ATTACHMENT 3
SAMPLING RESULTS
SEPTEMBER 2023 (24-HOUR SAMPLE)

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

September 19, 2023

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

RE: Project: CITY OF BRISTOL
Pace Project No.: 92687841

Dear David Cochran:

Enclosed are the analytical results for sample(s) received by the laboratory on September 13, 2023. 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: Jonathan Hayes
Logan Howard, City of Bristol VA
Joey Lamie
Jennifer Robb, City of Bristol VA

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CERTIFICATIONS

Project: CITY OF BRISTOL
Pace Project No.: 92687841

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
Pace Project No.: 92687841

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92687841001	**SEPTEMBER 24HR**	Air	09/12/23 13:40	09/13/23 09:00

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SAMPLE ANALYTE COUNT

Project: CITY OF BRISTOL
Pace Project No.: 92687841

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92687841001	**SEPTEMBER 24HR**	TO-15	JAP	71	PAN

PAN = Pace National - Mt. Juliet

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SUMMARY OF DETECTION

Project: CITY OF BRISTOL
Pace Project No.: 92687841

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92687841001	**SEPTEMBER 24HR**					
TO-15	Acetone	24.5	ug/m3	2.97	09/19/23 12:34	
TO-15	Acetonitrile	0.559J	ug/m3	8.39	09/19/23 12:34	J
TO-15	Benzene	2.48	ug/m3	0.639	09/19/23 12:34	
TO-15	Chloromethane	1.20	ug/m3	0.413	09/19/23 12:34	
TO-15	Ethanol	78.8	ug/m3	4.71	09/19/23 12:34	
TO-15	Ethylbenzene	0.715J	ug/m3	0.867	09/19/23 12:34	J
TO-15	Ethyl acetate	0.857	ug/m3	0.720	09/19/23 12:34	
TO-15	Trichlorofluoromethane	1.25	ug/m3	1.12	09/19/23 12:34	
TO-15	Dichlorodifluoromethane	8.70	ug/m3	0.989	09/19/23 12:34	
TO-15	n-Heptane	0.834	ug/m3	0.818	09/19/23 12:34	
TO-15	n-Hexane	0.948J	ug/m3	2.22	09/19/23 12:34	J
TO-15	Methylene Chloride	2.69	ug/m3	0.694	09/19/23 12:34	
TO-15	2-Butanone (MEK)	2.04J	ug/m3	3.69	09/19/23 12:34	J
TO-15	4-Methyl-2-pentanone (MIBK)	0.561J	ug/m3	5.12	09/19/23 12:34	J
TO-15	2-Propanol	23.2	ug/m3	3.07	09/19/23 12:34	
TO-15	Tetrahydrofuran	0.599	ug/m3	0.590	09/19/23 12:34	
TO-15	Toluene	2.40	ug/m3	1.88	09/19/23 12:34	
TO-15	1,2,4-Trimethylbenzene	0.490J	ug/m3	0.982	09/19/23 12:34	J
TO-15	m&p-Xylene	1.44J	ug/m3	1.73	09/19/23 12:34	J
TO-15	o-Xylene	0.624J	ug/m3	0.867	09/19/23 12:34	J
TO-15	Xylene (Total)	2.07J	ug/m3	2.61	09/19/23 12:34	J

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: CITY OF BRISTOL
Pace Project No.: 92687841

Method: **TO-15**
Description: VOA (MS) TO-15
Client: City of Bristol VA
Date: September 19, 2023

