23 September 2016 Reference: 0321744

Mr. Tim Skehan c/o Russell's Garden Center 397 Boston Post Road Wayland, MA 01778

RE: Transmittal of Groundwater Analytical Data

Former Raytheon Facility 430 Boston Post Road, Wayland, Massachusetts

Dear Mr. Skehan:

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 three monitoring wells on your property in August 2016. Samples were submitted to TestAmerica Laboratories, Inc. of Westfield, Massachusetts. Analytical results are attached to this letter.

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 Public Involvement Plan files, or at http://raytheon.erm.com/home.htm.

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

Environmental Resources Management

One Beacon Street, 5th Floor Boston, MA 02108 +1 617 646 7800 +1 617 267 6447 (fax)

http://www.erm.com



Sincerely,

John C. Drobinski, P.G., LSP

Principal-in-Charge

Lyndsey Colburn, P.G. *Principal Consultant*

Lyley Collins

enclosures: BWSC-123 - Notice of Environmental Sampling

Laboratory Analytical Reports

cc: Jonathan Hone, Raytheon Company

PIP Repositories



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

BWSC123

This Notice is Related to: Release Tracking Number

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NOTICE OF ENVIRONMENTAL SAMPLING

	As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan
Α.	The address of the disposal site related to this Notice and Release Tracking Number (provided above):
1.	Street Address:
	City/Town: Zip Code:
В.	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 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-Temporary Solution Operation, Maintenance and Monitoring Other (specify)
3.	Description of property where sampling will be/has been conducted:
	residential commercial industrial school/playground Other(specify)
	Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the ne of this notice.
	Contact information related to the party providing this notice: ontact Name:
	reet Address:
	ty/Town: Zip Code:
	plenhone: Email:

Revised: 5/30/2014 Page 1 of 2



Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

BW	SC ₁	23
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This Noti	ce is Rel	ated to:
Release	Tracking	Number

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NOTICE OF ENVIRONMENTAL SAMPLING

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

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

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

THE PERSON(S) PROVIDING THIS NOTICE

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

PURPOSE OF THIS NOTICE

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

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

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

FOR MORE INFORMATION

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

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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

TestAmerica Job ID: 480-104993-1 Client Project/Site: IDS Wayland

For:

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

Attn: Lyndsey Colburn Denisl L'Higlia

Authorized for release by: 8/29/2016 11:46:29 AM

Denise Giglia, Project Management Assistant II denise.giglia@testamericainc.com

Designee for

Becky Mason, Project Manager II (413)572-4000

becky.mason@testamericainc.com

----- LINKS -----

Review your project results through
Total Access

Have a Question?



Visit us at: www.testamericainc.com

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

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

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

Project/Site: IDS Wayland

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Definitions/Glossary

Client: ERM-Northeast Project/Site: IDS Wayland TestAmerica Job ID: 480-104993-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
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* LCS or LCSD is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
п	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control
RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TestAmerica Buffalo

Case Narrative

Client: ERM-Northeast Project/Site: IDS Wayland TestAmerica Job ID: 480-104993-1

Job ID: 480-104993-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-104993-1

Receipt

The samples were received on 8/25/2016 2:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

GC/MS VOA

Method 8260C: At the request of the client, an abbreviated MCP compound list was reported for this job.

Method 8260C: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: MW-217S-20160824-01 (480-104993-1), MW-217M-20160824-01 (480-104993-2), MW-217D-20160824-01 (480-104993-3) and (480-104990-A-9). The requested target analyte list includes 2-chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

Method 8260C: The continuing calibration verification (CCV) for Carbon tetrachloride associated with batch 480-317749 recovered outside the MCP control limit criteria. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. The following samples were affected: MW-217S-20160824-01 (480-104993-1), MW-217M-20160824-01 (480-104993-2), MW-217D-20160824-01 (480-104993-3) and (480-104990-A-9).

Method 8260C: The laboratory control sample duplicate (LCSD) for batch 480-317749 exceeded control limits for the following analytes: Carbon tetrachloride. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples were affected: MW-217S-20160824-01 (480-104993-1), MW-217M-20160824-01 (480-104993-2), MW-217D-20160824-01 (480-104993-3) and (480-104990-A-9).

