700	E	ug/l	1.00	--	1	A
Ethene	ND		ug/l	0.500	--	1	A
Ethane	12.6		ug/l	0.500	--	1	A

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913177**Project Number:** RA-008**Report Date:** 04/09/19**SAMPLE RESULTS**

Lab ID: L1913177-15 D

Date Collected: 04/02/19 09:05

Client ID: REW-7-20190402

Date Received: 04/02/19

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 117,-

Analytical Date: 04/05/19 18:44

Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	26900		ug/l	5.00	--	5	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-16  
 Client ID: REW-8-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 09:30  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 14:58  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

## SAMPLE RESULTS

Lab ID: L1913177-16  
 Client ID: REW-8-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 09:30  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

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



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-16  
**Client ID:** REW-8-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 09:30  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	4.3		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	101		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-17  
 Client ID: REW-9-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:05  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 17:27  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

## SAMPLE RESULTS

Lab ID: L1913177-17  
 Client ID: REW-9-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:05  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-17  
**Client ID:** REW-9-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 10:05  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	102		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-18  
 Client ID: REW-10-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:40  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 17:56  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-18  
**Client ID:** REW-10-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 10:40  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-18  
 Client ID: REW-10-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:40  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	101		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-19  
 Client ID: REW-11-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 07:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 11:12  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	41700	E	ug/l	1.00	--	1	A
Ethene	7.93		ug/l	0.500	--	1	A
Ethane	26.5		ug/l	0.500	--	1	A



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-19 D  
 Client ID: REW-11-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 07:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 18:55  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	30	--	10
1,1-Dichloroethane	ND		ug/l	7.5	--	10
Chloroform	ND		ug/l	7.5	--	10
Carbon tetrachloride	ND		ug/l	5.0	--	10
1,2-Dichloropropane	ND		ug/l	18	--	10
Dibromochloromethane	ND		ug/l	5.0	--	10
1,1,2-Trichloroethane	ND		ug/l	7.5	--	10
Tetrachloroethene	ND		ug/l	5.0	--	10
Chlorobenzene	ND		ug/l	5.0	--	10
Trichlorofluoromethane	ND		ug/l	25	--	10
1,2-Dichloroethane	ND		ug/l	5.0	--	10
1,1,1-Trichloroethane	ND		ug/l	5.0	--	10
Bromodichloromethane	ND		ug/l	5.0	--	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	--	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	--	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	--	10
1,1-Dichloropropene	ND		ug/l	25	--	10
Bromoform	ND		ug/l	20	--	10
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	--	10
Benzene	ND		ug/l	5.0	--	10
Toluene	8.2		ug/l	7.5	--	10
Ethylbenzene	ND		ug/l	5.0	--	10
Chloromethane	ND		ug/l	25	--	10
Bromomethane	ND		ug/l	10	--	10
Vinyl chloride	ND		ug/l	10	--	10
Chloroethane	ND		ug/l	10	--	10
1,1-Dichloroethene	ND		ug/l	5.0	--	10
trans-1,2-Dichloroethene	ND		ug/l	7.5	--	10

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-19 D  
 Client ID: REW-11-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 07:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	ND		ug/l	5.0	--	10
Trichloroethene	ND		ug/l	5.0	--	10
1,2-Dichlorobenzene	ND		ug/l	25	--	10
1,3-Dichlorobenzene	ND		ug/l	25	--	10
1,4-Dichlorobenzene	ND		ug/l	25	--	10
Methyl tert butyl ether	ND		ug/l	10	--	10
p/m-Xylene	ND		ug/l	10	--	10
o-Xylene	ND		ug/l	10	--	10
Xylenes, Total	ND		ug/l	10	--	10
cis-1,2-Dichloroethene	ND		ug/l	5.0	--	10
Dibromomethane	ND		ug/l	50	--	10
1,4-Dichlorobutane	ND		ug/l	50	--	10
1,2,3-Trichloropropane	ND		ug/l	50	--	10
Styrene	ND		ug/l	10	--	10
Dichlorodifluoromethane	ND		ug/l	50	--	10
Acetone	160		ug/l	50	--	10
Carbon disulfide	ND		ug/l	50	--	10
2-Butanone	540		ug/l	50	--	10
Vinyl acetate	ND		ug/l	50	--	10
4-Methyl-2-pentanone	ND		ug/l	50	--	10
2-Hexanone	ND		ug/l	50	--	10
Ethyl methacrylate	ND		ug/l	50	--	10
Acrylonitrile	ND		ug/l	50	--	10
Bromochloromethane	ND		ug/l	25	--	10
Tetrahydrofuran	ND		ug/l	50	--	10
2,2-Dichloropropane	ND		ug/l	25	--	10
1,2-Dibromoethane	ND		ug/l	20	--	10
1,3-Dichloropropane	ND		ug/l	25	--	10
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	--	10
Bromobenzene	ND		ug/l	25	--	10
n-Butylbenzene	ND		ug/l	5.0	--	10
sec-Butylbenzene	ND		ug/l	5.0	--	10
tert-Butylbenzene	ND		ug/l	25	--	10
o-Chlorotoluene	ND		ug/l	25	--	10
p-Chlorotoluene	ND		ug/l	25	--	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	--	10
Hexachlorobutadiene	ND		ug/l	5.0	--	10

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-19 D  
 Client ID: REW-11-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 07:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	5.0	--	10
p-Isopropyltoluene	ND		ug/l	5.0	--	10
Naphthalene	ND		ug/l	25	--	10
n-Propylbenzene	ND		ug/l	5.0	--	10
1,2,3-Trichlorobenzene	ND		ug/l	25	--	10
1,2,4-Trichlorobenzene	ND		ug/l	25	--	10
1,3,5-Trimethylbenzene	ND		ug/l	25	--	10
1,2,4-Trimethylbenzene	ND		ug/l	25	--	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	--	10
Ethyl ether	ND		ug/l	25	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	103		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-19 D  
 Client ID: REW-11-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 07:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 17:32  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	35600		ug/l	10.0	--	10	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-20  
 Client ID: REW-12-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:25  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 15:27  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	1.2		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	5.8		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-20  
 Client ID: REW-12-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:25  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	1.3		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	1.3		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-20  
 Client ID: REW-12-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:25  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-20  
 Client ID: REW-12-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:25  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 11:29  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	30400	E	ug/l	1.00	--	1	A
Ethene	1.32		ug/l	0.500	--	1	A
Ethane	10.3		ug/l	0.500	--	1	A



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-20 D  
 Client ID: REW-12-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:25  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 20:10  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	25500		ug/l	5.00	--	5	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-21  
 Client ID: DUP2-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 00:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 15:57  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	9.9		ug/l	0.75	--	1
Ethylbenzene	2.7		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

## SAMPLE RESULTS

Lab ID: L1913177-21  
 Client ID: DUP2-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 00:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	10		ug/l	1.0	--	1
o-Xylene	4.1		ug/l	1.0	--	1
Xylenes, Total	14		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	240	E	ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	94		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	6.4		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-21  
 Client ID: DUP2-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 00:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-21 D  
 Client ID: DUP2-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 00:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/08/19 20:40  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
Acetone	200		ug/l	10	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	99		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-22  
 Client ID: DUP3-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 00:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 18:26  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	1.4		ug/l	0.75	--	1
Ethylbenzene	1.2		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-22  
**Client ID:** DUP3-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 00:00  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	1.6		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	1.6		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	160		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-22  
 Client ID: DUP3-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 00:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-23  
 Client ID: DUP4-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 00:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 16:27  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

## SAMPLE RESULTS

Lab ID: L1913177-23  
 Client ID: DUP4-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 00:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-23  
**Client ID:** DUP4-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 00:00  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	102		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-24  
 Client ID: TRIP BLANKS  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 00:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/06/19 11:00  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-24  
 Client ID: TRIP BLANKS  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 00:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-24  
 Client ID: TRIP BLANKS  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 00:00  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	99		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 117,-  
Analytical Date: 04/05/19 08:36  
Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL
Dissolved Gases by GC - Mansfield Lab for sample(s): 09-10,14-15,19-20 Batch: WG1223385-3					
Methane	ND		ug/l	1.00	-- A
Ethene	ND		ug/l	0.500	-- A
Ethane	ND		ug/l	0.500	-- A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/06/19 10:30  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13-24 Batch: WG1224025-5					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/06/19 10:30  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13-24 Batch: WG1224025-5					
1,2-Dichloroethene, Total	ND		ug/l	0.50	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrolein	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/06/19 10:30  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13-24 Batch: WG1224025-5					
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,3,5-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Halothane	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Methyl Acetate	ND		ug/l	10	--
Ethyl Acetate	ND		ug/l	10	--
Isopropyl Ether	ND		ug/l	2.0	--
Cyclohexane	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/06/19 10:30  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13-24 Batch: WG1224025-5					
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	--
Methyl cyclohexane	ND		ug/l	10	--
p-Diethylbenzene	ND		ug/l	2.0	--
4-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	99		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/06/19 09:06  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05-12 Batch: WG1224265-5					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/06/19 09:06  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05-12 Batch: WG1224265-5					
1,2-Dichloroethene, Total	ND		ug/l	0.50	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrolein	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/06/19 09:06  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05-12 Batch: WG1224265-5					
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,3,5-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Halothane	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Methyl Acetate	ND		ug/l	10	--
Ethyl Acetate	ND		ug/l	10	--
Isopropyl Ether	ND		ug/l	2.0	--
Cyclohexane	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/06/19 09:06  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05-12 Batch: WG1224265-5					
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	--
Methyl cyclohexane	ND		ug/l	10	--
p-Diethylbenzene	ND		ug/l	2.0	--
4-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	100		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/08/19 19:17  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04-05,21 Batch: WG1224551-5					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/08/19 19:17  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04-05,21 Batch: WG1224551-5					
1,2-Dichloroethene, Total	ND		ug/l	0.50	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrolein	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/08/19 19:17  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04-05,21 Batch: WG1224551-5					
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,3,5-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Halothane	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Methyl Acetate	ND		ug/l	10	--
Ethyl Acetate	ND		ug/l	10	--
Isopropyl Ether	ND		ug/l	2.0	--
Cyclohexane	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/08/19 19:17  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04-05,21 Batch: WG1224551-5					
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	--
Methyl cyclohexane	ND		ug/l	10	--
p-Diethylbenzene	ND		ug/l	2.0	--
4-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Project Number:** RA-008

**Lab Number:** L1913177

**Report Date:** 04/09/19

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Dissolved Gases by GC - Mansfield Lab Associated sample(s): 09-10,14-15,19-20 Batch: WG1223385-2									
Methane	100		-		80-120	-		25	A
Ethene	105		-		80-120	-		25	A
Ethane	106		-		80-120	-		25	A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-24 Batch: WG1224025-3 WG1224025-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		110		70-130	10		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	110		110		63-130	0		20
1,1,2-Trichloroethane	100		100		70-130	0		20
2-Chloroethylvinyl ether	49	Q	51	Q	70-130	4		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		25
Trichlorofluoromethane	98		99		62-150	1		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	94		96		70-130	2		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
1,1-Dichloropropene	98		100		70-130	2		20
Bromoform	100		110		54-136	10		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	100		100		70-130	0		25
Toluene	97		100		70-130	3		25
Ethylbenzene	97		100		70-130	3		20
Chloromethane	91		93		64-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-24 Batch: WG1224025-3 WG1224025-4								
Bromomethane	63		70		39-139	11		20
Vinyl chloride	110		110		55-140	0		20
Chloroethane	97		98		55-138	1		20
1,1-Dichloroethene	99		100		61-145	1		25
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	100		100		70-130	0		25
1,2-Dichlorobenzene	97		100		70-130	3		20
1,3-Dichlorobenzene	94		98		70-130	4		20
1,4-Dichlorobenzene	93		97		70-130	4		20
Methyl tert butyl ether	96		98		63-130	2		20
p/m-Xylene	100		105		70-130	5		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	100		100		70-130	0		20
1,4-Dichlorobutane	110		110		70-130	0		20
1,2,3-Trichloropropane	92		96		64-130	4		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	130		130		36-147	0		20
Acetone	100		100		58-148	0		20
Carbon disulfide	100		110		51-130	10		20
2-Butanone	67		68		63-138	1		20
Vinyl acetate	81		82		70-130	1		20
4-Methyl-2-pentanone	110		110		59-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-24 Batch: WG1224025-3 WG1224025-4								
2-Hexanone	87		91		57-130	4		20
Ethyl methacrylate	82		84		70-130	2		20
Acrolein	150	Q	160	Q	70-130	6		20
Acrylonitrile	96		96		70-130	0		20
Bromochloromethane	120		120		70-130	0		20
Tetrahydrofuran	94		97		58-130	3		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	100		110		70-130	10		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	100		110		64-130	10		20
Bromobenzene	100		110		70-130	10		20
n-Butylbenzene	83		88		53-136	6		20
sec-Butylbenzene	88		93		70-130	6		20
tert-Butylbenzene	95		98		70-130	3		20
o-Chlorotoluene	90		92		70-130	2		20
p-Chlorotoluene	96		98		70-130	2		20
1,2-Dibromo-3-chloropropane	94		100		41-144	6		20
Hexachlorobutadiene	84		92		63-130	9		20
Isopropylbenzene	96		100		70-130	4		20
p-Isopropyltoluene	93		97		70-130	4		20
Naphthalene	87		100		70-130	14		20
n-Propylbenzene	92		96		69-130	4		20
1,2,3-Trichlorobenzene	85		97		70-130	13		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-24 Batch: WG1224025-3 WG1224025-4								
1,2,4-Trichlorobenzene	91		98		70-130	7		20
1,3,5-Trimethylbenzene	95		99		64-130	4		20
1,3,5-Trichlorobenzene	94		98		70-130	4		20
1,2,4-Trimethylbenzene	97		100		70-130	3		20
trans-1,4-Dichloro-2-butene	97		99		70-130	2		20
Halothane	100		110		70-130	10		20
Ethyl ether	96		95		59-134	1		20
Methyl Acetate	71		77		70-130	8		20
Ethyl Acetate	89		90		70-130	1		20
Isopropyl Ether	100		100		70-130	0		20
Cyclohexane	110		110		70-130	0		20
Tert-Butyl Alcohol	126		130		70-130	3		20
Ethyl-Tert-Butyl-Ether	110		120		70-130	9		20
Tertiary-Amyl Methyl Ether	98		100		66-130	2		20
1,4-Dioxane	96		102		56-162	6		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		100		70-130	0		20
Methyl cyclohexane	99		100		70-130	1		20
p-Diethylbenzene	90		95		70-130	5		20
4-Ethyltoluene	95		98		70-130	3		20
1,2,4,5-Tetramethylbenzene	94		99		70-130	5		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-24 Batch: WG1224025-3 WG1224025-4

