

# BENNETT ENVIRONMENTAL ASSOCIATES, INC.

LICENSED SITE PROFESSIONALS ♪ ENVIRONMENTAL SCIENTISTS ♪ GEOLOGISTS ♪ ENGINEERS

1573 Main Street - P.O. Box 1743, Brewster, MA 02631 ♪ 508-896-1706 ♪ Fax 508-896-5109 ♪ www.bennett-ea.com

BEA16-10913

July 1, 2016

Ms. Leedara Zola  
Habitat for Humanity  
Land Acquisition & Permitting  
411 Main Street, Suite 6  
Yarmouthport, MA 02675

**RE:** 93 & 97 Route 28 (Main Street)  
West Harwich, MA

Dear Ms. Zola,

Per our agreement dated June 1, 2016, BENNETT ENVIRONMENTAL ASSOCIATES, INC. (BEA) has completed limited physical testing at the above referenced property. This work was performed at your request to qualify potential environmental impacts to the subject properties as related to the documented plume of volatile organic compound (VOC) impacts to groundwater to the west. Research of the property identified a historic release of fuel oil occurred in the basement of the on-site dwelling at 97 Main Street. The spill was remediated and the Site was closed in 1996 with a Class A-2 Response Action Outcome (RAO), in accordance with 310 CMR 40.0000. As such, APH testing was also conducted at 97 Main Street to confirm that no significant risk exists relative to indoor air quality as having recently been framed in MCP policy, WSC-14-435.

## Physical Testing

On June 10, 2016, BEA personnel traveled to the subject property to oversee the installation of a groundwater monitoring well couplet, as well as soil vapor points in the basement of each of the on-site dwellings. Test borings TB-101A and TB-101B were conducted toward the rear of the developed portion of the property, between the two dwellings. Upon drilling, the contractor noted a confining clay layer at 45' below grade surface (bgs). Wherein the existing confining layer may be serving to prevent vertical mobilization of volatile compounds, it was decided that the clay would not be penetrated and deep monitoring well, MW101D, would be set at 45'bgs. Monitoring well MW101B was then set at 20' bgs.

Upon completion of monitoring well installation, BEA personnel moved to the interior of the dwellings to install soil vapor pins (SVP) through the basement flooring. A photoionization

detector was used to purge the soil gas and confirm the seal at each location with readings consistent with background (non-detect to 0.3ppmv).

On June 15, 2016, BEA returned to the property to gauge, develop, purge and sample the monitoring well couplet for volatile organic compounds (VOCs). Each of the SVPs were also purged and sampled for VOCs, as well as for air-phase petroleum hydrocarbons (APH) in review of residual indoor air impacts. Each of the samples were then forwarded to a MA certified laboratory for analysis.

### Analytical Results

According to the MA DEP BWSC GIS mapping, the subject property is located within a Potential Drinking Water Source Area (PDWSA). As such, the RCGW-1 Reportable Concentrations are applicable for groundwater quality and the GW-1, GW-2 and GW-3 groundwater categories are applicable in Method 1 - Risk Characterization, relative to potential human exposures, inhalation and significant environmental impact. This criterion is used to determine notification and/or remedial response liabilities, pursuant to 310 CMR 40.0000 for groundwater samples. Sub-Slab Soil Gas Screening Values were used to evaluate soil vapor entry.

On June 23, 2016, Alpha Analytical reported the results of laboratory testing for the above noted soil vapor sampling. VOC and APH concentrations at each of the SVPs were reported below the detection limit of the analysis (Non-Detect), wherein the reporting limit was below the MA Residential Sub-slab Guidelines. On June 27, 2016, the results of laboratory testing for the above noted groundwater testing was received. All VOC parameters were reported as Non-Detect and below their respective reporting limits, with the exception of six VOCs (1,2 Dibromoethane, 1,3 Dichloropropene, 1,4 Dioxane, cis 1,3 Dichloropropene, Hexachlorobutadiene, trans 1,3 Dichloropropene) which were reported at their respective reporting limits, as greater than the RCGW-1 Concentrations. In the absence of other related VOC analytes, these compounds are not believed to be present at significant concentrations, and no Notification or Remedial Response liabilities are opined.

### Summary and Conclusions

BEA has performed limited physical testing, as described in detail above, at the subject property. This testing has revealed no groundwater impacts with all parameters reported as non-detect, as consistent with background conditions. Soil vapor concentrations were reported beneath the Soil Gas Screening Values listed in Appendix II of WSC-14-435, as indicating no threat of vapor entry into the dwelling as would degrade indoor air quality.

Should you have any additional questions regarding this work, or need additional information, please contact us at your convenience.

JULY 1, 2016  
PAGE 3 OF 3

HABITAT FOR HUMANITY/BEA16-10913  
LETTER OF FINDINGS

Sincerely,  
BENNETT ENVIRONMENTAL ASSOCIATES, INC.



Kara Risk, RS  
Project Manager

Cc: David C. Bennett, LSP

Encl. Geologic Borehole Logs and Monitoring Well Sampling Log  
Analytical Reports with Summary Spreadsheets








**BENNETT ENVIRONMENTAL ASSOCIATES, INC.**  
 1573 Main St., P.O. Box 1743  
 Brewster, MA. 02631

Project Name: HECH/Habitat for Humanity  
 Project Location: 93 & 97 Rt. 28, W. Harwich  
 Project Number: BEA16-10913

Sheet 1 of 2  
 Boring No. TB-101A/MW-101S  
 Location Next to Driveway  
 Surface Elev. 9' NGVD +/-  
 Start Date 6/10/2016  
 Finish Date 6/10/2016  
 Driller Jenkins  
 Inspector TME

Groundwater Readings			Casing	Sampler	Core
Date	Reading	Type			
1	6/10/2016	11.55' TOC	Size I.D.		
2			Hammer Wt.		
3			Hammer Fall		

Depth	Sample type-No.	Sampling Depth (ft)	Inches		Blow Count 6"	TOV Reading	Soil Description	Well Specs	Interpreted Geology
			Pen	Rec					
5-ft							Top/Subsoil		
	AF	0-5'	NA				Sand: Dark brown, medium, clean, dry		
10-ft									
	AF	5-10'	NA				Sand: Tan, medium, clean, dry		
15-ft									
	AF	10-15'	NA				Sand: Tan-brown, medium with trace coarse, clean, wet		
20-ft									
	AF	15-20'	NA				As above (A/A)		
25-ft									
30-ft									
35-ft									
40-ft									
45-ft									

	Sand	Cohesive Soils	Granular Soils	Sample Type	<b>SWL: 11' bgs (+/-)</b> <b>NOTES:</b> Set 10' of #10 screen at 20' bgs +/- w/Schedule 40 casing. Run to grade. Backfill to 8' bgs with native material, set 2' Bentonite plug, backfill to grade within 1-2'. Stick-up A1 cap.
	Gravel				
	Silt	2-4 = soft	5-10 = loose	ST - shelby tube	
	Top/Sub Soil	4-8 = medium stiff	11-30 = medium	AF - auger flights	
	Clay	8-15 = stiff	30-50 = dense	RC - rock core	
	Peat	15-30 = very stiff	> 50 = very dense	MA - microliners	
	Fill	> 30 = hard		HA - hand auger	








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 1573 Main St., P.O. Box 1743  
 Brewster, MA. 02631

Project Name: HECH/Habitat for Humanity  
 Project Location: 93 & 97 Rt. 28, W. Harwich  
 Project Number: BEA16-10913

Sheet 2 of 2  
 Boring No. TB-101B/MW-101D  
 Location Next to Driveway  
 Surface Elev. 9' NGVD +/-  
 Start Date 6/10/2016  
 Finish Date 6/10/2016  
 Driller Jenkins  
 Inspector TME

Groundwater Readings			Type	Casing	Sampler	Core
Date	Reading					
1	6/10/2016	11.41' TOC		Sch. 40 PVC		
2			Size I.D.	2"		
3			Hammer Wt.	NA		
			Hammer Fall	NA		

