ATTACHMENT 3
SAMPLING RESULTS
(SEPTEMBER 24-HOUR SAMPLE)

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

September 26, 2022

David Cochran
City of Bristol VA
2655 Valley Dr
Bristol, VA 24201

RE: Project: City of Bristol VA
Pace Project No.: 92627616

Dear David Cochran:

Enclosed are the analytical results for sample(s) received by the laboratory on September 15, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace National - Mt. Juliet

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sara Poulson
sara.poulson@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Logan Howard, SCS Engineers
Mike Martin, City of Bristol VA
Ms. Jennifer Robb, SCS Engineers

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CERTIFICATIONS

Project: City of Bristol VA
Pace Project No.: 92627616

Pace Analytical Services National
12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

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SAMPLE SUMMARY

Project: City of Bristol VA
Pace Project No.: 92627616

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92627616001	**September 24hr**	Air	09/14/22 13:25	09/15/22 15:14

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
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SAMPLE ANALYTE COUNT

Project: City of Bristol VA
Pace Project No.: 92627616

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92627616001	**September 24hr**	TO-15	DAH	68	PAN

PAN = Pace National - Mt. Juliet

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SUMMARY OF DETECTION

Project: City of Bristol VA
Pace Project No.: 92627616

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92627616001	**September 24hr**					
TO-15	Acetone	15.1	ug/m3	2.97	09/22/22 16:31	
TO-15	Benzene	15.5	ug/m3	0.639	09/22/22 16:31	
TO-15	Chloromethane	1.33	ug/m3	0.413	09/22/22 16:31	
TO-15	Ethanol	36.0	ug/m3	2.36	09/24/22 01:19	
TO-15	Ethylbenzene	2.64	ug/m3	0.867	09/22/22 16:31	
TO-15	Trichlorofluoromethane	1.53	ug/m3	1.12	09/22/22 16:31	
TO-15	Dichlorodifluoromethane	2.80	ug/m3	0.989	09/22/22 16:31	
TO-15	Methylene Chloride	3.61	ug/m3	0.694	09/22/22 16:31	
TO-15	2-Propanol	4.50	ug/m3	3.07	09/22/22 16:31	
TO-15	Propylene	3.31	ug/m3	2.15	09/22/22 16:31	
TO-15	Tetrahydrofuran	2.11	ug/m3	0.590	09/22/22 16:31	
TO-15	Toluene	2.88	ug/m3	1.88	09/22/22 16:31	
TO-15	m&p-Xylene	2.77	ug/m3	1.73	09/22/22 16:31	
TO-15	o-Xylene	0.941	ug/m3	0.867	09/22/22 16:31	

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PROJECT NARRATIVE

Project: City of Bristol VA
Pace Project No.: 92627616

Method: **TO-15**
Description: VOA (MS) TO-15
Client: City of Bristol VA
Date: September 26, 2022

General Information:
1 sample was analyzed for TO-15 by Pace National Mt. Juliet. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: City of Bristol VA
Pace Project No.: 92627616

