

04 August 2010  
Reference: 0114119

Mr. Anthony DeLuca  
The Koffler Group  
10 Memorial Boulevard  
Suite 901  
Providence, RI 02903



RE: Transmittal of Groundwater Analytical Data  
Former Raytheon Facility  
430 Boston Post Road, Wayland, Massachusetts

Dear Mr. DeLuca:

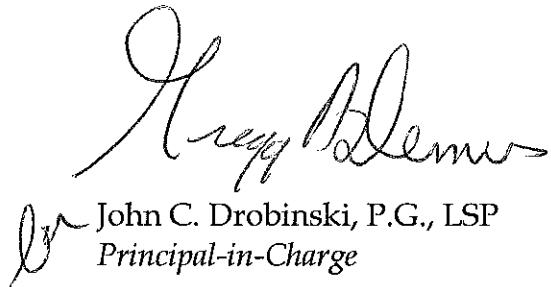
On behalf of Raytheon Company (Raytheon), Environmental Resources Management (ERM) is submitting the results of groundwater sample analyses related to the Former Raytheon Facility located at 430 Boston Post Road in Wayland, Massachusetts (Site). These results are submitted pursuant to 310 CMR 40.1403(10) of the Massachusetts Contingency Plan (MCP).

ERM collected groundwater samples from 33 wells on portions of the Site within the boundaries of your property on 19, 20, 21, and 22 July 2010. Samples were submitted to Alpha Analytical, Inc. of Westborough, Massachusetts for analysis of chlorinated volatile organic compounds by US EPA Method 8260B, sulfate by US EPA Method 9038, total organic carbon by US EPA Method 9060, and/or dissolved sodium and potassium by US EPA Method 6010B. Additionally, ERM used a colorimetric method to analyze groundwater samples from another 27 monitoring wells. Analytical results are attached to this letter. These analytical data will be provided to the Massachusetts Department of Environmental Protection in the next required MCP submittal.

Raytheon has implemented the Public Involvement Process in accordance with 310 CMR 40.1405. Documents pertaining to the Site can be found at the Board of Health, the Wayland Public Library Public Involvement Plan files, or at [www.ermne.com](http://www.ermne.com) (username = raytheon, password = wayland).

If you have any questions or comments, please contact the undersigned at (617) 646-7800 or Jonathan Hone, Raytheon Company, at (978) 436-8298.

Sincerely,



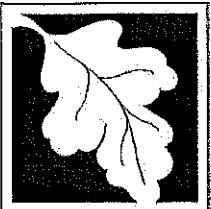
John C. Drobinski, P.G., LSP  
*Principal-in-Charge*



Jason D. Flattery, P.E.  
*Project Manager*

enclosures: BWSC-123 – Notice of Environmental Sampling  
Laboratory analytical reports

cc: Jonathan Hone, Raytheon Company  
Louis Burkhardt, Raytheon Company  
Ben Gould, CMG Environmental  
PIP Repositories



## NOTICE OF ENVIRONMENTAL SAMPLING

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

**BWSC 123**

This Notice is Related to  
Release Tracking Number

3 13302

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

1. Street Address: 430 Boston Post Road

City/Town: Wayland Zip Code: 01778

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

1. Name: The Koffler Group

2. Street Address: 10 Memorial Boulevard, Suite 901

City/Town: Providence, RI Zip Code: 02903

**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: 430 Boston Post Road

City/Town: Wayland Zip Code: 01778

2. MCP phase of work during which the sampling will be/has been conducted:

- Immediate Response Action
- Release Abatement Measure
- Utility-related Abatement Measure
- Phase I Initial Site Investigation
- Phase II Comprehensive Site Assessment
- Phase III Feasibility Evaluation
- Phase IV Remedy Implementation Plan
- Phase V/Remedy Operation Status
- Post-Class C Operation, Maintenance and Monitoring
- 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) to the extent known at the time of this notice.

Collection of groundwater samples from existing monitoring wells.

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

Contact Name: Louis J. Burkhardt

Street Address: 880 Technology Park Drive, T-3033

City/Town: Billerica Zip Code: 01821

Telephone: (978) 436-8238 Email: louis\_j\_burkhardt@raytheon.com

## **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 under the Massachusetts Contingency Plan at a property 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/dep/cleanup/oview.htm>. 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://mass.gov/dep/about/region/schedule.htm> if you would like to make an appointment to see these files. 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

Lab Number:	L1010863
Client:	ERM Consulting & Engineering, Inc. 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Phone:	(617) 646-7816
Project Name:	RAYTHEON WAYLAND
Project Number:	0114119
Report Date:	07/26/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1010863-01	MW-553-20100719-01	WAYLAND, MA	07/19/10 11:15
L1010863-02	IW-12-20100719-01	WAYLAND, MA	07/19/10 13:40
L1010863-03	IW-11-20100719-01	WAYLAND, MA	07/19/10 15:20
L1010863-04	IW-9-20100719-01	WAYLAND, MA	07/19/10 11:00
L1010863-05	IW-8-20100719-01	WAYLAND, MA	07/19/10 12:10
L1010863-06	IW-7-20100719-01	WAYLAND, MA	07/19/10 13:25
L1010863-07	IW-1-20100719-01	WAYLAND, MA	07/19/10 11:10
L1010863-08	IW-2-20100719-01	WAYLAND, MA	07/19/10 12:20
L1010863-09	IW-3-20100719-01	WAYLAND, MA	07/19/10 13:10
L1010863-10	TB-001-20100719-01	WAYLAND, MA	07/19/10 00:00
L1010863-11	MW-560-20100719-01	WAYLAND, MA	07/19/10 15:30
L1010863-12	IW-17-20100719-01	WAYLAND, MA	07/19/10 14:30

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

### MADEP MCP Response Action Analytical Report Certification

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

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

<b>A response to questions G, H and I is required for "Presumptive Certainty" status</b>		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

**For any questions answered "No", please refer to the case narrative section on the following page(s).**

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



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

### 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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. 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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

For additional information, please contact Client Services at 800-624-9220.

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### MCP Related Narratives

#### Sample Receipt

The samples were Field Filtered for Dissolved Metals only.

#### Volatile Organics

L1010863-03, -07, -08, -09 and -12 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

In reference to question G:

L1010863-03, -07, -08, -09 and -12: One or more of the target analytes did not achieve the requested CAM reporting limits.

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

### Case Narrative (continued)

In reference to question H:

The WG424008-1/-2 LCS/LCSD RPD, associated with L1010863-03, is above the acceptance criteria for Dichlorodifluoromethane (28%); however, the individual LCS/LCSD recoveries are within method limits.

The WG423724-5 MSD recovery, performed on L1010863-11, is outside the acceptance criteria for cis-1,2-Dichloroethene (46%). The unacceptable percent recovery is attributed to the elevated concentrations of target compounds present in the sample utilized for the MS/MSD.

The WG423724-4/-5 MS/MSD RPD, performed on L1010863-11, is above the acceptance criteria for cis-1,2-Dichloroethene (44%).

The initial calibration, associated with L1010863-01, -02 and -04 through -12, utilized a quadratic fit for Bromoform.

The initial calibration, associated with L1010863-03, utilized a quadratic fit for Carbon tetrachloride, Chlorodibromomethane, 1,1,1,2-Tetrachloroethane and Bromoform.

The continuing calibration standards, associated with L1010863-01 through -12, are outside the acceptance criteria for several compounds; however, they are within overall method allowances. Copies of the continuing calibration standards are included as an addendum to this report.

In reference to question I:

All samples were analyzed for a subset of MCP compounds per the Chain of Custody.

### Metals

In reference to question I:

All samples were analyzed for a subset of MCP elements per the Chain of Custody.

### Non-MCP Related Narratives

#### Sulfate

L1010863-05, -08, -11 and -12 have elevated detection limits due to the dilutions required to quantitate the results within the calibration range.

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

### Case Narrative (continued)

#### Total Organic Carbon

L1010863-08, -11 and -12 have elevated detection limits due to the dilutions required by the sample matrix.

The initial calibration, associated with L1010863-02, -04, and -05 through -12, utilized a quadratic fit for Bromoform

The initial calibration, associated with L1010863-03, did not meet the method required minimum response factors for 1,4-Dioxane and utilized a quadratic fit for Acetone, Carbon tetrachloride, Chlorodibromomethane, 1,1,1,2-Tetrachloroethane, and Bromoform.

The continuing calibration standard, associated with L1010863-03, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

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: 07/26/10

# ORGANICS



# VOLATILES



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-01	Date Collected:	07/19/10 11:15
Client ID:	MW-553-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/20/10 12:04		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	ND	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	11	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	ND	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	57	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	11	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-01	Date Collected:	07/19/10 11:15
Client ID:	MW-553-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	106		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-02	Date Collected:	07/19/10 13:40
Client ID:	IW-12-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/20/10 12:36		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	ND	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	ND	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	ND	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	ND	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-02	Date Collected:	07/19/10 13:40
Client ID:	IW-12-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	111		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-03	D	Date Collected:	07/19/10 15:20
Client ID:	IW-11-20100719-01		Date Received:	07/19/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/21/10 16:21			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	5.0	--	2.5
1,1-Dichloroethane	ND		ug/l	2.5	--	2.5
Chloroform	ND		ug/l	2.5	--	2.5
Carbon tetrachloride	ND		ug/l	2.5	--	2.5
1,2-Dichloropropane	ND		ug/l	2.5	--	2.5
Dibromochloromethane	ND		ug/l	2.5	--	2.5
1,1,2-Trichloroethane	ND		ug/l	2.5	--	2.5
Tetrachloroethene	ND		ug/l	2.5	--	2.5
Chlorobenzene	ND		ug/l	2.5	--	2.5
1,2-Dichloroethane	ND		ug/l	2.5	--	2.5
1,1,1-Trichloroethane	ND		ug/l	2.5	--	2.5
Bromodichloromethane	ND		ug/l	2.5	--	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
Bromoform	ND		ug/l	5.0	--	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Chloromethane	ND		ug/l	5.0	--	2.5
Vinyl chloride	12		ug/l	2.5	--	2.5
Chloroethane	ND		ug/l	5.0	--	2.5
1,1-Dichloroethene	ND		ug/l	2.5	--	2.5
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	2.5
Trichloroethene	ND		ug/l	2.5	--	2.5
1,2-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5	--	2.5
cis-1,2-Dichloroethene	160		ug/l	2.5	--	2.5
Dichlorodifluoromethane	ND		ug/l	5.0	--	2.5
1,2-Dibromoethane	ND		ug/l	5.0	--	2.5
1,3-Dichloropropane	ND		ug/l	5.0	--	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-03	D	Date Collected:	07/19/10 15:20
Client ID:	IW-11-20100719-01		Date Received:	07/19/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	5.0	--	2.5
p-Chlorotoluene	ND		ug/l	5.0	--	2.5
Hexachlorobutadiene	ND		ug/l	1.5	--	2.5
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	109		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-04	Date Collected:	07/19/10 11:00
Client ID:	IW-9-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/20/10 13:41		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	ND	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	ND	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	3.2	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	6.7	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	4.9	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-04	Date Collected:	07/19/10 11:00
Client ID:	IW-9-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	116		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-05	Date Collected:	07/19/10 12:10
Client ID:	IW-8-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/20/10 14:13		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	2.7		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	2.9		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	4.7		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-05	Date Collected:	07/19/10 12:10
Client ID:	IW-8-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	119		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-06	Date Collected:	07/19/10 13:25
Client ID:	IW-7-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/20/10 14:45		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	ND	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	ND	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	10	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	18	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	30	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-06	Date Collected:	07/19/10 13:25
Client ID:	IW-7-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	122		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-07	D	Date Collected:	07/19/10 11:10
Client ID:	IW-1-20100719-01		Date Received:	07/19/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/20/10 15:18			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	8.0	--	4
1,1-Dichloroethane	ND		ug/l	4.0	--	4
Chloroform	ND		ug/l	4.0	--	4
Carbon tetrachloride	ND		ug/l	4.0	--	4
1,2-Dichloropropane	ND		ug/l	4.0	--	4
Dibromochloromethane	ND		ug/l	4.0	--	4
1,1,2-Trichloroethane	ND		ug/l	4.0	--	4
Tetrachloroethene	ND		ug/l	4.0	--	4
Chlorobenzene	ND		ug/l	4.0	--	4
1,2-Dichloroethane	ND		ug/l	4.0	--	4
1,1,1-Trichloroethane	ND		ug/l	4.0	--	4
Bromodichloromethane	ND		ug/l	4.0	--	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	--	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	--	4
Bromoform	ND		ug/l	8.0	--	4
1,1,2,2-Tetrachloroethane	ND		ug/l	4.0	--	4
Chloromethane	ND		ug/l	8.0	--	4
Vinyl chloride	30		ug/l	4.0	--	4
Chloroethane	ND		ug/l	8.0	--	4
1,1-Dichloroethene	ND		ug/l	4.0	--	4
trans-1,2-Dichloroethene	ND		ug/l	4.0	--	4
Trichloroethene	17		ug/l	4.0	--	4
1,2-Dichlorobenzene	ND		ug/l	4.0	--	4
1,3-Dichlorobenzene	ND		ug/l	4.0	--	4
1,4-Dichlorobenzene	ND		ug/l	4.0	--	4
cis-1,2-Dichloroethene	220		ug/l	4.0	--	4
Dichlorodifluoromethane	ND		ug/l	8.0	--	4
1,2-Dibromoethane	ND		ug/l	8.0	--	4
1,3-Dichloropropane	ND		ug/l	8.0	--	4
1,1,1,2-Tetrachloroethane	ND		ug/l	4.0	--	4

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-07	D	Date Collected:	07/19/10 11:10
Client ID:	IW-1-20100719-01		Date Received:	07/19/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	8.0	--	4
p-Chlorotoluene	ND		ug/l	8.0	--	4
Hexachlorobutadiene	ND		ug/l	2.4	--	4
1,2,4-Trichlorobenzene	ND		ug/l	8.0	--	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	120		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-08	D	Date Collected:	07/19/10 12:20
Client ID:	IW-2-20100719-01		Date Received:	07/19/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/20/10 15:50			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	40	--	20
1,1-Dichloroethane	ND		ug/l	20	--	20
Chloroform	ND		ug/l	20	--	20
Carbon tetrachloride	ND		ug/l	20	--	20
1,2-Dichloropropane	ND		ug/l	20	--	20
Dibromochloromethane	ND		ug/l	20	--	20
1,1,2-Trichloroethane	ND		ug/l	20	--	20
Tetrachloroethene	ND		ug/l	20	--	20
Chlorobenzene	ND		ug/l	20	--	20
1,2-Dichloroethane	ND		ug/l	20	--	20
1,1,1-Trichloroethane	ND		ug/l	20	--	20
Bromodichloromethane	ND		ug/l	20	--	20
trans-1,3-Dichloropropene	ND		ug/l	10	--	20
cis-1,3-Dichloropropene	ND		ug/l	10	--	20
Bromoform	ND		ug/l	40	--	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	--	20
Chloromethane	ND		ug/l	40	--	20
Vinyl chloride	86		ug/l	20	--	20
Chloroethane	ND		ug/l	40	--	20
1,1-Dichloroethene	ND		ug/l	20	--	20
trans-1,2-Dichloroethene	39		ug/l	20	--	20
Trichloroethene	ND		ug/l	20	--	20
1,2-Dichlorobenzene	ND		ug/l	20	--	20
1,3-Dichlorobenzene	ND		ug/l	20	--	20
1,4-Dichlorobenzene	ND		ug/l	20	--	20
cis-1,2-Dichloroethene	870		ug/l	20	--	20
Dichlorodifluoromethane	ND		ug/l	40	--	20
1,2-Dibromoethane	ND		ug/l	40	--	20
1,3-Dichloropropane	ND		ug/l	40	--	20
1,1,1,2-Tetrachloroethane	ND		ug/l	20	--	20



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-08	D	Date Collected:	07/19/10 12:20
Client ID:	IW-2-20100719-01		Date Received:	07/19/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	40	--	20
p-Chlorotoluene	ND		ug/l	40	--	20
Hexachlorobutadiene	ND		ug/l	12	--	20
1,2,4-Trichlorobenzene	ND		ug/l	40	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	119		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-09	D	Date Collected:	07/19/10 13:10
Client ID:	IW-3-20100719-01		Date Received:	07/19/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/20/10 16:22			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	200	--	100
1,1-Dichloroethane	ND		ug/l	100	--	100
Chloroform	ND		ug/l	100	--	100
Carbon tetrachloride	ND		ug/l	100	--	100
1,2-Dichloropropane	ND		ug/l	100	--	100
Dibromochloromethane	ND		ug/l	100	--	100
1,1,2-Trichloroethane	ND		ug/l	100	--	100
Tetrachloroethene	ND		ug/l	100	--	100
Chlorobenzene	ND		ug/l	100	--	100
1,2-Dichloroethane	ND		ug/l	100	--	100
1,1,1-Trichloroethane	ND		ug/l	100	--	100
Bromodichloromethane	ND		ug/l	100	--	100
trans-1,3-Dichloropropene	ND		ug/l	50	--	100
cis-1,3-Dichloropropene	ND		ug/l	50	--	100
Bromoform	ND		ug/l	200	--	100
1,1,2,2-Tetrachloroethane	ND		ug/l	100	--	100
Chloromethane	ND		ug/l	200	--	100
Vinyl chloride	ND		ug/l	100	--	100
Chloroethane	ND		ug/l	200	--	100
1,1-Dichloroethene	ND		ug/l	100	--	100
trans-1,2-Dichloroethene	ND		ug/l	100	--	100
Trichloroethene	440		ug/l	100	--	100
1,2-Dichlorobenzene	ND		ug/l	100	--	100
1,3-Dichlorobenzene	ND		ug/l	100	--	100
1,4-Dichlorobenzene	ND		ug/l	100	--	100
cis-1,2-Dichloroethene	4900		ug/l	100	--	100
Dichlorodifluoromethane	ND		ug/l	200	--	100
1,2-Dibromoethane	ND		ug/l	200	--	100
1,3-Dichloropropane	ND		ug/l	200	--	100
1,1,1,2-Tetrachloroethane	ND		ug/l	100	--	100



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-09	D	Date Collected:	07/19/10 13:10
Client ID:	IW-3-20100719-01		Date Received:	07/19/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	200	--	100
p-Chlorotoluene	ND		ug/l	200	--	100
Hexachlorobutadiene	ND		ug/l	60	--	100
1,2,4-Trichlorobenzene	ND		ug/l	200	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	118		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-10	Date Collected:	07/19/10 00:00
Client ID:	TB-001-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/20/10 10:59		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	ND	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	ND	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	ND	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	ND	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-10	Date Collected:	07/19/10 00:00
Client ID:	TB-001-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	108		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-11	Date Collected:	07/19/10 15:30
Client ID:	MW-560-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/20/10 11:32		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	1.1	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	ND	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	11	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	8.7	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	42	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-11	Date Collected:	07/19/10 15:30
Client ID:	MW-560-20100719-01	Date Received:	07/19/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	116		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-12	D	Date Collected:	07/19/10 14:30
Client ID:	IW-17-20100719-01		Date Received:	07/19/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/20/10 16:55			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	8.0	--	4
1,1-Dichloroethane	ND		ug/l	4.0	--	4
Chloroform	ND		ug/l	4.0	--	4
Carbon tetrachloride	ND		ug/l	4.0	--	4
1,2-Dichloropropane	ND		ug/l	4.0	--	4
Dibromochloromethane	ND		ug/l	4.0	--	4
1,1,2-Trichloroethane	ND		ug/l	4.0	--	4
Tetrachloroethene	ND		ug/l	4.0	--	4
Chlorobenzene	ND		ug/l	4.0	--	4
1,2-Dichloroethane	ND		ug/l	4.0	--	4
1,1,1-Trichloroethane	ND		ug/l	4.0	--	4
Bromodichloromethane	ND		ug/l	4.0	--	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	--	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	--	4
Bromoform	ND		ug/l	8.0	--	4
1,1,2,2-Tetrachloroethane	ND		ug/l	4.0	--	4
Chloromethane	ND		ug/l	8.0	--	4
Vinyl chloride	ND		ug/l	4.0	--	4
Chloroethane	ND		ug/l	8.0	--	4
1,1-Dichloroethene	ND		ug/l	4.0	--	4
trans-1,2-Dichloroethene	ND		ug/l	4.0	--	4
Trichloroethene	38		ug/l	4.0	--	4
1,2-Dichlorobenzene	ND		ug/l	4.0	--	4
1,3-Dichlorobenzene	ND		ug/l	4.0	--	4
1,4-Dichlorobenzene	ND		ug/l	4.0	--	4
cis-1,2-Dichloroethene	120		ug/l	4.0	--	4
Dichlorodifluoromethane	ND		ug/l	8.0	--	4
1,2-Dibromoethane	ND		ug/l	8.0	--	4
1,3-Dichloropropane	ND		ug/l	8.0	--	4
1,1,1,2-Tetrachloroethane	ND		ug/l	4.0	--	4

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## SAMPLE RESULTS

Lab ID:	L1010863-12	D	Date Collected:	07/19/10 14:30
Client ID:	IW-17-20100719-01		Date Received:	07/19/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	8.0	--	4
p-Chlorotoluene	ND		ug/l	8.0	--	4
Hexachlorobutadiene	ND		ug/l	2.4	--	4
1,2,4-Trichlorobenzene	ND		ug/l	8.0	--	4

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/20/10 09:23  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	01-02,04-12		Batch:	WG423724-3	
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/20/10 09:23  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02,04-12 Batch: WG423724-3					
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	112		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/21/10 09:19  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	03	Batch:	WG424008-3		
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/21/10 09:19  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	03	Batch:	WG424008-3		
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	10	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	5.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/21/10 09:19  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	03	Batch:	WG424008-3		
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
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	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	111		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02,04-12 Batch: WG423724-1 WG423724-2								
Methylene chloride	95		91		70-130	4		20
1,1-Dichloroethane	96		86		70-130	11		20
Chloroform	98		93		70-130	5		20
Carbon tetrachloride	109		103		70-130	6		20
1,2-Dichloropropane	94		93		70-130	1		20
Dibromochloromethane	100		104		70-130	4		20
1,1,2-Trichloroethane	88		89		70-130	1		20
Tetrachloroethene	98		92		70-130	6		20
Chlorobenzene	94		84		70-130	11		20
1,2-Dichloroethane	89		87		70-130	2		20
1,1,1-Trichloroethane	100		92		70-130	8		20
Bromodichloromethane	102		103		70-130	1		20
trans-1,3-Dichloropropene	90		87		70-130	3		20
cis-1,3-Dichloropropene	81		82		70-130	1		20
Bromoform	119		124		70-130	4		20
1,1,2,2-Tetrachloroethane	89		98		70-130	10		20
Chloromethane	84		77		70-130	9		20
Vinyl chloride	86		80		70-130	7		20
Chloroethane	94		90		70-130	4		20
1,1-Dichloroethene	95		88		70-130	8		20
trans-1,2-Dichloroethene	100		88		70-130	13		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02,04-12 Batch: WG423724-1 WG423724-2								
Trichloroethene	91		83		70-130	9		20
1,2-Dichlorobenzene	92		89		70-130	3		20
1,3-Dichlorobenzene	95		87		70-130	9		20
1,4-Dichlorobenzene	94		88		70-130	7		20
cis-1,2-Dichloroethene	100		90		70-130	11		20
Dichlorodifluoromethane	92		80		70-130	14		20
1,2-Dibromoethane	95		92		70-130	3		20
1,3-Dichloropropane	90		92		70-130	2		20
1,1,1,2-Tetrachloroethane	103		95		70-130	8		20
o-Chlorotoluene	95		84		70-130	12		20
p-Chlorotoluene	97		88		70-130	10		20
Hexachlorobutadiene	98		86		70-130	13		20
1,2,4-Trichlorobenzene	82		80		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	89		91		70-130
Toluene-d8	97		96		70-130
4-Bromofluorobenzene	91		94		70-130
Dibromofluoromethane	98		106		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03 Batch: WG424008-1 WG424008-2						
Methylene chloride	96	100	70-130	4		20
1,1-Dichloroethane	96	100	70-130	4		20
Chloroform	94	99	70-130	5		20
Carbon tetrachloride	108	109	70-130	1		20
1,2-Dichloropropane	90	89	70-130	1		20
Dibromochloromethane	108	104	70-130	4		20
1,1,2-Trichloroethane	94	86	70-130	9		20
Tetrachloroethene	88	89	70-130	1		20
Chlorobenzene	85	85	70-130	0		20
Trichlorofluoromethane	92	95	70-130	3		20
1,2-Dichloroethane	91	93	70-130	2		20
1,1,1-Trichloroethane	94	101	70-130	7		20
Bromodichloromethane	101	105	70-130	4		20
trans-1,3-Dichloropropene	85	86	70-130	1		20
cis-1,3-Dichloropropene	83	86	70-130	4		20
1,1-Dichloropropene	87	92	70-130	6		20
Bromoform	115	112	70-130	3		20
1,1,2,2-Tetrachloroethane	105	100	70-130	5		20
Benzene	92	95	70-130	3		20
Toluene	86	83	70-130	4		20
Ethylbenzene	93	90	70-130	3		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03 Batch: WG424008-1 WG424008-2								
Chloromethane	106		110		70-130	4		20
Bromomethane	92		106		70-130	14		20
Vinyl chloride	85		88		70-130	3		20
Chloroethane	85		89		70-130	5		20
1,1-Dichloroethene	91		96		70-130	5		20
trans-1,2-Dichloroethene	96		100		70-130	4		20
Trichloroethene	84		90		70-130	7		20
1,2-Dichlorobenzene	88		95		70-130	8		20
1,3-Dichlorobenzene	91		91		70-130	0		20
1,4-Dichlorobenzene	88		92		70-130	4		20
Methyl tert butyl ether	82		79		70-130	4		20
p/m-Xylene	90		86		70-130	5		20
o-Xylene	86		86		70-130	0		20
cis-1,2-Dichloroethene	97		98		70-130	1		20
Dibromomethane	93		94		70-130	1		20
1,2,3-Trichloropropane	105		96		70-130	9		20
Styrene	87		85		70-130	2		20
Dichlorodifluoromethane	83		110		70-130	<b>28</b>	Q	20
Acetone	121		105		70-130	14		20
Carbon disulfide	81		84		70-130	4		20
2-Butanone	108		102		70-130	6		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03 Batch: WG424008-1 WG424008-2								
4-Methyl-2-pentanone	102		106		70-130	4		20
2-Hexanone	107		91		70-130	16		20
Bromochloromethane	98		100		70-130	2		20
Tetrahydrofuran	101		93		70-130	8		20
2,2-Dichloropropane	91		94		70-130	3		20
1,2-Dibromoethane	89		91		70-130	2		20
1,3-Dichloropropane	90		89		70-130	1		20
1,1,1,2-Tetrachloroethane	106		100		70-130	6		20
Bromobenzene	93		96		70-130	3		20
n-Butylbenzene	92		90		70-130	2		20
sec-Butylbenzene	89		90		70-130	1		20
tert-Butylbenzene	86		88		70-130	2		20
o-Chlorotoluene	86		89		70-130	3		20
p-Chlorotoluene	101		105		70-130	4		20
1,2-Dibromo-3-chloropropane	96		102		70-130	6		20
Hexachlorobutadiene	80		86		70-130	7		20
Isopropylbenzene	87		84		70-130	4		20
p-Isopropyltoluene	90		88		70-130	2		20
Naphthalene	94		92		70-130	2		20
n-Propylbenzene	87		88		70-130	1		20
1,2,3-Trichlorobenzene	92		96		70-130	4		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03 Batch: WG424008-1 WG424008-2								
1,2,4-Trichlorobenzene	88		93		70-130	6		20
1,3,5-Trimethylbenzene	89		90		70-130	1		20
1,2,4-Trimethylbenzene	87		88		70-130	1		20
Ethyl ether	91		94		70-130	3		20
Isopropyl Ether	85		82		70-130	4		20
Ethyl-Tert-Butyl-Ether	82		80		70-130	2		20
Tertiary-Amyl Methyl Ether	88		84		70-130	5		20
1,4-Dioxane	123		102		70-130	19		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		95		70-130
Toluene-d8	92		92		70-130
4-Bromofluorobenzene	96		97		70-130
Dibromofluoromethane	106		104		70-130