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		99		70-130
Toluene-d8	97		96		70-130
4-Bromofluorobenzene	98		98		70-130
Dibromofluoromethane	100		99		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05-12 Batch: WG1224265-3 WG1224265-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	120		110		63-132	9		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	94		92		63-130	2		20
1,1,2-Trichloroethane	110		110		70-130	0		20
2-Chloroethylvinyl ether	55	Q	44	Q	70-130	22	Q	20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		25
Trichlorofluoromethane	110		100		62-150	10		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	95		94		70-130	1		20
cis-1,3-Dichloropropene	99		98		70-130	1		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	99		97		54-136	2		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	110		110		70-130	0		25
Toluene	100		100		70-130	0		25
Ethylbenzene	100		100		70-130	0		20
Chloromethane	85		84		64-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05-12 Batch: WG1224265-3 WG1224265-4								
Bromomethane	83		82		39-139	1		20
Vinyl chloride	100		100		55-140	0		20
Chloroethane	100		100		55-138	0		20
1,1-Dichloroethene	110		110		61-145	0		25
trans-1,2-Dichloroethene	110		100		70-130	10		20
Trichloroethene	100		100		70-130	0		25
1,2-Dichlorobenzene	99		99		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	99		99		63-130	0		20
p/m-Xylene	105		110		70-130	5		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	100		100		70-130	0		20
1,4-Dichlorobutane	100		100		70-130	0		20
1,2,3-Trichloropropane	100		100		64-130	0		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	90		89		36-147	1		20
Acetone	110		110		58-148	0		20
Carbon disulfide	110		110		51-130	0		20
2-Butanone	100		100		63-138	0		20
Vinyl acetate	100		100		70-130	0		20
4-Methyl-2-pentanone	85		85		59-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05-12 Batch: WG1224265-3 WG1224265-4								
2-Hexanone	77		81		57-130	5		20
Ethyl methacrylate	86		88		70-130	2		20
Acrolein	100		100		70-130	0		20
Acrylonitrile	110		110		70-130	0		20
Bromochloromethane	110		110		70-130	0		20
Tetrahydrofuran	95		100		58-130	5		20
2,2-Dichloropropane	120		120		63-133	0		20
1,2-Dibromoethane	100		100		70-130	0		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	110		110		64-130	0		20
Bromobenzene	97		98		70-130	1		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	100		100		70-130	0		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	91		94		41-144	3		20
Hexachlorobutadiene	93		95		63-130	2		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	75		80		70-130	6		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	80		84		70-130	5		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05-12 Batch: WG1224265-3 WG1224265-4								
1,2,4-Trichlorobenzene	84		88		70-130	5		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,3,5-Trichlorobenzene	95		97		70-130	2		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
trans-1,4-Dichloro-2-butene	98		90		70-130	9		20
Halothane	110		110		70-130	0		20
Ethyl ether	100		100		59-134	0		20
Methyl Acetate	100		100		70-130	0		20
Ethyl Acetate	90		92		70-130	2		20
Isopropyl Ether	99		100		70-130	1		20
Cyclohexane	100		100		70-130	0		20
Tert-Butyl Alcohol	112		116		70-130	4		20
Ethyl-Tert-Butyl-Ether	98		99		70-130	1		20
Tertiary-Amyl Methyl Ether	100		100		66-130	0		20
1,4-Dioxane	96		106		56-162	10		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	110		100		70-130	10		20
Methyl cyclohexane	100		100		70-130	0		20
p-Diethylbenzene	100		100		70-130	0		20
4-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	96		95		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: RA-008

Lab Number: L1913177

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05-12 Batch: WG1224265-3 WG1224265-4								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	103		102		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	96		96		70-130
Dibromofluoromethane	102		102		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04-05,21 Batch: WG1224551-3 WG1224551-4								
Methylene chloride	97		94		70-130	3		20
1,1-Dichloroethane	110		100		70-130	10		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	95		95		63-130	0		20
1,1,2-Trichloroethane	98		100		70-130	2		20
2-Chloroethylvinyl ether	89		89		70-130	0		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		25
Trichlorofluoromethane	100		96		62-150	4		20
1,2-Dichloroethane	100		98		70-130	2		20
1,1,1-Trichloroethane	100		98		67-130	2		20
Bromodichloromethane	96		94		67-130	2		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	92		96		70-130	4		20
1,1-Dichloropropene	100		98		70-130	2		20
Bromoform	99		97		54-136	2		20
1,1,2,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	100		100		70-130	0		25
Toluene	110		100		70-130	10		25
Ethylbenzene	110		110		70-130	0		20
Chloromethane	110		100		64-130	10		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04-05,21 Batch: WG1224551-3 WG1224551-4								
Bromomethane	52		52		39-139	0		20
Vinyl chloride	110		100		55-140	10		20
Chloroethane	110		98		55-138	12		20
1,1-Dichloroethene	100		98		61-145	2		25
trans-1,2-Dichloroethene	100		98		70-130	2		20
Trichloroethene	100		98		70-130	2		25
1,2-Dichlorobenzene	110		100		70-130	10		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	93		93		63-130	0		20
p/m-Xylene	110		105		70-130	5		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	100		97		70-130	3		20
Dibromomethane	91		86		70-130	6		20
1,4-Dichlorobutane	120		120		70-130	0		20
1,2,3-Trichloropropane	110		110		64-130	0		20
Styrene	105		100		70-130	5		20
Dichlorodifluoromethane	93		88		36-147	6		20
Acetone	97		95		58-148	2		20
Carbon disulfide	110		100		51-130	10		20
2-Butanone	98		96		63-138	2		20
Vinyl acetate	110		110		70-130	0		20
4-Methyl-2-pentanone	98		99		59-130	1		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04-05,21 Batch: WG1224551-3 WG1224551-4								
2-Hexanone	100		110		57-130	10		20
Ethyl methacrylate	89		92		70-130	3		20
Acrolein	86		82		70-130	5		20
Acrylonitrile	94		100		70-130	6		20
Bromochloromethane	97		94		70-130	3		20
Tetrahydrofuran	110		100		58-130	10		20
2,2-Dichloropropane	120		110		63-133	9		20
1,2-Dibromoethane	93		94		70-130	1		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	120		120		53-136	0		20
sec-Butylbenzene	120		120		70-130	0		20
tert-Butylbenzene	120		110		70-130	9		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	120		110		70-130	9		20
1,2-Dibromo-3-chloropropane	88		91		41-144	3		20
Hexachlorobutadiene	110		100		63-130	10		20
Isopropylbenzene	120		110		70-130	9		20
p-Isopropyltoluene	120		120		70-130	0		20
Naphthalene	93		96		70-130	3		20
n-Propylbenzene	120		120		69-130	0		20
1,2,3-Trichlorobenzene	98		97		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04-05,21 Batch: WG1224551-3 WG1224551-4								
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	120		110		64-130	9		20
1,3,5-Trichlorobenzene	110		100		70-130	10		20
1,2,4-Trimethylbenzene	120		110		70-130	9		20
trans-1,4-Dichloro-2-butene	110		110		70-130	0		20
Halothane	98		95		70-130	3		20
Ethyl ether	92		89		59-134	3		20
Methyl Acetate	110		110		70-130	0		20
Ethyl Acetate	100		100		70-130	0		20
Isopropyl Ether	120		120		70-130	0		20
Cyclohexane	120		110		70-130	9		20
Tert-Butyl Alcohol	94		88		70-130	7		20
Ethyl-Tert-Butyl-Ether	100		100		70-130	0		20
Tertiary-Amyl Methyl Ether	92		93		66-130	1		20
1,4-Dioxane	82		74		56-162	10		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		98		70-130	2		20
Methyl cyclohexane	100		99		70-130	1		20
p-Diethylbenzene	120		110		70-130	9		20
4-Ethyltoluene	120		120		70-130	0		20
1,2,4,5-Tetramethylbenzene	110		110		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: RA-008

Lab Number: L1913177

Report Date: 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04-05,21 Batch: WG1224551-3 WG1224551-4								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	104		105		70-130
Toluene-d8	106		109		70-130
4-Bromofluorobenzene	105		105		70-130
Dibromofluoromethane	97		98		70-130

## METALS

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-09  
 Client ID: MW-562-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 10:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Iron, Total	118		mg/l	0.050	--	1	04/05/19 13:03	04/09/19 12:59	EPA 3005A	1,6010D	LC



**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913177

**Project Number:** RA-008

**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-10

Date Collected: 04/02/19 09:30

Client ID: MW-563-20190402

Date Received: 04/02/19

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Iron, Total	7.41		mg/l	0.050	--	1	04/05/19 13:03	04/09/19 13:03	EPA 3005A	1,6010D	LC



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-14  
 Client ID: REW-6-20190402  
 Sample Location: WAYLAND, MA

Date Collected: 04/02/19 08:35  
 Date Received: 04/02/19  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Iron, Total	52.0		mg/l	0.050	--	1	04/05/19 13:03	04/09/19 13:08	EPA 3005A	1,6010D	LC



**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913177

**Project Number:** RA-008

**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-15

Date Collected: 04/02/19 09:05

Client ID: REW-7-20190402

Date Received: 04/02/19

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Iron, Total	5.70		mg/l	0.050	--	1	04/05/19 13:03	04/09/19 13:12	EPA 3005A	1,6010D	LC





**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913177

**Project Number:** RA-008

**Report Date:** 04/09/19

**SAMPLE RESULTS**

Lab ID: L1913177-19

Date Collected: 04/02/19 07:35

Client ID: REW-11-20190402

Date Received: 04/02/19

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Iron, Total	200		mg/l	0.050	--	1	04/05/19 13:03	04/09/19 13:17	EPA 3005A	1,6010D	LC



**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913177**Project Number:** RA-008**Report Date:** 04/09/19**SAMPLE RESULTS**

Lab ID: L1913177-20

Date Collected: 04/02/19 10:25

Client ID: REW-12-20190402

Date Received: 04/02/19

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Iron, Total	53.8		mg/l	0.050	--	1	04/05/19 13:03	04/09/19 13:21	EPA 3005A	1,6010D	LC



Project Name: RAYTHEON WAYLAND

Lab Number: L1913177

Project Number: RA-008

Report Date: 04/09/19

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 09-10,14-15,19-20 Batch: WG1223499-1									
Iron, Total	ND	mg/l	0.050	--	1	04/05/19 13:03	04/09/19 11:53	1,6010D	LC

### Prep Information

Digestion Method: EPA 3005A

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913177

**Project Number:** RA-008

**Report Date:** 04/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 09-10,14-15,19-20 Batch: WG1223499-2								
Iron, Total	101		-		80-120	-		

**Matrix Spike Analysis**  
Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913177

**Project Number:** RA-008

**Report Date:** 04/09/19

<u>Parameter</u>	<u>Native Sample</u>	<u>MS Added</u>	<u>MS Found</u>	<u>MS %Recovery</u>	<u>MSD Qual</u>	<u>MSD Found</u>	<u>MSD %Recovery</u>	<u>MSD Qual</u>	<u>Recovery Limits</u>	<u>RPD Qual</u>	<u>RPD Limits</u>
Total Metals - Mansfield Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1223499-3 WG1223499-4 QC Sample: L1913157-05 Client ID: MS Sample											
Iron, Total	0.286	1	1.26	97		1.28	99		75-125	2	20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-09  
**Client ID:** MW-562-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 10:35  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	432.		mg CaCO3/L	2.00	NA	1	-	04/03/19 11:26	121,2320B	BR
pH (H)	6.4		SU	-	NA	1	-	04/03/19 05:21	121,4500H+-B	JW
Nitrogen, Ammonia	9.19		mg/l	0.075	--	1	04/03/19 14:50	04/04/19 22:24	121,4500NH3-BH	AT
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/03/19 16:54	121,4500NO3-F	MR
Phosphate, Total	4.7		mg/l	0.060	--	2	-	04/04/19 10:20	121,4500P-E(M)	SD
Phosphorus, Orthophosphate	0.011		mg/l	0.005	--	1	-	04/03/19 06:15	121,4500P-E	MA
Sulfate	ND		mg/l	10	--	1	04/03/19 13:10	04/03/19 13:10	1,9038	BR
Total Organic Carbon	12.		mg/l	2.0	--	4	-	04/07/19 13:05	1,9060A	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	8.73		mg/l	0.500	--	1	-	04/03/19 21:15	44,300.0	AU



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-10  
**Client ID:** MW-563-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 09:30  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	105.		mg CaCO3/L	2.00	NA	1	-	04/03/19 11:26	121,2320B	BR
pH (H)	7.0		SU	-	NA	1	-	04/03/19 05:21	121,4500H+-B	JW
Nitrogen, Ammonia	0.214		mg/l	0.075	--	1	04/03/19 14:50	04/04/19 22:27	121,4500NH3-BH	AT
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/03/19 16:56	121,4500NO3-F	MR
Phosphate, Total	0.69		mg/l	0.060	--	2	-	04/04/19 10:20	121,4500P-E(M)	SD
Phosphorus, Orthophosphate	0.005		mg/l	0.005	--	1	-	04/03/19 06:15	121,4500P-E	MA
Sulfate	ND		mg/l	10	--	1	04/03/19 13:10	04/03/19 13:10	1,9038	BR
Total Organic Carbon	0.63		mg/l	0.50	--	1	-	04/07/19 13:05	1,9060A	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	8.53		mg/l	0.500	--	1	-	04/03/19 21:27	44,300.0	AU