Sample: September 24hr **Lab ID: 92627616001** Collected: 09/14/22 13:25 Received: 09/15/22 15:14 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
VOA (MS) TO-15	Analytical Method: TO-15 Preparation Method: TO-15 Pace National - Mt. Juliet								
Acetone	**15.1**	ug/m3	2.97	0.5840	1	09/22/22 16:31	09/22/22 16:31	67-64-1	
Allyl chloride	ND	ug/m3	0.626	0.1140	1	09/22/22 16:31	09/22/22 16:31	107-05-1	
Benzene	**15.5**	ug/m3	0.639	0.0715	1	09/22/22 16:31	09/22/22 16:31	71-43-2	
Benzyl chloride	ND	ug/m3	1.04	0.0598	1	09/22/22 16:31	09/22/22 16:31	100-44-7	
Bromodichloromethane	ND	ug/m3	1.34	0.0702	1	09/22/22 16:31	09/22/22 16:31	75-27-4	
Bromoform	ND	ug/m3	6.21	0.0732	1	09/22/22 16:31	09/22/22 16:31	75-25-2	
Bromomethane	ND	ug/m3	0.776	0.0982	1	09/22/22 16:31	09/22/22 16:31	74-83-9	
1,3-Butadiene	ND	ug/m3	4.43	0.1040	1	09/22/22 16:31	09/22/22 16:31	106-99-0	
Carbon disulfide	ND	ug/m3	0.622	0.1020	1	09/22/22 16:31	09/22/22 16:31	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.26	0.0732	1	09/22/22 16:31	09/22/22 16:31	56-23-5	
Chlorobenzene	ND	ug/m3	0.924	0.0832	1	09/22/22 16:31	09/22/22 16:31	108-90-7	
Chloroethane	ND	ug/m3	0.528	0.0996	1	09/22/22 16:31	09/22/22 16:31	75-00-3	
Chloroform	ND	ug/m3	0.973	0.0717	1	09/22/22 16:31	09/22/22 16:31	67-66-3	
Chloromethane	**1.33**	ug/m3	0.413	0.1030	1	09/22/22 16:31	09/22/22 16:31	74-87-3	
2-Chlorotoluene	ND	ug/m3	1.03	0.0828	1	09/22/22 16:31	09/22/22 16:31	95-49-8	
Cyclohexane	ND	ug/m3	0.689	0.0753	1	09/22/22 16:31	09/22/22 16:31	110-82-7	
Dibromochloromethane	ND	ug/m3	1.70	0.0727	1	09/22/22 16:31	09/22/22 16:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.54	0.0721	1	09/22/22 16:31	09/22/22 16:31	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.20	0.1280	1	09/22/22 16:31	09/22/22 16:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.20	0.1820	1	09/22/22 16:31	09/22/22 16:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.20	0.0557	1	09/22/22 16:31	09/22/22 16:31	106-46-7	
1,2-Dichloroethane	ND	ug/m3	0.810	0.07	1	09/22/22 16:31	09/22/22 16:31	107-06-2	
1,1-Dichloroethane	ND	ug/m3	0.802	0.0723	1	09/22/22 16:31	09/22/22 16:31	75-34-3	
1,1-Dichloroethene	ND	ug/m3	0.793	0.0762	1	09/22/22 16:31	09/22/22 16:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.793	0.0784	1	09/22/22 16:31	09/22/22 16:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.793	0.0673	1	09/22/22 16:31	09/22/22 16:31	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.924	0.0760	1	09/22/22 16:31	09/22/22 16:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.908	0.0689	1	09/22/22 16:31	09/22/22 16:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.908	0.0728	1	09/22/22 16:31	09/22/22 16:31	10061-02-6	
1,4-Dioxane (p-Dioxane)	ND	ug/m3	0.721	0.0833	1	09/22/22 16:31	09/22/22 16:31	123-91-1	
Ethanol	**36.0**	ug/m3	2.36	0.2650	1	09/24/22 01:19	09/24/22 01:19	64-17-5	
Ethylbenzene	**2.64**	ug/m3	0.867	0.0835	1	09/22/22 16:31	09/22/22 16:31	100-41-4	
4-Ethyltoluene	ND	ug/m3	0.982	0.0783	1	09/22/22 16:31	09/22/22 16:31	622-96-8	
Trichlorofluoromethane	**1.53**	ug/m3	1.12	0.0819	1	09/22/22 16:31	09/22/22 16:31	75-69-4	
Dichlorodifluoromethane	**2.80**	ug/m3	0.989	0.1370	1	09/22/22 16:31	09/22/22 16:31	75-71-8	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.53	0.0793	1	09/22/22 16:31	09/22/22 16:31	76-13-1	
Dichlorotetrafluoroethane	ND	ug/m3	1.40	0.0890	1	09/22/22 16:31	09/22/22 16:31	76-14-2	
n-Heptane	ND	ug/m3	0.818	0.1040	1	09/22/22 16:31	09/22/22 16:31	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	6.73	0.1050	1	09/22/22 16:31	09/22/22 16:31	87-68-3	
n-Hexane	ND	ug/m3	2.22	0.2060	1	09/22/22 16:31	09/22/22 16:31	110-54-3	
Isopropylbenzene (Cumene)	ND	ug/m3	0.983	0.0777	1	09/22/22 16:31	09/22/22 16:31	98-82-8	
Methylene Chloride	**3.61**	ug/m3	0.694	0.0979	1	09/22/22 16:31	09/22/22 16:31	75-09-2	
2-Hexanone	ND	ug/m3	5.11	0.1330	1	09/22/22 16:31	09/22/22 16:31	591-78-6	
2-Butanone (MEK)	ND	ug/m3	3.69	0.0814	1	09/22/22 16:31	09/22/22 16:31	78-93-3	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	5.12	0.0765	1	09/22/22 16:31	09/22/22 16:31	108-10-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: City of Bristol VA
Pace Project No.: 92627616