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

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MassDEP Analytical Protocol Certification Form							
Laboratory Name: TestAmerica Buffalo Project #: 480-1049					993		
Proje	ect Location:	IDS W	ayland	RTN:			
This f	form provide	s certifications for	the following dat	a set: list Laborato	ry Sample ID Number(s):		
480-1	04993 [1-3]						
Matric	ces: Ly	Groundwater/Surfa	ce Water \square	Soil/Sediment	Drinking Water	U Other:	
		(check all that ap	<u> </u>				
8260	_	7470/7471 Hg	Mass DEP VPH	8081 Pesticides	7196 Hex Cr	Mass DEP APH	
CAM		CAM III B	Mass DEP EPH	CAM V B	CAM VI B	CAM IX A	
6270 CAM	SVOC	CAM III C	CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B	
OAW		OAWIN 0	OAWIY B	9014 Total		OAW IX B	
	Metals	6020 Metals	8082 PCB	Cyanide/PAC	6860 Perchlorate		
CAM	III A	CAM III D	CAM V A	CAM VI A	CAM VIII B		
	Affirmative	Responses to Que	estions A through	F are required for "	Presumptive Certainty" st	atus	
۸		•			d on the Chain-of-Custody,		
Α	properly pres method hold	,	mperature) in the fig	eld or laboratory, and	d prepared/analyzed within	□ Yes □ No	
	·		nd all associated O	C requirements spec	cified in the selected CAM		
В	protocol(s) for		na an associated Q	o requirements spec	Sinca in the selected OAW	y Yes ☐ No	
С			-	-	ecified in the selected CAM	Yes No	
				ce standard non-cor		L∡ Yes L No	
D					ecified in CAM VII A, nd Reporting of Analytical		
	Data"?					Yes No	
_			-	ethod conducted with	•	Yes No	
Ε	modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?					Yes ☐ No	
			<u>'</u>	, ,	onformances identified and	Tes NO	
F		•	•	" responses to Ques		yes □ No	
	Respons	ses to Questions (6, H and I below ar	e required for "Pre	sumptive Certainty" status	5	
G	Were the repprotocol(s)?	porting limits at or be	elow all CAM report	ing limits specified in	n the selected CAM	□x Yes □ No¹	
Data		Pata that achieve "Pr	esumptive Certainty	r" status may not ned	essarily meet the data usabi		
repres	sentativeness	requirements descr	ibed in 310 CMR 40.	1056 (2)(k) and WCS	-07-350		
Н	Were all QC	performance stand	lards specified in th	e CAM protocol(s) a	chieved?	Yes X No1	
l	l Were results reported for the complete analyte list specified in the selected CAM protocol(s)? ☐ Yes ☐ X No¹						
All negative responses must be addressed in an attached laboratory narrative.							
l, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.							
	Signature: Project Manager Assistant II						
Signa	nature: Position: Project Manager Assistant II						
Printe	ed Name:	Denise	L. Giglia	Date:	8/29/16 1	1:40	

Detection Summary

Client: ERM-Northeast Project/Site: IDS Wayland

Client Sample ID: MW-217S-20160824-01

TestAmerica Job ID: 480-104993-1

Lab Sample ID: 480-104993-1

No Detections.

Client Sample ID: MW-217M-20160824-01 Lab Sample ID: 480-104993-2

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
1,1-Dichloroethane	2.6	1.0	ug/L		8260C	Total/NA
1,2-Dichlorobenzene	1.5	1.0	ug/L	1	8260C	Total/NA
cis-1,2-Dichloroethene	1.3	1.0	ug/L	1	8260C	Total/NA
Trichloroethene	8.0	1.0	ug/L	1	8260C	Total/NA

Client Sample ID: MW-217D-20160824-01 Lab Sample ID: 480-104993-3

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

This Detection Summary does not include radiochemical test results.

