

Environmental  
Resources  
Management

399 Boylston Street  
6th Floor  
Boston, MA 02116  
(617) 646-7800  
(617) 267-6447 (fax)

18 May 2007  
Reference: 0061882

Mr. Brian Monahan  
Conservation Commission  
Wayland Town Hall  
41 Cochituate Road  
Wayland, MA 01778



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

Dear Mr. Monahan:

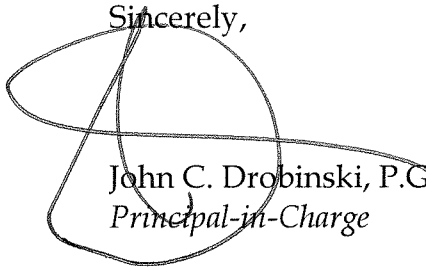
On behalf of Raytheon Company (Raytheon), Environmental Resources Management (ERM) is submitting the results of groundwater sample analyses from the Former Raytheon Facility located at 430 Boston Post Road in Wayland, Massachusetts (Site). The results are submitted pursuant to 310 CMR 40.1403(10) of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

ERM collected groundwater samples from 2 wells, (DEP-20 and DEP-21) on portions of the Site within the boundaries of your property between 23 and 26 April 2007. All samples were submitted for laboratory analysis of volatile organic compounds by United States Environmental Protection Agency (USEPA) Method 8260. Sample analysis was conducted by Alpha Analytical Laboratories of Westborough, Massachusetts. Analytical laboratory reports are attached to this letter. This 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 MCP 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 Louis Burkhardt, Raytheon Company, at (978) 436-8238.

Sincerely,



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



Jeremy J. Picard, P.G.  
*Project Manager*

enclosures: BWSC-123 - Notice of Environmental Sampling  
Alpha Analytical Laboratories Report L0706125

cc: 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

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

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

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

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

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

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

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

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

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

- |  |  |
|--|--|
| Immediate Response Action              | Phase III Feasibility Evaluation                   |
| Release Abatement Measure              | Phase IV Remedy Implementation Plan                |
| Utility-related Abatement Measure      | Phase V/Remedy Operation Status                    |
| Phase I Initial Site Investigation     | Post-Class C Operation, Maintenance and Monitoring |
| Phase II Comprehensive Site Assessment | Other _____  |
- (specify)

3. Description of property where sampling will be/has been conducted:

residential      commerical      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.

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

Contact Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

City/Town: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

## **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: L0706125

Client: ERM-New England  
399 Boylston Street  
6th Floor  
Boston, MA 02116

ATTN: Jeremy Picard

Project Name: RAYTHEON WAYLAND

Project Number: 0061882

Report Date: 05/08/07

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (200305), NJ (MA935), RI (LAO00065), ME (2006012), 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:** 0061882

**Lab Number:** L0706125  
**Report Date:** 05/08/07

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>
L0706125-01	DEP-20-20070426-01	WAYLAND, MA
L0706125-02	DEP-21-20070426-01	WAYLAND, MA
L0706125-03	DUP-001-20070426-01	WAYLAND, MA
L0706125-04	TB-004-20070426-01	WAYLAND, MA

Project Name: RAYTHEON WAYLAND

Lab Number: L0706125

Project Number: 0061882

Report Date: 05/08/07

### MADEP MCP Response Action Analytical Report Certification

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

An affirmative response to questions A, B, C & D is required for "Presumptive Certainty" status		
A	Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B	Were all QA/QC procedures required for the specified analytical methods(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	NA
A response to questions E and F is required for "Presumptive Certainty" status		
E	Were all QC performance standards and recommendations for the specified method(s) achieved?	YES
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	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:** 0061882

**Lab Number:** L0706125  
**Report Date:** 05/08/07

### Case Narrative

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

MCP Related Narratives

Volatile Organics

In reference to question F:

At the client's request, all submitted samples were not analyzed for the full MCP list of compounds specified for the Method.