Sample: September 24hr **Lab ID: 92627616001** Collected: 09/14/22 13:25 Received: 09/15/22 15:14 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
VOA (MS) TO-15	Analytical Method: TO-15 Preparation Method: TO-15								
	Pace National - Mt. Juliet								
Methyl methacrylate	ND	ug/m3	0.819	0.0876	1	09/22/22 16:31	09/22/22 16:31	80-62-6	
Methyl-tert-butyl ether	ND	ug/m3	0.721	0.0647	1	09/22/22 16:31	09/22/22 16:31	1634-04-4	
Naphthalene	ND	ug/m3	3.30	0.35	1	09/22/22 16:31	09/22/22 16:31	91-20-3	
2-Propanol	**4.50**	ug/m3	3.07	0.2640	1	09/22/22 16:31	09/22/22 16:31	67-63-0	
Propylene	**3.31**	ug/m3	2.15	0.0932	1	09/22/22 16:31	09/22/22 16:31	115-07-1	
Styrene	ND	ug/m3	0.851	0.0788	1	09/22/22 16:31	09/22/22 16:31	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.37	0.0743	1	09/22/22 16:31	09/22/22 16:31	79-34-5	
Tetrachloroethene	ND	ug/m3	1.36	0.0814	1	09/22/22 16:31	09/22/22 16:31	127-18-4	
Tetrahydrofuran	**2.11**	ug/m3	0.590	0.0734	1	09/22/22 16:31	09/22/22 16:31	109-99-9	
Toluene	**2.88**	ug/m3	1.88	0.0870	1	09/22/22 16:31	09/22/22 16:31	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	4.66	0.1480	1	09/22/22 16:31	09/22/22 16:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.09	0.0736	1	09/22/22 16:31	09/22/22 16:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1.09	0.0775	1	09/22/22 16:31	09/22/22 16:31	79-00-5	
Trichloroethene	ND	ug/m3	1.07	0.0680	1	09/22/22 16:31	09/22/22 16:31	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/m3	0.982	0.0764	1	09/22/22 16:31	09/22/22 16:31	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	0.982	0.0779	1	09/22/22 16:31	09/22/22 16:31	108-67-8	
2,2,4-Trimethylpentane	ND	ug/m3	0.934	0.1330	1	09/22/22 16:31	09/22/22 16:31	540-84-1	
Vinyl chloride	ND	ug/m3	0.511	0.0949	1	09/22/22 16:31	09/22/22 16:31	75-01-4	
Vinyl bromide	ND	ug/m3	0.875	0.0852	1	09/22/22 16:31	09/22/22 16:31	593-60-2	
Vinyl acetate	ND	ug/m3	0.704	0.1160	1	09/22/22 16:31	09/22/22 16:31	108-05-4	
m&p-Xylene	**2.77**	ug/m3	1.73	0.1350	1	09/22/22 16:31	09/22/22 16:31	179601-23-1	
o-Xylene	**0.941**	ug/m3	0.867	0.0828	1	09/22/22 16:31	09/22/22 16:31	95-47-6	
Surrogates									
1,4-Dichlorobenzene-d4 (IS)	96.9	%	60.0-140		1	09/22/22 16:31	09/22/22 16:31	3855-82-1	
1,4-Dichlorobenzene-d4 (IS)	97.5	%	60.0-140		1	09/24/22 01:19	09/24/22 01:19	3855-82-1	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: City of Bristol VA
Pace Project No.: 92627616

QC Batch: 1930517
QC Batch Method: M18-Mod/TO-15
Analysis Method: TO-15
Analysis Description: VOA (MS) TO-15
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 92627616001