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
Pace Project No.: 92687841

Sample: SEPTEMBER 24HR **Lab ID: 92687841001** Collected: 09/12/23 13:40 Received: 09/13/23 09:00 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	**24.5**	ug/m3	2.97	1.39	1	09/19/23 12:34	09/19/23 12:34	67-64-1	
Acetonitrile	**0.559J**	ug/m3	8.39	0.395	1	09/19/23 12:34	09/19/23 12:34	75-05-8	J
Allyl chloride	ND	ug/m3	0.626	0.357	1	09/19/23 12:34	09/19/23 12:34	107-05-1	
Benzene	**2.48**	ug/m3	0.639	0.228	1	09/19/23 12:34	09/19/23 12:34	71-43-2	
Benzyl chloride	ND	ug/m3	1.04	0.311	1	09/19/23 12:34	09/19/23 12:34	100-44-7	
Bromodichloromethane	ND	ug/m3	1.34	0.471	1	09/19/23 12:34	09/19/23 12:34	75-27-4	
Bromoform	ND	ug/m3	6.21	0.757	1	09/19/23 12:34	09/19/23 12:34	75-25-2	
Bromomethane	ND	ug/m3	0.776	0.381	1	09/19/23 12:34	09/19/23 12:34	74-83-9	
1,3-Butadiene	ND	ug/m3	4.43	0.230	1	09/19/23 12:34	09/19/23 12:34	106-99-0	
Carbon disulfide	ND	ug/m3	0.622	0.317	1	09/19/23 12:34	09/19/23 12:34	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.26	0.461	1	09/19/23 12:34	09/19/23 12:34	56-23-5	
Chlorobenzene	ND	ug/m3	0.924	0.385	1	09/19/23 12:34	09/19/23 12:34	108-90-7	
Chloroethane	ND	ug/m3	0.528	0.263	1	09/19/23 12:34	09/19/23 12:34	75-00-3	
Chloroform	ND	ug/m3	0.973	0.349	1	09/19/23 12:34	09/19/23 12:34	67-66-3	
Chloromethane	**1.20**	ug/m3	0.413	0.213	1	09/19/23 12:34	09/19/23 12:34	74-87-3	
2-Chlorotoluene	ND	ug/m3	1.03	0.427	1	09/19/23 12:34	09/19/23 12:34	95-49-8	
Cyclohexane	ND	ug/m3	0.689	0.259	1	09/19/23 12:34	09/19/23 12:34	110-82-7	
Dibromochloromethane	ND	ug/m3	1.70	0.618	1	09/19/23 12:34	09/19/23 12:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.54	0.554	1	09/19/23 12:34	09/19/23 12:34	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.20	0.770	1	09/19/23 12:34	09/19/23 12:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.20	1.09	1	09/19/23 12:34	09/19/23 12:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.20	0.335	1	09/19/23 12:34	09/19/23 12:34	106-46-7	
1,2-Dichloroethane	ND	ug/m3	0.810	0.283	1	09/19/23 12:34	09/19/23 12:34	107-06-2	
1,1-Dichloroethane	ND	ug/m3	0.802	0.290	1	09/19/23 12:34	09/19/23 12:34	75-34-3	
1,1-Dichloroethene	ND	ug/m3	0.793	0.302	1	09/19/23 12:34	09/19/23 12:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.793	0.311	1	09/19/23 12:34	09/19/23 12:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.793	0.267	1	09/19/23 12:34	09/19/23 12:34	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.924	0.351	1	09/19/23 12:34	09/19/23 12:34	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.908	0.313	1	09/19/23 12:34	09/19/23 12:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.908	0.331	1	09/19/23 12:34	09/19/23 12:34	10061-02-6	
1,4-Dioxane (p-Dioxane)	ND	ug/m3	0.721	0.300	1	09/19/23 12:34	09/19/23 12:34	123-91-1	
Ethanol	**78.8**	ug/m3	4.71	0.500	1	09/19/23 12:34	09/19/23 12:34	64-17-5	
Ethylbenzene	**0.715J**	ug/m3	0.867	0.362	1	09/19/23 12:34	09/19/23 12:34	100-41-4	J
Ethyl acetate	**0.857**	ug/m3	0.720	0.360	1	09/19/23 12:34	09/19/23 12:34	141-78-6	
4-Ethyltoluene	ND	ug/m3	0.982	0.384	1	09/19/23 12:34	09/19/23 12:34	622-96-8	
Trichlorofluoromethane	**1.25**	ug/m3	1.12	0.460	1	09/19/23 12:34	09/19/23 12:34	75-69-4	
Dichlorodifluoromethane	**8.70**	ug/m3	0.989	0.678	1	09/19/23 12:34	09/19/23 12:34	75-71-8	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.53	0.608	1	09/19/23 12:34	09/19/23 12:34	76-13-1	
Dichlorotetrafluoroethane	ND	ug/m3	1.40	0.622	1	09/19/23 12:34	09/19/23 12:34	76-14-2	
n-Heptane	**0.834**	ug/m3	0.818	0.425	1	09/19/23 12:34	09/19/23 12:34	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	6.73	1.12	1	09/19/23 12:34	09/19/23 12:34	87-68-3	
n-Hexane	**0.948J**	ug/m3	2.22	0.726	1	09/19/23 12:34	09/19/23 12:34	110-54-3	J
Isopropylbenzene (Cumene)	ND	ug/m3	0.983	0.382	1	09/19/23 12:34	09/19/23 12:34	98-82-8	
Methylene Chloride	**2.69**	ug/m3	0.694	0.340	1	09/19/23 12:34	09/19/23 12:34	75-09-2	
2-Hexanone	ND	ug/m3	5.11	0.544	1	09/19/23 12:34	09/19/23 12:34	591-78-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CITY OF BRISTOL
Pace Project No.: 92687841

Sample: SEPTEMBER 24HR **Lab ID: 92687841001** Collected: 09/12/23 13:40 Received: 09/13/23 09:00 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								
2-Butanone (MEK)	**2.04J**	ug/m3	3.69	0.240	1	09/19/23 12:34	09/19/23 12:34	78-93-3	J
4-Methyl-2-pentanone (MIBK)	**0.561J**	ug/m3	5.12	0.313	1	09/19/23 12:34	09/19/23 12:34	108-10-1	J
Methyl methacrylate	ND	ug/m3	0.819	0.359	1	09/19/23 12:34	09/19/23 12:34	80-62-6	
Methyl-tert-butyl ether	ND	ug/m3	0.721	0.233	1	09/19/23 12:34	09/19/23 12:34	1634-04-4	
Naphthalene	ND	ug/m3	3.30	1.83	1	09/19/23 12:34	09/19/23 12:34	91-20-3	
2-Propanol	**23.2**	ug/m3	3.07	0.649	1	09/19/23 12:34	09/19/23 12:34	67-63-0	
Propylene	ND	ug/m3	2.15	0.160	1	09/19/23 12:34	09/19/23 12:34	115-07-1	
Styrene	ND	ug/m3	0.851	0.335	1	09/19/23 12:34	09/19/23 12:34	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.37	0.511	1	09/19/23 12:34	09/19/23 12:34	79-34-5	
Tetrachloroethene	ND	ug/m3	1.36	0.553	1	09/19/23 12:34	09/19/23 12:34	127-18-4	
Tetrahydrofuran	**0.599**	ug/m3	0.590	0.216	1	09/19/23 12:34	09/19/23 12:34	109-99-9	
Toluene	**2.40**	ug/m3	1.88	0.328	1	09/19/23 12:34	09/19/23 12:34	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	4.66	1.10	1	09/19/23 12:34	09/19/23 12:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.09	0.400	1	09/19/23 12:34	09/19/23 12:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1.09	0.422	1	09/19/23 12:34	09/19/23 12:34	79-00-5	
Trichloroethene	ND	ug/m3	1.07	0.364	1	09/19/23 12:34	09/19/23 12:34	79-01-6	
1,2,4-Trimethylbenzene	**0.490J**	ug/m3	0.982	0.375	1	09/19/23 12:34	09/19/23 12:34	95-63-6	J
1,3,5-Trimethylbenzene	ND	ug/m3	0.982	0.382	1	09/19/23 12:34	09/19/23 12:34	108-67-8	
2,2,4-Trimethylpentane	ND	ug/m3	0.934	0.621	1	09/19/23 12:34	09/19/23 12:34	540-84-1	
Vinyl chloride	ND	ug/m3	0.511	0.243	1	09/19/23 12:34	09/19/23 12:34	75-01-4	
Vinyl bromide	ND	ug/m3	0.875	0.373	1	09/19/23 12:34	09/19/23 12:34	593-60-2	
Vinyl acetate	ND	ug/m3	0.704	0.408	1	09/19/23 12:34	09/19/23 12:34	108-05-4	
m&p-Xylene	**1.44J**	ug/m3	1.73	0.585	1	09/19/23 12:34	09/19/23 12:34	179601-23-1	J
o-Xylene	**0.624J**	ug/m3	0.867	0.359	1	09/19/23 12:34	09/19/23 12:34	95-47-6	J
Xylene (Total)	**2.07J**	ug/m3	2.61	0.586	1	09/19/23 12:34	09/19/23 12:34	1330-20-7	J
Surrogates									
4-Bromofluorobenzene (S)	96.0	%	60.0-140		1	09/19/23 12:34	09/19/23 12:34	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CITY OF BRISTOL
Pace Project No.: 92687841

QC Batch: 2134984
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: VOA (MS) TO-15
Laboratory: Pace National - Mt. Juliet

Associated Lab Samples: 92687841001

METHOD BLANK: R3974983-3 Matrix: Air
Associated Lab Samples: 92687841001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/m3	ND	2.97	1.39	09/19/23 11:12	
Acetonitrile	ug/m3	ND	8.39	0.395	09/19/23 11:12	
Allyl chloride	ug/m3	ND	0.626	0.357	09/19/23 11:12	
Benzene	ug/m3	ND	0.639	0.228	09/19/23 11:12	
Benzyl chloride	ug/m3	ND	1.04	0.311	09/19/23 11:12	
Bromodichloromethane	ug/m3	ND	1.34	0.471	09/19/23 11:12	
Bromoform	ug/m3	ND	6.21	0.757	09/19/23 11:12	
Bromomethane	ug/m3	ND	0.776	0.381	09/19/23 11:12	
1,3-Butadiene	ug/m3	ND	4.43	0.230	09/19/23 11:12	
Carbon disulfide	ug/m3	ND	0.622	0.317	09/19/23 11:12	
Carbon tetrachloride	ug/m3	ND	1.26	0.461	09/19/23 11:12	
Chlorobenzene	ug/m3	ND	0.924	0.385	09/19/23 11:12	
Chloroethane	ug/m3	ND	0.528	0.263	09/19/23 11:12	
Chloroform	ug/m3	ND	0.973	0.349	09/19/23 11:12	
Chloromethane	ug/m3	ND	0.413	0.213	09/19/23 11:12	
2-Chlorotoluene	ug/m3	ND	1.03	0.427	09/19/23 11:12	
Cyclohexane	ug/m3	ND	0.689	0.259	09/19/23 11:12	
Dibromochloromethane	ug/m3	ND	1.70	0.618	09/19/23 11:12	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.54	0.554	09/19/23 11:12	
1,2-Dichlorobenzene	ug/m3	ND	1.20	0.770	09/19/23 11:12	
1,3-Dichlorobenzene	ug/m3	ND	1.20	1.09	09/19/23 11:12	
1,4-Dichlorobenzene	ug/m3	ND	1.20	0.335	09/19/23 11:12	
1,2-Dichloroethane	ug/m3	ND	0.810	0.283	09/19/23 11:12	
1,1-Dichloroethane	ug/m3	ND	0.802	0.290	09/19/23 11:12	
1,1-Dichloroethene	ug/m3	ND	0.793	0.302	09/19/23 11:12	
cis-1,2-Dichloroethene	ug/m3	ND	0.793	0.311	09/19/23 11:12	
trans-1,2-Dichloroethene	ug/m3	ND	0.793	0.267	09/19/23 11:12	
1,2-Dichloropropane	ug/m3	ND	0.924	0.351	09/19/23 11:12	
cis-1,3-Dichloropropene	ug/m3	ND	0.908	0.313	09/19/23 11:12	
trans-1,3-Dichloropropene	ug/m3	ND	0.908	0.331	09/19/23 11:12	
1,4-Dioxane (p-Dioxane)	ug/m3	ND	0.721	0.300	09/19/23 11:12	
Ethanol	ug/m3	0.741J	4.71	0.500	09/19/23 11:12	J
Ethylbenzene	ug/m3	ND	0.867	0.362	09/19/23 11:12	
Ethyl acetate	ug/m3	ND	0.720	0.360	09/19/23 11:12	
4-Ethyltoluene	ug/m3	ND	0.982	0.384	09/19/23 11:12	
Trichlorofluoromethane	ug/m3	ND	1.12	0.460	09/19/23 11:12	
Dichlorodifluoromethane	ug/m3	ND	0.989	0.678	09/19/23 11:12	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.53	0.608	09/19/23 11:12	
Dichlorotetrafluoroethane	ug/m3	ND	1.40	0.622	09/19/23 11:12	
n-Heptane	ug/m3	ND	0.818	0.425	09/19/23 11:12	