TestAmerica Job ID: 480-104993-1

Lab Sample ID: 480-104993-1

Client: ERM-Northeast Project/Site: IDS Wayland

Client Sample ID: MW-217S-20160824-01

Date Collected: 08/24/16 10:25 Matrix: Water

Date Received: 08/25/16 02:00

Analyte	Result	Qualifier	RL	MDL U	Jnit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	u	ıg/L			08/26/16 04:19	1
1,1,1-Trichloroethane	ND		1.0	u	ıg/L			08/26/16 04:19	1
1,1,2,2-Tetrachloroethane	ND		0.50	u	ıg/L			08/26/16 04:19	1
1,1,2-Trichloroethane	ND		1.0	u	ıg/L			08/26/16 04:19	1
1,1-Dichloroethane	ND		1.0	u	ıg/L			08/26/16 04:19	1
1,1-Dichloroethene	ND		1.0	u	ıg/L			08/26/16 04:19	1
1,2,3-Trichloropropane	ND		1.0	u	ıg/L			08/26/16 04:19	1
1,2-Dichlorobenzene	ND		1.0	u	ıg/L			08/26/16 04:19	1
1,2-Dichloroethane	ND		1.0	u	ıg/L			08/26/16 04:19	1
1,2-Dichloropropane	ND		1.0	u	ıg/L			08/26/16 04:19	1
1,3-Dichlorobenzene	ND		1.0	u	ıg/L			08/26/16 04:19	1
1,4-Dichlorobenzene	ND		1.0	u	ıg/L			08/26/16 04:19	1
2-Chloroethyl vinyl ether	ND		10	u	ıg/L			08/26/16 04:19	1
Bromobenzene	ND		1.0	u	ıg/L			08/26/16 04:19	1
Bromoform	ND		1.0	u	ıg/L			08/26/16 04:19	1
Bromomethane	ND		2.0	u	ıg/L			08/26/16 04:19	1
Carbon tetrachloride	ND	*	1.0	u	ıg/L			08/26/16 04:19	1
Chlorobenzene	ND		1.0	u	ıg/L			08/26/16 04:19	1
Chlorodibromomethane	ND		0.50	u	ıg/L			08/26/16 04:19	1
Chloroethane	ND		2.0	u	ıg/L			08/26/16 04:19	1
Chloroform	ND		1.0	u	ıg/L			08/26/16 04:19	1
Chloromethane	ND		2.0	u	ıg/L			08/26/16 04:19	1
cis-1,2-Dichloroethene	ND		1.0	u	ıg/L			08/26/16 04:19	1
Dibromomethane	ND		1.0	u	ıg/L			08/26/16 04:19	1
Dichlorodifluoromethane	ND		1.0	u	ıg/L			08/26/16 04:19	1
Methylene Chloride	ND		1.0	u	ıg/L			08/26/16 04:19	1
Tetrachloroethene	ND		1.0	u	ıg/L			08/26/16 04:19	1
trans-1,3-Dichloropropene	ND		0.40	u	ıg/L			08/26/16 04:19	1
Trichloroethene	ND		1.0	u	ıg/L			08/26/16 04:19	1
Trichlorofluoromethane	ND		1.0	u	ıg/L			08/26/16 04:19	1
Vinyl chloride	ND		1.0	u	ıg/L			08/26/16 04:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		70 - 130			_		08/26/16 04:19	1
Toluene-d8 (Surr)	91		70 - 130					08/26/16 04:19	1
4-Bromofluorobenzene (Surr)	99		70 - 130					08/26/16 04:19	1