METHOD BLANK: R3840179-1 Matrix: Air
Associated Lab Samples: 92627616001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ppbv	ND	1.25	0.584	09/22/22 09:40	
Allyl chloride	ppbv	ND	0.200	0.114	09/22/22 09:40	
Benzene	ppbv	ND	0.200	0.0715	09/22/22 09:40	
Benzyl chloride	ppbv	ND	0.200	0.0598	09/22/22 09:40	
Bromodichloromethane	ppbv	ND	0.200	0.0702	09/22/22 09:40	
Bromoform	ppbv	ND	0.600	0.0732	09/22/22 09:40	
Bromomethane	ppbv	ND	0.200	0.0982	09/22/22 09:40	
1,3-Butadiene	ppbv	ND	2.00	0.104	09/22/22 09:40	
Carbon disulfide	ppbv	ND	0.200	0.102	09/22/22 09:40	
Carbon tetrachloride	ppbv	ND	0.200	0.0732	09/22/22 09:40	
Chlorobenzene	ppbv	ND	0.200	0.0832	09/22/22 09:40	
Chloroethane	ppbv	ND	0.200	0.0996	09/22/22 09:40	
Chloroform	ppbv	ND	0.200	0.0717	09/22/22 09:40	
Chloromethane	ppbv	ND	0.200	0.103	09/22/22 09:40	
2-Chlorotoluene	ppbv	ND	0.200	0.0828	09/22/22 09:40	
Cyclohexane	ppbv	ND	0.200	0.0753	09/22/22 09:40	
Dibromochloromethane	ppbv	ND	0.200	0.0727	09/22/22 09:40	
1,2-Dibromoethane (EDB)	ppbv	ND	0.200	0.0721	09/22/22 09:40	
1,2-Dichlorobenzene	ppbv	ND	0.200	0.128	09/22/22 09:40	
1,3-Dichlorobenzene	ppbv	ND	0.200	0.182	09/22/22 09:40	
1,4-Dichlorobenzene	ppbv	ND	0.200	0.0557	09/22/22 09:40	
1,2-Dichloroethane	ppbv	ND	0.200	0.0700	09/22/22 09:40	
1,1-Dichloroethane	ppbv	ND	0.200	0.0723	09/22/22 09:40	
1,1-Dichloroethene	ppbv	ND	0.200	0.0762	09/22/22 09:40	
cis-1,2-Dichloroethene	ppbv	ND	0.200	0.0784	09/22/22 09:40	
trans-1,2-Dichloroethene	ppbv	ND	0.200	0.0673	09/22/22 09:40	
1,2-Dichloropropane	ppbv	ND	0.200	0.0760	09/22/22 09:40	
cis-1,3-Dichloropropene	ppbv	ND	0.200	0.0689	09/22/22 09:40	
trans-1,3-Dichloropropene	ppbv	ND	0.200	0.0728	09/22/22 09:40	
1,4-Dioxane (p-Dioxane)	ppbv	ND	0.200	0.0833	09/22/22 09:40	
Ethylbenzene	ppbv	ND	0.200	0.0835	09/22/22 09:40	
4-Ethyltoluene	ppbv	ND	0.200	0.0783	09/22/22 09:40	
Trichlorofluoromethane	ppbv	ND	0.200	0.0819	09/22/22 09:40	
Dichlorodifluoromethane	ppbv	ND	0.200	0.137	09/22/22 09:40	
1,1,2-Trichlorotrifluoroethane	ppbv	ND	0.200	0.0793	09/22/22 09:40	
Dichlorotetrafluoroethane	ppbv	ND	0.200	0.0890	09/22/22 09:40	
n-Heptane	ppbv	ND	0.200	0.104	09/22/22 09:40	
Hexachloro-1,3-butadiene	ppbv	ND	0.630	0.105	09/22/22 09:40	
n-Hexane	ppbv	ND	0.630	0.206	09/22/22 09:40	
Isopropylbenzene (Cumene)	ppbv	ND	0.200	0.0777	09/22/22 09:40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: City of Bristol VA
Pace Project No.: 92627616