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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
Pace Project No.: 92687841

METHOD BLANK: R3974983-3 Matrix: Air
Associated Lab Samples: 92687841001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/m3	ND	6.73	1.12	09/19/23 11:12	
n-Hexane	ug/m3	ND	2.22	0.726	09/19/23 11:12	
Isopropylbenzene (Cumene)	ug/m3	ND	0.983	0.382	09/19/23 11:12	
Methylene Chloride	ug/m3	ND	0.694	0.340	09/19/23 11:12	
2-Hexanone	ug/m3	ND	5.11	0.544	09/19/23 11:12	
2-Butanone (MEK)	ug/m3	ND	3.69	0.240	09/19/23 11:12	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	5.12	0.313	09/19/23 11:12	
Methyl methacrylate	ug/m3	ND	0.819	0.359	09/19/23 11:12	
Methyl-tert-butyl ether	ug/m3	ND	0.721	0.233	09/19/23 11:12	
Naphthalene	ug/m3	ND	3.30	1.83	09/19/23 11:12	
2-Propanol	ug/m3	ND	3.07	0.649	09/19/23 11:12	
Propylene	ug/m3	ND	2.15	0.160	09/19/23 11:12	
Styrene	ug/m3	ND	0.851	0.335	09/19/23 11:12	
1,1,2,2-Tetrachloroethane	ug/m3	ND	1.37	0.511	09/19/23 11:12	
Tetrachloroethene	ug/m3	ND	1.36	0.553	09/19/23 11:12	
Tetrahydrofuran	ug/m3	ND	0.590	0.216	09/19/23 11:12	
Toluene	ug/m3	ND	1.88	0.328	09/19/23 11:12	
1,2,4-Trichlorobenzene	ug/m3	ND	4.66	1.10	09/19/23 11:12	
1,1,1-Trichloroethane	ug/m3	ND	1.09	0.400	09/19/23 11:12	
1,1,2-Trichloroethane	ug/m3	ND	1.09	0.422	09/19/23 11:12	
Trichloroethene	ug/m3	ND	1.07	0.364	09/19/23 11:12	
1,2,4-Trimethylbenzene	ug/m3	ND	0.982	0.375	09/19/23 11:12	
1,3,5-Trimethylbenzene	ug/m3	ND	0.982	0.382	09/19/23 11:12	
2,2,4-Trimethylpentane	ug/m3	ND	0.934	0.621	09/19/23 11:12	
Vinyl chloride	ug/m3	ND	0.511	0.243	09/19/23 11:12	
Vinyl bromide	ug/m3	ND	0.875	0.373	09/19/23 11:12	
Vinyl acetate	ug/m3	ND	0.704	0.408	09/19/23 11:12	
m&p-Xylene	ug/m3	ND	1.73	0.585	09/19/23 11:12	
o-Xylene	ug/m3	ND	0.867	0.359	09/19/23 11:12	
Xylene (Total)	ug/m3	ND	2.61	0.586	09/19/23 11:12	
4-Bromofluorobenzene (S)	%	94.9	60.0-140		09/19/23 11:12	

LABORATORY CONTROL SAMPLE & LCSD: R3974983-1 R3974983-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Acetone	ug/m3	8.91	8.72	8.77	97.9	98.4	70.0-130	0.543	25	
Acetonitrile	ug/m3	31.6	31.2	30.7	98.9	97.3	70.0-130	1.63	25	
Allyl chloride	ug/m3	11.7	11.8	11.7	100	99.5	70.0-130	0.801	25	
Benzene	ug/m3	12.0	11.5	11.3	96.0	94.7	70.0-130	1.40	25	
Benzyl chloride	ug/m3	19.5	20.0	19.9	103	102	70.0-152	0.519	25	
Bromodichloromethane	ug/m3	25.2	24.3	23.9	96.8	95.2	70.0-130	1.67	25	
Bromoform	ug/m3	38.8	37.5	37.4	96.5	96.3	70.0-130	0.277	25	
Bromomethane	ug/m3	14.6	14.2	14.1	97.6	97.1	70.0-130	0.548	25	
1,3-Butadiene	ug/m3	8.30	8.25	8.21	99.5	98.9	70.0-130	0.538	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
Pace Project No.: 92687841

LABORATORY CONTROL SAMPLE & LCSD: R3974983-1 R3974983-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon disulfide	ug/m3	11.7	11.6	11.5	99.2	98.1	70.0-130	1.08	25	
Carbon tetrachloride	ug/m3	23.6	23.1	22.8	97.9	96.5	70.0-130	1.37	25	
Chlorobenzene	ug/m3	17.3	16.7	16.7	96.5	96.3	70.0-130	0.277	25	
Chloroethane	ug/m3	9.89	9.66	9.76	97.6	98.7	70.0-130	1.09	25	
Chloroform	ug/m3	18.3	18.1	17.7	99.2	97.1	70.0-130	2.17	25	
Chloromethane	ug/m3	7.75	7.60	7.54	98.1	97.3	70.0-130	0.819	25	
2-Chlorotoluene	ug/m3	19.3	19.7	19.3	102	100	70.0-130	1.85	25	
Cyclohexane	ug/m3	12.9	12.6	12.5	97.9	96.5	70.0-130	1.37	25	
Dibromochloromethane	ug/m3	31.9	31.1	31.1	97.3	97.6	70.0-130	0.274	25	
1,2-Dibromoethane (EDB)	ug/m3	28.8	29.1	28.7	101	99.5	70.0-130	1.60	25	
1,2-Dichlorobenzene	ug/m3	22.5	22.8	22.9	101	102	70.0-130	0.263	25	
1,3-Dichlorobenzene	ug/m3	22.5	23.6	23.3	105	103	70.0-130	1.28	25	
1,4-Dichlorobenzene	ug/m3	22.5	23.2	23.0	103	102	70.0-130	0.780	25	
1,2-Dichloroethane	ug/m3	15.2	14.9	14.6	98.1	96.3	70.0-130	1.92	25	
1,1-Dichloroethane	ug/m3	15.0	14.9	14.6	98.9	97.1	70.0-130	1.90	25	
1,1-Dichloroethene	ug/m3	14.9	14.8	14.6	99.5	98.1	70.0-130	1.35	25	
cis-1,2-Dichloroethene	ug/m3	14.9	14.8	14.7	99.5	98.9	70.0-130	0.538	25	
trans-1,2-Dichloroethene	ug/m3	14.9	14.8	14.6	99.7	98.1	70.0-130	1.62	25	