**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-14  
**Client ID:** REW-6-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 08:35  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	919.		mg CaCO3/L	5.00	NA	2.5	-	04/03/19 11:26	121,2320B	BR
pH (H)	7.2		SU	-	NA	1	-	04/03/19 05:21	121,4500H+-B	JW
Nitrogen, Ammonia	4.44		mg/l	0.075	--	1	04/03/19 14:50	04/04/19 22:28	121,4500NH3-BH	AT
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/03/19 16:58	121,4500NO3-F	MR
Phosphate, Total	2.7		mg/l	0.060	--	2	-	04/04/19 10:20	121,4500P-E(M)	SD
Phosphorus, Orthophosphate	0.010		mg/l	0.005	--	1	-	04/03/19 06:16	121,4500P-E	MA
Sulfate	ND		mg/l	10	--	1	04/03/19 13:10	04/03/19 13:10	1,9038	BR
Total Organic Carbon	62.		mg/l	5.0	--	10	-	04/07/19 13:05	1,9060A	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	39.8		mg/l	2.50	--	5	-	04/03/19 18:39	44,300.0	AU



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-15  
**Client ID:** REW-7-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 09:05  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	38.7		mg CaCO3/L	2.00	NA	1	-	04/03/19 11:26	121,2320B	BR
pH (H)	7.3		SU	-	NA	1	-	04/03/19 05:21	121,4500H+-B	JW
Nitrogen, Ammonia	0.466		mg/l	0.075	--	1	04/03/19 14:50	04/04/19 22:29	121,4500NH3-BH	AT
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/03/19 17:03	121,4500NO3-F	MR
Phosphate, Total	0.40		mg/l	0.030	--	1	-	04/04/19 10:20	121,4500P-E(M)	SD
Phosphorus, Orthophosphate	0.006		mg/l	0.005	--	1	-	04/03/19 06:16	121,4500P-E	MA
Sulfate	29.		mg/l	10	--	1	04/03/19 13:10	04/03/19 13:10	1,9038	BR
Total Organic Carbon	0.61		mg/l	0.50	--	1	-	04/07/19 13:05	1,9060A	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	5.66		mg/l	0.500	--	1	-	04/03/19 21:03	44,300.0	AU



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-19  
**Client ID:** REW-11-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 07:35  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	634.		mg CaCO3/L	5.00	NA	2.5	-	04/03/19 11:26	121,2320B	BR
pH (H)	5.8		SU	-	NA	1	-	04/03/19 05:21	121,4500H+-B	JW
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	04/03/19 14:50	04/04/19 22:32	121,4500NH3-BH	AT
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/03/19 17:05	121,4500NO3-F	MR
Phosphate, Total	1.5		mg/l	0.19	--	6.25	-	04/04/19 10:20	121,4500P-E(M)	SD
Phosphorus, Orthophosphate	0.017		mg/l	0.005	--	1	-	04/03/19 06:17	121,4500P-E	MA
Sulfate	ND		mg/l	10	--	1	04/04/19 20:20	04/04/19 20:20	1,9038	RM
Total Organic Carbon	5900		mg/l	800	--	1600	-	04/07/19 13:05	1,9060A	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	35.6		mg/l	2.50	--	5	-	04/03/19 19:03	44,300.0	AU



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**SAMPLE RESULTS**

**Lab ID:** L1913177-20  
**Client ID:** REW-12-20190402  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/02/19 10:25  
**Date Received:** 04/02/19  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	219.		mg CaCO3/L	2.00	NA	1	-	04/03/19 11:26	121,2320B	BR
pH (H)	6.5		SU	-	NA	1	-	04/03/19 05:21	121,4500H+-B	JW
Nitrogen, Ammonia	5.21		mg/l	0.075	--	1	04/03/19 14:50	04/04/19 22:33	121,4500NH3-BH	AT
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/03/19 17:06	121,4500NO3-F	MR
Phosphate, Total	0.38		mg/l	0.030	--	1	-	04/04/19 10:20	121,4500P-E(M)	SD
Phosphorus, Orthophosphate	0.006		mg/l	0.005	--	1	-	04/03/19 06:17	121,4500P-E	MA
Sulfate	ND		mg/l	10	--	1	04/04/19 20:20	04/04/19 20:20	1,9038	RM
Total Organic Carbon	1.5		mg/l	0.50	--	1	-	04/07/19 13:05	1,9060A	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	39.0		mg/l	2.50	--	5	-	04/03/19 19:15	44,300.0	AU



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

**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): 09-10,14-15,19-20 Batch: WG1222406-1										
Phosphorus, Orthophosphate	ND		mg/l	0.005	--	1	-	04/03/19 06:11	121,4500P-E	MA
General Chemistry - Westborough Lab for sample(s): 09-10,14-15,19-20 Batch: WG1222488-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	04/03/19 14:50	04/04/19 22:20	121,4500NH3-BH	AT
General Chemistry - Westborough Lab for sample(s): 09-10,14-15,19-20 Batch: WG1222544-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	04/03/19 11:26	121,2320B	BR
General Chemistry - Westborough Lab for sample(s): 09-10,14-15 Batch: WG1222579-1										
Sulfate	ND		mg/l	10	--	1	04/03/19 13:10	04/03/19 13:10	1,9038	BR
General Chemistry - Westborough Lab for sample(s): 09-10,14-15,19-20 Batch: WG1222637-1										
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/03/19 16:04	121,4500NO3-F	MR
General Chemistry - Westborough Lab for sample(s): 19-20 Batch: WG1222915-1										
Sulfate	ND		mg/l	10	--	1	04/04/19 20:20	04/04/19 20:20	1,9038	RM
General Chemistry - Westborough Lab for sample(s): 09-10,14-15,19-20 Batch: WG1222974-1										
Phosphate, Total	ND		mg/l	0.030	--	1	-	04/04/19 10:20	121,4500P-E(M)	SD
Anions by Ion Chromatography - Westborough Lab for sample(s): 09-10,14-15,19-20 Batch: WG1223215-1										
Chloride	ND		mg/l	0.500	--	1	-	04/03/19 17:39	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 09-10,14-15,19-20 Batch: WG1223997-1										
Total Organic Carbon	ND		mg/l	0.50	--	1	-	04/07/19 13:05	1,9060A	AG

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: RA-008

Lab Number: L1913177

Report Date: 04/09/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 Batch: WG1222398-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 Batch: WG1222406-2								
Phosphorus, Orthophosphate	102		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 Batch: WG1222488-2								
Nitrogen, Ammonia	102		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 Batch: WG1222544-2								
Alkalinity, Total	101		-		90-110	-		10
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15 Batch: WG1222579-2								
Sulfate	90		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 Batch: WG1222637-2								
Nitrogen, Nitrate	98		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 19-20 Batch: WG1222915-2								
Sulfate	95		-		90-110	-		

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 Batch: WG1222974-2					
Phosphate, Total	98	-	84-118	-	
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 09-10,14-15,19-20 Batch: WG1223215-2					
Chloride	99	-	90-110	-	
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 Batch: WG1223997-2					
Total Organic Carbon	102	-	90-110	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1222406-4 QC Sample: L1913035-02 Client ID: MS Sample												
Phosphorus, Orthophosphate	0.011	0.5	0.510	100	-	-	-	-	80-120	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1222488-4 QC Sample: L1913177-09 Client ID: MW-562-20190402												
Nitrogen, Ammonia	9.19	4	13.2	100	-	-	-	-	80-120	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1222544-4 QC Sample: L1913161-02 Client ID: MS Sample												
Alkalinity, Total	118	100	215	97	-	-	-	-	86-116	-	-	10
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15 QC Batch ID: WG1222579-4 QC Sample: L1913104-04 Client ID: MS Sample												
Sulfate	17	40	56	98	-	-	-	-	55-147	-	-	14
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1222637-4 QC Sample: L1913067-01 Client ID: MS Sample												
Nitrogen, Nitrate	1.36	4	5.09	93	-	-	-	-	83-113	-	-	17
General Chemistry - Westborough Lab Associated sample(s): 19-20 QC Batch ID: WG1222915-4 QC Sample: L1913302-10 Client ID: MS Sample												
Sulfate	ND	20	23	115	-	-	-	-	55-147	-	-	14
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1222974-3 QC Sample: L1912908-01 Client ID: MS Sample												
Phosphate, Total	2.0	1.54	3.4	90	-	-	-	-	80-120	-	-	15
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1223215-3 QC Sample: L1913177-15 Client ID: REW-7-20190402												
Chloride	5.66	4	9.53	97	-	-	-	-	90-110	-	-	18





**Matrix Spike Analysis**  
Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913177

**Project Number:** RA-008

**Report Date:** 04/09/19

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>RPD Limits</b>
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1223997-4 QC Sample: L1913177-09 Client ID: MW-562-20190402									
Total Organic Carbon	12	20	32	98	-	-	80-120	-	20

### Lab Duplicate Analysis Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1222398-2 QC Sample: L1913076-01 Client ID: DUP Sample						
pH	8.0	8.0	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1222406-3 QC Sample: L1913035-01 Client ID: DUP Sample						
Phosphorus, Orthophosphate	0.009	0.009	mg/l	0		20
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1222488-3 QC Sample: L1913177-09 Client ID: MW-562-20190402						
Nitrogen, Ammonia	9.19	9.14	mg/l	1		20
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1222544-3 QC Sample: L1913161-01 Client ID: DUP Sample						
Alkalinity, Total	106	106	mg CaCO3/L	0		10
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15 QC Batch ID: WG1222579-3 QC Sample: L1913104-04 Client ID: DUP Sample						
Sulfate	17	18	mg/l	6		14
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1222637-3 QC Sample: L1913067-01 Client ID: DUP Sample						
Nitrogen, Nitrate	1.36	1.39	mg/l	2		17
General Chemistry - Westborough Lab Associated sample(s): 19-20 QC Batch ID: WG1222915-3 QC Sample: L1913302-10 Client ID: DUP Sample						
Sulfate	ND	ND	mg/l	NC		14



## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: RAYTHEON WAYLAND

Project Number: RA-008

Lab Number: L1913177

Report Date: 04/09/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1222974-4 QC Sample: L1912908-01 Client ID: DUP Sample					
Phosphate, Total	2.0	2.0	mg/l	0	15
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1223215-4 QC Sample: L1913177-15 Client ID: REW-7-20190402					
Chloride	5.66	5.66	mg/l	0	18
General Chemistry - Westborough Lab Associated sample(s): 09-10,14-15,19-20 QC Batch ID: WG1223997-3 QC Sample: L1913177-09 Client ID: MW-562-20190402					
Total Organic Carbon	12	12	mg/l	0	20

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913177**Project Number:** RA-008**Report Date:** 04/09/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent
B	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1913177-01A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-01B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-01C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-02A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-02B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-02C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-03A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-03B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-03C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-04A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-04B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-04C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-05A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-05B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-05C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-06A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-06B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-06C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-07A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-07B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-07C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-08A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913177**Project Number:** RA-008**Report Date:** 04/09/19**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1913177-08B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-08C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-09A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-09B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-09C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-09D	20ml Vial HCl preserved	A	NA		7.8	Y	Absent		DISSGAS(14)
L1913177-09E	20ml Vial HCl preserved	A	NA		7.8	Y	Absent		DISSGAS(14)
L1913177-09F	Plastic 120ml HNO3 preserved	A	<2	<2	7.8	Y	Absent		FE-TI(180)
L1913177-09G	Plastic 250ml unpreserved/No Headspace	A	NA		7.8	Y	Absent		ALK-T-2320(14)
L1913177-09H	Plastic 500ml unpreserved	A	7	7	7.8	Y	Absent		OPHOS-4500(2),CL-300(28),SO4-9038(28),NO3-4500(2),PH-4500(.01)
L1913177-09I	Plastic 500ml H2SO4 preserved	A	<2	<2	7.8	Y	Absent		TPO4-4500(28),NH3-4500(28)
L1913177-09J	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-09K	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-09L	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-10A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-10B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-10C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-10D	20ml Vial HCl preserved	A	NA		7.8	Y	Absent		DISSGAS(14)
L1913177-10E	20ml Vial HCl preserved	A	NA		7.8	Y	Absent		DISSGAS(14)
L1913177-10F	Plastic 120ml HNO3 preserved	A	<2	<2	7.8	Y	Absent		FE-TI(180)
L1913177-10G	Plastic 250ml unpreserved/No Headspace	A	NA		7.8	Y	Absent		ALK-T-2320(14)
L1913177-10H	Plastic 500ml unpreserved	A	7	7	7.8	Y	Absent		OPHOS-4500(2),CL-300(28),SO4-9038(28),NO3-4500(2),PH-4500(.01)
L1913177-10I	Plastic 500ml H2SO4 preserved	A	<2	<2	7.8	Y	Absent		TPO4-4500(28),NH3-4500(28)
L1913177-10J	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-10K	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-10L	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-11A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-11B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913177**Project Number:** RA-008**Report Date:** 04/09/19**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1913177-11C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-12A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-12B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-12C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-13A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-13B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-13C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-14A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-14B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-14C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-14D	20ml Vial HCl preserved	A	NA		7.8	Y	Absent		DISSGAS(14)
L1913177-14E	20ml Vial HCl preserved	A	NA		7.8	Y	Absent		DISSGAS(14)
L1913177-14F	Plastic 120ml HNO3 preserved	A	<2	<2	7.8	Y	Absent		FE-TI(180)
L1913177-14G	Plastic 250ml unpreserved/No Headspace	A	NA		7.8	Y	Absent		ALK-T-2320(14)
L1913177-14H	Plastic 500ml unpreserved	A	7	7	7.8	Y	Absent		OPHOS-4500(2),CL-300(28),SO4-9038(28),NO3-4500(2),PH-4500(.01)
L1913177-14I	Plastic 500ml H2SO4 preserved	A	<2	<2	7.8	Y	Absent		TPO4-4500(28),NH3-4500(28)
L1913177-14J	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-14K	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-14L	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-15A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-15B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-15C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-15D	20ml Vial HCl preserved	A	NA		7.8	Y	Absent		DISSGAS(14)
L1913177-15E	20ml Vial HCl preserved	A	NA		7.8	Y	Absent		DISSGAS(14)
L1913177-15F	Plastic 120ml HNO3 preserved	A	<2	<2	7.8	Y	Absent		FE-TI(180)
L1913177-15G	Plastic 250ml unpreserved/No Headspace	A	NA		7.8	Y	Absent		ALK-T-2320(14)
L1913177-15H	Plastic 500ml unpreserved	A	7	7	7.8	Y	Absent		OPHOS-4500(2),CL-300(28),SO4-9038(28),NO3-4500(2),PH-4500(.01)
L1913177-15I	Plastic 500ml H2SO4 preserved	A	<2	<2	7.8	Y	Absent		TPO4-4500(28),NH3-4500(28)

