

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





August 14, 2023

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

RE: Project: CITY OF BRISTOL
Pace Project No.: 92682319

Dear David Cochran:

Enclosed are the analytical results for sample(s) received by the laboratory on August 10, 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,

A handwritten signature in black ink, appearing to read "Sara Poulson".

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.: 92682319

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.: 92682319

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92682319001	AUGUST 24HR SAVE	Air	08/07/23 09:29	08/10/23 09:00

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SAMPLE ANALYTE COUNT

Project: CITY OF BRISTOL

Pace Project No.: 92682319

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92682319001	AUGUST 24HR SAVE	TO-15	JAP	71	PAN

PAN = Pace National - Mt. Juliet

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SUMMARY OF DETECTION

Project: CITY OF BRISTOL

Pace Project No.: 92682319

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92682319001	AUGUST 24HR SAVE					
TO-15	Acetone	21.2	ug/m3	2.97	08/12/23 13:46	
TO-15	Acetonitrile	1.34J	ug/m3	8.39	08/12/23 13:46	J
TO-15	Benzene	1.14	ug/m3	0.639	08/12/23 13:46	
TO-15	Carbon disulfide	73.5	ug/m3	0.622	08/12/23 13:46	
TO-15	Chloromethane	1.11	ug/m3	0.413	08/12/23 13:46	
TO-15	Ethanol	38.8	ug/m3	4.71	08/12/23 13:46	
TO-15	Ethyl acetate	0.947	ug/m3	0.720	08/12/23 13:46	
TO-15	Trichlorofluoromethane	1.62	ug/m3	1.12	08/12/23 13:46	
TO-15	Dichlorodifluoromethane	2.39	ug/m3	0.989	08/12/23 13:46	
TO-15	Methylene Chloride	0.549J	ug/m3	0.694	08/12/23 13:46	J
TO-15	2-Butanone (MEK)	8.02	ug/m3	3.69	08/12/23 13:46	
TO-15	2-Propanol	28.3	ug/m3	3.07	08/12/23 13:46	
TO-15	Styrene	0.464J	ug/m3	0.851	08/12/23 13:46	J
TO-15	Tetrahydrofuran	0.646	ug/m3	0.590	08/12/23 13:46	
TO-15	Toluene	2.57	ug/m3	1.88	08/12/23 13:46	

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PROJECT NARRATIVE

Project: CITY OF BRISTOL

Pace Project No.: 92682319

Method: TO-15

Description: VOA (MS) TO-15

Client: City of Bristol VA

Date: August 14, 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.: 92682319

Sample: AUGUST 24HR SAVE Lab ID: 92682319001 Collected: 08/07/23 09:29 Received: 08/10/23 09:00 Matrix: Air

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
VOA (MS) TO-15 Analytical Method: TO-15 Preparation Method: TO-15 Pace National - Mt. Juliet									
Acetone	21.2	ug/m3	2.97	1.39	1	08/12/23 13:46	08/12/23 13:46	67-64-1	J
Acetonitrile	1.34J	ug/m3	8.39	0.395	1	08/12/23 13:46	08/12/23 13:46	75-05-8	
Allyl chloride	ND	ug/m3	0.626	0.357	1	08/12/23 13:46	08/12/23 13:46	107-05-1	
Benzene	1.14	ug/m3	0.639	0.228	1	08/12/23 13:46	08/12/23 13:46	71-43-2	
Benzyl chloride	ND	ug/m3	1.04	0.311	1	08/12/23 13:46	08/12/23 13:46	100-44-7	J
Bromodichloromethane	ND	ug/m3	1.34	0.471	1	08/12/23 13:46	08/12/23 13:46	75-27-4	
Bromoform	ND	ug/m3	6.21	0.757	1	08/12/23 13:46	08/12/23 13:46	75-25-2	
Bromomethane	ND	ug/m3	0.776	0.381	1	08/12/23 13:46	08/12/23 13:46	74-83-9	
1,3-Butadiene	ND	ug/m3	4.43	0.230	1	08/12/23 13:46	08/12/23 13:46	106-99-0	J
Carbon disulfide	73.5	ug/m3	0.622	0.317	1	08/12/23 13:46	08/12/23 13:46	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.26	0.461	1	08/12/23 13:46	08/12/23 13:46	56-23-5	
Chlorobenzene	ND	ug/m3	0.924	0.385	1	08/12/23 13:46	08/12/23 13:46	108-90-7	
Chloroethane	ND	ug/m3	0.528	0.263	1	08/12/23 13:46	08/12/23 13:46	75-00-3	J
Chloroform	ND	ug/m3	0.973	0.349	1	08/12/23 13:46	08/12/23 13:46	67-66-3	
Chloromethane	1.11	ug/m3	0.413	0.213	1	08/12/23 13:46	08/12/23 13:46	74-87-3	
2-Chlorotoluene	ND	ug/m3	1.03	0.427	1	08/12/23 13:46	08/12/23 13:46	95-49-8	
Cyclohexane	ND	ug/m3	0.689	0.259	1	08/12/23 13:46	08/12/23 13:46	110-82-7	J
Dibromochloromethane	ND	ug/m3	1.70	0.618	1	08/12/23 13:46	08/12/23 13:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.54	0.554	1	08/12/23 13:46	08/12/23 13:46	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.20	0.770	1	08/12/23 13:46	08/12/23 13:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.20	1.09	1	08/12/23 13:46	08/12/23 13:46	541-73-1	J
1,4-Dichlorobenzene	ND	ug/m3	1.20	0.335	1	08/12/23 13:46	08/12/23 13:46	106-46-7	
1,2-Dichloroethane	ND	ug/m3	0.810	0.283	1	08/12/23 13:46	08/12/23 13:46	107-06-2	
1,1-Dichloroethane	ND	ug/m3	0.802	0.290	1	08/12/23 13:46	08/12/23 13:46	75-34-3	
1,1-Dichloroethene	ND	ug/m3	0.793	0.302	1	08/12/23 13:46	08/12/23 13:46	75-35-4	J
cis-1,2-Dichloroethene	ND	ug/m3	0.793	0.311	1	08/12/23 13:46	08/12/23 13:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.793	0.267	1	08/12/23 13:46	08/12/23 13:46	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.924	0.351	1	08/12/23 13:46	08/12/23 13:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.908	0.313	1	08/12/23 13:46	08/12/23 13:46	10061-01-5	J
trans-1,3-Dichloropropene	ND	ug/m3	0.908	0.331	1	08/12/23 13:46	08/12/23 13:46	10061-02-6	
1,4-Dioxane (p-Dioxane)	ND	ug/m3	0.721	0.300	1	08/12/23 13:46	08/12/23 13:46	123-91-1	
Ethanol	38.8	ug/m3	4.71	0.500	1	08/12/23 13:46	08/12/23 13:46	64-17-5	
Ethylbenzene	ND	ug/m3	0.867	0.362	1	08/12/23 13:46	08/12/23 13:46	100-41-4	J
Ethyl acetate	0.947	ug/m3	0.720	0.360	1	08/12/23 13:46	08/12/23 13:46	141-78-6	
4-Ethyltoluene	ND	ug/m3	0.982	0.384	1	08/12/23 13:46	08/12/23 13:46	622-96-8	
Trichlorofluoromethane	1.62	ug/m3	1.12	0.460	1	08/12/23 13:46	08/12/23 13:46	75-69-4	
Dichlorodifluoromethane	2.39	ug/m3	0.989	0.678	1	08/12/23 13:46	08/12/23 13:46	75-71-8	J
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.53	0.608	1	08/12/23 13:46	08/12/23 13:46	76-13-1	
Dichlorotetrafluoroethane	ND	ug/m3	1.40	0.622	1	08/12/23 13:46	08/12/23 13:46	76-14-2	
n-Heptane	ND	ug/m3	0.818	0.425	1	08/12/23 13:46	08/12/23 13:46	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	6.73	1.12	1	08/12/23 13:46	08/12/23 13:46	87-68-3	J
n-Hexane	ND	ug/m3	2.22	0.726	1	08/12/23 13:46	08/12/23 13:46	110-54-3	
Isopropylbenzene (Cumene)	ND	ug/m3	0.983	0.382	1	08/12/23 13:46	08/12/23 13:46	98-82-8	
Methylene Chloride	0.549J	ug/m3	0.694	0.340	1	08/12/23 13:46	08/12/23 13:46	75-09-2	
2-Hexanone	ND	ug/m3	5.11	0.544	1	08/12/23 13:46	08/12/23 13:46	591-78-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CITY OF BRISTOL

Pace Project No.: 92682319

Sample: AUGUST 24HR SAVE Lab ID: 92682319001 Collected: 08/07/23 09:29 Received: 08/10/23 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)	8.02	ug/m3	3.69	0.240	1	08/12/23 13:46	08/12/23 13:46	78-93-3	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	5.12	0.313	1	08/12/23 13:46	08/12/23 13:46	108-10-1	
Methyl methacrylate	ND	ug/m3	0.819	0.359	1	08/12/23 13:46	08/12/23 13:46	80-62-6	
Methyl-tert-butyl ether	ND	ug/m3	0.721	0.233	1	08/12/23 13:46	08/12/23 13:46	1634-04-4	
Naphthalene	ND	ug/m3	3.30	1.83	1	08/12/23 13:46	08/12/23 13:46	91-20-3	
2-Propanol	28.3	ug/m3	3.07	0.649	1	08/12/23 13:46	08/12/23 13:46	67-63-0	
Propylene	ND	ug/m3	2.15	0.160	1	08/12/23 13:46	08/12/23 13:46	115-07-1	
Styrene	0.464J	ug/m3	0.851	0.335	1	08/12/23 13:46	08/12/23 13:46	100-42-5	J
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.37	0.511	1	08/12/23 13:46	08/12/23 13:46	79-34-5	
Tetrachloroethene	ND	ug/m3	1.36	0.553	1	08/12/23 13:46	08/12/23 13:46	127-18-4	
Tetrahydrofuran	0.646	ug/m3	0.590	0.216	1	08/12/23 13:46	08/12/23 13:46	109-99-9	
Toluene	2.57	ug/m3	1.88	0.328	1	08/12/23 13:46	08/12/23 13:46	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	4.66	1.10	1	08/12/23 13:46	08/12/23 13:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.09	0.400	1	08/12/23 13:46	08/12/23 13:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1.09	0.422	1	08/12/23 13:46	08/12/23 13:46	79-00-5	
Trichloroethene	ND	ug/m3	1.07	0.364	1	08/12/23 13:46	08/12/23 13:46	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/m3	0.982	0.375	1	08/12/23 13:46	08/12/23 13:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	0.982	0.382	1	08/12/23 13:46	08/12/23 13:46	108-67-8	
2,2,4-Trimethylpentane	ND	ug/m3	0.934	0.621	1	08/12/23 13:46	08/12/23 13:46	540-84-1	
Vinyl chloride	ND	ug/m3	0.511	0.243	1	08/12/23 13:46	08/12/23 13:46	75-01-4	
Vinyl bromide	ND	ug/m3	0.875	0.373	1	08/12/23 13:46	08/12/23 13:46	593-60-2	
Vinyl acetate	ND	ug/m3	0.704	0.408	1	08/12/23 13:46	08/12/23 13:46	108-05-4	
m&p-Xylene	ND	ug/m3	1.73	0.585	1	08/12/23 13:46	08/12/23 13:46	179601-23-1	
o-Xylene	ND	ug/m3	0.867	0.359	1	08/12/23 13:46	08/12/23 13:46	95-47-6	
Xylene (Total)	ND	ug/m3	2.61	0.586	1	08/12/23 13:46	08/12/23 13:46	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93.7	%	60.0-140		1	08/12/23 13:46	08/12/23 13:46	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CITY OF BRISTOL
Pace Project No.: 92682319

QC Batch:	2112714	Analysis Method:	TO-15
QC Batch Method:	TO-15	Analysis Description:	VOA (MS) TO-15
		Laboratory:	Pace National - Mt. Juliet

Associated Lab Samples: 92682319001

METHOD BLANK: R3960119-2 Matrix: Air
Associated Lab Samples: 92682319001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/m3	ND	2.97	1.39	08/12/23 08:06	
Acetonitrile	ug/m3	ND	8.39	0.395	08/12/23 08:06	
Allyl chloride	ug/m3	ND	0.626	0.357	08/12/23 08:06	
Benzene	ug/m3	ND	0.639	0.228	08/12/23 08:06	
Benzyl chloride	ug/m3	ND	1.04	0.311	08/12/23 08:06	
Bromodichloromethane	ug/m3	ND	1.34	0.471	08/12/23 08:06	
Bromoform	ug/m3	ND	6.21	0.757	08/12/23 08:06	
Bromomethane	ug/m3	ND	0.776	0.381	08/12/23 08:06	
1,3-Butadiene	ug/m3	ND	4.43	0.230	08/12/23 08:06	
Carbon disulfide	ug/m3	ND	0.622	0.317	08/12/23 08:06	
Carbon tetrachloride	ug/m3	ND	1.26	0.461	08/12/23 08:06	
Chlorobenzene	ug/m3	ND	0.924	0.385	08/12/23 08:06	
Chloroethane	ug/m3	ND	0.528	0.263	08/12/23 08:06	
Chloroform	ug/m3	ND	0.973	0.349	08/12/23 08:06	
Chloromethane	ug/m3	ND	0.413	0.213	08/12/23 08:06	
2-Chlorotoluene	ug/m3	ND	1.03	0.427	08/12/23 08:06	
Cyclohexane	ug/m3	ND	0.689	0.259	08/12/23 08:06	
Dibromochloromethane	ug/m3	ND	1.70	0.618	08/12/23 08:06	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.54	0.554	08/12/23 08:06	
1,2-Dichlorobenzene	ug/m3	ND	1.20	0.770	08/12/23 08:06	
1,3-Dichlorobenzene	ug/m3	ND	1.20	1.09	08/12/23 08:06	
1,4-Dichlorobenzene	ug/m3	ND	1.20	0.335	08/12/23 08:06	
1,2-Dichloroethane	ug/m3	ND	0.810	0.283	08/12/23 08:06	
1,1-Dichloroethane	ug/m3	ND	0.802	0.290	08/12/23 08:06	
1,1-Dichloroethene	ug/m3	ND	0.793	0.302	08/12/23 08:06	
cis-1,2-Dichloroethene	ug/m3	ND	0.793	0.311	08/12/23 08:06	
trans-1,2-Dichloroethene	ug/m3	ND	0.793	0.267	08/12/23 08:06	
1,2-Dichloropropane	ug/m3	ND	0.924	0.351	08/12/23 08:06	
cis-1,3-Dichloropropene	ug/m3	ND	0.908	0.313	08/12/23 08:06	
trans-1,3-Dichloropropene	ug/m3	ND	0.908	0.331	08/12/23 08:06	
1,4-Dioxane (p-Dioxane)	ug/m3	ND	0.721	0.300	08/12/23 08:06	
Ethanol	ug/m3	0.941J	4.71	0.500	08/12/23 08:06	J
Ethylbenzene	ug/m3	ND	0.867	0.362	08/12/23 08:06	
Ethyl acetate	ug/m3	ND	0.720	0.360	08/12/23 08:06	
4-Ethyltoluene	ug/m3	ND	0.982	0.384	08/12/23 08:06	
Trichlorofluoromethane	ug/m3	ND	1.12	0.460	08/12/23 08:06	
Dichlorodifluoromethane	ug/m3	ND	0.989	0.678	08/12/23 08:06	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.53	0.608	08/12/23 08:06	
Dichlorotetrafluoroethane	ug/m3	ND	1.40	0.622	08/12/23 08:06	
n-Heptane	ug/m3	ND	0.818	0.425	08/12/23 08:06	

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.: 92682319

METHOD BLANK: R3960119-2

Matrix: Air

Associated Lab Samples: 92682319001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/m3	ND	6.73	1.12	08/12/23 08:06	
n-Hexane	ug/m3	ND	2.22	0.726	08/12/23 08:06	
Isopropylbenzene (Cumene)	ug/m3	ND	0.983	0.382	08/12/23 08:06	
Methylene Chloride	ug/m3	ND	0.694	0.340	08/12/23 08:06	
2-Hexanone	ug/m3	ND	5.11	0.544	08/12/23 08:06	
2-Butanone (MEK)	ug/m3	ND	3.69	0.240	08/12/23 08:06	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	5.12	0.313	08/12/23 08:06	
Methyl methacrylate	ug/m3	ND	0.819	0.359	08/12/23 08:06	
Methyl-tert-butyl ether	ug/m3	ND	0.721	0.233	08/12/23 08:06	
Naphthalene	ug/m3	ND	3.30	1.83	08/12/23 08:06	
2-Propanol	ug/m3	ND	3.07	0.649	08/12/23 08:06	
Propylene	ug/m3	ND	2.15	0.160	08/12/23 08:06	
Styrene	ug/m3	ND	0.851	0.335	08/12/23 08:06	
1,1,2,2-Tetrachloroethane	ug/m3	ND	1.37	0.511	08/12/23 08:06	
Tetrachloroethene	ug/m3	ND	1.36	0.553	08/12/23 08:06	
Tetrahydrofuran	ug/m3	ND	0.590	0.216	08/12/23 08:06	
Toluene	ug/m3	ND	1.88	0.328	08/12/23 08:06	
1,2,4-Trichlorobenzene	ug/m3	ND	4.66	1.10	08/12/23 08:06	
1,1,1-Trichloroethane	ug/m3	ND	1.09	0.400	08/12/23 08:06	
1,1,2-Trichloroethane	ug/m3	ND	1.09	0.422	08/12/23 08:06	
Trichloroethene	ug/m3	ND	1.07	0.364	08/12/23 08:06	
1,2,4-Trimethylbenzene	ug/m3	ND	0.982	0.375	08/12/23 08:06	
1,3,5-Trimethylbenzene	ug/m3	ND	0.982	0.382	08/12/23 08:06	
2,2,4-Trimethylpentane	ug/m3	ND	0.934	0.621	08/12/23 08:06	
Vinyl chloride	ug/m3	ND	0.511	0.243	08/12/23 08:06	
Vinyl bromide	ug/m3	ND	0.875	0.373	08/12/23 08:06	
Vinyl acetate	ug/m3	ND	0.704	0.408	08/12/23 08:06	
m&p-Xylene	ug/m3	ND	1.73	0.585	08/12/23 08:06	
o-Xylene	ug/m3	ND	0.867	0.359	08/12/23 08:06	
Xylene (Total)	ug/m3	ND	2.61	0.586	08/12/23 08:06	
4-Bromofluorobenzene (S)	%	94.8	60.0-140		08/12/23 08:06	

LABORATORY CONTROL SAMPLE & LCSD: R3960119-1

R3960119-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Acetone	ug/m3	8.91	8.01	8.27	89.9	92.8	70.0-130	3.21	25	
Acetonitrile	ug/m3	31.6	28.5	29.7	90.4	94.1	70.0-130	4.03	25	
Allyl chloride	ug/m3	11.7	10.3	10.5	88.0	89.3	70.0-130	1.50	25	
Benzene	ug/m3	12.0	11.8	11.6	98.4	97.1	70.0-130	1.36	25	
Benzyl chloride	ug/m3	19.5	16.8	17.0	86.1	87.5	70.0-152	1.54	25	
Bromodichloromethane	ug/m3	25.2	24.0	24.3	95.5	96.5	70.0-130	1.11	25	
Bromoform	ug/m3	38.8	36.8	36.9	94.9	95.2	70.0-130	0.281	25	
Bromomethane	ug/m3	14.6	14.1	14.6	97.1	100	70.0-130	2.98	25	
1,3-Butadiene	ug/m3	8.30	7.52	7.63	90.7	92.0	70.0-130	1.46	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CITY OF BRISTOL

Pace Project No.: 92682319

LABORATORY CONTROL SAMPLE & LCSD: R3960119-1

R3960119-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon disulfide	ug/m3	11.7	10.7	10.8	92.0	92.5	70.0-130	0.578	25	
Carbon tetrachloride	ug/m3	23.6	23.3	23.2	98.7	98.1	70.0-130	0.542	25	
Chlorobenzene	ug/m3	17.3	17.4	17.0	101	98.1	70.0-130	2.42	25	
Chloroethane	ug/m3	9.89	8.94	9.10	90.4	92.0	70.0-130	1.75	25	
Chloroform	ug/m3	18.3	18.1	17.9	99.2	97.9	70.0-130	1.35	25	
Chloromethane	ug/m3	7.75	6.80	7.08	87.7	91.5	70.0-130	4.17	25	
2-Chlorotoluene	ug/m3	19.3	19.9	19.8	103	103	70.0-130	0.518	25	
Cyclohexane	ug/m3	12.9	13.1	12.7	101	98.7	70.0-130	2.67	25	
Dibromochloromethane	ug/m3	31.9	31.0	30.9	97.1	96.8	70.0-130	0.275	25	
1,2-Dibromoethane (EDB)	ug/m3	28.8	29.2	28.7	101	99.5	70.0-130	1.86	25	
1,2-Dichlorobenzene	ug/m3	22.5	24.2	23.8	107	106	70.0-130	1.50	25	
1,3-Dichlorobenzene	ug/m3	22.5	23.9	23.8	106	106	70.0-130	0.504	25	
1,4-Dichlorobenzene	ug/m3	22.5	24.0	24.2	107	107	70.0-130	0.499	25	
1,2-Dichloroethane	ug/m3	15.2	14.7	14.6	97.1	96.3	70.0-130	0.828	25	
1,1-Dichloroethane	ug/m3	15.0	14.5	14.6	96.3	97.1	70.0-130	0.828	25	
1,1-Dichloroethene	ug/m3	14.9	14.0	14.1	94.4	94.7	70.0-130	0.282	25	
cis-1,2-Dichloroethene	ug/m3	14.9	14.7	14.5	98.9	97.6	70.0-130	1.36	25	
trans-1,2-Dichloroethene	ug/m3	14.9	14.7	14.5	99.2	97.6	70.0-130	1.63	25	
1,2-Dichloropropane	ug/m3	17.3	16.4	16.5	94.7	95.2	70.0-130	0.562	25	
cis-1,3-Dichloropropene	ug/m3	17.0	17.3	16.9	101	99.2	70.0-130	2.13	25	
trans-1,3-Dichloropropene	ug/m3	17.0	16.3	16.5	96.0	96.8	70.0-130	0.830	25	
1,4-Dioxane (p-Dioxane)	ug/m3	13.5	13.4	13.4	99.5	98.9	70.0-140	0.538	25	
Ethanol	ug/m3	7.07	6.58	6.92	93.1	97.9	55.0-148	5.03	25	
Ethylbenzene	ug/m3	16.3	16.6	16.3	102	101	70.0-130	1.58	25	
Ethyl acetate	ug/m3	13.5	12.7	12.6	94.4	93.3	70.0-130	1.14	25	
4-Ethyltoluene	ug/m3	18.4	19.6	19.2	107	105	70.0-130	2.02	25	
Trichlorofluoromethane	ug/m3	21.1	20.7	20.8	98.4	98.7	70.0-130	0.271	25	
Dichlorodifluoromethane	ug/m3	18.5	18.0	18.2	96.8	97.9	64.0-139	1.10	25	
1,1,2-Trichlorotrifluoroethane	ug/m3	28.7	28.4	28.4	98.9	98.9	70.0-130	0.00	25	
Dichlorotetrafluoroethane	ug/m3	26.2	25.5	25.5	97.1	97.3	70.0-130	0.274	25	
n-Heptane	ug/m3	15.3	13.8	13.9	89.9	90.7	70.0-130	0.886	25	
Hexachloro-1,3-butadiene	ug/m3	40.0	41.4	41.3	103	103	70.0-151	0.258	25	
n-Hexane	ug/m3	13.2	12.9	12.7	97.9	96.0	70.0-130	1.93	25	
Isopropylbenzene (Cumene)	ug/m3	18.4	19.0	18.8	103	102	70.0-130	1.04	25	
Methylene Chloride	ug/m3	13.0	11.6	11.8	88.8	90.7	70.0-130	2.08	25	
2-Hexanone	ug/m3	15.3	14.3	14.2	93.1	92.3	70.0-149	0.863	25	
2-Butanone (MEK)	ug/m3	11.1	11.6	11.1	105	100	70.0-130	4.42	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	15.4	15.1	14.8	98.7	96.3	70.0-139	2.46	25	
Methyl methacrylate	ug/m3	15.4	15.2	14.8	98.9	96.3	70.0-130	2.73	25	
Methyl-tert-butyl ether	ug/m3	13.5	13.8	13.4	102	99.2	70.0-130	2.91	25	
Naphthalene	ug/m3	19.6	21.0	20.8	107	106	70.0-159	1.25	25	
2-Propanol	ug/m3	9.22	8.73	8.85	94.7	96.0	70.0-139	1.40	25	
Propylene	ug/m3	6.46	5.96	5.99	92.3	92.8	64.0-144	0.576	25	
Styrene	ug/m3	16.0	16.8	16.5	105	104	70.0-130	1.53	25	
1,1,2,2-Tetrachloroethane	ug/m3	25.8	25.2	25.3	97.9	98.1	70.0-130	0.272	25	
Tetrachloroethene	ug/m3	25.5	26.8	26.3	105	103	70.0-130	2.05	25	
Tetrahydrofuran	ug/m3	11.1	10.5	10.4	94.9	94.1	70.0-137	0.846	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CITY OF BRISTOL

Pace Project No.: 92682319

LABORATORY CONTROL SAMPLE & LCSD: R3960119-1			R3960119-3							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Toluene	ug/m3	14.1	14.3	14.0	101	98.9	70.0-130	2.40	25	
1,2,4-Trichlorobenzene	ug/m3	27.8	29.4	29.5	106	106	70.0-160	0.252	25	
1,1,1-Trichloroethane	ug/m3	20.4	20.1	20.1	98.4	98.4	70.0-130	0.00	25	
1,1,2-Trichloroethane	ug/m3	20.4	20.2	20.1	98.9	98.4	70.0-130	0.541	25	
Trichloroethene	ug/m3	20.1	20.3	19.9	101	98.9	70.0-130	2.13	25	
1,2,4-Trimethylbenzene	ug/m3	18.4	19.6	19.5	107	106	70.0-130	0.501	25	
1,3,5-Trimethylbenzene	ug/m3	18.4	19.7	19.6	107	107	70.0-130	0.250	25	
2,2,4-Trimethylpentane	ug/m3	17.5	17.1	16.9	97.3	96.3	70.0-130	1.10	25	
Vinyl chloride	ug/m3	9.59	8.79	9.00	91.7	93.9	70.0-130	2.30	25	
Vinyl bromide	ug/m3	16.4	16.3	16.4	99.2	100	70.0-130	0.803	25	
Vinyl acetate	ug/m3	13.2	11.7	11.6	88.3	87.7	70.0-130	0.606	25	
m&p-Xylene	ug/m3	32.5	33.7	33.4	104	103	70.0-130	0.905	25	
o-Xylene	ug/m3	16.3	16.9	17.0	104	105	70.0-130	0.512	25	
Xylene (Total)	ug/m3	49.1	50.8	50.4	104	103	70.0-130	0.858	25	
4-Bromofluorobenzene (S)	%				98.5	99.8	60.0-140			

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QUALIFIERS

Project: CITY OF BRISTOL
Pace Project No.: 92682319

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.: 92682319

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92682319001	AUGUST 24HR SAVE	TO-15	2112714	TO-15	2112714

REPORT OF LABORATORY ANALYSIS

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Company Name/Address:
Pace Analytical - Huntersville, NC

9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078

Billing Information:
Accounts Payable
9800 Kinsey Ave., Ste. 100
Huntersville, NC 28078

W0#: 92682319



f Custody Page ____ of ____



PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-756-5858 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/hubs/pas-standard-terms.pdf>

SDG #

J103

Acctnum: **PACE**

Template: **T210823**

Prelogin: **P1010494**

PM: 464 - Nancy McLain

PB: *ML 8/14/23*

Shipped Via: **FedEX Ground**

Rem./Contaminant

Sample # (lab only)

Report To:
Sara Poulson

Email To:
Sara.Poulson@pacelabs.com

Project City of Bristol
Description:

City/State

Collected: **Bristol VA**

Please Circle:
PT MT CT **ET**

Phone:
704-875-9092

Client Project #

Lab Project #

PACE-POULSONVA

Collected by (print):

David Cochran II

Site/Facility ID #

001

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

____ Same Day ____ Three Day
____ Next Day ____ Five Day
____ Two Day

Date Results Needed

Collection

Canister Pressure/Vacuum

Sample ID

Can #

Flow Cont. #

Date

Time

Initial

Final

AUGUST 24hr Sample 007307 024864

8/17/23

9:29am

-26 kg

0

X

9268231900

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 ☐
RAD Screen <0.5 mR/hr: *Y* ☒ N ☐

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

Samples returned via:

____ UPS ____ FedEx ____ Courier ____

Tracking #

Hold #

Relinquished by: (Signature)

Franklin D Cochran II

Date:

8/18/23

Time:

12:40pm

Received by: (Signature)

Date:

Time:

Condition:

(lab use only)

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Date:

Time:

COC Seal Intact:

____ Y ____ N ____ NA

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

Time:

NCF: