



ANALYTICAL REPORT

Lab Number:	L1527533
Client:	Massachusetts DEP 20 Riverside Drive Lakeville, MA 02347-1676
ATTN:	Elliot Jacobs
Phone:	(508) 946-2786
Project Name:	REED & BARTON
Project Number:	101726.00
Report Date:	10/30/15

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Project Name: REED & BARTON
Project Number: 101726.00

Lab Number: L1527533
Report Date: 10/30/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1527533-01	RB-7	WATER	47 ELM ST., NORTON	10/27/15 11:15	10/27/15
L1527533-02	RB-6	WATER	47 ELM ST., NORTON	10/27/15 11:15	10/27/15
L1527533-03	RB-5	WATER	47 ELM ST., NORTON	10/27/15 14:00	10/27/15
L1527533-04	RB-SED-1	SOIL	47 ELM ST., NORTON	10/27/15 10:00	10/27/15
L1527533-05	TRIP BLANK	WATER	47 ELM ST., NORTON	10/27/15 00:00	10/27/15

Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

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

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



Project Name: REED & BARTON
Project Number: 101726.00

Lab Number: L1527533
Report Date: 10/30/15

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. 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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

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.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: REED & BARTON
Project Number: 101726.00

Lab Number: L1527533
Report Date: 10/30/15

Case Narrative (continued)

MCP Related Narratives

Sample Receipt

In reference to question H:

A Matrix Spike was not submitted for the analysis of Metals.

Volatile Organics

In reference to question H:

The initial calibration, associated with L1527533-01, -02, and -03, did not meet the method required minimum response factor on the lowest calibration standard for trichloroethene (0.17985), 4-methyl-2-pentanone (0.05585), and 1,4-dioxane (0.00038), as well as the average response factor for 2-butanone, trichloroethene, 4-methyl-2-pentanone, and 1,4-dioxane.

The continuing calibration standard, associated with L1527533-01, -02, and -03, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

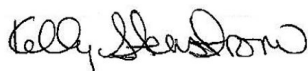
Metals

In reference to question I:

All samples were analyzed for a subset of MCP analytes 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:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 10/30/15

ORGANICS

VOLATILES

Project Name: REED & BARTON**Lab Number:** L1527533**Project Number:** 101726.00**Report Date:** 10/30/15**SAMPLE RESULTS**

Lab ID: L1527533-01
Client ID: RB-7
Sample Location: 47 ELM ST., NORTON
Matrix: Water
Analytical Method: 97,8260C
Analytical Date: 10/29/15 21:05
Analyst: MS

Date Collected: 10/27/15 11:15
Date Received: 10/27/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	1.4		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

SAMPLE RESULTS

Lab ID: L1527533-01

Date Collected: 10/27/15 11:15

Client ID: RB-7

Date Received: 10/27/15

Sample Location: 47 ELM ST., NORTON

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylene (Total)	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene (total)	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1

Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

SAMPLE RESULTS

Lab ID: L1527533-01

Date Collected: 10/27/15 11:15

Client ID: RB-7

Date Received: 10/27/15

Sample Location: 47 ELM ST., NORTON

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	101		70-130

Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

SAMPLE RESULTS

Lab ID: L1527533-02
 Client ID: RB-6
 Sample Location: 47 ELM ST., NORTON
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 10/29/15 21:31
 Analyst: MS

Date Collected: 10/27/15 11:15
 Date Received: 10/27/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	1.6		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

SAMPLE RESULTS

Lab ID: L1527533-02

Date Collected: 10/27/15 11:15

Client ID: RB-6

Date Received: 10/27/15

Sample Location: 47 ELM ST., NORTON

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylene (Total)	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	3.2		ug/l	1.0	--	1
1,2-Dichloroethene (total)	3.2		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	6.3		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	14		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1

Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

SAMPLE RESULTS

Lab ID: L1527533-02

Date Collected: 10/27/15 11:15

Client ID: RB-6

Date Received: 10/27/15

Sample Location: 47 ELM ST., NORTON

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	100		70-130

Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

SAMPLE RESULTS

Lab ID: L1527533-03
 Client ID: RB-5
 Sample Location: 47 ELM ST., NORTON
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 10/29/15 21:57
 Analyst: MS

Date Collected: 10/27/15 14:00
 Date Received: 10/27/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	1.0		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	9.7		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

SAMPLE RESULTS

Lab ID: L1527533-03

Date Collected: 10/27/15 14:00

Client ID: RB-5

Date Received: 10/27/15

Sample Location: 47 ELM ST., NORTON

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylene (Total)	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	3.4		ug/l	1.0	--	1
1,2-Dichloroethene (total)	3.4		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	7.4		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	6.2		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1

Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

SAMPLE RESULTS

Lab ID: L1527533-03

Date Collected: 10/27/15 14:00

Client ID: RB-5

Date Received: 10/27/15

Sample Location: 47 ELM ST., NORTON

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	101		70-130

Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 10/29/15 20:39
 Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG835638-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 10/29/15 20:39
 Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG835638-3					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylene (Total)	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene (total)	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 10/29/15 20:39
 Analyst: MS

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG835638-3					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: REED & BARTON

Project Number: 101726.00

Lab Number: L1527533

Report Date: 10/30/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG835638-1 WG835638-2								
Methylene chloride	106		104		70-130	2		20
1,1-Dichloroethane	105		107		70-130	2		20
Chloroform	105		107		70-130	2		20
Carbon tetrachloride	106		110		70-130	4		20
1,2-Dichloropropane	105		108		70-130	3		20
Dibromochloromethane	95		99		70-130	4		20
1,1,2-Trichloroethane	94		100		70-130	6		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	96		98		70-130	2		20
Trichlorofluoromethane	110		112		70-130	2		20
1,2-Dichloroethane	109		109		70-130	0		20
1,1,1-Trichloroethane	106		109		70-130	3		20
Bromodichloromethane	108		108		70-130	0		20
trans-1,3-Dichloropropene	101		103		70-130	2		20
cis-1,3-Dichloropropene	115		115		70-130	0		20
1,1-Dichloropropene	104		107		70-130	3		20
Bromoform	90		97		70-130	7		20
1,1,2,2-Tetrachloroethane	89		98		70-130	10		20
Benzene	103		104		70-130	1		20
Toluene	88		90		70-130	2		20
Ethylbenzene	95		97		70-130	2		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: REED & BARTON

Project Number: 101726.00

Lab Number: L1527533

Report Date: 10/30/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG835638-1 WG835638-2								
Chloromethane	98		95		70-130	3		20
Bromomethane	98		81		70-130	19		20
Vinyl chloride	105		105		70-130	0		20
Chloroethane	102		103		70-130	1		20
1,1-Dichloroethene	106		108		70-130	2		20
trans-1,2-Dichloroethene	105		106		70-130	1		20
Trichloroethene	106		108		70-130	2		20
1,2-Dichlorobenzene	94		94		70-130	0		20
1,3-Dichlorobenzene	93		95		70-130	2		20
1,4-Dichlorobenzene	94		93		70-130	1		20
Methyl tert butyl ether	104		112		70-130	7		20
p/m-Xylene	96		99		70-130	3		20
o-Xylene	96		98		70-130	2		20
cis-1,2-Dichloroethene	106		107		70-130	1		20
Dibromomethane	109		110		70-130	1		20
1,2,3-Trichloropropane	93		100		70-130	7		20
Styrene	97		100		70-130	3		20
Dichlorodifluoromethane	92		93		70-130	1		20
Acetone	113		123		70-130	8		20
Carbon disulfide	102		103		70-130	1		20
2-Butanone	101		116		70-130	14		20

Lab Control Sample Analysis Batch Quality Control

Project Name: REED & BARTON

Project Number: 101726.00

Lab Number: L1527533

Report Date: 10/30/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG835638-1 WG835638-2								
4-Methyl-2-pentanone	103		119		70-130	14		20
2-Hexanone	89		102		70-130	14		20
Bromochloromethane	114		112		70-130	2		20
Tetrahydrofuran	114		122		70-130	7		20
2,2-Dichloropropane	133	Q	136	Q	70-130	2		20
1,2-Dibromoethane	97		102		70-130	5		20
1,3-Dichloropropane	96		100		70-130	4		20
1,1,1,2-Tetrachloroethane	95		98		70-130	3		20
Bromobenzene	91		93		70-130	2		20
n-Butylbenzene	97		98		70-130	1		20
sec-Butylbenzene	94		96		70-130	2		20
tert-Butylbenzene	92		93		70-130	1		20
o-Chlorotoluene	93		93		70-130	0		20
p-Chlorotoluene	93		94		70-130	1		20
1,2-Dibromo-3-chloropropane	87		100		70-130	14		20
Hexachlorobutadiene	96		98		70-130	2		20
Isopropylbenzene	97		99		70-130	2		20
p-Isopropyltoluene	95		96		70-130	1		20
Naphthalene	93		100		70-130	7		20
n-Propylbenzene	94		95		70-130	1		20
1,2,3-Trichlorobenzene	95		97		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: REED & BARTON

Project Number: 101726.00

Lab Number: L1527533

Report Date: 10/30/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG835638-1 WG835638-2								
1,2,4-Trichlorobenzene	98		98		70-130	0		20
1,3,5-Trimethylbenzene	92		95		70-130	3		20
1,2,4-Trimethylbenzene	93		95		70-130	2		20
Ethyl ether	107		111		70-130	4		20
Isopropyl Ether	104		108		70-130	4		20
Ethyl-Tert-Butyl-Ether	105		109		70-130	4		20
Tertiary-Amyl Methyl Ether	102		107		70-130	5		20
1,4-Dioxane	40	Q	158	Q	70-130	119	Q	20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	104		105		70-130
Toluene-d8	95		95		70-130
4-Bromofluorobenzene	99		99		70-130
Dibromofluoromethane	99		102		70-130

METALS

Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

SAMPLE RESULTS

Lab ID: L1527533-04

Date Collected: 10/27/15 10:00

Client ID: RB-SED-1

Date Received: 10/27/15

Sample Location: 47 ELM ST., NORTON

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 47%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	20		mg/kg	0.84	--	1	10/28/15 02:57	10/28/15 12:39	EPA 3050B	97,6010C	JH
Barium, Total	92		mg/kg	0.84	--	1	10/28/15 02:57	10/28/15 12:39	EPA 3050B	97,6010C	JH
Cadmium, Total	ND		mg/kg	0.84	--	1	10/28/15 02:57	10/28/15 12:39	EPA 3050B	97,6010C	JH
Chromium, Total	17		mg/kg	0.84	--	1	10/28/15 02:57	10/28/15 12:39	EPA 3050B	97,6010C	JH
Lead, Total	33		mg/kg	4.2	--	1	10/28/15 02:57	10/28/15 12:39	EPA 3050B	97,6010C	JH
Mercury, Total	1.57		mg/kg	0.139	--	1	10/28/15 07:45	10/28/15 15:10	EPA 7471B	97,7471B	DB
Selenium, Total	ND		mg/kg	4.2	--	1	10/28/15 02:57	10/28/15 12:39	EPA 3050B	97,6010C	JH
Silver, Total	ND		mg/kg	0.84	--	1	10/28/15 02:57	10/28/15 12:39	EPA 3050B	97,6010C	JH



Project Name: REED & BARTON

Lab Number: L1527533

Project Number: 101726.00

Report Date: 10/30/15

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 04 Batch: WG834823-1										
Arsenic, Total	ND		mg/kg	0.40	--	1	10/28/15 02:57	10/28/15 11:29	97,6010C	JH
Barium, Total	ND		mg/kg	0.40	--	1	10/28/15 02:57	10/28/15 11:29	97,6010C	JH
Cadmium, Total	ND		mg/kg	0.40	--	1	10/28/15 02:57	10/28/15 11:29	97,6010C	JH
Chromium, Total	ND		mg/kg	0.40	--	1	10/28/15 02:57	10/28/15 11:29	97,6010C	JH
Lead, Total	ND		mg/kg	2.0	--	1	10/28/15 02:57	10/28/15 11:29	97,6010C	JH
Selenium, Total	ND		mg/kg	2.0	--	1	10/28/15 02:57	10/28/15 11:29	97,6010C	JH
Silver, Total	ND		mg/kg	0.40	--	1	10/28/15 02:57	10/28/15 11:29	97,6010C	JH

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 04 Batch: WG834831-1										
Mercury, Total	ND		mg/kg	0.083	--	1	10/28/15 07:45	10/28/15 14:47	97,7471B	DB

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis Batch Quality Control

Project Name: REED & BARTON

Project Number: 101726.00

Lab Number: L1527533

Report Date: 10/30/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 04 Batch: WG834823-2 WG834823-3 SRM Lot Number: D088-540								
Arsenic, Total	105		105		79-121	0		30
Barium, Total	110		99		83-117	11		30
Cadmium, Total	107		107		83-117	0		30
Chromium, Total	110		110		80-120	0		30
Lead, Total	98		98		81-117	0		30
Selenium, Total	108		108		78-122	0		30
Silver, Total	110		108		75-124	2		30
MCP Total Metals - Westborough Lab Associated sample(s): 04 Batch: WG834831-2 WG834831-3 SRM Lot Number: D088-540								
Mercury, Total	100		103		72-128	3		30

INORGANICS & MISCELLANEOUS

Project Name: REED & BARTON**Project Number:** 101726.00**Lab Number:** L1527533**Report Date:** 10/30/15**SAMPLE RESULTS****Lab ID:** L1527533-04**Client ID:** RB-SED-1**Sample Location:** 47 ELM ST., NORTON**Matrix:** Soil**Date Collected:** 10/27/15 10:00**Date Received:** 10/27/15**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	47.2		%	0.100	NA	1	-	10/27/15 19:27	30,2540G	RT



Project Name: REED & BARTON**Project Number:** 101726.00**Lab Number:** L1527533**Report Date:** 10/30/15**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1527533-01A	Vial HCl preserved	A	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1527533-01B	Vial HCl preserved	A	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1527533-01C	Vial HCl preserved	A	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1527533-02A	Vial HCl preserved	A	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1527533-02B	Vial HCl preserved	A	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1527533-02C	Vial HCl preserved	A	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1527533-03A	Vial HCl preserved	A	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1527533-03B	Vial HCl preserved	A	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1527533-03C	Vial HCl preserved	A	N/A	2.3	Y	Absent	MCP-8260-10(14)
L1527533-04A	Glass 120ml/4oz unpreserved	A	N/A	2.3	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1527533-04B	Plastic 2oz unpreserved for TS	A	N/A	2.3	Y	Absent	TS(7)
L1527533-05A	Vial HCl preserved	A	N/A	2.3	Y	Absent	HOLD-8260(14)
L1527533-05B	Vial HCl preserved	A	N/A	2.3	Y	Absent	HOLD-8260(14)

*Values in parentheses indicate holding time in days

Project Name: REED & BARTON
Project Number: 101726.00

Lab Number: L1527533
Report Date: 10/30/15

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
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.
LFB	- Laboratory Fortified Blank: 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.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report



Project Name: REED & BARTON
Project Number: 101726.00

Lab Number: L1527533
Report Date: 10/30/15

Data Qualifiers

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: REED & BARTON
Project Number: 101726.00

Lab Number: L1527533
Report Date: 10/30/15

REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at 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 Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide) (soil), Methyl methacrylate (soil), Azobenzene.

EPA 8270D: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7:** Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Send to Selected Lab

Task Order for Laboratory Assistance		Initial Task Order (CO # 0)	
Includes Attachment 1 that provides the list of analyses for this order. Attachment 2 that provides the approved "Other Support Costs" for this order.			
LSS Contract Laboratory		Alpha Analytical, Inc., 8 Walkup Drive, Westborough, MA 01581 Attn: James Occhialini	
Lab Phone, Fax, e-mail	Phone: 508-380-8618 Fax: 508-898-9220 email:jocchialini@alphalab.com		
DEP Requestor (name):	Elliot Jacobs	DEP Order Date:	19-Oct-2015
RTN Number(s), if applicable		DEP Proj. No.	101726.00
Type of Order	Date	DEP POC	Elliot Jacobs
Initial Budget	19-Oct-15	DEP Region	SERO
Site/Proj Name / Address:	Site Discovery - 47 Elm Street Norton		Ph. # POC: 508-946-2786 e-mail POC: elliot.jacobs@state.ma.us
Approved Budget Summary			
DEP Cost Adjustments (Non-analytical)	Initial (CO # 0) = \$ 0	Total Cost Adjustments	\$0.00
\$ This Order Only	History of Budget Changes	Total Approved Budget	
\$2,278.50	Initial (CO # 0) = \$ 2278.5	\$2,278.50	
Summary of Samples to be Analyzed			
# Samples This Order Only	History of # Samples Sent for Analysis	Total Approved Samples for Analysis	
34	Initial (CO # 0) = 34	34	
Summary of Analyses (see Analyte Order Sheet for Required Analyses)			
# Analyses This Order	History of # Analysis for this Project	Total Approved Analysis for this Project	
34	Initial (CO # 0) = 34	34	
Environmental media of the samples			
Water (groundwater) / Sediment /			
Additional information and/or special instructions.			
Contact Elliot Jacobs at 508-946-2786 to confirm sampling date and coordinate container drop off/sample pick up. 16 GW samples for VOCs 8260 and 4 sediment samples for metals Cu, Ni, Ag by 6010.			
Contract Status of Ordered Analyses and Description of Approved Non-Contract Analyses			
All analyses in the approved unit price list. Not Applicable			
Data Report Transmittal Information (E-mail or Website Posting Optional)			
Send Data Analysis/Report to following DEP Person:	Same as POC listed above.		
Address of DEP report recipient:	Same as POC listed above.		
Invoice Instructions			
Lab to Submit Original of Invoice to:	MA Department of Environmental Protection, One Winter Street, Boston, Massachusetts 02108 Attn: Cathy Kiley (6th Fl)		
E-mail or hard copies of Complete Invoice to:	cathy.kiley@state.ma.us and ap.madepbwsc@state.ma.us		
MassDEP Authorized Approval for this Order			
Name:	Cathy Kiley		Date: 10/29/15

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1527533

Instrument ID: Voal16.i Calibration Date: 29-OCT-2015 Time: 19:20

Lab File ID: 1029001 Init. Calib. Date(s): 15-OCT-2 16-OCT-2

Sample No: 8260 CCAL Init. Calib. Times : 22:02 00:38

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.25207	.23096	.1	-8	20	
chloromethane	.3425	.33664	.1	-2	20	
vinyl chloride	.2682	.28207	.1	5	20	
bromomethane	.10531	.10304	.1	-2	20	
chloroethane	.15876	.16211	.1	2	20	
trichlorofluoromethane	.37453	.41097	.1	10	20	
ethyl ether	.13296	.14198	.05	7	20	
1,1,-dichloroethene	.21825	.23073	.1	6	20	
carbon disulfide	.68547	.70054	.1	2	20	
freon-113	.23019	.24801	.1	8	20	
iodomethane	.23838	.02612	.05	-89	20	F
acrolein	.02893	.02985	.05	3	20	F
methylene chloride	.24452	.25978	.1	6	20	
acetone	100	113	.1	13	20	
trans-1,2-dichloroethene	.24352	.25535	.1	5	20	
methyl acetate	.176	.18173	.01	3	20	
methyl tert butyl ether	.68011	.70863	.1	4	20	
tert-butyl alcohol	.01646	.01352	.05	-18	20	F
Diisopropyl Ether	1.0548	1.0944	.05	4	20	
1,1-dichloroethane	.48211	.50479	.2	5	20	
Halothane	.20262	.20987	.05	4	20	
acrylonitrile	.09144	.09383	.05	3	20	
Ethyl-Tert-Butyl-Ether	.89501	.93703	.05	5	20	
vinyl acetate	.73353	.76032	.05	4	20	
cis-1,2-dichloroethene	.26974	.28567	.1	6	20	
2,2-dichloropropane	.3212	.4269	.05	33	20	F
cyclohexane	.41693	.41911	.01	1	30	
bromochloromethane	.09244	.10512	.05	14	20	
chloroform	.33393	.35051	.2	5	20	
ethyl acetate	.2087	.20939	.05	0	20	
carbontetrachloride	.28367	.30019	.1	6	20	
tetrahydrofuran	100	114	.05	14	20	
1,1,1-trichloroethane	.30574	.32447	.1	6	20	
2-butanone	.08317	.08441	.1	1	20	F
1,1-dichloropropene	.25233	.26367	.05	4	20	
benzene	.76856	.79517	.5	3	20	
Tertiary-Amyl Methyl Ether	.56099	.57024	.05	2	20	
1,2-dichloroethane	.25555	.27762	.1	9	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1527533