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02,04-12 QC Batch ID: WG423724-4 WG423724-5 QC Sample: L1010863-11 Client ID: MW-560-20100719-01												
Methylene chloride	ND	10	11	109		10	103		70-130	6		20
1,1-Dichloroethane	1.1	10	12	106		11	100		70-130	6		20
Chloroform	ND	10	11	110		10	103		70-130	7		20
Carbon tetrachloride	ND	10	12	121		12	116		70-130	4		20
1,2-Dichloropropane	ND	10	10	104		10	102		70-130	2		20
Dibromochloromethane	ND	10	11	106		11	112		70-130	6		20
1,1,2-Trichloroethane	ND	10	10	100		9.8	98		70-130	2		20
Tetrachloroethene	ND	10	10	103		10	102		70-130	1		20
Chlorobenzene	ND	10	9.7	97		9.8	98		70-130	1		20
1,2-Dichloroethane	ND	10	11	109		10	104		70-130	5		20
1,1,1-Trichloroethane	ND	10	11	114		10	102		70-130	11		20
Bromodichloromethane	ND	10	12	121		11	114		70-130	6		20
trans-1,3-Dichloropropene	ND	10	9.6	96		9.5	95		70-130	1		20
cis-1,3-Dichloropropene	ND	10	8.6	86		7.9	79		70-130	8		20
Bromoform	ND	10	11	112		12	120		70-130	7		20
1,1,2,2-Tetrachloroethane	ND	10	9.4	94		9.8	98		70-130	4		20
Chloromethane	ND	10	9.2	92		8.8	88		70-130	4		20
Vinyl chloride	11	10	19	84		18	70		70-130	18		20
Chloroethane	ND	10	11	112		10	101		70-130	10		20
1,1-Dichloroethene	ND	10	12	118		11	109		70-130	8		20
trans-1,2-Dichloroethene	ND	10	11	114		10	105		70-130	8		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02,04-12 QC Batch ID: WG423724-4 WG423724-5 QC Sample: L1010863-11 Client ID: MW-560-20100719-01												
Trichloroethene	8.7	10	19	102		18	98		70-130	4		20
1,2-Dichlorobenzene	ND	10	8.8	88		9.5	95		70-130	8		20
1,3-Dichlorobenzene	ND	10	9.0	90		9.2	92		70-130	2		20
1,4-Dichlorobenzene	ND	10	8.9	89		8.8	88		70-130	1		20
cis-1,2-Dichloroethene	42	10	49	72		46	46	Q	70-130	44	Q	20
Dichlorodifluoromethane	ND	10	9.4	94		9.0	90		70-130	4		20
1,2-Dibromoethane	ND	10	10	101		10	103		70-130	2		20
1,3-Dichloropropane	ND	10	9.7	97		10	102		70-130	5		20
1,1,1,2-Tetrachloroethane	ND	10	10	104		10	104		70-130	0		20
o-Chlorotoluene	ND	10	7.6	76		7.5	75		70-130	1		20
p-Chlorotoluene	ND	10	9.2	92		9.1	91		70-130	1		20
Hexachlorobutadiene	ND	10	8.9	89		8.6	86		70-130	3		20
1,2,4-Trichlorobenzene	ND	10	7.6	76		7.6	76		70-130	0		20

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
1,2-Dichloroethane-d4	96		99		70-130
4-Bromofluorobenzene	84		94		70-130
Dibromofluoromethane	107		103		70-130
Toluene-d8	94		101		70-130

## METALS



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

**SAMPLE RESULTS**

Lab ID: L1010863-01  
Client ID: MW-553-20100719-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/19/10 11:15  
Date Received: 07/19/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	14		mg/l	2.5	--	1	07/20/10 12:00	07/21/10 23:38	EPA 3005A	97,6010B	AI
Sodium, Dissolved	17		mg/l	2.0	--	1	07/20/10 12:00	07/21/10 23:38	EPA 3005A	97,6010B	AI



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

**SAMPLE RESULTS**

Lab ID: L1010863-05  
Client ID: IW-8-20100719-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/19/10 12:10  
Date Received: 07/19/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	5.2		mg/l	2.5	--	1	07/20/10 12:00	07/21/10 23:48	EPA 3005A	97,6010B	AI
Sodium, Dissolved	27		mg/l	2.0	--	1	07/20/10 12:00	07/21/10 23:48	EPA 3005A	97,6010B	AI



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

**SAMPLE RESULTS**

Lab ID: L1010863-08  
Client ID: IW-2-20100719-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/19/10 12:20  
Date Received: 07/19/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	24		mg/l	2.5	--	1	07/20/10 12:00	07/21/10 23:51	EPA 3005A	97,6010B	AI
Sodium, Dissolved	37		mg/l	2.0	--	1	07/20/10 12:00	07/21/10 23:51	EPA 3005A	97,6010B	AI



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

**SAMPLE RESULTS**

Lab ID: L1010863-11  
Client ID: MW-560-20100719-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/19/10 15:30  
Date Received: 07/19/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	3.9		mg/l	2.5	--	1	07/20/10 12:00	07/21/10 23:54	EPA 3005A	97,6010B	AI
Sodium, Dissolved	47		mg/l	2.0	--	1	07/20/10 12:00	07/21/10 23:54	EPA 3005A	97,6010B	AI



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

**SAMPLE RESULTS**

Lab ID: L1010863-12  
Client ID: IW-17-20100719-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/19/10 14:30  
Date Received: 07/19/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	60		mg/l	2.5	--	1	07/20/10 12:00	07/21/10 23:57	EPA 3005A	97,6010B	AI
Sodium, Dissolved	35		mg/l	2.0	--	1	07/20/10 12:00	07/21/10 23:57	EPA 3005A	97,6010B	AI



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Dissolved Metals - Westborough Lab for sample(s): 01,05,08,11-12 Batch: WG423561-1									
Potassium, Dissolved	ND	mg/l	2.5	--	1	07/20/10 12:00	07/21/10 23:12	97,6010B	AI
Sodium, Dissolved	ND	mg/l	2.0	--	1	07/20/10 12:00	07/21/10 23:12	97,6010B	AI

### Prep Information

Digestion Method: EPA 3005A



# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01,05,08,11-12 Batch: WG423561-2 WG423561-3								
Potassium, Dissolved	99		99		80-120	0		20
Sodium, Dissolved	100		100		80-120	0		20

# **INORGANICS & MISCELLANEOUS**



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

### SAMPLE RESULTS

Lab ID: L1010863-01  
Client ID: MW-553-20100719-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/19/10 11:15  
Date Received: 07/19/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	20		mg/l	10	--	1	07/20/10 12:30	07/20/10 12:30	30,4500SO4-E	AW
Total Organic Carbon	0.90		mg/l	0.50	--	1	-	07/23/10 08:12	1,9060	DW



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

### SAMPLE RESULTS

Lab ID: L1010863-05  
Client ID: IW-8-20100719-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/19/10 12:10  
Date Received: 07/19/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	64		mg/l	20	--	2	07/20/10 12:30	07/20/10 12:30	30,4500SO4-E	AW
Total Organic Carbon	1.3		mg/l	0.50	--	1	-	07/23/10 08:12	1,9060	DW



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

### SAMPLE RESULTS

Lab ID: L1010863-08  
Client ID: IW-2-20100719-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/19/10 12:20  
Date Received: 07/19/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	27		mg/l	20	--	2	07/20/10 12:30	07/20/10 12:30	30,4500SO4-E	AW
Total Organic Carbon	3.1		mg/l	1.0	--	2	-	07/23/10 08:12	1,9060	DW



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

### SAMPLE RESULTS

Lab ID: L1010863-11  
Client ID: MW-560-20100719-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/19/10 15:30  
Date Received: 07/19/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	34		mg/l	20	--	2	07/20/10 12:30	07/20/10 12:30	30,4500SO4-E	AW
Total Organic Carbon	2.5		mg/l	1.0	--	2	-	07/23/10 08:12	1,9060	DW



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

### SAMPLE RESULTS

Lab ID: L1010863-12  
Client ID: IW-17-20100719-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/19/10 14:30  
Date Received: 07/19/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	37		mg/l	20	--	2	07/20/10 12:30	07/20/10 12:30	30,4500SO4-E	AW
Total Organic Carbon	49		mg/l	8.0	--	16	-	07/23/10 08:12	1,9060	DW



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01,05,08,11-12 Batch: WG423612-1									
Sulfate	ND	mg/l	10	--	1	07/20/10 12:30	07/20/10 12:30	30,4500SO4-E	AW
General Chemistry - Westborough Lab for sample(s): 01,05,08,11-12 Batch: WG424207-1									
Total Organic Carbon	ND	mg/l	0.50	--	1	-	07/23/10 08:12	1,9060	DW



# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,05,08,11-12 Batch: WG423612-2								
Sulfate	110	-	-	-	90-115	-	-	-
General Chemistry - Westborough Lab Associated sample(s): 01,05,08,11-12 Batch: WG424207-2								
Total Organic Carbon	96	-	-	-	90-110	-	-	-

**Matrix Spike Analysis**  
**Batch Quality Control**

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

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): 01,05,08,11-12 QC Batch ID: WG423612-3 QC Sample: L1010863-01 Client ID: MW-553-20100719-01												
Sulfate	20	40	64	110	-	-	-	-	55-147	-	-	14
General Chemistry - Westborough Lab Associated sample(s): 01,05,08,11-12 QC Batch ID: WG424207-3 QC Sample: L1010855-09 Client ID: MS Sample												
Total Organic Carbon	4.6	4	9.1	113	-	-	-	-	80-120	-	-	20

**Lab Duplicate Analysis**  
Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
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**Lab Number:** L1010863  
**Report Date:** 07/26/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,05,08,11-12 QC Batch ID: WG423612-4 QC Sample: L1010863-01 Client ID: MW-553-20100719-01						
Sulfate	20	20	mg/l	0		14
General Chemistry - Westborough Lab Associated sample(s): 01,05,08,11-12 QC Batch ID: WG424207-4 QC Sample: L1010950-11 Client ID: DUP Sample						
Total Organic Carbon	6.3	6.4	mg/l	2		20

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### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

**Reagent H2O Preserved Vials Frozen on:** NA

#### Cooler Information Custody Seal

##### Cooler

A	Absent
B	Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1010863-01A	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-01B	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-01C	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	3.7	Y	Absent	TOC-9060(28)
L1010863-01D	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	3.7	Y	Absent	TOC-9060(28)
L1010863-01E	Plastic 250ml unpreserved	B	7	4.9	Y	Absent	SO4-4500(28)
L1010863-01F	Plastic 250ml HNO <sub>3</sub> preserved	B	<2	4.9	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1010863-02A	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-02B	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-03A	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-03B	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-04A	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-04B	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-05A	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-05B	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-05C	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	3.7	Y	Absent	TOC-9060(28)
L1010863-05D	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	3.7	Y	Absent	TOC-9060(28)
L1010863-05E	Plastic 250ml unpreserved	B	7	4.9	Y	Absent	SO4-4500(28)
L1010863-05F	Plastic 250ml HNO <sub>3</sub> preserved	B	<2	4.9	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1010863-06A	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-06B	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-07A	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-07B	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-08A	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-08B	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-08C	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	3.7	Y	Absent	TOC-9060(28)

\*Values in parentheses indicate holding time in days

**Project Name:** RAYTHEON WAYLAND  
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**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1010863-08D	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	3.7	Y	Absent	TOC-9060(28)
L1010863-08E	Plastic 250ml unpreserved	B	7	4.9	Y	Absent	SO4-4500(28)
L1010863-08F	Plastic 250ml HNO <sub>3</sub> preserved	B	<2	4.9	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1010863-09A	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-09B	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-10A	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-10B	Vial HCl preserved	A	N/A	3.7	Y	Absent	-
L1010863-11A	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-11B	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-11C	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-11D	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-11E	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-11F	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-11G	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	3.7	Y	Absent	TOC-9060(28)
L1010863-11H	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	3.7	Y	Absent	TOC-9060(28)
L1010863-11I	Plastic 250ml unpreserved	B	7	4.9	Y	Absent	SO4-4500(28)
L1010863-11J	Plastic 250ml HNO <sub>3</sub> preserved	B	<2	4.9	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1010863-12A	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-12B	Vial HCl preserved	A	N/A	3.7	Y	Absent	MCP-8260-10(14)
L1010863-12C	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	3.7	Y	Absent	TOC-9060(28)
L1010863-12D	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	3.7	Y	Absent	TOC-9060(28)
L1010863-12E	Plastic 250ml unpreserved	B	7	4.9	Y	Absent	SO4-4500(28)
L1010863-12F	Plastic 250ml HNO <sub>3</sub> preserved	B	<2	4.9	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)

\*Values in parentheses indicate holding time in days

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## GLOSSARY

### *Acronyms*

- 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.
- MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
- MSD - Matrix Spike Sample Duplicate: Refer to MS.
- NA - Not Applicable.
- NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
- NI - Not Ignitable.
- 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.

### *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.

### *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 five times (5x) 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.
- 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.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- 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. 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.

*Report Format:* Data Usability Report



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

*Data Qualifiers*

- RE** - Analytical results are from sample re-extraction.  
**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).  
**ND** - Not detected at the reporting limit (RL) for the sample.

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010863  
**Report Date:** 07/26/10

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

## 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 its 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.



## Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.

For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### **Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

### **Maine Department of Human Services Certificate/Lab ID: 2009024.**

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)

Solid Waste/Soil (Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

### **Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.**

#### *Drinking Water*

Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)

(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B.

Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)

(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), 314.0, 332.

Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; MF-SM9222D

#### *Non-Potable Water*

Inorganic Parameters:; (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)

(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)

245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

**New Hampshire Department of Environmental Services** Certificate/Lab ID: 200307. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

**New Jersey Department of Environmental Protection** Certificate/Lab ID: MA935. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

**New York Department of Health** Certificate/Lab ID: 11148. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500CI-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

**North Carolina Department of the Environment and Natural Resources** Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

**Pennsylvania Department of Environmental Protection** Certificate/Lab ID : 68-03671. **NELAP Accredited.**

Non-Potable Water (Organic Parameters: EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.  
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

**Texas Comission on Environmental Quality** Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S2<sup>-</sup>D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

**Department of Defense** Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A , 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)

#### **Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

ALPHA

D

CHAIN OF CUSTODY

PAGE 1 OF 2

7/19/10

ALPHA Job #: L1010863

Date Rec'd in Lab: 7/19/10

WESTBORO, MA  
TEL: 508-898-9220  
FAX: 508-898-9193

MANSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-822-3288

**Client Information**

**Client:** ERM  
**Address:** 399 Boylston St.  
**Phone:** (617) 646-7868  
**Fax:** (617) 267-6447  
**Email:** jason.flattery@erm.com

**Project Information**

**Project Name:** Ruthnum Wetland  
**Project Location:** Weymouth, MA

**Project #:** 811419  
**Project Manager:** Jason Flattery

**ALPHA Quote #:**  
**Turn-Around Time:**

Standard  
 RUSH  
(only confirmed if pre-approved)  
**Date Due:** 7/26/10  
**Time:**

These samples have been previously analyzed by Alpha

**Other Project Specific Requirements/Comments/Detection Limits:**  
If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.  
(Note: All CAM methods for inorganic analyses require MS every 20 soil samples)

Report Information - Data Deliverables		Billing Information	
<input type="checkbox"/> FAX	<input checked="" type="checkbox"/> EMAIL	<input checked="" type="checkbox"/> Same as Client Info	PO #:
<input checked="" type="checkbox"/> SRADEX		<input checked="" type="checkbox"/> Add'l Deliverables	
<b>Regulatory Requirements/Report Limits</b>			
<b>MA MCP PRESUMPTIVE CERTAINTY ... CT REASONABLE CONFIDENCE PROTO</b>		<b>Criteria: GW-1</b>	
<b>MA MCP</b>		<b>State/Fed Program</b>	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Are MCP Analytical Methods Required?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Are CT RCP (Reasonable Confidence Protocols) Required?	
<b>ANALYSIS</b> 80216 by 8260 TOC SO4 DISS-Na+K 154			
<b>SAMPLE HANDLING</b> FILTRATION <input checked="" type="checkbox"/> Done <input type="checkbox"/> Diss Na+K <input type="checkbox"/> Not needed <input type="checkbox"/> Lab to do <input type="checkbox"/> Preservation <input type="checkbox"/> Lab to do <small>(Please specify below)</small>			
<b>Sample Specific Comments</b> <small>(Please specify below)</small>			

ALPHALab ID (Lab Use Only)	Sample ID	Collection Date	Sample Time	Sample Matrix	Sampler's Initials
10863	MW-553-20100719-01	7/19/10	11:15	GW	2311
2	TW-12-20100719-01	7/19/10	13:40	GW	2
3	TW-11-20100719-01	7/19/10	15:20	GW	2
4	TW-9-20100719-01	7/19/10	11:00	GW	2
5	TW-8-20100719-01	7/19/10	12:10	GW	3211
6	TW-7-20100719-01	7/19/10	13:25	GW	32
7	TW-1-20100719-01	7/19/10	11:10	GW	2
8	TW-2-20100719-01	7/19/10	12:20	GW	2
9	TW-3-20100719-01	7/19/10	13:10	GW	2
10	TB-01-20100719-01	7/19/10	11:11	—	KR

**PLEASE ANSWER QUESTIONS ABOVE!**

**IS YOUR PROJECT  
MA MCP or CTRCP?**

**Relinquished By:**

**Container Type**

**Preservative**

**Date/Time**

**Received By:**

**Date/Time**

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved.

All samples submitted are subject to Alpha's Terms and Conditions.

See reverse side.

Alpha

D

## CHAIN OF CUSTODY

PAGE 2 OF 3

Date Rec'd in Lab:

7/14/10

ALPHA Job #:

61010863

WESTBORO, MA  
TEL: 508-598-9220  
FAX: 508-598-9193

MANSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-822-3288

## Client Information

Client: ERN

Address: 399 Bonstoten St.

Project Name: Rainneen Maryland

Project Location: Maryland, MA

Project #: 011419

Phone: (417) 267-6447

Fax: (417) 267-6447

Email: jason.flattery@ern.com

Project Manager: Jason Flattery

ALPHA Quote #:

Turn-Around Time

Standard

RUSH

(only confirmed if pre-approved)

Date Due: 7/16/10

Time:

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.

(Note: All CAM methods for inorganic analyses require MS every 20 soil samples)

## Project Information

Report Information - Data Deliverables

FAX  EMAIL  B&M  
 SRADEX  Add'l Deliverables

## Billing Information

Date Same as Client Info PO #:

ANALYSIS  
by 8260  
TOC  
SO4  
DISS. Na + K  
80216

Sample Specific Comments

Filtration  
#  
Not needed  
Lab to do  
Preservation  
Lab to do  
(Please specify below)

T A L E S T

4 2 2 6

5 2 0

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7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1010863

Instrument ID: Jack.i      Calibration Date: 20-JUL-2010    Time: 07:46

Lab File ID: 0720A01.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:25                  13:50

Compound	RRF	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane_____	.73025	.67329	.05	8	20
chloromethane_____	1.1827	.9981	.05	16	20
vinyl chloride_____	1.2810	1.1048	.05	14	20
bromomethane_____	.64579	.39421	.05	39	20
chloroethane_____	.6191	.58436	.05	6	20
trichlorofluoromethane_____	1.7747	1.7147	.05	3	20
ethyl ether_____	.40914	.35155	.05	14	20
1,1,-dichloroethene_____	.91173	.86458	.05	5	20
carbon disulfide_____	2.6482	2.3508	.05	11	20
freon-113_____	1.0534	1.0907	.05	-4	20
iodomethane_____	1.5885	.65581	.05	59	20
acrolien_____	.06355	.07017	.05	-10	20
methylene chloride_____	.84345	.79978	.05	5	20
acetone_____	100	103	.05	-3	20
trans-1,2-dichloroethene_____	.81136	.80752	.05	0	20
methyl tert butyl ether_____	1.5181	1.1990	.05	21	20
tert butyl alcohol_____	.06096	.05073	.05	17	20
Diisopropyl Ether_____	3.0768	2.5793	.01	16	20
1,1-dichloroethane_____	1.6300	1.5697	.05	4	20
Halothane_____	.43216	.5181	.05	-20	20
Ethyl-Tert-Butyl-Ether_____	2.2141	1.7365	.05	22	20
vinyl acetate_____	100	131	.05	-31	20
cis-1,2-dichloroethene_____	.88568	.88569	.05	0	20
2,2-dichloropropane_____	1.1081	1.0060	.05	9	20
bromochloromethane_____	.37771	.34949	.05	7	20
chloroform_____	1.4877	1.4500	.05	3	20
carbontetrachloride_____	.86364	.941	.05	-9	20
ethyl acetate_____	.5392	.48012	.05	11	20
1,1,1-trichloroethane_____	1.1923	1.1880	.05	0	20
2-butanone_____	.23423	.21279	.05	9	20
1,1-dichloropropene_____	1.1879	1.0824	.05	9	20
benzene_____	3.4376	3.2706	.05	5	20
Tertiary-Amyl Methyl Ether_____	1.5807	1.3023	.05	18	20
tetrahydrofuran_____	.1189	.1286	.05	-8	20
1,2-dichloroethane_____	.91885	.8155	.05	11	20
trichloroethene_____	.90104	.81814	.05	9	20
dibromomethane_____	.40488	.35236	.05	13	20
1,2-dichloropropene_____	.91341	.86221	.05	6	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1010863

Instrument ID: Jack.i      Calibration Date: 20-JUL-2010    Time: 07:46

Lab File ID: 0720A01.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:25                  13:50

Compound	RRF	RRF	MIN RRF	%D	MAX %D
bromodichloromethane	.89892	.91882	.05	-2	20
1,4-dioxane	.00331	.00356	.05	-7	20
2-chloroethylvinyl ether	.33836	.28615	.05	15	20
cis-1,3-dichloropropene	1.0804	.87033	.05	19	20
toluene	2.7897	2.5905	.05	7	20
tetrachloroethene	1.2778	1.2577	.05	2	20
4-methyl-2-pentanone	.17188	.14332	.05	17	20
trans-1,3-dichloropropene	1.0919	.97942	.05	10	20
1,1,2-trichloroethane	.59427	.5245	.05	12	20
chlorodibromomethane	.67584	.67221	.05	1	20
1,3-dichloropropane	1.2493	1.1226	.05	10	20
1,2-dibromoethane	.63186	.60224	.05	5	20
2-hexanone	.45152	.32271	.05	29	20
chlorobenzene	2.9201	2.7363	.05	6	20
ethyl benzene	5.4959	5.3214	.05	3	20
1,1,1,2-tetrachloroethane	.86634	.89495	.05	-3	20
p/m xylene	2.2467	2.1472	.05	4	20
o xylene	2.1134	1.9469	.05	8	20
bromoform	100	119	.05	-19	20
styrene	3.4815	3.2411	.05	7	20
isopropylbenzene	5.3087	5.1549	.05	3	20
bromobenzene	2.0110	1.8739	.05	7	20
n-propylbenzene	10.076	9.7536	.05	3	20
1,1,2,2,-tetrachloroethane	1.2168	1.0875	.05	11	20
2-chlorotoluene	6.8279	6.5172	.05	5	20
1,2,3-trichloropropane	.91162	.87684	.05	4	20
1,3,5-trimethylbenzene	6.6861	6.1833	.05	8	20
4-chorotoluene	5.8548	5.6702	.05	3	20
tert-butylbenzene	5.6336	5.4186	.05	4	20
1,2,4-trimethylbenzene	6.8150	6.4772	.05	5	20
sec-butylbenzene	8.0556	7.9112	.01	2	20
p-isopropyltoluene	6.5810	6.6244	.05	-1	20
1,3-dichlorobenzene	4.0770	3.8849	.05	5	20
1,4-dichlorobenzene	4.0449	3.7923	.05	6	20
n-butylbenzene	5.7376	5.5395	.05	3	20
1,2-dichlorobenzene	3.5001	3.2253	.05	8	20
1,2-dibromo-3-chloropropane	.15447	.14142	.05	8	20
hexachlorobutadiene	.83047	.81237	.05	2	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1010863

Instrument ID: Jack.i Calibration Date: 20-JUL-2010 Time: 07:46

Lab File ID: 0720A01.D      Init. Calib. Date(s): 02-JUL-2      02-JUL-2

Sample No: 8260 CCAL                  Init. Calib. Times : 09:25                  13:50

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1010863

Instrument ID: Jack.i      Calibration Date: 21-JUL-2010    Time: 07:42

Lab File ID: 0721A02.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260ccal      Init. Calib. Times : 09:45                  14:06

Compound	RRF	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane	.71493	.59527	.05	17	20
chloromethane	1.3571	1.4327	.05	-6	20
vinyl chloride	1.3468	1.1393	.05	15	20
bromomethane	.66519	.61376	.05	8	20
chloroethane	.66238	.56573	.05	15	20
trichlorofluoromethane	1.8637	1.7167	.05	8	20
ethyl ether	.356	.32481	.05	9	20
acrolien	.07371	.0879	.05	-19	20
1,1,-dichloroethene	.9155	.83231	.05	9	20
carbon disulfide	2.6781	2.1784	.05	19	20
freon-113	1.0206	.98416	.05	4	20
iodomethane	1.8246	1.1416	.05	37	20
methylene chloride	.8496	.81365	.05	4	20
acetone	100	121	.05	-21	20
trans-1,2-dichloroethene	.77327	.74371	.05	4	20
methyl tert butyl ether	1.2847	1.0515	.05	18	20
tert butyl alcohol	.05018	.0452	.05	10	20
Diisopropyl Ether	2.5446	2.1561	.05	15	20
1,1-dichloroethane	1.5534	1.4992	.05	3	20
halothane	.42689	.47326	.05	-11	20
Ethyl-Tert-Butyl-Ether	1.7979	1.4785	.05	18	20
vinyl acetate	.79793	.96831	.05	-21	20
cis-1,2-dichloroethene	.84264	.81559	.05	3	20
2,2-dichloropropane	1.0317	.93516	.05	9	20
bromochloromethane	.35442	.34721	.05	2	20
chloroform	1.4366	1.3490	.05	6	20
carbontetrachloride	100	108	.05	-8	20
tetrahydrofuran	.18208	.18437	.05	-1	20
1,1,1-trichloroethane	1.1165	1.0541	.05	6	20
1,1-dichloropropene	1.0727	.92885	.05	13	20
2-butanone	.19736	.21293	.05	-8	20
benzene	3.1399	2.8952	.05	8	20
Tertiary-Amyl Methyl Ether	1.2340	1.0813	.05	12	20
1,2-dichloroethane	.88056	.80414	.05	9	20
trichloroethene	.8251	.69512	.05	16	20
dibromomethane	.37891	.3538	.05	7	20
1,2-dichloropropane	.80088	.71881	.05	10	20
bromodichloromethane	.86141	.86936	.05	-1	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1010863

Instrument ID: Jack.i      Calibration Date: 21-JUL-2010    Time: 07:42

Lab File ID: 0721A02.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260ccal      Init. Calib. Times : 09:45                  14:06

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
1,4-dioxane	.00291	.00357	.05	-23	20	F
2-chloroethylvinyl ether	.2912	.29997	.05	-3	20	
cis-1,3-dichloropropene	.94786	.78876	.05	17	20	
toluene	2.5438	2.1960	.05	14	20	
tetrachloroethene	1.1773	1.0393	.05	12	20	
4-methyl-2-pentanone	.12733	.13048	.05	-2	20	
trans-1,3-dichloropropene	.97487	.82931	.05	15	20	
1,1,2-trichloroethane	.50551	.47341	.05	6	20	
chlorodibromomethane	100	108	.05	-8	20	
1,3-dichloropropane	1.0878	.984	.05	10	20	
1,2-dibromoethane	.57836	.51403	.05	11	20	
2-hexanone	.32232	.34447	.05	-7	20	
chlorobenzene	2.6829	2.2837	.05	15	20	
ethyl benzene	5.0629	4.6959	.05	7	20	
1,1,1,2-tetrachloroethane	100	106	.05	-6	20	
p/m xylene	2.0960	1.8852	.05	10	20	
o xylene	1.9727	1.7038	.05	14	20	
bromoform	100	115	.05	-15	20	
styrene	3.2346	2.8238	.05	13	20	
isopropylbenzene	5.0927	4.4094	.05	13	20	
bromobenzene	1.7560	1.6286	.05	7	20	
n-propylbenzene	9.0525	7.8493	.05	13	20	
1,1,2,2,-tetrachloroethane	1.0445	1.0993	.05	-5	20	
2-chlorotoluene	6.1123	5.2274	.05	14	20	
1,2,3-trichloropropane	.81845	.85663	.05	-5	20	
1,3,5-trimethylbenzene	7.3470	6.5627	.05	11	20	
4-chorotoluene	5.1595	5.2274	.05	-1	20	
tert-butylbenzene	5.0718	4.3801	.05	14	20	
1,2,4-trimethylbenzene	6.1087	5.2913	.05	13	20	
sec-butylbenzene	7.3470	6.5627	.05	11	20	
p-isopropyltoluene	6.0815	5.4924	.05	10	20	
1,3-dichlorobenzene	3.6930	3.3475	.05	9	20	
1,4-dichlorobenzene	3.7055	3.2656	.05	12	20	
n-butylbenzene	5.3304	4.9219	.05	8	20	
1,2-dichlorobenzene	3.2119	2.8337	.05	12	20	
1,2-dibromo-3-chloropropane	.15046	.14418	.05	4	20	
1,2,4-trichlorobenzene	2.0791	1.8390	.05	12	20	
hexachlorobutadiene	.89078	.71042	.05	20	20	F

**7A**  
**CONTINUING CALIBRATION CHECK**

Lab Name: Alpha Analytical Labs

SDG No.: L1010863

Instrument ID: Jack.i Calibration Date: 21-JUL-2010 Time: 07:42

Lab File ID: 0721A02.D      Init. Calib. Date(s): 02-JUL-2      02-JUL-2

Sample No: 8260ccal                    Init. Calib. Times : 09:45                    14:06

FORM VII MCP-8260-10



## ANALYTICAL REPORT

Lab Number:	L1010941
Client:	ERM Consulting & Engineering, Inc. 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Phone:	(617) 646-7816
Project Name:	RAYTHEON WAYLAND
Project Number:	0114119
Report Date:	07/30/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1010941-01	IW-18-20100720-01	WAYLAND, MA	07/20/10 08:25
L1010941-02	IW-10-20100720-01	WAYLAND, MA	07/20/10 10:25
L1010941-03	IW-6-20100720-01	WAYLAND, MA	07/20/10 08:30
L1010941-04	IW-5-20100720-01	WAYLAND, MA	07/20/10 10:05
L1010941-05	IW-4-20100720-01	WAYLAND, MA	07/20/10 11:35
L1010941-06	MW-261S-20100720-01	WAYLAND, MA	07/20/10 14:35
L1010941-07	MW-552-20100720-01	WAYLAND, MA	07/20/10 13:15
L1010941-08	TB-002-20100720-01	WAYLAND, MA	07/20/10 00:00
L1010941-09	GALLERY-20100720-01	WAYLAND, MA	07/20/10 11:25
L1010941-10	MW-266MA-20100720-01	WAYLAND, MA	07/20/10 14:15
L1010941-11	MW-266MB-20100720-01	WAYLAND, MA	07/20/10 12:55
L1010941-12	DUP-001-20100720-01	WAYLAND, MA	07/20/10 11:11
L1010941-13	DUP-002-20100720-01	WAYLAND, MA	07/20/10 14:14

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

### MADEP MCP Response Action Analytical Report Certification

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

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

<b>A response to questions G, H and I is required for "Presumptive Certainty" status</b>		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

**For any questions answered "No", please refer to the case narrative section on the following page(s).**

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



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

### 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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. 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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

For additional information, please contact Client Services at 800-624-9220.