Depth	Sample type-No.	Sampling Depth (ft)	Inches		Blow Count 6"	TOV Reading	Soil Description	Well Specs	Interpreted Geology
			Pen	Rec					
							Top/Subsoil		
10-ft	AF	0-10'	NA				Sand: Dark brown - tan, medium, clean, dry		
20-ft	AF	5-20'	NA				Sand: Tan-brown, medium, with trace coarse, wet		
30-ft	AF	10-30'	NA				Sand: A/A		
40-ft	AF	15-40'	NA				A/A		
	AF	42-43'	NA			ND	Sand: Brown, medium with silt, wet		
	AF	@45'	NA			ND	Clay: Blue-gray, wet		
50-ft									
60-ft									
70-ft									
80-ft									
90-ft									

	Sand	Cohesive Soils < 2 = very soft 2-4 = soft 4-8 = medium stiff 8-15 = stiff 15-30 = very stiff > 30 = hard	Granular Soils < 4 = very loose 5-10 = loose 11-30 = medium 30-50 = dense > 50 = very dense	Sample Type SS - split spoon ST - Shelby tube AF - auger flights RC - rock core MA - microliners HA - hand auger	<b>SWL: 11' bgs (+/-)</b> <b>NOTES:</b> Set 10' of #10 screen at approximately 45' bgs with Schedule 40 PVC to grade. Backfill with native material to 11' bgs (+/-), set 2' Bentonite plug and backfill to grade.
	Gravel				
	Silt				
	Top/Sub Soil				
	Clay				
	Peat				
	Fill				

1573 Main Street, P.O. Box 1743  
Brewster, MA 02631

**BENNETT ENVIRONMENTAL ASSOCIATES, INC.**  
LICENSED SITE PROFESSIONALS, ENVIRONMENTAL SCIENTISTS, GEOLOGISTS, ENGINEERS

Phone: (508) 896-1706  
Fax: (508) 896-5109

**MONITORING WELL SAMPLING LOG**

Job Name: Habitat for Humanity Date(s): 6/15/16 Time: 9:30 AM Tide: N/A

Location: 93 & 97 Rt. 28, West Harwich Job Number: BEA16-10913

Sampler: T. Everson, R. Trimble Measuring Point: Ground Surface or T.O.C TOC

Well Number	Elev. of reference point (feet)	Total Depth of Well (feet)	Depth to Water (feet)	Standing Water Height (feet)	Water Table Elevation (feet)	Static Volume (gallons)	Volume Purged (gallons)	HNU Pt-101 (ppm)	pH	Dissolved Oxygen (mg/L)	Conductivity	Temperature (F)	Comments:
MW-101S	NE	20.00	11.64	8.36	NA	1.3	15.0	NT	5.41	1.520	0.113	54	ORP = 255.8
MW-101D	NE	45.00	11.52	33.48	NA	5.4	50.0	NT	5.33	0.391	0.391	55	ORP = 265.3

NOTES: NA = Not Applicable; NE = Not Established; NT = Not Taken

Low-flow methodology

Wells sampled for VOCs (8260) upon meeting purge requirements and stabilization of field parameters.



## ANALYTICAL REPORT

Lab Number:	L1618555
Client:	Bennett Environmental Associates 1573 Main Street Brewster, MA 02631
ATTN:	David Bennett
Phone:	(508) 896-1706
Project Name:	HABITAT FOR HUMANITY
Project Number:	BEA16-10913
Report Date:	06/23/16

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: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618555  
**Report Date:** 06/23/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1618555-01	SVP-1	SOIL_VAPOR	W. HARWICH, MA	06/15/16 11:15	06/16/16
L1618555-02	SVP-2	SOIL_VAPOR	W. HARWICH, MA	06/15/16 11:48	06/16/16





**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618555  
**Report Date:** 06/23/16

### 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.**

<b>An affirmative response to questions A through F is required for "Presumptive Certainty" status</b>		
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).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
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
<b>A response to questions G, H and I is required for "Presumptive Certainty" status</b>		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
<b>For any questions answered "No", please refer to the case narrative section on the following page(s).</b>		

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



**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618555  
**Report Date:** 06/23/16

### 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 NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. 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.

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**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618555  
**Report Date:** 06/23/16

### Case Narrative (continued)

#### MCP Related Narratives

Canisters were released from the laboratory on June 13, 2016. The canister certification data is provided as an addendum.

#### MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

The WG906667-5 Laboratory Duplicate RPD, performed on L1618555-01, is above the acceptance criteria for 1,4-Dichlorobenzene (37%); however, the sample and duplicate results are less than five times the reporting limit. Therefore, the RPD is valid.

#### Petroleum Hydrocarbons in Air

All significant concentrations of non-petroleum VOCs detected in the TO-15 analysis were subtracted from the corresponding hydrocarbon ranges.

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:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 06/23/16

**AIR**

**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618555  
**Report Date:** 06/23/16

### SAMPLE RESULTS

Lab ID: L1618555-01  
 Client ID: SVP-1  
 Sample Location: W. HARWICH, MA  
 Matrix: Soil\_Vapor  
 Analytical Method: 101,TO15-SIM  
 Analytical Date: 06/23/16 08:48  
 Analyst: RY

Date Collected: 06/15/16 11:15  
 Date Received: 06/16/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>MCP Volatile Organics in Air by SIM - Mansfield Lab</b>								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	4.07	1.00	--	9.67	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.12	0.500	--	3.30	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.035	0.020	--	0.171	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	0.054	0.020	--	0.340	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.326	0.050	--	1.23	0.188	--		1



**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618555  
**Report Date:** 06/23/16

### SAMPLE RESULTS

Lab ID: L1618555-01  
 Client ID: SVP-1  
 Sample Location: W. HARWICH, MA

Date Collected: 06/15/16 11:15  
 Date Received: 06/16/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>MCP Volatile Organics in Air by SIM - Mansfield Lab</b>								
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.025	0.020	--	0.170	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.057	0.020	--	0.248	0.087	--		1
p/m-Xylene	0.212	0.040	--	0.921	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.284	0.020	--	1.21	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.098	0.020	--	0.426	0.087	--		1
1,3-Dichlorobenzene	0.049	0.020	--	0.295	0.120	--		1
1,4-Dichlorobenzene	0.029	0.020	--	0.174	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	0.414	0.050	--	2.17	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	62		60-140
bromochloromethane	72		60-140
chlorobenzene-d5	66		60-140



**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618555  
**Report Date:** 06/23/16

**SAMPLE RESULTS**

Lab ID: L1618555-02  
 Client ID: SVP-2  
 Sample Location: W. HARWICH, MA  
 Matrix: Soil\_Vapor  
 Analytical Method: 101,TO15-SIM  
 Analytical Date: 06/23/16 07:49  
 Analyst: RY

Date Collected: 06/15/16 11:48  
 Date Received: 06/16/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>MCP Volatile Organics in Air by SIM - Mansfield Lab</b>								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	4.27	1.00	--	10.1	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.674	0.500	--	1.99	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.027	0.020	--	0.132	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.025	0.020	--	0.136	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	0.039	0.020	--	0.245	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.127	0.050	--	0.479	0.188	--		1



**Project Name:** HABITAT FOR HUMANITY**Lab Number:** L1618555**Project Number:** BEA16-10913**Report Date:** 06/23/16**SAMPLE RESULTS**

Lab ID: L1618555-02  
 Client ID: SVP-2  
 Sample Location: W. HARWICH, MA

Date Collected: 06/15/16 11:48  
 Date Received: 06/16/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>MCP Volatile Organics in Air by SIM - Mansfield Lab</b>								
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.029	0.020	--	0.126	0.087	--		1
p/m-Xylene	0.109	0.040	--	0.473	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.141	0.020	--	0.600	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.050	0.020	--	0.217	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	0.133	0.050	--	0.697	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	64		60-140
bromochloromethane	73		60-140
chlorobenzene-d5	67		60-140





Project Name: HABITAT FOR HUMANITY

Lab Number: L1618555

Project Number: BEA16-10913

Report Date: 06/23/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO15-SIM

Analytical Date: 06/22/16 16:43

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-02 Batch: WG906667-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: HABITAT FOR HUMANITY

Lab Number: L1618555

Project Number: BEA16-10913

Report Date: 06/23/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO15-SIM

Analytical Date: 06/22/16 16:43

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-02 Batch: WG906667-4								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: HABITAT FOR HUMANITY