METHOD BLANK: R3840179-1 Matrix: Air
Associated Lab Samples: 92627616001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methylene Chloride	ppbv	ND	0.200	0.0979	09/22/22 09:40	
2-Hexanone	ppbv	ND	1.25	0.133	09/22/22 09:40	
2-Butanone (MEK)	ppbv	ND	1.25	0.0814	09/22/22 09:40	
4-Methyl-2-pentanone (MIBK)	ppbv	ND	1.25	0.0765	09/22/22 09:40	
Methyl methacrylate	ppbv	ND	0.200	0.0876	09/22/22 09:40	
Methyl-tert-butyl ether	ppbv	ND	0.200	0.0647	09/22/22 09:40	
Naphthalene	ppbv	ND	0.630	0.350	09/22/22 09:40	
2-Propanol	ppbv	ND	1.25	0.264	09/22/22 09:40	
Propylene	ppbv	0.133J	1.25	0.0932	09/22/22 09:40	J
Styrene	ppbv	ND	0.200	0.0788	09/22/22 09:40	
1,1,2,2-Tetrachloroethane	ppbv	ND	0.200	0.0743	09/22/22 09:40	
Tetrachloroethene	ppbv	ND	0.200	0.0814	09/22/22 09:40	
Tetrahydrofuran	ppbv	ND	0.200	0.0734	09/22/22 09:40	
Toluene	ppbv	ND	0.500	0.0870	09/22/22 09:40	
1,2,4-Trichlorobenzene	ppbv	ND	0.630	0.148	09/22/22 09:40	
1,1,1-Trichloroethane	ppbv	ND	0.200	0.0736	09/22/22 09:40	
1,1,2-Trichloroethane	ppbv	ND	0.200	0.0775	09/22/22 09:40	
Trichloroethene	ppbv	ND	0.200	0.0680	09/22/22 09:40	
1,2,4-Trimethylbenzene	ppbv	ND	0.200	0.0764	09/22/22 09:40	
1,3,5-Trimethylbenzene	ppbv	ND	0.200	0.0779	09/22/22 09:40	
2,2,4-Trimethylpentane	ppbv	ND	0.200	0.133	09/22/22 09:40	
Vinyl chloride	ppbv	ND	0.200	0.0949	09/22/22 09:40	
Vinyl bromide	ppbv	ND	0.200	0.0852	09/22/22 09:40	
Vinyl acetate	ppbv	ND	0.200	0.116	09/22/22 09:40	
m&p-Xylene	ppbv	ND	0.400	0.135	09/22/22 09:40	
o-Xylene	ppbv	ND	0.200	0.0828	09/22/22 09:40	
1,4-Dichlorobenzene-d4 (IS)	%	97.6	60.0-140		09/22/22 09:40	

LABORATORY CONTROL SAMPLE & LCSD: R3840179-2 R3840179-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Acetone	ppbv	3.75	4.73	4.36	126	116	70.0-130	8.14	25	
Allyl chloride	ppbv	3.75	4.52	4.53	121	121	70.0-130	0.221	25	
Benzene	ppbv	3.75	3.71	3.78	98.9	101	70.0-130	1.87	25	
Benzyl chloride	ppbv	3.75	3.80	3.74	101	99.7	70.0-152	1.59	25	
Bromodichloromethane	ppbv	3.75	3.60	3.64	96.0	97.1	70.0-130	1.10	25	
Bromoform	ppbv	3.75	3.47	3.51	92.5	93.6	70.0-130	1.15	25	
Bromomethane	ppbv	3.75	4.16	4.21	111	112	70.0-130	1.19	25	
1,3-Butadiene	ppbv	3.75	4.45	4.49	119	120	70.0-130	0.895	25	
Carbon disulfide	ppbv	3.75	4.65	4.67	124	125	70.0-130	0.429	25	
Carbon tetrachloride	ppbv	3.75	3.60	3.63	96.0	96.8	70.0-130	0.830	25	
Chlorobenzene	ppbv	3.75	3.62	3.69	96.5	98.4	70.0-130	1.92	25	
Chloroethane	ppbv	3.75	4.20	4.29	112	114	70.0-130	2.12	25	
Chloroform	ppbv	3.75	3.80	3.85	101	103	70.0-130	1.31	25	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: City of Bristol VA
Pace Project No.: 92627616