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#### MCP Related Narratives

##### Sample Receipt

The samples were Field Filtered for Dissolved Metals only.

The samples for the analysis of 1,4-Dioxane by method 8270-SIM isotope dilution were received at our Mansfield facility above the required temperature range. The client was notified of the exceedance and sample analysis proceeded.

#### Volatile Organics

L1010941-03 through -07, -11, -12 and -13 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

In reference to question G:

L1010941-03 through -07, -11, -12 and -13: One or more of the target analytes did not achieve the

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

### **Case Narrative (continued)**

requested CAM reporting limits.

In reference to question H:

The initial calibration, associated with L1010941-02, -03, -04, -09, -10 and -11, utilized a quadratic fit for Bromoform and 1,1,1,2-Tetrachloroethane.

The initial calibration, associated with L1010941-01, -05 through -08, -12 and -13, did not meet the method required minimum response factor for Carbon tetrachloride, Dibromochloromethane, Bromoform and 1,1,1,2-Tetrachloroethane.

The continuing calibration standard, associated with L1010941-05, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

In reference to question I:

All samples were analyzed for a subset of MCP compounds per the Chain of Custody.

#### Volatile Organics by SIM

L1010941-06, -07 and -13 have elevated detection limits for 1,4-Dioxane due to the dilutions required by the elevated concentrations of non-target compounds in the samples.

#### Metals

In reference to question I:

All samples were analyzed for a subset of MCP elements per the Chain of Custody.

#### Non-MCP Related Narratives

##### Total Organic Carbon

L1010941-01 and -04 have elevated detection limits due to the dilutions required by the elevated concentrations present in the samples.

##### Sulfate

L1010941-07 has an elevated detection limit due to the dilution required to quantitate the result within the

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

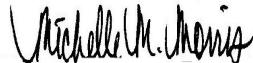
**Case Narrative (continued)**

calibration range.

L1010941-10 has an elevated detection limit due to the dilution required by the sample matrix.

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: 07/30/10

# ORGANICS



# VOLATILES



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-01	Date Collected:	07/20/10 08:25
Client ID:	IW-18-20100720-01	Date Received:	07/20/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/22/10 13:16		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	ND	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	ND	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	ND	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	ND	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	3.1	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-01	Date Collected:	07/20/10 08:25
Client ID:	IW-18-20100720-01	Date Received:	07/20/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	117		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-02	Date Collected:	07/20/10 10:25
Client ID:	IW-10-20100720-01	Date Received:	07/20/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/22/10 14:04		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	ND	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	6.4	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	3.2	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	33	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	81	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-02	Date Collected:	07/20/10 10:25
Client ID:	IW-10-20100720-01	Date Received:	07/20/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	115		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-03	D	Date Collected:	07/20/10 08:30
Client ID:	IW-6-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/22/10 15:41			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	40	--	20
1,1-Dichloroethane	ND		ug/l	20	--	20
Chloroform	ND		ug/l	20	--	20
Carbon tetrachloride	ND		ug/l	20	--	20
1,2-Dichloropropane	ND		ug/l	20	--	20
Dibromochloromethane	ND		ug/l	20	--	20
1,1,2-Trichloroethane	ND		ug/l	20	--	20
Tetrachloroethene	ND		ug/l	20	--	20
Chlorobenzene	ND		ug/l	20	--	20
1,2-Dichloroethane	ND		ug/l	20	--	20
1,1,1-Trichloroethane	ND		ug/l	20	--	20
Bromodichloromethane	ND		ug/l	20	--	20
trans-1,3-Dichloropropene	ND		ug/l	10	--	20
cis-1,3-Dichloropropene	ND		ug/l	10	--	20
Bromoform	ND		ug/l	40	--	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	--	20
Chloromethane	ND		ug/l	40	--	20
Vinyl chloride	62		ug/l	20	--	20
Chloroethane	ND		ug/l	40	--	20
1,1-Dichloroethene	ND		ug/l	20	--	20
trans-1,2-Dichloroethene	ND		ug/l	20	--	20
Trichloroethene	200		ug/l	20	--	20
1,2-Dichlorobenzene	ND		ug/l	20	--	20
1,3-Dichlorobenzene	ND		ug/l	20	--	20
1,4-Dichlorobenzene	ND		ug/l	20	--	20
cis-1,2-Dichloroethene	1600		ug/l	20	--	20
Dichlorodifluoromethane	ND		ug/l	40	--	20
1,2-Dibromoethane	ND		ug/l	40	--	20
1,3-Dichloropropane	ND		ug/l	40	--	20
1,1,1,2-Tetrachloroethane	ND		ug/l	20	--	20



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID: L1010941-03 D Date Collected: 07/20/10 08:30  
Client ID: IW-6-20100720-01 Date Received: 07/20/10  
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	40	--	20
p-Chlorotoluene	ND		ug/l	40	--	20
Hexachlorobutadiene	ND		ug/l	12	--	20
1,2,4-Trichlorobenzene	ND		ug/l	40	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	118		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-04	D	Date Collected:	07/20/10 10:05
Client ID:	IW-5-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/22/10 14:37			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	40	--	20
1,1-Dichloroethane	ND		ug/l	20	--	20
Chloroform	ND		ug/l	20	--	20
Carbon tetrachloride	ND		ug/l	20	--	20
1,2-Dichloropropane	ND		ug/l	20	--	20
Dibromochloromethane	ND		ug/l	20	--	20
1,1,2-Trichloroethane	ND		ug/l	20	--	20
Tetrachloroethene	43		ug/l	20	--	20
Chlorobenzene	ND		ug/l	20	--	20
1,2-Dichloroethane	ND		ug/l	20	--	20
1,1,1-Trichloroethane	ND		ug/l	20	--	20
Bromodichloromethane	ND		ug/l	20	--	20
trans-1,3-Dichloropropene	ND		ug/l	10	--	20
cis-1,3-Dichloropropene	ND		ug/l	10	--	20
Bromoform	ND		ug/l	40	--	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	--	20
Chloromethane	ND		ug/l	40	--	20
Vinyl chloride	82		ug/l	20	--	20
Chloroethane	ND		ug/l	40	--	20
1,1-Dichloroethene	ND		ug/l	20	--	20
trans-1,2-Dichloroethene	ND		ug/l	20	--	20
Trichloroethene	1500		ug/l	20	--	20
1,2-Dichlorobenzene	ND		ug/l	20	--	20
1,3-Dichlorobenzene	ND		ug/l	20	--	20
1,4-Dichlorobenzene	ND		ug/l	20	--	20
cis-1,2-Dichloroethene	920		ug/l	20	--	20
Dichlorodifluoromethane	ND		ug/l	40	--	20
1,2-Dibromoethane	ND		ug/l	40	--	20
1,3-Dichloropropane	ND		ug/l	40	--	20
1,1,1,2-Tetrachloroethane	ND		ug/l	20	--	20



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-04	D	Date Collected:	07/20/10 10:05
Client ID:	IW-5-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	40	--	20
p-Chlorotoluene	ND		ug/l	40	--	20
Hexachlorobutadiene	ND		ug/l	12	--	20
1,2,4-Trichlorobenzene	ND		ug/l	40	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	112		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-05	D	Date Collected:	07/20/10 11:35
Client ID:	IW-4-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/23/10 11:16			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	40	--	20
1,1-Dichloroethane	ND		ug/l	20	--	20
Chloroform	ND		ug/l	20	--	20
Carbon tetrachloride	ND		ug/l	20	--	20
1,2-Dichloropropane	ND		ug/l	20	--	20
Dibromochloromethane	ND		ug/l	20	--	20
1,1,2-Trichloroethane	ND		ug/l	20	--	20
Tetrachloroethene	ND		ug/l	20	--	20
Chlorobenzene	ND		ug/l	20	--	20
1,2-Dichloroethane	ND		ug/l	20	--	20
1,1,1-Trichloroethane	ND		ug/l	20	--	20
Bromodichloromethane	ND		ug/l	20	--	20
trans-1,3-Dichloropropene	ND		ug/l	10	--	20
cis-1,3-Dichloropropene	ND		ug/l	10	--	20
Bromoform	ND		ug/l	40	--	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	--	20
Chloromethane	ND		ug/l	40	--	20
Vinyl chloride	920		ug/l	20	--	20
Chloroethane	ND		ug/l	40	--	20
1,1-Dichloroethene	ND		ug/l	20	--	20
trans-1,2-Dichloroethene	ND		ug/l	20	--	20
Trichloroethene	ND		ug/l	20	--	20
1,2-Dichlorobenzene	ND		ug/l	20	--	20
1,3-Dichlorobenzene	ND		ug/l	20	--	20
1,4-Dichlorobenzene	ND		ug/l	20	--	20
cis-1,2-Dichloroethene	ND		ug/l	20	--	20
Dichlorodifluoromethane	ND		ug/l	40	--	20
1,2-Dibromoethane	ND		ug/l	40	--	20
1,3-Dichloropropane	ND		ug/l	40	--	20
1,1,1,2-Tetrachloroethane	ND		ug/l	20	--	20



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID: L1010941-05 D Date Collected: 07/20/10 11:35  
Client ID: IW-4-20100720-01 Date Received: 07/20/10  
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	40	--	20
p-Chlorotoluene	ND		ug/l	40	--	20
Hexachlorobutadiene	ND		ug/l	12	--	20
1,2,4-Trichlorobenzene	ND		ug/l	40	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	111		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-06	D	Date Collected:	07/20/10 14:35
Client ID:	MW-261S-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/22/10 16:30			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	20	--	10
1,1-Dichloroethane	ND		ug/l	10	--	10
Chloroform	ND		ug/l	10	--	10
Carbon tetrachloride	ND		ug/l	10	--	10
1,2-Dichloropropane	ND		ug/l	10	--	10
Dibromochloromethane	ND		ug/l	10	--	10
1,1,2-Trichloroethane	ND		ug/l	10	--	10
Tetrachloroethene	23		ug/l	10	--	10
Chlorobenzene	ND		ug/l	10	--	10
1,2-Dichloroethane	ND		ug/l	10	--	10
1,1,1-Trichloroethane	ND		ug/l	10	--	10
Bromodichloromethane	ND		ug/l	10	--	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	--	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	--	10
Bromoform	ND		ug/l	20	--	10
1,1,2,2-Tetrachloroethane	ND		ug/l	10	--	10
Chloromethane	ND		ug/l	20	--	10
Vinyl chloride	ND		ug/l	10	--	10
Chloroethane	ND		ug/l	20	--	10
1,1-Dichloroethene	ND		ug/l	10	--	10
trans-1,2-Dichloroethene	ND		ug/l	10	--	10
Trichloroethene	1200		ug/l	10	--	10
1,2-Dichlorobenzene	ND		ug/l	10	--	10
1,3-Dichlorobenzene	ND		ug/l	10	--	10
1,4-Dichlorobenzene	ND		ug/l	10	--	10
cis-1,2-Dichloroethene	24		ug/l	10	--	10
Dichlorodifluoromethane	ND		ug/l	20	--	10
1,2-Dibromoethane	ND		ug/l	20	--	10
1,3-Dichloropropane	ND		ug/l	20	--	10
1,1,1,2-Tetrachloroethane	ND		ug/l	10	--	10



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-06	D	Date Collected:	07/20/10 14:35
Client ID:	MW-261S-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	20	--	10
p-Chlorotoluene	ND		ug/l	20	--	10
Hexachlorobutadiene	ND		ug/l	6.0	--	10
1,2,4-Trichlorobenzene	ND		ug/l	20	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	111		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-06	D	Date Collected:	07/20/10 14:35
Client ID:	MW-261S-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B-SIM			
Analytical Date:	07/22/10 16:30			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by SIM - Westborough Lab</b>						
1,4-Dioxane	ND		ug/l	30	--	10

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-07	D	Date Collected:	07/20/10 13:15
Client ID:	MW-552-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/22/10 14:21			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	50	--	25
1,1-Dichloroethane	ND		ug/l	25	--	25
Chloroform	ND		ug/l	25	--	25
Carbon tetrachloride	ND		ug/l	25	--	25
1,2-Dichloropropane	ND		ug/l	25	--	25
Dibromochloromethane	ND		ug/l	25	--	25
1,1,2-Trichloroethane	ND		ug/l	25	--	25
Tetrachloroethene	240		ug/l	25	--	25
Chlorobenzene	ND		ug/l	25	--	25
1,2-Dichloroethane	ND		ug/l	25	--	25
1,1,1-Trichloroethane	ND		ug/l	25	--	25
Bromodichloromethane	ND		ug/l	25	--	25
trans-1,3-Dichloropropene	ND		ug/l	12	--	25
cis-1,3-Dichloropropene	ND		ug/l	12	--	25
Bromoform	ND		ug/l	50	--	25
1,1,2,2-Tetrachloroethane	ND		ug/l	25	--	25
Chloromethane	ND		ug/l	50	--	25
Vinyl chloride	ND		ug/l	25	--	25
Chloroethane	ND		ug/l	50	--	25
1,1-Dichloroethene	ND		ug/l	25	--	25
trans-1,2-Dichloroethene	ND		ug/l	25	--	25
Trichloroethene	3300		ug/l	25	--	25
1,2-Dichlorobenzene	ND		ug/l	25	--	25
1,3-Dichlorobenzene	ND		ug/l	25	--	25
1,4-Dichlorobenzene	ND		ug/l	25	--	25
cis-1,2-Dichloroethene	260		ug/l	25	--	25
Dichlorodifluoromethane	ND		ug/l	50	--	25
1,2-Dibromoethane	ND		ug/l	50	--	25
1,3-Dichloropropane	ND		ug/l	50	--	25
1,1,1,2-Tetrachloroethane	ND		ug/l	25	--	25

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-07	D	Date Collected:	07/20/10 13:15
Client ID:	MW-552-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	50	--	25
p-Chlorotoluene	ND		ug/l	50	--	25
Hexachlorobutadiene	ND		ug/l	15	--	25
1,2,4-Trichlorobenzene	ND		ug/l	50	--	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	97		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-07	D	Date Collected:	07/20/10 13:15
Client ID:	MW-552-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B-SIM			
Analytical Date:	07/22/10 14:21			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	75	--	25

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-08	Date Collected:	07/20/10 00:00
Client ID:	TB-002-20100720-01	Date Received:	07/20/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/22/10 11:39		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	ND	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	ND	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	ND	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	ND	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-08	Date Collected:	07/20/10 00:00
Client ID:	TB-002-20100720-01	Date Received:	07/20/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	108		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-09	Date Collected:	07/20/10 11:25
Client ID:	GALLERY-20100720-01	Date Received:	07/20/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/22/10 16:14		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	ND	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	ND	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	ND	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	ND	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID: L1010941-09 Date Collected: 07/20/10 11:25  
Client ID: GALLERY-20100720-01 Date Received: 07/20/10  
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	118		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-10	Date Collected:	07/20/10 14:15
Client ID:	MW-266MA-20100720-01	Date Received:	07/20/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/22/10 16:46		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	ND	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	1.3	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	ND	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	36	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	13	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-10	Date Collected:	07/20/10 14:15
Client ID:	MW-266MA-20100720-01	Date Received:	07/20/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	116		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-10	Date Collected:	07/20/10 14:15
Client ID:	MW-266MA-20100720-01	Date Received:	07/20/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative
Matrix:	Water		
Analytical Method:	97,8260B-SIM		
Analytical Date:	07/22/10 16:46		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by SIM - Westborough Lab</b>						
1,4-Dioxane	5.3		ug/l	3.0	--	1

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-11	D	Date Collected:	07/20/10 12:55
Client ID:	MW-266MB-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/22/10 15:09			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	8.0	--	4
1,1-Dichloroethane	ND		ug/l	4.0	--	4
Chloroform	ND		ug/l	4.0	--	4
Carbon tetrachloride	ND		ug/l	4.0	--	4
1,2-Dichloropropane	ND		ug/l	4.0	--	4
Dibromochloromethane	ND		ug/l	4.0	--	4
1,1,2-Trichloroethane	ND		ug/l	4.0	--	4
Tetrachloroethene	22		ug/l	4.0	--	4
Chlorobenzene	ND		ug/l	4.0	--	4
1,2-Dichloroethane	ND		ug/l	4.0	--	4
1,1,1-Trichloroethane	ND		ug/l	4.0	--	4
Bromodichloromethane	ND		ug/l	4.0	--	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	--	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	--	4
Bromoform	ND		ug/l	8.0	--	4
1,1,2,2-Tetrachloroethane	ND		ug/l	4.0	--	4
Chloromethane	ND		ug/l	8.0	--	4
Vinyl chloride	26		ug/l	4.0	--	4
Chloroethane	ND		ug/l	8.0	--	4
1,1-Dichloroethene	ND		ug/l	4.0	--	4
trans-1,2-Dichloroethene	ND		ug/l	4.0	--	4
Trichloroethene	98		ug/l	4.0	--	4
1,2-Dichlorobenzene	ND		ug/l	4.0	--	4
1,3-Dichlorobenzene	ND		ug/l	4.0	--	4
1,4-Dichlorobenzene	ND		ug/l	4.0	--	4
cis-1,2-Dichloroethene	240		ug/l	4.0	--	4
Dichlorodifluoromethane	ND		ug/l	8.0	--	4
1,2-Dibromoethane	ND		ug/l	8.0	--	4
1,3-Dichloropropane	ND		ug/l	8.0	--	4
1,1,1,2-Tetrachloroethane	ND		ug/l	4.0	--	4



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-11	D	Date Collected:	07/20/10 12:55
Client ID:	MW-266MB-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	8.0	--	4
p-Chlorotoluene	ND		ug/l	8.0	--	4
Hexachlorobutadiene	ND		ug/l	2.4	--	4
1,2,4-Trichlorobenzene	ND		ug/l	8.0	--	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	108		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-12	D	Date Collected:	07/20/10 11:11
Client ID:	DUP-001-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/22/10 15:25			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	40	--	20
1,1-Dichloroethane	ND		ug/l	20	--	20
Chloroform	ND		ug/l	20	--	20
Carbon tetrachloride	ND		ug/l	20	--	20
1,2-Dichloropropane	ND		ug/l	20	--	20
Dibromochloromethane	ND		ug/l	20	--	20
1,1,2-Trichloroethane	ND		ug/l	20	--	20
Tetrachloroethene	ND		ug/l	20	--	20
Chlorobenzene	ND		ug/l	20	--	20
1,2-Dichloroethane	ND		ug/l	20	--	20
1,1,1-Trichloroethane	ND		ug/l	20	--	20
Bromodichloromethane	ND		ug/l	20	--	20
trans-1,3-Dichloropropene	ND		ug/l	10	--	20
cis-1,3-Dichloropropene	ND		ug/l	10	--	20
Bromoform	ND		ug/l	40	--	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	--	20
Chloromethane	ND		ug/l	40	--	20
Vinyl chloride	960		ug/l	20	--	20
Chloroethane	ND		ug/l	40	--	20
1,1-Dichloroethene	ND		ug/l	20	--	20
trans-1,2-Dichloroethene	ND		ug/l	20	--	20
Trichloroethene	ND		ug/l	20	--	20
1,2-Dichlorobenzene	ND		ug/l	20	--	20
1,3-Dichlorobenzene	ND		ug/l	20	--	20
1,4-Dichlorobenzene	ND		ug/l	20	--	20
cis-1,2-Dichloroethene	ND		ug/l	20	--	20
Dichlorodifluoromethane	ND		ug/l	40	--	20
1,2-Dibromoethane	ND		ug/l	40	--	20
1,3-Dichloropropane	ND		ug/l	40	--	20
1,1,1,2-Tetrachloroethane	ND		ug/l	20	--	20

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID: L1010941-12 D Date Collected: 07/20/10 11:11  
Client ID: DUP-001-20100720-01 Date Received: 07/20/10  
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	40	--	20
p-Chlorotoluene	ND		ug/l	40	--	20
Hexachlorobutadiene	ND		ug/l	12	--	20
1,2,4-Trichlorobenzene	ND		ug/l	40	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	120		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-13	D	Date Collected:	07/20/10 14:14
Client ID:	DUP-002-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/22/10 14:53			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	50	--	25
1,1-Dichloroethane	ND		ug/l	25	--	25
Chloroform	ND		ug/l	25	--	25
Carbon tetrachloride	ND		ug/l	25	--	25
1,2-Dichloropropane	ND		ug/l	25	--	25
Dibromochloromethane	ND		ug/l	25	--	25
1,1,2-Trichloroethane	ND		ug/l	25	--	25
Tetrachloroethene	280		ug/l	25	--	25
Chlorobenzene	ND		ug/l	25	--	25
1,2-Dichloroethane	ND		ug/l	25	--	25
1,1,1-Trichloroethane	ND		ug/l	25	--	25
Bromodichloromethane	ND		ug/l	25	--	25
trans-1,3-Dichloropropene	ND		ug/l	12	--	25
cis-1,3-Dichloropropene	ND		ug/l	12	--	25
Bromoform	ND		ug/l	50	--	25
1,1,2,2-Tetrachloroethane	ND		ug/l	25	--	25
Chloromethane	ND		ug/l	50	--	25
Vinyl chloride	ND		ug/l	25	--	25
Chloroethane	ND		ug/l	50	--	25
1,1-Dichloroethene	ND		ug/l	25	--	25
trans-1,2-Dichloroethene	ND		ug/l	25	--	25
Trichloroethene	3200		ug/l	25	--	25
1,2-Dichlorobenzene	ND		ug/l	25	--	25
1,3-Dichlorobenzene	ND		ug/l	25	--	25
1,4-Dichlorobenzene	ND		ug/l	25	--	25
cis-1,2-Dichloroethene	260		ug/l	25	--	25
Dichlorodifluoromethane	ND		ug/l	50	--	25
1,2-Dibromoethane	ND		ug/l	50	--	25
1,3-Dichloropropane	ND		ug/l	50	--	25
1,1,1,2-Tetrachloroethane	ND		ug/l	25	--	25

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID: L1010941-13 D Date Collected: 07/20/10 14:14  
Client ID: DUP-002-20100720-01 Date Received: 07/20/10  
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	50	--	25
p-Chlorotoluene	ND		ug/l	50	--	25
Hexachlorobutadiene	ND		ug/l	15	--	25
1,2,4-Trichlorobenzene	ND		ug/l	50	--	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	76		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	89		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-13	D	Date Collected:	07/20/10 14:14
Client ID:	DUP-002-20100720-01		Date Received:	07/20/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	97,8260B-SIM			
Analytical Date:	07/22/10 14:53			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by SIM - Westborough Lab</b>						
1,4-Dioxane	ND		ug/l	75	--	25

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/22/10 10:18  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	02-04,09-11		Batch:	WG424175-3	
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/22/10 10:18  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	02-04,09-11		Batch:	WG424175-3	
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromoform	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	10	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	5.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/22/10 10:18  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	02-04,09-11		Batch:	WG424175-3	
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
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	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	107		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B-SIM  
Analytical Date: 07/22/10 08:09  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by SIM - Westborough Lab for sample(s): 10 Batch: WG424177-3					
1,4-Dioxane	ND		ug/l	3.0	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/22/10 10:34  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	01,06-08,12-13		Batch:	WG424185-3	
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/22/10 10:34  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	01,06-08,12-13		Batch:	WG424185-3	
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	109		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B-SIM  
Analytical Date: 07/22/10 08:25  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by SIM - Westborough Lab for sample(s): 06-07,13 Batch: WG424187-3					
1,4-Dioxane	ND		ug/l	3.0	--

