26 October 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 on 4 October 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 Woods Hole 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 (username = raytheon, password = wayland).

Environmental Resources Management

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



Mr. Monahan Reference: 0061882 26 October 2007 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

Jeremy J. Picard, P.G.

Project Manager

Enclosures: BWSC-123 - Notice of Environmental Sampling

Alpha Woods Hole Laboratories 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
Α.	A. The address of the disposal site related to this	s Notice and Release Tracking Number (provided above):
	1. Street Address:	
	City/Town: Zip	
_		
	B. This notice is being provided to the following	
1.	1. Name:	<del></del>
2.	2. Street Address:	
	City/Town: Zip	Code:
C.	C. This notice is being given to inform its recipie	nt (the party listed in Section B):
	1. That environmental sampling will be/has b	een conducted at property owned by the recipient of this notice.
	2. Of the results of environmental sampling c	conducted at property owned by the recipient of this notice.
	<ol><li>Check to indicate if the analytical results a the environmental sampling must be attached</li></ol>	are attached. (If item 2. above is checked, the analytical results from d to this notice.)
D.	D. Location of the property where the environme	
1.	Street Address:	
	City/Town: Zip	Code:
2.	2. MCP phase of work during which the sampling wil	ll be/has been conducted:
	Immediate Response Action	Phase III Feasibility Evaluation
	Release Abatement Measure Utility-related Abatement Measure	Phase IV Remedy Implementation Plan 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.	3. Description of property where sampling will be/has	
	residential commerical indu	ustrial school/playground Other
4.	4. Description of the sampling locations and types (e	(specify) e.g., soil, groundwater) to the extent known at the time of this notice.
	E. Contact information related to the party provid Contact Name:	ing this notice:
	Street Address:	<del></del>
		p Code:
To		mail:

### 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 <a href="http://www.mass.gov/dep/cleanup/oview.htm">http://www.mass.gov/dep/cleanup/oview.htm</a>. 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 <a href="http://mass.gov/dep/about/region/schedule.htm">http://mass.gov/dep/about/region/schedule.htm</a> 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: L0714851

Client: ERM-New England

399 Boylston Street

6th Floor

Boston, MA 02116

ATTN: Jeremy Picard

Project Name: RAYTHEON WAYLAND

Project Number: 0061882 Report Date: 10/15/07

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.

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



Project Name: RAYTHEON WAYLAND Lab Number: L0714851

**Project Number:** 0061882 **Report Date:** 10/15/07

Alpha Sample ID	Client ID	Sample Location
L0714851-01	DEP-20-20071004-01	WAYLAND, MA
L0714851-02	DEP-21-20071004-01	WAYLAND, MA

Project Name: RAYTHEON WAYLAND Lab Number: L0714851

Project Number: 0061882 Report Date: 10/15/07

### **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 a	ffirmative response to questions A, B, C & D is required for "Presumptive Certainty" status	
Α	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
В	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
С	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 re	sponse to questions E and F is required for "Presumptive Certainty" status	
Е	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.



L0714851

Project Name: RAYTHEON WAYLAND Lab Number:

### **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/Representative

ALPHA WOODS HOLE LABS

Date: 10/15/07

## **ORGANICS**



## **VOLATILES**



Project Name: RAYTHEON WAYLAND Lab Number: L0714851

Project Number: 0061882 Report Date: 10/15/07

### **SAMPLE RESULTS**

Lab ID: L0714851-01

Client ID: DEP-20-20071004-01

Sample Location: WAYLAND, MA

Matrix: Water
Anaytical Method: 60,8260B
Analytical Date: 10/14/07 01:33

Analyst: RY

Date Collected: 10/04/07 08:20

Date Received: 10/05/07 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Volatile Organics by MCP 8260B					
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
2,2-Dichloropropane	ND		ug/l	2.5	1
1,2-Dibromoethane	ND		ug/l	2.0	1
1,3-Dichloropropane	ND		ug/l	2.5	1



Project Name: RAYTHEON WAYLAND Lab Number: L0714851

Project Number: 0061882 Report Date: 10/15/07

### **SAMPLE RESULTS**

Lab ID: Date Collected: 10/04/07 08:20

Client ID: DEP-20-20071004-01 Date Received: 10/05/07
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Volatile Organics by MCP 8260B					
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	1
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

			Acceptance	
Surrogate	% Recovery	Qualifier	Criteria	
1,2-Dichloroethane-d4	112		70-130	
Toluene-d8	93		70-130	
4-Bromofluorobenzene	106		70-130	
Dibromofluoromethane	112		70-130	



Project Name: RAYTHEON WAYLAND Lab Number: L0714851

Project Number: 0061882 Report Date: 10/15/07

### **SAMPLE RESULTS**

Lab ID: L0714851-02

Client ID: DEP-21-20071004-01

Sample Location: WAYLAND, MA

Matrix: Water
Anaytical Method: 60,8260B
Analytical Date: 10/14/07 02:03

Analyst: RY

Date Collected: 10/04/07 08:30

Date Received: 10/05/07 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	<b>Dilution Factor</b>
Volatile Organics by MCP 8260B					
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	1.5		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	21		ug/l	0.50	1
Dichlorodifluoromethane	ND		ug/l	5.0	1
2,2-Dichloropropane	ND		ug/l	2.5	1
1,2-Dibromoethane	ND		ug/l	2.0	1
1,3-Dichloropropane	ND		ug/l	2.5	1

Project Name: RAYTHEON WAYLAND Lab Number: L0714851

Project Number: 0061882 Report Date: 10/15/07

### **SAMPLE RESULTS**

Lab ID: Date Collected: 10/04/07 08:30

Client ID: DEP-21-20071004-01 Date Received: 10/05/07
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	<b>Dilution Factor</b>
Volatile Organics by MCP 8260B					
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	1
o-Chlorotoluene	ND		ug/l 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

			Acceptance	
Surrogate	% Recovery	Qualifier	<b>Criteria</b>	
1,2-Dichloroethane-d4	108		70-130	
Toluene-d8	92		70-130	
4-Bromofluorobenzene	103		70-130	
Dibromofluoromethane	107		70-130	



Project Name: RAYTHEON WAYLAND Lab Number: L0714851

**Project Number:** 0061882 **Report Date:** 10/15/07

Method Blank Analysis Batch Quality Control

Analytical Method: 60,8260B Analytical Date: 10/13/07 17:03

Analyst: RY

arameter	Result	Qualifie	r U	nits	RDL
olatile Organics by MCP 8260B fo	r sample(s):	01-02	Batch:	WG	298054-3
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 WAYLANDLab Number:L0714851

**Project Number:** 0061882 **Report Date:** 10/15/07

### Method Blank Analysis Batch Quality Control

Analytical Method: 60,8260B Analytical Date: 10/13/07 17:03

Analyst: RY

arameter	Result	Qualifie	r U	nits	RDL
olatile Organics by MCP	8260B for sample(s):	01-02	Batch:	WG	298054-3
Methyl tert butyl ether	ND		ı	ug/l	1.0
p/m-Xylene	ND		ı	ug/l	1.0
o-Xylene	ND		ı	ug/l	1.0
cis-1,2-Dichloroethene	ND		ı	ug/l	0.50
Dibromomethane	ND		ı	ug/l	5.0
1,2,3-Trichloropropane	ND		ı	ug/l	5.0
Styrene	ND		ı	ug/l	1.0
Dichlorodifluoromethane	ND		ı	ug/l	5.0
Acetone	ND		ı	ug/l	5.0
Carbon disulfide	ND		ı	ug/l	5.0
2-Butanone	ND		ı	ug/l	5.0
4-Methyl-2-pentanone	ND		ı	ug/l	5.0
2-Hexanone	ND		ı	ug/l	5.0
Bromochloromethane	ND		ı	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		ı	ug/l	0.50
Bromobenzene	ND		ı	ug/l	2.5
n-Butylbenzene	ND		ı	ug/l	0.50
sec-Butylbenzene	ND		ı	ug/l	0.50
tert-Butylbenzene	ND		ı	ug/l	2.5
o-Chlorotoluene	ND		ı	ug/l	2.5
p-Chlorotoluene	ND		ı	ug/l	2.5
1,2-Dibromo-3-chloropropane	ND		ı	ug/l	2.5
Hexachlorobutadiene	ND		ı	ug/l	0.60
Isopropylbenzene	ND		ı	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 **Lab Number:** L0714851

**Project Number:** 0061882 **Report Date:** 10/15/07

Method Blank Analysis Batch Quality Control

Analytical Method: 60,8260B Analytical Date: 10/13/07 17:03

Analyst: RY

Volatile Organics by MCP 8260B for sample(s): 01-02 Batch: WG298054-3
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

		Acceptance
Surrogate	%Recovery	Qualifier Criteria
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	104	70-130
Dibromofluoromethane	107	70-130



Project Name: RAYTHEON WAYLAND

Project Number: 0061882

Lab Number: L0714851

**Report Date:** 10/15/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B Associated	sample(s): 01-02	Batch: WG298054-	1 WG298054-2		
Methylene chloride	88	79	70-130	11	25
1,1-Dichloroethane	87	80	70-130	8	25
Chloroform	95	86	70-130	10	25
Carbon tetrachloride	108	98	70-130	10	25
1,2-Dichloropropane	88	82	70-130	7	25
Dibromochloromethane	88	79	70-130	11	25
1,1,2-Trichloroethane	81	74	70-130	9	25
Tetrachloroethene	91	82	70-130	10	25
Chlorobenzene	86	79	70-130	8	25
Trichlorofluoromethane	114	103	70-130	10	25
1,2-Dichloroethane	105	95	70-130	10	25
1,1,1-Trichloroethane	101	93	70-130	8	25
Bromodichloromethane	100	91	70-130	9	25
trans-1,3-Dichloropropene	82	76	70-130	8	25
cis-1,3-Dichloropropene	95	84	70-130	12	25
1,1-Dichloropropene	90	81	70-130	11	25
Bromoform	88	80	70-130	10	50
1,1,2,2-Tetrachloroethane	75	70	70-130	7	25
Benzene	88	79	70-130	11	25
Toluene	80	72	70-130	11	25
Ethylbenzene	88	78	70-130	12	25



Project Name: RAYTHEON WAYLAND

Project Number: 0061882

Lab Number: L0714851

**Report Date:** 10/15/07

Parameter	LCS %Recovery	9/	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B A	ssociated sample(s): 01-	-02 Batch:	WG298054-1	WG298054-2		
Chloromethane	82		78	70-130	5	50
Bromomethane	89		87	70-130	2	50
Vinyl chloride	84		78	70-130	7	25
Chloroethane	100		91	70-130	9	25
1,1-Dichloroethene	95		85	70-130	11	25
trans-1,2-Dichloroethene	90		77	70-130	16	25
Trichloroethene	97		86	70-130	12	25
1,2-Dichlorobenzene	88		78	70-130	12	25
1,3-Dichlorobenzene	92		80	70-130	14	25
1,4-Dichlorobenzene	89		80	70-130	11	25
Methyl tert butyl ether	86		77	70-130	11	25
p/m-Xylene	89		81	70-130	9	25
o-Xylene	89		82	70-130	8	25
cis-1,2-Dichloroethene	90		81	70-130	11	25
Dibromomethane	100		90	70-130	11	25
1,2,3-Trichloropropane	90		79	70-130	13	25
Styrene	92		86	70-130	7	25
Dichlorodifluoromethane	104		93	70-130	11	50
Acetone	203		106	70-130	63	50
Carbon disulfide	98		87	70-130	12	25
2-Butanone	110		91	70-130	19	50



Project Name: RAYTHEON WAYLAND

Project Number: 0061882

Lab Number: L0714851

**Report Date:** 10/15/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B Associated	sample(s): 01-02	Batch: WG298054-	1 WG298054-2		
4-Methyl-2-pentanone	101	88	70-130	14	50
2-Hexanone	92	79	70-130	15	50
Bromochloromethane	98	89	70-130	10	25
Tetrahydrofuran	82	71	70-130	14	25
2,2-Dichloropropane	106	94	70-130	12	50
1,2-Dibromoethane	84	76	70-130	10	25
1,3-Dichloropropane	80	72	70-130	11	25
1,1,1,2-Tetrachloroethane	93	84	70-130	10	25
Bromobenzene	87	77	70-130	12	25
n-Butylbenzene	98	84	70-130	15	25
sec-Butylbenzene	92	82	70-130	11	25
tert-Butylbenzene	89	79	70-130	12	25
o-Chlorotoluene	83	74	70-130	11	25
p-Chlorotoluene	84	77	70-130	9	25
1,2-Dibromo-3-chloropropane	86	73	70-130	16	50
Hexachlorobutadiene	96	79	70-130	19	25
Isopropylbenzene	100	91	70-130	9	25
p-Isopropyltoluene	98	87	70-130	12	25
Naphthalene	78	71	70-130	9	25
n-Propylbenzene	84	76	70-130	10	25
1,2,3-Trichlorobenzene	84	77	70-130	9	25



Project Name: RAYTHEON WAYLAND

Project Number: 0061882

Lab Number: L07

L0714851 10/15/07

Report Date:

rameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
platile Organics by MCP 8260B Associate	ed sample(s): 01-02	Batch: WG298054-1	WG298054-2		
1,2,4-Trichlorobenzene	87	78	70-130	11	25
1,3,5-Trimethylbenzene	88	78	70-130	12	25
1,2,4-Trimethylbenzene	92	81	70-130	13	25
Ethyl ether	82	72	70-130	13	25
Isopropyl Ether	78	71	70-130	9	25
Ethyl-Tert-Butyl-Ether	81	75	70-130	8	25
Tertiary-Amyl Methyl Ether	86	78	70-130	10	25
1,4-Dioxane	124	119	70-130	4	50

Surrogate	LCS %Recovery Qualifier	LCSD %Recovery Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115	112	70-130
Toluene-d8	92	92	70-130
4-Bromofluorobenzene	94	91	70-130
Dibromofluoromethane	109	109	70-130



Project Name: RAYTHEON WAYLAND Lab Number: L0714851

Project Number: 0061882 Report Date: 10/15/07

### **Sample Receipt and Container Information**

Were project specific reporting limits specified?

**Cooler Information** 

Cooler Custody Seal A Absent

### **Container Information**

Container ID	Container Type	Cooler	рН	Temp	Pres	Seal	Analysis
L0714851-01A	Vial HCl preserved	Α	N/A	2C	Υ	Absent	MCP-8260-04
L0714851-01B	Vial HCl preserved	Α	N/A	2C	Υ	Absent	MCP-8260-04
L0714851-02A	Vial HCl preserved	Α	N/A	2C	Υ	Absent	MCP-8260-04
L0714851-02B	Vial HCI preserved	Α	N/A	2C	Υ	Absent	MCP-8260-04

### **Container Comments**

 L0714851-01A
 Temp Probe

 L0714851-01B
 Temp Probe

 L0714851-02A
 Temp Probe

 L0714851-02B
 Temp Probe



Project Name:RAYTHEON WAYLANDLab Number:L0714851Project Number:0061882Report Date:10/15/07

#### **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.

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 WAYLANDLab Number:L0714851Project Number:0061882Report Date:10/15/07

### **REFERENCES**

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 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.



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