1,2-Dichloropropane	ug/m3	17.3	17.0	16.8	98.1	97.1	70.0-130	1.09	25	
cis-1,3-Dichloropropene	ug/m3	17.0	17.5	17.2	103	101	70.0-130	2.09	25	
trans-1,3-Dichloropropene	ug/m3	17.0	16.8	16.9	98.7	99.5	70.0-130	0.808	25	
1,4-Dioxane (p-Dioxane)	ug/m3	13.5	13.5	13.1	100	96.8	70.0-140	3.25	25	
Ethanol	ug/m3	7.07	7.35	7.16	104	101	55.0-148	2.60	25	
Ethylbenzene	ug/m3	16.3	15.8	15.7	97.1	96.3	70.0-130	0.828	25	
Ethyl acetate	ug/m3	13.5	13.6	13.4	101	99.5	70.0-130	1.60	25	
4-Ethyltoluene	ug/m3	18.4	18.8	18.9	102	103	70.0-130	0.519	25	
Trichlorofluoromethane	ug/m3	21.1	20.5	19.9	97.1	94.7	70.0-130	2.50	25	
Dichlorodifluoromethane	ug/m3	18.5	18.1	18.2	97.3	97.9	64.0-139	0.546	25	
1,1,2-Trichlorotrifluoroethane	ug/m3	28.7	28.4	27.8	98.9	96.8	70.0-130	2.18	25	
Dichlorotetrafluoroethane	ug/m3	26.2	25.8	25.3	98.4	96.5	70.0-130	1.92	25	
n-Heptane	ug/m3	15.3	15.3	15.2	100	98.9	70.0-130	1.07	25	
Hexachloro-1,3-butadiene	ug/m3	40.0	40.2	38.5	101	96.3	70.0-151	4.34	25	
n-Hexane	ug/m3	13.2	13.2	13.1	99.5	99.2	70.0-130	0.268	25	
Isopropylbenzene (Cumene)	ug/m3	18.4	18.1	17.8	98.1	96.8	70.0-130	1.37	25	
Methylene Chloride	ug/m3	13.0	12.6	12.4	97.1	95.2	70.0-130	1.94	25	
2-Hexanone	ug/m3	15.3	15.2	12.4	99.2	81.1	70.0-149	20.1	25	
2-Butanone (MEK)	ug/m3	11.1	11.4	11.1	103	101	70.0-130	2.10	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	15.4	15.7	15.5	102	101	70.0-139	1.57	25	
Methyl methacrylate	ug/m3	15.4	15.4	15.4	100	100	70.0-130	0.266	25	
Methyl-tert-butyl ether	ug/m3	13.5	13.5	13.5	99.7	99.7	70.0-130	0.00	25	
Naphthalene	ug/m3	19.6	20.7	20.3	106	103	70.0-159	2.04	25	
2-Propanol	ug/m3	9.22	9.22	9.12	100	98.9	70.0-139	1.07	25	
Propylene	ug/m3	6.46	6.23	6.18	96.5	95.7	64.0-144	0.832	25	
Styrene	ug/m3	16.0	16.6	16.5	104	103	70.0-130	0.772	25	
1,1,2,2-Tetrachloroethane	ug/m3	25.8	25.7	24.9	99.7	96.5	70.0-130	3.26	25	
Tetrachloroethene	ug/m3	25.5	25.1	24.8	98.7	97.6	70.0-130	1.09	25	
Tetrahydrofuran	ug/m3	11.1	11.0	10.8	99.2	97.6	70.0-137	1.63	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
Pace Project No.: 92687841

LABORATORY CONTROL SAMPLE & LCSD: R3974983-1 R3974983-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Toluene	ug/m3	14.1	13.6	13.6	96.0	96.5	70.0-130	0.554	25	
1,2,4-Trichlorobenzene	ug/m3	27.8	28.0	28.0	101	101	70.0-160	0.00	25	
1,1,1-Trichloroethane	ug/m3	20.4	20.0	19.7	97.9	96.5	70.0-130	1.37	25	
1,1,2-Trichloroethane	ug/m3	20.4	20.2	19.5	99.2	95.7	70.0-130	3.56	25	
Trichloroethene	ug/m3	20.1	19.6	19.3	97.6	96.0	70.0-130	1.65	25	
1,2,4-Trimethylbenzene	ug/m3	18.4	19.6	19.2	107	104	70.0-130	2.28	25	
1,3,5-Trimethylbenzene	ug/m3	18.4	19.1	19.1	104	104	70.0-130	0.257	25	
2,2,4-Trimethylpentane	ug/m3	17.5	17.7	17.5	101	99.7	70.0-130	1.33	25	
Vinyl chloride	ug/m3	9.59	9.41	9.38	98.1	97.9	70.0-130	0.272	25	
Vinyl bromide	ug/m3	16.4	16.4	16.2	99.7	98.9	70.0-130	0.805	25	
Vinyl acetate	ug/m3	13.2	13.0	12.6	98.1	95.2	70.0-130	3.03	25	
m&p-Xylene	ug/m3	32.5	33.0	32.8	101	101	70.0-130	0.659	25	
o-Xylene	ug/m3	16.3	16.5	16.7	102	103	70.0-130	1.04	25	
Xylene (Total)	ug/m3	49.1	49.5	49.5	101	101	70.0-130	0.00	25	
4-Bromofluorobenzene (S)	%				101	101	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

QUALIFIERS

Project: CITY OF BRISTOL
Pace Project No.: 92687841

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
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(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CITY OF BRISTOL
Pace Project No.: 92687841

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92687841001	**SEPTEMBER 24HR**	TO-15	2134984	TO-15	2134984

REPORT OF LABORATORY ANALYSIS

Pace

Pace® Location Requested (City/State):

Air CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

WO# : 92687841

92687841

J210

Company Name: Pace Analytical - Huntersville, NC	Contact/Report To: Sara Poulson
Street Address: 9800 Kincey Avenue, Suite 100 Huntersville, NC 28078	Phone #: 704-875-9092
	E-Mail: Sara.Poulson@pacelabs.com
City, State Zip: Bristol VA 24201	Cc E-Mail:
Customer Project #:	Invoice to: City of Bristol VA
Project Name: City of Bristol	Invoice E-Mail: dcochran@bristolva.org
Site Collection Info/Facility ID (as applicable): PACE-POULSONVA 001	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [✓] ET	State origin of sample(s): VA

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other____

Regulatory Program (CAA, RCRA, etc.) as applicable:

Rush (Pre-approval required): 2 Day 3 day 5 day Other____

Permit # as applicable:

Date Results Requested:

Units for Reporting: ug/m³ PPBV mg/m³ PPMV

* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Lab Use Only: Proj. Manager: 464 - Nancy McLain; AcctNum / Client ID: PACE; Table #:; Profile / Template: T210823; Prelog / Bottle Ord. ID: P1016478

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection Date	Begin Collection Time	End Collection Date	End Collection Time	Canister Start Pressure / Vacuum (in Hg)	Canister End Pressure / Vacuum (in Hg)	PUF/FILTER Duration (minutes)	Flow Rate m³/min or L/min	Total Volume Sampled m³ or L	Analyses Requested: TO-15 Summa				Sample Comment L1655295
September - 24hr		01615	005275	9/11/23	1:40	9/12/23	1:40pm	30HG	0				X				-01 92687841001

Sample Receipt Checklist

COC Seal Present/Intact:	Y ✓ N	If Applicable	
COC Signed/Accurate:	✓ Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	✓ Y N	Pres. Correct/Check:	Y N
Correct bottles used:	✓ Y N		
Sufficient volume sent:	✓ Y N		
RA screen <0.5 mR/hr:	✓ Y N		

Customer Remarks / Special Conditions / Possible Hazards:
For Franklin D Cochran II - City of Bristol - Reporting through Pace-NC

Collected By:
Printed Name: Franklin D. Cochran II
Signature: [signature]

Additional Instructions from Pace®:

\# Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C): Corrected Temp. (°C):

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
[signature]	09/07/23			Tracking Number:
[signature]	9/12/23			Delivered by: In-Person Courier
				FedEX UPS Other
		[signature]	9/13/23 0900	Page: ___ of: ___

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/