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/23/10 09:39  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	05	Batch:	WG424440-3		
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/23/10 09:39  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	05	Batch:	WG424440-3		
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	10	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	5.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/23/10 09:39  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	05	Batch:	WG424440-3		
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
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	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	114		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-04,09-11 Batch: WG424175-1 WG424175-2						
Methylene chloride	95	95	70-130	0		20
1,1-Dichloroethane	95	91	70-130	4		20
Chloroform	95	91	70-130	4		20
Carbon tetrachloride	114	110	70-130	4		20
1,2-Dichloropropane	97	88	70-130	10		20
Dibromochloromethane	95	102	70-130	7		20
1,1,2-Trichloroethane	86	90	70-130	5		20
Tetrachloroethene	93	95	70-130	2		20
Chlorobenzene	83	83	70-130	0		20
Trichlorofluoromethane	100	95	70-130	5		20
1,2-Dichloroethane	97	94	70-130	3		20
1,1,1-Trichloroethane	102	96	70-130	6		20
Bromodichloromethane	107	103	70-130	4		20
trans-1,3-Dichloropropene	84	89	70-130	6		20
cis-1,3-Dichloropropene	82	82	70-130	0		20
1,1-Dichloropropene	94	93	70-130	1		20
Bromoform	117	121	70-130	3		20
1,1,2,2-Tetrachloroethane	92	88	70-130	4		20
Benzene	93	89	70-130	4		20
Toluene	83	82	70-130	1		20
Ethylbenzene	86	87	70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	LCSD %Recovery		%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-04,09-11 Batch: WG424175-1 WG424175-2							
Chloromethane	83	80		70-130	4		20
Bromomethane	63	Q	66	Q	70-130	5	20
Vinyl chloride	85	82		70-130	4		20
Chloroethane	89	91		70-130	2		20
1,1-Dichloroethene	99	97		70-130	2		20
trans-1,2-Dichloroethene	94	92		70-130	2		20
Trichloroethene	93	90		70-130	3		20
1,2-Dichlorobenzene	91	88		70-130	3		20
1,3-Dichlorobenzene	85	85		70-130	0		20
1,4-Dichlorobenzene	87	85		70-130	2		20
Methyl tert butyl ether	87	86		70-130	1		20
p/m-Xylene	83	83		70-130	0		20
o-Xylene	84	85		70-130	1		20
cis-1,2-Dichloroethene	92	95		70-130	3		20
Dibromomethane	88	88		70-130	0		20
1,2,3-Trichloropropane	95	95		70-130	0		20
Styrene	84	84		70-130	0		20
Dichlorodifluoromethane	97	95		70-130	2		20
Acetone	112	122		70-130	9		20
Carbon disulfide	84	80		70-130	5		20
2-Butanone	100	108		70-130	8		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-04,09-11 Batch: WG424175-1 WG424175-2								
4-Methyl-2-pentanone	103		102		70-130	1		20
2-Hexanone	86		89		70-130	3		20
Bromochloromethane	91		94		70-130	3		20
Tetrahydrofuran	100		106		70-130	6		20
2,2-Dichloropropane	93		89		70-130	4		20
1,2-Dibromoethane	91		87		70-130	4		20
1,3-Dichloropropane	86		89		70-130	3		20
1,1,1,2-Tetrachloroethane	90		92		70-130	2		20
Bromobenzene	89		91		70-130	2		20
n-Butylbenzene	84		78		70-130	7		20
sec-Butylbenzene	84		81		70-130	4		20
tert-Butylbenzene	83		79		70-130	5		20
o-Chlorotoluene	82		81		70-130	1		20
p-Chlorotoluene	86		85		70-130	1		20
1,2-Dibromo-3-chloropropane	94		101		70-130	7		20
Hexachlorobutadiene	86		85		70-130	1		20
Isopropylbenzene	84		85		70-130	1		20
p-Isopropyltoluene	85		82		70-130	4		20
Naphthalene	78		82		70-130	5		20
n-Propylbenzene	82		80		70-130	2		20
1,2,3-Trichlorobenzene	81		82		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-04,09-11 Batch: WG424175-1 WG424175-2								
1,2,4-Trichlorobenzene	85		82		70-130	4		20
1,3,5-Trimethylbenzene	82		81		70-130	1		20
1,2,4-Trimethylbenzene	80		80		70-130	0		20
Ethyl ether	93		89		70-130	4		20
Isopropyl Ether	85		84		70-130	1		20
Ethyl-Tert-Butyl-Ether	85		83		70-130	2		20
Tertiary-Amyl Methyl Ether	88		91		70-130	3		20
1,4-Dioxane	89		93		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		96		70-130
Toluene-d8	92		97		70-130
4-Bromofluorobenzene	98		95		70-130
Dibromofluoromethane	107		99		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by SIM - Westborough Lab Associated sample(s): 10 Batch: WG424177-1 WG424177-2								
1,4-Dioxane	75		83		70-130	10		20

MCP Volatile Organics - Westborough Lab Associated sample(s): 01,06-08,12-13 Batch: WG424185-1 WG424185-2

Methylene chloride	94		94		70-130	0		20
1,1-Dichloroethane	96		96		70-130	0		20
Chloroform	96		96		70-130	0		20
Carbon tetrachloride	119		114		70-130	4		20
1,2-Dichloropropane	90		87		70-130	3		20
Dibromochloromethane	101		103		70-130	2		20
1,1,2-Trichloroethane	87		91		70-130	4		20
Tetrachloroethene	94		94		70-130	0		20
Chlorobenzene	85		84		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,06-08,12-13 Batch: WG424185-1 WG424185-2						
1,2-Dichloroethane	95	98	70-130	3		20
1,1,1-Trichloroethane	104	100	70-130	4		20
Bromodichloromethane	102	104	70-130	2		20
trans-1,3-Dichloropropene	84	93	70-130	10		20
cis-1,3-Dichloropropene	85	87	70-130	2		20
Bromoform	104	113	70-130	8		20
1,1,2,2-Tetrachloroethane	89	84	70-130	6		20
Chloromethane	106	104	70-130	2		20
Vinyl chloride	84	80	70-130	5		20
Chloroethane	88	87	70-130	1		20
1,1-Dichloroethene	98	95	70-130	3		20
trans-1,2-Dichloroethene	102	99	70-130	3		20
Trichloroethene	90	90	70-130	0		20
1,2-Dichlorobenzene	85	86	70-130	1		20
1,3-Dichlorobenzene	82	82	70-130	0		20
1,4-Dichlorobenzene	84	84	70-130	0		20
cis-1,2-Dichloroethene	96	99	70-130	3		20
Dichlorodifluoromethane	106	100	70-130	6		20
1,2-Dibromoethane	90	88	70-130	2		20
1,3-Dichloropropane	86	93	70-130	8		20
1,1,1,2-Tetrachloroethane	102	103	70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,06-08,12-13 Batch: WG424185-1 WG424185-2								
o-Chlorotoluene	81		80		70-130	1		20
p-Chlorotoluene	83		83		70-130	0		20
Hexachlorobutadiene	83		86		70-130	4		20
1,2,4-Trichlorobenzene	86		92		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	105		92		70-130
Toluene-d8	99		99		70-130
4-Bromofluorobenzene	94		93		70-130
Dibromofluoromethane	103		106		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by SIM - Westborough Lab Associated sample(s): 06-07,13 Batch: WG424187-1 WG424187-2								
1,4-Dioxane	89		91		70-130	2		20

MCP Volatile Organics - Westborough Lab Associated sample(s): 05 Batch: WG424440-1 WG424440-2

Methylene chloride	99		97		70-130	2		20
1,1-Dichloroethane	98		94		70-130	4		20
Chloroform	94		96		70-130	2		20
Carbon tetrachloride	114		114		70-130	0		20
1,2-Dichloropropane	91		89		70-130	2		20
Dibromochloromethane	106		101		70-130	5		20
1,1,2-Trichloroethane	94		85		70-130	10		20
Tetrachloroethene	93		82		70-130	13		20
Chlorobenzene	86		81		70-130	6		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05 Batch: WG424440-1 WG424440-2								
Trichlorofluoromethane	88		84		70-130	5		20
1,2-Dichloroethane	94		89		70-130	5		20
1,1,1-Trichloroethane	99		94		70-130	5		20
Bromodichloromethane	104		99		70-130	5		20
trans-1,3-Dichloropropene	89		79		70-130	12		20
cis-1,3-Dichloropropene	90		82		70-130	9		20
1,1-Dichloropropene	90		88		70-130	2		20
Bromoform	117		109		70-130	7		20
1,1,2,2-Tetrachloroethane	100		90		70-130	11		20
Benzene	93		89		70-130	4		20
Toluene	85		79		70-130	7		20
Ethylbenzene	88		85		70-130	3		20
Chloromethane	104		98		70-130	6		20
Bromomethane	96		102		70-130	6		20
Vinyl chloride	79		78		70-130	1		20
Chloroethane	85		81		70-130	5		20
1,1-Dichloroethene	91		91		70-130	0		20
trans-1,2-Dichloroethene	97		98		70-130	1		20
Trichloroethene	90		88		70-130	2		20
1,2-Dichlorobenzene	91		85		70-130	7		20
1,3-Dichlorobenzene	87		86		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05 Batch: WG424440-1 WG424440-2						
1,4-Dichlorobenzene	88	88	70-130	0		20
Methyl tert butyl ether	85	79	70-130	7		20
p/m-Xylene	87	82	70-130	6		20
o-Xylene	85	82	70-130	4		20
cis-1,2-Dichloroethene	99	100	70-130	1		20
Dibromomethane	98	95	70-130	3		20
1,2,3-Trichloropropane	93	90	70-130	3		20
Styrene	88	83	70-130	6		20
Dichlorodifluoromethane	90	91	70-130	1		20
Acetone	119	100	70-130	17		20
Carbon disulfide	77	78	70-130	1		20
2-Butanone	115	95	70-130	19		20
4-Methyl-2-pentanone	112	98	70-130	13		20
2-Hexanone	104	87	70-130	18		20
Bromochloromethane	102	96	70-130	6		20
Tetrahydrofuran	105	93	70-130	12		20
2,2-Dichloropropane	96	93	70-130	3		20
1,2-Dibromoethane	97	84	70-130	14		20
1,3-Dichloropropane	91	81	70-130	12		20
1,1,1,2-Tetrachloroethane	105	98	70-130	7		20
Bromobenzene	92	90	70-130	2		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05 Batch: WG424440-1 WG424440-2								
n-Butylbenzene	92		82		70-130	11		20
sec-Butylbenzene	88		80		70-130	10		20
tert-Butylbenzene	84		81		70-130	4		20
o-Chlorotoluene	85		81		70-130	5		20
p-Chlorotoluene	89		84		70-130	6		20
1,2-Dibromo-3-chloropropane	105		86		70-130	20		20
Hexachlorobutadiene	79		79		70-130	0		20
Isopropylbenzene	84		78		70-130	7		20
p-Isopropyltoluene	88		82		70-130	7		20
Naphthalene	94		85		70-130	10		20
n-Propylbenzene	85		81		70-130	5		20
1,2,3-Trichlorobenzene	93		88		70-130	6		20
1,2,4-Trichlorobenzene	89		84		70-130	6		20
1,3,5-Trimethylbenzene	88		80		70-130	10		20
1,2,4-Trimethylbenzene	85		83		70-130	2		20
Ethyl ether	100		88		70-130	13		20
Isopropyl Ether	86		82		70-130	5		20
Ethyl-Tert-Butyl-Ether	85		78		70-130	9		20
Tertiary-Amyl Methyl Ether	88		82		70-130	7		20
1,4-Dioxane	98		78		70-130	23	Q	20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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MCP Volatile Organics - Westborough Lab Associated sample(s): 05 Batch: WG424440-1 WG424440-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		94		70-130
Toluene-d8	97		96		70-130
4-Bromofluorobenzene	105		103		70-130
Dibromofluoromethane	109		110		70-130

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,06-08,12-13 QC Batch ID: WG424185-7 WG424185-8 QC Sample: L1010941-01 Client ID: IW-18-20100720-01												
Methylene chloride	ND	10	11	111		10	106		70-130	5		20
1,1-Dichloroethane	ND	10	11	108		10	105		70-130	3		20
Chloroform	ND	10	11	112		10	105		70-130	6		20
Carbon tetrachloride	ND	10	12	125		12	123		70-130	2		20
1,2-Dichloropropane	ND	10	11	108		9.9	99		70-130	9		20
Dibromochloromethane	ND	10	11	108		11	113		70-130	5		20
1,1,2-Trichloroethane	ND	10	10	102		9.1	91		70-130	11		20
Tetrachloroethene	ND	10	10	102		9.6	96		70-130	6		20
Chlorobenzene	ND	10	9.2	92		9.2	92		70-130	0		20
1,2-Dichloroethane	ND	10	10	105		9.8	98		70-130	7		20
1,1,1-Trichloroethane	ND	10	11	114		11	111		70-130	3		20
Bromodichloromethane	ND	10	11	111		11	109		70-130	2		20
trans-1,3-Dichloropropene	ND	10	8.6	86		9.1	91		70-130	6		20
cis-1,3-Dichloropropene	ND	10	9.0	90		9.0	90		70-130	0		20
Bromoform	ND	10	10	106		11	109		70-130	3		20
1,1,2,2-Tetrachloroethane	ND	10	10	101		9.5	95		70-130	6		20
Chloromethane	ND	10	12	123		11	106		70-130	15		20
Vinyl chloride	ND	10	9.6	96		9.0	90		70-130	6		20
Chloroethane	ND	10	11	108		10	100		70-130	8		20
1,1-Dichloroethene	ND	10	11	108		10	104		70-130	4		20
trans-1,2-Dichloroethene	ND	10	12	118		11	108		70-130	9		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,06-08,12-13 QC Batch ID: WG424185-7 WG424185-8 QC Sample: L1010941-01 Client ID: IW-18-20100720-01												
Trichloroethene	ND	10	11	114		10	105		70-130	8		20
1,2-Dichlorobenzene	ND	10	9.3	93		9.0	91		70-130	2		20
1,3-Dichlorobenzene	ND	10	9.3	93		8.9	89		70-130	4		20
1,4-Dichlorobenzene	ND	10	9.4	94		9.0	90		70-130	4		20
cis-1,2-Dichloroethene	3.1	10	16	129		14	110		70-130	16		20
Dichlorodifluoromethane	ND	10	9.0	90		9.6	96		70-130	6		20
1,2-Dibromoethane	ND	10	9.8	98		9.3	93		70-130	5		20
1,3-Dichloropropane	ND	10	9.4	94		9.8	98		70-130	4		20
1,1,1,2-Tetrachloroethane	ND	10	11	107		11	109		70-130	2		20
o-Chlorotoluene	ND	10	7.6	76		7.3	73		70-130	4		20
p-Chlorotoluene	ND	10	9.7	97		9.1	92		70-130	5		20
Hexachlorobutadiene	ND	10	8.2	82		8.5	85		70-130	4		20
1,2,4-Trichlorobenzene	ND	10	8.7	88		8.2	82		70-130	7		20

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
1,2-Dichloroethane-d4	95		97		70-130
4-Bromofluorobenzene	102		98		70-130
Dibromofluoromethane	107		107		70-130
Toluene-d8	95		93		70-130

# **SEMIVOLATILES**



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-06	Date Collected:	07/20/10 14:35
Client ID:	MW-261S-20100720-01	Date Received:	07/20/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C-SIM	Extraction Date:	07/27/10 16:36
Analytical Date:	07/28/10 12:13		
Analyst:	JD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>1,4 Dioxane by 8270C-SIM - Mansfield Lab</b>						
1,4-Dioxane	2600		ng/l	515	--	1
<hr/>						
Surrogate	% Recovery	Qualifier	Acceptance Criteria			
1,4-Dioxane-d8	39		15-110			

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-07	Date Collected:	07/20/10 13:15
Client ID:	MW-552-20100720-01	Date Received:	07/20/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C-SIM	Extraction Date:	07/27/10 16:36
Analytical Date:	07/28/10 12:57		
Analyst:	JD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>1,4 Dioxane by 8270C-SIM - Mansfield Lab</b>						
1,4-Dioxane	9590		ng/l	515	--	1
Surrogate	% Recovery	Qualifier	Acceptance Criteria			
1,4-Dioxane-d8	38		15-110			

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## SAMPLE RESULTS

Lab ID:	L1010941-13	Date Collected:	07/20/10 14:14
Client ID:	DUP-002-20100720-01	Date Received:	07/20/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C-SIM	Extraction Date:	07/27/10 16:36
Analytical Date:	07/28/10 13:40		
Analyst:	JD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>1,4 Dioxane by 8270C-SIM - Mansfield Lab</b>						
1,4-Dioxane	9620		ng/l	515	--	1
<hr/>						
Surrogate	% Recovery	Qualifier	Acceptance Criteria			
1,4-Dioxane-d8	43		15-110			

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270C-SIM  
Analytical Date: 07/28/10 10:03  
Analyst: JD

Extraction Method: EPA 3510C  
Extraction Date: 07/27/10 16:36

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270C-SIM - Mansfield Lab for sample(s): 06-07-13			Batch: WG424589-1		
1,4-Dioxane	ND		ng/l	500	--

Surrogate	%Recovery	Qualifier	Acceptance
			Criteria
1,4-Dioxane-d8	37		15-110

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270C-SIM - Mansfield Lab Associated sample(s): 06-07-13 Batch: WG424589-2 WG424589-3								
1,4-Dioxane	103		104		40-140	1		30

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

## METALS



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**SAMPLE RESULTS**

Lab ID: L1010941-01  
Client ID: IW-18-20100720-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/20/10 08:25  
Date Received: 07/20/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	110		mg/l	2.5	--	1	07/21/10 12:15	07/23/10 13:19	EPA 3005A	97,6010B	TD
Sodium, Dissolved	18		mg/l	2.0	--	1	07/21/10 12:15	07/23/10 13:19	EPA 3005A	97,6010B	TD



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**SAMPLE RESULTS**

Lab ID: L1010941-04  
Client ID: IW-5-20100720-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/20/10 10:05  
Date Received: 07/20/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	200		mg/l	2.5	--	1	07/21/10 12:15	07/23/10 13:32	EPA 3005A	97,6010B	TD
Sodium, Dissolved	48		mg/l	2.0	--	1	07/21/10 12:15	07/23/10 13:32	EPA 3005A	97,6010B	TD



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**SAMPLE RESULTS**

Lab ID: L1010941-06  
Client ID: MW-261S-20100720-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/20/10 14:35  
Date Received: 07/20/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	ND		mg/l	2.5	--	1	07/21/10 12:15	07/23/10 13:56	EPA 3005A	97,6010B	TD
Sodium, Dissolved	10		mg/l	2.0	--	1	07/21/10 12:15	07/23/10 13:56	EPA 3005A	97,6010B	TD



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**SAMPLE RESULTS**

Lab ID: L1010941-07  
Client ID: MW-552-20100720-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/20/10 13:15  
Date Received: 07/20/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	ND		mg/l	2.5	--	1	07/21/10 12:15	07/23/10 14:00	EPA 3005A	97,6010B	TD
Sodium, Dissolved	12		mg/l	2.0	--	1	07/21/10 12:15	07/23/10 14:00	EPA 3005A	97,6010B	TD



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**SAMPLE RESULTS**

Lab ID: L1010941-10  
Client ID: MW-266MA-20100720-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/20/10 14:15  
Date Received: 07/20/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	5.6		mg/l	2.5	--	1	07/21/10 12:15	07/23/10 14:03	EPA 3005A	97,6010B	TD
Sodium, Dissolved	30		mg/l	2.0	--	1	07/21/10 12:15	07/23/10 14:03	EPA 3005A	97,6010B	TD



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**SAMPLE RESULTS**

Lab ID: L1010941-11  
Client ID: MW-266MB-20100720-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/20/10 12:55  
Date Received: 07/20/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	4.2		mg/l	2.5	--	1	07/21/10 12:15	07/23/10 14:06	EPA 3005A	97,6010B	TD
Sodium, Dissolved	13		mg/l	2.0	--	1	07/21/10 12:15	07/23/10 14:06	EPA 3005A	97,6010B	TD



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Dissolved Metals - Westborough Lab for sample(s): 01,04,06-07,10-11 Batch: WG423775-1									
Potassium, Dissolved	ND	mg/l	2.5	--	1	07/21/10 12:15	07/23/10 13:06	97,6010B	TD
Sodium, Dissolved	ND	mg/l	2.0	--	1	07/21/10 12:15	07/23/10 13:06	97,6010B	TD

### **Prep Information**

Digestion Method: EPA 3005A



# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS	LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	Limits			
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01,04,06-07,10-11 Batch: WG423775-2 WG423775-3								
Potassium, Dissolved	100		100		80-120	0		20
Sodium, Dissolved	98		100		80-120	2		20

# **INORGANICS & MISCELLANEOUS**



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

### SAMPLE RESULTS

Lab ID: L1010941-01  
Client ID: IW-18-20100720-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/20/10 08:25  
Date Received: 07/20/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	ND		mg/l	10	--	1	07/22/10 12:00	07/22/10 12:00	30,4500SO4-E	AW
Total Organic Carbon	38		mg/l	8.0	--	16	-	07/23/10 08:12	1,9060	DW

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

### SAMPLE RESULTS

Lab ID: L1010941-04  
Client ID: IW-5-20100720-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/20/10 10:05  
Date Received: 07/20/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	21		mg/l	10	--	1	07/22/10 12:00	07/22/10 12:00	30,4500SO4-E	AW
Total Organic Carbon	220		mg/l	32	--	64	-	07/23/10 08:12	1,9060	DW

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

### SAMPLE RESULTS

Lab ID: L1010941-06  
Client ID: MW-261S-20100720-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/20/10 14:35  
Date Received: 07/20/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	33		mg/l	10	--	1	07/22/10 12:00	07/22/10 12:00	30,4500SO4-E	AW
Total Organic Carbon	1.0		mg/l	0.50	--	1	-	07/23/10 08:12	1,9060	DW



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

### SAMPLE RESULTS

Lab ID: L1010941-07  
Client ID: MW-552-20100720-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/20/10 13:15  
Date Received: 07/20/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	78		mg/l	20	--	2	07/22/10 12:00	07/22/10 12:00	30,4500SO4-E	AW
Total Organic Carbon	1.6		mg/l	0.50	--	1	-	07/23/10 08:12	1,9060	DW



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

### SAMPLE RESULTS

Lab ID: L1010941-10  
Client ID: MW-266MA-20100720-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/20/10 14:15  
Date Received: 07/20/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	36		mg/l	20	--	2	07/22/10 12:00	07/22/10 12:00	30,4500SO4-E	AW
Total Organic Carbon	0.99		mg/l	0.50	--	1	-	07/23/10 08:12	1,9060	DW



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

### SAMPLE RESULTS

Lab ID: L1010941-11  
Client ID: MW-266MB-20100720-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/20/10 12:55  
Date Received: 07/20/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	30		mg/l	10	--	1	07/22/10 12:00	07/22/10 12:00	30,4500SO4-E	AW
Total Organic Carbon	1.3		mg/l	0.50	--	1	-	07/23/10 08:12	1,9060	DW



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

**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): 01,04,06-07,10-11 Batch: WG424048-1									
Sulfate	ND	mg/l	10	--	1	07/22/10 12:00	07/22/10 12:00	30,4500SO4-E	AW
General Chemistry - Westborough Lab for sample(s): 01,04,06-07,10-11 Batch: WG424207-1									
Total Organic Carbon	ND	mg/l	0.50	--	1	-	07/23/10 08:12	1,9060	DW



# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,04,06-07,10-11 Batch: WG424048-2								
Sulfate	115	-	-	-	90-115	-	-	-
General Chemistry - Westborough Lab Associated sample(s): 01,04,06-07,10-11 Batch: WG424207-2								
Total Organic Carbon	96	-	-	-	90-110	-	-	-

**Matrix Spike Analysis**  
**Batch Quality Control**

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

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): 01,04,06-07,10-11 QC Batch ID: WG424048-3 QC Sample: L1010941-01 Client ID: IW-18-20100720-01												
Sulfate	ND	20	26	130	-	-	-	-	55-147	-	-	14
General Chemistry - Westborough Lab Associated sample(s): 01,04,06-07,10-11 QC Batch ID: WG424207-3 QC Sample: L1010855-09 Client ID: MS Sample												
Total Organic Carbon	4.6	4	9.1	113	-	-	-	-	80-120	-	-	20

**Lab Duplicate Analysis**  
Batch Quality Control

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,04,06-07,10-11 QC Batch ID: WG424048-4 QC Sample: L1010941-04 Client ID: IW-5-20100720-01						
Sulfate	21	21	mg/l	0		14
General Chemistry - Westborough Lab Associated sample(s): 01,04,06-07,10-11 QC Batch ID: WG424207-4 QC Sample: L1010950-11 Client ID: DUP Sample						
Total Organic Carbon	6.3	6.4	mg/l	2		20

**Project Name:** RAYTHEON WAYLAND  
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### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

**Reagent H2O Preserved Vials Frozen on:** NA

#### **Cooler Information Custody Seal**

##### **Cooler**

A Absent

#### **Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1010941-01A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-01B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-01C	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2.6	Y	Absent	TOC-9060(28)
L1010941-01D	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2.6	Y	Absent	TOC-9060(28)
L1010941-01E	Plastic 250ml unpreserved	A	6	2.6	Y	Absent	SO4-4500(28)
L1010941-01F	Plastic 250ml HNO <sub>3</sub> preserved	A	<2	2.6	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1010941-01G	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-01H	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-01I	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-01J	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-02A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-02B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-03A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-03B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-04A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-04B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-04C	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2.6	Y	Absent	TOC-9060(28)
L1010941-04D	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2.6	Y	Absent	TOC-9060(28)
L1010941-04E	Plastic 250ml unpreserved	A	11	2.6	Y	Absent	SO4-4500(28)
L1010941-04F	Plastic 250ml HNO <sub>3</sub> preserved	A	<2	2.6	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1010941-05A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-05B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-06A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1010941-06B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)

\*Values in parentheses indicate holding time in days

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**Lab Number:** L1010941  
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**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1010941-06C	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260SIM-10(14), MCP-8260-10(14)
L1010941-06D	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2.6	Y	Absent	TOC-9060(28)
L1010941-06E	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2.6	Y	Absent	TOC-9060(28)
L1010941-06F	Plastic 250ml unpreserved	A	6	2.6	Y	Absent	SO4-4500(28)
L1010941-06G	Plastic 250ml HNO <sub>3</sub> preserved	A	<2	2.6	Y	Absent	MCP-NA-6010S-10(180), MCP-K-6010S-10(180)
L1010941-06H	Amber 1000ml unpreserved	A	6	2.6	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1010941-07A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260SIM-10(14), MCP-8260-10(14)
L1010941-07B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260SIM-10(14), MCP-8260-10(14)
L1010941-07C	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260SIM-10(14), MCP-8260-10(14)
L1010941-07D	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2.6	Y	Absent	TOC-9060(28)
L1010941-07E	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2.6	Y	Absent	TOC-9060(28)
L1010941-07F	Plastic 250ml unpreserved	A	6	2.6	Y	Absent	SO4-4500(28)
L1010941-07G	Plastic 250ml HNO <sub>3</sub> preserved	A	<2	2.6	Y	Absent	MCP-NA-6010S-10(180), MCP-K-6010S-10(180)
L1010941-07H	Amber 1000ml unpreserved	A	6	2.6	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1010941-08A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-09A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-09B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-10A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260SIM-10(14), MCP-8260-10(14)
L1010941-10B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260SIM-10(14), MCP-8260-10(14)
L1010941-10C	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260SIM-10(14), MCP-8260-10(14)
L1010941-10D	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2.6	Y	Absent	TOC-9060(28)
L1010941-10E	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2.6	Y	Absent	TOC-9060(28)
L1010941-10F	Plastic 250ml unpreserved	A	6	2.6	Y	Absent	SO4-4500(28)
L1010941-10G	Plastic 250ml HNO <sub>3</sub> preserved	A	<2	2.6	Y	Absent	MCP-NA-6010S-10(180), MCP-K-6010S-10(180)
L1010941-10H	Amber 1000ml unpreserved	A	6	2.6	Y	Absent	TOC-9060(28)
L1010941-11A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-11B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-11C	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2.6	Y	Absent	TOC-9060(28)
L1010941-11D	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2.6	Y	Absent	TOC-9060(28)
L1010941-11E	Plastic 250ml unpreserved	A	6	2.6	Y	Absent	SO4-4500(28)
L1010941-11F	Plastic 250ml HNO <sub>3</sub> preserved	A	<2	2.6	Y	Absent	MCP-NA-6010S-10(180), MCP-K-6010S-10(180)

\*Values in parentheses indicate holding time in days

**Project Name:** RAYTHEON WAYLAND  
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**Lab Number:** L1010941  
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**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1010941-12A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-12B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-10(14)
L1010941-13A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1010941-13B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1010941-13C	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1010941-13D	Amber 1000ml unpreserved	A	6	2.6	Y	Absent	A2-1,4-DIOXANE-SIM(7)

\*Values in parentheses indicate holding time in days

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
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## GLOSSARY

### **Acronyms**

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.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
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.

### **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.

### **Data Qualifiers**

<b>A</b>	- Spectra identified as "Aldol Condensation Product".
<b>B</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 five times (5x) 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.
<b>D</b>	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
<b>E</b>	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
<b>H</b>	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
<b>I</b>	- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
<b>P</b>	- The RPD between the results for the two columns exceeds the method-specified criteria.
<b>Q</b>	- The quality control sample exceeds the associated acceptance criteria. 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.)
<b>R</b>	- Analytical results are from sample re-analysis.

**Report Format:** Data Usability Report



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

*Data Qualifiers*

- RE** - Analytical results are from sample re-extraction.  
**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).  
**ND** - Not detected at the reporting limit (RL) for the sample.

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0114119

**Lab Number:** L1010941  
**Report Date:** 07/30/10

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

## 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 its 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.



## Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.

For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### **Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

### **Maine Department of Human Services Certificate/Lab ID: 2009024.**

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)

Solid Waste/Soil (Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

### **Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.**

#### *Drinking Water*

Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)

(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B.

Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)

(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), 314.0, 332.

Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; MF-SM9222D

#### *Non-Potable Water*

Inorganic Parameters:; (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)

(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Tl,Tl, V,Zn,Ca,Mg,Na,K)

245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

**New Hampshire Department of Environmental Services** Certificate/Lab ID: 200307. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

**New Jersey Department of Environmental Protection** Certificate/Lab ID: MA935. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

**New York Department of Health** Certificate/Lab ID: 11148. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500CI-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

**North Carolina Department of the Environment and Natural Resources** Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

**Pennsylvania Department of Environmental Protection** Certificate/Lab ID : 68-03671. **NELAP Accredited.**

Non-Potable Water (Organic Parameters: EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.  
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

**Texas Comission on Environmental Quality Certificate/Lab ID: T104704476-09-1. NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S2<sup>-</sup>D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

**Department of Defense Certificate/Lab ID: L2217.**

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A , 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)

**Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

## **Certificate/Approval Program Summary**

Last revised July 19, 2010 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

**Connecticut Department of Public Health Certificate/Lab ID: PH-0141.**

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

**Florida Department of Health Certificate/Lab ID: E87814. **NELAP Accredited.****

Non-Potable Water (Inorganic Parameters: SM2320B, EPA 120.1, SM2510B, EPA 245.1, EPA 150.1, EPA 160.2, SM2540D, EPA 335.2, SM2540G, EPA 180.1. Organic Parameters: EPA 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045, 9014. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

**Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. **NELAP Accredited.****

Non-Potable Water (Inorganic Parameters: EPA 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, Organic Parameters: EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270, )

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

Biological Tissue (Inorganic Parameters: EPA 6020. Organic Parameters: EPA 3570, 3510, 3610, 3630, 3640, 8270.)

**Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.**

Non-Potable Water (Inorganic Parameters: SM4500H+B. Organic Parameters: EPA 624.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. **NELAP Accredited.****

Non-Potable Water (Inorganic Parameters: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. Organic Parameters: EPA 625, 608.)

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. **NELAP Accredited.****

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 9040B, 6020, 9010B, 9014 Organic Parameters: EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082 8260B, 8270C)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. Organic Parameters: SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

*Atmospheric Organic Parameters* (EPA TO-15)

*Biological Tissue* (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610B, 3630C, 3640A)

**New York Department of Health** Certificate/Lab ID: 11627. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: EPA 310.1, SM2320B, EPA 365.2, 160.1, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035, 3570, 3051, 5035, 5030B.)

*Air & Emissions* (EPA TO-15.)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00299. **NELAP Accredited via LA-DEQ.**

Refer to MA-DEP Certificate for Non-Potable Water.

Refer to LA-DEQ Certificate for Non-Potable Water.

**Texas Commission of Environmental Quality** Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

*Solid & Chemical Materials* (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

*Air* (Organic Parameters: EPA TO-15)

**U.S. Army Corps of Engineers**

**Department of Defense** Certificate/Lab ID: L2217.01.

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 1312, 3051, 6020, 747A, 7474, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580, 3570, 3540C, 5035, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).

*Air & Emissions* (EPA TO-15.)

#### **Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **8270C**: Biphenyl.



D  
TRANSFERRED MA  
TEL: 508-898-9220  
FAX: 508-898-9193  
FAX: 508-822-3288

WESTBORO, MA  
TEL: 508-898-9220  
FAX: 508-898-9193  
Project Name: **Ranftuun Wayland**  
Project Location: **Wayland, MA**

Client: **EKM**  
Address: **399 Baylston St.**  
**14th floor Boston, MA**  
Phone: **(617) 646 7200**  
Fax: **(617) 267-6447**

Project #: **80419**  
Project Manager: **Jason Flattery**

ALPHA Quote #:

Turn-Around Time

Date Due: **9/27/10** Time: **9:00 AM**

Standard  RUSH (only confirmed if pre-approved)

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required indicate in Sample Specific Comments which samples and what tests MS to be performed.  
(Note: All **CAM** methods for inorganic analyses require MS every 20 soil samples)

**only run 1/4 Dioxane by 8270SM if 8260SM result exceeded 3000 DL**

**ANALYSIS**

**80216 by 8260**  
**80216 by 8260 + 8200SM**  
**1,4 Dioxane only**  
**8270SM 1,4 Dioxane**

**TOC**

**SO<sub>4</sub>**

**Diss. Nat K**

**SAMPLE HANDLING**

**Filtration**

**Preservation**

**Lab to do**

**Sample Specific Comments**

**Please specify below**

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## CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 7/26/10

ALPHA Job #: U1010941

WESTBORO, MA  
TEL: 508-898-9220  
FAX: 508-898-9193

MANSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-822-3288

Client Information  
Client: ERNAddress: 319 Baylison St.  
16th floor Boston, MAPhone: (417) 646-7806  
Fax: (417) 247-6447

Email: jason.flattery@alpha.com

Project #: 611419

Project Manager: Jason Flattery

ALPHA Quote #:

Turn-Around Time

Standard

RUSH

(only confirmed if pre-approved)

Date Due: 7/27/10

Time:

**Alpha D CHAIN OF CUSTODY**

PAGE 1 OF 2

WESTBORO, MA  
TEL: 508-982-9220  
FAX: 508-982-9193  
TELE: 508-822-3288WENSHFIELD, MA  
TEL: 508-622-9300  
FAX: 508-622-3288**Client Information**

Client:

CRM

Address: 399 Boylston St

4th Floor Boston, MA

Project #: 00419

Project Manager: Jason Flattery

ALPHA Quote #:

MA MCP PRESUMPTIVE CERTAINTY ... CT REASONABLE CONFIDENCE PROTO

MA MCP

Criteria: G/N - 1

Phone: (617) 267-6447

Fax: (617) 267-6447

Email: jason.flattery@alpha.com

Date Due: 2/27/10 Time:

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:  
(Note: All CSM methods for Inorganic analyses require MS every 20 soil samples)

only one 1/4 Dioxane by 8270SM result exceed 3 ppb DL

ANALYSIS  
8270SM by 8270S  
1/4 Dioxane (by 1/4 Dioxane)TOC  
SO4  
DISS. NAT

7/23/10

Filtration  
Done#  
Not neededB  
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PreservationT  
Lab to do  
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Please print clearly legibly and completely. Samples can not be rejected in and turnaround time clock will not start until any ambiguities are resolved.

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Report Information - Data Deliverables

FAX

EMAIL

DADDS

Deliverables

Regulatory Requirements/Report Limits

State/Fed Program

MA MCP

Criteria

G/N - 1

Billing Information

Same as Client Info

PO #

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
MA MCP or CT RCP?

CRM

Relinquished By:

Date/Time

Received By:

Date/Time

Container Type

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## CHAIN OF CUSTODY PAGE 2 OF 2

Date Rec'd in lab: 7/26/10

ALPHA Job# UCT0941

## Report Information - Data Deliverables

## Billing Information

WESTBROOK, MA  
TEL: 508-988-9220  
FAX: 508-988-9393MANFIELD, MA  
TEL: 508-822-8300  
FAX: 508-822-3288

## Client Information

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1010941

Instrument ID: Jack.i      Calibration Date: 23-JUL-2010    Time: 08:02

Lab File ID: 0723A02.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260ccal      Init. Calib. Times : 09:45                  14:06

Compound	RRF	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane_____	.71493	.63958	.05	11	20
chloromethane_____	1.3571	1.4063	.05	-4	20
vinyl chloride_____	1.3468	1.0676	.05	21	20
bromomethane_____	.66519	.63674	.05	4	20
chloroethane_____	.66238	.56243	.05	15	20
trichlorofluoromethane_____	1.8637	1.6396	.05	12	20
ethyl ether_____	.356	.35645	.05	0	20
acrolien_____	.07371	.09105	.05	-24	20
1,1,-dichloroethene_____	.9155	.83292	.05	9	20
carbon disulfide_____	2.6781	2.0536	.05	23	20
freon-113_____	1.0206	1.0152	.05	1	20
iodomethane_____	1.8246	1.1850	.05	35	20
methylene chloride_____	.8496	.84035	.05	1	20
acetone_____	100	119	.05	-19	20
trans-1,2-dichloroethene_____	.77327	.74994	.05	3	20
methyl tert butyl ether_____	1.2847	1.0979	.05	15	20
tert butyl alcohol_____	.05018	.04278	.05	15	20
Diisopropyl Ether_____	2.5446	2.2017	.05	13	20
1,1-dichloroethane_____	1.5534	1.5144	.05	3	20
halothane_____	.42689	.51532	.05	-21	20
Ethyl-Tert-Butyl-Ether_____	1.7979	1.5207	.05	15	20
vinyl acetate_____	.79793	.89571	.05	-12	20
cis-1,2-dichloroethene_____	.84264	.83495	.05	1	20
2,2-dichloropropane_____	1.0317	.99009	.05	4	20
bromochloromethane_____	.35442	.36153	.05	-2	20
chloroform_____	1.4366	1.3440	.05	6	20
carbontetrachloride_____	100	114	.05	-14	20
tetrahydrofuran_____	.18208	.19076	.05	-5	20
1,1,1-trichloroethane_____	1.1165	1.1017	.05	1	20
1,1-dichloropropene_____	1.0727	.96444	.05	10	20
2-butanone_____	.19736	.22725	.05	-15	20
benzene_____	3.1399	2.9185	.05	7	20
Tertiary-Amyl Methyl Ether_____	1.2340	1.0886	.05	12	20
1,2-dichloroethane_____	.88056	.83201	.05	6	20
trichloroethene_____	.8251	.74524	.05	10	20
dibromomethane_____	.37891	.3693	.05	3	20
1,2-dichloropropane_____	.80088	.72972	.05	9	20
bromodichloromethane_____	.86141	.89184	.05	-4	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1010941

Instrument ID: Jack.i      Calibration Date: 23-JUL-2010    Time: 08:02

Lab File ID: 0723A02.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260ccal      Init. Calib. Times : 09:45                  14:06

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
1,4-dioxane	.00291	.00285	.05	2	20	F
2-chloroethylvinyl ether	.2912	.29804	.05	-2	20	
cis-1,3-dichloropropene	.94786	.85496	.05	10	20	
toluene	2.5438	2.1583	.05	15	20	
tetrachloroethene	1.1773	1.0907	.05	7	20	
4-methyl-2-pentanone	.12733	.14292	.05	-12	20	
trans-1,3-dichloropropene	.97487	.87167	.05	11	20	
1,1,2-trichloroethane	.50551	.47533	.05	6	20	
chlorodibromomethane	100	106	.05	-6	20	
1,3-dichloropropane	1.0878	.99241	.05	9	20	
1,2-dibromoethane	.57836	.55914	.05	3	20	
2-hexanone	.32232	.33547	.05	-4	20	
chlorobenzene	2.6829	2.3034	.05	14	20	
ethyl benzene	5.0629	4.4689	.05	12	20	
1,1,1,2-tetrachloroethane	100	105	.05	-5	20	
p/m xylene	2.0960	1.8144	.05	13	20	
o xylene	1.9727	1.6848	.05	15	20	
bromoform	100	117	.05	-17	20	
styrene	3.2346	2.8468	.05	12	20	
isopropylbenzene	5.0927	4.2919	.05	16	20	
bromobenzene	1.7560	1.6119	.05	8	20	
n-propylbenzene	9.0525	7.6840	.05	15	20	
1,1,2,2,-tetrachloroethane	1.0445	1.0418	.05	0	20	
2-chlorotoluene	6.1123	5.2102	.05	15	20	
1,2,3-trichloropropane	.81845	.76469	.05	7	20	
1,3,5-trimethylbenzene	7.3470	6.4380	.05	12	20	
4-chorotoluene	5.1595	4.5851	.05	11	20	
tert-butylbenzene	5.0718	4.2613	.05	16	20	
1,2,4-trimethylbenzene	6.1087	5.1995	.05	15	20	
sec-butylbenzene	7.3470	6.4380	.05	12	20	
p-isopropyltoluene	6.0815	5.3369	.05	12	20	
1,3-dichlorobenzene	3.6930	3.2188	.05	13	20	
1,4-dichlorobenzene	3.7055	3.2577	.05	12	20	
n-butylbenzene	5.3304	4.8796	.05	8	20	
1,2-dichlorobenzene	3.2119	2.9181	.05	9	20	
1,2-dibromo-3-chloropropane	.15046	.15808	.05	-5	20	
1,2,4-trichlorobenzene	2.0791	1.8581	.05	11	20	
hexachlorobutadiene	.89078	.70566	.05	21	20	F

FORM VII MCP-8260-10

**7A**  
**CONTINUING CALIBRATION CHECK**

Lab Name: Alpha Analytical Labs

SDG No.: L1010941

Instrument ID: Jack.i Calibration Date: 23-JUL-2010 Time: 08:02

Lab File ID: 0723A02.D      Init. Calib. Date(s): 02-JUL-2      02-JUL-2

Sample No: 8260ccal                  Init. Calib. Times : 09:45                  14:06

FORM VTT MCP-8260-10



## ANALYTICAL REPORT

Lab Number:	L1011165
Client:	ERM Consulting & Engineering, Inc. 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Phone:	(617) 646-7816
Project Name:	RAYTHEON WAYALND
Project Number:	0114119
Report Date:	08/02/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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 WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1011165-01	MW-267M-20100721-01	WAYLAND, MA	07/21/10 08:25
L1011165-02	MW-267S-20100721-01	WAYLAND, MA	07/21/10 10:00
L1011165-03	MW-268M-20100721-01	WAYLAND, MA	07/21/10 10:25
L1011165-04	MW-268D-20100721-01	WAYLAND, MA	07/21/10 09:10
L1011165-05	MW-561-20100721-01	WAYLAND, MA	07/21/10 09:10
L1011165-06	MW-265M-20100721-01	WAYLAND, MA	07/21/10 10:25
L1011165-07	MW-269MA-20100721-01	WAYLAND, MA	07/21/10 13:30
L1011165-08	IW-16-20100721-01	WAYLAND, MA	07/21/10 14:05
L1011165-09	IW-15-20100722-01	WAYLAND, MA	07/22/10 09:40
L1011165-10	IW-14-20100721-01	WAYLAND, MA	07/21/10 14:35
L1011165-11	IW-13-20100722-01	WAYLAND, MA	07/22/10 11:10
L1011165-12	DUP-003-20100721-01	WAYLAND, MA	07/21/10 12:34
L1011165-13	DUP-004-20100721-01	WAYLAND, MA	07/21/10 14:56
L1011165-14	TB-003-20100721-01	WAYLAND, MA	07/21/10 00:00
L1011165-15	MW-551-20100721-01	WAYLAND, MA	07/21/10 11:45

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

### MADEP MCP Response Action Analytical Report Certification

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

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

<b>A response to questions G, H and I is required for "Presumptive Certainty" status</b>		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

**For any questions answered "No", please refer to the case narrative section on the following page(s).**

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



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

### 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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. 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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

For additional information, please contact Client Services at 800-624-9220.

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### MCP Related Narratives

#### Sample Receipt

The samples were Field Filtered for Dissolved Metals only.

#### Volatile Organics

L1011165-01, -02, -03, -05, -06, -09, -10 and -12 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

L1011165-11, -13 and -15 were re-analyzed on dilutions in order to quantitate the samples within the calibration range. The results should be considered estimated, and are qualified with an E flag, for any compound that exceeded the calibration on the initial analyses. The re-analyses were performed only for the compounds that exceeded the calibration range.

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

### Case Narrative (continued)

In reference to question G:

L1011165-01, -02, -03, -05, -06, -09, -10 and -12: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The initial calibration, associated with L1011165-12 and -14, utilized a quadratic fit for Carbon tetachloride, Chlorodibromomethane, 1,1,1,2-Tetrachloroethane and Bromoform.

The initial calibration, associated with L1011165-04, -05, -08 through -11 and -13, utilized a quadratic fit for Bromoform.

The initial calibration, associated with L1011165-01, -03 -07, -11 and -13, utilized a quadratic fit for Bromoform.

The initial calibration, associated with L1011165-02, -06 and -15, utilized a quadratic fit for Carbon tetachloride, Chlorodibromomethane, 1,1,1,2-Tetrachloroethane and Bromoform.

The initial calibration, associated with L1011165-15, utilized a quadratic fit for Bromoform.

The continuing calibration standards, associated with L1011165-01 through -15, are outside the acceptance criteria for several compounds; however, they are within overall method allowances. Copies of the continuing calibration standards are included as an addendum to this report.

In reference to question I:

All samples were analyzed for a subset of MCP compounds per the Chain of Custody.

#### Volatile Organics - SIM

L1011165-01, -02, -03 and -06 have elevated detection limits for 1,4-Dioxane due to the dilutions required by the elevated concentrations of non-target compounds in the samples.

#### Non-MCP Related Narratives

##### Sulfate

L1011165-01, -02, -03 and -09 have elevated detection limits due to the dilutions required to quantitate the results within the calibration range.

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

#### Case Narrative (continued)

##### Total Organic Carbon

L1011165-02, -04 and -15 have non-detect results at elevated detection limits due to the dilutions required by the sample matrix.

L1011165-05 and -09 have elevated detection limits due to the dilutions required by the elevated concentrations present in the samples.

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: 08/02/10

# ORGANICS



# VOLATILES



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-01	D	Date Collected:	07/21/10 08:25
Client ID:	MW-267M-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/27/10 12:22			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	10	--	5
1,1-Dichloroethane	ND		ug/l	5.0	--	5
Chloroform	ND		ug/l	5.0	--	5
Carbon tetrachloride	ND		ug/l	5.0	--	5
1,2-Dichloropropane	ND		ug/l	5.0	--	5
Dibromochloromethane	ND		ug/l	5.0	--	5
1,1,2-Trichloroethane	ND		ug/l	5.0	--	5
Tetrachloroethene	23		ug/l	5.0	--	5
Chlorobenzene	ND		ug/l	5.0	--	5
1,2-Dichloroethane	ND		ug/l	5.0	--	5
1,1,1-Trichloroethane	ND		ug/l	5.0	--	5
Bromodichloromethane	ND		ug/l	5.0	--	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	--	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	--	5
Bromoform	ND		ug/l	10	--	5
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	--	5
Chloromethane	ND		ug/l	10	--	5
Vinyl chloride	24		ug/l	5.0	--	5
Chloroethane	ND		ug/l	10	--	5
1,1-Dichloroethene	ND		ug/l	5.0	--	5
trans-1,2-Dichloroethene	ND		ug/l	5.0	--	5
Trichloroethene	500		ug/l	5.0	--	5
1,2-Dichlorobenzene	ND		ug/l	5.0	--	5
1,3-Dichlorobenzene	ND		ug/l	5.0	--	5
1,4-Dichlorobenzene	ND		ug/l	5.0	--	5
cis-1,2-Dichloroethene	730		ug/l	5.0	--	5
Dichlorodifluoromethane	ND		ug/l	10	--	5
1,2-Dibromoethane	ND		ug/l	10	--	5
1,3-Dichloropropane	ND		ug/l	10	--	5
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	--	5



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-01	D	Date Collected:	07/21/10 08:25
Client ID:	MW-267M-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	10	--	5
p-Chlorotoluene	ND		ug/l	10	--	5
Hexachlorobutadiene	ND		ug/l	3.0	--	5
1,2,4-Trichlorobenzene	ND		ug/l	10	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	121		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-01	D	Date Collected:	07/21/10 08:25
Client ID:	MW-267M-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B-SIM			
Analytical Date:	07/27/10 12:22			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by SIM - Westborough Lab</b>						
1,4-Dioxane	ND		ug/l	15	--	5

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-02	D	Date Collected:	07/21/10 10:00
Client ID:	MW-267S-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/27/10 12:38			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	5.0	--	2.5
1,1-Dichloroethane	ND		ug/l	2.5	--	2.5
Chloroform	ND		ug/l	2.5	--	2.5
Carbon tetrachloride	ND		ug/l	2.5	--	2.5
1,2-Dichloropropane	ND		ug/l	2.5	--	2.5
Dibromochloromethane	ND		ug/l	2.5	--	2.5
1,1,2-Trichloroethane	ND		ug/l	2.5	--	2.5
Tetrachloroethene	6.3		ug/l	2.5	--	2.5
Chlorobenzene	ND		ug/l	2.5	--	2.5
1,2-Dichloroethane	ND		ug/l	2.5	--	2.5
1,1,1-Trichloroethane	ND		ug/l	2.5	--	2.5
Bromodichloromethane	ND		ug/l	2.5	--	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
Bromoform	ND		ug/l	5.0	--	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Chloromethane	ND		ug/l	5.0	--	2.5
Vinyl chloride	ND		ug/l	2.5	--	2.5
Chloroethane	ND		ug/l	5.0	--	2.5
1,1-Dichloroethene	ND		ug/l	2.5	--	2.5
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	2.5
Trichloroethene	330		ug/l	2.5	--	2.5
1,2-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5	--	2.5
cis-1,2-Dichloroethene	66		ug/l	2.5	--	2.5
Dichlorodifluoromethane	ND		ug/l	5.0	--	2.5
1,2-Dibromoethane	ND		ug/l	5.0	--	2.5
1,3-Dichloropropane	ND		ug/l	5.0	--	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-02	D	Date Collected:	07/21/10 10:00
Client ID:	MW-267S-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	5.0	--	2.5
p-Chlorotoluene	ND		ug/l	5.0	--	2.5
Hexachlorobutadiene	ND		ug/l	1.5	--	2.5
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	105		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-02	D	Date Collected:	07/21/10 10:00
Client ID:	MW-267S-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B-SIM			
Analytical Date:	07/27/10 12:38			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by SIM - Westborough Lab</b>						
1,4-Dioxane	17		ug/l	15	--	5

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-03	D	Date Collected:	07/21/10 10:25
Client ID:	MW-268M-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/27/10 12:54			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	40	--	20
1,1-Dichloroethane	ND		ug/l	20	--	20
Chloroform	ND		ug/l	20	--	20
Carbon tetrachloride	ND		ug/l	20	--	20
1,2-Dichloropropane	ND		ug/l	20	--	20
Dibromochloromethane	ND		ug/l	20	--	20
1,1,2-Trichloroethane	ND		ug/l	20	--	20
Tetrachloroethene	42		ug/l	20	--	20
Chlorobenzene	ND		ug/l	20	--	20
1,2-Dichloroethane	ND		ug/l	20	--	20
1,1,1-Trichloroethane	ND		ug/l	20	--	20
Bromodichloromethane	ND		ug/l	20	--	20
trans-1,3-Dichloropropene	ND		ug/l	10	--	20
cis-1,3-Dichloropropene	ND		ug/l	10	--	20
Bromoform	ND		ug/l	40	--	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	--	20
Chloromethane	ND		ug/l	40	--	20
Vinyl chloride	110		ug/l	20	--	20
Chloroethane	ND		ug/l	40	--	20
1,1-Dichloroethene	ND		ug/l	20	--	20
trans-1,2-Dichloroethene	ND		ug/l	20	--	20
Trichloroethene	1600		ug/l	20	--	20
1,2-Dichlorobenzene	ND		ug/l	20	--	20
1,3-Dichlorobenzene	ND		ug/l	20	--	20
1,4-Dichlorobenzene	ND		ug/l	20	--	20
cis-1,2-Dichloroethene	3300		ug/l	20	--	20
Dichlorodifluoromethane	ND		ug/l	40	--	20
1,2-Dibromoethane	ND		ug/l	40	--	20
1,3-Dichloropropane	ND		ug/l	40	--	20
1,1,1,2-Tetrachloroethane	ND		ug/l	20	--	20



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-03	D	Date Collected:	07/21/10 10:25
Client ID:	MW-268M-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	40	--	20
p-Chlorotoluene	ND		ug/l	40	--	20
Hexachlorobutadiene	ND		ug/l	12	--	20
1,2,4-Trichlorobenzene	ND		ug/l	40	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	108		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-03	D	Date Collected:	07/21/10 10:25
Client ID:	MW-268M-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B-SIM			
Analytical Date:	07/27/10 12:54			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by SIM - Westborough Lab</b>						
1,4-Dioxane	ND		ug/l	60	--	20

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-04	Date Collected:	07/21/10 09:10
Client ID:	MW-268D-20100721-01	Date Received:	07/22/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/26/10 15:21		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	ND	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	ND	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	ND	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	9.7	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	13	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
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## SAMPLE RESULTS

Lab ID:	L1011165-04	Date Collected:	07/21/10 09:10
Client ID:	MW-268D-20100721-01	Date Received:	07/22/10
Sample Location:	WAYLAND, MA	Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	118		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-05	D	Date Collected:	07/21/10 09:10
Client ID:	MW-561-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/26/10 15:53			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	40	--	20
1,1-Dichloroethane	ND		ug/l	20	--	20
Chloroform	ND		ug/l	20	--	20
Carbon tetrachloride	ND		ug/l	20	--	20
1,2-Dichloropropane	ND		ug/l	20	--	20
Dibromochloromethane	ND		ug/l	20	--	20
1,1,2-Trichloroethane	ND		ug/l	20	--	20
Tetrachloroethene	29		ug/l	20	--	20
Chlorobenzene	ND		ug/l	20	--	20
1,2-Dichloroethane	ND		ug/l	20	--	20
1,1,1-Trichloroethane	ND		ug/l	20	--	20
Bromodichloromethane	ND		ug/l	20	--	20
trans-1,3-Dichloropropene	ND		ug/l	10	--	20
cis-1,3-Dichloropropene	ND		ug/l	10	--	20
Bromoform	ND		ug/l	40	--	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	--	20
Chloromethane	ND		ug/l	40	--	20
Vinyl chloride	72		ug/l	20	--	20
Chloroethane	ND		ug/l	40	--	20
1,1-Dichloroethene	ND		ug/l	20	--	20
trans-1,2-Dichloroethene	ND		ug/l	20	--	20
Trichloroethene	690		ug/l	20	--	20
1,2-Dichlorobenzene	ND		ug/l	20	--	20
1,3-Dichlorobenzene	ND		ug/l	20	--	20
1,4-Dichlorobenzene	ND		ug/l	20	--	20
cis-1,2-Dichloroethene	130		ug/l	20	--	20
Dichlorodifluoromethane	ND		ug/l	40	--	20
1,2-Dibromoethane	ND		ug/l	40	--	20
1,3-Dichloropropane	ND		ug/l	40	--	20
1,1,1,2-Tetrachloroethane	ND		ug/l	20	--	20



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-05	D	Date Collected:	07/21/10 09:10
Client ID:	MW-561-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	40	--	20
p-Chlorotoluene	ND		ug/l	40	--	20
Hexachlorobutadiene	ND		ug/l	12	--	20
1,2,4-Trichlorobenzene	ND		ug/l	40	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	114		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-06	D	Date Collected:	07/21/10 10:25
Client ID:	MW-265M-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/27/10 13:10			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	5.0	--	2.5
1,1-Dichloroethane	2.8		ug/l	2.5	--	2.5
Chloroform	ND		ug/l	2.5	--	2.5
Carbon tetrachloride	ND		ug/l	2.5	--	2.5
1,2-Dichloropropane	ND		ug/l	2.5	--	2.5
Dibromochloromethane	ND		ug/l	2.5	--	2.5
1,1,2-Trichloroethane	ND		ug/l	2.5	--	2.5
Tetrachloroethene	24		ug/l	2.5	--	2.5
Chlorobenzene	ND		ug/l	2.5	--	2.5
1,2-Dichloroethane	ND		ug/l	2.5	--	2.5
1,1,1-Trichloroethane	ND		ug/l	2.5	--	2.5
Bromodichloromethane	ND		ug/l	2.5	--	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
Bromoform	ND		ug/l	5.0	--	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Chloromethane	ND		ug/l	5.0	--	2.5
Vinyl chloride	62		ug/l	2.5	--	2.5
Chloroethane	ND		ug/l	5.0	--	2.5
1,1-Dichloroethene	ND		ug/l	2.5	--	2.5
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	2.5
Trichloroethene	260		ug/l	2.5	--	2.5
1,2-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5	--	2.5
cis-1,2-Dichloroethene	420		ug/l	2.5	--	2.5
Dichlorodifluoromethane	ND		ug/l	5.0	--	2.5
1,2-Dibromoethane	ND		ug/l	5.0	--	2.5
1,3-Dichloropropane	ND		ug/l	5.0	--	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-06	D	Date Collected:	07/21/10 10:25
Client ID:	MW-265M-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	5.0	--	2.5
p-Chlorotoluene	ND		ug/l	5.0	--	2.5
Hexachlorobutadiene	ND		ug/l	1.5	--	2.5
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	126		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-06	D	Date Collected:	07/21/10 10:25
Client ID:	MW-265M-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B-SIM			
Analytical Date:	07/27/10 13:10			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	7.5	--	2.5

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-07	Date Collected:	07/21/10 13:30
Client ID:	MW-269MA-20100721-01	Date Received:	07/22/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/27/10 11:49		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.0		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.2		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID: L1011165-07 Date Collected: 07/21/10 13:30  
Client ID: MW-269MA-20100721-01 Date Received: 07/22/10  
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	123		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-07	Date Collected:	07/21/10 13:30
Client ID:	MW-269MA-20100721-01	Date Received:	07/22/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B-SIM		
Analytical Date:	07/27/10 11:49		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics by SIM - Westborough Lab</b>						
1,4-Dioxane	ND		ug/l	3.0	--	1

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-08	Date Collected:	07/21/10 14:05
Client ID:	IW-16-20100721-01	Date Received:	07/22/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/26/10 16:25		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	ND	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	ND	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	ND	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	ND	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	26	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID: L1011165-08 Date Collected: 07/21/10 14:05  
Client ID: IW-16-20100721-01 Date Received: 07/22/10  
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	117		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-09	D	Date Collected:	07/22/10 09:40
Client ID:	IW-15-20100722-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	See Narrative
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/26/10 16:57			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	100	--	50
1,1-Dichloroethane	ND		ug/l	50	--	50
Chloroform	ND		ug/l	50	--	50
Carbon tetrachloride	ND		ug/l	50	--	50
1,2-Dichloropropane	ND		ug/l	50	--	50
Dibromochloromethane	ND		ug/l	50	--	50
1,1,2-Trichloroethane	ND		ug/l	50	--	50
Tetrachloroethene	ND		ug/l	50	--	50
Chlorobenzene	ND		ug/l	50	--	50
1,2-Dichloroethane	ND		ug/l	50	--	50
1,1,1-Trichloroethane	ND		ug/l	50	--	50
Bromodichloromethane	ND		ug/l	50	--	50
trans-1,3-Dichloropropene	ND		ug/l	25	--	50
cis-1,3-Dichloropropene	ND		ug/l	25	--	50
Bromoform	ND		ug/l	100	--	50
1,1,2,2-Tetrachloroethane	ND		ug/l	50	--	50
Chloromethane	ND		ug/l	100	--	50
Vinyl chloride	230		ug/l	50	--	50
Chloroethane	ND		ug/l	100	--	50
1,1-Dichloroethene	ND		ug/l	50	--	50
trans-1,2-Dichloroethene	ND		ug/l	50	--	50
Trichloroethene	1900		ug/l	50	--	50
1,2-Dichlorobenzene	ND		ug/l	50	--	50
1,3-Dichlorobenzene	ND		ug/l	50	--	50
1,4-Dichlorobenzene	ND		ug/l	50	--	50
cis-1,2-Dichloroethene	1000		ug/l	50	--	50
Dichlorodifluoromethane	ND		ug/l	100	--	50
1,2-Dibromoethane	ND		ug/l	100	--	50
1,3-Dichloropropane	ND		ug/l	100	--	50
1,1,1,2-Tetrachloroethane	ND		ug/l	50	--	50



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID: L1011165-09 D Date Collected: 07/22/10 09:40  
Client ID: IW-15-20100722-01 Date Received: 07/22/10  
Sample Location: WAYLAND, MA Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	100	--	50
p-Chlorotoluene	ND		ug/l	100	--	50
Hexachlorobutadiene	ND		ug/l	30	--	50
1,2,4-Trichlorobenzene	ND		ug/l	100	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	86		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	116		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-10	D	Date Collected:	07/21/10 14:35
Client ID:	IW-14-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/26/10 17:30			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	20	--	10
1,1-Dichloroethane	ND		ug/l	10	--	10
Chloroform	ND		ug/l	10	--	10
Carbon tetrachloride	ND		ug/l	10	--	10
1,2-Dichloropropane	ND		ug/l	10	--	10
Dibromochloromethane	ND		ug/l	10	--	10
1,1,2-Trichloroethane	ND		ug/l	10	--	10
Tetrachloroethene	ND		ug/l	10	--	10
Chlorobenzene	24		ug/l	10	--	10
1,2-Dichloroethane	ND		ug/l	10	--	10
1,1,1-Trichloroethane	ND		ug/l	10	--	10
Bromodichloromethane	ND		ug/l	10	--	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	--	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	--	10
Bromoform	ND		ug/l	20	--	10
1,1,2,2-Tetrachloroethane	ND		ug/l	10	--	10
Chloromethane	ND		ug/l	20	--	10
Vinyl chloride	110		ug/l	10	--	10
Chloroethane	ND		ug/l	20	--	10
1,1-Dichloroethene	ND		ug/l	10	--	10
trans-1,2-Dichloroethene	ND		ug/l	10	--	10
Trichloroethene	130		ug/l	10	--	10
1,2-Dichlorobenzene	15		ug/l	10	--	10
1,3-Dichlorobenzene	ND		ug/l	10	--	10
1,4-Dichlorobenzene	25		ug/l	10	--	10
cis-1,2-Dichloroethene	640		ug/l	10	--	10
Dichlorodifluoromethane	ND		ug/l	20	--	10
1,2-Dibromoethane	ND		ug/l	20	--	10
1,3-Dichloropropane	ND		ug/l	20	--	10
1,1,1,2-Tetrachloroethane	ND		ug/l	10	--	10



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID: L1011165-10 D Date Collected: 07/21/10 14:35  
Client ID: IW-14-20100721-01 Date Received: 07/22/10  
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	20	--	10
p-Chlorotoluene	ND		ug/l	20	--	10
Hexachlorobutadiene	ND		ug/l	6.0	--	10
1,2,4-Trichlorobenzene	ND		ug/l	20	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	87		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	121		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-11	Date Collected:	07/22/10 11:10
Client ID:	IW-13-20100722-01	Date Received:	07/22/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/26/10 18:02		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	9.2		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	120		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	1.2		ug/l	1.0	--	1
trans-1,2-Dichloroethene	1.2		ug/l	1.0	--	1
Trichloroethene	120		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	220	E	ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID: L1011165-11 Date Collected: 07/22/10 11:10  
Client ID: IW-13-20100722-01 Date Received: 07/22/10  
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	115		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-11	D	Date Collected:	07/22/10 11:10
Client ID:	IW-13-20100722-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/27/10 13:26			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
cis-1,2-Dichloroethene	200		ug/l	10	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	127		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-12	D	Date Collected:	07/21/10 12:34
Client ID:	DUP-003-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/26/10 18:18			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	20	--	10
1,1-Dichloroethane	ND		ug/l	10	--	10
Chloroform	ND		ug/l	10	--	10
Carbon tetrachloride	ND		ug/l	10	--	10
1,2-Dichloropropane	ND		ug/l	10	--	10
Dibromochloromethane	ND		ug/l	10	--	10
1,1,2-Trichloroethane	ND		ug/l	10	--	10
Tetrachloroethene	29		ug/l	10	--	10
Chlorobenzene	ND		ug/l	10	--	10
1,2-Dichloroethane	ND		ug/l	10	--	10
1,1,1-Trichloroethane	ND		ug/l	10	--	10
Bromodichloromethane	ND		ug/l	10	--	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	--	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	--	10
Bromoform	ND		ug/l	20	--	10
1,1,2,2-Tetrachloroethane	ND		ug/l	10	--	10
Chloromethane	ND		ug/l	20	--	10
Vinyl chloride	34		ug/l	10	--	10
Chloroethane	ND		ug/l	20	--	10
1,1-Dichloroethene	ND		ug/l	10	--	10
trans-1,2-Dichloroethene	ND		ug/l	10	--	10
Trichloroethene	500		ug/l	10	--	10
1,2-Dichlorobenzene	ND		ug/l	10	--	10
1,3-Dichlorobenzene	ND		ug/l	10	--	10
1,4-Dichlorobenzene	ND		ug/l	10	--	10
cis-1,2-Dichloroethene	790		ug/l	10	--	10
Dichlorodifluoromethane	ND		ug/l	20	--	10
1,2-Dibromoethane	ND		ug/l	20	--	10
1,3-Dichloropropane	ND		ug/l	20	--	10
1,1,1,2-Tetrachloroethane	ND		ug/l	10	--	10



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID: L1011165-12 D Date Collected: 07/21/10 12:34  
Client ID: DUP-003-20100721-01 Date Received: 07/22/10  
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	20	--	10
p-Chlorotoluene	ND		ug/l	20	--	10
Hexachlorobutadiene	ND		ug/l	6.0	--	10
1,2,4-Trichlorobenzene	ND		ug/l	20	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	112		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-13	Date Collected:	07/21/10 14:56
Client ID:	DUP-004-20100721-01	Date Received:	07/22/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/26/10 18:34		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	8.8		ug/l	1.0	--	1
Chlorobenzene	25		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	110		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	1.1		ug/l	1.0	--	1
trans-1,2-Dichloroethene	1.7		ug/l	1.0	--	1
Trichloroethene	150		ug/l	1.0	--	1
1,2-Dichlorobenzene	15		ug/l	1.0	--	1
1,3-Dichlorobenzene	7.7		ug/l	1.0	--	1
1,4-Dichlorobenzene	23		ug/l	1.0	--	1
cis-1,2-Dichloroethene	760	E	ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID: L1011165-13 Date Collected: 07/21/10 14:56  
Client ID: DUP-004-20100721-01 Date Received: 07/22/10  
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	3.2		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	114		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-13	D	Date Collected:	07/21/10 14:56
Client ID:	DUP-004-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/27/10 13:58			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
cis-1,2-Dichloroethene	620		ug/l	10	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	114		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-14	Date Collected:	07/21/10 00:00
Client ID:	TB-003-20100721-01	Date Received:	07/22/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/26/10 18:50		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND	ug/l	2.0	--	1	
1,1-Dichloroethane	ND	ug/l	1.0	--	1	
Chloroform	ND	ug/l	1.0	--	1	
Carbon tetrachloride	ND	ug/l	1.0	--	1	
1,2-Dichloropropane	ND	ug/l	1.0	--	1	
Dibromochloromethane	ND	ug/l	1.0	--	1	
1,1,2-Trichloroethane	ND	ug/l	1.0	--	1	
Tetrachloroethene	ND	ug/l	1.0	--	1	
Chlorobenzene	ND	ug/l	1.0	--	1	
1,2-Dichloroethane	ND	ug/l	1.0	--	1	
1,1,1-Trichloroethane	ND	ug/l	1.0	--	1	
Bromodichloromethane	ND	ug/l	1.0	--	1	
trans-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
cis-1,3-Dichloropropene	ND	ug/l	0.50	--	1	
Bromoform	ND	ug/l	2.0	--	1	
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	--	1	
Chloromethane	ND	ug/l	2.0	--	1	
Vinyl chloride	ND	ug/l	1.0	--	1	
Chloroethane	ND	ug/l	2.0	--	1	
1,1-Dichloroethene	ND	ug/l	1.0	--	1	
trans-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Trichloroethene	ND	ug/l	1.0	--	1	
1,2-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,3-Dichlorobenzene	ND	ug/l	1.0	--	1	
1,4-Dichlorobenzene	ND	ug/l	1.0	--	1	
cis-1,2-Dichloroethene	ND	ug/l	1.0	--	1	
Dichlorodifluoromethane	ND	ug/l	2.0	--	1	
1,2-Dibromoethane	ND	ug/l	2.0	--	1	
1,3-Dichloropropane	ND	ug/l	2.0	--	1	
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	--	1	



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-14	Date Collected:	07/21/10 00:00
Client ID:	TB-003-20100721-01	Date Received:	07/22/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	114		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-15	Date Collected:	07/21/10 11:45
Client ID:	MW-551-20100721-01	Date Received:	07/22/10
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	07/27/10 12:05		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	4.4		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	220	E	ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	9.8		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID: L1011165-15 Date Collected: 07/21/10 11:45  
Client ID: MW-551-20100721-01 Date Received: 07/22/10  
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	115		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## SAMPLE RESULTS

Lab ID:	L1011165-15	D	Date Collected:	07/21/10 11:45
Client ID:	MW-551-20100721-01		Date Received:	07/22/10
Sample Location:	WAYLAND, MA		Field Prep:	Not Specified
Matrix:	Water			
Analytical Method:	97,8260B			
Analytical Date:	07/29/10 09:17			
Analyst:	MM			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
Trichloroethene	140		ug/l	10	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	114		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/26/10 09:09  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	12,14		Batch:	WG424631-3	
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/26/10 09:09  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	12,14		Batch:	WG424631-3	
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	10	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	5.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/26/10 09:09  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 12,14 Batch: WG424631-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
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	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	109		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/26/10 08:53  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	04-05,08-11,13			Batch:	WG424634-3
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/26/10 08:53  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	04-05,08-11,13		Batch:	WG424634-3	
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	10	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	5.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/26/10 08:53  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	04-05,08-11,13		Batch:	WG424634-3	
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
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	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	110		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/27/10 09:40  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	01,03,07,11,13		Batch:	WG424634-6	
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/27/10 09:40  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	01,03,07,11,13		Batch:	WG424634-6	
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	10	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	5.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/27/10 09:40  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	01,03,07,11,13		Batch:	WG424634-6	
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
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	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	117		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B-SIM  
Analytical Date: 07/27/10 07:31  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by SIM - Westborough Lab for sample(s): 01,03,07 Batch: WG424667-3					
1,4-Dioxane	ND		ug/l	3.0	--

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/27/10 09:56  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	02,06,15		Batch:	WG424671-3	
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/27/10 09:56  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	02,06,15		Batch:	WG424671-3	
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	10	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	5.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/27/10 09:56  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	02,06,15		Batch:	WG424671-3	
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
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	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	121		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/29/10 08:45  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	15	Batch:	WG424671-6		
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/29/10 08:45  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	15	Batch:	WG424671-6		
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	10	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	5.0	--
n-Propylbenzene	ND		ug/l	2.0	--



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B  
Analytical Date: 07/29/10 08:45  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s):	15	Batch:	WG424671-6		
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	119		70-130

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 97,8260B-SIM  
Analytical Date: 07/27/10 07:47  
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by SIM - Westborough Lab for sample(s): 02,06 Batch: WG424672-3					
1,4-Dioxane	ND		ug/l	3.0	--

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	LCSD %Recovery		%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 12,14 Batch: WG424631-1 WG424631-2							
Methylene chloride	104	100		70-130	4		20
1,1-Dichloroethane	100	96		70-130	4		20
Chloroform	101	97		70-130	4		20
Carbon tetrachloride	122	120		70-130	2		20
1,2-Dichloropropane	95	92		70-130	3		20
Dibromochloromethane	106	100		70-130	6		20
1,1,2-Trichloroethane	91	90		70-130	1		20
Tetrachloroethene	90	89		70-130	1		20
Chlorobenzene	85	81		70-130	5		20
Trichlorofluoromethane	93	92		70-130	1		20
1,2-Dichloroethane	94	92		70-130	2		20
1,1,1-Trichloroethane	104	102		70-130	2		20
Bromodichloromethane	105	102		70-130	3		20
trans-1,3-Dichloropropene	89	88		70-130	1		20
cis-1,3-Dichloropropene	91	86		70-130	6		20
1,1-Dichloropropene	98	94		70-130	4		20
Bromoform	115	112		70-130	3		20
1,1,2,2-Tetrachloroethane	98	88		70-130	11		20
Benzene	95	90		70-130	5		20
Toluene	83	83		70-130	0		20
Ethylbenzene	88	87		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 12,14 Batch: WG424631-1 WG424631-2								
Chloromethane	119		115		70-130	3		20
Bromomethane	103		107		70-130	4		20
Vinyl chloride	91		86		70-130	6		20
Chloroethane	88		87		70-130	1		20
1,1-Dichloroethene	90		92		70-130	2		20
trans-1,2-Dichloroethene	106		106		70-130	0		20
Trichloroethene	91		87		70-130	4		20
1,2-Dichlorobenzene	90		87		70-130	3		20
1,3-Dichlorobenzene	85		85		70-130	0		20
1,4-Dichlorobenzene	86		86		70-130	0		20
Methyl tert butyl ether	87		78		70-130	11		20
p/m-Xylene	84		84		70-130	0		20
o-Xylene	86		82		70-130	5		20
cis-1,2-Dichloroethene	106		99		70-130	7		20
Dibromomethane	98		92		70-130	6		20
1,2,3-Trichloropropane	95		93		70-130	2		20
Styrene	84		83		70-130	1		20
Dichlorodifluoromethane	121		121		70-130	0		20
Acetone	128		124		70-130	3		20
Carbon disulfide	79		79		70-130	0		20
2-Butanone	124		106		70-130	16		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 12,14 Batch: WG424631-1 WG424631-2								
4-Methyl-2-pentanone	102		105		70-130	3		20
2-Hexanone	101		100		70-130	1		20
Bromochloromethane	103		101		70-130	2		20
Tetrahydrofuran	108		82		70-130	27	Q	20
2,2-Dichloropropane	104		101		70-130	3		20
1,2-Dibromoethane	94		84		70-130	11		20
1,3-Dichloropropane	92		88		70-130	4		20
1,1,1,2-Tetrachloroethane	108		104		70-130	4		20
Bromobenzene	89		92		70-130	3		20
n-Butylbenzene	88		82		70-130	7		20
sec-Butylbenzene	88		82		70-130	7		20
tert-Butylbenzene	82		81		70-130	1		20
o-Chlorotoluene	82		81		70-130	1		20
p-Chlorotoluene	97		96		70-130	1		20
1,2-Dibromo-3-chloropropane	95		97		70-130	2		20
Hexachlorobutadiene	82		85		70-130	4		20
Isopropylbenzene	83		82		70-130	1		20
p-Isopropyltoluene	86		83		70-130	4		20
Naphthalene	97		87		70-130	11		20
n-Propylbenzene	83		79		70-130	5		20
1,2,3-Trichlorobenzene	94		93		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 12,14 Batch: WG424631-1 WG424631-2								
1,2,4-Trichlorobenzene	90		87		70-130	3		20
1,3,5-Trimethylbenzene	88		82		70-130	7		20
1,2,4-Trimethylbenzene	83		80		70-130	4		20
Ethyl ether	92		84		70-130	9		20
Isopropyl Ether	85		81		70-130	5		20
Ethyl-Tert-Butyl-Ether	84		80		70-130	5		20
Tertiary-Amyl Methyl Ether	91		83		70-130	9		20
1,4-Dioxane	128		107		70-130	18		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		96		70-130
Toluene-d8	95		97		70-130
4-Bromofluorobenzene	98		98		70-130
Dibromofluoromethane	109		107		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04-05,08-11,13 Batch: WG424634-1 WG424634-2								
Methylene chloride	98		93		70-130	5		20
1,1-Dichloroethane	96		88		70-130	9		20
Chloroform	92		92		70-130	0		20
Carbon tetrachloride	120		110		70-130	9		20
1,2-Dichloropropane	93		91		70-130	2		20
Dibromochloromethane	92		96		70-130	4		20
1,1,2-Trichloroethane	78		78		70-130	0		20
Tetrachloroethene	92		87		70-130	6		20
Chlorobenzene	82		77		70-130	6		20
Trichlorofluoromethane	96		90		70-130	6		20
1,2-Dichloroethane	85		88		70-130	3		20
1,1,1-Trichloroethane	102		94		70-130	8		20
Bromodichloromethane	103		104		70-130	1		20
trans-1,3-Dichloropropene	87		88		70-130	1		20
cis-1,3-Dichloropropene	84		84		70-130	0		20
1,1-Dichloropropene	96		88		70-130	9		20
Bromoform	115		118		70-130	3		20
1,1,2,2-Tetrachloroethane	82		86		70-130	5		20
Benzene	93		87		70-130	7		20
Toluene	84		80		70-130	5		20
Ethylbenzene	87		80		70-130	8		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04-05,08-11,13 Batch: WG424634-1 WG424634-2								
Chloromethane	101		93		70-130	8		20
Bromomethane	90		80		70-130	12		20
Vinyl chloride	93		84		70-130	10		20
Chloroethane	92		89		70-130	3		20
1,1-Dichloroethene	95		89		70-130	7		20
trans-1,2-Dichloroethene	105		93		70-130	12		20
Trichloroethene	88		83		70-130	6		20
1,2-Dichlorobenzene	89		85		70-130	5		20
1,3-Dichlorobenzene	89		84		70-130	6		20
1,4-Dichlorobenzene	91		84		70-130	8		20
Methyl tert butyl ether	74		80		70-130	8		20
p/m-Xylene	83		79		70-130	5		20
o-Xylene	83		78		70-130	6		20
cis-1,2-Dichloroethene	102		93		70-130	9		20
Dibromomethane	87		86		70-130	1		20
1,2,3-Trichloropropane	88		91		70-130	3		20
Styrene	81		77		70-130	5		20
Dichlorodifluoromethane	118		109		70-130	8		20
Acetone	103		114		70-130	10		20
Carbon disulfide	81		73		70-130	10		20
2-Butanone	94		99		70-130	5		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04-05,08-11,13 Batch: WG424634-1 WG424634-2								
4-Methyl-2-pentanone	80		92		70-130	14		20
2-Hexanone	73		86		70-130	16		20
Bromochloromethane	98		92		70-130	6		20
Tetrahydrofuran	91		91		70-130	0		20
2,2-Dichloropropane	100		92		70-130	8		20
1,2-Dibromoethane	87		88		70-130	1		20
1,3-Dichloropropane	83		82		70-130	1		20
1,1,1,2-Tetrachloroethane	97		92		70-130	5		20
Bromobenzene	88		87		70-130	1		20
n-Butylbenzene	88		77		70-130	13		20
sec-Butylbenzene	86		78		70-130	10		20
tert-Butylbenzene	84		77		70-130	9		20
o-Chlorotoluene	84		78		70-130	7		20
p-Chlorotoluene	91		81		70-130	12		20
1,2-Dibromo-3-chloropropane	81		99		70-130	20		20
Hexachlorobutadiene	93		77		70-130	19		20
Isopropylbenzene	82		77		70-130	6		20
p-Isopropyltoluene	88		79		70-130	11		20
Naphthalene	70		76		70-130	8		20
n-Propylbenzene	82		75		70-130	9		20
1,2,3-Trichlorobenzene	78		76		70-130	3		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04-05,08-11,13 Batch: WG424634-1 WG424634-2								
1,2,4-Trichlorobenzene	80		79		70-130	1		20
1,3,5-Trimethylbenzene	83		74		70-130	11		20
1,2,4-Trimethylbenzene	85		80		70-130	6		20
Ethyl ether	76		79		70-130	4		20
Isopropyl Ether	79		80		70-130	1		20
Ethyl-Tert-Butyl-Ether	76		79		70-130	4		20
Tertiary-Amyl Methyl Ether	78		86		70-130	10		20
1,4-Dioxane	98		105		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	83		90		70-130
Toluene-d8	93		93		70-130
4-Bromofluorobenzene	98		95		70-130
Dibromofluoromethane	101		98		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,03,07,11,13 Batch: WG424634-4 WG424634-5								
Methylene chloride	102		106		70-130	4		20
1,1-Dichloroethane	96		95		70-130	1		20
Chloroform	98		98		70-130	0		20
Carbon tetrachloride	118		115		70-130	3		20
1,2-Dichloropropane	98		95		70-130	3		20
Dibromochloromethane	105		99		70-130	6		20
1,1,2-Trichloroethane	94		88		70-130	7		20
Tetrachloroethene	96		91		70-130	5		20
Chlorobenzene	87		80		70-130	8		20
Trichlorofluoromethane	100		95		70-130	5		20
1,2-Dichloroethane	97		97		70-130	0		20
1,1,1-Trichloroethane	105		97		70-130	8		20
Bromodichloromethane	110		103		70-130	7		20
trans-1,3-Dichloropropene	88		86		70-130	2		20
cis-1,3-Dichloropropene	84		86		70-130	2		20
1,1-Dichloropropene	97		92		70-130	5		20
Bromoform	112		118		70-130	5		20
1,1,2,2-Tetrachloroethane	89		92		70-130	3		20
Benzene	96		92		70-130	4		20
Toluene	88		81		70-130	8		20
Ethylbenzene	91		83		70-130	9		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,03,07,11,13 Batch: WG424634-4 WG424634-5								
Chloromethane	98		90		70-130	9		20
Bromomethane	62	Q	61	Q	70-130	2		20
Vinyl chloride	92		84		70-130	9		20
Chloroethane	96		92		70-130	4		20
1,1-Dichloroethene	94		90		70-130	4		20
trans-1,2-Dichloroethene	98		102		70-130	4		20
Trichloroethene	94		90		70-130	4		20
1,2-Dichlorobenzene	88		88		70-130	0		20
1,3-Dichlorobenzene	88		87		70-130	1		20
1,4-Dichlorobenzene	86		86		70-130	0		20
Methyl tert butyl ether	81		86		70-130	6		20
p/m-Xylene	89		81		70-130	9		20
o-Xylene	89		83		70-130	7		20
cis-1,2-Dichloroethene	101		99		70-130	2		20
Dibromomethane	90		92		70-130	2		20
1,2,3-Trichloropropane	102		98		70-130	4		20
Styrene	89		84		70-130	6		20
Dichlorodifluoromethane	111		106		70-130	5		20
Acetone	122		130		70-130	6		20
Carbon disulfide	82		77		70-130	6		20
2-Butanone	114		107		70-130	6		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,03,07,11,13 Batch: WG424634-4 WG424634-5								
4-Methyl-2-pentanone	95		89		70-130	7		20
2-Hexanone	84		91		70-130	8		20
Bromochloromethane	96		97		70-130	1		20
Tetrahydrofuran	112		109		70-130	3		20
2,2-Dichloropropane	94		95		70-130	1		20
1,2-Dibromoethane	93		92		70-130	1		20
1,3-Dichloropropane	91		87		70-130	4		20
1,1,1,2-Tetrachloroethane	100		92		70-130	8		20
Bromobenzene	86		88		70-130	2		20
n-Butylbenzene	84		82		70-130	2		20
sec-Butylbenzene	84		81		70-130	4		20
tert-Butylbenzene	80		78		70-130	3		20
o-Chlorotoluene	82		79		70-130	4		20
p-Chlorotoluene	86		84		70-130	2		20
1,2-Dibromo-3-chloropropane	96		97		70-130	1		20
Hexachlorobutadiene	81		82		70-130	1		20
Isopropylbenzene	90		82		70-130	9		20
p-Isopropyltoluene	84		83		70-130	1		20
Naphthalene	68	Q	75		70-130	10		20
n-Propylbenzene	82		79		70-130	4		20
1,2,3-Trichlorobenzene	74		79		70-130	7		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,03,07,11,13 Batch: WG424634-4 WG424634-5								
1,2,4-Trichlorobenzene	76		80		70-130	5		20
1,3,5-Trimethylbenzene	80		76		70-130	5		20
1,2,4-Trimethylbenzene	82		81		70-130	1		20
Ethyl ether	91		88		70-130	3		20
Isopropyl Ether	84		86		70-130	2		20
Ethyl-Tert-Butyl-Ether	80		83		70-130	4		20
Tertiary-Amyl Methyl Ether	84		88		70-130	5		20
1,4-Dioxane	92		107		70-130	15		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	90		91		70-130
Toluene-d8	93		93		70-130
4-Bromofluorobenzene	92		92		70-130
Dibromofluoromethane	101		106		70-130

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by SIM - Westborough Lab Associated sample(s): 01,03,07 Batch: WG424667-1 WG424667-2								
1,4-Dioxane	72		75		70-130	4		20

MCP Volatile Organics - Westborough Lab Associated sample(s): 02,06,15 Batch: WG424671-1 WG424671-2

Methylene chloride	111	106	70-130	5	20
1,1-Dichloroethane	104	96	70-130	8	20
Chloroform	102	100	70-130	2	20
Carbon tetrachloride	124	117	70-130	6	20
1,2-Dichloropropane	95	90	70-130	5	20
Dibromochloromethane	107	102	70-130	5	20
1,1,2-Trichloroethane	91	86	70-130	6	20
Tetrachloroethene	96	85	70-130	12	20
Chlorobenzene	87	82	70-130	6	20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02,06,15 Batch: WG424671-1 WG424671-2								
Trichlorofluoromethane	102		91		70-130	11		20
1,2-Dichloroethane	97		96		70-130	1		20
1,1,1-Trichloroethane	108		100		70-130	8		20
Bromodichloromethane	112		105		70-130	6		20
trans-1,3-Dichloropropene	87		83		70-130	5		20
cis-1,3-Dichloropropene	88		84		70-130	5		20
1,1-Dichloropropene	101		93		70-130	8		20
Bromoform	101		104		70-130	3		20
1,1,2,2-Tetrachloroethane	86		81		70-130	6		20
Benzene	98		92		70-130	6		20
Toluene	87		81		70-130	7		20
Ethylbenzene	93		84		70-130	10		20
Chloromethane	118		108		70-130	9		20
Bromomethane	94		94		70-130	0		20
Vinyl chloride	93		85		70-130	9		20
Chloroethane	100		89		70-130	12		20
1,1-Dichloroethene	98		91		70-130	7		20
trans-1,2-Dichloroethene	106		104		70-130	2		20
Trichloroethene	96		89		70-130	8		20
1,2-Dichlorobenzene	86		85		70-130	1		20
1,3-Dichlorobenzene	84		83		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02,06,15 Batch: WG424671-1 WG424671-2						
1,4-Dichlorobenzene	86	83	70-130	4		20
Methyl tert butyl ether	79	78	70-130	1		20
p/m-Xylene	92	83	70-130	10		20
o-Xylene	89	84	70-130	6		20
cis-1,2-Dichloroethene	110	105	70-130	5		20
Dibromomethane	98	96	70-130	2		20
1,2,3-Trichloropropane	85	88	70-130	3		20
Styrene	90	83	70-130	8		20
Dichlorodifluoromethane	125	112	70-130	11		20
Acetone	122	116	70-130	5		20
Carbon disulfide	87	79	70-130	10		20
2-Butanone	101	112	70-130	10		20
4-Methyl-2-pentanone	94	103	70-130	9		20
2-Hexanone	96	95	70-130	1		20
Bromochloromethane	105	99	70-130	6		20
Tetrahydrofuran	90	92	70-130	2		20
2,2-Dichloropropane	102	98	70-130	4		20
1,2-Dibromoethane	91	87	70-130	4		20
1,3-Dichloropropane	86	85	70-130	1		20
1,1,1,2-Tetrachloroethane	108	103	70-130	5		20
Bromobenzene	87	90	70-130	3		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02,06,15 Batch: WG424671-1 WG424671-2								
n-Butylbenzene	86		82		70-130	5		20
sec-Butylbenzene	87		82		70-130	6		20
tert-Butylbenzene	81		79		70-130	3		20
o-Chlorotoluene	82		77		70-130	6		20
p-Chlorotoluene	85		79		70-130	7		20
1,2-Dibromo-3-chloropropane	88		82		70-130	7		20
Hexachlorobutadiene	82		77		70-130	6		20
Isopropylbenzene	89		80		70-130	11		20
p-Isopropyltoluene	86		79		70-130	8		20
Naphthalene	79		84		70-130	6		20
n-Propylbenzene	82		76		70-130	8		20
1,2,3-Trichlorobenzene	86		87		70-130	1		20
1,2,4-Trichlorobenzene	84		84		70-130	0		20
1,3,5-Trimethylbenzene	87		82		70-130	6		20
1,2,4-Trimethylbenzene	82		79		70-130	4		20
Ethyl ether	93		94		70-130	1		20
Isopropyl Ether	84		82		70-130	2		20
Ethyl-Tert-Butyl-Ether	79		80		70-130	1		20
Tertiary-Amyl Methyl Ether	83		84		70-130	1		20
1,4-Dioxane	80		113		70-130	34	Q	20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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MCP Volatile Organics - Westborough Lab Associated sample(s): 02,06,15 Batch: WG424671-1 WG424671-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		91		70-130
Toluene-d8	95		91		70-130
4-Bromofluorobenzene	92		96		70-130
Dibromofluoromethane	111		108		70-130

MCP Volatile Organics - Westborough Lab Associated sample(s): 15 Batch: WG424671-4 WG424671-5

Methylene chloride	98	98	70-130	0	20
1,1-Dichloroethane	94	90	70-130	4	20
Chloroform	93	91	70-130	2	20
Carbon tetrachloride	119	114	70-130	4	20
1,2-Dichloropropane	88	89	70-130	1	20
Dibromochloromethane	98	99	70-130	1	20
1,1,2-Trichloroethane	81	83	70-130	2	20
Tetrachloroethene	93	84	70-130	10	20
Chlorobenzene	82	78	70-130	5	20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 15 Batch: WG424671-4 WG424671-5								
Trichlorofluoromethane	93		87		70-130	7		20
1,2-Dichloroethane	87		88		70-130	1		20
1,1,1-Trichloroethane	100		96		70-130	4		20
Bromodichloromethane	102		99		70-130	3		20
trans-1,3-Dichloropropene	82		85		70-130	4		20
cis-1,3-Dichloropropene	83		84		70-130	1		20
1,1-Dichloropropene	94		92		70-130	2		20
Bromoform	105		116		70-130	10		20
1,1,2,2-Tetrachloroethane	76		86		70-130	12		20
Benzene	91		88		70-130	3		20
Toluene	85		76		70-130	11		20
Ethylbenzene	88		82		70-130	7		20
Chloromethane	90		85		70-130	6		20
Bromomethane	74		72		70-130	3		20
Vinyl chloride	85		77		70-130	10		20
Chloroethane	90		80		70-130	12		20
1,1-Dichloroethene	94		85		70-130	10		20
trans-1,2-Dichloroethene	99		95		70-130	4		20
Trichloroethene	89		88		70-130	1		20
1,2-Dichlorobenzene	82		86		70-130	5		20
1,3-Dichlorobenzene	83		82		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 15 Batch: WG424671-4 WG424671-5								
1,4-Dichlorobenzene	82		85		70-130	4		20
Methyl tert butyl ether	80		88		70-130	10		20
p/m-Xylene	85		81		70-130	5		20
o-Xylene	86		81		70-130	6		20
cis-1,2-Dichloroethene	100		96		70-130	4		20
Dibromomethane	86		85		70-130	1		20
1,2,3-Trichloropropane	83		91		70-130	9		20
Styrene	86		80		70-130	7		20
Dichlorodifluoromethane	98		89		70-130	10		20
Acetone	94		114		70-130	19		20
Carbon disulfide	73		68	Q	70-130	7		20
2-Butanone	88		96		70-130	9		20
4-Methyl-2-pentanone	84		97		70-130	14		20
2-Hexanone	75		75		70-130	0		20
Bromochloromethane	92		93		70-130	1		20
Tetrahydrofuran	93		100		70-130	7		20
2,2-Dichloropropane	98		91		70-130	7		20
1,2-Dibromoethane	83		88		70-130	6		20
1,3-Dichloropropane	80		80		70-130	0		20
1,1,1,2-Tetrachloroethane	97		93		70-130	4		20
Bromobenzene	88		87		70-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 15 Batch: WG424671-4 WG424671-5								
n-Butylbenzene	81		80		70-130	1		20
sec-Butylbenzene	82		80		70-130	2		20
tert-Butylbenzene	78		79		70-130	1		20
o-Chlorotoluene	78		79		70-130	1		20
p-Chlorotoluene	80		80		70-130	0		20
1,2-Dibromo-3-chloropropane	79		96		70-130	19		20
Hexachlorobutadiene	84		83		70-130	1		20
Isopropylbenzene	86		79		70-130	8		20
p-Isopropyltoluene	81		83		70-130	2		20
Naphthalene	62	Q	74		70-130	18		20
n-Propylbenzene	77		78		70-130	1		20
1,2,3-Trichlorobenzene	70		76		70-130	8		20
1,2,4-Trichlorobenzene	73		77		70-130	5		20
1,3,5-Trimethylbenzene	77		77		70-130	0		20
1,2,4-Trimethylbenzene	78		79		70-130	1		20
Ethyl ether	80		90		70-130	12		20
Isopropyl Ether	85		89		70-130	5		20
Ethyl-Tert-Butyl-Ether	82		87		70-130	6		20
Tertiary-Amyl Methyl Ether	83		89		70-130	7		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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MCP Volatile Organics - Westborough Lab Associated sample(s): 15 Batch: WG424671-4 WG424671-5

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	85		89		70-130
Toluene-d8	99		89		70-130
4-Bromofluorobenzene	91		94		70-130
Dibromofluoromethane	101		104		70-130

MCP Volatile Organics by SIM - Westborough Lab Associated sample(s): 02,06 Batch: WG424672-1 WG424672-2

1,4-Dioxane	84	86	70-130	2	20
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## METALS



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**SAMPLE RESULTS**

Lab ID: L1011165-01  
Client ID: MW-267M-20100721-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/21/10 08:25  
Date Received: 07/22/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	4.5		mg/l	2.5	--	1	07/29/10 16:45	07/30/10 09:50	EPA 3005A	97,6010B	AI
Sodium, Dissolved	16		mg/l	2.0	--	1	07/29/10 16:45	07/30/10 09:50	EPA 3005A	97,6010B	AI



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**SAMPLE RESULTS**

Lab ID: L1011165-02  
Client ID: MW-267S-20100721-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/21/10 10:00  
Date Received: 07/22/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	5.2		mg/l	2.5	--	1	07/29/10 16:45	07/30/10 09:57	EPA 3005A	97,6010B	AI
Sodium, Dissolved	22		mg/l	2.0	--	1	07/29/10 16:45	07/30/10 09:57	EPA 3005A	97,6010B	AI



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**SAMPLE RESULTS**

Lab ID: L1011165-03  
Client ID: MW-268M-20100721-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/21/10 10:25  
Date Received: 07/22/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	4.6		mg/l	2.5	--	1	07/29/10 16:45	07/30/10 10:00	EPA 3005A	97,6010B	AI
Sodium, Dissolved	14		mg/l	2.0	--	1	07/29/10 16:45	07/30/10 10:00	EPA 3005A	97,6010B	AI



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**SAMPLE RESULTS**

Lab ID: L1011165-04  
Client ID: MW-268D-20100721-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/21/10 09:10  
Date Received: 07/22/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	2.8		mg/l	2.5	--	1	07/29/10 16:45	07/30/10 10:03	EPA 3005A	97,6010B	AI
Sodium, Dissolved	11		mg/l	2.0	--	1	07/29/10 16:45	07/30/10 10:03	EPA 3005A	97,6010B	AI



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**SAMPLE RESULTS**

Lab ID: L1011165-05 Date Collected: 07/21/10 09:10  
Client ID: MW-561-20100721-01 Date Received: 07/22/10  
Sample Location: WAYLAND, MA Field Prep: See Narrative  
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	4.2		mg/l	2.5	--	1	07/29/10 16:45	07/30/10 10:06	EPA 3005A	97,6010B	AI
Sodium, Dissolved	17		mg/l	2.0	--	1	07/29/10 16:45	07/30/10 10:06	EPA 3005A	97,6010B	AI



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**SAMPLE RESULTS**

Lab ID: L1011165-06  
Client ID: MW-265M-20100721-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/21/10 10:25  
Date Received: 07/22/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	3.6		mg/l	2.5	--	1	07/29/10 16:45	07/30/10 10:22	EPA 3005A	97,6010B	AI
Sodium, Dissolved	14		mg/l	2.0	--	1	07/29/10 16:45	07/30/10 10:22	EPA 3005A	97,6010B	AI



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**SAMPLE RESULTS**

Lab ID: L1011165-09  
Client ID: IW-15-20100722-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/22/10 09:40  
Date Received: 07/22/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	84		mg/l	2.5	--	1	07/29/10 16:45	07/30/10 10:26	EPA 3005A	97,6010B	AI
Sodium, Dissolved	20		mg/l	2.0	--	1	07/29/10 16:45	07/30/10 10:26	EPA 3005A	97,6010B	AI



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**SAMPLE RESULTS**

Lab ID: L1011165-15 Date Collected: 07/21/10 11:45  
Client ID: MW-551-20100721-01 Date Received: 07/22/10  
Sample Location: WAYLAND, MA Field Prep: Not Specified  
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Dissolved Metals - Westborough Lab</b>											
Potassium, Dissolved	4.0		mg/l	2.5	--	1	07/26/10 15:00	07/27/10 18:23	EPA 3005A	97,6010B	AI
Sodium, Dissolved	14		mg/l	2.0	--	1	07/26/10 15:00	07/27/10 18:23	EPA 3005A	97,6010B	AI



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Dissolved Metals - Westborough Lab for sample(s): 15 Batch: WG424495-1									
Potassium, Dissolved	ND	mg/l	2.5	--	1	07/26/10 15:00	07/27/10 17:27	97,6010B	AI
Sodium, Dissolved	ND	mg/l	2.0	--	1	07/26/10 15:00	07/27/10 17:27	97,6010B	AI

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Dissolved Metals - Westborough Lab for sample(s): 01-06,09 Batch: WG425149-1									
Potassium, Dissolved	ND	mg/l	2.5	--	1	07/29/10 16:45	07/30/10 09:41	97,6010B	AI
Sodium, Dissolved	ND	mg/l	2.0	--	1	07/29/10 16:45	07/30/10 09:41	97,6010B	AI

### Prep Information

Digestion Method: EPA 3005A

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

<b>Parameter</b>	<b>LCS</b>	<b>LCSD</b>	<b>%Recovery</b>		<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
	<b>%Recovery</b>	<b>Qual</b>	<b>%Recovery</b>	<b>Qual</b>			
MCP Dissolved Metals - Westborough Lab Associated sample(s): 15 Batch: WG424495-2 WG424495-3							
Potassium, Dissolved	100		100		80-120	0	20
Sodium, Dissolved	100		100		80-120	0	20
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01-06,09 Batch: WG425149-2 WG425149-3							
Potassium, Dissolved	100		98		80-120	2	20
Sodium, Dissolved	100		98		80-120	2	20

# **INORGANICS & MISCELLANEOUS**



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

### SAMPLE RESULTS

Lab ID: L1011165-01  
Client ID: MW-267M-20100721-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/21/10 08:25  
Date Received: 07/22/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	55		mg/l	20	--	2	07/26/10 17:30	07/26/10 17:30	1,9038	AW
Total Organic Carbon	1.2		mg/l	0.50	--	1	-	07/26/10 07:12	1,9060	DW



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

### SAMPLE RESULTS

Lab ID: L1011165-02  
Client ID: MW-267S-20100721-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/21/10 10:00  
Date Received: 07/22/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	57		mg/l	20	--	2	07/26/10 17:30	07/26/10 17:30	1,9038	AW
Total Organic Carbon	ND		mg/l	1.0	--	2	-	07/26/10 07:12	1,9060	DW

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

### SAMPLE RESULTS

Lab ID: L1011165-03  
Client ID: MW-268M-20100721-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/21/10 10:25  
Date Received: 07/22/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	52		mg/l	20	--	2	07/27/10 16:00	07/27/10 16:00	1,9038	AW
Total Organic Carbon	1.8		mg/l	0.50	--	1	-	07/26/10 07:12	1,9060	DW

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

### SAMPLE RESULTS

Lab ID: L1011165-04  
Client ID: MW-268D-20100721-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/21/10 09:10  
Date Received: 07/22/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	36		mg/l	10	--	1	07/27/10 16:00	07/27/10 16:00	1,9038	AW
Total Organic Carbon	ND		mg/l	1.0	--	2	-	07/26/10 07:12	1,9060	DW



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

### SAMPLE RESULTS

Lab ID: L1011165-05  
Client ID: MW-561-20100721-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/21/10 09:10  
Date Received: 07/22/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	28		mg/l	10	--	1	07/27/10 16:00	07/27/10 16:00	1,9038	AW
Total Organic Carbon	6.1		mg/l	1.0	--	2	-	07/26/10 07:12	1,9060	DW



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

### SAMPLE RESULTS

Lab ID: L1011165-06  
Client ID: MW-265M-20100721-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/21/10 10:25  
Date Received: 07/22/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	31		mg/l	10	--	1	07/27/10 16:00	07/27/10 16:00	1,9038	AW
Total Organic Carbon	2.6		mg/l	0.50	--	1	-	07/26/10 07:12	1,9060	DW



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

### SAMPLE RESULTS

Lab ID: L1011165-09  
Client ID: IW-15-20100722-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/22/10 09:40  
Date Received: 07/22/10  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	43		mg/l	20	--	2	07/27/10 16:00	07/27/10 16:00	1,9038	AW
Total Organic Carbon	13		mg/l	4.0	--	8	-	07/26/10 07:12	1,9060	DW



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

### SAMPLE RESULTS

Lab ID: L1011165-15  
Client ID: MW-551-20100721-01  
Sample Location: WAYLAND, MA  
Matrix: Water

Date Collected: 07/21/10 11:45  
Date Received: 07/22/10  
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Sulfate	34		mg/l	10	--	1	07/27/10 16:00	07/27/10 16:00	1,9038	AW
Total Organic Carbon	ND		mg/l	1.0	--	2	-	07/26/10 07:12	1,9060	DW



**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**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): 01-06,09,15 Batch: WG424476-1									
Total Organic Carbon	ND	mg/l	0.50	--	1	-	07/26/10 07:12	1,9060	DW
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG424527-1									
Sulfate	ND	mg/l	10	--	1	07/26/10 17:30	07/26/10 17:30	1,9038	AW
General Chemistry - Westborough Lab for sample(s): 03-06,09,15 Batch: WG424709-1									
Sulfate	ND	mg/l	10	--	1	07/27/10 16:00	07/27/10 16:00	1,9038	AW



# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06,09,15 Batch: WG424476-2								
Total Organic Carbon	100	-	-	-	90-110	-	-	-
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG424527-2								
Sulfate	110	-	-	-	90-115	-	-	-
General Chemistry - Westborough Lab Associated sample(s): 03-06,09,15 Batch: WG424709-2								
Sulfate	95	-	-	-	90-115	-	-	-

**Matrix Spike Analysis**  
**Batch Quality Control**

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

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): 01-06,09,15 QC Batch ID: WG424476-3 QC Sample: L1011165-09 Client ID: IW-15-20100722-01												
Total Organic Carbon	13	32	46	104	-	-	-	-	80-120	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG424527-3 QC Sample: L1011124-06 Client ID: MS Sample												
Sulfate	ND	20	22	110	-	-	-	-	55-147	-	-	14
General Chemistry - Westborough Lab Associated sample(s): 03-06,09,15 QC Batch ID: WG424709-4 QC Sample: L1011260-01 Client ID: MS Sample												
Sulfate	16	20	35	95	-	-	-	-	55-147	-	-	14

**Lab Duplicate Analysis**  
Batch Quality Control

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab	Associated sample(s): 01-06,09,15	QC Batch ID: WG424476-4	QC Sample: L1011165-09	Client ID: IW-15-20100722-01		
Total Organic Carbon	13	13	mg/l	0		20
General Chemistry - Westborough Lab	Associated sample(s): 01-02	QC Batch ID: WG424527-4	QC Sample: L1011117-05	Client ID: DUP Sample		
Sulfate	32	31	mg/l	3		14
General Chemistry - Westborough Lab	Associated sample(s): 03-06,09,15	QC Batch ID: WG424709-3	QC Sample: L1011165-06	Client ID: MW-265M-20100721-01		
Sulfate	31	31	mg/l	0		14

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

### Sample Receipt and Container Information

Were project specific reporting limits specified? YES

**Reagent H2O Preserved Vials Frozen on:** NA

#### Cooler Information Custody Seal

##### Cooler

A Absent

#### Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1011165-01A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-01B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-01C	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-01D	Vial H2SO4 preserved	A	N/A	2	Y	Absent	TOC-9060(28)
L1011165-01E	Vial H2SO4 preserved	A	N/A	2	Y	Absent	TOC-9060(28)
L1011165-01F	Plastic 250ml unpreserved	A	7	2	Y	Absent	SO4-9038(28)
L1011165-01G	Plastic 250ml HNO3 preserved	A	<2	2	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1011165-01X	Amber 1000ml unpreserved	A	7	2	Y	Absent	MCP-8260-10(14)
L1011165-02A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-02B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-02C	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-02D	Vial H2SO4 preserved	A	N/A	2	Y	Absent	TOC-9060(28)
L1011165-02E	Vial H2SO4 preserved	A	N/A	2	Y	Absent	TOC-9060(28)
L1011165-02F	Plastic 250ml unpreserved	A	7	2	Y	Absent	SO4-9038(28)
L1011165-02G	Plastic 250ml HNO3 preserved	A	<2	2	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1011165-02X	Amber 1000ml unpreserved	A	7	2	Y	Absent	MCP-8260-10(14)
L1011165-03A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-03B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-03C	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-03D	Vial H2SO4 preserved	A	N/A	2	Y	Absent	TOC-9060(28)
L1011165-03E	Vial H2SO4 preserved	A	N/A	2	Y	Absent	TOC-9060(28)
L1011165-03F	Plastic 250ml unpreserved	A	7	2	Y	Absent	SO4-9038(28)

\*Values in parentheses indicate holding time in days

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1011165-03G	Plastic 250ml HNO3 preserved	A	<2	2	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1011165-03X	Amber 1000ml unpreserved	A	7	2	Y	Absent	MCP-8260-10(14)
L1011165-04A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-04B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-04C	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2	Y	Absent	TOC-9060(28)
L1011165-04D	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2	Y	Absent	TOC-9060(28)
L1011165-04E	Plastic 250ml unpreserved	A	7	2	Y	Absent	SO4-9038(28)
L1011165-04F	Plastic 250ml HNO3 preserved	A	<2	2	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1011165-05A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-05B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-05C	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2	Y	Absent	TOC-9060(28)
L1011165-05D	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2	Y	Absent	TOC-9060(28)
L1011165-05E	Plastic 250ml unpreserved	A	7	2	Y	Absent	SO4-9038(28)
L1011165-05F	Plastic 250ml HNO3 preserved	A	<2	2	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1011165-06A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-06B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-06C	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-06D	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2	Y	Absent	TOC-9060(28)
L1011165-06E	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2	Y	Absent	TOC-9060(28)
L1011165-06F	Plastic 250ml unpreserved	A	7	2	Y	Absent	SO4-9038(28)
L1011165-06G	Plastic 250ml HNO3 preserved	A	<2	2	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1011165-06X	Amber 1000ml unpreserved	A	7	2	Y	Absent	MCP-8260-10(14)
L1011165-07A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-07B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-07C	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1011165-07X	Amber 1000ml unpreserved	A	7	2	Y	Absent	MCP-8260-10(14)
L1011165-08A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-08B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-09A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-09B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-09C	Vial H <sub>2</sub> SO <sub>4</sub> preserved	A	N/A	2	Y	Absent	TOC-9060(28)

\*Values in parentheses indicate holding time in days

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

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**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1011165-09D	Vial H2SO4 preserved	A	N/A	2	Y	Absent	TOC-9060(28)
L1011165-09E	Plastic 250ml unpreserved	A	7	2	Y	Absent	SO4-9038(28)
L1011165-09F	Plastic 250ml HNO3 preserved	A	<2	2	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1011165-10A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-10B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-11A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-11B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-12A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-12B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-13A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-13B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-14A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-15A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-15B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1011165-15C	Vial H2SO4 preserved	A	N/A	2	Y	Absent	MCP-NA-6010S-10(180),MCP-K-6010S-10(180)
L1011165-15D	Vial H2SO4 preserved	A	N/A	2	Y	Absent	SO4-9038(28)
L1011165-15E	Plastic 250ml unpreserved	A	7	2	Y	Absent	TOC-9060(28)
L1011165-15F	Plastic 250ml HNO3 preserved	A	<2	2	Y	Absent	TOC-9060(28)

\*Values in parentheses indicate holding time in days

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

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## GLOSSARY

### Acronyms

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.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
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.

### 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.

### 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 five times (5x) 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.
- 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.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- 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. 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.

**Report Format:** Data Usability Report



**Project Name:** RAYTHEON WAYALND  
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*Data Qualifiers*

- RE** - Analytical results are from sample re-extraction.  
**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).  
**ND** - Not detected at the reporting limit (RL) for the sample.

**Project Name:** RAYTHEON WAYALND  
**Project Number:** 0114119

**Lab Number:** L1011165  
**Report Date:** 08/02/10

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

## 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 its 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.



## Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.

For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### **Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

### **Maine Department of Human Services Certificate/Lab ID: 2009024.**

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)

Solid Waste/Soil (Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

### **Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.**

#### *Drinking Water*

Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)

(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B.

Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)

(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), 314.0, 332.

Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; MF-SM9222D

#### *Non-Potable Water*

Inorganic Parameters:; (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)

(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)

245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

**New Hampshire Department of Environmental Services** Certificate/Lab ID: 200307. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

**New Jersey Department of Environmental Protection** Certificate/Lab ID: MA935. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

**New York Department of Health** Certificate/Lab ID: 11148. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500CI-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

**North Carolina Department of the Environment and Natural Resources** Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

**Pennsylvania Department of Environmental Protection** Certificate/Lab ID : 68-03671. **NELAP Accredited.**

Non-Potable Water (Organic Parameters: EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.  
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

**Texas Comission on Environmental Quality** Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S2<sup>-</sup>D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

**Department of Defense** Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A , 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)

#### **Analytes Not Accredited by NELAP**

Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.