Lab Number: L1618555

Project Number: BEA16-10913

Report Date: 06/23/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO15-SIM

Analytical Date: 06/22/16 16:43

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-02 Batch: WG906667-4								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** HABITAT FOR HUMANITY

**Lab Number:** L1618555

**Project Number:** BEA16-10913

**Report Date:** 06/23/16

Parameter	LCS	Qual	LCSD	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG906667-3								
Propylene	92		-		70-130	-		
Dichlorodifluoromethane	82		-		70-130	-		
Chloromethane	86		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	84		-		70-130	-		
Vinyl chloride	85		-		70-130	-		
1,3-Butadiene	90		-		70-130	-		
Bromomethane	85		-		70-130	-		
Chloroethane	83		-		70-130	-		
Ethyl Alcohol	83		-		70-130	-		
Vinyl bromide	81		-		70-130	-		
Acetone	82		-		50-150	-		
Trichlorofluoromethane	83		-		70-130	-		
iso-Propyl Alcohol	82		-		70-130	-		
1,1-Dichloroethene	83		-		70-130	-		
Methylene chloride	84		-		70-130	-		
3-Chloropropene	89		-		70-130	-		
Carbon disulfide	81		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	83		-		70-130	-		
Halothane	85		-		70-130	-		
trans-1,2-Dichloroethene	78		-		70-130	-		
1,1-Dichloroethane	96		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** HABITAT FOR HUMANITY

**Lab Number:** L1618555

**Project Number:** BEA16-10913

**Report Date:** 06/23/16

Parameter	LCS	Qual	LCSD	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG906667-3								
Methyl tert butyl ether	100		-		70-130			-
2-Butanone	97		-		70-130			-
cis-1,2-Dichloroethene	108		-		70-130			-
Ethyl Acetate	101		-		70-130			-
Chloroform	98		-		70-130			-
Tetrahydrofuran	102		-		70-130			-
1,2-Dichloroethane	95		-		70-130			-
n-Hexane	100		-		70-130			-
1,1,1-Trichloroethane	105		-		70-130			-
Benzene	99		-		70-130			-
Carbon tetrachloride	105		-		70-130			-
Cyclohexane	100		-		70-130			-
1,2-Dichloropropane	101		-		70-130			-
Bromodichloromethane	105		-		70-130			-
1,4-Dioxane	99		-		50-150			-
Trichloroethene	98		-		70-130			-
2,2,4-Trimethylpentane	105		-		70-130			-
cis-1,3-Dichloropropene	104		-		70-130			-
4-Methyl-2-pentanone	107		-		70-130			-
trans-1,3-Dichloropropene	97		-		70-130			-
1,1,2-Trichloroethane	104		-		70-130			-

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** HABITAT FOR HUMANITY

**Lab Number:** L1618555

**Project Number:** BEA16-10913

**Report Date:** 06/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG906667-3								
Toluene	98		-		70-130	-		
2-Hexanone	115		-		70-130	-		
Dibromochloromethane	105		-		70-130	-		
1,2-Dibromoethane	102		-		70-130	-		
Tetrachloroethene	93		-		70-130	-		
Chlorobenzene	97		-		70-130	-		
Ethylbenzene	103		-		70-130	-		
p/m-Xylene	108		-		70-130	-		
Bromoform	102		-		70-130	-		
Styrene	109		-		70-130	-		
1,1,2,2-Tetrachloroethane	101		-		70-130	-		
o-Xylene	106		-		70-130	-		
1,3,5-Trimethylbenzene	103		-		70-130	-		
1,2,4-Trimethylbenzene	108		-		70-130	-		
Benzyl chloride	110		-		70-130	-		
1,3-Dichlorobenzene	102		-		70-130	-		
1,4-Dichlorobenzene	93		-		70-130	-		
1,2-Dichlorobenzene	99		-		70-130	-		
1,2,4-Trichlorobenzene	95		-		50-150	-		
Naphthalene	99		-		50-150	-		
1,2,3-Trichlorobenzene	94		-		70-130	-		

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** HABITAT FOR HUMANITY

**Lab Number:** L1618555

**Project Number:** BEA16-10913

**Report Date:** 06/23/16

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG906667-3								
Hexachlorobutadiene	95		-		50-150	-		

## Lab Duplicate Analysis

Batch Quality Control

Project Name: HABITAT FOR HUMANITY

Project Number: BEA16-10913

Lab Number: L1618555

Report Date: 06/23/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG906667-5 QC Sample: L1618555-01 Client ID: SVP-1						
Vinyl chloride	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Acetone	4.07	4.14	ppbV	2		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	1.12	1.14	ppbV	2		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Chloroform	0.035	0.036	ppbV	3		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	0.054	0.053	ppbV	2		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	ND	ND	ppbV	NC		25



## Lab Duplicate Analysis

Batch Quality Control

Project Name: HABITAT FOR HUMANITY

Project Number: BEA16-10913

Lab Number: L1618555

Report Date: 06/23/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG906667-5 QC Sample: L1618555-01 Client ID: SVP-1					
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	0.326	0.324	ppbV	1	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	0.025	0.024	ppbV	4	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	0.057	0.056	ppbV	2	25
p/m-Xylene	0.212	0.213	ppbV	0	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	0.284	0.284	ppbV	0	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	0.098	0.098	ppbV	0	25
1,3-Dichlorobenzene	0.049	0.054	ppbV	10	25
1,4-Dichlorobenzene	0.029	0.042	ppbV	37	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25

## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** HABITAT FOR HUMANITY

**Project Number:** BEA16-10913

**Lab Number:** L1618555

**Report Date:** 06/23/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG906667-5 QC Sample: L1618555-01 Client ID: SVP-1					
Naphthalene	0.414	0.383	ppbV	8	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25

**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618555  
**Report Date:** 06/23/16

**SAMPLE RESULTS**

Lab ID: L1618555-01  
 Client ID: SVP-1  
 Sample Location: W. HARWICH, MA  
 Matrix: Soil\_Vapor  
 Analytical Method: 96,APH  
 Analytical Date: 06/23/16 08:48  
 Analyst: RY

Date Collected: 06/15/16 11:15  
 Date Received: 06/16/16  
 Field Prep: Not Specified

**Quality Control Information**

Sample Type:	Composite
Sample Container Type:	Canister - 2.7 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	0.50	--	1
Methyl tert butyl ether	ND		ug/m3	0.70	--	1
Benzene	ND		ug/m3	0.60	--	1
C5-C8 Aliphatics, Adjusted	51		ug/m3	10	--	1
Toluene	1.1		ug/m3	0.90	--	1
Ethylbenzene	ND		ug/m3	0.90	--	1
p/m-Xylene	ND		ug/m3	0.90	--	1
o-Xylene	ND		ug/m3	0.90	--	1
Naphthalene	2.2		ug/m3	1.1	--	1
C9-C12 Aliphatics, Adjusted	120		ug/m3	10	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	67		50-200
Bromochloromethane	73		50-200
Chlorobenzene-d5	72		50-200

**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618555  
**Report Date:** 06/23/16

**SAMPLE RESULTS**

Lab ID: L1618555-02  
 Client ID: SVP-2  
 Sample Location: W. HARWICH, MA  
 Matrix: Soil\_Vapor  
 Analytical Method: 96,APH  
 Analytical Date: 06/23/16 07:49  
 Analyst: RY

Date Collected: 06/15/16 11:48  
 Date Received: 06/16/16  
 Field Prep: Not Specified

**Quality Control Information**

Sample Type:	Composite
Sample Container Type:	Canister - 2.7 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air - Mansfield Lab</b>						
1,3-Butadiene	ND		ug/m3	0.50	--	1
Methyl tert butyl ether	ND		ug/m3	0.70	--	1
Benzene	ND		ug/m3	0.60	--	1
C5-C8 Aliphatics, Adjusted	31		ug/m3	10	--	1
Toluene	ND		ug/m3	0.90	--	1
Ethylbenzene	ND		ug/m3	0.90	--	1
p/m-Xylene	ND		ug/m3	0.90	--	1
o-Xylene	ND		ug/m3	0.90	--	1
Naphthalene	ND		ug/m3	1.1	--	1
C9-C12 Aliphatics, Adjusted	28		ug/m3	10	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	68		50-200
Bromochloromethane	75		50-200
Chlorobenzene-d5	72		50-200

Project Name: HABITAT FOR HUMANITY

Lab Number: L1618555

Project Number: BEA16-10913

Report Date: 06/23/16

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

Analytical Method: 96,APH  
Analytical Date: 06/22/16 16:43  
Analyst: RY

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01-02 Batch: WG906661-4					
1,3-Butadiene	ND		ug/m3	0.50	--
Methyl tert butyl ether	ND		ug/m3	0.70	--
Benzene	ND		ug/m3	0.60	--
C5-C8 Aliphatics, Adjusted	ND		ug/m3	10	--
Toluene	ND		ug/m3	0.90	--
Ethylbenzene	ND		ug/m3	0.90	--
p/m-Xylene	ND		ug/m3	0.90	--
o-Xylene	ND		ug/m3	0.90	--
Naphthalene	ND		ug/m3	1.1	--
C9-C12 Aliphatics, Adjusted	ND		ug/m3	10	--
C9-C10 Aromatics Total	ND		ug/m3	10	--

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** HABITAT FOR HUMANITY

**Lab Number:** L1618555

**Project Number:** BEA16-10913

**Report Date:** 06/23/16

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG906661-3								
1,3-Butadiene	92		-		70-130	-		
Methyl tert butyl ether	93		-		70-130	-		
Benzene	102		-		70-130	-		
C5-C8 Aliphatics, Adjusted	104		-		70-130	-		
Toluene	97		-		70-130	-		
Ethylbenzene	96		-		70-130	-		
p/m-Xylene	98		-		70-130	-		
o-Xylene	97		-		70-130	-		
Naphthalene	102		-		50-150	-		
C9-C12 Aliphatics, Adjusted	93		-		70-130	-		
C9-C10 Aromatics Total	80		-		70-130	-		

## Lab Duplicate Analysis

Batch Quality Control

Project Name: HABITAT FOR HUMANITY

Project Number: BEA16-10913

Lab Number: L1618555

Report Date: 06/23/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG906661-5 QC Sample: L1618555-01 Client ID: SVP-1						
1,3-Butadiene	ND	ND	ug/m3	NC		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	ND	ND	ug/m3	NC		30
C5-C8 Aliphatics, Adjusted	51	56	ug/m3	9		30
Toluene	1.1	1.2	ug/m3	9		30
Ethylbenzene	ND	ND	ug/m3	NC		30
p/m-Xylene	ND	ND	ug/m3	NC		30
o-Xylene	ND	ND	ug/m3	NC		30
Naphthalene	2.2	2.2	ug/m3	0		30
C9-C12 Aliphatics, Adjusted	120	120	ug/m3	0		30
C9-C10 Aromatics Total	ND	ND	ug/m3	NC		30

**Project Name:** HABITAT FOR HUMANITY

Serial\_No:06231612:07  
**Lab Number:** L1618555

**Project Number:** BEA16-10913

**Report Date:** 06/23/16

### Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1618555-01	SVP-1	0512	SV200	06/13/16	223876		-	-	-	Pass	221	205	8
L1618555-01	SVP-1	2192	2.7L Can	06/13/16	223876	L1617545-01	Pass	-29.5	-5.0	-	-	-	-
L1618555-02	SVP-2	0510	SV200	06/13/16	223876		-	-	-	Pass	224	206	8
L1618555-02	SVP-2	2249	2.7L Can	06/13/16	223876	L1617545-01	Pass	-29.7	-5.3	-	-	-	-



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1617545  
**Report Date:** 06/23/16

### Air Canister Certification Results

Lab ID: L1617545-01  
 Client ID: CAN 560 SHELF 2  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 06/09/16 16:07  
 Analyst: RY

Date Collected: 06/08/16 16:00  
 Date Received: 06/09/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1617545  
**Report Date:** 06/23/16

### Air Canister Certification Results

Lab ID: L1617545-01  
 Client ID: CAN 560 SHELF 2  
 Sample Location:

Date Collected: 06/08/16 16:00  
 Date Received: 06/09/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1617545  
**Report Date:** 06/23/16

### Air Canister Certification Results

Lab ID: L1617545-01 Date Collected: 06/08/16 16:00  
 Client ID: CAN 560 SHELF 2 Date Received: 06/09/16  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1617545  
**Report Date:** 06/23/16

### Air Canister Certification Results

Lab ID: L1617545-01  
 Client ID: CAN 560 SHELF 2  
 Sample Location:

Date Collected: 06/08/16 16:00  
 Date Received: 06/09/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1617545  
**Report Date:** 06/23/16

### Air Canister Certification Results

Lab ID: L1617545-01 Date Collected: 06/08/16 16:00  
 Client ID: CAN 560 SHELF 2 Date Received: 06/09/16  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	81		60-140

**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1617545  
**Report Date:** 06/23/16

### Air Canister Certification Results

Lab ID: L1617545-01  
 Client ID: CAN 560 SHELF 2  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 06/09/16 16:07  
 Analyst: RY

Date Collected: 06/08/16 16:00  
 Date Received: 06/09/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1617545  
**Report Date:** 06/23/16

### Air Canister Certification Results

Lab ID: L1617545-01  
 Client ID: CAN 560 SHELF 2  
 Sample Location:

Date Collected: 06/08/16 16:00  
 Date Received: 06/09/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1617545  
**Report Date:** 06/23/16

### Air Canister Certification Results

Lab ID: L1617545-01 Date Collected: 06/08/16 16:00  
 Client ID: CAN 560 SHELF 2 Date Received: 06/09/16  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	82		60-140



# **AIR Petro Can Certification**

**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1617545**Project Number:** CANISTER QC BAT**Report Date:** 06/23/16**AIR CAN CERTIFICATION RESULTS**

**Lab ID:** L1617545-01  
**Client ID:** CAN 560 SHELF 2  
**Sample Location:** Not Specified  
**Matrix:** Air  
**Analytical Method:** 96,APH  
**Analytical Date:** 06/09/16 16:07  
**Analyst:** RY

**Date Collected:** 06/08/16 16:00  
**Date Received:** 06/09/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Petroleum Hydrocarbons in Air</b>						
1,3-Butadiene	ND		ug/m3	0.50	--	1
Methyl tert butyl ether	ND		ug/m3	0.70	--	1
Benzene	ND		ug/m3	0.60	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	10	--	1
Toluene	ND		ug/m3	0.90	--	1
Ethylbenzene	ND		ug/m3	0.90	--	1
p/m-Xylene	ND		ug/m3	0.90	--	1
o-Xylene	ND		ug/m3	0.90	--	1
Naphthalene	ND		ug/m3	1.1	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	10	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

**Project Name:** HABITAT FOR HUMANITY**Project Number:** BEA16-10913**Lab Number:** L1618555**Report Date:** 06/23/16**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information Custody Seal****Cooler**

N/A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1618555-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	MCP-TO15-SIM(30),APH-10(30)
L1618555-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	MCP-TO15-SIM(30),APH-10(30)

\*Values in parentheses indicate holding time in days

**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618555  
**Report Date:** 06/23/16

## 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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
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

**Report Format:** Data Usability Report



**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618555  
**Report Date:** 06/23/16

#### Data Qualifiers

- reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- 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:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618555  
**Report Date:** 06/23/16

## REFERENCES

- 96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.
- 101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, 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 524.2:** 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene  
**EPA 624:** 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene  
**EPA 625:** Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.  
**EPA 1010A:** NPW: Ignitability  
**EPA 6010C:** NPW: Strontium; SCM: Strontium  
**EPA 8151A:** NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP  
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.  
**EPA 8270D:** NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.  
**EPA 9010:** NPW: Amenable Cyanide Distillation, Total Cyanide Distillation  
**EPA 9038:** NPW: Sulfate  
**EPA 9050A:** NPW: Specific Conductance  
**EPA 9056:** NPW: Chloride, Nitrate, Sulfate  
**EPA 9065:** NPW: Phenols  
**EPA 9251:** NPW: Chloride  
**SM3500:** NPW: Ferrous Iron  
**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.  
**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**EPA 8270D:** NPW: Biphenyl; SCM: Biphenyl, Caprolactam  
**EPA 8270D-SIM Isotope Dilution:** SCM: 1,4-Dioxane  
**SM 2540D:** TSS  
**SM2540G:** SCM: Percent Solids  
**EPA 1631E:** SCM: Mercury  
**EPA 7474:** SCM: Mercury  
**EPA 8081B:** NPW and SCM: Mirex, Hexachlorobenzene.  
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.  
**EPA 8270-SIM:** NPW and SCM: Alkylated PAHs.  
**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, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.  
**Biological Tissue Matrix:** **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

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, Ti; **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, Ti, 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.