Client Sample ID: MW-217M-20160824-01

Lab Sample ID: 480-104993-2 Date Collected: 08/24/16 10:35 **Matrix: Water**

Date Received: 08/25/16 02:00

Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ND	1.0		ug/L			08/26/16 04:42	1
ND	1.0		ug/L			08/26/16 04:42	1
ND	0.50		ug/L			08/26/16 04:42	1
ND	1.0		ug/L			08/26/16 04:42	1
2.6	1.0		ug/L			08/26/16 04:42	1
ND	1.0		ug/L			08/26/16 04:42	1
ND	1.0		ug/L			08/26/16 04:42	1
	ND ND ND ND 2.6 ND	ND 1.0 ND 1.0 ND 0.50 ND 1.0 2.6 1.0 ND 1.0	ND 1.0 ND 1.0 ND 0.50 ND 1.0 2.6 1.0 ND 1.0	ND 1.0 ug/L ND 1.0 ug/L ND 0.50 ug/L ND 1.0 ug/L 2.6 1.0 ug/L ND 1.0 ug/L	ND 1.0 ug/L ND 1.0 ug/L ND 0.50 ug/L ND 1.0 ug/L 2.6 1.0 ug/L ND 1.0 ug/L	ND 1.0 ug/L ND 1.0 ug/L ND 0.50 ug/L ND 1.0 ug/L 2.6 1.0 ug/L ND 1.0 ug/L	ND 1.0 ug/L 08/26/16 04:42 ND 1.0 ug/L 08/26/16 04:42 ND 0.50 ug/L 08/26/16 04:42 ND 1.0 ug/L 08/26/16 04:42 2.6 1.0 ug/L 08/26/16 04:42 ND 1.0 ug/L 08/26/16 04:42 ND 1.0 ug/L 08/26/16 04:42

TestAmerica Buffalo

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TestAmerica Job ID: 480-104993-1

Client: ERM-Northeast Project/Site: IDS Wayland

Client Sample ID: MW-217M-20160824-01

Lab Sample ID: 480-104993-2 Date Collected: 08/24/16 10:35 Matrix: Water

Date Received: 08/25/16 02:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	1.5		1.0		ug/L			08/26/16 04:42	1
1,2-Dichloroethane	ND		1.0		ug/L			08/26/16 04:42	1
1,2-Dichloropropane	ND		1.0		ug/L			08/26/16 04:42	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/26/16 04:42	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/26/16 04:42	1
2-Chloroethyl vinyl ether	ND		10		ug/L			08/26/16 04:42	1
Bromobenzene	ND		1.0		ug/L			08/26/16 04:42	1
Bromoform	ND		1.0		ug/L			08/26/16 04:42	
Bromomethane	ND		2.0		ug/L			08/26/16 04:42	
Carbon tetrachloride	ND	*	1.0		ug/L			08/26/16 04:42	
Chlorobenzene	ND		1.0		ug/L			08/26/16 04:42	
Chlorodibromomethane	ND		0.50		ug/L			08/26/16 04:42	
Chloroethane	ND		2.0		ug/L			08/26/16 04:42	
Chloroform	ND		1.0		ug/L			08/26/16 04:42	
Chloromethane	ND		2.0		ug/L			08/26/16 04:42	
cis-1,2-Dichloroethene	1.3		1.0		ug/L			08/26/16 04:42	1
Dibromomethane	ND		1.0		ug/L			08/26/16 04:42	
Dichlorodifluoromethane	ND		1.0		ug/L			08/26/16 04:42	,
Methylene Chloride	ND		1.0		ug/L			08/26/16 04:42	
Tetrachloroethene	ND		1.0		ug/L			08/26/16 04:42	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			08/26/16 04:42	
Trichloroethene	8.0		1.0		ug/L			08/26/16 04:42	
Trichlorofluoromethane	ND		1.0		ug/L			08/26/16 04:42	,
Vinyl chloride	ND		1.0		ug/L			08/26/16 04:42	· · · · · · · · · · ·

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		70 - 130		08/26/16 04:42	1
Toluene-d8 (Surr)	93		70 - 130		08/26/16 04:42	1
4-Bromofluorobenzene (Surr)	101		70 - 130		08/26/16 04:42	1

Client Sample ID: MW-217D-20160824-01

Lab Sample ID: 480-104993-3 Date Collected: 08/24/16 10:40 Matrix: Water

Date Received: 08/25/16 02:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/26/16 05:06	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/26/16 05:06	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/26/16 05:06	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/26/16 05:06	1
1,1-Dichloroethane	ND		1.0		ug/L			08/26/16 05:06	1
1,1-Dichloroethene	ND		1.0		ug/L			08/26/16 05:06	1
1,2,3-Trichloropropane	ND		1.0		ug/L			08/26/16 05:06	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/26/16 05:06	1
1,2-Dichloroethane	ND		1.0		ug/L			08/26/16 05:06	1
1,2-Dichloropropane	ND		1.0		ug/L			08/26/16 05:06	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/26/16 05:06	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/26/16 05:06	1
2-Chloroethyl vinyl ether	ND		10		ug/L			08/26/16 05:06	1
Bromobenzene	ND		1.0		ug/L			08/26/16 05:06	1