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:



Title: Technical Director

Date: 05/08/07



# ORGANICS

# VOLATILES

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0706125**Project Number:** 0061882**Report Date:** 05/08/07**SAMPLE RESULTS**

Lab ID: L0706125-01  
 Client ID: DEP-20-20070426-01  
 Sample Location: WAYLAND, MA  
 Matrix: Water  
 Analytical Method: 60,8260B  
 Analytical Date: 05/07/07 18:57  
 Analyst: MM

Date Collected: 04/26/07 16:00  
 Date Received: 04/27/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
Methylene chloride	ND		ug/l	5.0	1
1,1-Dichloroethane	ND		ug/l	0.75	1
Chloroform	ND		ug/l	0.75	1
Carbon tetrachloride	ND		ug/l	0.50	1
1,2-Dichloropropane	ND		ug/l	1.8	1
Dibromochloromethane	ND		ug/l	0.50	1
1,1,2-Trichloroethane	ND		ug/l	0.75	1
Tetrachloroethene	ND		ug/l	0.50	1
Chlorobenzene	ND		ug/l	0.50	1
1,2-Dichloroethane	ND		ug/l	0.50	1
1,1,1-Trichloroethane	ND		ug/l	0.50	1
Bromodichloromethane	ND		ug/l	0.50	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	1
Bromoform	ND		ug/l	2.0	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	1
Chloromethane	ND		ug/l	2.5	1
Vinyl chloride	ND		ug/l	1.0	1
Chloroethane	ND		ug/l	1.0	1
1,1-Dichloroethene	ND		ug/l	0.50	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	1
Trichloroethene	ND		ug/l	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.5	1
1,3-Dichlorobenzene	ND		ug/l	2.5	1
1,4-Dichlorobenzene	ND		ug/l	2.5	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	1
Dichlorodifluoromethane	ND		ug/l	5.0	1
1,2-Dibromoethane	ND		ug/l	2.0	1
1,3-Dichloropropane	ND		ug/l	2.5	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	1

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0706125**Project Number:** 0061882**Report Date:** 05/08/07**SAMPLE RESULTS**

Lab ID: L0706125-01  
 Client ID: DEP-20-20070426-01  
 Sample Location: WAYLAND, MA

Date Collected: 04/26/07 16:00  
 Date Received: 04/27/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
o-Chlorotoluene	ND		ug/l	2.5	1
p-Chlorotoluene	ND		ug/l	2.5	1
Hexachlorobutadiene	ND		ug/l	0.60	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	106		70-130

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0706125**Project Number:** 0061882**Report Date:** 05/08/07**SAMPLE RESULTS**

Lab ID: L0706125-02  
 Client ID: DEP-21-20070426-01  
 Sample Location: WAYLAND, MA  
 Matrix: Water  
 Analytical Method: 60,8260B  
 Analytical Date: 05/07/07 19:29  
 Analyst: MM

Date Collected: 04/26/07 16:20  
 Date Received: 04/27/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
Methylene chloride	ND		ug/l	5.0	1
1,1-Dichloroethane	ND		ug/l	0.75	1
Chloroform	ND		ug/l	0.75	1
Carbon tetrachloride	ND		ug/l	0.50	1
1,2-Dichloropropane	ND		ug/l	1.8	1
Dibromochloromethane	ND		ug/l	0.50	1
1,1,2-Trichloroethane	ND		ug/l	0.75	1
Tetrachloroethene	1.1		ug/l	0.50	1
Chlorobenzene	ND		ug/l	0.50	1
1,2-Dichloroethane	ND		ug/l	0.50	1
1,1,1-Trichloroethane	ND		ug/l	0.50	1
Bromodichloromethane	ND		ug/l	0.50	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	1
Bromoform	ND		ug/l	2.0	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	1
Chloromethane	ND		ug/l	2.5	1
Vinyl chloride	ND		ug/l	1.0	1
Chloroethane	ND		ug/l	1.0	1
1,1-Dichloroethene	ND		ug/l	0.50	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	1
Trichloroethene	3.6		ug/l	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.5	1
1,3-Dichlorobenzene	ND		ug/l	2.5	1
1,4-Dichlorobenzene	ND		ug/l	2.5	1
cis-1,2-Dichloroethene	25		ug/l	0.50	1
Dichlorodifluoromethane	ND		ug/l	5.0	1
1,2-Dibromoethane	ND		ug/l	2.0	1
1,3-Dichloropropane	ND		ug/l	2.5	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	1

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0706125**Project Number:** 0061882**Report Date:** 05/08/07**SAMPLE RESULTS**

Lab ID: L0706125-02  
 Client ID: DEP-21-20070426-01  
 Sample Location: WAYLAND, MA

Date Collected: 04/26/07 16:20  
 Date Received: 04/27/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
o-Chlorotoluene	ND		ug/l	2.5	1
p-Chlorotoluene	ND		ug/l	2.5	1
Hexachlorobutadiene	ND		ug/l	0.60	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	108		70-130