Instrument ID: Voal16.i Calibration Date: 29-OCT-2015 Time: 19:20

Lab File ID: 1029001 Init. Calib. Date(s): 15-OCT-2 16-OCT-2

Sample No: 8260 CCAL Init. Calib. Times : 22:02 00:38

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
methyl cyclohexane	.34905	.36973	.01	6	30	
trichloroethene	.19956	.21142	.2	6	20	F
dibromomethane	.1082	.11772	.05	9	20	
1,2-dichloropropane	.22784	.24029	.1	5	20	
bromodichloromethane	.28728	.31056	.2	8	20	
1,4-dioxane	.00043	.00017	.05	-60	20	F
2-chloroethylvinyl ether	.11226	.12891	.05	15	20	
cis-1,3-dichloropropene	.32726	.3766	.2	15	20	
toluene	.65036	.57484	.4	-12	20	
4-methyl-2-pentanone	.06859	.07055	.1	3	20	F
tetrachloroethene	.25885	.25789	.2	0	20	
trans-1,3-dichloropropene	.33573	.33818	.1	1	20	
1,1,2-trichloroethane	.1643	.15415	.1	-6	20	
ethyl-methacrylate	.30226	.27497	.01	-9	20	
chlorodibromomethane	.25583	.24395	.1	-5	20	
1,3-dichloropropane	.33992	.32547	.05	-4	20	
1,2-dibromoethane	.20136	.19508	.1	-3	20	
2-hexanone	.16852	.14967	.1	-11	20	
chlorobenzene	.68998	.66202	.5	-4	20	
ethyl benzene	1.1728	1.1126	.1	-5	20	
1,1,1,2-tetrachloroethane	.2563	.24415	.05	-5	20	
p/m xylene	.45685	.43743	.1	-4	20	
o xylene	.43767	.42132	.3	-4	20	
styrene	.70775	.68551	.31	-3	20	
bromoform	.29415	.26511	.1	-10	20	
isopropylbenzene	1.1817	1.1504	.1	-3	20	
bromobenzene	.54138	.49424	.05	-9	20	
n-propylbenzene	2.6191	2.4525	.05	-6	20	
1,4-dichlorobutane	.84404	.77896	.01	-8	20	
1,1,2,2,-tetrachloroethane	.46433	.41335	.3	-11	20	
4-ethyltoluene	1.0355	1.1005	.05	6	20	
2-chlorotoluene	1.5982	1.4905	.05	-7	20	
1,2,3-trichloropropane	.3679	.34233	.05	-7	20	
1,3,5-trimethylbenzene	1.8829	1.7315	.05	-8	20	
trans-1,4-dichloro-2-butene	.16209	.16414	.05	1	20	
4-chlorotoluene	1.5823	1.4692	.05	-7	20	
tert-butylbenzene	1.6633	1.5391	.05	-7	20	
1,2,4-trimethylbenzene	1.8790	1.7435	.05	-7	20	

FORM VII MCP-8260-10



ANALYTICAL REPORT

Lab Number:	L1528136
Client:	Massachusetts DEP 20 Riverside Drive Lakeville, MA 02347-1676
ATTN:	Elliot Jacobs
Phone:	(508) 946-2786
Project Name:	REED & BARTON
Project Number:	101726.00
Report Date:	11/06/15

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: REED & BARTON
Project Number: 101726.00

Lab Number: L1528136
Report Date: 11/06/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1528136-01	RB-9	WATER	47 ELM ST., NORTON	10/30/15 11:00	10/30/15
L1528136-02	RB-SM-1	WATER	47 ELM ST., NORTON	10/30/15 11:30	10/30/15

Project Name: REED & BARTON

Lab Number: L1528136

Project Number: 101726.00

Report Date: 11/06/15

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 through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
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: REED & BARTON
Project Number: 101726.00

Lab Number: L1528136
Report Date: 11/06/15

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. 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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

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.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: REED & BARTON
Project Number: 101726.00

Lab Number: L1528136
Report Date: 11/06/15

Case Narrative (continued)

MCP Related Narratives

Volatile Organics


In reference to question H:

The initial calibration, associated with L1528136-01 and -02, did not meet the method required minimum response factor on the lowest calibration standard for 1,4-dioxane (0.00205), as well as the average response factor for 1,4-dioxane.

The continuing calibration standard, associated with L1528136-01 and -02, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

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

Authorized Signature:



Lisa Westerlind

Title: Technical Director/Representative

Date: 11/06/15

ORGANICS

VOLATILES

Project Name: REED & BARTON

Lab Number: L1528136

Project Number: 101726.00

Report Date: 11/06/15

SAMPLE RESULTS

Lab ID: L1528136-01
 Client ID: RB-9
 Sample Location: 47 ELM ST., NORTON
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 11/05/15 14:41
 Analyst: MM

Date Collected: 10/30/15 11:00
 Date Received: 10/30/15
 Field Prep: Not Specified

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

Project Name: REED & BARTON**Lab Number:** L1528136**Project Number:** 101726.00**Report Date:** 11/06/15**SAMPLE RESULTS****Lab ID:** L1528136-01**Date Collected:** 10/30/15 11:00**Client ID:** RB-9**Date Received:** 10/30/15**Sample Location:** 47 ELM ST., NORTON**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylene (Total)	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene (total)	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1

Project Name: REED & BARTON

Lab Number: L1528136

Project Number: 101726.00

Report Date: 11/06/15

SAMPLE RESULTS

Lab ID: L1528136-01

Date Collected: 10/30/15 11:00

Client ID: RB-9

Date Received: 10/30/15

Sample Location: 47 ELM ST., NORTON

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	107		70-130

Project Name: REED & BARTON

Lab Number: L1528136

Project Number: 101726.00

Report Date: 11/06/15

SAMPLE RESULTS

Lab ID: L1528136-02
 Client ID: RB-SM-1
 Sample Location: 47 ELM ST., NORTON
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 11/05/15 15:14
 Analyst: MM

Date Collected: 10/30/15 11:30
 Date Received: 10/30/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	1.6		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: REED & BARTON

Lab Number: L1528136

Project Number: 101726.00

Report Date: 11/06/15

SAMPLE RESULTS

Lab ID: L1528136-02

Date Collected: 10/30/15 11:30

Client ID: RB-SM-1

Date Received: 10/30/15

Sample Location: 47 ELM ST., NORTON

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylene (Total)	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene (total)	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1

Project Name: REED & BARTON

Lab Number: L1528136

Project Number: 101726.00

Report Date: 11/06/15

SAMPLE RESULTS

Lab ID: L1528136-02

Date Collected: 10/30/15 11:30

Client ID: RB-SM-1

Date Received: 10/30/15

Sample Location: 47 ELM ST., NORTON

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	107		70-130

Project Name: REED & BARTON

Lab Number: L1528136

Project Number: 101726.00

Report Date: 11/06/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C

Analytical Date: 11/05/15 07:02

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG837646-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: REED & BARTON

Lab Number: L1528136

Project Number: 101726.00

Report Date: 11/06/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C

Analytical Date: 11/05/15 07:02

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG837646-3					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylene (Total)	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene (total)	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: REED & BARTON

Lab Number: L1528136

Project Number: 101726.00

Report Date: 11/06/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C

Analytical Date: 11/05/15 07:02

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG837646-3					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--
tert-Butyl Alcohol	ND		ug/l	10	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: REED & BARTON

Project Number: 101726.00

Lab Number: L1528136

Report Date: 11/06/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG837646-1 WG837646-2								
Methylene chloride	107		99		70-130	8		20
1,1-Dichloroethane	100		103		70-130	3		20
Chloroform	102		102		70-130	0		20
Carbon tetrachloride	91		93		70-130	2		20
1,2-Dichloropropane	102		102		70-130	0		20
Dibromochloromethane	98		97		70-130	1		20
1,1,2-Trichloroethane	108		107		70-130	1		20
Tetrachloroethene	94		94		70-130	0		20
Chlorobenzene	102		102		70-130	0		20
Trichlorofluoromethane	93		94		70-130	1		20
1,2-Dichloroethane	102		104		70-130	2		20
1,1,1-Trichloroethane	93		93		70-130	0		20
Bromodichloromethane	99		98		70-130	1		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	99		99		70-130	0		20
1,1-Dichloropropene	93		92		70-130	1		20
Bromoform	84		97		70-130	14		20
1,1,2,2-Tetrachloroethane	110		110		70-130	0		20
Benzene	100		99		70-130	1		20
Toluene	100		99		70-130	1		20
Ethylbenzene	101		99		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: REED & BARTON

Project Number: 101726.00

Lab Number: L1528136

Report Date: 11/06/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG837646-1 WG837646-2								
Chloromethane	99		99		70-130	0		20
Bromomethane	57	Q	63	Q	70-130	10		20
Vinyl chloride	95		96		70-130	1		20
Chloroethane	112		109		70-130	3		20
1,1-Dichloroethene	97		96		70-130	1		20
trans-1,2-Dichloroethene	102		102		70-130	0		20
Trichloroethene	98		99		70-130	1		20
1,2-Dichlorobenzene	104		104		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	104		102		70-130	2		20
Methyl tert butyl ether	103		105		70-130	2		20
p/m-Xylene	104		100		70-130	4		20
o-Xylene	104		104		70-130	0		20
cis-1,2-Dichloroethene	100		101		70-130	1		20
Dibromomethane	110		103		70-130	7		20
1,2,3-Trichloropropane	104		100		70-130	4		20
Styrene	108		107		70-130	1		20
Dichlorodifluoromethane	81		81		70-130	0		20
Acetone	128		130		70-130	2		20
Carbon disulfide	92		96		70-130	4		20
2-Butanone	110		115		70-130	4		20

Lab Control Sample Analysis Batch Quality Control

Project Name: REED & BARTON

Project Number: 101726.00

Lab Number: L1528136

Report Date: 11/06/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG837646-1 WG837646-2								
4-Methyl-2-pentanone	106		106		70-130	0		20
2-Hexanone	111		112		70-130	1		20
Bromochloromethane	115		114		70-130	1		20
Tetrahydrofuran	110		104		70-130	6		20
2,2-Dichloropropane	95		95		70-130	0		20
1,2-Dibromoethane	109		108		70-130	1		20
1,3-Dichloropropane	105		104		70-130	1		20
1,1,1,2-Tetrachloroethane	98		98		70-130	0		20
Bromobenzene	100		98		70-130	2		20
n-Butylbenzene	103		101		70-130	2		20
sec-Butylbenzene	96		95		70-130	1		20
tert-Butylbenzene	93		91		70-130	2		20
o-Chlorotoluene	98		99		70-130	1		20
p-Chlorotoluene	101		99		70-130	2		20
1,2-Dibromo-3-chloropropane	121		102		70-130	17		20
Hexachlorobutadiene	95		100		70-130	5		20
Isopropylbenzene	96		95		70-130	1		20
p-Isopropyltoluene	95		92		70-130	3		20
Naphthalene	82		88		70-130	7		20
n-Propylbenzene	98		99		70-130	1		20
1,2,3-Trichlorobenzene	98		106		70-130	8		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: REED & BARTON

Project Number: 101726.00

Lab Number: L1528136

Report Date: 11/06/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG837646-1 WG837646-2								
1,2,4-Trichlorobenzene	96		96		70-130	0		20
1,3,5-Trimethylbenzene	95		94		70-130	1		20
1,2,4-Trimethylbenzene	97		95		70-130	2		20
Ethyl ether	106		105		70-130	1		20
Isopropyl Ether	102		102		70-130	0		20
Ethyl-Tert-Butyl-Ether	97		96		70-130	1		20
Tertiary-Amyl Methyl Ether	96		96		70-130	0		20
1,4-Dioxane	112		126		70-130	12		20
tert-Butyl Alcohol	118		136	Q	70-130	14		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		98		70-130
Toluene-d8	103		98		70-130
4-Bromofluorobenzene	94		97		70-130
Dibromofluoromethane	103		96		70-130

Project Name: REED & BARTON**Lab Number:** L1528136**Project Number:** 101726.00**Report Date:** 11/06/15**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1528136-01A	Vial HCl preserved	A	N/A	3.1	Y	Absent	MCP-8260-10(14)
L1528136-01B	Vial HCl preserved	A	N/A	3.1	Y	Absent	MCP-8260-10(14)
L1528136-01C	Vial HCl preserved	A	N/A	3.1	Y	Absent	MCP-8260-10(14)
L1528136-02A	Vial HCl preserved	A	N/A	3.1	Y	Absent	MCP-8260-10(14)
L1528136-02B	Vial HCl preserved	A	N/A	3.1	Y	Absent	MCP-8260-10(14)
L1528136-02C	Vial HCl preserved	A	N/A	3.1	Y	Absent	MCP-8260-10(14)

*Values in parentheses indicate holding time in days

Project Name: REED & BARTON
Project Number: 101726.00

Lab Number: L1528136
Report Date: 11/06/15

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
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.
LFB	- Laboratory Fortified Blank: 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.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report



Project Name: REED & BARTON
Project Number: 101726.00

Lab Number: L1528136
Report Date: 11/06/15

Data Qualifiers

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: REED & BARTON
Project Number: 101726.00

Lab Number: L1528136
Report Date: 11/06/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at 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 Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 8260C: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; Iodomethane (methyl iodide) (soil); Methyl methacrylate (soil); Azobenzene; Bromobenzene (aqueous).

EPA 8270D: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury;

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Tl, Zn;

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

EPA 245.1, SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab:

10/30/15

ALPHA Job #:

21528136

Project Information

Project Name: Reed & Barton

Project Location: 47 Elm St. Norton

Project #: 101726-00

Project Manager: Elliott Jacobs

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved)

Date Due: 11/3/15

Report Information - Data Deliverables

☐ ADEX ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☒ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program Criteria

Client Information

Client: Mass DEP

Address: 20 Riverside Drive
Lakeville, MA 02347

Phone: 508-946-2786

Email: elliot.jacobs@state.ma.us

Additional Project Information:

ALPHA Lab ID
(Lab Use Only)

Sample ID

Collection

Date

Time

Sample
Matrix

Sampler
Initials

ANALYSIS

VOC: ☒ 8260 ☐ 824 ☐ 524.2

SVOC: ☐ ABN ☐ PAH

METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15

METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13

EPH: ☐ Ranges & Targets ☐ Ranges Only

VPH: ☐ Ranges & Targets ☐ Ranges Only

PCB ☐ PEST

TPH: ☐ Quant Only ☐ Fingerprint

SAMPLE INFO

Filtration

☐ Field

☐ Lab to do

Preservation

☐ Lab to do

Sample Comments

TOTAL # BOTTLES

28136-01	RB-9	10/30/15 11:00	water	EBJ	✓
02	RB-SM-1	10/30/15 11:30	water	EBJ	✓

Container Type

P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative

A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

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

FORM NO 01-01 (rev 12-Mar-2012)

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1528136

Instrument ID: Jack.i Calibration Date: 05-NOV-2015 Time: 05:25

Lab File ID: 1105B02 Init. Calib. Date(s): 12-OCT-2 12-OCT-2

Sample No: 8260 CCAL Init. Calib. Times : 11:05 14:19

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.64845	.5274	.1	-19	20	
chloromethane	.97727	.9714	.1	-1	20	
vinyl chloride	.82783	.78676	.1	-5	20	
bromomethane	.32615	.18633	.1	-43	20	F
chloroethane	.41172	.45932	.1	12	20	
trichlorofluoromethane	.9394	.8704	.1	-7	20	
ethyl ether	.29204	.31035	.05	6	20	
1,1,-dichloroethene	.56977	.55427	.1	-3	20	
carbon disulfide	1.7088	1.5794	.1	-8	20	
methylene chloride	.59702	.63972	.1	7	20	
acetone	100	128	.1	28	20	F
trans-1,2-dichloroethene	.63117	.64086	.1	2	20	
methyl tert butyl ether	1.2511	1.2914	.1	3	20	
tert butyl alcohol	.02869	.03398	.05	18	20	F
Diisopropyl Ether	2.7426	2.7848	.01	2	20	
1,1-dichloroethane	1.3683	1.3689	.2	0	20	
Ethyl-Tert-Butyl-Ether	1.9844	1.9290	.05	-3	20	
cis-1,2-dichloroethene	.76984	.7723	.1	0	20	
2,2-dichloropropane	.96888	.9199	.05	-5	20	
bromochloromethane	.30597	.35301	.05	15	20	
chloroform	1.1667	1.1896	.2	2	20	
carbontetrachloride	.93122	.84949	.1	-9	20	
tetrahydrofuran	.16797	.18517	.05	10	20	
1,1,1-trichloroethane	1.0560	.98614	.1	-7	20	
1,1-dichloropropene	.90464	.84419	.05	-7	20	
2-butanone	.19059	.20891	.1	10	20	
benzene	2.7957	2.7920	.5	0	20	
Tertiary-Amyl Methyl Ether	1.4021	1.3475	.05	-4	20	
1,2-dichloroethane	.80995	.82646	.1	2	20	
trichloroethene	.71123	.6969	.2	-2	20	
dibromomethane	.35257	.38973	.05	11	20	
1,2-dichloropropane	.73853	.75663	.1	2	20	
bromodichloromethane	.80055	.78975	.2	-1	20	
1,4-dioxane	.00297	.00333	.05	12	20	F
cis-1,3-dichloropropene	.94696	.93594	.2	-1	20	
toluene	2.1705	2.1738	.4	0	20	
tetrachloroethene	1.0234	.96226	.2	-6	20	
4-methyl-2-pentanone	.15137	.16057	.1	6	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1528136

Instrument ID: Jack.i Calibration Date: 05-NOV-2015 Time: 05:25

Lab File ID: 1105B02 Init. Calib. Date(s): 12-OCT-2 12-OCT-2

Sample No: 8260 CCAL Init. Calib. Times : 11:05 14:19

Compound	RRF	RRF	MIN RRF	%D	MAX %D
trans-1,3-dichloropropene	.8899	.88709	.1	0	20
1,1,2-trichloroethane	.45228	.48649	.1	8	20
chlorodibromomethane	.66722	.65389	.1	-2	20
1,3-dichloropropane	.95209	1.0004	.05	5	20
1,2-dibromoethane	.51877	.56654	.1	9	20
2-hexanone	.32965	.36591	.1	11	20
chlorobenzene	2.4227	2.4783	.5	2	20
ethyl benzene	4.0737	4.1007	.1	1	20
1,1,1,2-tetrachloroethane	.83842	.81982	.05	-2	20
p/m xylene	1.6470	1.7173	.1	4	20
o xylene	1.5375	1.5993	.3	4	20
bromoform	.64153	.5365	.1	-16	20
styrene	2.4785	2.6809	.3	8	20
isopropylbenzene	8.2002	7.8364	.1	-4	20
bromobenzene	1.9059	1.8986	.05	0	20
n-propylbenzene	6.1637	6.0523	.05	-2	20
1,1,2,2,-tetrachloroethane	1.0394	1.1396	.3	10	20
2-chlorotoluene	6.1637	6.0523	.05	-2	20
1,2,3-trichloropropane	.89186	.93067	.05	4	20
1,3,5-trimethylbenzene	6.8613	6.5382	.05	-5	20
4-chlorotoluene	5.4477	5.5096	.05	1	20
tert-butylbenzene	6.1050	5.6961	.05	-7	20
1,2,4-trimethylbenzene	6.7124	6.4980	.05	-3	20
sec-butylbenzene	8.5387	8.1897	.01	-4	20
p-isopropyltoluene	7.6423	7.2290	.05	-5	20
1,3-dichlorobenzene	3.8379	3.8530	.6	0	20
1,4-dichlorobenzene	3.6705	3.8124	.5	4	20
n-butylbenzene	5.5099	5.6694	.05	3	20
1,2-dichlorobenzene	3.3135	3.4421	.4	4	20
1,2-dibromo-3-chloropropane	.13751	.16593	.05	21	20
1,2,4-trichlorobenzene	100	95.490	.2	-5	20
hexachlorobutadiene	.64557	.61256	.05	-5	20
naphthalene	100	82.394	.05	-18	20
1,2,3-trichlorobenzene	100	97.705	.05	-2	20
dibromofluoromethane	.24936	.25754	.05	3	20
1,2-dichloroethane-d4	.27078	.26638	.05	-2	20
toluene-d8	1.1679	1.2045	.01	3	20

F

FORM VII MCP-8260-10

Sample No: 8260 CCAL Init. Calib. Times : 11:05 14:19

[illegible]

Page 29 of 29



**Closed Reed and Barton
Facility**

**Elm Street and Cross Road
Norton, MA**

-  **Microwell**
-  **Seepage Meter**

0 50 ft
Approx Scale

10/30/15