TestAmerica Buffalo

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Client Sample Results

Client: ERM-Northeast TestAmerica Job ID: 480-104993-1 Project/Site: IDS Wayland

Client Sample ID: MW-217D-20160824-01

Lab Sample ID: 480-104993-3 Date Collected: 08/24/16 10:40

Matrix: Water

Date Received: 08/25/16 02:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		1.0		ug/L			08/26/16 05:06	1
Bromomethane	ND		2.0		ug/L			08/26/16 05:06	1
Carbon tetrachloride	ND	*	1.0		ug/L			08/26/16 05:06	1
Chlorobenzene	ND		1.0		ug/L			08/26/16 05:06	1
Chlorodibromomethane	ND		0.50		ug/L			08/26/16 05:06	1
Chloroethane	ND		2.0		ug/L			08/26/16 05:06	1
Chloroform	ND		1.0		ug/L			08/26/16 05:06	1
Chloromethane	ND		2.0		ug/L			08/26/16 05:06	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/26/16 05:06	1
Dibromomethane	ND		1.0		ug/L			08/26/16 05:06	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/26/16 05:06	1
Methylene Chloride	ND		1.0		ug/L			08/26/16 05:06	1
Tetrachloroethene	ND		1.0		ug/L			08/26/16 05:06	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			08/26/16 05:06	1
Trichloroethene	1.0		1.0		ug/L			08/26/16 05:06	1
Trichlorofluoromethane	ND		1.0		ug/L			08/26/16 05:06	1
Vinyl chloride	ND		1.0		ug/L			08/26/16 05:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		70 - 130			=		08/26/16 05:06	1
Toluene-d8 (Surr)	90		70 - 130					08/26/16 05:06	1
4-Bromofluorobenzene (Surr)	96		70 - 130					08/26/16 05:06	1

Surrogate Summary

Client: ERM-Northeast TestAmerica Job ID: 480-104993-1
Project/Site: IDS Wayland

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

Matrix: Water Prep Type: Total/NA

				Percent Surre	ogate Reco
		12DCE	TOL	BFB	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	
480-104993-1	MW-217S-20160824-01	119	91	99	
480-104993-2	MW-217M-20160824-01	112	93	101	
480-104993-3	MW-217D-20160824-01	115	90	96	
LCS 480-317749/5	Lab Control Sample	116	93	100	
LCSD 480-317749/26	Lab Control Sample Dup	113	94	105	
MB 480-317749/7	Method Blank	114	91	99	
Surrogate Legend					

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

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Client: ERM-Northeast Project/Site: IDS Wayland TestAmerica Job ID: 480-104993-1

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

MR MR

Lab Sample ID: MB 480-317749/7

Matrix: Water

Analysis Batch: 317749

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			08/25/16 22:58	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/25/16 22:58	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/25/16 22:58	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/25/16 22:58	1
1,1-Dichloroethane	ND		1.0		ug/L			08/25/16 22:58	1
1,1-Dichloroethene	ND		1.0		ug/L			08/25/16 22:58	1
1,2,3-Trichloropropane	ND		1.0		ug/L			08/25/16 22:58	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/25/16 22:58	1
1,2-Dichloroethane	ND		1.0		ug/L			08/25/16 22:58	1
1,2-Dichloropropane	ND		1.0		ug/L			08/25/16 22:58	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/25/16 22:58	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/25/16 22:58	1
2-Chloroethyl vinyl ether	ND		10		ug/L			08/25/16 22:58	1
Bromobenzene	ND		1.0		ug/L			08/25/16 22:58	1
Bromoform	ND		1.0		ug/L			08/25/16 22:58	1
Bromomethane	ND		2.0		ug/L			08/25/16 22:58	1
Carbon tetrachloride	ND		1.0		ug/L			08/25/16 22:58	1
Chlorobenzene	ND		1.0		ug/L			08/25/16 22:58	1
Chlorodibromomethane	ND		0.50		ug/L			08/25/16 22:58	1
Chloroethane	ND		2.0		ug/L			08/25/16 22:58	1
Chloroform	ND		1.0		ug/L			08/25/16 22:58	1
Chloromethane	ND		2.0		ug/L			08/25/16 22:58	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/25/16 22:58	1
Dibromomethane	ND		1.0		ug/L			08/25/16 22:58	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/25/16 22:58	1
Methylene Chloride	ND		1.0		ug/L			08/25/16 22:58	1
Tetrachloroethene	ND		1.0		ug/L			08/25/16 22:58	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			08/25/16 22:58	1
Trichloroethene	ND		1.0		ug/L			08/25/16 22:58	1
Trichlorofluoromethane	ND		1.0		ug/L			08/25/16 22:58	1
Vinyl chloride	ND		1.0		ug/L			08/25/16 22:58	1

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 70 - 130 08/25/16 22:58 114 70 - 130 08/25/16 22:58 Toluene-d8 (Surr) 91 4-Bromofluorobenzene (Surr) 99 70 - 130 08/25/16 22:58

Lab Sample ID: LCS 480-317749/5

Matrix: Water

Analysis Batch: 317749

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1,1,2-Tetrachloroethane	25.0	25.7		ug/L		103	70 - 130	
1,1,1-Trichloroethane	25.0	29.0		ug/L		116	70 - 130	
1,1,2,2-Tetrachloroethane	25.0	23.2		ug/L		93	70 - 130	
1,1,2-Trichloroethane	25.0	23.2		ug/L		93	70 - 130	
1,1-Dichloroethane	25.0	26.9		ug/L		108	70 - 130	
1,1-Dichloroethene	25.0	25.3		ug/L		101	70 - 130	
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TestAmerica Buffalo

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TestAmerica Job ID: 480-104993-1

Client: ERM-Northeast Project/Site: IDS Wayland

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

Lab Sample ID: LCS 480-317749/5

Matrix: Water

Analysis Batch: 317749

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,2,3-Trichloropropane	25.0	24.1		ug/L		96	70 - 130
1,2-Dichlorobenzene	25.0	23.8		ug/L		95	70 - 130
1,2-Dichloroethane	25.0	28.7		ug/L		115	70 - 130
1,2-Dichloropropane	25.0	24.9		ug/L		100	70 - 130
1,3-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
1,4-Dichlorobenzene	25.0	24.6		ug/L		98	70 - 130
2-Chloroethyl vinyl ether	25.0	25.3		ug/L		101	70 - 130
Bromobenzene	25.0	23.8		ug/L		95	70 - 130
Bromoform	25.0	27.7		ug/L		111	70 - 130
Bromomethane	25.0	23.6		ug/L		94	70 - 130
Carbon tetrachloride	25.0	31.3		ug/L		125	70 - 130
Chlorobenzene	25.0	22.5		ug/L		90	70 - 130
Chlorodibromomethane	25.0	27.4		ug/L		110	70 - 130
Chloroethane	25.0	23.7		ug/L		95	70 - 130
Chloroform	25.0	26.0		ug/L		104	70 - 130
Chloromethane	25.0	22.7		ug/L		91	70 - 130
cis-1,2-Dichloroethene	25.0	26.6		ug/L		106	70 - 130
Dibromomethane	25.0	27.2		ug/L		109	70 - 130
Dichlorodifluoromethane	25.0	21.1		ug/L		84	70 - 130
Methylene Chloride	25.0	24.5		ug/L		98	70 - 130
Tetrachloroethene	25.0	22.9		ug/L		92	70 - 130
trans-1,3-Dichloropropene	25.0	24.1		ug/L		96	70 - 130
Trichloroethene	25.0	27.2		ug/L		109	70 - 130
Trichlorofluoromethane	25.0	25.0		ug/L		100	70 - 130
Vinyl chloride	25.0	22.1		ug/L		88	70 - 130

LCS	LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116		70 - 130
Toluene-d8 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 480-317749/26

Matrix: Water

Analysis Batch: 317749

Client Sample ID: Lal	b Control Sample Dup
	Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1,2-Tetrachloroethane	25.0	27.8		ug/L		111	70 - 130	8	20
1,1,1-Trichloroethane	25.0	30.4		ug/L		121	70 - 130	4	20
1,1,2,2-Tetrachloroethane	25.0	22.1		ug/L		88	70 - 130	5	20
1,1,2-Trichloroethane	25.0	24.8		ug/L		99	70 - 130	7	20
1,1-Dichloroethane	25.0	28.3		ug/L		113	70 - 130	5	20
1,1-Dichloroethene	25.0	27.3		ug/L		109	70 - 130	8	20
1,2,3-Trichloropropane	25.0	24.2		ug/L		97	70 - 130	1	20
1,2-Dichlorobenzene	25.0	24.9		ug/L		100	70 - 130	4	20
1,2-Dichloroethane	25.0	28.1		ug/L		113	70 - 130	2	20
1,2-Dichloropropane	25.0	26.8		ug/L		107	70 - 130	8	20
1,3-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130	3	20
1,4-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130	3	20

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QC Sample Results

Client: ERM-Northeast TestAmerica Job ID: 480-104993-1 Project/Site: IDS Wayland

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

Lab Sample ID: LCSD 480-317749/26

Matrix: Water

Analysis Batch: 317749

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2-Chloroethyl vinyl ether	25.0	24.1		ug/L		97	70 - 130	5	20
Bromobenzene	25.0	24.7		ug/L		99	70 - 130	4	20
Bromoform	25.0	26.8		ug/L		107	70 - 130	3	20
Bromomethane	25.0	23.7		ug/L		95	70 - 130	0	20
Carbon tetrachloride	25.0	32.7	*	ug/L		131	70 - 130	5	20
Chlorobenzene	25.0	25.0		ug/L		100	70 - 130	10	20
Chlorodibromomethane	25.0	29.2		ug/L		117	70 - 130	6	20
Chloroethane	25.0	25.0		ug/L		100	70 - 130	5	20
Chloroform	25.0	27.0		ug/L		108	70 - 130	4	20
Chloromethane	25.0	23.9		ug/L		96	70 - 130	5	20
cis-1,2-Dichloroethene	25.0	27.5		ug/L		110	70 - 130	3	20
Dibromomethane	25.0	28.0		ug/L		112	70 - 130	3	20
Dichlorodifluoromethane	25.0	22.5		ug/L		90	70 - 130	6	20
Methylene Chloride	25.0	24.6		ug/L		98	70 - 130	0	20
Tetrachloroethene	25.0	25.5		ug/L		102	70 - 130	11	20
trans-1,3-Dichloropropene	25.0	25.1		ug/L		100	70 - 130	4	20
Trichloroethene	25.0	27.9		ug/L		112	70 - 130	3	20
Trichlorofluoromethane	25.0	26.3		ug/L		105	70 - 130	5	20
Vinyl chloride	25.0	24.1		ug/L		97	70 - 130	9	20

LCSD LCSD

Surrogate	%Recovery Qualifi	er Limits
1,2-Dichloroethane-d4 (Surr)	113	70 - 130
Toluene-d8 (Surr)	94	70 - 130
4-Bromofluorobenzene (Surr)	105	70 - 130

TestAmerica Buffalo

QC Association Summary

TestAmerica Job ID: 480-104993-1

Client: ERM-Northeast Project/Site: IDS Wayland

GC/MS VOA

Analysis Batch: 317749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-104993-1	MW-217S-20160824-01	Total/NA	Water	8260C	
480-104993-2	MW-217M-20160824-01	Total/NA	Water	8260C	
480-104993-3	MW-217D-20160824-01	Total/NA	Water	8260C	
MB 480-317749/7	Method Blank	Total/NA	Water	8260C	
LCS 480-317749/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-317749/26	Lab Control Sample Dup	Total/NA	Water	8260C	

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Lab Chronicle

Client: ERM-Northeast Project/Site: IDS Wayland TestAmerica Job ID: 480-104993-1

Client Sample ID: MW-217S-20160824-01

Date Collected: 08/24/16 10:25 Date Received: 08/25/16 02:00 Lab Sample ID: 480-104993-1

Matrix: Water

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Batch Dilution Batch Batch Prepared Method Prep Type Type Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8260C 317749 08/26/16 04:19 GTG TAL BUF

Client Sample ID: MW-217M-20160824-01 Lab Sample ID: 480-104993-2

Date Collected: 08/24/16 10:35 Matrix: Water

Date Received: 08/25/16 02:00

Batch Batch Dilution Batch Prepared Method Run Factor Prep Type Туре Number or Analyzed Analyst Lab GTG TAL BUF Total/NA 8260C 317749 08/26/16 04:42 Analysis

Client Sample ID: MW-217D-20160824-01 Lab Sample ID: 480-104993-3

Date Collected: 08/24/16 10:40 Matrix: Water

Date Received: 08/25/16 02:00

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab 8260C 317749 08/26/16 05:06 GTG TAL BUF Total/NA Analysis

Laboratory References:

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

TestAmerica Buffalo

TestAmerica Job ID: 480-104993-1

Client: ERM-Northeast Project/Site: IDS Wayland

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-17
California	State Program	9	1169CA	09-30-17
Connecticut	State Program	1	PH-0568	09-30-16
Florida	NELAP	4	E87672	06-30-17
Georgia	State Program	4	N/A	03-31-17
Georgia	State Program	4	956	03-31-17
Illinois	NELAP	5	200003	09-30-16
lowa	State Program	7	374	03-01-17
Kansas	NELAP	7	E-10187	10-31-16
Kentucky (DW)	State Program	4	90029	12-31-16
Kentucky (UST)	State Program	4	30	03-31-17
Kentucky (WW)	State Program	4	90029	12-31-16
Louisiana	NELAP	6	02031	06-30-17
Maine	State Program	1	NY00044	12-04-16
Maryland	State Program	3	294	03-31-17
Massachusetts	State Program	1	M-NY044	06-30-17
Michigan	State Program	5	9937	03-31-16 *
Minnesota	NELAP	5	036-999-337	12-31-16
New Hampshire	NELAP Primary AB	1	2973	09-11-16
New Hampshire	NELAP Secondary AB	1	2337	11-17-16
New Jersey	NELAP	2	NY455	06-30-17
New York	NELAP	2	10026	03-31-17
North Dakota	State Program	8	R-176	03-31-17
Oklahoma	State Program	6	9421	08-31-16
Oregon	NELAP	10	NY200003	06-09-17
Pennsylvania	NELAP	3	68-00281	07-31-17
Rhode Island	State Program	1	LAO00328	12-30-16
Tennessee	State Program	4	TN02970	03-31-17
Texas	NELAP	6	T104704412-15-6	07-31-17
USDA	Federal		P330-11-00386	11-26-17
Virginia	NELAP	3	460185	09-14-16
Washington	State Program	10	C784	02-10-17
West Virginia DEP	State Program	3	252	09-30-16
Wisconsin	State Program	5	998310390	08-31-16

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^{*} Certification renewal pending - certification considered valid.

TestAmerica Buffalo

Method Summary

Client: ERM-Northeast Project/Site: IDS Wayland TestAmerica Job ID: 480-104993-1

Method
8260CMethod DescriptionProtocol
MA DEPLaboratory
TAL BUF

Protocol References:

MA DEP = Massachusetts Department Of Environmental Protection

Laboratory References:

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

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Sample Summary

Client: ERM-Northeast Project/Site: IDS Wayland TestAmerica Job ID: 480-104993-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-104993-1	MW-217S-20160824-01	Water	08/24/16 10:25	08/25/16 02:00
480-104993-2	MW-217M-20160824-01	Water	08/24/16 10:35	08/25/16 02:00
480-104993-3	MW-217D-20160824-01	Water	08/24/16 10:40	08/25/16 02:00

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Login Sample Receipt Checklist

Client: ERM-Northeast Job Number: 480-104993-1

Login Number: 104993 List Source: TestAmerica Buffalo

List Number: 1

Creator: Conway, Curtis R

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

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