# AIR ANALYSIS

**CHAIN OF CUSTODY**  
 320 Forbes Blvd, Mansfield, MA 02048  
 TEL: 508-822-9300 FAX: 508-822-3288

PAGE 1 OF 1

**Project Information**  
 Project Name: AMBITION FOR HUMANITY  
 Project Location: W. HARWOOD, MA  
 Project #: BEA16-10913  
 Project Manager: DBennett / E  
 ALPHA Quote #: \_\_\_\_\_

**Turn-Around Time**  
 Standard  RUSH (only confirmed if pre-approved)  
 Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

Date Rec'd in Lab: 6/16/10

**Report Information - Data Deliverables**  
 FAX  
 ADEX  
 Criteria Checker: \_\_\_\_\_  
 (Default based on Regulatory Criteria Indicated)  
 Other Formats: \_\_\_\_\_  
 EMAIL (standard pdf report)  
 Additional Deliverables:  
 Report to: (if different than Project Manager) \_\_\_\_\_

**ALPHA Job #: L10/8555**

**Billing Information**  
 Same as Client info PO #: BEA16-10913

**Regulatory Requirements/Report Limits**  
 State/Fed: MA Program: MCP- Res / Comm: RES  
SOIL VAPOR

## ANALYSIS

Subtract Non-petroleum HCs  
 Fixed Gases  
 Sulfoxides & Mercaptans by TO-15

Sample Comments (i.e. PID)  
FLOW CONTROLS R WOULD NOT REPORT

### All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION			Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SM	APH	Fixed Gases	Sulfoxides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time											
<u>18555.01</u>	<u>SV-1</u>	<u>6/15/10</u>	<u>11:04</u>	<u>11:15am</u>	<u>27.72</u>	<u>-5.04</u>	<u>SV</u>	<u>E</u>	<u>2.7L 2492</u>	<u>0512</u>	<u>X</u>	<u>X</u>			
<u>.00</u>	<u>SV-2</u>	<u>6/15/10</u>	<u>11:37</u>	<u>11:48</u>	<u>-29.30</u>	<u>?</u>	<u>SV</u>	<u>E</u>	<u>2.7L 2249</u>	<u>0510</u>	<u>X</u>	<u>X</u>			

**\*SAMPLE MATRIX CODES**  
 AA = Ambient Air (Indoor/Outdoor)  
 SV = Soil Vapor/Landfill Gas/SVE  
 Other = Please Specify

Received By: \_\_\_\_\_ Date/Time: 6/16/10 2:10  
6/16/10 15:15  
6/16/10 18:47  
6/16/10 21:10

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.



LOCATION				SVP-1	SVP-2
SAMPLING DATE				6/15/2016	6/15/2016
LAB SAMPLE ID				L1618555-01	L1618555-02
	CasNum	MA-RSSG	Units		
MCP Volatile Organics in Air by SIM					
Vinyl chloride	75-01-4		19 ug/m3	ND(0.0255)	ND(0.0255)
Bromomethane	74-83-9		42 ug/m3	ND(0.039)	ND(0.039)
Acetone	67-64-1		6400 ug/m3	9.67	10.1
1,1-Dichloroethene	75-35-4		56 ug/m3	ND(0.0395)	ND(0.0395)
Methylene chloride	75-09-2		770 ug/m3	ND(0.87)	ND(0.87)
trans-1,2-Dichloroethene	156-60-5		56 ug/m3	ND(0.0395)	ND(0.0395)
1,1-Dichloroethane	75-34-3		56 ug/m3	ND(0.0405)	ND(0.0405)
Methyl tert butyl ether	1634-04-4		2700 ug/m3	ND(0.3605)	ND(0.3605)
2-Butanone	78-93-3		840 ug/m3	3.3	1.99
cis-1,2-Dichloroethene	156-59-2		56 ug/m3	ND(0.0395)	ND(0.0395)
Chloroform	67-66-3		130 ug/m3	0.171	0.132
1,2-Dichloroethane	107-06-2		6.3 ug/m3	ND(0.0405)	ND(0.0405)
1,1,1-Trichloroethane	71-55-6		210 ug/m3	ND(0.0545)	0.136
Benzene	71-43-2		160 ug/m3	ND(0.1595)	ND(0.1595)
Carbon tetrachloride	56-23-5		38 ug/m3	0.34	0.245
1,2-Dichloropropane	78-87-5		8.4 ug/m3	ND(0.046)	ND(0.046)
Bromodichloromethane	75-27-4		9.1 ug/m3	ND(0.067)	ND(0.067)
1,4-Dioxane	123-91-1		40 ug/m3	ND(0.18)	ND(0.18)
Trichloroethene	79-01-6		28 ug/m3	ND(0.0535)	ND(0.0535)
cis-1,3-Dichloropropene	10061-01-5		41 ug/m3	ND(0.0455)	ND(0.0455)
4-Methyl-2-pentanone	108-10-1		150 ug/m3	ND(1.025)	ND(1.025)
trans-1,3-Dichloropropene	10061-02-6		41 ug/m3	ND(0.0455)	ND(0.0455)
1,1,2-Trichloroethane	79-00-5		11 ug/m3	ND(0.0545)	ND(0.0545)
Toluene	108-88-3		3800 ug/m3	1.23	0.479
Dibromochloromethane	124-48-1		6.8 ug/m3	ND(0.085)	ND(0.085)
1,2-Dibromoethane	106-93-4		0.55 ug/m3	ND(0.077)	ND(0.077)
Tetrachloroethene	127-18-4		98 ug/m3	0.17	ND(0.068)
Chlorobenzene	108-90-7		160 ug/m3	ND(0.2305)	ND(0.2305)
Ethylbenzene	100-41-4		520 ug/m3	0.248	0.126
p/m-Xylene	179601-23-1		ug/m3	0.921	0.473
Bromoform	75-25-2		150 ug/m3	ND(0.1035)	ND(0.1035)
Styrene	100-42-5		98 ug/m3	1.21	0.6
1,1,2,2-Tetrachloroethane	79-34-5		2.8 ug/m3	ND(0.0685)	ND(0.0685)
o-Xylene	95-47-6		ug/m3	0.426	0.217
1,3-Dichlorobenzene	541-73-1		42 ug/m3	0.295	ND(0.06)
1,4-Dichlorobenzene	106-46-7		35 ug/m3	0.174	ND(0.06)
1,2-Dichlorobenzene	95-50-1		50 ug/m3	ND(0.06)	ND(0.06)
1,2,4-Trichlorobenzene	120-82-1		240 ug/m3	ND(0.1855)	ND(0.1855)
Naphthalene	91-20-3		42 ug/m3	2.17	0.697
Hexachlorobutadiene	87-68-3		7.7 ug/m3	ND(0.2665)	ND(0.2665)
Petroleum Hydrocarbons in Air					
1,3-Butadiene	106-99-0		ug/m3	ND(0.25)	ND(0.25)
Methyl tert butyl ether	1634-04-4		2700 ug/m3	ND(0.35)	ND(0.35)
Benzene	71-43-2		160 ug/m3	ND(0.3)	ND(0.3)
C5-C8 Aliphatics, Adjusted	C5-C8-ALPHA-J		4100 ug/m3	51	31
Toluene	108-88-3		3800 ug/m3	1.1	ND(0.45)
Ethylbenzene	100-41-4		520 ug/m3	ND(0.45)	ND(0.45)
p/m-Xylene	179601-23-1		ug/m3	ND(0.45)	ND(0.45)
o-Xylene	95-47-6		ug/m3	ND(0.45)	ND(0.45)
Naphthalene	91-20-3		42 ug/m3	2.2	ND(0.55)
C9-C12 Aliphatics, Adjusted	C9-C12-ALPHA-J		4800 ug/m3	120	28
C9-C10 Aromatics Total	C9-C10-ALPHA-UJ		700 ug/m3	ND(5)	ND(5)

\*MA-RSSGV: Residential Sub-slab



## ANALYTICAL REPORT

Lab Number:	L1618547
Client:	Bennett Environmental Associates 1573 Main Street Brewster, MA 02631
ATTN:	David Bennett
Phone:	(508) 896-1706
Project Name:	HABITAT FOR HUMANITY
Project Number:	BEA16-10913
Report Date:	06/27/16

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).

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



**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1618547-01	MW-101S	WATER	WEST HARWICH, MA	06/15/16 10:40	06/16/16
L1618547-02	MW-101D	WATER	WEST HARWICH, MA	06/15/16 11:45	06/16/16



Project Name: HABITAT FOR HUMANITY

Lab Number: L1618547

Project Number: BEA16-10913

Report Date: 06/27/16

**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.**

<b>An affirmative response to questions A through F is required for "Presumptive Certainty" status</b>		
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
<b>A response to questions G, H and I is required for "Presumptive Certainty" status</b>		
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
<b>For any questions answered "No", please refer to the case narrative section on the following page(s).</b>		

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



**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

### 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 NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. 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:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

### Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question H:

The initial calibration, associated with L1618547-01 and -02, did not meet the method required minimum response factor on the lowest calibration standard for 2-butanone (0.08843) and 1,4-dioxane (0.00235), as well as the average response factor for 2-butanone and 1,4-dioxane.

The continuing calibration standard, associated with L1618547-01 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:

 Lura L Troy

Title: Technical Director/Representative

Date: 06/27/16

# ORGANICS

# VOLATILES



**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

**SAMPLE RESULTS**

Lab ID: L1618547-01  
 Client ID: MW-101S  
 Sample Location: WEST HARWICH, MA  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 06/24/16 14:00  
 Analyst: PK

Date Collected: 06/15/16 10:40  
 Date Received: 06/16/16  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
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:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

**SAMPLE RESULTS**

**Lab ID:** L1618547-01  
**Client ID:** MW-101S  
**Sample Location:** WEST HARWICH, MA

**Date Collected:** 06/15/16 10:40  
**Date Received:** 06/16/16  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
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:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

**SAMPLE RESULTS**

Lab ID: L1618547-01  
 Client ID: MW-101S  
 Sample Location: WEST HARWICH, MA

Date Collected: 06/15/16 10:40  
 Date Received: 06/16/16  
 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	98		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	100		70-130

**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

**SAMPLE RESULTS**

Lab ID: L1618547-02  
 Client ID: MW-101D  
 Sample Location: WEST HARWICH, MA  
 Matrix: Water  
 Analytical Method: 97,8260C  
 Analytical Date: 06/24/16 14:33  
 Analyst: PK

Date Collected: 06/15/16 11:45  
 Date Received: 06/16/16  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
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: HABITAT FOR HUMANITY

Lab Number: L1618547

Project Number: BEA16-10913

Report Date: 06/27/16

## SAMPLE RESULTS

Lab ID: L1618547-02

Date Collected: 06/15/16 11:45

Client ID: MW-101D

Date Received: 06/16/16

Sample Location: WEST HARWICH, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Volatile Organics - Westborough Lab</b>						
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:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

**SAMPLE RESULTS**

Lab ID: L1618547-02  
 Client ID: MW-101D  
 Sample Location: WEST HARWICH, MA

Date Collected: 06/15/16 11:45  
 Date Received: 06/16/16  
 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	102		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	97		70-130

**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

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

Analytical Method: 97,8260C  
Analytical Date: 06/24/16 11:46  
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG908006-3					
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:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

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

Analytical Method: 97,8260C  
Analytical Date: 06/24/16 11:46  
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG908006-3					
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: HABITAT FOR HUMANITY

Lab Number: L1618547

Project Number: BEA16-10913

Report Date: 06/27/16

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 97,8260C  
 Analytical Date: 06/24/16 11:46  
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG908006-3					
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	102		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	97		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

Parameter	LCS		LCS		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	RPD	Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG908006-1 WG908006-2								
Methylene chloride	97		91		70-130		6	20
1,1-Dichloroethane	93		90		70-130		3	20
Chloroform	92		91		70-130		1	20
Carbon tetrachloride	77		86		70-130		11	20
1,2-Dichloropropane	98		99		70-130		1	20
Dibromochloromethane	91		94		70-130		3	20
1,1,2-Trichloroethane	104		106		70-130		2	20
Tetrachloroethene	85		98		70-130		14	20
Chlorobenzene	95		98		70-130		3	20
Trichlorofluoromethane	70		80		70-130		13	20
1,2-Dichloroethane	90		92		70-130		2	20
1,1,1-Trichloroethane	81		92		70-130		13	20
Bromodichloromethane	94		91		70-130		3	20
trans-1,3-Dichloropropene	93		98		70-130		5	20
cis-1,3-Dichloropropene	94		92		70-130		2	20
1,1-Dichloropropene	85		96		70-130		12	20
Bromoform	87		95		70-130		9	20
1,1,2,2-Tetrachloroethane	106		117		70-130		10	20
Benzene	92		94		70-130		2	20
Toluene	93		101		70-130		8	20
Ethylbenzene	87		93		70-130		7	20

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG908006-1 WG908006-2										
Chloromethane	90		96		70-130		6		20	
Bromomethane	88		61	Q	70-130		36	Q	20	
Vinyl chloride	92		102		70-130		10		20	
Chloroethane	88		93		70-130		6		20	
1,1-Dichloroethene	79		91		70-130		14		20	
trans-1,2-Dichloroethene	87		90		70-130		3		20	
Trichloroethene	92		92		70-130		0		20	
1,2-Dichlorobenzene	94		102		70-130		8		20	
1,3-Dichlorobenzene	95		103		70-130		8		20	
1,4-Dichlorobenzene	95		101		70-130		6		20	
Methyl tert butyl ether	89		91		70-130		2		20	
p/m-Xylene	88		93		70-130		6		20	
o-Xylene	86		93		70-130		8		20	
cis-1,2-Dichloroethene	96		95		70-130		1		20	
Dibromomethane	96		94		70-130		2		20	
1,2,3-Trichloropropane	103		114		70-130		10		20	
Styrene	90		96		70-130		6		20	
Dichlorodifluoromethane	74		92		70-130		22	Q	20	
Acetone	110		100		70-130		10		20	
Carbon disulfide	86		86		70-130		0		20	
2-Butanone	91		100		70-130		9		20	

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

Parameter	LCS %Recovery	Qual	LCS D %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG908006-1 WG908006-2								
4-Methyl-2-pentanone	85		98		70-130	14		20
2-Hexanone	92		100		70-130	8		20
Bromochloromethane	97		98		70-130	1		20
Tetrahydrofuran	108		110		70-130	2		20
2,2-Dichloropropane	84		88		70-130	5		20
1,2-Dibromoethane	97		102		70-130	5		20
1,3-Dichloropropane	104		108		70-130	4		20
1,1,1,2-Tetrachloroethane	91		94		70-130	3		20
Bromobenzene	98		108		70-130	10		20
n-Butylbenzene	81		92		70-130	13		20
sec-Butylbenzene	77		92		70-130	18		20
tert-Butylbenzene	83		93		70-130	11		20
o-Chlorotoluene	93		101		70-130	8		20
p-Chlorotoluene	95		100		70-130	5		20
1,2-Dibromo-3-chloropropane	88		95		70-130	8		20
Hexachlorobutadiene	87		101		70-130	15		20
Isopropylbenzene	87		97		70-130	11		20
p-Isopropyltoluene	83		94		70-130	12		20
Naphthalene	100		112		70-130	11		20
n-Propylbenzene	87		98		70-130	12		20
1,2,3-Trichlorobenzene	95		112		70-130	16		20

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG908006-1 WG908006-2										
1,2,4-Trichlorobenzene	97		106		70-130		9			20
1,3,5-Trimethylbenzene	87		94		70-130		8			20
1,2,4-Trimethylbenzene	92		99		70-130		7			20
Ethyl ether	99		100		70-130		1			20
Isopropyl Ether	96		95		70-130		1			20
Ethyl-Tert-Butyl-Ether	96		97		70-130		1			20
Tertiary-Amyl Methyl Ether	89		92		70-130		3			20
1,4-Dioxane	89		92		70-130		3			20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	99		95		70-130
Toluene-d8	109		107		70-130
4-Bromofluorobenzene	86		94		70-130
Dibromofluoromethane	99		98		70-130



**Project Name:** HABITAT FOR HUMANITY**Project Number:** BEA16-10913**Lab Number:** L1618547**Report Date:** 06/27/16**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information Custody Seal****Cooler**

B Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1618547-01A	Vial HCl preserved	B	N/A	5.8	Y	Absent	MCP-8260-10(14)
L1618547-01B	Vial HCl preserved	B	N/A	5.8	Y	Absent	MCP-8260-10(14)
L1618547-01C	Vial HCl preserved	B	N/A	5.8	Y	Absent	MCP-8260-10(14)
L1618547-02A	Vial HCl preserved	B	N/A	5.8	Y	Absent	MCP-8260-10(14)
L1618547-02B	Vial HCl preserved	B	N/A	5.8	Y	Absent	MCP-8260-10(14)
L1618547-02C	Vial HCl preserved	B	N/A	5.8	Y	Absent	MCP-8260-10(14)

\*Values in parentheses indicate holding time in days

**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

## 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.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
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

**Report Format:** Data Usability Report



**Project Name:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

#### Data Qualifiers

- reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- 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:** HABITAT FOR HUMANITY  
**Project Number:** BEA16-10913

**Lab Number:** L1618547  
**Report Date:** 06/27/16

## 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 524.2:** 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene  
**EPA 624:** 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene  
**EPA 625:** Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.  
**EPA 1010A:** NPW: Ignitability  
**EPA 6010C:** NPW: Strontium; SCM: Strontium  
**EPA 8151A:** NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP  
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.  
**EPA 8270D:** NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.  
**EPA 9010:** NPW: Amenable Cyanide Distillation, Total Cyanide Distillation  
**EPA 9038:** NPW: Sulfate  
**EPA 9050A:** NPW: Specific Conductance  
**EPA 9056:** NPW: Chloride, Nitrate, Sulfate  
**EPA 9065:** NPW: Phenols  
**EPA 9251:** NPW: Chloride  
**SM3500:** NPW: Ferrous Iron  
**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.  
**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**EPA 8270D:** NPW: Biphenyl; SCM: Biphenyl, Caprolactam  
**EPA 8270D-SIM Isotope Dilution:** SCM: 1,4-Dioxane  
**SM 2540D:** TSS  
**SM2540G:** SCM: Percent Solids  
**EPA 1631E:** SCM: Mercury  
**EPA 7474:** SCM: Mercury  
**EPA 8081B:** NPW and SCM: Mirex, Hexachlorobenzene.  
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.  
**EPA 8270-SIM:** NPW and SCM: Alkylated PAHs.  
**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, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.  
**Biological Tissue Matrix:** **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

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, Ti; **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, Ti, 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.





7A  
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1618547

Instrument ID: Jack.i                      Calibration Date: 24-JUN-2016    Time: 10:06

Lab File ID: VJ160624A0                  Init. Calib. Date(s): 06-JUN-2        06-JUN-2

Sample No: 8260 CAL                      Init. Calib. Times    : 20:37                      23:57

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.38667	.28742	.1	-26	20	F
chloromethane	.47656	.4287	.1	-10	20	
vinyl chloride	.45298	.41526	.1	-8	20	
bromomethane	100	88.445	.1	-12	20	
chloroethane	.27025	.23827	.1	-12	20	
trichlorofluoromethane	.6309	.44293	.1	-30	20	F
ethyl ether	.16013	.15874	.05	-1	20	
1,1,-dichloroethene	.36693	.29112	.1	-21	20	F
carbon disulfide	1.2127	1.0367	.1	-15	20	
methylene chloride	.39591	.38229	.1	-3	20	
acetone	100	110	.1	10	20	
trans-1,2-dichloroethene	.39993	.34969	.1	-13	20	
methyl tert butyl ether	.76151	.68059	.1	-11	20	
Diisopropyl Ether	1.1399	1.0884	.01	-5	20	
1,1-dichloroethane	.7442	.69527	.2	-7	20	
Ethyl-Tert-Butyl-Ether	.95215	.91269	.05	-4	20	
cis-1,2-dichloroethene	.41275	.3942	.1	-4	20	
2,2-dichloropropane	.61231	.51556	.05	-16	20	
bromochloromethane	.16993	.16531	.05	-3	20	
chloroform	.6966	.63864	.2	-8	20	
carbontetrachloride	.50537	.38766	.1	-23	20	F
tetrahydrofuran	100	108	.05	8	20	
1,1,1-trichloroethane	.62508	.50518	.1	-19	20	
1,1-dichloropropene	.57905	.49274	.05	-15	20	
2-butanone	.08239	.07466	.1	-9	20	F
benzene	1.7174	1.5836	.5	-8	20	
Tertiary-Amyl Methyl Ether	.82379	.73281	.05	-11	20	
1,2-dichloroethane	.47765	.43131	.1	-10	20	
trichloroethene	.4263	.39025	.2	-8	20	
dibromomethane	.19219	.18382	.05	-4	20	
1,2-dichloropropane	.39142	.38178	.1	-2	20	
bromodichloromethane	.49759	.46508	.2	-7	20	
1,4-dioxane	.00279	.00249	.05	-11	20	F
cis-1,3-dichloropropene	.63719	.59584	.2	-6	20	
toluene	1.2363	1.1517	.4	-7	20	
tetrachloroethene	.56718	.4816	.2	-15	20	
4-methyl-2-pentanone	100	85.107	.1	-15	20	
trans-1,3-dichloropropene	.59283	.55393	.1	-7	20	

FORM VII MCP-8260-10

7A  
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1618547

Instrument ID: Jack.i                      Calibration Date: 24-JUN-2016    Time: 10:06

Lab File ID: VJ160624A0                  Init. Calib. Date(s): 06-JUN-2        06-JUN-2

Sample No: 8260 CAL                      Init. Calib. Times    : 20:37                      23:57

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,1,2-trichloroethane	.27126	.28089	.1	4	20
chlorodibromomethane	.37725	.3445	.1	-9	20
1,3-dichloropropane	.56683	.59012	.05	4	20
1,2-dibromoethane	.32712	.31854	.1	-3	20
2-hexanone	.15452	.14177	.1	-8	20
chlorobenzene	1.4474	1.3739	.5	-5	20
ethyl benzene	2.7202	2.3773	.1	-13	20
1,1,1,2-tetrachloroethane	.48137	.43636	.05	-9	20
p/m xylene	1.0726	.93978	.1	-12	20
o xylene	1.0702	.9193	.3	-14	20
styrene	1.7713	1.5939	.3	-10	20
bromoform	.36382	.31494	.1	-13	20
isopropylbenzene	3.9131	3.4113	.1	-13	20
bromobenzene	.93866	.91853	.05	-2	20
n-propylbenzene	4.8670	4.2421	.05	-13	20
1,1,2,2,-tetrachloroethane	.60955	.64778	.3	6	20
2-chlorotoluene	3.2444	3.0111	.05	-7	20
1,2,3-trichloropropane	.49091	.50371	.05	3	20
1,3,5-trimethylbenzene	3.5095	3.0653	.05	-13	20
4-chlorotoluene	3.0349	2.8958	.05	-5	20
tert-butylbenzene	2.9442	2.4418	.05	-17	20
1,2,4-trimethylbenzene	3.5091	3.2475	.05	-7	20
sec-butylbenzene	4.2999	3.2980	.01	-23	20
p-isopropyltoluene	3.5769	2.9588	.05	-17	20
1,3-dichlorobenzene	2.0150	1.9053	.6	-5	20
1,4-dichlorobenzene	2.0309	1.9253	.5	-5	20
n-butylbenzene	2.9910	2.4282	.05	-19	20
1,2-dichlorobenzene	1.8358	1.7230	.4	-6	20
1,2-dibromo-3-chloropropane	.12016	.10536	.05	-12	20
1,2,4-trichlorobenzene	1.0227	.99054	.2	-3	20
hexachlorobutadiene	.43392	.37899	.05	-13	20
naphthalene	2.0052	2.0107	.05	0	20
1,2,3-trichlorobenzene	.85295	.8112	.05	-5	20
dibromofluoromethane	.2364	.23318	.05	-1	20
1,2-dichloroethane-d4	.26483	.26339	.05	-1	20
toluene-d8	1.1646	1.2743	.01	9	20
4-bromofluorobenzene	.72926	.62775	.05	-14	20

F

FORM VII MCP-8260-10

Sample Results Comparison with Reportable Concentrations RCGW-1 Criteria.						
CLIENT SAMPLE ID				MW-101S		MW-101D
SAMPLING DATE				15-JUN-16		15-JUN-16
LAB SAMPLE ID				L1618547-01		L1618547-02
	CAS Number	RCGW-1-14	Units		Qual	Qual
<b>MCP Volatile Organics</b>						
1,1,1,2-Tetrachloroethane	630-20-6	0.005	mg/l	0.001	U	0.001 U
1,1,1-Trichloroethane	71-55-6	0.2	mg/l	0.001	U	0.001 U
1,1,2,2-Tetrachloroethane	79-34-5	0.002	mg/l	0.001	U	0.001 U
1,1,2-Trichloroethane	79-00-5	0.005	mg/l	0.001	U	0.001 U
1,1-Dichloroethane	75-34-3	0.07	mg/l	0.001	U	0.001 U
1,1-Dichloroethene	75-35-4	0.007	mg/l	0.001	U	0.001 U
1,1-Dichloropropene	563-58-6		mg/l	0.002	U	0.002 U
1,2,3-Trichlorobenzene	87-61-6		mg/l	0.002	U	0.002 U
1,2,3-Trichloropropane	96-18-4	1	mg/l	0.002	U	0.002 U
1,2,4-Trichlorobenzene	120-82-1	0.07	mg/l	0.002	U	0.002 U
1,2,4-Trimethylbenzene	95-63-6	10	mg/l	0.002	U	0.002 U
1,2-Dibromo-3-chloropropane	96-12-8	0.1	mg/l	0.002	U	0.002 U
1,2-Dibromoethane	106-93-4	0.00002	mg/l	0.002	U	0.002 U
1,2-Dichlorobenzene	95-50-1	0.6	mg/l	0.001	U	0.001 U
1,2-Dichloroethane	107-06-2	0.005	mg/l	0.001	U	0.001 U
1,2-Dichloroethene (total)	540-59-0		mg/l	0.001	U	0.001 U
1,2-Dichloropropane	78-87-5	0.003	mg/l	0.001	U	0.001 U
1,3,5-Trimethylbenzene	108-67-8	0.1	mg/l	0.002	U	0.002 U
1,3-Dichlorobenzene	541-73-1	0.1	mg/l	0.001	U	0.001 U
1,3-Dichloropropane	142-28-9	5	mg/l	0.002	U	0.002 U
1,3-Dichloropropene, Total	542-75-6	0.0004	mg/l	0.0005	U	0.0005 U
1,4-Dichlorobenzene	106-46-7	0.005	mg/l	0.001	U	0.001 U
1,4-Dioxane	123-91-1	0.0003	mg/l	0.25	U	0.25 U
2,2-Dichloropropane	594-20-7		mg/l	0.002	U	0.002 U
2-Butanone	78-93-3	4	mg/l	0.005	U	0.005 U
2-Hexanone	591-78-6	1	mg/l	0.005	U	0.005 U
4-Methyl-2-pentanone	108-10-1	0.35	mg/l	0.005	U	0.005 U
Acetone	67-64-1	6.3	mg/l	0.005	U	0.005 U
Benzene	71-43-2	0.005	mg/l	0.0005	U	0.0005 U
Bromobenzene	108-86-1	1	mg/l	0.002	U	0.002 U
Bromochloromethane	74-97-5		mg/l	0.002	U	0.002 U
Bromodichloromethane	75-27-4	0.003	mg/l	0.001	U	0.001 U
Bromoform	75-25-2	0.004	mg/l	0.002	U	0.002 U
Bromomethane	74-83-9	0.007	mg/l	0.002	U	0.002 U
Carbon disulfide	75-15-0	1	mg/l	0.002	U	0.002 U
Carbon tetrachloride	56-23-5	0.002	mg/l	0.001	U	0.001 U
Chlorobenzene	108-90-7	0.1	mg/l	0.001	U	0.001 U
Chloroethane	75-00-3	1	mg/l	0.002	U	0.002 U
Chloroform	67-66-3	0.05	mg/l	0.001	U	0.001 U
Chloromethane	74-87-3	1	mg/l	0.002	U	0.002 U
cis-1,2-Dichloroethene	156-59-2	0.02	mg/l	0.001	U	0.001 U
cis-1,3-Dichloropropene	10061-01-5	0.0004	mg/l	0.0005	U	0.0005 U
Dibromochloromethane	124-48-1	0.002	mg/l	0.001	U	0.001 U
Dibromomethane	74-95-3	5	mg/l	0.002	U	0.002 U
Dichlorodifluoromethane	75-71-8	10	mg/l	0.002	U	0.002 U
Ethyl ether	60-29-7	1	mg/l	0.002	U	0.002 U
Ethyl-Tert-Butyl-Ether	637-92-3		mg/l	0.002	U	0.002 U
Ethylbenzene	100-41-4	0.7	mg/l	0.001	U	0.001 U
Hexachlorobutadiene	87-68-3	0.0006	mg/l	0.0006	U	0.0006 U
Isopropyl Ether	108-20-3	1	mg/l	0.002	U	0.002 U
Isopropylbenzene	98-82-8	10	mg/l	0.002	U	0.002 U
Methyl tert butyl ether	1634-04-4	0.07	mg/l	0.002	U	0.002 U
Methylene chloride	75-09-2	0.005	mg/l	0.002	U	0.002 U
n-Butylbenzene	104-51-8		mg/l	0.002	U	0.002 U
n-Propylbenzene	103-65-1	1	mg/l	0.002	U	0.002 U
Naphthalene	91-20-3	0.14	mg/l	0.002	U	0.002 U
o-Chlorotoluene	95-49-8	1	mg/l	0.002	U	0.002 U
o-Xylene	95-47-6	3	mg/l	0.001	U	0.001 U
p-Chlorotoluene	106-43-4		mg/l	0.002	U	0.002 U
p-Isopropyltoluene	99-87-6	1	mg/l	0.002	U	0.002 U
p/m-Xylene	179601-23-1	3	mg/l	0.002	U	0.002 U
sec-Butylbenzene	135-98-8		mg/l	0.002	U	0.002 U
Styrene	100-42-5	0.1	mg/l	0.001	U	0.001 U
tert-Butylbenzene	98-06-6	1	mg/l	0.002	U	0.002 U
Tertiary-Amyl Methyl Ether	994-05-8		mg/l	0.002	U	0.002 U
Tetrachloroethene	127-18-4	0.005	mg/l	0.001	U	0.001 U
Tetrahydrofuran	109-99-9	5	mg/l	0.002	U	0.002 U
Toluene	108-88-3	1	mg/l	0.001	U	0.001 U
trans-1,2-Dichloroethene	156-60-5	0.08	mg/l	0.001	U	0.001 U
trans-1,3-Dichloropropene	10061-02-6	0.0004	mg/l	0.0005	U	0.0005 U
Trichloroethene	79-01-6	0.005	mg/l	0.001	U	0.001 U
Trichlorofluoromethane	75-69-4	10	mg/l	0.002	U	0.002 U
Vinyl chloride	75-01-4	0.002	mg/l	0.001	U	0.001 U
Xylene (Total)	1330-20-7	3	mg/l	0.001	U	0.001 U
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