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913177**Project Number:** RA-008**Report Date:** 04/09/19**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1913177-15J	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-15K	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-15L	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-16A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-16B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-16C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-17A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-17B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-17C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-18A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-18B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-18C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-19A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-19B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-19C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-19D	20ml Vial HCl preserved	A	NA		7.8	Y	Absent		DISSGAS(14)
L1913177-19E	20ml Vial HCl preserved	A	NA		7.8	Y	Absent		DISSGAS(14)
L1913177-19F	Plastic 120ml HNO3 preserved	A	<2	<2	7.8	Y	Absent		FE-TI(180)
L1913177-19G	Plastic 250ml unpreserved/No Headspace	A	NA		7.8	Y	Absent		ALK-T-2320(14)
L1913177-19H	Plastic 500ml unpreserved	A	7	7	7.8	Y	Absent		OPHOS-4500(2),CL-300(28),SO4-9038(28),NO3-4500(2),PH-4500(.01)
L1913177-19I	Plastic 500ml H2SO4 preserved	A	<2	<2	7.8	Y	Absent		TPO4-4500(28),NH3-4500(28)
L1913177-19J	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-19K	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-19L	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-20A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-20B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-20C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-20D	20ml Vial HCl preserved	A	NA		7.8	Y	Absent		DISSGAS(14)

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913177**Project Number:** RA-008**Report Date:** 04/09/19**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1913177-20E	20ml Vial HCl preserved	A	NA		7.8	Y	Absent		DISSGAS(14)
L1913177-20F	Plastic 120ml HNO3 preserved	A	<2	<2	7.8	Y	Absent		FE-TI(180)
L1913177-20G	Plastic 250ml unpreserved/No Headspace	A	NA		7.8	Y	Absent		ALK-T-2320(14)
L1913177-20H	Plastic 500ml unpreserved	A	7	7	7.8	Y	Absent		OPHOS-4500(2),CL-300(28),SO4-9038(28),NO3-4500(2),PH-4500(.01)
L1913177-20I	Plastic 500ml H2SO4 preserved	A	<2	<2	7.8	Y	Absent		TPO4-4500(28),NH3-4500(28)
L1913177-20J	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-20K	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-20L	Vial H2SO4 preserved	A	NA		7.8	Y	Absent		TOC-9060(28)
L1913177-21A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-21B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-21C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-22A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-22B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-22C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-23A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-23B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-23C	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-24A	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)
L1913177-24B	Vial HCl preserved	A	NA		7.8	Y	Absent		8260(14)



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

Report Format: Data Usability Report



**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913177**Project Number:** RA-008**Report Date:** 04/09/19

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

**Terms**

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1.8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

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

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

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

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

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

**Data Qualifiers**

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: Data Usability Report



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913177  
**Report Date:** 04/09/19

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 117 Technical Guidance for the Natural Attenuation Indicators: Methane, Ethane, and Ethene, EPA-NE, Revision 1, February 21, 2002 and Sample Preparation & Calculations for Dissolved Gas Analysis in Water Samples using a GC Headspace Equilibration Technique, EPA RSKSOP-175, Revision 2, May 2004.
- 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 624/624.1:** m/p-xylene, o-xylene

**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 6860:** SCM: Perchlorate

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

### Mansfield Facility:

#### Drinking Water

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

**EPA 522.**

#### Non-Potable Water

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

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

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







# CHAIN OF CUSTODY

PAGE 3 OF 3

Date Rec'd in Lab: 4/2/19 ALPHA Job #: L1913177

8 Walkup Drive  
Westboro, MA 01581  
Tel: 508-898-9220

320 Forbes Blvd  
Mansfield, MA 02048  
Tel: 508-622-9300

### Project Information

Project Name: Ryan Road Wayland  
Project Location: Wayland MA  
Project #: RA-008  
Project Manager: Nishi Parayya  
ALPHA Quote #:

### Report Information - Data Deliverables

ADEX  EMAIL

### Billing Information

Same as Client info PO #:

### Client Information

Client: Innovative Engineering Solutions  
Address: 37 Pearl St Inc  
Braintree MA 02184  
Phone: 508-668-0033  
Email: v.parayya@IESInc.com

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)  
Date Due: 5 days  
4/9/19

### Regulatory Requirements & Project Information Requirements

Yes  No MA MCP Analytical Methods  Yes  No CT RCP Analytical Methods  
 Yes  No Matrix Spike Required on this SDG? (Required for MCP Inorganics)  
 Yes  No GW1 Standards (Info Required for Metals & EPH with Targets)  
 Yes  No NPDES RGP  
 Other State /Fed Program Criteria CW-3

Additional Project Information:

ANALYSIS		SAMPLE INFO
VOC: <input checked="" type="checkbox"/> 6260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	Filtration	
SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	<input type="checkbox"/> Field	Preservation
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	<input type="checkbox"/> Lab to do	
METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PPT3	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		
VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only		
PCB <input type="checkbox"/> PEST		

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials							TOTAL # BOTTLES
		Date	Time									
-21	Dup2-20190402	4/2/19	-	CW		X						3
-22	Dup3-20190402	4/2/19	-	CW		X						3
-23	Dup4-20190408	4/2/19	-	CW		X						3
-24	Trip Blank		-	-	-	X						20
-25	Temp Blank		-	-	-							1

- 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= HNO<sub>3</sub>  
D= H<sub>2</sub>SO<sub>4</sub>  
E= NaOH  
F= MeOH  
G= NaHSO<sub>4</sub>  
H= Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
I= Ascorbic Acid  
J= NH<sub>4</sub>Cl  
K= Zn Acetate  
O= Other

Container Type	<u>V</u>
Preservative	<u>B</u>

Relinquished By:	Date/Time	Received By:	Date/Time
<u>[Signature]</u>	<u>4/2/19 1440</u>	<u>[Signature]</u>	<u>4/2/19 14:40</u>
	<u>4/2/19</u>		<u>9-2-19 22:10</u>
	<u>4-2-19 2340</u>		<u>4/2/19 23:40</u>

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.



## ANALYTICAL REPORT

Lab Number:	L1913302
Client:	Innovative Engineering Solutions, Inc. 37 Pearl Street #1 Braintree, MA 02184
ATTN:	Vicki Pariyar
Phone:	(508) 623-1224
Project Name:	RAYTHEON WAYLAND
Project Number:	RA-008
Report Date:	04/10/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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

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





**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1913302-01	MW-261S-20190403	WATER	WAYLAND, MA	04/03/19 10:55	04/03/19
L1913302-03	MW-265M-20190403	WATER	WAYLAND, MA	04/03/19 09:55	04/03/19
L1913302-04	MW-266MA-20190403	WATER	WAYLAND, MA	04/03/19 09:05	04/03/19
L1913302-05	MW-267S-20190403	WATER	WAYLAND, MA	04/03/19 09:05	04/03/19
L1913302-06	MW-267M-20190403	WATER	WAYLAND, MA	04/03/19 09:55	04/03/19
L1913302-07	MW-268S-20190403	WATER	WAYLAND, MA	04/03/19 07:10	04/03/19
L1913302-08	MW-268M-20190403	WATER	WAYLAND, MA	04/03/19 08:05	04/03/19
L1913302-09	MW-269MA-20190403	WATER	WAYLAND, MA	04/03/19 10:55	04/03/19
L1913302-10	MW-552-20190403	WATER	WAYLAND, MA	04/03/19 12:00	04/03/19
L1913302-11	DUP1	WATER	WAYLAND, MA	04/03/19 00:00	04/03/19
L1913302-12	TRIP BLANK	WATER	WAYLAND, MA	04/03/19 00:00	04/03/19

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

### Case Narrative

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

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

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

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

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

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

---

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

### Case Narrative (continued)

#### Volatile Organics

L1913302-05 and -07: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

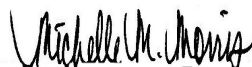
L1913302-12: The Trip Blank has a result for acetone present above the reporting limit. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

#### Total Organic Carbon

The WG1224470-4 MS recovery (67%), performed on L1913302-06, is outside the acceptance criteria; however, the associated LCS recovery is within criteria. No further action was taken.

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

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 04/10/19

# ORGANICS

# VOLATILES

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-01  
 Client ID: MW-261S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 10:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/08/19 21:32  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-01  
 Client ID: MW-261S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 10:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	8.3		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-01  
 Client ID: MW-261S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 10:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	102		70-130



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-01  
 Client ID: MW-261S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 10:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 11:47  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	21300	E	ug/l	1.00	--	1	A
Ethene	0.935		ug/l	0.500	--	1	A
Ethane	12.4		ug/l	0.500	--	1	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-01 D  
 Client ID: MW-261S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 10:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 20:26  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	17600		ug/l	5.00	--	5	A

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913302

**Project Number:** RA-008

**Report Date:** 04/10/19

**SAMPLE RESULTS**



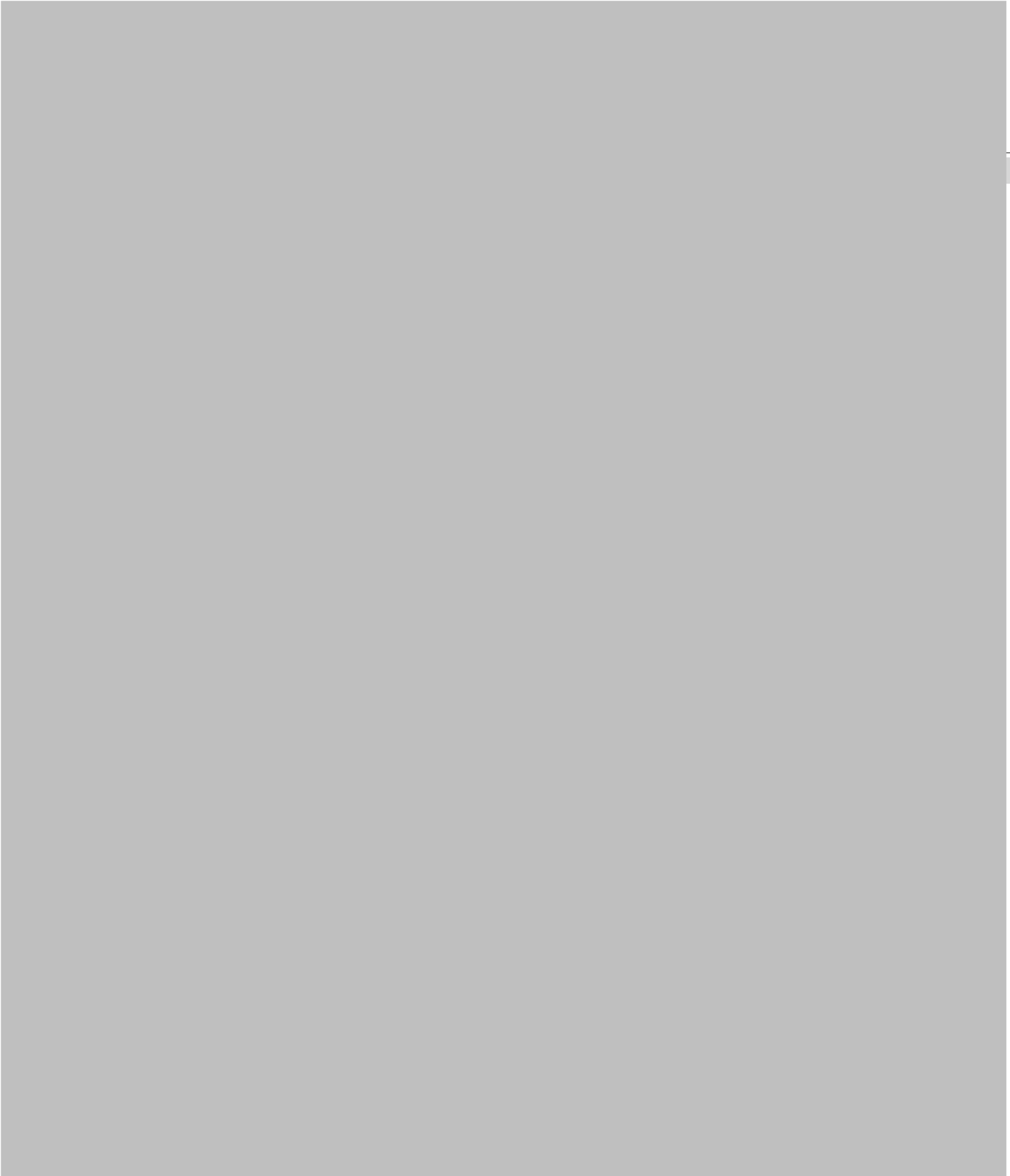
**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913302

**Project Number:** RA-008

**Report Date:** 04/10/19

**SAMPLE RESULTS**



**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913302

**Project Number:** RA-008

**Report Date:** 04/10/19

**SAMPLE RESULTS**



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-03  
 Client ID: MW-265M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/08/19 22:23  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	1.1		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-03  
 Client ID: MW-265M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	1.4		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	10		ug/l	1.0	--	1
o-Xylene	2.0		ug/l	1.0	--	1
Xylenes, Total	12		ug/l	1.0	--	1
cis-1,2-Dichloroethene	1.4		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	7.0		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-03  
 Client ID: MW-265M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	103		70-130



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-03  
 Client ID: MW-265M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 12:05  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	21700	E	ug/l	1.00	--	1	A
Ethene	ND		ug/l	0.500	--	1	A
Ethane	1.22		ug/l	0.500	--	1	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-03 D  
 Client ID: MW-265M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 20:43  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	17900		ug/l	5.00	--	5	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-04  
 Client ID: MW-266MA-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/08/19 22:48  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	2.5		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

## SAMPLE RESULTS

Lab ID: L1913302-04  
 Client ID: MW-266MA-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	1.6		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	1.6		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-04  
 Client ID: MW-266MA-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	103		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-05  
 Client ID: MW-267S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 13:01  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	19700	E	ug/l	1.00	--	1	A
Ethene	4.97		ug/l	0.500	--	1	A
Ethane	0.779		ug/l	0.500	--	1	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-05 D  
 Client ID: MW-267S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/10/19 01:10  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	30	--	10
1,1-Dichloroethane	ND		ug/l	7.5	--	10
Chloroform	ND		ug/l	7.5	--	10
Carbon tetrachloride	ND		ug/l	5.0	--	10
1,2-Dichloropropane	ND		ug/l	18	--	10
Dibromochloromethane	ND		ug/l	5.0	--	10
1,1,2-Trichloroethane	ND		ug/l	7.5	--	10
Tetrachloroethene	ND		ug/l	5.0	--	10
Chlorobenzene	ND		ug/l	5.0	--	10
Trichlorofluoromethane	ND		ug/l	25	--	10
1,2-Dichloroethane	ND		ug/l	5.0	--	10
1,1,1-Trichloroethane	ND		ug/l	5.0	--	10
Bromodichloromethane	ND		ug/l	5.0	--	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	--	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	--	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	--	10
1,1-Dichloropropene	ND		ug/l	25	--	10
Bromoform	ND		ug/l	20	--	10
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	--	10
Benzene	ND		ug/l	5.0	--	10
Toluene	96		ug/l	7.5	--	10
Ethylbenzene	ND		ug/l	5.0	--	10
Chloromethane	ND		ug/l	25	--	10
Bromomethane	ND		ug/l	10	--	10
Vinyl chloride	20		ug/l	10	--	10
Chloroethane	ND		ug/l	10	--	10
1,1-Dichloroethene	ND		ug/l	5.0	--	10
trans-1,2-Dichloroethene	ND		ug/l	7.5	--	10

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

## SAMPLE RESULTS

Lab ID: L1913302-05 D

Date Collected: 04/03/19 09:05

Client ID: MW-267S-20190403

Date Received: 04/03/19

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichloroethene, Total	20		ug/l	5.0	--	10
Trichloroethene	ND		ug/l	5.0	--	10
1,2-Dichlorobenzene	ND		ug/l	25	--	10
1,3-Dichlorobenzene	ND		ug/l	25	--	10
1,4-Dichlorobenzene	ND		ug/l	25	--	10
Methyl tert butyl ether	ND		ug/l	10	--	10
p/m-Xylene	ND		ug/l	10	--	10
o-Xylene	ND		ug/l	10	--	10
Xylenes, Total	ND		ug/l	10	--	10
cis-1,2-Dichloroethene	20		ug/l	5.0	--	10
Dibromomethane	ND		ug/l	50	--	10
1,4-Dichlorobutane	ND		ug/l	50	--	10
1,2,3-Trichloropropane	ND		ug/l	50	--	10
Styrene	ND		ug/l	10	--	10
Dichlorodifluoromethane	ND		ug/l	50	--	10
Acetone	150		ug/l	50	--	10
Carbon disulfide	ND		ug/l	50	--	10
2-Butanone	400		ug/l	50	--	10
Vinyl acetate	ND		ug/l	50	--	10
4-Methyl-2-pentanone	ND		ug/l	50	--	10
2-Hexanone	ND		ug/l	50	--	10
Ethyl methacrylate	ND		ug/l	50	--	10
Acrylonitrile	ND		ug/l	50	--	10
Bromochloromethane	ND		ug/l	25	--	10
Tetrahydrofuran	ND		ug/l	50	--	10
2,2-Dichloropropane	ND		ug/l	25	--	10
1,2-Dibromoethane	ND		ug/l	20	--	10
1,3-Dichloropropane	ND		ug/l	25	--	10
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	--	10
Bromobenzene	ND		ug/l	25	--	10
n-Butylbenzene	ND		ug/l	5.0	--	10
sec-Butylbenzene	ND		ug/l	5.0	--	10
tert-Butylbenzene	ND		ug/l	25	--	10
o-Chlorotoluene	ND		ug/l	25	--	10
p-Chlorotoluene	ND		ug/l	25	--	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	--	10
Hexachlorobutadiene	ND		ug/l	5.0	--	10



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-05 D  
 Client ID: MW-267S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	5.0	--	10
p-Isopropyltoluene	ND		ug/l	5.0	--	10
Naphthalene	ND		ug/l	25	--	10
n-Propylbenzene	ND		ug/l	5.0	--	10
1,2,3-Trichlorobenzene	ND		ug/l	25	--	10
1,2,4-Trichlorobenzene	ND		ug/l	25	--	10
1,3,5-Trimethylbenzene	ND		ug/l	25	--	10
1,2,4-Trimethylbenzene	ND		ug/l	25	--	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	--	10
Ethyl ether	ND		ug/l	25	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	97		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-05 D  
 Client ID: MW-267S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 18:08  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	16900		ug/l	2.50	--	2.5	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-06  
 Client ID: MW-267M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/08/19 23:38  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913302**Project Number:** RA-008**Report Date:** 04/10/19**SAMPLE RESULTS**

Lab ID: L1913302-06  
 Client ID: MW-267M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	1.1		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	1.1		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-06  
 Client ID: MW-267M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-06  
 Client ID: MW-267M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 13:24  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	36600	E	ug/l	1.00	--	1	A
Ethene	ND		ug/l	0.500	--	1	A
Ethane	6.44		ug/l	0.500	--	1	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-06 D  
 Client ID: MW-267M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 21:01  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	30600		ug/l	5.00	--	5	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-07  
 Client ID: MW-268S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 07:10  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 13:47  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	35500	E	ug/l	1.00	--	1	A
Ethene	3.23		ug/l	0.500	--	1	A
Ethane	3.23		ug/l	0.500	--	1	A



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-07 D  
 Client ID: MW-268S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 07:10  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/10/19 01:36  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	300	--	100
1,1-Dichloroethane	ND		ug/l	75	--	100
Chloroform	ND		ug/l	75	--	100
Carbon tetrachloride	ND		ug/l	50	--	100
1,2-Dichloropropane	ND		ug/l	180	--	100
Dibromochloromethane	ND		ug/l	50	--	100
1,1,2-Trichloroethane	ND		ug/l	75	--	100
Tetrachloroethene	ND		ug/l	50	--	100
Chlorobenzene	ND		ug/l	50	--	100
Trichlorofluoromethane	ND		ug/l	250	--	100
1,2-Dichloroethane	ND		ug/l	50	--	100
1,1,1-Trichloroethane	ND		ug/l	50	--	100
Bromodichloromethane	ND		ug/l	50	--	100
trans-1,3-Dichloropropene	ND		ug/l	50	--	100
cis-1,3-Dichloropropene	ND		ug/l	50	--	100
1,3-Dichloropropene, Total	ND		ug/l	50	--	100
1,1-Dichloropropene	ND		ug/l	250	--	100
Bromoform	ND		ug/l	200	--	100
1,1,1,2-Tetrachloroethane	ND		ug/l	50	--	100
Benzene	ND		ug/l	50	--	100
Toluene	400		ug/l	75	--	100
Ethylbenzene	ND		ug/l	50	--	100
Chloromethane	ND		ug/l	250	--	100
Bromomethane	ND		ug/l	100	--	100
Vinyl chloride	ND		ug/l	100	--	100
Chloroethane	ND		ug/l	100	--	100
1,1-Dichloroethene	ND		ug/l	50	--	100
trans-1,2-Dichloroethene	ND		ug/l	75	--	100

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-07 D  
 Client ID: MW-268S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 07:10  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	ND		ug/l	50	--	100
Trichloroethene	55		ug/l	50	--	100
1,2-Dichlorobenzene	ND		ug/l	250	--	100
1,3-Dichlorobenzene	ND		ug/l	250	--	100
1,4-Dichlorobenzene	ND		ug/l	250	--	100
Methyl tert butyl ether	ND		ug/l	100	--	100
p/m-Xylene	ND		ug/l	100	--	100
o-Xylene	ND		ug/l	100	--	100
Xylenes, Total	ND		ug/l	100	--	100
cis-1,2-Dichloroethene	ND		ug/l	50	--	100
Dibromomethane	ND		ug/l	500	--	100
1,4-Dichlorobutane	ND		ug/l	500	--	100
1,2,3-Trichloropropane	ND		ug/l	500	--	100
Styrene	ND		ug/l	100	--	100
Dichlorodifluoromethane	ND		ug/l	500	--	100
Acetone	ND		ug/l	500	--	100
Carbon disulfide	ND		ug/l	500	--	100
2-Butanone	ND		ug/l	500	--	100
Vinyl acetate	ND		ug/l	500	--	100
4-Methyl-2-pentanone	ND		ug/l	500	--	100
2-Hexanone	ND		ug/l	500	--	100
Ethyl methacrylate	ND		ug/l	500	--	100
Acrylonitrile	ND		ug/l	500	--	100
Bromochloromethane	ND		ug/l	250	--	100
Tetrahydrofuran	ND		ug/l	500	--	100
2,2-Dichloropropane	ND		ug/l	250	--	100
1,2-Dibromoethane	ND		ug/l	200	--	100
1,3-Dichloropropane	ND		ug/l	250	--	100
1,1,1,2-Tetrachloroethane	ND		ug/l	50	--	100
Bromobenzene	ND		ug/l	250	--	100
n-Butylbenzene	ND		ug/l	50	--	100
sec-Butylbenzene	ND		ug/l	50	--	100
tert-Butylbenzene	ND		ug/l	250	--	100
o-Chlorotoluene	ND		ug/l	250	--	100
p-Chlorotoluene	ND		ug/l	250	--	100
1,2-Dibromo-3-chloropropane	ND		ug/l	250	--	100
Hexachlorobutadiene	ND		ug/l	50	--	100

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-07 D  
 Client ID: MW-268S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 07:10  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	50	--	100
p-Isopropyltoluene	ND		ug/l	50	--	100
Naphthalene	ND		ug/l	250	--	100
n-Propylbenzene	ND		ug/l	50	--	100
1,2,3-Trichlorobenzene	ND		ug/l	250	--	100
1,2,4-Trichlorobenzene	ND		ug/l	250	--	100
1,3,5-Trimethylbenzene	ND		ug/l	250	--	100
1,2,4-Trimethylbenzene	ND		ug/l	250	--	100
trans-1,4-Dichloro-2-butene	ND		ug/l	250	--	100
Ethyl ether	ND		ug/l	250	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	98		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-07 D  
 Client ID: MW-268S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 07:10  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 21:18  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	30500		ug/l	5.00	--	5	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-08  
 Client ID: MW-268M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 08:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/09/19 00:29  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	1.3		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	0.81		ug/l	0.50	--	1
Toluene	3.2		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	36		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-08  
 Client ID: MW-268M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 08:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	10		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	10		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-08  
 Client ID: MW-268M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 08:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	103		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-08  
 Client ID: MW-268M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 08:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 14:10  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	31200	E	ug/l	1.00	--	1	A
Ethene	9.26		ug/l	0.500	--	1	A
Ethane	10.7		ug/l	0.500	--	1	A



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-08 D  
 Client ID: MW-268M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 08:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 21:36  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	26200		ug/l	5.00	--	5	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-09  
 Client ID: MW-269MA-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 10:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/09/19 00:54  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	0.64		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

## SAMPLE RESULTS

Lab ID: L1913302-09  
 Client ID: MW-269MA-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 10:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	2.8		ug/l	0.50	--	1
Trichloroethene	3.8		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.8		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-09  
 Client ID: MW-269MA-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 10:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	104		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-10  
 Client ID: MW-552-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 12:00  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/09/19 01:19  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

**Lab ID:** L1913302-10  
**Client ID:** MW-552-20190403  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/03/19 12:00  
**Date Received:** 04/03/19  
**Field Prep:** Not Specified

Sample Depth:

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-10  
 Client ID: MW-552-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 12:00  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	103		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-10  
 Client ID: MW-552-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 12:00  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 14:33  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	21400	E	ug/l	1.00	--	1	A
Ethene	0.532		ug/l	0.500	--	1	A
Ethane	11.0		ug/l	0.500	--	1	A



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-10 D  
 Client ID: MW-552-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 12:00  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 117,-  
 Analytical Date: 04/05/19 21:53  
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	17800		ug/l	5.00	--	5	A

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-11  
 Client ID: DUP1  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 00:00  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/10/19 02:01  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	1.3		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	0.86		ug/l	0.50	--	1
Toluene	3.2		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	35		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

## SAMPLE RESULTS

Lab ID: L1913302-11  
 Client ID: DUP1  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 00:00  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	10		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	10		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-11  
 Client ID: DUP1  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 00:00  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	99		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-12  
 Client ID: TRIP BLANK  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 00:00  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 04/08/19 21:07  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913302**Project Number:** RA-008**Report Date:** 04/10/19**SAMPLE RESULTS**

Lab ID: L1913302-12  
 Client ID: TRIP BLANK  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 00:00  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2-Dichloroethene, Total	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	21		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-12  
 Client ID: TRIP BLANK  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 00:00  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	100		70-130

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 117,-  
Analytical Date: 04/05/19 08:36  
Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL
Dissolved Gases by GC - Mansfield Lab for sample(s): 01,03,05-08,10 Batch: WG1223385-3					
Methane	ND		ug/l	1.00	-- A
Ethene	ND		ug/l	0.500	-- A
Ethane	ND		ug/l	0.500	-- A



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/08/19 20:17  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06,08-10,12 Batch: WG1224636-5					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/08/19 20:17  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06,08-10,12 Batch: WG1224636-5					
1,2-Dichloroethene, Total	ND		ug/l	0.50	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrolein	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/08/19 20:17  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06,08-10,12 Batch: WG1224636-5					
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,3,5-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Halothane	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Methyl Acetate	ND		ug/l	10	--
Ethyl Acetate	ND		ug/l	10	--
Isopropyl Ether	ND		ug/l	2.0	--
Cyclohexane	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/08/19 20:17  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06,08-10,12 Batch: WG1224636-5					
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	--
Methyl cyclohexane	ND		ug/l	10	--
p-Diethylbenzene	ND		ug/l	2.0	--
4-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	99		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/09/19 20:34  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05,07,11 Batch: WG1224990-5					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/09/19 20:34  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05,07,11 Batch: WG1224990-5					
1,2-Dichloroethene, Total	ND		ug/l	0.50	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrolein	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/09/19 20:34  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05,07,11 Batch: WG1224990-5					
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,3,5-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Halothane	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Methyl Acetate	ND		ug/l	10	--
Ethyl Acetate	ND		ug/l	10	--
Isopropyl Ether	ND		ug/l	2.0	--
Cyclohexane	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 04/09/19 20:34  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05,07,11 Batch: WG1224990-5					
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	--
Methyl cyclohexane	ND		ug/l	10	--
p-Diethylbenzene	ND		ug/l	2.0	--
4-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	98		70-130



## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Project Number:** RA-008

**Lab Number:** L1913302

**Report Date:** 04/10/19

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Dissolved Gases by GC - Mansfield Lab Associated sample(s): 01,03,05-08,10 Batch: WG1223385-2									
Methane	100		-		80-120	-		25	A
Ethene	105		-		80-120	-		25	A
Ethane	106		-		80-120	-		25	A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06,08-10,12 Batch: WG1224636-3 WG1224636-4								
Methylene chloride	99		100		70-130	1		20
1,1-Dichloroethane	99		100		70-130	1		20
Chloroform	99		100		70-130	1		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	92		92		63-130	0		20
1,1,2-Trichloroethane	110		110		70-130	0		20
2-Chloroethylvinyl ether	53	Q	48	Q	70-130	10		20
Tetrachloroethene	98		100		70-130	2		20
Chlorobenzene	100		100		75-130	0		25
Trichlorofluoromethane	95		97		62-150	2		20
1,2-Dichloroethane	97		97		70-130	0		20
1,1,1-Trichloroethane	98		99		67-130	1		20
Bromodichloromethane	100		99		67-130	1		20
trans-1,3-Dichloropropene	93		93		70-130	0		20
cis-1,3-Dichloropropene	92		94		70-130	2		20
1,1-Dichloropropene	94		97		70-130	3		20
Bromoform	97		96		54-136	1		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	100		100		70-130	0		25
Toluene	100		100		70-130	0		25
Ethylbenzene	100		100		70-130	0		20
Chloromethane	82		85		64-130	4		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06,08-10,12 Batch: WG1224636-3 WG1224636-4								
Bromomethane	54		60		39-139	11		20
Vinyl chloride	88		91		55-140	3		20
Chloroethane	89		90		55-138	1		20
1,1-Dichloroethene	94		97		61-145	3		25
trans-1,2-Dichloroethene	96		100		70-130	4		20
Trichloroethene	98		100		70-130	2		25
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	95		96		63-130	1		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	97		100		70-130	3		20
Dibromomethane	100		100		70-130	0		20
1,4-Dichlorobutane	100		100		70-130	0		20
1,2,3-Trichloropropane	100		96		64-130	4		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	86		87		36-147	1		20
Acetone	92		100		58-148	8		20
Carbon disulfide	98		100		51-130	2		20
2-Butanone	99		98		63-138	1		20
Vinyl acetate	98		98		70-130	0		20
4-Methyl-2-pentanone	88		83		59-130	6		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06,08-10,12 Batch: WG1224636-3 WG1224636-4								
2-Hexanone	81		81		57-130	0		20
Ethyl methacrylate	88		87		70-130	1		20
Acrolein	100		94		70-130	6		20
Acrylonitrile	110		110		70-130	0		20
Bromochloromethane	100		100		70-130	0		20
Tetrahydrofuran	98		98		58-130	0		20
2,2-Dichloropropane	100		110		63-133	10		20
1,2-Dibromoethane	100		100		70-130	0		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	99		100		70-130	1		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	99		100		70-130	1		20
o-Chlorotoluene	99		110		70-130	11		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	90		92		41-144	2		20
Hexachlorobutadiene	92		94		63-130	2		20
Isopropylbenzene	99		100		70-130	1		20
p-Isopropyltoluene	98		100		70-130	2		20
Naphthalene	82		82		70-130	0		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	89		86		70-130	3		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06,08-10,12 Batch: WG1224636-3 WG1224636-4								
1,2,4-Trichlorobenzene	88		89		70-130	1		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,3,5-Trichlorobenzene	97		98		70-130	1		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
trans-1,4-Dichloro-2-butene	76		88		70-130	15		20
Halothane	99		100		70-130	1		20
Ethyl ether	96		96		59-134	0		20
Methyl Acetate	100		100		70-130	0		20
Ethyl Acetate	88		86		70-130	2		20
Isopropyl Ether	94		96		70-130	2		20
Cyclohexane	94		96		70-130	2		20
Tert-Butyl Alcohol	114		110		70-130	4		20
Ethyl-Tert-Butyl-Ether	94		95		70-130	1		20
Tertiary-Amyl Methyl Ether	96		97		66-130	1		20
1,4-Dioxane	94		96		56-162	2		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	93		96		70-130	3		20
Methyl cyclohexane	94		97		70-130	3		20
p-Diethylbenzene	100		100		70-130	0		20
4-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	95		96		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: RA-008

Lab Number: L1913302

Report Date: 04/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06,08-10,12 Batch: WG1224636-3 WG1224636-4								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		100		70-130
Toluene-d8	104		103		70-130
4-Bromofluorobenzene	94		95		70-130
Dibromofluoromethane	100		99		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07,11 Batch: WG1224990-3 WG1224990-4								
Methylene chloride	98		98		70-130	0		20
1,1-Dichloroethane	99		100		70-130	1		20
Chloroform	99		98		70-130	1		20
Carbon tetrachloride	94		97		63-132	3		20
1,2-Dichloropropane	99		100		70-130	1		20
Dibromochloromethane	89		89		63-130	0		20
1,1,2-Trichloroethane	100		110		70-130	10		20
2-Chloroethylvinyl ether	37	Q	43	Q	70-130	15		20
Tetrachloroethene	98		100		70-130	2		20
Chlorobenzene	100		100		75-130	0		25
Trichlorofluoromethane	89		89		62-150	0		20
1,2-Dichloroethane	94		94		70-130	0		20
1,1,1-Trichloroethane	95		96		67-130	1		20
Bromodichloromethane	96		99		67-130	3		20
trans-1,3-Dichloropropene	89		90		70-130	1		20
cis-1,3-Dichloropropene	90		91		70-130	1		20
1,1-Dichloropropene	91		93		70-130	2		20
Bromoform	92		94		54-136	2		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	100		100		70-130	0		25
Toluene	100		100		70-130	0		25
Ethylbenzene	100		100		70-130	0		20
Chloromethane	84		84		64-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07,11 Batch: WG1224990-3 WG1224990-4								
Bromomethane	67		69		39-139	3		20
Vinyl chloride	86		87		55-140	1		20
Chloroethane	89		90		55-138	1		20
1,1-Dichloroethene	92		93		61-145	1		25
trans-1,2-Dichloroethene	97		99		70-130	2		20
Trichloroethene	94		97		70-130	3		25
1,2-Dichlorobenzene	99		100		70-130	1		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	90		91		63-130	1		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	100		98		70-130	2		20
Dibromomethane	95		98		70-130	3		20
1,4-Dichlorobutane	100		100		70-130	0		20
1,2,3-Trichloropropane	89		89		64-130	0		20
Styrene	100		105		70-130	5		20
Dichlorodifluoromethane	77		78		36-147	1		20
Acetone	92		85		58-148	8		20
Carbon disulfide	95		97		51-130	2		20
2-Butanone	88		86		63-138	2		20
Vinyl acetate	93		94		70-130	1		20
4-Methyl-2-pentanone	80		81		59-130	1		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07,11 Batch: WG1224990-3 WG1224990-4								
2-Hexanone	74		77		57-130	4		20
Ethyl methacrylate	82		83		70-130	1		20
Acrolein	96		94		70-130	2		20
Acrylonitrile	100		100		70-130	0		20
Bromochloromethane	100		100		70-130	0		20
Tetrahydrofuran	88		94		58-130	7		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	100		100		70-130	0		20
1,3-Dichloropropane	99		100		70-130	1		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	100		110		53-136	10		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	100		100		70-130	0		20
o-Chlorotoluene	110		100		70-130	10		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	88		90		41-144	2		20
Hexachlorobutadiene	96		95		63-130	1		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	74		76		70-130	3		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	80		82		70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07,11 Batch: WG1224990-3 WG1224990-4								
1,2,4-Trichlorobenzene	84		87		70-130	4		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,3,5-Trichlorobenzene	98		99		70-130	1		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
trans-1,4-Dichloro-2-butene	64	Q	70		70-130	9		20
Halothane	97		98		70-130	1		20
Ethyl ether	92		92		59-134	0		20
Methyl Acetate	96		97		70-130	1		20
Ethyl Acetate	82		82		70-130	0		20
Isopropyl Ether	93		95		70-130	2		20
Cyclohexane	87		89		70-130	2		20
Tert-Butyl Alcohol	102		102		70-130	0		20
Ethyl-Tert-Butyl-Ether	90		92		70-130	2		20
Tertiary-Amyl Methyl Ether	91		94		66-130	3		20
1,4-Dioxane	88		88		56-162	0		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	85		86		70-130	1		20
Methyl cyclohexane	88		89		70-130	1		20
p-Diethylbenzene	100		100		70-130	0		20
4-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	95		97		70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05,07,11 Batch: WG1224990-3 WG1224990-4								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		96		70-130
Toluene-d8	104		104		70-130
4-Bromofluorobenzene	97		97		70-130
Dibromofluoromethane	100		99		70-130

# SEMIVOLATILES

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-01  
 Client ID: MW-261S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 10:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 04/08/19 19:08  
 Analyst: MA

Extraction Method: EPA 3510C  
 Extraction Date: 04/04/19 11:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	1240		ng/l	142	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			22		15-110	

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-03  
 Client ID: MW-265M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 04/08/19 19:36  
 Analyst: MA

Extraction Method: EPA 3510C  
 Extraction Date: 04/04/19 11:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	3220		ng/l	142	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			29		15-110	

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-04  
 Client ID: MW-266MA-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 04/08/19 20:05  
 Analyst: MA

Extraction Method: EPA 3510C  
 Extraction Date: 04/04/19 11:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	554.		ng/l	142	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			26		15-110	

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-05  
 Client ID: MW-267S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 04/08/19 20:33  
 Analyst: MA

Extraction Method: EPA 3510C  
 Extraction Date: 04/04/19 11:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	5890		ng/l	139	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			27		15-110	



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-06  
 Client ID: MW-267M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 09:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 04/08/19 21:01  
 Analyst: MA

Extraction Method: EPA 3510C  
 Extraction Date: 04/04/19 11:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	4320		ng/l	139	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			26		15-110	

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-07  
 Client ID: MW-268S-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 07:10  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 04/08/19 21:28  
 Analyst: MA

Extraction Method: EPA 3510C  
 Extraction Date: 04/04/19 11:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	8400		ng/l	139	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			20		15-110	

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-08  
 Client ID: MW-268M-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 08:05  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 04/08/19 21:56  
 Analyst: MA

Extraction Method: EPA 3510C  
 Extraction Date: 04/04/19 11:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	11100		ng/l	139	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			24		15-110	

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-09  
 Client ID: MW-269MA-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 10:55  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 04/08/19 22:23  
 Analyst: MA

Extraction Method: EPA 3510C  
 Extraction Date: 04/04/19 11:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	1110		ng/l	139	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			24		15-110	

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-10  
 Client ID: MW-552-20190403  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 12:00  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 04/08/19 22:51  
 Analyst: MA

Extraction Method: EPA 3510C  
 Extraction Date: 04/04/19 11:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	485.		ng/l	139	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			28		15-110	

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-11  
 Client ID: DUP1  
 Sample Location: WAYLAND, MA

Date Collected: 04/03/19 00:00  
 Date Received: 04/03/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 04/08/19 23:18  
 Analyst: MA

Extraction Method: EPA 3510C  
 Extraction Date: 04/04/19 11:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	11300		ng/l	139	--	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			24		15-110	

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D-SIM  
Analytical Date: 04/08/19 17:47  
Analyst: MA

Extraction Method: EPA 3510C  
Extraction Date: 04/04/19 11:39

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01,03-11 Batch: WG1222980-1					
1,4-Dioxane	ND		ng/l	150	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	32		15-110

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 01,03-11 Batch: WG1222980-2 WG1222980-3								
1,4-Dioxane	121		124		40-140	2		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,4-Dioxane-d8	30		30		15-110



## METALS

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913302**Project Number:** RA-008**Report Date:** 04/10/19**SAMPLE RESULTS**

Lab ID: L1913302-01

Date Collected: 04/03/19 10:55

Client ID: MW-261S-20190403

Date Received: 04/03/19

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Iron, Total	32.1		mg/l	0.050	--	1	04/04/19 18:57	04/09/19 15:20	EPA 3005A	1,6010D	AB



**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913302**Project Number:** RA-008**Report Date:** 04/10/19**SAMPLE RESULTS**

Lab ID: L1913302-03

Date Collected: 04/03/19 09:55

Client ID: MW-265M-20190403

Date Received: 04/03/19

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Iron, Total	37.1		mg/l	0.050	--	1	04/04/19 18:57	04/09/19 15:25	EPA 3005A	1,6010D	AB



**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913302

**Project Number:** RA-008

**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-05

Date Collected: 04/03/19 09:05

Client ID: MW-267S-20190403

Date Received: 04/03/19

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Iron, Total	702		mg/l	0.500	--	10	04/04/19 18:57	04/09/19 19:12	EPA 3005A	1,6010D	AB



**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913302

**Project Number:** RA-008

**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-06

Date Collected: 04/03/19 09:55

Client ID: MW-267M-20190403

Date Received: 04/03/19

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Iron, Total	82.2		mg/l	0.050	--	1	04/04/19 18:57	04/09/19 16:17	EPA 3005A	1,6010D	AB



**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913302

**Project Number:** RA-008

**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-07

Date Collected: 04/03/19 07:10

Client ID: MW-268S-20190403

Date Received: 04/03/19

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Iron, Total	161		mg/l	0.050	--	1	04/04/19 18:57	04/09/19 16:21	EPA 3005A	1,6010D	AB



**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913302

**Project Number:** RA-008

**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-08

Date Collected: 04/03/19 08:05

Client ID: MW-268M-20190403

Date Received: 04/03/19

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Iron, Total	60.8		mg/l	0.050	--	1	04/04/19 18:57	04/09/19 16:26	EPA 3005A	1,6010D	AB



**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L1913302

**Project Number:** RA-008

**Report Date:** 04/10/19

**SAMPLE RESULTS**

Lab ID: L1913302-10

Date Collected: 04/03/19 12:00

Client ID: MW-552-20190403

Date Received: 04/03/19

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Iron, Total	15.0		mg/l	0.050	--	1	04/04/19 18:57	04/09/19 16:45	EPA 3005A	1,6010D	AB





Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01,03,05-08,10 Batch: WG1223198-1									
Iron, Total	ND	mg/l	0.050	--	1	04/04/19 18:57	04/09/19 14:47	1,6010D	AB

### Prep Information

Digestion Method: EPA 3005A

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03,05-08,10 Batch: WG1223198-2								
Iron, Total	97		-		80-120	-		

### Matrix Spike Analysis Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03,05-08,10 QC Batch ID: WG1223198-3 WG1223198-4 QC Sample: L1913398-03 Client ID: MS Sample												
Iron, Total	23.5	1	23.7	20	Q	23.8	30	Q	75-125	0		20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

**Lab ID:** L1913302-01  
**Client ID:** MW-261S-20190403  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/03/19 10:55  
**Date Received:** 04/03/19  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	416.		mg CaCO3/L	2.00	NA	1	-	04/04/19 08:06	121,2320B	BR
pH (H)	6.7		SU	-	NA	1	-	04/04/19 06:53	121,4500H+-B	GD
Nitrogen, Ammonia	0.175		mg/l	0.075	--	1	04/04/19 03:00	04/04/19 22:02	121,4500NH3-BH	AT
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/04/19 19:19	121,4500NO3-F	MR
Phosphate, Total	0.85		mg/l	0.060	--	2	-	04/04/19 10:20	121,4500P-E(M)	SD
Phosphorus, Orthophosphate	ND		mg/l	0.005	--	1	-	04/04/19 08:41	121,4500P-E	MA
Sulfate	ND		mg/l	10	--	1	04/04/19 20:20	04/04/19 20:20	1,9038	RM
Total Organic Carbon	1.7		mg/l	0.50	--	1	-	04/09/19 06:57	1,9060A	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	14.7		mg/l	0.500	--	1	-	04/05/19 18:13	44,300.0	AU



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

**Lab ID:** L1913302-03  
**Client ID:** MW-265M-20190403  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/03/19 09:55  
**Date Received:** 04/03/19  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	546.		mg CaCO3/L	2.00	NA	1	-	04/04/19 08:06	121,2320B	BR
pH (H)	6.6		SU	-	NA	1	-	04/04/19 06:53	121,4500H+-B	GD
Nitrogen, Ammonia	3.36		mg/l	0.075	--	1	04/04/19 03:00	04/04/19 22:03	121,4500NH3-BH	AT
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/04/19 19:20	121,4500NO3-F	MR
Phosphate, Total	0.20		mg/l	0.030	--	1	-	04/04/19 10:20	121,4500P-E(M)	SD
Phosphorus, Orthophosphate	ND		mg/l	0.005	--	1	-	04/04/19 08:42	121,4500P-E	MA
Sulfate	ND		mg/l	10	--	1	04/04/19 20:20	04/04/19 20:20	1,9038	RM
Total Organic Carbon	2.9		mg/l	0.50	--	1	-	04/09/19 06:57	1,9060A	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	21.7		mg/l	0.500	--	1	-	04/05/19 18:25	44,300.0	AU



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

### SAMPLE RESULTS

**Lab ID:** L1913302-05  
**Client ID:** MW-267S-20190403  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/03/19 09:05  
**Date Received:** 04/03/19  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	856.		mg CaCO3/L	4.00	NA	2	-	04/04/19 08:06	121,2320B	BR
pH (H)	5.3		SU	-	NA	1	-	04/04/19 06:53	121,4500H+-B	GD
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	04/04/19 03:00	04/04/19 22:04	121,4500NH3-BH	AT
Nitrogen, Nitrate	0.164		mg/l	0.100	--	1	-	04/04/19 19:21	121,4500NO3-F	MR
Phosphate, Total	0.43		mg/l	0.075	--	2.5	-	04/04/19 10:20	121,4500P-E(M)	SD
Phosphorus, Orthophosphate	0.024		mg/l	0.005	--	1	-	04/04/19 08:44	121,4500P-E	MA
Sulfate	ND		mg/l	10	--	1	04/04/19 20:20	04/04/19 20:20	1,9038	RM
Total Organic Carbon	2200		mg/l	200	--	400	-	04/09/19 06:57	1,9060A	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	28.5		mg/l	0.500	--	1	-	04/05/19 18:37	44,300.0	AU



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

**Lab ID:** L1913302-06  
**Client ID:** MW-267M-20190403  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/03/19 09:55  
**Date Received:** 04/03/19  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	356.		mg CaCO3/L	2.00	NA	1	-	04/04/19 08:06	121,2320B	BR
pH (H)	6.4		SU	-	NA	1	-	04/04/19 06:53	121,4500H+-B	GD
Nitrogen, Ammonia	0.306		mg/l	0.075	--	1	04/04/19 03:00	04/04/19 22:05	121,4500NH3-BH	AT
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/04/19 19:23	121,4500NO3-F	MR
Phosphate, Total	0.88		mg/l	0.030	--	1	-	04/04/19 10:20	121,4500P-E(M)	SD
Phosphorus, Orthophosphate	ND		mg/l	0.005	--	1	-	04/04/19 08:45	121,4500P-E	MA
Sulfate	ND		mg/l	10	--	1	04/04/19 20:20	04/04/19 20:20	1,9038	RM
Total Organic Carbon	13.		mg/l	1.0	--	2	-	04/09/19 06:57	1,9060A	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	30.4		mg/l	0.500	--	1	-	04/05/19 18:49	44,300.0	AU





**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

**Lab ID:** L1913302-07  
**Client ID:** MW-268S-20190403  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/03/19 07:10  
**Date Received:** 04/03/19  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	927.		mg CaCO3/L	4.00	NA	2	-	04/04/19 08:06	121,2320B	BR
pH (H)	5.7		SU	-	NA	1	-	04/04/19 06:53	121,4500H+-B	GD
Nitrogen, Ammonia	0.080		mg/l	0.075	--	1	04/04/19 03:00	04/04/19 22:06	121,4500NH3-BH	AT
Nitrogen, Nitrate	0.126		mg/l	0.100	--	1	-	04/04/19 19:24	121,4500NO3-F	MR
Phosphate, Total	1.0		mg/l	0.15	--	5	-	04/04/19 10:20	121,4500P-E(M)	SD
Phosphorus, Orthophosphate	0.010		mg/l	0.005	--	1	-	04/04/19 08:45	121,4500P-E	MA
Sulfate	ND		mg/l	10	--	1	04/04/19 20:20	04/04/19 20:20	1,9038	RM
Total Organic Carbon	10000		mg/l	1000	--	2000	-	04/09/19 06:57	1,9060A	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	34.2		mg/l	0.500	--	1	-	04/05/19 19:24	44,300.0	AU



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

**Lab ID:** L1913302-08  
**Client ID:** MW-268M-20190403  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/03/19 08:05  
**Date Received:** 04/03/19  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	450.		mg CaCO3/L	2.00	NA	1	-	04/04/19 08:06	121,2320B	BR
pH (H)	6.6		SU	-	NA	1	-	04/04/19 06:53	121,4500H+-B	GD
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	04/04/19 03:00	04/04/19 22:07	121,4500NH3-BH	AT
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/04/19 19:25	121,4500NO3-F	MR
Phosphate, Total	0.16		mg/l	0.060	--	2	-	04/04/19 10:20	121,4500P-E(M)	SD
Phosphorus, Orthophosphate	ND		mg/l	0.005	--	1	-	04/04/19 08:46	121,4500P-E	MA
Sulfate	ND		mg/l	10	--	1	04/04/19 20:20	04/04/19 20:20	1,9038	RM
Total Organic Carbon	3.9		mg/l	0.50	--	1	-	04/09/19 06:57	1,9060A	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	30.4		mg/l	0.500	--	1	-	04/05/19 20:36	44,300.0	AU



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**SAMPLE RESULTS**

**Lab ID:** L1913302-10  
**Client ID:** MW-552-20190403  
**Sample Location:** WAYLAND, MA

**Date Collected:** 04/03/19 12:00  
**Date Received:** 04/03/19  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Alkalinity, Total	275.		mg CaCO3/L	2.00	NA	1	-	04/04/19 08:06	121,2320B	BR
pH (H)	7.0		SU	-	NA	1	-	04/04/19 06:53	121,4500H+-B	GD
Nitrogen, Ammonia	0.106		mg/l	0.075	--	1	04/04/19 03:00	04/04/19 22:08	121,4500NH3-BH	AT
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/04/19 19:27	121,4500NO3-F	MR
Phosphate, Total	2.8		mg/l	0.030	--	1	-	04/04/19 10:20	121,4500P-E(M)	SD
Phosphorus, Orthophosphate	ND		mg/l	0.005	--	1	-	04/04/19 08:46	121,4500P-E	MA
Sulfate	ND		mg/l	10	--	1	04/04/19 20:20	04/04/19 20:20	1,9038	RM
Total Organic Carbon	1.3		mg/l	0.50	--	1	-	04/09/19 06:57	1,9060A	AG
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	8.02		mg/l	0.500	--	1	-	04/05/19 20:48	44,300.0	AU



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

**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): 01,03,05-08,10 Batch: WG1222829-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	04/04/19 03:00	04/04/19 21:50	121,4500NH3-BH	AT
General Chemistry - Westborough Lab for sample(s): 01,03,05-08,10 Batch: WG1222908-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	04/04/19 08:06	121,2320B	BR
General Chemistry - Westborough Lab for sample(s): 01,03,05-08,10 Batch: WG1222915-1										
Sulfate	ND		mg/l	10	--	1	04/04/19 20:20	04/04/19 20:20	1,9038	RM
General Chemistry - Westborough Lab for sample(s): 01,03,05-08,10 Batch: WG1222924-1										
Phosphorus, Orthophosphate	ND		mg/l	0.005	--	1	-	04/04/19 08:31	121,4500P-E	MA
General Chemistry - Westborough Lab for sample(s): 01,03,05-08,10 Batch: WG1222974-1										
Phosphate, Total	ND		mg/l	0.030	--	1	-	04/04/19 10:20	121,4500P-E(M)	SD
General Chemistry - Westborough Lab for sample(s): 01,03,05-08,10 Batch: WG1223137-1										
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/04/19 17:06	121,4500NO3-F	MR
Anions by Ion Chromatography - Westborough Lab for sample(s): 01,03,05-08,10 Batch: WG1223711-1										
Chloride	ND		mg/l	0.500	--	1	-	04/05/19 17:37	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01,03,05-08,10 Batch: WG1224470-1										
Total Organic Carbon	ND		mg/l	0.50	--	1	-	04/09/19 06:57	1,9060A	AG

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 Batch: WG1222829-2								
Nitrogen, Ammonia	100		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 Batch: WG1222908-2								
Alkalinity, Total	100		-		90-110	-		10
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 Batch: WG1222915-2								
Sulfate	95		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 Batch: WG1222924-2								
Phosphorus, Orthophosphate	99		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 Batch: WG1222926-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 Batch: WG1222974-2								
Phosphate, Total	98		-		84-118	-		
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 Batch: WG1223137-2								
Nitrogen, Nitrate	98		-		90-110	-		



## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Project Number:** RA-008

**Lab Number:** L1913302

**Report Date:** 04/10/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01,03,05-08,10 Batch: WG1223711-2					
Chloride	100	-	90-110	-	
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 Batch: WG1224470-2					
Total Organic Carbon	90	-	90-110	-	

### Matrix Spike Analysis Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L1913302

Project Number: RA-008

Report Date: 04/10/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 QC Batch ID: WG1222829-4 QC Sample: L1913250-01 Client ID: MS Sample												
Nitrogen, Ammonia	0.190	4	4.22	101	-	-	-	-	80-120	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 QC Batch ID: WG1222908-4 QC Sample: L1913355-05 Client ID: MS Sample												
Alkalinity, Total	7.80	100	109	101	-	-	-	-	86-116	-	-	10
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 QC Batch ID: WG1222915-4 QC Sample: L1913302-10 Client ID: MW-552-20190403												
Sulfate	ND	20	23	115	-	-	-	-	55-147	-	-	14
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 QC Batch ID: WG1222924-4 QC Sample: L1913302-03 Client ID: MW-265M-20190403												
Phosphorus, Orthophosphate	ND	0.5	0.483	97	-	-	-	-	80-120	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 QC Batch ID: WG1222974-3 QC Sample: L1912908-01 Client ID: MS Sample												
Phosphate, Total	2.0	1.54	3.4	90	-	-	-	-	80-120	-	-	15
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 QC Batch ID: WG1223137-4 QC Sample: L1912140-03 Client ID: MS Sample												
Nitrogen, Nitrate	ND	4	4.07	102	-	-	-	-	83-113	-	-	17
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01,03,05-08,10 QC Batch ID: WG1223711-3 QC Sample: L1913278-01 Client ID: MS Sample												
Chloride	105	40	146	101	-	-	-	-	90-110	-	-	18
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 QC Batch ID: WG1224470-4 QC Sample: L1913302-06 Client ID: MW-267M-20190403												
Total Organic Carbon	13	20	26	67	Q	-	-	-	80-120	-	-	20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: RAYTHEON WAYLAND

Project Number: RA-008

Lab Number: L1913302

Report Date: 04/10/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 Sample	QC Batch ID: WG1222829-3	QC Sample: L1913250-01	Client ID: DUP			
Nitrogen, Ammonia	0.190	0.204	mg/l	7		20
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 Sample	QC Batch ID: WG1222908-3	QC Sample: L1913355-04	Client ID: DUP			
Alkalinity, Total	60.5	60.4	mg CaCO3/L	0		10
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 552-20190403	QC Batch ID: WG1222915-3	QC Sample: L1913302-10	Client ID: MW-			
Sulfate	ND	ND	mg/l	NC		14
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 261S-20190403	QC Batch ID: WG1222924-3	QC Sample: L1913302-01	Client ID: MW-			
Phosphorus, Orthophosphate	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 Sample	QC Batch ID: WG1222926-2	QC Sample: L1913278-01	Client ID: DUP			
pH	6.2	6.2	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 Sample	QC Batch ID: WG1222974-4	QC Sample: L1912908-01	Client ID: DUP			
Phosphate, Total	2.0	2.0	mg/l	0		15
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 Sample	QC Batch ID: WG1223137-3	QC Sample: L1912140-03	Client ID: DUP			
Nitrogen, Nitrate	ND	ND	mg/l	NC		17



## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: RAYTHEON WAYLAND

Project Number: RA-008

Lab Number: L1913302

Report Date: 04/10/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01,03,05-08,10 QC Batch ID: WG1223711-4 QC Sample: L1913278-01 Client ID: DUP Sample					
Chloride	105	106	mg/l	6	18
General Chemistry - Westborough Lab Associated sample(s): 01,03,05-08,10 QC Batch ID: WG1224470-3 QC Sample: L1913302-06 Client ID: MW-267M-20190403					
Total Organic Carbon	13	13	mg/l	0	20

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913302**Project Number:** RA-008**Report Date:** 04/10/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent
B	Absent
C	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1913302-01A	Vial HCl preserved	A	NA		3.7	Y	Absent		8260(14)
L1913302-01B	Vial HCl preserved	A	NA		3.7	Y	Absent		8260(14)
L1913302-01C	Vial HCl preserved	A	NA		3.7	Y	Absent		8260(14)
L1913302-01D	Vial H2SO4 preserved	A	NA		3.7	Y	Absent		TOC-9060(28)
L1913302-01E	Vial H2SO4 preserved	A	NA		3.7	Y	Absent		TOC-9060(28)
L1913302-01F	Vial H2SO4 preserved	A	NA		3.7	Y	Absent		TOC-9060(28)
L1913302-01G	20ml Vial HCl preserved	A	NA		3.7	Y	Absent		DISSGAS(14)
L1913302-01H	20ml Vial HCl preserved	A	NA		3.7	Y	Absent		DISSGAS(14)
L1913302-01I	Plastic 120ml HNO3 preserved	A	<2	<2	3.7	Y	Absent		FE-TI(180)
L1913302-01J	Plastic 250ml unpreserved/No Headspace	A	NA		3.7	Y	Absent		ALK-T-2320(14)
L1913302-01K	Plastic 500ml unpreserved	A	7	7	3.7	Y	Absent		OPHOS-4500(2),CL-300(28),SO4-9038(28),NO3-4500(2),PH-4500(.01)
L1913302-01L	Plastic 500ml H2SO4 preserved	A	<2	<2	3.7	Y	Absent		TPO4-4500(28),NH3-4500(28)
L1913302-01M	Amber 500ml unpreserved	A	7	7	3.7	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-01N	Amber 500ml unpreserved	A	7	7	3.7	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-02A	Vial HCl preserved	A	NA		3.7	Y	Absent		8260(14)
L1913302-02B	Vial HCl preserved	A	NA		3.7	Y	Absent		8260(14)
L1913302-02C	Vial HCl preserved	A	NA		3.7	Y	Absent		8260(14)
L1913302-03A	Vial HCl preserved	A	NA		3.7	Y	Absent		8260(14)
L1913302-03B	Vial HCl preserved	A	NA		3.7	Y	Absent		8260(14)
L1913302-03C	Vial HCl preserved	A	NA		3.7	Y	Absent		8260(14)

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913302**Project Number:** RA-008**Report Date:** 04/10/19**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1913302-03D	Vial H2SO4 preserved	A	NA		3.7	Y	Absent		TOC-9060(28)
L1913302-03E	Vial H2SO4 preserved	A	NA		3.7	Y	Absent		TOC-9060(28)
L1913302-03F	Vial H2SO4 preserved	A	NA		3.7	Y	Absent		TOC-9060(28)
L1913302-03G	20ml Vial HCl preserved	A	NA		3.7	Y	Absent		DISSGAS(14)
L1913302-03H	20ml Vial HCl preserved	A	NA		3.7	Y	Absent		DISSGAS(14)
L1913302-03I	Plastic 120ml HNO3 preserved	A	<2	<2	3.7	Y	Absent		FE-TI(180)
L1913302-03J	Plastic 250ml unpreserved/No Headspace	A	NA		3.7	Y	Absent		ALK-T-2320(14)
L1913302-03K	Plastic 500ml unpreserved	A	7	7	3.7	Y	Absent		OPHOS-4500(2),CL-300(28),SO4-9038(28),NO3-4500(2),PH-4500(.01)
L1913302-03L	Plastic 500ml H2SO4 preserved	A	<2	<2	3.7	Y	Absent		TPO4-4500(28),NH3-4500(28)
L1913302-03M	Amber 500ml unpreserved	A	7	7	3.7	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-03N	Amber 500ml unpreserved	A	7	7	3.7	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-04A	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-04B	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-04C	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-04D	Amber 500ml unpreserved	C	7	7	3.8	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-04E	Amber 500ml unpreserved	C	7	7	3.8	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-05A	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-05B	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-05C	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-05D	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-05E	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-05F	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-05G	20ml Vial HCl preserved	B	NA		4.3	Y	Absent		DISSGAS(14)
L1913302-05H	20ml Vial HCl preserved	B	NA		4.3	Y	Absent		DISSGAS(14)
L1913302-05I	Plastic 120ml HNO3 preserved	B	<2	<2	4.3	Y	Absent		FE-TI(180)
L1913302-05J	Plastic 250ml unpreserved/No Headspace	B	NA		4.3	Y	Absent		ALK-T-2320(14)
L1913302-05K	Plastic 500ml unpreserved	B	7	7	4.3	Y	Absent		OPHOS-4500(2),CL-300(28),SO4-9038(28),NO3-4500(2),PH-4500(.01)
L1913302-05L	Plastic 500ml H2SO4 preserved	B	<2	<2	4.3	Y	Absent		TPO4-4500(28),NH3-4500(28)

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913302**Project Number:** RA-008**Report Date:** 04/10/19**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1913302-05M	Amber 500ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-05N	Amber 500ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-06A	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-06B	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-06C	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-06D	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-06E	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-06F	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-06G	20ml Vial HCl preserved	B	NA		4.3	Y	Absent		DISSGAS(14)
L1913302-06H	20ml Vial HCl preserved	B	NA		4.3	Y	Absent		DISSGAS(14)
L1913302-06I	Plastic 120ml HNO3 preserved	B	<2	<2	4.3	Y	Absent		FE-TI(180)
L1913302-06J	Plastic 250ml unpreserved/No Headspace	B	NA		4.3	Y	Absent		ALK-T-2320(14)
L1913302-06K	Plastic 500ml unpreserved	B	7	7	4.3	Y	Absent		OPHOS-4500(2),CL-300(28),SO4-9038(28),NO3-4500(2),PH-4500(.01)
L1913302-06L	Plastic 500ml H2SO4 preserved	B	<2	<2	4.3	Y	Absent		TPO4-4500(28),NH3-4500(28)
L1913302-06M	Amber 500ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-06N	Amber 500ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-07A	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-07B	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-07C	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-07D	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-07E	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-07F	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-07G	20ml Vial HCl preserved	B	NA		4.3	Y	Absent		DISSGAS(14)
L1913302-07H	20ml Vial HCl preserved	B	NA		4.3	Y	Absent		DISSGAS(14)
L1913302-07I	Plastic 120ml HNO3 preserved	B	<2	<2	4.3	Y	Absent		FE-TI(180)
L1913302-07J	Plastic 250ml unpreserved/No Headspace	B	NA		4.3	Y	Absent		ALK-T-2320(14)
L1913302-07K	Plastic 500ml unpreserved	B	7	7	4.3	Y	Absent		OPHOS-4500(2),CL-300(28),SO4-9038(28),NO3-4500(2),PH-4500(.01)
L1913302-07L	Plastic 500ml H2SO4 preserved	B	<2	<2	4.3	Y	Absent		TPO4-4500(28),NH3-4500(28)

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L1913302**Project Number:** RA-008**Report Date:** 04/10/19**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1913302-07M	Amber 500ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-07N	Amber 500ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-08A	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-08B	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-08C	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-08D	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-08E	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-08F	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-08G	20ml Vial HCl preserved	B	NA		4.3	Y	Absent		DISSGAS(14)
L1913302-08H	20ml Vial HCl preserved	B	NA		4.3	Y	Absent		DISSGAS(14)
L1913302-08I	Plastic 120ml HNO3 preserved	B	<2	<2	4.3	Y	Absent		FE-TI(180)
L1913302-08J	Plastic 250ml unpreserved/No Headspace	B	NA		4.3	Y	Absent		ALK-T-2320(14)
L1913302-08K	Plastic 500ml unpreserved	B	7	7	4.3	Y	Absent		OPHOS-4500(2),CL-300(28),SO4-9038(28),NO3-4500(2),PH-4500(.01)
L1913302-08L	Plastic 500ml H2SO4 preserved	B	<2	<2	4.3	Y	Absent		TPO4-4500(28),NH3-4500(28)
L1913302-08M	Amber 500ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-08N	Amber 500ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-09A	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-09B	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-09C	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-09D	Amber 500ml unpreserved	C	7	7	3.8	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-09E	Amber 500ml unpreserved	C	7	7	3.8	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-10A	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-10B	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-10C	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-10D	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-10E	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-10F	Vial H2SO4 preserved	B	NA		4.3	Y	Absent		TOC-9060(28)
L1913302-10G	20ml Vial HCl preserved	B	NA		4.3	Y	Absent		DISSGAS(14)

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

Serial\_No:04101915:15  
**Lab Number:** L1913302  
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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1913302-10H	20ml Vial HCl preserved	B	NA		4.3	Y	Absent		DISSGAS(14)
L1913302-10I	Plastic 120ml HNO3 preserved	B	<2	<2	4.3	Y	Absent		FE-TI(180)
L1913302-10J	Plastic 250ml unpreserved/No Headspace	B	NA		4.3	Y	Absent		ALK-T-2320(14)
L1913302-10K	Plastic 500ml unpreserved	B	7	7	4.3	Y	Absent		OPHOS-4500(2),CL-300(28),SO4-9038(28),NO3-4500(2),PH-4500(.01)
L1913302-10L	Plastic 500ml H2SO4 preserved	B	<2	<2	4.3	Y	Absent		TPO4-4500(28),NH3-4500(28)
L1913302-10M	Amber 500ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-10N	Amber 500ml unpreserved	B	7	7	4.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-11A	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-11B	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-11C	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-11D	Amber 500ml unpreserved	C	7	7	3.8	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-11E	Amber 500ml unpreserved	C	7	7	3.8	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1913302-12A	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)
L1913302-12B	Vial HCl preserved	B	NA		4.3	Y	Absent		8260(14)

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

Report Format: Data Usability Report



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

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

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1.8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

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

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

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

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

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

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- 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.



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** RA-008

**Lab Number:** L1913302  
**Report Date:** 04/10/19

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 117 Technical Guidance for the Natural Attenuation Indicators: Methane, Ethane, and Ethene, EPA-NE, Revision 1, February 21, 2002 and Sample Preparation & Calculations for Dissolved Gas Analysis in Water Samples using a GC Headspace Equilibration Technique, EPA RSKSOP-175, Revision 2, May 2004.
- 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

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

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene

**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 6860:** SCM: Perchlorate

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

### Mansfield Facility:

#### Drinking Water

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

**EPA 522.**

#### Non-Potable Water

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

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

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





# CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 4/3/19

ALPHA Job #: L1913302

8 Walkup Drive  
Westboro, MA 01581  
Tel: 508-898-9220

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

**Project Information** | **Report Information - Data Deliverables** | **Billing Information**

Project Name: *Reynolds Wayland* |  ADEX |  EMAIL |  Same as Client info | PO #:

**Client Information** | **Project Location:** *Wayland MA* | **Regulatory Requirements & Project Information Requirements**

Client: *Inventory Engineering Solutions* | Project #: *BA-008* |  Yes  No MA MCP Analytical Methods |  Yes  No CT RCP Analytical Methods  
 Address: *32 Rural St* | Project Manager: *Vicki Parryer* |  Yes  No Matrix Spike Required on this SDG? (Required for MCP Inorganics)  
*Danvers MA 02184* | ALPHA Quote #: |  Yes  No GW1 Standards (Info Required for Metals & EPH with Targets)  
 Phone: *508-668-0033* |  Yes  No NPDES RGP  
 Email: *vparryer@IESolutions.com* |  Other State Fed Program | Criteria: *GW-3*

**Turn-Around Time**

Standard |  RUSH (only confirmed if pre-approved)  
 Date Due: *5 days*  
*4/10/19*

Additional Project Information:

**ANALYSIS**

VOC:  8260 |  624 |  524.2  
 SVOC:  ABN |  PAH | *8270-SIM*  
 METALS:  MCP 13 |  MCP 14 |  RCP 15  
 METALS:  RCRA5 |  RCRA8 |  PP13  
 EPH:  Ranges & Targets |  Ranges Only  
 VPH:  Ranges & Targets |  Ranges Only  
 PCB |  PEST  
 TPH:  Quant Only |  Fingerprint

**SAMPLE INFO**

Filtration  
 Field  
 Lab to do

Preservation  
 Lab to do

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	ANALYSIS												SAMPLE INFO	Sample Comments	TOTAL # BOTTLES
		Date	Time			VOC	SVOC	METALS	METALS	EPH	VPH	PCB	TPH	Filtration	Preservation					
B3302-11	Dup 01	4/3/19	-	SW	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5
-12	Trip Blanks	-	-	-	-	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2
<del>12</del>	Temp Blank	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		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= HNO<sub>3</sub>
  - D= H<sub>2</sub>SO<sub>4</sub>
  - E= NaOH
  - F= MeOH
  - G= NaHSO<sub>4</sub>
  - H= Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>
  - I= Ascorbic Acid
  - J= NH<sub>4</sub>Cl
  - K= Zn Acetate
  - O= Other

Container Type	V	A
Preservative	B	A

Relinquished By:	Date/Time	Received By:	Date/Time
<i>[Signature]</i>	4/3/19 1330	<i>[Signature]</i>	4/3/19 13:30
<i>[Signature]</i>	4/3/19	<i>[Signature]</i>	

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