

**ATTACHMENT 3
SAMPLING RESULTS
(MARCH 2023 (24-HOUR SAMPLE))**

March 29, 2023

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

RE: Project: City of Bristol
Pace Project No.: 92658380

Dear David Cochran:

Enclosed are the analytical results for sample(s) received by the laboratory on March 22, 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



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: City of Bristol

Pace Project No.: 92658380

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.: 92658380

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92658380001	March 24hr	Air	03/20/23 13:15	03/22/23 09:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: City of Bristol

Pace Project No.: 92658380

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92658380001	March 24hr	TO-15	DAH	70	PAN

PAN = Pace National - Mt. Juliet

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: City of Bristol

Pace Project No.: 92658380

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92658380001	March 24hr					
TO-15	Acetone	4.13	ug/m3	2.97	03/26/23 10:37	
TO-15	Benzene	5.33	ug/m3	0.639	03/26/23 10:37	
TO-15	Chloromethane	1.14	ug/m3	0.413	03/26/23 10:37	
TO-15	Ethanol	21.7	ug/m3	2.36	03/26/23 10:37	
TO-15	Ethylbenzene	0.776J	ug/m3	0.867	03/26/23 10:37	J
TO-15	Trichlorofluoromethane	1.28	ug/m3	1.12	03/26/23 10:37	
TO-15	Dichlorodifluoromethane	2.88	ug/m3	0.989	03/26/23 10:37	
TO-15	Methylene Chloride	1.87	ug/m3	0.694	03/26/23 10:37	
TO-15	2-Propanol	3.93	ug/m3	3.07	03/26/23 10:37	
TO-15	Tetrachloroethene	2.61	ug/m3	1.36	03/26/23 10:37	
TO-15	Toluene	1.29J	ug/m3	1.88	03/26/23 10:37	J
TO-15	m&p-Xylene	1.14J	ug/m3	1.73	03/26/23 10:37	J
TO-15	o-Xylene	0.486J	ug/m3	0.867	03/26/23 10:37	J
TO-15	Xylene (Total)	1.62J	ug/m3	2.61	03/26/23 10:37	J

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: City of Bristol

Pace Project No.: 92658380

Method: TO-15

Description: VOA (MS) TO-15

Client: City of Bristol VA

Date: March 29, 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.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: City of Bristol
Pace Project No.: 92658380

Sample: March 24hr		Lab ID: 92658380001		Collected: 03/20/23 13:15		Received: 03/22/23 09:15		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	4.13	ug/m3	2.97	1.39	1	03/26/23 10:37	03/26/23 10:37	67-64-1	
Allyl chloride	ND	ug/m3	0.626	0.357	1	03/26/23 10:37	03/26/23 10:37	107-05-1	
Benzene	5.33	ug/m3	0.639	0.228	1	03/26/23 10:37	03/26/23 10:37	71-43-2	
Benzyl chloride	ND	ug/m3	1.04	0.311	1	03/26/23 10:37	03/26/23 10:37	100-44-7	
Bromodichloromethane	ND	ug/m3	1.34	0.471	1	03/26/23 10:37	03/26/23 10:37	75-27-4	
Bromoform	ND	ug/m3	6.21	0.757	1	03/26/23 10:37	03/26/23 10:37	75-25-2	
Bromomethane	ND	ug/m3	0.776	0.381	1	03/26/23 10:37	03/26/23 10:37	74-83-9	
1,3-Butadiene	ND	ug/m3	4.43	0.230	1	03/26/23 10:37	03/26/23 10:37	106-99-0	
Carbon disulfide	ND	ug/m3	0.622	0.317	1	03/26/23 10:37	03/26/23 10:37	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.26	0.461	1	03/26/23 10:37	03/26/23 10:37	56-23-5	
Chlorobenzene	ND	ug/m3	0.924	0.385	1	03/26/23 10:37	03/26/23 10:37	108-90-7	
Chloroethane	ND	ug/m3	0.528	0.263	1	03/26/23 10:37	03/26/23 10:37	75-00-3	
Chloroform	ND	ug/m3	0.973	0.349	1	03/26/23 10:37	03/26/23 10:37	67-66-3	
Chloromethane	1.14	ug/m3	0.413	0.213	1	03/26/23 10:37	03/26/23 10:37	74-87-3	
2-Chlorotoluene	ND	ug/m3	1.03	0.427	1	03/26/23 10:37	03/26/23 10:37	95-49-8	
Cyclohexane	ND	ug/m3	0.689	0.259	1	03/26/23 10:37	03/26/23 10:37	110-82-7	
Dibromochloromethane	ND	ug/m3	1.70	0.618	1	03/26/23 10:37	03/26/23 10:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.54	0.554	1	03/26/23 10:37	03/26/23 10:37	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.20	0.770	1	03/26/23 10:37	03/26/23 10:37	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.20	1.09	1	03/26/23 10:37	03/26/23 10:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.20	0.335	1	03/26/23 10:37	03/26/23 10:37	106-46-7	
1,2-Dichloroethane	ND	ug/m3	0.810	0.283	1	03/26/23 10:37	03/26/23 10:37	107-06-2	
1,1-Dichloroethane	ND	ug/m3	0.802	0.290	1	03/26/23 10:37	03/26/23 10:37	75-34-3	
1,1-Dichloroethene	ND	ug/m3	0.793	0.302	1	03/26/23 10:37	03/26/23 10:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.793	0.311	1	03/26/23 10:37	03/26/23 10:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.793	0.267	1	03/26/23 10:37	03/26/23 10:37	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.924	0.351	1	03/26/23 10:37	03/26/23 10:37	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.908	0.313	1	03/26/23 10:37	03/26/23 10:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.908	0.331	1	03/26/23 10:37	03/26/23 10:37	10061-02-6	
1,4-Dioxane (p-Dioxane)	ND	ug/m3	0.721	0.300	1	03/26/23 10:37	03/26/23 10:37	123-91-1	
Ethanol	21.7	ug/m3	2.36	0.500	1	03/26/23 10:37	03/26/23 10:37	64-17-5	
Ethylbenzene	0.776J	ug/m3	0.867	0.362	1	03/26/23 10:37	03/26/23 10:37	100-41-4	J
Ethyl acetate	ND	ug/m3	0.720	0.360	1	03/26/23 10:37	03/26/23 10:37	141-78-6	
4-Ethyltoluene	ND	ug/m3	0.982	0.384	1	03/26/23 10:37	03/26/23 10:37	622-96-8	
Trichlorofluoromethane	1.28	ug/m3	1.12	0.460	1	03/26/23 10:37	03/26/23 10:37	75-69-4	
Dichlorodifluoromethane	2.88	ug/m3	0.989	0.678	1	03/26/23 10:37	03/26/23 10:37	75-71-8	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.53	0.608	1	03/26/23 10:37	03/26/23 10:37	76-13-1	
Dichlorotetrafluoroethane	ND	ug/m3	1.40	0.622	1	03/26/23 10:37	03/26/23 10:37	76-14-2	
n-Heptane	ND	ug/m3	0.818	0.425	1	03/26/23 10:37	03/26/23 10:37	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	6.73	1.12	1	03/26/23 10:37	03/26/23 10:37	87-68-3	
n-Hexane	ND	ug/m3	2.22	0.726	1	03/26/23 10:37	03/26/23 10:37	110-54-3	
Isopropylbenzene (Cumene)	ND	ug/m3	0.983	0.382	1	03/26/23 10:37	03/26/23 10:37	98-82-8	
Methylene Chloride	1.87	ug/m3	0.694	0.340	1	03/26/23 10:37	03/26/23 10:37	75-09-2	
2-Hexanone	ND	ug/m3	5.11	0.544	1	03/26/23 10:37	03/26/23 10:37	591-78-6	
2-Butanone (MEK)	ND	ug/m3	3.69	0.240	1	03/26/23 10:37	03/26/23 10:37	78-93-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: City of Bristol
Pace Project No.: 92658380

Sample: March 24hr		Lab ID: 92658380001		Collected: 03/20/23 13:15		Received: 03/22/23 09:15		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							
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	5.12	0.313	1	03/26/23 10:37	03/26/23 10:37	108-10-1	
Methyl methacrylate	ND	ug/m3	0.819	0.359	1	03/26/23 10:37	03/26/23 10:37	80-62-6	
Methyl-tert-butyl ether	ND	ug/m3	0.721	0.233	1	03/26/23 10:37	03/26/23 10:37	1634-04-4	
Naphthalene	ND	ug/m3	3.30	1.83	1	03/26/23 10:37	03/26/23 10:37	91-20-3	
2-Propanol	3.93	ug/m3	3.07	0.649	1	03/26/23 10:37	03/26/23 10:37	67-63-0	
Propylene	ND	ug/m3	2.15	0.160	1	03/26/23 10:37	03/26/23 10:37	115-07-1	
Styrene	ND	ug/m3	0.851	0.335	1	03/26/23 10:37	03/26/23 10:37	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.37	0.511	1	03/26/23 10:37	03/26/23 10:37	79-34-5	
Tetrachloroethene	2.61	ug/m3	1.36	0.553	1	03/26/23 10:37	03/26/23 10:37	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.590	0.216	1	03/26/23 10:37	03/26/23 10:37	109-99-9	
Toluene	1.29J	ug/m3	1.88	0.328	1	03/26/23 10:37	03/26/23 10:37	108-88-3	J
1,2,4-Trichlorobenzene	ND	ug/m3	4.66	1.10	1	03/26/23 10:37	03/26/23 10:37	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.09	0.400	1	03/26/23 10:37	03/26/23 10:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1.09	0.422	1	03/26/23 10:37	03/26/23 10:37	79-00-5	
Trichloroethene	ND	ug/m3	1.07	0.364	1	03/26/23 10:37	03/26/23 10:37	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/m3	0.982	0.375	1	03/26/23 10:37	03/26/23 10:37	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	0.982	0.382	1	03/26/23 10:37	03/26/23 10:37	108-67-8	
2,2,4-Trimethylpentane	ND	ug/m3	0.934	0.621	1	03/26/23 10:37	03/26/23 10:37	540-84-1	
Vinyl chloride	ND	ug/m3	0.511	0.243	1	03/26/23 10:37	03/26/23 10:37	75-01-4	
Vinyl bromide	ND	ug/m3	0.875	0.373	1	03/26/23 10:37	03/26/23 10:37	593-60-2	
Vinyl acetate	ND	ug/m3	0.704	0.408	1	03/26/23 10:37	03/26/23 10:37	108-05-4	
m&p-Xylene	1.14J	ug/m3	1.73	0.585	1	03/26/23 10:37	03/26/23 10:37	179601-23-1	J
o-Xylene	0.486J	ug/m3	0.867	0.359	1	03/26/23 10:37	03/26/23 10:37	95-47-6	J
Xylene (Total)	1.62J	ug/m3	2.61	0.586	1	03/26/23 10:37	03/26/23 10:37	1330-20-7	J
Surrogates									
4-Bromofluorobenzene (S)	107	%	60.0-140		1	03/26/23 10:37	03/26/23 10:37	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: City of Bristol
Pace Project No.: 92658380

QC Batch:	2030250	Analysis Method:	TO-15
QC Batch Method:	TO-15	Analysis Description:	VOA (MS) TO-15
		Laboratory:	Pace National - Mt. Juliet

Associated Lab Samples: 92658380001

METHOD BLANK: R3906319-3 Matrix: Air
Associated Lab Samples: 92658380001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/m3	ND	2.97	1.39	03/26/23 07:54	
Allyl chloride	ug/m3	ND	0.626	0.357	03/26/23 07:54	
Benzene	ug/m3	ND	0.639	0.228	03/26/23 07:54	
Benzyl chloride	ug/m3	ND	1.04	0.311	03/26/23 07:54	
Bromodichloromethane	ug/m3	ND	1.34	0.471	03/26/23 07:54	
Bromoform	ug/m3	ND	6.21	0.757	03/26/23 07:54	
Bromomethane	ug/m3	ND	0.776	0.381	03/26/23 07:54	
1,3-Butadiene	ug/m3	ND	4.43	0.230	03/26/23 07:54	
Carbon disulfide	ug/m3	ND	0.622	0.317	03/26/23 07:54	
Carbon tetrachloride	ug/m3	ND	1.26	0.461	03/26/23 07:54	
Chlorobenzene	ug/m3	ND	0.924	0.385	03/26/23 07:54	
Chloroethane	ug/m3	ND	0.528	0.263	03/26/23 07:54	
Chloroform	ug/m3	ND	0.973	0.349	03/26/23 07:54	
Chloromethane	ug/m3	ND	0.413	0.213	03/26/23 07:54	
2-Chlorotoluene	ug/m3	ND	1.03	0.427	03/26/23 07:54	
Cyclohexane	ug/m3	ND	0.689	0.259	03/26/23 07:54	
Dibromochloromethane	ug/m3	ND	1.70	0.618	03/26/23 07:54	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.54	0.554	03/26/23 07:54	
1,2-Dichlorobenzene	ug/m3	ND	1.20	0.770	03/26/23 07:54	
1,3-Dichlorobenzene	ug/m3	ND	1.20	1.09	03/26/23 07:54	
1,4-Dichlorobenzene	ug/m3	ND	1.20	0.335	03/26/23 07:54	
1,2-Dichloroethane	ug/m3	ND	0.810	0.283	03/26/23 07:54	
1,1-Dichloroethane	ug/m3	ND	0.802	0.290	03/26/23 07:54	
1,1-Dichloroethene	ug/m3	ND	0.793	0.302	03/26/23 07:54	
cis-1,2-Dichloroethene	ug/m3	ND	0.793	0.311	03/26/23 07:54	
trans-1,2-Dichloroethene	ug/m3	ND	0.793	0.267	03/26/23 07:54	
1,2-Dichloropropane	ug/m3	ND	0.924	0.351	03/26/23 07:54	
cis-1,3-Dichloropropene	ug/m3	ND	0.908	0.313	03/26/23 07:54	
trans-1,3-Dichloropropene	ug/m3	ND	0.908	0.331	03/26/23 07:54	
1,4-Dioxane (p-Dioxane)	ug/m3	ND	0.721	0.300	03/26/23 07:54	
Ethanol	ug/m3	ND	2.36	0.500	03/26/23 07:54	
Ethylbenzene	ug/m3	ND	0.867	0.362	03/26/23 07:54	
Ethyl acetate	ug/m3	ND	0.720	0.360	03/26/23 07:54	
4-Ethyltoluene	ug/m3	ND	0.982	0.384	03/26/23 07:54	
Trichlorofluoromethane	ug/m3	ND	1.12	0.460	03/26/23 07:54	
Dichlorodifluoromethane	ug/m3	ND	0.989	0.678	03/26/23 07:54	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.53	0.608	03/26/23 07:54	
Dichlorotetrafluoroethane	ug/m3	ND	1.40	0.622	03/26/23 07:54	
n-Heptane	ug/m3	ND	0.818	0.425	03/26/23 07:54	
Hexachloro-1,3-butadiene	ug/m3	ND	6.73	1.12	03/26/23 07:54	

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.

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QUALITY CONTROL DATA

Project: City of Bristol
Pace Project No.: 92658380

METHOD BLANK: R3906319-3
Associated Lab Samples: 92658380001

Matrix: Air

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
n-Hexane	ug/m3	ND	2.22	0.726	03/26/23 07:54	
Isopropylbenzene (Cumene)	ug/m3	ND	0.983	0.382	03/26/23 07:54	
Methylene Chloride	ug/m3	ND	0.694	0.340	03/26/23 07:54	
2-Hexanone	ug/m3	ND	5.11	0.544	03/26/23 07:54	
2-Butanone (MEK)	ug/m3	ND	3.69	0.240	03/26/23 07:54	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	5.12	0.313	03/26/23 07:54	
Methyl methacrylate	ug/m3	ND	0.819	0.359	03/26/23 07:54	
Methyl-tert-butyl ether	ug/m3	ND	0.721	0.233	03/26/23 07:54	
Naphthalene	ug/m3	ND	3.30	1.83	03/26/23 07:54	
2-Propanol	ug/m3	ND	3.07	0.649	03/26/23 07:54	
Propylene	ug/m3	ND	2.15	0.160	03/26/23 07:54	
Styrene	ug/m3	ND	0.851	0.335	03/26/23 07:54	
1,1,2,2-Tetrachloroethane	ug/m3	ND	1.37	0.511	03/26/23 07:54	
Tetrachloroethene	ug/m3	ND	1.36	0.553	03/26/23 07:54	
Tetrahydrofuran	ug/m3	ND	0.590	0.216	03/26/23 07:54	
Toluene	ug/m3	ND	1.88	0.328	03/26/23 07:54	
1,2,4-Trichlorobenzene	ug/m3	ND	4.66	1.10	03/26/23 07:54	
1,1,1-Trichloroethane	ug/m3	ND	1.09	0.400	03/26/23 07:54	
1,1,2-Trichloroethane	ug/m3	ND	1.09	0.422	03/26/23 07:54	
Trichloroethene	ug/m3	ND	1.07	0.364	03/26/23 07:54	
1,2,4-Trimethylbenzene	ug/m3	ND	0.982	0.375	03/26/23 07:54	
1,3,5-Trimethylbenzene	ug/m3	ND	0.982	0.382	03/26/23 07:54	
2,2,4-Trimethylpentane	ug/m3	ND	0.934	0.621	03/26/23 07:54	
Vinyl chloride	ug/m3	ND	0.511	0.243	03/26/23 07:54	
Vinyl bromide	ug/m3	ND	0.875	0.373	03/26/23 07:54	
Vinyl acetate	ug/m3	ND	0.704	0.408	03/26/23 07:54	
m&p-Xylene	ug/m3	ND	1.73	0.585	03/26/23 07:54	
o-Xylene	ug/m3	ND	0.867	0.359	03/26/23 07:54	
Xylene (Total)	ug/m3	ND	2.61	0.586	03/26/23 07:54	
4-Bromofluorobenzene (S)	%	105	60.0-140		03/26/23 07:54	

LABORATORY CONTROL SAMPLE & LCSD: R3906319-1

R3906319-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Acetone	ug/m3	8.91	8.55	8.65	96.0	97.1	70.0-130	1.10	25	
Allyl chloride	ug/m3	11.7	11.5	11.9	97.6	101	70.0-130	3.75	25	
Benzene	ug/m3	12.0	12.1	11.8	101	98.4	70.0-130	2.67	25	
Benzyl chloride	ug/m3	19.5	22.4	23.9	115	123	70.0-152	6.51	25	
Bromodichloromethane	ug/m3	25.2	25.0	24.7	99.5	98.1	70.0-130	1.35	25	
Bromoform	ug/m3	38.8	38.6	38.0	99.5	97.9	70.0-130	1.62	25	
Bromomethane	ug/m3	14.6	15.8	15.6	109	107	70.0-130	1.49	25	
1,3-Butadiene	ug/m3	8.30	8.41	8.96	101	108	70.0-130	6.37	25	
Carbon disulfide	ug/m3	11.7	12.3	12.1	105	104	70.0-130	1.02	25	
Carbon tetrachloride	ug/m3	23.6	24.0	23.1	102	97.9	70.0-130	3.74	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: City of Bristol

Pace Project No.: 92658380

LABORATORY CONTROL SAMPLE & LCSD: R3906319-1			R3906319-2							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Chlorobenzene	ug/m3	17.3	16.7	17.2	96.5	99.5	70.0-130	2.99	25	
Chloroethane	ug/m3	9.89	10.2	9.84	103	99.5	70.0-130	3.94	25	
Chloroform	ug/m3	18.3	17.7	17.0	96.8	93.1	70.0-130	3.93	25	
Chloromethane	ug/m3	7.75	8.43	8.41	109	109	70.0-130	0.245	25	
2-Chlorotoluene	ug/m3	19.3	21.5	21.6	111	112	70.0-130	0.717	25	
Cyclohexane	ug/m3	12.9	12.9	12.6	100	97.9	70.0-130	2.16	25	
Dibromochloromethane	ug/m3	31.9	31.1	31.0	97.3	97.1	70.0-130	0.274	25	
1,2-Dibromoethane (EDB)	ug/m3	28.8	27.8	27.9	96.5	96.8	70.0-130	0.276	25	
1,2-Dichlorobenzene	ug/m3	22.5	27.9	27.2	124	121	70.0-130	2.62	25	
1,3-Dichlorobenzene	ug/m3	22.5	26.9	28.6	119	127	70.0-130	6.28	25	
1,4-Dichlorobenzene	ug/m3	22.5	26.8	26.4	119	117	70.0-130	1.58	25	
1,2-Dichloroethane	ug/m3	15.2	14.7	14.9	96.8	98.4	70.0-130	1.64	25	
1,1-Dichloroethane	ug/m3	15.0	15.1	14.4	100	95.7	70.0-130	4.63	25	
1,1-Dichloroethene	ug/m3	14.9	15.1	14.9	101	100	70.0-130	1.06	25	
cis-1,2-Dichloroethene	ug/m3	14.9	15.1	14.3	102	96.0	70.0-130	5.67	25	
trans-1,2-Dichloroethene	ug/m3	14.9	14.9	15.0	101	101	70.0-130	0.265	25	
1,2-Dichloropropane	ug/m3	17.3	17.3	16.7	99.7	96.5	70.0-130	3.26	25	
cis-1,3-Dichloropropene	ug/m3	17.0	16.8	16.4	98.7	96.5	70.0-130	2.19	25	
trans-1,3-Dichloropropene	ug/m3	17.0	16.0	16.2	94.1	95.2	70.0-130	1.13	25	
1,4-Dioxane (p-Dioxane)	ug/m3	13.5	17.1	18.1	126	134	70.0-140	5.74	25	
Ethanol	ug/m3	7.07	6.41	6.03	90.7	85.3	55.0-148	6.06	25	
Ethylbenzene	ug/m3	16.3	16.6	16.8	102	103	70.0-130	1.04	25	
Ethyl acetate	ug/m3	13.5	12.9	13.1	95.7	97.3	70.0-130	1.66	25	
4-Ethyltoluene	ug/m3	18.4	22.2	23.3	121	126	70.0-130	4.53	25	
Trichlorofluoromethane	ug/m3	21.1	22.1	22.2	105	105	70.0-130	0.508	25	
Dichlorodifluoromethane	ug/m3	18.5	22.4	22.7	121	123	64.0-139	1.75	25	
1,1,2-Trichlorotrifluoroethane	ug/m3	28.7	30.0	29.3	105	102	70.0-130	2.58	25	
Dichlorotetrafluoroethane	ug/m3	26.2	28.4	28.3	108	108	70.0-130	0.247	25	
n-Heptane	ug/m3	15.3	14.7	14.0	96.0	91.2	70.0-130	5.13	25	
Hexachloro-1,3-butadiene	ug/m3	40.0	46.5	48.3	116	121	70.0-151	3.60	25	
n-Hexane	ug/m3	13.2	13.2	12.9	99.5	97.9	70.0-130	1.62	25	
Isopropylbenzene (Cumene)	ug/m3	18.4	20.7	21.5	112	117	70.0-130	3.73	25	
Methylene Chloride	ug/m3	13.0	12.9	12.3	98.9	94.4	70.0-130	4.69	25	
2-Hexanone	ug/m3	15.3	18.6	18.9	121	123	70.0-149	1.96	25	
2-Butanone (MEK)	ug/m3	11.1	12.0	11.0	109	99.5	70.0-130	8.72	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	15.4	16.0	17.9	104	116	70.0-139	11.1	25	
Methyl methacrylate	ug/m3	15.4	15.8	16.7	103	109	70.0-130	5.79	25	
Methyl-tert-butyl ether	ug/m3	13.5	15.2	15.9	112	118	70.0-130	4.87	25	
Naphthalene	ug/m3	19.6	22.9	24.8	117	126	70.0-159	7.89	25	
2-Propanol	ug/m3	9.22	9.41	9.46	102	103	70.0-139	0.521	25	
Propylene	ug/m3	6.46	7.09	6.77	110	105	64.0-144	4.72	25	
Styrene	ug/m3	16.0	18.1	18.2	114	114	70.0-130	0.702	25	
1,1,2,2-Tetrachloroethane	ug/m3	25.8	28.0	29.7	109	115	70.0-130	5.96	25	
Tetrachloroethene	ug/m3	25.5	23.6	23.5	92.5	92.3	70.0-130	0.289	25	
Tetrahydrofuran	ug/m3	11.1	12.7	13.2	115	120	70.0-137	3.86	25	
Toluene	ug/m3	14.1	13.3	13.4	94.1	94.9	70.0-130	0.846	25	
1,2,4-Trichlorobenzene	ug/m3	27.8	32.7	35.9	118	129	70.0-160	9.28	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: City of Bristol

Pace Project No.: 92658380

LABORATORY CONTROL SAMPLE & LCSD: R3906319-1			R3906319-2							Max RPD	Qualifiers
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD			
1,1,1-Trichloroethane	ug/m3	20.4	20.4	19.5	100	95.5	70.0-130	4.64	25		
1,1,2-Trichloroethane	ug/m3	20.4	20.4	20.9	100	103	70.0-130	2.63	25		
Trichloroethene	ug/m3	20.1	20.3	20.2	101	101	70.0-130	0.265	25		
1,2,4-Trimethylbenzene	ug/m3	18.4	22.3	22.3	121	121	70.0-130	0.00	25		
1,3,5-Trimethylbenzene	ug/m3	18.4	22.3	22.6	121	123	70.0-130	1.31	25		
2,2,4-Trimethylpentane	ug/m3	17.5	16.8	16.1	95.7	91.7	70.0-130	4.27	25		
Vinyl chloride	ug/m3	9.59	10.7	10.4	111	109	70.0-130	2.18	25		
Vinyl bromide	ug/m3	16.4	17.0	17.0	104	103	70.0-130	0.257	25		
Vinyl acetate	ug/m3	13.2	11.1	11.1	84.3	84.3	70.0-130	0.00	25		
m&p-Xylene	ug/m3	32.5	34.1	33.3	105	102	70.0-130	2.45	25		
o-Xylene	ug/m3	16.3	17.1	18.0	105	111	70.0-130	5.19	25		
Xylene (Total)	ug/m3	49.1	51.2	51.2	104	104	70.0-130	0.00	25		
4-Bromofluorobenzene (S)	%				108	110	60.0-140				

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: City of Bristol
Pace Project No.: 92658380

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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: City of Bristol

Pace Project No.: 92658380

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92658380001	March 24hr	TO-15	2030250	TO-15	2030250

REPORT OF LABORATORY ANALYSIS

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MO#: 92658380



92658380

is Page ___ of ___

Company Name/Address:
Pace Analytical - Huntersville, NC

9800 Kinney Avenue, Suite 100
Huntersville, NC 28078

Billing Information:

Accounts Payable
9800 Kinney Ave., Ste. 100
Huntersville, NC 28078

Report To:

Sara Poulson

Email To:

Sara.Poulson@paceelabs.com; bonnie.vang@paceelabs.com

Project City of Bristol

City/State
Collected:

Bristol VA

Please Circle:
PT MT CT ET

Phone:
704-875-9092

Collected by (print):

David Cochran

Client Project #
001

Lab Project #

PACE-POULSONVA

Collected by (signature):

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

Date Results Needed

Sample ID

Can #

Flow Cont. #

Date

Time

Initial

Final

TO-15 Summa

March 24th

021149

011308

3/24/13

1:15pm

27thg

0

X

March 24th

021149

011308

3/24/13

1:15pm

27thg

0

X

March 24th

021149

011308

3/24/13

1:15pm

27thg

0

X

March 24th

021149

011308

3/24/13

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March 24th

021149

011308

3/24/13

1:15pm

27thg

0

X

March 24th

021149

011308

3/24/13

1:15pm

27thg

0

X

Sample Receipt Checklist
COC Seal Present/Intact: ☒ Y ☐ N IF APPLICABLE
Bottles Signed/Accounted: ☒ Y ☐ N VOA Zero Headspace: ☒ Y ☐ N
Bottles Active Intact: ☒ Y ☐ N Free, Correct Check: ☒ Y ☐ N
Correct Bottle Usage: ☒ Y ☐ N
Sufficient Volume Sent: ☒ Y ☐ N
PAB Screen <0.5 mb/hr: ☒ Y ☐ N

Remarks:
For Franklin D Cochran II - City of Bristol - Reporting through Pace-NC

Relinquished by: (Signature)

[Signature]

Date: **3/21/13**

Time: **1:20pm**

Relinquished by: (Signature)

[Signature]

Date: **3/22/13**

Time: **0915**

Relinquished by: (Signature)

[Signature]

Date: **3/22/13**

Time: **0915**

Samples returned via:

UPS ☐ FedEx ☐ Courier ☐

Received by: (Signature)

[Signature]

(11)

Date: **3/22/13**

Time: **0915**

Received by: (Signature)

[Signature]

Date: **3/22/13**

Time: **0915**

Received for lab by: (Signature)

[Signature]

Date: **3/22/13**

Time: **0915**

Hold #

Condition: (lab use only)

COC Seal Intact: ☐ Y ☐ N ☐ NA

NCF: ☐ Y ☐ N ☐ NA

Chain of Custody

Page ___ of ___



PEOPLE ADVANCING SCIENCE
MT JULIET, TN

12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-794-3338 FAX: 615-794-3639
submitting a sample for the chain of custody
constitutes a declaration and acceptance
of the Pace Terms and Conditions found at:
<http://info.paceelabs.com/chain-of-custody>
standard terms.pdf

SDG # **L1599214**

E089

Account: **PACE**

Template: **T210823**

Prelogin: **P976011**

PM: **464 - Nancy McLean**

Shipped Via: **Fedex Ground**

Rem/Contaminant **Sample # (lab only)**

TO1