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0706125**Project Number:** 0061882**Report Date:** 05/08/07**SAMPLE RESULTS**

Lab ID: L0706125-03  
 Client ID: DUP-001-20070426-01  
 Sample Location: WAYLAND, MA  
 Matrix: Water  
 Analytical Method: 60,8260B  
 Analytical Date: 05/07/07 20:02  
 Analyst: MM

Date Collected: 04/27/07 00:00  
 Date Received: 04/27/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
Methylene chloride	ND		ug/l	5.0	1
1,1-Dichloroethane	ND		ug/l	0.75	1
Chloroform	ND		ug/l	0.75	1
Carbon tetrachloride	ND		ug/l	0.50	1
1,2-Dichloropropane	ND		ug/l	1.8	1
Dibromochloromethane	ND		ug/l	0.50	1
1,1,2-Trichloroethane	ND		ug/l	0.75	1
Tetrachloroethene	2.1		ug/l	0.50	1
Chlorobenzene	ND		ug/l	0.50	1
1,2-Dichloroethane	ND		ug/l	0.50	1
1,1,1-Trichloroethane	ND		ug/l	0.50	1
Bromodichloromethane	ND		ug/l	0.50	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	1
Bromoform	ND		ug/l	2.0	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	1
Chloromethane	ND		ug/l	2.5	1
Vinyl chloride	ND		ug/l	1.0	1
Chloroethane	ND		ug/l	1.0	1
1,1-Dichloroethene	ND		ug/l	0.50	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	1
Trichloroethene	5.3		ug/l	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.5	1
1,3-Dichlorobenzene	ND		ug/l	2.5	1
1,4-Dichlorobenzene	ND		ug/l	2.5	1
cis-1,2-Dichloroethene	26		ug/l	0.50	1
Dichlorodifluoromethane	ND		ug/l	5.0	1
1,2-Dibromoethane	ND		ug/l	2.0	1
1,3-Dichloropropane	ND		ug/l	2.5	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	1

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0706125**Project Number:** 0061882**Report Date:** 05/08/07**SAMPLE RESULTS**

Lab ID: L0706125-03  
 Client ID: DUP-001-20070426-01  
 Sample Location: WAYLAND, MA

Date Collected: 04/27/07 00:00  
 Date Received: 04/27/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
o-Chlorotoluene	ND		ug/l	2.5	1
p-Chlorotoluene	ND		ug/l	2.5	1
Hexachlorobutadiene	ND		ug/l	0.60	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	105		70-130



**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0706125**Project Number:** 0061882**Report Date:** 05/08/07**SAMPLE RESULTS**

Lab ID: L0706125-04  
 Client ID: TB-004-20070426-01  
 Sample Location: WAYLAND, MA  
 Matrix: Water  
 Analytical Method: 60,8260B  
 Analytical Date: 05/07/07 20:34  
 Analyst: MM

Date Collected: 04/26/07 21:21  
 Date Received: 04/27/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
Methylene chloride	ND		ug/l	5.0	1
1,1-Dichloroethane	ND		ug/l	0.75	1
Chloroform	ND		ug/l	0.75	1
Carbon tetrachloride	ND		ug/l	0.50	1
1,2-Dichloropropane	ND		ug/l	1.8	1
Dibromochloromethane	ND		ug/l	0.50	1
1,1,2-Trichloroethane	ND		ug/l	0.75	1
Tetrachloroethene	ND		ug/l	0.50	1
Chlorobenzene	ND		ug/l	0.50	1
1,2-Dichloroethane	ND		ug/l	0.50	1
1,1,1-Trichloroethane	ND		ug/l	0.50	1
Bromodichloromethane	ND		ug/l	0.50	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	1
Bromoform	ND		ug/l	2.0	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	1
Chloromethane	ND		ug/l	2.5	1
Vinyl chloride	ND		ug/l	1.0	1
Chloroethane	ND		ug/l	1.0	1
1,1-Dichloroethene	ND		ug/l	0.50	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	1
Trichloroethene	ND		ug/l	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.5	1
1,3-Dichlorobenzene	ND		ug/l	2.5	1
1,4-Dichlorobenzene	ND		ug/l	2.5	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	1
Dichlorodifluoromethane	ND		ug/l	5.0	1
1,2-Dibromoethane	ND		ug/l	2.0	1
1,3-Dichloropropane	ND		ug/l	2.5	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	1

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0706125**Project Number:** 0061882**Report Date:** 05/08/07**SAMPLE RESULTS**

Lab ID: L0706125-04  
 Client ID: TB-004-20070426-01  
 Sample Location: WAYLAND, MA

Date Collected: 04/26/07 21:21  
 Date Received: 04/27/07  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
o-Chlorotoluene	ND		ug/l	2.5	1
p-Chlorotoluene	ND		ug/l	2.5	1
Hexachlorobutadiene	ND		ug/l	0.60	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	109		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0061882

**Lab Number:** L0706125  
**Report Date:** 05/08/07

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 05/07/07 14:37  
Analyst: MM

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B for sample(s): 01-04 Batch: WG279510-3				
Methylene chloride	ND		ug/l	5.0
1,1-Dichloroethane	ND		ug/l	0.75
Chloroform	ND		ug/l	0.75
Carbon tetrachloride	ND		ug/l	0.50
1,2-Dichloropropane	ND		ug/l	1.8
Dibromochloromethane	ND		ug/l	0.50
1,1,2-Trichloroethane	ND		ug/l	0.75
Tetrachloroethene	ND		ug/l	0.50
Chlorobenzene	ND		ug/l	0.50
Trichlorofluoromethane	ND		ug/l	2.5
1,2-Dichloroethane	ND		ug/l	0.50
1,1,1-Trichloroethane	ND		ug/l	0.50
Bromodichloromethane	ND		ug/l	0.50
trans-1,3-Dichloropropene	ND		ug/l	0.50
cis-1,3-Dichloropropene	ND		ug/l	0.50
1,1-Dichloropropene	ND		ug/l	2.5
Bromoform	ND		ug/l	2.0
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50
Benzene	ND		ug/l	0.50
Toluene	ND		ug/l	0.75
Ethylbenzene	ND		ug/l	0.50
Chloromethane	ND		ug/l	2.5
Bromomethane	ND		ug/l	1.0
Vinyl chloride	ND		ug/l	1.0
Chloroethane	ND		ug/l	1.0
1,1-Dichloroethene	ND		ug/l	0.50
trans-1,2-Dichloroethene	ND		ug/l	0.75
Trichloroethene	ND		ug/l	0.50
1,2-Dichlorobenzene	ND		ug/l	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0061882

**Lab Number:** L0706125  
**Report Date:** 05/08/07

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 05/07/07 14:37  
Analyst: MM

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B for sample(s): 01-04 Batch: WG279510-3				

Parameter	Result	Qualifier	Units	RDL
Methyl tert butyl ether	ND		ug/l	1.0
p/m-Xylene	ND		ug/l	1.0
o-Xylene	ND		ug/l	1.0
cis-1,2-Dichloroethene	ND		ug/l	0.50
Dibromomethane	ND		ug/l	5.0
1,2,3-Trichloropropane	ND		ug/l	5.0
Styrene	ND		ug/l	1.0
Dichlorodifluoromethane	ND		ug/l	5.0
Acetone	ND		ug/l	5.0
Carbon disulfide	ND		ug/l	5.0
2-Butanone	ND		ug/l	5.0
4-Methyl-2-pentanone	ND		ug/l	5.0
2-Hexanone	ND		ug/l	5.0
Bromochloromethane	ND		ug/l	2.5
Tetrahydrofuran	ND		ug/l	10
2,2-Dichloropropane	ND		ug/l	2.5
1,2-Dibromoethane	ND		ug/l	2.0
1,3-Dichloropropane	ND		ug/l	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50
Bromobenzene	ND		ug/l	2.5
n-Butylbenzene	ND		ug/l	0.50
sec-Butylbenzene	ND		ug/l	0.50
tert-Butylbenzene	ND		ug/l	2.5
o-Chlorotoluene	ND		ug/l	2.5
p-Chlorotoluene	ND		ug/l	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5
Hexachlorobutadiene	ND		ug/l	0.60
Isopropylbenzene	ND		ug/l	0.50
p-Isopropyltoluene	ND		ug/l	0.50
Naphthalene	ND		ug/l	2.5
n-Propylbenzene	ND		ug/l	0.50



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0061882

**Lab Number:** L0706125  
**Report Date:** 05/08/07

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 05/07/07 14:37  
Analyst: MM

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B for sample(s): 01-04 Batch: WG279510-3				

Parameter	Result	Qualifier	Units	RDL
1,2,3-Trichlorobenzene	ND		ug/l	2.5
1,2,4-Trichlorobenzene	ND		ug/l	2.5
1,3,5-Trimethylbenzene	ND		ug/l	2.5
1,2,4-Trimethylbenzene	ND		ug/l	2.5
Ethyl ether	ND		ug/l	2.5
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	113		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	104		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L0706125

**Project Number:** 0061882

**Report Date:** 05/08/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B Associated sample(s): 01-04 Batch: WG279510-1 WG279510-2					
Methylene chloride	107	109	70-130	2	25
1,1-Dichloroethane	102	103	70-130	1	25
Chloroform	104	109	70-130	5	25
Carbon tetrachloride	86	92	70-130	7	25
1,2-Dichloropropane	96	102	70-130	6	25
Dibromochloromethane	74	84	70-130	13	25
1,1,2-Trichloroethane	95	99	70-130	4	25
Tetrachloroethene	101	97	70-130	4	25
Chlorobenzene	99	97	70-130	2	25
Trichlorofluoromethane	114	115	70-130	1	25
1,2-Dichloroethane	111	114	70-130	3	25
1,1,1-Trichloroethane	99	100	70-130	1	25
Bromodichloromethane	86	93	70-130	8	25
trans-1,3-Dichloropropene	84	86	70-130	2	25
cis-1,3-Dichloropropene	84	90	70-130	7	25
1,1-Dichloropropene	99	96	70-130	3	25
Bromoform	78	80	70-130	3	50
1,1,2,2-Tetrachloroethane	94	92	70-130	2	25
Benzene	101	101	70-130	0	25
Toluene	96	98	70-130	2	25
Ethylbenzene	100	101	70-130	1	25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L0706125

**Project Number:** 0061882

**Report Date:** 05/08/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B Associated sample(s): 01-04 Batch: WG279510-1 WG279510-2					
Chloromethane	100	108	70-130	8	50
Bromomethane	78	81	70-130	4	50
Vinyl chloride	102	102	70-130	0	25
Chloroethane	104	100	70-130	4	25
1,1-Dichloroethene	100	102	70-130	2	25
trans-1,2-Dichloroethene	94	91	70-130	3	25
Trichloroethene	99	98	70-130	1	25
1,2-Dichlorobenzene	93	93	70-130	0	25
1,3-Dichlorobenzene	94	93	70-130	1	25
1,4-Dichlorobenzene	94	93	70-130	1	25
Methyl tert butyl ether	90	89	70-130	1	25
p/m-Xylene	101	102	70-130	1	25
o-Xylene	99	98	70-130	1	25
cis-1,2-Dichloroethene	97	100	70-130	3	25
Dibromomethane	96	102	70-130	6	25
1,2,3-Trichloropropane	108	106	70-130	2	25
Styrene	100	98	70-130	2	25
Dichlorodifluoromethane	100	98	70-130	2	50
Acetone	109	109	70-130	0	50
Carbon disulfide	78	74	70-130	5	25
2-Butanone	100	101	70-130	1	50

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L0706125

**Project Number:** 0061882

**Report Date:** 05/08/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B Associated sample(s): 01-04 Batch: WG279510-1 WG279510-2					
4-Methyl-2-pentanone	90	92	70-130	2	50
2-Hexanone	105	99	70-130	6	50
Bromochloromethane	94	97	70-130	3	25
Tetrahydrofuran	89	91	70-130	2	25
2,2-Dichloropropane	91	92	70-130	1	50
1,2-Dibromoethane	97	98	70-130	1	25
1,3-Dichloropropane	97	100	70-130	3	25
1,1,1,2-Tetrachloroethane	80	90	70-130	12	25
Bromobenzene	92	93	70-130	1	25
n-Butylbenzene	96	92	70-130	4	25
sec-Butylbenzene	99	95	70-130	4	25
tert-Butylbenzene	98	95	70-130	3	25
o-Chlorotoluene	97	95	70-130	2	25
p-Chlorotoluene	98	96	70-130	2	25
1,2-Dibromo-3-chloropropane	73	75	70-130	3	50
Hexachlorobutadiene	90	88	70-130	2	25
Isopropylbenzene	105	108	70-130	3	25
p-Isopropyltoluene	101	99	70-130	2	25
Naphthalene	75	75	70-130	0	25
n-Propylbenzene	99	93	70-130	6	25
1,2,3-Trichlorobenzene	80	81	70-130	1	25



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L0706125

**Project Number:** 0061882

**Report Date:** 05/08/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B Associated sample(s): 01-04 Batch: WG279510-1 WG279510-2					
1,2,4-Trichlorobenzene	81	78	70-130	4	25
1,3,5-Trimethylbenzene	98	96	70-130	2	25
1,2,4-Trimethylbenzene	97	96	70-130	1	25
Ethyl ether	87	83	70-130	5	25
Isopropyl Ether	96	97	70-130	1	25
Ethyl-Tert-Butyl-Ether	96	94	70-130	2	25
Tertiary-Amyl Methyl Ether	90	91	70-130	1	25
1,4-Dioxane	102	108	70-130	6	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		111		70-130
Toluene-d8	102		101		70-130
4-Bromofluorobenzene	101		100		70-130
Dibromofluoromethane	101		103		70-130

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0706125**Project Number:** 0061882**Report Date:** 05/08/07**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information**

Cooler	Custody Seal
A	Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0706125-01A	Vial HCl preserved	A	NA	2.8C	Y	Absent	MCP-8260-04
L0706125-01B	Vial HCl preserved	A	NA	2.8C	Y	Absent	MCP-8260-04
L0706125-02A	Vial HCl preserved	A	NA	2.8C	Y	Absent	MCP-8260-04
L0706125-02B	Vial HCl preserved	A	NA	2.8C	Y	Absent	MCP-8260-04
L0706125-03A	Vial HCl preserved	A	NA	2.8C	Y	Absent	MCP-8260-04
L0706125-03B	Vial HCl preserved	A	NA	2.8C	Y	Absent	MCP-8260-04
L0706125-04A	Vial HCl preserved	A	NA	2.8C	Y	Absent	MCP-8260-04

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0061882

**Lab Number:** L0706125  
**Report Date:** 05/08/07

## 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.
- 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.
- ND - Not detected at the reported detection limit for the sample.
- RDL - Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- 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

The following data qualifiers have been identified for use under the CT DEP Reasonable Confidence Protocols.

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.

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

J - Estimated value. The analyte was tentatively identified; the quantitation is an estimation. (Tentatively identified compounds only.)

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0061882

**Lab Number:** L0706125  
**Report Date:** 05/08/07

## REFERENCES

- 60 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-III A (Revision 5). May 2004.

## LIMITATION OF LIABILITIES

Alpha Woods Hole Labs 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 Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Woods Hole Labs 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 Woods Hole Labs.

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.



05080715:09



# CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 4/27/07

ALPHA Job #: L0706125 <sup>A</sup>

WESTBORO, MA TEL: 508-898-9220  
RAYNHAM, MA TEL: 508-822-9300  
FAX: 508-898-9193 FAX: 508-822-3288

### Project Information

Project Name: Raytheon Wayland  
Project Location: Wayland MA  
Project #: 0061882  
Project Manager: J. Picard  
ALPHA Quote #:

### Report Information - Data Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

### Billing Information

Same as Client info PO #:

### Client Information

Client: ERM  
Address: 399 Boylston St 6th Floor  
Boston MA 02116  
Phone: 617-646-7800  
Fax: 617-267-6447  
Email: jeremy.picard@erm.com  
 These samples have been previously analyzed by Alpha

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)

Date Due: 5/4/07 Time:

### Regulatory Requirements/Report Limits

State /Fed Program: MA/MCP Criteria: GW-1

### MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

Yes  No Are MCP Analytical Methods Required?  
 Yes  No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS 8021C

**SAMPLE HANDLING**

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

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials			Sample Specific Comments	TOTAL # BOTTLES
		Date	Time						
6125-01	VER-20-20070426-01	4/26/07	16:00	GW	HA	2			2
-02	DEP-21-20070426-01	↓	16:20	↓	HA	2			2
-03	DUP-001-20070426-01	↓	24:00	↓	HA	2			2
-04	TB-004-20070426-01	4/26/07	21:21	LP		1			1

PLEASE ANSWER QUESTIONS ABOVE!

Container Type: V  
Preservative: B

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By: *[Signature]* Date/Time: 4/27/07 18:45

Received By: *[Signature]* Date/Time: 4/27/07 18:45

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 Payment Terms. See reverse side.