

Environmental  
Resources  
Management

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

**FILE COPY**

11 November 2008  
Reference: 0079387

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:

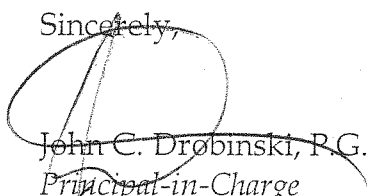
On behalf of Raytheon Company (Raytheon), Environmental Resources Management (ERM) is submitting the results of groundwater sample analyses from the Former Raytheon Facility located at 430 Boston Post Road in Wayland, Massachusetts (Site). The results are submitted pursuant to 310 CMR 40.1403(10) of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

ERM collected groundwater samples from one well (DEP-21) on portions of the Site within the boundaries of your property on 21 October 2008. The samples were submitted for laboratory analysis of volatile organic compounds. Sample analysis was conducted by Alpha Woods Hole Laboratories of Westborough, Massachusetts. This analytical data will be provided to the Massachusetts Department of Environmental Protection in the next required MCP submittal.

Ms. Phillips  
Reference: 0079387  
11 November 2008  
Page 2

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,



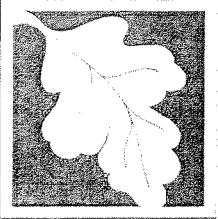
John C. Drobinski, P.G., LSP  
*Principal-in-Charge*



Jason D. Flattery  
*Project Manager*

enclosures: BWSC-123 - Notice of Environmental Sampling  
Laboratory Analytical Report

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

3

22408

**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: Town of Wayland Conservation Commission  
2. Street Address: 41 Cochituate Road  
City/Town: Wayland Zip Code: 01778

**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:

- |   |   |
|---|---|
| <input type="checkbox"/> Immediate Response Action              | <input type="checkbox"/> Phase III Feasibility Evaluation                   |
| <input type="checkbox"/> Release Abatement Measure              | <input type="checkbox"/> Phase IV Remedy Implementation Plan                |
| <input type="checkbox"/> Utility-related Abatement Measure      | <input checked="" type="checkbox"/> Phase V/Remedy Operation Status         |
| <input type="checkbox"/> Phase I Initial Site Investigation     | <input type="checkbox"/> Post-Class C Operation, Maintenance and Monitoring |
| <input type="checkbox"/> Phase II Comprehensive Site Assessment | <input type="checkbox"/> 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, MS 2-2124-01  
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:	L0815548
Client:	ERM Consulting & Engineering, Inc. 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Bahaar Massihzadegan
Project Name:	RAYTHEON- WAYLAND
Project Number:	0079387
Report Date:	10/24/08

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:** 0079387

**Lab Number:** L0815548  
**Report Date:** 10/24/08

**Alpha Sample ID**

L0815548-01

**Client ID**

DEP-21-20081021-01

**Sample Location**

WAYLAND, MA

Project Name: RAYTHEON- WAYLAND

Lab Number: L0815548

Project Number: 0079387

Report Date: 10/24/08

### 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?	N/A

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?	NO
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:** 0079387

**Lab Number:** L0815548  
**Report Date:** 10/24/08

### 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.

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.

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.

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#### MCP Related Narratives

##### Volatile Organics

In reference to question E:

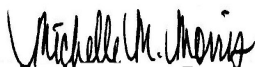
The WG340971-4/-5 LCS/LCSD recoveries associated with L0815548-01 are above the acceptance criteria for Dichlorodifluoromethane (135%/132%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported; however, all positive detects are considered to have a potentially high bias for this compound.

In reference to question F:

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

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

Authorized Signature:



Title: Technical Director/Representative

Date: 10/24/08



# ORGANICS

# VOLATILES

**Project Name:** RAYTHEON- WAYLAND**Lab Number:** L0815548**Project Number:** 0079387**Report Date:** 10/24/08**SAMPLE RESULTS**

Lab ID: L0815548-01  
 Client ID: DEP-21-20081021-01  
 Sample Location: WAYLAND, MA  
 Matrix: Water  
 Analytical Method: 60,8260B  
 Analytical Date: 10/23/08 18:51  
 Analyst: GK

Date Collected: 10/21/08 13:15  
 Date Received: 10/21/08  
 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	1.9		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	13		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:** L0815548**Project Number:** 0079387**Report Date:** 10/24/08**SAMPLE RESULTS**

Lab ID: L0815548-01

Date Collected: 10/21/08 13:15

Client ID: DEP-21-20081021-01

Date Received: 10/21/08

Sample Location: WAYLAND, MA

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	107		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	112		70-130

**Project Name:** RAYTHEON- WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0815548  
**Report Date:** 10/24/08

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

Analytical Method: 60,8260B  
Analytical Date: 10/23/08 12:13  
Analyst: GK

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B for sample(s): 01 Batch: WG340971-6				
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
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
Bromoform	ND		ug/l	2.0
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50
Chloromethane	ND		ug/l	2.5
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
cis-1,2-Dichloroethene	ND		ug/l	0.50
Dichlorodifluoromethane	ND		ug/l	5.0
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
o-Chlorotoluene	ND		ug/l	2.5

Project Name: RAYTHEON- WAYLAND

Lab Number: L0815548

Project Number: 0079387

Report Date: 10/24/08

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

Analytical Method: 60,8260B  
 Analytical Date: 10/23/08 12:13  
 Analyst: GK

Parameter	Result	Qualifier	Units	RDL
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Volatile Organics by MCP 8260B for sample(s): 01 Batch: WG340971-6

p-Chlorotoluene	ND		ug/l	2.5
Hexachlorobutadiene	ND		ug/l	0.60
1,2,4-Trichlorobenzene	ND		ug/l	2.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	106		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON- WAYLAND

**Lab Number:** L0815548

**Project Number:** 0079387

**Report Date:** 10/24/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B Associated sample(s): 01 Batch: WG340971-4 WG340971-5					
Methylene chloride	99	96	70-130	3	25
1,1-Dichloroethane	90	88	70-130	2	25
Chloroform	99	100	70-130	1	25
Carbon tetrachloride	81	82	70-130	1	25
1,2-Dichloropropane	86	88	70-130	2	25
Dibromochloromethane	89	89	70-130	0	25
1,1,2-Trichloroethane	88	90	70-130	2	25
Tetrachloroethene	92	90	70-130	2	25
Chlorobenzene	91	91	70-130	0	25
1,2-Dichloroethane	96	99	70-130	3	25
1,1,1-Trichloroethane	87	89	70-130	2	25
Bromodichloromethane	90	92	70-130	2	25
trans-1,3-Dichloropropene	82	83	70-130	1	25
cis-1,3-Dichloropropene	85	88	70-130	3	25
Bromoform	84	86	70-130	2	50
1,1,2,2-Tetrachloroethane	84	85	70-130	1	25
Chloromethane	91	87	70-130	4	50
Vinyl chloride	97	93	70-130	4	25
Chloroethane	89	88	70-130	1	25
1,1-Dichloroethene	97	92	70-130	5	25
trans-1,2-Dichloroethene	91	91	70-130	0	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON- WAYLAND

**Lab Number:** L0815548

**Project Number:** 0079387

**Report Date:** 10/24/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B Associated sample(s): 01 Batch: WG340971-4 WG340971-5					
Trichloroethene	92	92	70-130	0	25
1,2-Dichlorobenzene	90	91	70-130	1	25
1,3-Dichlorobenzene	94	96	70-130	2	25
1,4-Dichlorobenzene	93	94	70-130	1	25
cis-1,2-Dichloroethene	88	87	70-130	1	25
Dichlorodifluoromethane	135	132	70-130	2	50
1,2-Dibromoethane	93	91	70-130	2	25
1,3-Dichloropropane	89	89	70-130	0	25
1,1,1,2-Tetrachloroethane	90	90	70-130	0	25
o-Chlorotoluene	83	84	70-130	1	25
p-Chlorotoluene	85	86	70-130	1	25
Hexachlorobutadiene	84	94	70-130	11	25
1,2,4-Trichlorobenzene	87	92	70-130	6	25

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		106		70-130
Toluene-d8	95		94		70-130
4-Bromofluorobenzene	90		89		70-130
Dibromofluoromethane	110		109		70-130



### Matrix Spike Analysis Batch Quality Control

**Project Name:** RAYTHEON- WAYLAND

**Lab Number:** L0815548

**Project Number:** 0079387

**Report Date:** 10/24/08

Parameter	Native Sample	MS Added	MS Found	MS		MSD		Recovery Limits	RPD	RPD Limits
				%Recovery	MSD Found	%Recovery				
Volatile Organics by MCP 8260B Associated sample(s): 01    QC Batch ID: WG340971-7 WG340971-8    QC Sample: L0815545-01    Client ID: MS Sample										
Methylene chloride	ND	10	10	106	9.8	98	70-130	8	30	
1,1-Dichloroethane	ND	10	10	100	9.5	95	70-130	5	30	
Chloroform	ND	10	12	115	11	110	70-130	4	30	
Carbon tetrachloride	ND	10	9.9	99	9.5	95	70-130	4	30	
1,2-Dichloropropane	ND	10	10	100	9.6	96	70-130	4	30	
Dibromochloromethane	ND	10	10	105	10	101	70-130	4	30	
1,1,2-Trichloroethane	ND	10	11	106	10	100	70-130	6	30	
Tetrachloroethene	2.3	10	13	109	12	100	70-130	9	30	
Chlorobenzene	ND	10	11	106	9.8	98	70-130	8	30	
1,2-Dichloroethane	ND	10	12	117	11	112	70-130	4	30	
1,1,1-Trichloroethane	ND	10	11	107	10	103	70-130	4	30	
Bromodichloromethane	ND	10	11	110	10	103	70-130	7	30	
trans-1,3-Dichloropropene	ND	10	9.3	93	8.8	88	70-130	6	30	
cis-1,3-Dichloropropene	ND	10	9.7	97	9.2	92	70-130	5	30	
Bromoform	ND	10	9.9	99	9.5	95	70-130	4	30	
1,1,2,2-Tetrachloroethane	ND	10	10	101	9.6	96	70-130	5	30	
Chloromethane	ND	10	9.2	92	9.6	96	70-130	4	30	
Vinyl chloride	ND	10	9.6	96	10	101	70-130	5	30	
Chloroethane	ND	10	8.5	85	8.2	82	70-130	4	30	
1,1-Dichloroethene	ND	10	10	103	10	103	70-130	0	30	
trans-1,2-Dichloroethene	ND	10	10	103	10	100	70-130	3	30	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** RAYTHEON- WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0815548  
**Report Date:** 10/24/08

Parameter	Native Sample	MS Added	MS Found	MS		MSD		Recovery Limits	RPD	RPD Limits
				%Recovery	MSD Found	%Recovery				
Volatile Organics by MCP 8260B Associated sample(s): 01    QC Batch ID: WG340971-7 WG340971-8    QC Sample: L0815545-01    Client ID: MS Sample										
Trichloroethene	1.2	10	12	105	11	101	70-130	4	30	
1,2-Dichlorobenzene	ND	10	10	102	9.5	95	70-130	7	30	
1,3-Dichlorobenzene	ND	10	10	105	9.8	98	70-130	7	30	
1,4-Dichlorobenzene	ND	10	10	104	9.8	98	70-130	6	30	
cis-1,2-Dichloroethene	ND	10	10	100	9.5	95	70-130	5	30	
Dichlorodifluoromethane	ND	10	13	130	14	138	70-130	6	30	
1,2-Dibromoethane	ND	10	11	111	10	105	70-130	6	30	
1,3-Dichloropropane	ND	10	10	106	9.9	99	70-130	7	30	
1,1,1,2-Tetrachloroethane	ND	10	10	104	9.8	98	70-130	6	30	
o-Chlorotoluene	ND	10	9.5	95	8.8	88	70-130	8	30	
p-Chlorotoluene	ND	10	9.5	95	9.0	90	70-130	5	30	
Hexachlorobutadiene	ND	10	9.3	93	9.4	94	70-130	1	30	
1,2,4-Trichlorobenzene	ND	10	9.8	98	9.2	92	70-130	6	30	

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
1,2-Dichloroethane-d4	104		108		70-130
4-Bromofluorobenzene	86		89		70-130
Dibromofluoromethane	109		110		70-130
Toluene-d8	94		93		70-130

**Project Name:** RAYTHEON- WAYLAND**Lab Number:** L0815548**Project Number:** 0079387**Report Date:** 10/24/08**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
L0815548-01A	Vial HCl preserved	A	N/A	3C	Y	Absent	MCP-8260-04(14)
L0815548-01B	Vial HCl preserved	A	N/A	3C	Y	Absent	MCP-8260-04(14)

\*Hold days indicated by values in parentheses

**Project Name:** RAYTHEON- WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0815548  
**Report Date:** 10/24/08

## 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.  
 NI - Not Ignitable.  
 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.  
 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

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.)

### Standard Qualifiers

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

Report Format: Not Specified



**Project Name:** RAYTHEON- WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0815548  
**Report Date:** 10/24/08

## 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-IIIA (Revision 5). May 2004.

## 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 Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha 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.