## CHAIN OF CUSTODY

PAGE 3 OF 3

Date Rec'd in Lab: 7/22/10

ALPHA Job #: L1011165

WESTBORO, MA  
MANSFIELD, MA  
TEL: 508-898-9220  
FAX: 508-898-5193  
FAX: 508-822-3288

## Client Information

Client: ERM

Add'l Info:

Project Location: Weymouth, MA

Project #: 0114119

Project Manager: Jason Flattery

Date Due:

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## Project Information

Report Information - Data Deliverables

EMAIL

&amp; Same as Client Info

PO #:

FAX

ADDEX

Project Name: Rutherford Wayland

Project Location: Weymouth, MA

Project #: 0114119

ALPHA Quote #:

Turn-Around Time

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7A  
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1011165

Instrument ID: Jack.i      Calibration Date: 26-JUL-2010    Time: 07:17

Lab File ID: 0726A01.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:25                  13:50

Compound	RRF	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane_____	.73025	.86319	.05	-18	20
chloromethane_____	1.1827	1.1911	.05	-1	20
vinyl chloride_____	1.2810	1.1939	.05	7	20
bromomethane_____	.64579	.58164	.05	10	20
chloroethane_____	.6191	.57059	.05	8	20
trichlorofluoromethane_____	1.7747	1.7109	.05	4	20
ethyl ether_____	.40914	.31182	.05	24	20
1,1,-dichloroethene_____	.91173	.86629	.05	5	20
carbon disulfide_____	2.6482	2.1345	.05	19	20
freon-113_____	1.0534	.96656	.05	8	20
iodomethane_____	1.5885	.39703	.05	75	20
acrolien_____	.06355	.07259	.05	-14	20
methylene chloride_____	.84345	.82694	.05	2	20
acetone_____	100	103	.05	-3	20
trans-1,2-dichloroethene_____	.81136	.8554	.05	-5	20
methyl tert butyl ether_____	1.5181	1.1251	.05	26	20
tert butyl alcohol_____	.06096	.04943	.05	19	20
Diisopropyl Ether_____	3.0768	2.4423	.01	21	20
1,1-dichloroethane_____	1.6300	1.5570	.05	4	20
Halothane_____	.43216	.53588	.05	-24	20
Ethyl-Tert-Butyl-Ether_____	2.2141	1.6882	.05	24	20
vinyl acetate_____	100	155	.05	-55	20
cis-1,2-dichloroethene_____	.88568	.90187	.05	-2	20
2,2-dichloropropane_____	1.1081	1.1093	.05	0	20
bromochloromethane_____	.37771	.36842	.05	2	20
chloroform_____	1.4877	1.3766	.05	7	20
carbontetrachloride_____	.86364	1.0407	.05	-21	20
ethyl acetate_____	.5392	.44074	.05	18	20
1,1,1-trichloroethane_____	1.1923	1.2112	.05	-2	20
2-butanone_____	.23423	.22136	.05	5	20
1,1-dichloropropene_____	1.1879	1.1354	.05	4	20
benzene_____	3.4376	3.1832	.05	7	20
Tertiary-Amyl Methyl Ether_____	1.5807	1.2320	.05	22	20
tetrahydrofuran_____	.1189	.10773	.05	9	20
1,2-dichloroethane_____	.91885	.78059	.05	15	20
trichloroethene_____	.90104	.79011	.05	12	20
dibromomethane_____	.40488	.35306	.05	13	20
1,2-dichloropropene_____	.91341	.84646	.05	7	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1011165

Instrument ID: Jack.i      Calibration Date: 26-JUL-2010    Time: 07:17

Lab File ID: 0726A01.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:25                  13:50

Compound	RRF	RRF	MIN RRF	%D	MAX %D
bromodichloromethane	.89892	.92917	.05	-3	20
1,4-dioxane	.00331	.00325	.05	2	20
2-chloroethylvinyl ether	.33836	.29059	.05	14	20
cis-1,3-dichloropropene	1.0804	.91336	.05	15	20
toluene	2.7897	2.3560	.05	16	20
tetrachloroethene	1.2778	1.1733	.05	8	20
4-methyl-2-pentanone	.17188	.13759	.05	20	20
trans-1,3-dichloropropene	1.0919	.95121	.05	13	20
1,1,2-trichloroethane	.59427	.4639	.05	22	20
chlorodibromomethane	.67584	.62477	.05	8	20
1,3-dichloropropane	1.2493	1.0333	.05	17	20
1,2-dibromoethane	.63186	.55098	.05	13	20
2-hexanone	.45152	.32785	.05	27	20
chlorobenzene	2.9201	2.3956	.05	18	20
ethyl benzene	5.4959	4.7761	.05	13	20
1,1,1,2-tetrachloroethane	.86634	.84433	.05	3	20
p/m xylene	2.2467	1.8696	.05	17	20
o xylene	2.1134	1.7447	.05	17	20
bromoform	100	115	.05	-15	20
styrene	3.4815	2.8123	.05	19	20
isopropylbenzene	5.3087	4.3820	.05	17	20
bromobenzene	2.0110	1.7693	.05	12	20
n-propylbenzene	10.076	8.2934	.05	18	20
1,1,2,2,-tetrachloroethane	1.2168	.99157	.05	19	20
2-chlorotoluene	6.8279	5.7424	.05	16	20
1,2,3-trichloropropane	.91162	.79747	.05	13	20
1,3,5-trimethylbenzene	6.6861	5.5298	.05	17	20
4-chorotoluene	5.8548	5.3535	.05	9	20
tert-butylbenzene	5.6336	4.7275	.05	16	20
1,2,4-trimethylbenzene	6.8150	5.7725	.05	15	20
sec-butylbenzene	8.0556	6.9159	.01	14	20
p-isopropyltoluene	6.5810	5.7953	.05	12	20
1,3-dichlorobenzene	4.0770	3.6393	.05	11	20
1,4-dichlorobenzene	4.0449	3.6912	.05	9	20
n-butylbenzene	5.7376	5.0226	.05	12	20
1,2-dichlorobenzene	3.5001	3.1114	.05	11	20
1,2-dibromo-3-chloropropane	.15447	.12468	.05	19	20
hexachlorobutadiene	.83047	.77438	.05	7	20

FORM VII MCP-8260-10

**7A**  
**CONTINUING CALIBRATION CHECK**

Lab Name: Alpha Analytical Labs

SDG No.: L1011165

Instrument ID: Jack.i Calibration Date: 26-JUL-2010 Time: 07:17

Lab File ID: 0726A01.D      Init. Calib. Date(s): 02-JUL-2      02-JUL-2

Sample No: 8260 CCAL                  Init. Calib. Times : 09:25                  13:50

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1011165

Instrument ID: Jack.i      Calibration Date: 29-JUL-2010    Time: 06:36

Lab File ID: 0729A01.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:25                  13:50

Compound	RRF	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane_____	.73025	.71212	.05	2	20
chloromethane_____	1.1827	1.0591	.05	10	20
vinyl chloride_____	1.2810	1.0868	.05	15	20
bromomethane_____	.64579	.47721	.05	26	20
chloroethane_____	.6191	.55719	.05	10	20
trichlorofluoromethane_____	1.7747	1.6454	.05	7	20
ethyl ether_____	.40914	.32604	.05	20	20
1,1,-dichloroethene_____	.91173	.85531	.05	6	20
carbon disulfide_____	2.6482	1.9240	.05	27	20
methylene chloride_____	.84345	.82916	.05	2	20
acetone_____	100	94.209	.05	6	20
trans-1,2-dichloroethene_____	.81136	.80541	.05	1	20
methyl tert butyl ether_____	1.5181	1.2197	.05	20	20
Ethyl-Tert-Butyl-Ether_____	2.2141	1.8149	.05	18	20
Diisopropyl Ether_____	3.0768	2.6222	.01	15	20
1,1-dichloroethane_____	1.6300	1.5393	.05	6	20
cis-1,2-dichloroethene_____	.88568	.88532	.05	0	20
2,2-dichloropropane_____	1.1081	1.0851	.05	2	20
bromochloromethane_____	.37771	.34653	.05	8	20
chloroform_____	1.4877	1.3857	.05	7	20
carbontetrachloride_____	.86364	1.0287	.05	-19	20
tetrahydrofuran_____	.1189	.11021	.05	7	20
1,1,1-trichloroethane_____	1.1923	1.1917	.05	0	20
Tertiary-Amyl Methyl Ether_____	1.5807	1.3151	.05	17	20
1,1-dichloropropene_____	1.1879	1.1145	.05	6	20
2-butanol_____	.23423	.20672	.05	12	20
benzene_____	3.4376	3.1159	.05	9	20
1,2-dichloroethane_____	.91885	.80098	.05	13	20
trichloroethene_____	.90104	.79852	.05	11	20
dibromomethane_____	.40488	.34604	.05	15	20
1,2-dichloropropane_____	.91341	.80823	.05	12	20
bromodichloromethane_____	.89892	.91385	.05	-2	20
cis-1,3-dichloropropene_____	1.0804	.89243	.05	17	20
toluene_____	2.7897	2.3648	.05	15	20
tetrachloroethene_____	1.2778	1.1894	.05	7	20
4-methyl-2-pentanone_____	.17188	.1449	.05	16	20
trans-1,3-dichloropropene_____	1.0919	.89658	.05	18	20
1,1,2-trichloroethane_____	.59427	.48115	.05	19	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1011165

Instrument ID: Jack.i      Calibration Date: 29-JUL-2010    Time: 06:36

Lab File ID: 0729A01.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:25                  13:50

Compound	RRF	RRF	MIN RRF	%D	MAX %D
chlorodibromomethane	.67584	.66059	.05	2	20
1,3-dichloropropane	1.2493	1.0034	.05	20	20
1,2-dibromoethane	.63186	.52568	.05	17	20
2-hexanone	.45152	.3385	.05	25	20
chlorobenzene	2.9201	2.4074	.05	18	20
ethyl benzene	5.4959	4.8271	.05	12	20
1,1,1,2-tetrachloroethane	.86634	.84055	.05	3	20
p/m xylene	2.2467	1.9131	.05	15	20
o xylene	2.1134	1.8153	.05	14	20
styrene	3.4815	2.9871	.05	14	20
bromoform	100	105	.05	-5	20
isopropylbenzene	5.3087	4.5556	.05	14	20
bromobenzene	2.0110	1.7645	.05	12	20
n-propylbenzene	10.076	7.8004	.05	23	20
1,1,2,2,-tetrachloroethane	1.2168	.92893	.05	24	20
2-chlorotoluene	6.8279	5.3407	.05	22	20
1,2,3-trichloropropane	.91162	.75606	.05	17	20
1,3,5-trimethylbenzene	6.6861	5.1595	.05	23	20
4-chorotoluene	5.8548	4.6975	.05	20	20
tert-butylbenzene	5.6336	4.4059	.05	22	20
1,2,4-trimethylbenzene	6.8150	5.3274	.05	22	20
sec-butylbenzene	8.0556	6.5830	.01	18	20
p-isopropyltoluene	6.5810	5.3525	.05	19	20
1,3-dichlorobenzene	4.0770	3.3672	.05	17	20
1,4-dichlorobenzene	4.0449	3.299	.05	18	20
n-butylbenzene	5.7376	4.6398	.05	19	20
1,2-dichlorobenzene	3.5001	2.8791	.05	18	20
1,2-dibromo-3-chloropropane	.15447	.1227	.05	21	20
hexachlorobutadiene	.83047	.69635	.05	16	20
1,2,4-trichlorobenzene	2.2087	1.6118	.05	27	20
naphthalene	3.2995	2.0525	.05	38	20
1,2,3-trichlorobenzene	1.7361	1.2115	.05	30	20
dibromofluoromethane	.25597	.25893	.05	-1	20
1,2-dichloroethane-d4	.27276	.23059	.05	15	20
toluene-d8	1.2521	1.2452	.01	1	20
4-bromofluorobenzene	.73901	.67394	.05	9	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1011165

Instrument ID: Jack.i      Calibration Date: 27-JUL-2010    Time: 08:20

Lab File ID: 0727A08.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:45                  14:06

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane_____	.71493	.89217	.05	-25	20	F
chloromethane_____	1.3571	1.5981	.05	-18	20	
vinyl chloride_____	1.3468	1.2506	.05	7	20	
bromomethane_____	.66519	.62341	.05	6	20	
chloroethane_____	.66238	.66442	.05	0	20	
trichlorofluoromethane_____	1.8637	1.9010	.05	-2	20	
ethyl ether_____	.356	.33205	.05	7	20	
1,1,-dichloroethene_____	.9155	.90107	.05	2	20	
carbon disulfide_____	2.6781	2.3330	.05	13	20	
methylene chloride_____	.8496	.94376	.05	-11	20	
acetone_____	100	122	.05	-22	20	F
trans-1,2-dichloroethene_____	.77327	.8224	.05	-6	20	
methyl tert butyl ether_____	1.2847	1.0144	.05	21	20	F
Ethyl-Tert-Butyl-Ether_____	1.7979	1.4181	.05	21	20	F
Diisopropyl Ether_____	2.5446	2.1476	.05	16	20	
1,1-dichloroethane_____	1.5534	1.6188	.05	-4	20	
cis-1,2-dichloroethene_____	.84264	.92536	.05	-10	20	
2,2-dichloropropane_____	1.0317	1.0537	.05	-2	20	
bromochloromethane_____	.35442	.37234	.05	-5	20	
chloroform_____	1.4366	1.4623	.05	-2	20	
carbontetrachloride_____	100	124	.05	-24	20	F
tetrahydrofuran_____	.18208	.16376	.05	10	20	
1,1,1-trichloroethane_____	1.1165	1.2058	.05	-8	20	
Tertiary-Amyl Methyl Ether_____	1.2340	1.0251	.05	17	20	
1,1-dichloropropene_____	1.0727	1.0814	.05	-1	20	
2-butane_____	.19736	.19879	.05	-1	20	
benzene_____	3.1399	3.0663	.05	2	20	
1,2-dichloroethane_____	.88056	.853	.05	3	20	
trichloroethene_____	.8251	.79334	.05	4	20	
dibromomethane_____	.37891	.37294	.05	2	20	
1,2-dichloropropane_____	.80088	.75938	.05	5	20	
bromodichloromethane_____	.86141	.96124	.05	-12	20	
1,4-dioxane_____	.00291	.00234	.05	20	20	F
cis-1,3-dichloropropene_____	.94786	.83902	.05	11	20	
toluene_____	2.5438	2.2183	.05	13	20	
tetrachloroethene_____	1.1773	1.1347	.05	4	20	
4-methyl-2-pentanone_____	.12733	.12038	.05	5	20	
trans-1,3-dichloropropene_____	.97487	.84947	.05	13	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1011165

Instrument ID: Jack.i      Calibration Date: 27-JUL-2010    Time: 08:20

Lab File ID: 0727A08.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:45                  14:06

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,1,2-trichloroethane	.50551	.4615	.05	9	20
chlorodibromomethane	100	107	.05	-7	20
1,3-dichloropropane	1.0878	.93904	.05	14	20
1,2-dibromoethane	.57836	.52382	.05	9	20
2-hexanone	.32232	.30925	.05	4	20
chlorobenzene	2.6829	2.3229	.05	13	20
ethyl benzene	5.0629	4.7303	.05	7	20
1,1,1,2-tetrachloroethane	100	108	.05	-8	20
p/m xylene	2.0960	1.9392	.05	7	20
o xylene	1.9727	1.7600	.05	11	20
styrene	3.2346	2.9100	.05	10	20
bromoform	100	101	.05	-1	20
isopropylbenzene	5.0927	4.5254	.05	11	20
bromobenzene	1.7560	1.5294	.05	13	20
n-propylbenzene	9.0525	7.4355	.05	18	20
1,1,2,2-tetrachloroethane	1.0445	.90196	.05	14	20
2-chlorotoluene	6.1123	5.0088	.05	18	20
1,2,3-trichloropropane	.81845	.69701	.05	15	20
1,3,5-trimethylbenzene	7.3470	6.3820	.05	13	20
4-chorotoluene	5.1595	4.3786	.05	15	20
tert-butylbenzene	5.0718	4.0898	.05	19	20
1,2,4-trimethylbenzene	6.1087	4.9853	.05	18	20
sec-butylbenzene	7.3470	6.3820	.05	13	20
p-isopropyltoluene	6.0815	5.2267	.05	14	20
1,3-dichlorobenzene	3.6930	3.1162	.05	16	20
1,4-dichlorobenzene	3.7055	3.1776	.05	14	20
n-butylbenzene	5.3304	4.6039	.05	14	20
1,2-dichlorobenzene	3.2119	2.7487	.05	14	20
1,2-dibromo-3-chloropropane	.15046	.13217	.05	12	20
hexachlorobutadiene	.89078	.73002	.05	18	20
1,2,4-trichlorobenzene	2.0791	1.7498	.05	16	20
naphthalene	3.1238	2.4809	.05	21	20
1,2,3-trichlorobenzene	1.6382	1.4112	.05	14	20
dibromofluoromethane	.272	.30164	.05	-11	20
1,2-dichloroethane-d4	.28002	.27545	.05	2	20
toluene-d8	1.2414	1.1740	.05	5	20
4-bromofluorobenzene	.70269	.64974	.05	8	20

F

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1011165

Instrument ID: Jack.i      Calibration Date: 27-JUL-2010    Time: 08:03

Lab File ID: 0727A07.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:25                  13:50

Compound	RRF	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane_____	.73025	.8112	.05	-11	20
chloromethane_____	1.1827	1.1610	.05	2	20
vinyl chloride_____	1.2810	1.1744	.05	8	20
bromomethane_____	.64579	.39703	.05	39	20
chloroethane_____	.6191	.59229	.05	4	20
trichlorofluoromethane_____	1.7747	1.7685	.05	0	20
ethyl ether_____	.40914	.37171	.05	9	20
1,1,-dichloroethene_____	.91173	.86096	.05	6	20
carbon disulfide_____	2.6482	2.1634	.05	18	20
methylene chloride_____	.84345	.86263	.05	-2	20
acetone_____	100	122	.05	-22	20
trans-1,2-dichloroethene_____	.81136	.79562	.05	2	20
methyl tert butyl ether_____	1.5181	1.2277	.05	19	20
Ethyl-Tert-Butyl-Ether_____	2.2141	1.7732	.05	20	20
Diisopropyl Ether_____	3.0768	2.5828	.01	16	20
1,1-dichloroethane_____	1.6300	1.5646	.05	4	20
cis-1,2-dichloroethene_____	.88568	.89784	.05	-1	20
2,2-dichloropropane_____	1.1081	1.0437	.05	6	20
bromochloromethane_____	.37771	.36274	.05	4	20
chloroform_____	1.4877	1.4570	.05	2	20
carbontetrachloride_____	.86364	1.0237	.05	-19	20
tetrahydrofuran_____	.1189	.13376	.05	-13	20
1,1,1-trichloroethane_____	1.1923	1.255	.05	-5	20
Tertiary-Amyl Methyl Ether_____	1.5807	1.3236	.05	16	20
1,1-dichloropropene_____	1.1879	1.1470	.05	3	20
2-butanol_____	.23423	.26621	.05	-14	20
benzene_____	3.4376	3.3114	.05	4	20
1,2-dichloroethane_____	.91885	.89198	.05	3	20
trichloroethene_____	.90104	.84816	.05	6	20
dibromomethane_____	.40488	.36436	.05	10	20
1,2-dichloropropane_____	.91341	.89488	.05	2	20
bromodichloromethane_____	.89892	.98769	.05	-10	20
1,4-dioxane_____	.00331	.00304	.05	8	20
cis-1,3-dichloropropene_____	1.0804	.90862	.05	16	20
toluene_____	2.7897	2.4489	.05	12	20
tetrachloroethene_____	1.2778	1.2272	.05	4	20
4-methyl-2-pentanone_____	.17188	.1637	.05	5	20
trans-1,3-dichloropropene_____	1.0919	.96213	.05	12	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1011165

Instrument ID: Jack.i      Calibration Date: 27-JUL-2010    Time: 08:03

Lab File ID: 0727A07.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:25                  13:50

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,1,2-trichloroethane	.59427	.55714	.05	6	20
chlorodibromomethane	.67584	.71113	.05	-5	20
1,3-dichloropropane	1.2493	1.1313	.05	9	20
1,2-dibromoethane	.63186	.58689	.05	7	20
2-hexanone	.45152	.38163	.05	15	20
chlorobenzene	2.9201	2.5320	.05	13	20
ethyl benzene	5.4959	5.0201	.05	9	20
1,1,1,2-tetrachloroethane	.86634	.8634	.05	0	20
p/m xylene	2.2467	2.0057	.05	11	20
o xylene	2.1134	1.8750	.05	11	20
styrene	3.4815	3.1065	.05	11	20
bromoform	100	112	.05	-12	20
isopropylbenzene	5.3087	4.7518	.05	10	20
bromobenzene	2.0110	1.7328	.05	14	20
n-propylbenzene	10.076	8.2414	.05	18	20
1,1,2,2-tetrachloroethane	1.2168	1.0858	.05	11	20
2-chlorotoluene	6.8279	5.6363	.05	17	20
1,2,3-trichloropropane	.91162	.9271	.05	-2	20
1,3,5-trimethylbenzene	6.6861	5.3587	.05	20	20
4-chorotoluene	5.8548	5.0505	.05	14	20
tert-butylbenzene	5.6336	4.5107	.05	20	20
1,2,4-trimethylbenzene	6.8150	5.6000	.05	18	20
sec-butylbenzene	8.0556	6.7482	.01	16	20
p-isopropyltoluene	6.5810	5.5371	.05	16	20
1,3-dichlorobenzene	4.0770	3.5795	.05	12	20
1,4-dichlorobenzene	4.0449	3.4985	.05	14	20
n-butylbenzene	5.7376	4.8317	.05	16	20
1,2-dichlorobenzene	3.5001	3.0935	.05	12	20
1,2-dibromo-3-chloropropane	.15447	.14889	.05	4	20
hexachlorobutadiene	.83047	.67124	.05	19	20
1,2,4-trichlorobenzene	2.2087	1.6890	.05	24	20
naphthalene	3.2995	2.2407	.05	32	20
1,2,3-trichlorobenzene	1.7361	1.2817	.05	26	20
dibromofluoromethane	.25597	.259	.05	-1	20
1,2-dichloroethane-d4	.27276	.24592	.05	10	20
toluene-d8	1.2521	1.1595	.01	7	20
4-bromofluorobenzene	.73901	.67819	.05	8	20

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1011165

Instrument ID: Jack.i      Calibration Date: 26-JUL-2010    Time: 07:33

Lab File ID: 0726A02.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:45                  14:06

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.71493	.86838	.05	-21	20	F
chloromethane	1.3571	1.6126	.05	-19	20	
vinyl chloride	1.3468	1.2212	.05	9	20	
bromomethane	.66519	.68671	.05	-3	20	
chloroethane	.66238	.58071	.05	12	20	
trichlorofluoromethane	1.8637	1.7367	.05	7	20	
ethyl ether	.356	.32746	.05	8	20	
acrolien	.07371	.0785	.05	-6	20	
1,1,-dichloroethene	.9155	.82739	.05	10	20	
carbon disulfide	2.6781	2.1220	.05	21	20	F
freon-113	1.0206	.91998	.05	10	20	
iodomethane	1.8246	1.0250	.05	44	20	F
methylene chloride	.8496	.88322	.05	-4	20	
acetone	100	128	.05	-28	20	F
trans-1,2-dichloroethene	.77327	.82056	.05	-6	20	
methyl tert butyl ether	1.2847	1.1171	.05	13	20	
tert butyl alcohol	.05018	.04174	.05	17	20	
Diisopropyl Ether	2.5446	2.1737	.05	15	20	
1,1-dichloroethane	1.5534	1.5548	.05	0	20	
halothane	.42689	.50359	.05	-18	20	
Ethyl-Tert-Butyl-Ether	1.7979	1.5037	.05	16	20	
vinyl acetate	.79793	1.0710	.05	-34	20	F
cis-1,2-dichloroethene	.84264	.89182	.05	-6	20	
2,2-dichloropropane	1.0317	1.0715	.05	-4	20	
bromochloromethane	.35442	.36375	.05	-3	20	
chloroform	1.4366	1.4555	.05	-1	20	
carbontetrachloride	100	122	.05	-22	20	F
tetrahydrofuran	.18208	.19615	.05	-8	20	
1,1,1-trichloroethane	1.1165	1.1621	.05	-4	20	
1,1-dichloropropene	1.0727	1.0500	.05	2	20	
2-butanone	.19736	.24481	.05	-24	20	F
benzene	3.1399	2.9790	.05	5	20	
Tertiary-Amyl Methyl Ether	1.2340	1.1223	.05	9	20	
1,2-dichloroethane	.88056	.82798	.05	6	20	
trichloroethene	.8251	.75	.05	9	20	
dibromomethane	.37891	.36998	.05	2	20	
1,2-dichloropropane	.80088	.75806	.05	5	20	
bromodichloromethane	.86141	.90653	.05	-5	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1011165

Instrument ID: Jack.i      Calibration Date: 26-JUL-2010    Time: 07:33

Lab File ID: 0726A02.D      Init. Calib. Date(s): 02-JUL-2    02-JUL-2

Sample No: 8260 CCAL      Init. Calib. Times : 09:45                  14:06

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
1,4-dioxane	.00291	.00373	.05	-28	20	F
2-chloroethylvinyl ether	.2912	.30432	.05	-5	20	
cis-1,3-dichloropropene	.94786	.86204	.05	9	20	
toluene	2.5438	2.1226	.05	17	20	
tetrachloroethene	1.1773	1.0644	.05	10	20	
4-methyl-2-pentanone	.12733	.12925	.05	-2	20	
trans-1,3-dichloropropene	.97487	.87103	.05	11	20	
1,1,2-trichloroethane	.50551	.45908	.05	9	20	
chlorodibromomethane	100	106	.05	-6	20	
1,3-dichloropropane	1.0878	1.0063	.05	7	20	
1,2-dibromoethane	.57836	.54135	.05	6	20	
2-hexanone	.32232	.32647	.05	-1	20	
chlorobenzene	2.6829	2.2863	.05	15	20	
ethyl benzene	5.0629	4.4583	.05	12	20	
1,1,1,2-tetrachloroethane	100	108	.05	-8	20	
p/m xylene	2.0960	1.7529	.05	16	20	
o xylene	1.9727	1.6937	.05	14	20	
bromoform	100	115	.05	-15	20	
styrene	3.2346	2.7169	.05	16	20	
isopropylbenzene	5.0927	4.2123	.05	17	20	
bromobenzene	1.7560	1.5669	.05	11	20	
n-propylbenzene	9.0525	7.5169	.05	17	20	
1,1,2,2,-tetrachloroethane	1.0445	1.0211	.05	2	20	
2-chlorotoluene	6.1123	5.0015	.05	18	20	
1,2,3-trichloropropane	.81845	.77782	.05	5	20	
1,3,5-trimethylbenzene	7.3470	6.4298	.05	12	20	
4-chorotoluene	5.1595	5.0015	.05	3	20	
tert-butylbenzene	5.0718	4.1856	.05	17	20	
1,2,4-trimethylbenzene	6.1087	5.0940	.05	17	20	
sec-butylbenzene	7.3470	6.4298	.05	12	20	
p-isopropyltoluene	6.0815	5.2108	.05	14	20	
1,3-dichlorobenzene	3.6930	3.1479	.05	15	20	
1,4-dichlorobenzene	3.7055	3.1862	.05	14	20	
n-butylbenzene	5.3304	4.7049	.05	12	20	
1,2-dichlorobenzene	3.2119	2.8908	.05	10	20	
1,2-dibromo-3-chloropropane	.15046	.14339	.05	5	20	
1,2,4-trichlorobenzene	2.0791	1.8669	.05	10	20	
hexachlorobutadiene	.89078	.72627	.05	18	20	

FORM VII MCP-8260-10

**7A**  
**CONTINUING CALIBRATION CHECK**

Lab Name: Alpha Analytical Labs

SDG No.: L1011165

Instrument ID: Jack.i Calibration Date: 26-JUL-2010 Time: 07:33

Lab File ID: 0726A02.D      Init. Calib. Date(s): 02-JUL-2      02-JUL-2

Sample No: 8260 CCAL                  Init. Calib. Times : 09:45                  14:06

FORM VII MCP-8260-10


**Field Colorimetry**
**Data Form**
**WATER SAMPLES**

Analyst:

T. Lewis

Date:

2010/07/28

Checked by:

T. Pac

Site Name:

Raytheon Wayland

Project Number:

0114119.03

Project Manager:

Jason Flattery

Sample Name	Well ID	Collection Date	Collection Time	Preservative (Note)	Color	Measured (ppm)	Dilution (X factor)	Concentration as KMnO <sub>4</sub> (ppm)	Concentration as NaMnO <sub>4</sub> (ppm)	Concentration as NaMnO <sub>4</sub> (%)	Notes
IP-16S	IP-16S-20100721-03	7/21/10	8:06	Ice	Light Pink	1.8	1	1.8	1.6	0.00	
IP-16D	IP-16D-20100721-03	7/21/10	8:30	Ice	Light Pink	5.8	1	5.8	5.2	0.00	
IP-17D	IP-17D-20100721-03	7/21/10	14:15	Ice	Purple	39.6	100	3,960	3,560	0.36	
MW-33S	MW-33S-20100720-03	7/20/10	12:21	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-40	MW-40-20100720-03	7/20/10	16:05	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-40S	MW-40S-20100720-03	7/20/10	16:15	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-43S	MW-43S-20100722-03	7/22/10	8:00	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-47S	MW-47S-20100720-03	7/20/10	13:59	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-101	MW-101-20100722-03	7/22/10	9:20	Ice	Clear	0.3	1	< 1	< 1	-	-
MW-102	MW-102-20100722-03	7/22/10	9:00	Ice	Pink	50.3	1	50.3	45.2	0.00	-
MW-103	MW-103-20100722-03	7/22/10	6:45	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-113	MW-113-20100720-03	7/20/10	12:10	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-118	MW-118-20100721-03	7/21/10	7:35	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-201S	MW-201S-20100720-03	7/20/10	11:15	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-201M	MW-201M-20100720-03	7/20/10	10:45	Ice	Clear	0.3	1	< 1	< 1	-	-
MW-202S	MW-202S-20100720-03	7/20/10	13:00	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-202M	MW-202M-20100720-03	7/20/10	12:53	Ice	Clear	0.1	1	< 1	< 1	-	-
MW-203S	MW-203S-20100720-03	7/20/10	14:45	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-203M	MW-203M-20100720-03	7/20/10	14:34	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-203D	MW-203D-20100720-03	7/20/10	14:27	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-204M	MW-204M-20100720-03	7/20/10	15:16	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-208S	MW-208S-20100720-03	7/20/10	13:30	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-212	MW-212-20100722-03	7/22/10	7:15	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-213	MW-213-20100722-03	7/22/10	8:20	Ice	Clear	0.1	1	< 1	< 1	-	-
MW-403	MW-403-20100722-03	7/22/10	8:40	Ice	Clear	0.0	1	< 1	< 1	-	-
MW-404	MW-404-20100721-03	7/21/10	7:35	Ice	Purple	105.1	1	105.1	94.4	0.01	-
MW-405S	MW-405S-20100722-03	7/22/10	9:40	Ice	Purple	59.4	10	594	533	0.05	-

Note:

&lt; 1 less than detection limit of method (1 ppm)