LABORATORY CONTROL SAMPLE & LCSD: R3840179-2 R3840179-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Chloromethane	ppbv	3.75	4.45	4.56	119	122	70.0-130	2.44	25	
2-Chlorotoluene	ppbv	3.75	3.75	3.78	100	101	70.0-130	0.797	25	
Cyclohexane	ppbv	3.75	3.72	3.76	99.2	100	70.0-130	1.07	25	
Dibromochloromethane	ppbv	3.75	3.48	3.49	92.8	93.1	70.0-130	0.287	25	
1,2-Dibromoethane (EDB)	ppbv	3.75	3.53	3.68	94.1	98.1	70.0-130	4.16	25	
1,2-Dichlorobenzene	ppbv	3.75	3.62	3.71	96.5	98.9	70.0-130	2.46	25	
1,3-Dichlorobenzene	ppbv	3.75	3.70	3.77	98.7	101	70.0-130	1.87	25	
1,4-Dichlorobenzene	ppbv	3.75	3.69	3.80	98.4	101	70.0-130	2.94	25	
1,2-Dichloroethane	ppbv	3.75	3.71	3.85	98.9	103	70.0-130	3.70	25	
1,1-Dichloroethane	ppbv	3.75	3.82	3.90	102	104	70.0-130	2.07	25	
1,1-Dichloroethene	ppbv	3.75	4.49	4.53	120	121	70.0-130	0.887	25	
cis-1,2-Dichloroethene	ppbv	3.75	3.78	3.84	101	102	70.0-130	1.57	25	
trans-1,2-Dichloroethene	ppbv	3.75	4.56	4.66	122	124	70.0-130	2.17	25	
1,2-Dichloropropane	ppbv	3.75	3.74	3.78	99.7	101	70.0-130	1.06	25	
cis-1,3-Dichloropropene	ppbv	3.75	3.68	3.78	98.1	101	70.0-130	2.68	25	
trans-1,3-Dichloropropene	ppbv	3.75	3.57	3.70	95.2	98.7	70.0-130	3.58	25	
1,4-Dioxane (p-Dioxane)	ppbv	3.75	3.25	3.37	86.7	89.9	70.0-140	3.63	25	
Ethylbenzene	ppbv	3.75	3.72	3.77	99.2	101	70.0-130	1.34	25	
4-Ethyltoluene	ppbv	3.75	3.66	3.80	97.6	101	70.0-130	3.75	25	
Trichlorofluoromethane	ppbv	3.75	4.32	4.29	115	114	70.0-130	0.697	25	
Dichlorodifluoromethane	ppbv	3.75	4.19	4.23	112	113	64.0-139	0.950	25	
1,1,2-Trichlorotrifluoroethane	ppbv	3.75	4.50	4.55	120	121	70.0-130	1.10	25	
Dichlorotetrafluoroethane	ppbv	3.75	4.47	4.53	119	121	70.0-130	1.33	25	
n-Heptane	ppbv	3.75	3.89	3.99	104	106	70.0-130	2.54	25	
Hexachloro-1,3-butadiene	ppbv	3.75	3.49	3.62	93.1	96.5	70.0-151	3.66	25	
n-Hexane	ppbv	3.75	3.90	3.96	104	106	70.0-130	1.53	25	
Isopropylbenzene (Cumene)	ppbv	3.75	3.73	3.79	99.5	101	70.0-130	1.60	25	
Methylene Chloride	ppbv	3.75	4.48	4.59	119	122	70.0-130	2.43	25	
2-Hexanone	ppbv	3.75	3.36	3.45	89.6	92.0	70.0-149	2.64	25	
2-Butanone (MEK)	ppbv	3.75	3.75	3.89	100	104	70.0-130	3.66	25	
4-Methyl-2-pentanone (MIBK)	ppbv	3.75	3.73	3.86	99.5	103	70.0-139	3.43	25	
Methyl methacrylate	ppbv	3.75	3.53	3.58	94.1	95.5	70.0-130	1.41	25	
Methyl-tert-butyl ether	ppbv	3.75	3.82	3.91	102	104	70.0-130	2.33	25	
Naphthalene	ppbv	3.75	3.65	3.74	97.3	99.7	70.0-159	2.44	25	
2-Propanol	ppbv	3.75	4.40	4.60	117	123	70.0-139	4.44	25	
Propylene	ppbv	3.75	3.76	3.83	100	102	64.0-144	1.84	25	
Styrene	ppbv	3.75	3.61	3.64	96.3	97.1	70.0-130	0.828	25	
1,1,2,2-Tetrachloroethane	ppbv	3.75	3.71	3.77	98.9	101	70.0-130	1.60	25	
Tetrachloroethene	ppbv	3.75	3.52	3.61	93.9	96.3	70.0-130	2.52	25	
Tetrahydrofuran	ppbv	3.75	3.70	3.71	98.7	98.9	70.0-137	0.270	25	
Toluene	ppbv	3.75	3.63	3.70	96.8	98.7	70.0-130	1.91	25	
1,2,4-Trichlorobenzene	ppbv	3.75	3.50	3.65	93.3	97.3	70.0-160	4.20	25	
1,1,1-Trichloroethane	ppbv	3.75	3.71	3.76	98.9	100	70.0-130	1.34	25	
1,1,2-Trichloroethane	ppbv	3.75	3.58	3.62	95.5	96.5	70.0-130	1.11	25	
Trichloroethene	ppbv	3.75	3.73	3.83	99.5	102	70.0-130	2.65	25	
1,2,4-Trimethylbenzene	ppbv	3.75	3.80	3.88	101	103	70.0-130	2.08	25	
1,3,5-Trimethylbenzene	ppbv	3.75	3.70	3.78	98.7	101	70.0-130	2.14	25	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: City of Bristol VA
Pace Project No.: 92627616

LABORATORY CONTROL SAMPLE & LCSD: R3840179-2 R3840179-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
2,2,4-Trimethylpentane	ppbv	3.75	3.87	3.93	103	105	70.0-130	1.54	25	
Vinyl chloride	ppbv	3.75	4.37	4.42	117	118	70.0-130	1.14	25	
Vinyl bromide	ppbv	3.75	4.22	4.32	113	115	70.0-130	2.34	25	
Vinyl acetate	ppbv	3.75	3.69	3.59	98.4	95.7	70.0-130	2.75	25	
m&p-Xylene	ppbv	7.50	7.69	7.86	103	105	70.0-130	2.19	25	
o-Xylene	ppbv	3.75	3.80	3.84	101	102	70.0-130	1.05	25	
1,4-Dichlorobenzene-d4 (IS)	%				99.3	99.8	60.0-140			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: City of Bristol VA
Pace Project No.: 92627616

QC Batch: 1931275
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: VOA (MS) TO-15
Laboratory: Pace National - Mt. Juliet

Associated Lab Samples: 92627616001

METHOD BLANK: R3840790-3 Matrix: Air
Associated Lab Samples: 92627616001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Ethanol	ppbv	ND	1.25	0.265	09/23/22 10:00	
1,4-Dichlorobenzene-d4 (IS)	%	98.6	60.0-140		09/23/22 10:00	

LABORATORY CONTROL SAMPLE & LCSD: R3840790-1 R3840790-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethanol	ppbv	3.75	4.42	4.47	118	119	55.0-148	1.12	25	
1,4-Dichlorobenzene-d4 (IS)	%				100	99.9	60.0-140			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: City of Bristol VA
Pace Project No.: 92627616

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

J	Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: City of Bristol VA
Pace Project No.: 92627616

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92627616001	**September 24hr**	TO-15	1930517	TO-15	1930517
92627616001	**September 24hr**	TO-15	1931275	TO-15	1931275

WO#: 92627616

92627616

Company Name/Address: **Pace Analytical - Huntersville, NC**
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078

Billing Information:
Accounts Payable
9800 Kincey Ave., Ste. 10[illegible]
Huntersville, NC 28078

Chain of Custody Page ___ of ___

Pace® PEOPLE ADVANCING SCIENCE
MT JULIET, TN
12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report To: **Sara Poulson**
Email To: Sara.Poulson@pacelabs.com

Project Description: City of Bristol
City/State Collected:
Please Circle: PT MT CT ET

Phone: 704-875-9092
Client Project #
Lab Project #: PACE-POULSONVA

SDG # L1537324
1217

Collected by (print): David Cochran II
Site/Facility ID #
P.O. #

Acctnum: PACE
Template: T210823
Prelogin: P945122
PM: 844 - Christi M Wagner
PB: [illegible] 09/01/[illegible]
Shipped Via: FedEX Ground

Collected by (signature): [signature]

Rush? (Lab MUST Be Notified)
___ Same Day ___ Three Day
___ Next Day ___ Five Day
___ Two Day

Date Results Needed

Sample ID	Can #	Flow Cont. #	Collection Date	Collection Time	Canister Pressure/Vacuum Initial	Canister Pressure/Vacuum Final	TO-15 Summa				Rem./Contaminant	Sample # (lab only)
September 24hr	7236	20105	9/14/22	1:25pm	27hg	2 HG	X					-01

Sample Receipt Checklist
COC Seal Present/Intact: _X_ N
COC Signed/Accurate: _Y_ N
Bottles arrive intact: _Y_ N
Correct bottles used: _Y_ N
Sufficient volume sent: _Y_ N
RAD Screen <0.5 mR/hr: _Y_ N
If Applicable
VOA Zero Headspace: _ Y _ N
Pres.Correct/Check: _ Y _ N

Remarks:

Samples returned via: __UPS __FedEx __Courier __ ______
Tracking #
Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
[signature]	9/15/22	3:14pm			

Condition: (lab use only)

Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:
			[signature]	9/1?/22	0830

COC Seal Intact: ___Y ___N ___NA
NCF: