

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





October 19, 2023

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

RE: Project: City of Bristol
Pace Project No.: 92693991

Dear David Cochran:

Enclosed are the analytical results for sample(s) received by the laboratory on October 07, 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
704-977-0964
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.: 92693991

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.: 92693991

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92693991001	October 24hr	Air	10/06/23 12:50	10/07/23 09:00

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SAMPLE ANALYTE COUNT

Project: City of Bristol

Pace Project No.: 92693991

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92693991001	October 24hr	TO-15	MNP	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.: 92693991

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92693991001	October 24hr					
TO-15	Acetone	10.1	ug/m3	2.97	10/15/23 18:26	
TO-15	Benzene	1.91	ug/m3	0.639	10/15/23 18:26	
TO-15	Chloromethane	1.10	ug/m3	0.413	10/15/23 18:26	
TO-15	Ethanol	16.1	ug/m3	4.71	10/15/23 18:26	B
TO-15	Ethylbenzene	0.396J	ug/m3	0.867	10/15/23 18:26	J
TO-15	Trichlorofluoromethane	1.20	ug/m3	1.12	10/15/23 18:26	
TO-15	Dichlorodifluoromethane	2.68	ug/m3	0.989	10/15/23 18:26	
TO-15	Methylene Chloride	0.847	ug/m3	0.694	10/15/23 18:26	
TO-15	2-Butanone (MEK)	1.25J	ug/m3	3.69	10/15/23 18:26	J
TO-15	2-Propanol	4.25	ug/m3	3.07	10/15/23 18:26	
TO-15	Tetrahydrofuran	0.398J	ug/m3	0.590	10/15/23 18:26	J
TO-15	Toluene	1.03J	ug/m3	1.88	10/15/23 18:26	J

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PROJECT NARRATIVE

Project: City of Bristol
Pace Project No.: 92693991

Method: TO-15
Description: VOA (MS) TO-15
Client: City of Bristol VA
Date: October 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.

QC Batch: 2151663

B: Analyte was detected in the associated method blank.

- R3987084-3 (Lab ID: R3987084-3)
- Ethanol

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.: 92693991

Sample: October 24hr		Lab ID: 92693991001		Collected: 10/06/23 12:50		Received: 10/07/23 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	10.1	ug/m3	2.97	1.39	1	10/15/23 18:26	10/15/23 18:26	67-64-1	
Allyl chloride	ND	ug/m3	0.626	0.357	1	10/15/23 18:26	10/15/23 18:26	107-05-1	
Benzene	1.91	ug/m3	0.639	0.228	1	10/15/23 18:26	10/15/23 18:26	71-43-2	
Benzyl chloride	ND	ug/m3	1.04	0.311	1	10/15/23 18:26	10/15/23 18:26	100-44-7	
Bromodichloromethane	ND	ug/m3	1.34	0.471	1	10/15/23 18:26	10/15/23 18:26	75-27-4	
Bromoform	ND	ug/m3	6.21	0.757	1	10/15/23 18:26	10/15/23 18:26	75-25-2	
Bromomethane	ND	ug/m3	0.776	0.381	1	10/15/23 18:26	10/15/23 18:26	74-83-9	
1,3-Butadiene	ND	ug/m3	4.43	0.230	1	10/15/23 18:26	10/15/23 18:26	106-99-0	
Carbon disulfide	ND	ug/m3	0.622	0.317	1	10/15/23 18:26	10/15/23 18:26	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.26	0.461	1	10/15/23 18:26	10/15/23 18:26	56-23-5	
Chlorobenzene	ND	ug/m3	0.924	0.385	1	10/15/23 18:26	10/15/23 18:26	108-90-7	
Chloroethane	ND	ug/m3	0.528	0.263	1	10/15/23 18:26	10/15/23 18:26	75-00-3	
Chloroform	ND	ug/m3	0.973	0.349	1	10/15/23 18:26	10/15/23 18:26	67-66-3	
Chloromethane	1.10	ug/m3	0.413	0.213	1	10/15/23 18:26	10/15/23 18:26	74-87-3	
2-Chlorotoluene	ND	ug/m3	1.03	0.427	1	10/15/23 18:26	10/15/23 18:26	95-49-8	
Cyclohexane	ND	ug/m3	0.689	0.259	1	10/15/23 18:26	10/15/23 18:26	110-82-7	
Dibromochloromethane	ND	ug/m3	1.70	0.618	1	10/15/23 18:26	10/15/23 18:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.54	0.554	1	10/15/23 18:26	10/15/23 18:26	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.20	0.770	1	10/15/23 18:26	10/15/23 18:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.20	1.09	1	10/15/23 18:26	10/15/23 18:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.20	0.335	1	10/15/23 18:26	10/15/23 18:26	106-46-7	
1,2-Dichloroethane	ND	ug/m3	0.810	0.283	1	10/15/23 18:26	10/15/23 18:26	107-06-2	
1,1-Dichloroethane	ND	ug/m3	0.802	0.290	1	10/15/23 18:26	10/15/23 18:26	75-34-3	
1,1-Dichloroethene	ND	ug/m3	0.793	0.302	1	10/15/23 18:26	10/15/23 18:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.793	0.311	1	10/15/23 18:26	10/15/23 18:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.793	0.267	1	10/15/23 18:26	10/15/23 18:26	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.924	0.351	1	10/15/23 18:26	10/15/23 18:26	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.908	0.313	1	10/15/23 18:26	10/15/23 18:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.908	0.331	1	10/15/23 18:26	10/15/23 18:26	10061-02-6	
1,4-Dioxane (p-Dioxane)	ND	ug/m3	2.27	0.300	1	10/15/23 18:26	10/15/23 18:26	123-91-1	
Ethanol	16.1	ug/m3	4.71	0.500	1	10/15/23 18:26	10/15/23 18:26	64-17-5	B
Ethylbenzene	0.396J	ug/m3	0.867	0.362	1	10/15/23 18:26	10/15/23 18:26	100-41-4	J
Ethyl acetate	ND	ug/m3	2.27	0.360	1	10/15/23 18:26	10/15/23 18:26	141-78-6	
4-Ethyltoluene	ND	ug/m3	0.982	0.384	1	10/15/23 18:26	10/15/23 18:26	622-96-8	
Trichlorofluoromethane	1.20	ug/m3	1.12	0.460	1	10/15/23 18:26	10/15/23 18:26	75-69-4	
Dichlorodifluoromethane	2.68	ug/m3	0.989	0.678	1	10/15/23 18:26	10/15/23 18:26	75-71-8	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.53	0.608	1	10/15/23 18:26	10/15/23 18:26	76-13-1	
Dichlorotetrafluoroethane	ND	ug/m3	1.40	0.622	1	10/15/23 18:26	10/15/23 18:26	76-14-2	
n-Heptane	ND	ug/m3	0.818	0.425	1	10/15/23 18:26	10/15/23 18:26	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	6.73	1.12	1	10/15/23 18:26	10/15/23 18:26	87-68-3	
n-Hexane	ND	ug/m3	2.22	0.726	1	10/15/23 18:26	10/15/23 18:26	110-54-3	
Isopropylbenzene (Cumene)	ND	ug/m3	0.983	0.382	1	10/15/23 18:26	10/15/23 18:26	98-82-8	
Methylene Chloride	0.847	ug/m3	0.694	0.340	1	10/15/23 18:26	10/15/23 18:26	75-09-2	
2-Hexanone	ND	ug/m3	5.11	0.544	1	10/15/23 18:26	10/15/23 18:26	591-78-6	
2-Butanone (MEK)	1.25J	ug/m3	3.69	0.240	1	10/15/23 18:26	10/15/23 18:26	78-93-3	J

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: City of Bristol
Pace Project No.: 92693991

Sample: October 24hr		Lab ID: 92693991001		Collected: 10/06/23 12:50		Received: 10/07/23 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							
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	5.12	0.313	1	10/15/23 18:26	10/15/23 18:26	108-10-1	
Methyl methacrylate	ND	ug/m3	0.819	0.359	1	10/15/23 18:26	10/15/23 18:26	80-62-6	
Methyl-tert-butyl ether	ND	ug/m3	0.721	0.233	1	10/15/23 18:26	10/15/23 18:26	1634-04-4	
Naphthalene	ND	ug/m3	3.30	1.83	1	10/15/23 18:26	10/15/23 18:26	91-20-3	
2-Propanol	4.25	ug/m3	3.07	0.649	1	10/15/23 18:26	10/15/23 18:26	67-63-0	
Propylene	ND	ug/m3	2.15	0.160	1	10/15/23 18:26	10/15/23 18:26	115-07-1	
Styrene	ND	ug/m3	0.851	0.335	1	10/15/23 18:26	10/15/23 18:26	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.37	0.511	1	10/15/23 18:26	10/15/23 18:26	79-34-5	
Tetrachloroethene	ND	ug/m3	1.36	0.553	1	10/15/23 18:26	10/15/23 18:26	127-18-4	
Tetrahydrofuran	0.398J	ug/m3	0.590	0.216	1	10/15/23 18:26	10/15/23 18:26	109-99-9	J
Toluene	1.03J	ug/m3	1.88	0.328	1	10/15/23 18:26	10/15/23 18:26	108-88-3	J
1,2,4-Trichlorobenzene	ND	ug/m3	4.66	1.10	1	10/15/23 18:26	10/15/23 18:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.09	0.400	1	10/15/23 18:26	10/15/23 18:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1.09	0.422	1	10/15/23 18:26	10/15/23 18:26	79-00-5	
Trichloroethene	ND	ug/m3	1.07	0.364	1	10/15/23 18:26	10/15/23 18:26	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/m3	0.982	0.375	1	10/15/23 18:26	10/15/23 18:26	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	0.982	0.382	1	10/15/23 18:26	10/15/23 18:26	108-67-8	
2,2,4-Trimethylpentane	ND	ug/m3	0.934	0.621	1	10/15/23 18:26	10/15/23 18:26	540-84-1	
Vinyl chloride	ND	ug/m3	0.511	0.243	1	10/15/23 18:26	10/15/23 18:26	75-01-4	
Vinyl bromide	ND	ug/m3	0.875	0.373	1	10/15/23 18:26	10/15/23 18:26	593-60-2	
Vinyl acetate	ND	ug/m3	2.22	0.408	1	10/15/23 18:26	10/15/23 18:26	108-05-4	
m&p-Xylene	ND	ug/m3	1.73	0.585	1	10/15/23 18:26	10/15/23 18:26	179601-23-1	
o-Xylene	ND	ug/m3	0.867	0.359	1	10/15/23 18:26	10/15/23 18:26	95-47-6	
Xylene (Total)	ND	ug/m3	2.61	0.586	1	10/15/23 18:26	10/15/23 18:26	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	91.6	%	60.0-140		1	10/15/23 18:26	10/15/23 18:26	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: City of Bristol
Pace Project No.: 92693991

QC Batch: 2151663 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: VOA (MS) TO-15
Laboratory: Pace National - Mt. Juliet

Associated Lab Samples: 92693991001

METHOD BLANK: R3987084-3 Matrix: Air
Associated Lab Samples: 92693991001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ug/m3	ND	2.97	1.39	10/15/23 10:16	
Allyl chloride	ug/m3	ND	0.626	0.357	10/15/23 10:16	
Benzene	ug/m3	ND	0.639	0.228	10/15/23 10:16	
Benzyl chloride	ug/m3	ND	1.04	0.311	10/15/23 10:16	
Bromodichloromethane	ug/m3	ND	1.34	0.471	10/15/23 10:16	
Bromoform	ug/m3	ND	6.21	0.757	10/15/23 10:16	
Bromomethane	ug/m3	ND	0.776	0.381	10/15/23 10:16	
1,3-Butadiene	ug/m3	ND	4.43	0.230	10/15/23 10:16	
Carbon disulfide	ug/m3	ND	0.622	0.317	10/15/23 10:16	
Carbon tetrachloride	ug/m3	ND	1.26	0.461	10/15/23 10:16	
Chlorobenzene	ug/m3	ND	0.924	0.385	10/15/23 10:16	
Chloroethane	ug/m3	ND	0.528	0.263	10/15/23 10:16	
Chloroform	ug/m3	ND	0.973	0.349	10/15/23 10:16	
Chloromethane	ug/m3	ND	0.413	0.213	10/15/23 10:16	
2-Chlorotoluene	ug/m3	ND	1.03	0.427	10/15/23 10:16	
Cyclohexane	ug/m3	ND	0.689	0.259	10/15/23 10:16	
Dibromochloromethane	ug/m3	ND	1.70	0.618	10/15/23 10:16	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.54	0.554	10/15/23 10:16	
1,2-Dichlorobenzene	ug/m3	ND	1.20	0.770	10/15/23 10:16	
1,3-Dichlorobenzene	ug/m3	ND	1.20	1.09	10/15/23 10:16	
1,4-Dichlorobenzene	ug/m3	ND	1.20	0.335	10/15/23 10:16	
1,2-Dichloroethane	ug/m3	ND	0.810	0.283	10/15/23 10:16	
1,1-Dichloroethane	ug/m3	ND	0.802	0.290	10/15/23 10:16	
1,1-Dichloroethene	ug/m3	ND	0.793	0.302	10/15/23 10:16	
cis-1,2-Dichloroethene	ug/m3	ND	0.793	0.311	10/15/23 10:16	
trans-1,2-Dichloroethene	ug/m3	ND	0.793	0.267	10/15/23 10:16	
1,2-Dichloropropane	ug/m3	ND	0.924	0.351	10/15/23 10:16	
cis-1,3-Dichloropropene	ug/m3	ND	0.908	0.313	10/15/23 10:16	
trans-1,3-Dichloropropene	ug/m3	ND	0.908	0.331	10/15/23 10:16	
1,4-Dioxane (p-Dioxane)	ug/m3	ND	2.27	0.300	10/15/23 10:16	
Ethanol	ug/m3	2.90J	4.71	0.500	10/15/23 10:16	J
Ethylbenzene	ug/m3	ND	0.867	0.362	10/15/23 10:16	
Ethyl acetate	ug/m3	1.86J	2.27	0.360	10/15/23 10:16	J
4-Ethyltoluene	ug/m3	ND	0.982	0.384	10/15/23 10:16	
Trichlorofluoromethane	ug/m3	ND	1.12	0.460	10/15/23 10:16	
Dichlorodifluoromethane	ug/m3	ND	0.989	0.678	10/15/23 10:16	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.53	0.608	10/15/23 10:16	
Dichlorotetrafluoroethane	ug/m3	ND	1.40	0.622	10/15/23 10:16	
n-Heptane	ug/m3	ND	0.818	0.425	10/15/23 10:16	
Hexachloro-1,3-butadiene	ug/m3	ND	6.73	1.12	10/15/23 10:16	

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.: 92693991

METHOD BLANK: R3987084-3

Matrix: Air

Associated Lab Samples: 92693991001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
n-Hexane	ug/m3	ND	2.22	0.726	10/15/23 10:16	
Isopropylbenzene (Cumene)	ug/m3	ND	0.983	0.382	10/15/23 10:16	
Methylene Chloride	ug/m3	ND	0.694	0.340	10/15/23 10:16	
2-Hexanone	ug/m3	ND	5.11	0.544	10/15/23 10:16	
2-Butanone (MEK)	ug/m3	ND	3.69	0.240	10/15/23 10:16	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	5.12	0.313	10/15/23 10:16	
Methyl methacrylate	ug/m3	ND	0.819	0.359	10/15/23 10:16	
Methyl-tert-butyl ether	ug/m3	ND	0.721	0.233	10/15/23 10:16	
Naphthalene	ug/m3	ND	3.30	1.83	10/15/23 10:16	
2-Propanol	ug/m3	ND	3.07	0.649	10/15/23 10:16	
Propylene	ug/m3	ND	2.15	0.160	10/15/23 10:16	
Styrene	ug/m3	ND	0.851	0.335	10/15/23 10:16	
1,1,2,2-Tetrachloroethane	ug/m3	ND	1.37	0.511	10/15/23 10:16	
Tetrachloroethene	ug/m3	ND	1.36	0.553	10/15/23 10:16	
Tetrahydrofuran	ug/m3	ND	0.590	0.216	10/15/23 10:16	
Toluene	ug/m3	ND	1.88	0.328	10/15/23 10:16	
1,2,4-Trichlorobenzene	ug/m3	ND	4.66	1.10	10/15/23 10:16	
1,1,1-Trichloroethane	ug/m3	ND	1.09	0.400	10/15/23 10:16	
1,1,2-Trichloroethane	ug/m3	ND	1.09	0.422	10/15/23 10:16	
Trichloroethene	ug/m3	ND	1.07	0.364	10/15/23 10:16	
1,2,4-Trimethylbenzene	ug/m3	ND	0.982	0.375	10/15/23 10:16	
1,3,5-Trimethylbenzene	ug/m3	ND	0.982	0.382	10/15/23 10:16	
2,2,4-Trimethylpentane	ug/m3	ND	0.934	0.621	10/15/23 10:16	
Vinyl chloride	ug/m3	ND	0.511	0.243	10/15/23 10:16	
Vinyl bromide	ug/m3	ND	0.875	0.373	10/15/23 10:16	
Vinyl acetate	ug/m3	1.14J	2.22	0.408	10/15/23 10:16	J
m&p-Xylene	ug/m3	ND	1.73	0.585	10/15/23 10:16	
o-Xylene	ug/m3	ND	0.867	0.359	10/15/23 10:16	
Xylene (Total)	ug/m3	ND	2.61	0.586	10/15/23 10:16	
4-Bromofluorobenzene (S)	%	92.1	60.0-140		10/15/23 10:16	

LABORATORY CONTROL SAMPLE & LCSD: R3987084-1

R3987084-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Acetone	ug/m3	8.91	8.74	8.91	98.1	100	70.0-130	1.88	25	
Allyl chloride	ug/m3	11.7	11.9	11.9	102	101	70.0-130	0.263	25	
Benzene	ug/m3	12.0	12.4	12.3	103	103	70.0-130	0.259	25	
Benzyl chloride	ug/m3	19.5	13.9	13.9	71.5	71.2	70.0-152	0.374	25	
Bromodichloromethane	ug/m3	25.2	26.3	26.0	105	103	70.0-130	1.03	25	
Bromoform	ug/m3	38.8	40.0	40.5	103	104	70.0-130	1.03	25	
Bromomethane	ug/m3	14.6	14.6	14.6	100	100	70.0-130	0.266	25	
1,3-Butadiene	ug/m3	8.30	8.36	8.41	101	101	70.0-130	0.528	25	
Carbon disulfide	ug/m3	11.7	11.9	11.9	102	102	70.0-130	0.524	25	
Carbon tetrachloride	ug/m3	23.6	24.6	24.6	104	104	70.0-130	0.256	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: City of Bristol
Pace Project No.: 92693991

LABORATORY CONTROL SAMPLE & LCSD: R3987084-1			R3987084-2							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Chlorobenzene	ug/m3	17.3	17.5	17.6	101	102	70.0-130	0.526	25	
Chloroethane	ug/m3	9.89	9.87	9.89	99.7	100	70.0-130	0.267	25	
Chloroform	ug/m3	18.3	18.6	18.9	102	103	70.0-130	1.30	25	
Chloromethane	ug/m3	7.75	7.93	7.97	102	103	70.0-130	0.519	25	
2-Chlorotoluene	ug/m3	19.3	20.0	19.8	103	103	70.0-130	0.776	25	
Cyclohexane	ug/m3	12.9	13.1	13.2	101	102	70.0-130	0.786	25	
Dibromochloromethane	ug/m3	31.9	32.8	32.5	103	102	70.0-130	0.782	25	
1,2-Dibromoethane (EDB)	ug/m3	28.8	28.4	28.4	98.4	98.4	70.0-130	0.00	25	
1,2-Dichlorobenzene	ug/m3	22.5	24.6	24.3	109	108	70.0-130	0.983	25	
1,3-Dichlorobenzene	ug/m3	22.5	24.6	24.3	109	108	70.0-130	1.23	25	
1,4-Dichlorobenzene	ug/m3	22.5	25.4	25.1	113	111	70.0-130	1.19	25	
1,2-Dichloroethane	ug/m3	15.2	15.3	15.3	101	101	70.0-130	0.264	25	
1,1-Dichloroethane	ug/m3	15.0	14.9	15.0	99.2	99.5	70.0-130	0.268	25	
1,1-Dichloroethene	ug/m3	14.9	15.6	15.3	105	103	70.0-130	2.06	25	
cis-1,2-Dichloroethene	ug/m3	14.9	14.6	14.6	98.1	98.4	70.0-130	0.271	25	
trans-1,2-Dichloroethene	ug/m3	14.9	15.5	15.5	105	105	70.0-130	0.00	25	
1,2-Dichloropropane	ug/m3	17.3	16.9	16.8	97.6	96.8	70.0-130	0.823	25	
cis-1,3-Dichloropropene	ug/m3	17.0	17.1	17.0	100	99.7	70.0-130	0.533	25	
trans-1,3-Dichloropropene	ug/m3	17.0	17.0	17.1	100	101	70.0-130	0.532	25	
1,4-Dioxane (p-Dioxane)	ug/m3	13.5	13.5	13.5	100	100	70.0-140	0.00	25	
Ethanol	ug/m3	7.07	8.50	8.31	120	118	55.0-148	2.24	25	
Ethylbenzene	ug/m3	16.3	16.7	16.6	103	102	70.0-130	0.260	25	
Ethyl acetate	ug/m3	13.5	12.5	12.6	92.8	93.3	70.0-130	0.573	25	
4-Ethyltoluene	ug/m3	18.4	19.8	19.8	107	108	70.0-130	0.248	25	
Trichlorofluoromethane	ug/m3	21.1	21.7	21.7	103	103	70.0-130	0.00	25	
Dichlorodifluoromethane	ug/m3	18.5	19.1	19.2	103	104	64.0-139	0.515	25	
1,1,2-Trichlorotrifluoroethane	ug/m3	28.7	29.9	29.7	104	103	70.0-130	0.772	25	
Dichlorotetrafluoroethane	ug/m3	26.2	27.0	27.0	103	103	70.0-130	0.00	25	
n-Heptane	ug/m3	15.3	15.5	15.5	101	101	70.0-130	0.00	25	
Hexachloro-1,3-butadiene	ug/m3	40.0	39.7	38.6	99.2	96.5	70.0-151	2.72	25	
n-Hexane	ug/m3	13.2	11.3	11.5	85.6	86.9	70.0-130	1.55	25	
Isopropylbenzene (Cumene)	ug/m3	18.4	19.2	19.1	104	103	70.0-130	0.770	25	
Methylene Chloride	ug/m3	13.0	12.4	12.4	95.2	95.5	70.0-130	0.280	25	
2-Hexanone	ug/m3	15.3	14.6	14.5	95.5	94.7	70.0-149	0.842	25	
2-Butanone (MEK)	ug/m3	11.1	10.6	10.8	96.3	97.6	70.0-130	1.38	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	15.4	16.1	16.1	105	105	70.0-139	0.00	25	
Methyl methacrylate	ug/m3	15.4	15.4	15.1	100	98.1	70.0-130	1.88	25	
Methyl-tert-butyl ether	ug/m3	13.5	13.4	13.6	99.2	101	70.0-130	1.34	25	
Naphthalene	ug/m3	19.6	22.2	21.7	113	110	70.0-159	2.62	25	
2-Propanol	ug/m3	9.22	9.17	9.24	99.5	100	70.0-139	0.801	25	
Propylene	ug/m3	6.46	6.37	6.35	98.7	98.4	64.0-144	0.271	25	
Styrene	ug/m3	16.0	16.4	16.4	103	103	70.0-130	0.259	25	
1,1,2,2-Tetrachloroethane	ug/m3	25.8	27.5	27.4	107	106	70.0-130	0.250	25	
Tetrachloroethene	ug/m3	25.5	26.7	26.5	105	104	70.0-130	0.766	25	
Tetrahydrofuran	ug/m3	11.1	10.3	10.2	93.3	92.3	70.0-137	1.15	25	
Toluene	ug/m3	14.1	13.8	14.0	97.9	99.2	70.0-130	1.35	25	
1,2,4-Trichlorobenzene	ug/m3	27.8	29.6	29.2	107	105	70.0-160	1.51	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: City of Bristol

Pace Project No.: 92693991

LABORATORY CONTROL SAMPLE & LCSD: R3987084-1			R3987084-2							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	20.4	19.9	19.9	97.6	97.6	70.0-130	0.00	25	
1,1,2-Trichloroethane	ug/m3	20.4	19.5	19.3	95.7	94.4	70.0-130	1.40	25	
Trichloroethene	ug/m3	20.1	19.4	19.5	96.5	97.1	70.0-130	0.551	25	
1,2,4-Trimethylbenzene	ug/m3	18.4	20.8	20.4	113	111	70.0-130	1.67	25	
1,3,5-Trimethylbenzene	ug/m3	18.4	20.1	20.2	109	110	70.0-130	0.244	25	
2,2,4-Trimethylpentane	ug/m3	17.5	17.3	17.5	98.9	100	70.0-130	1.07	25	
Vinyl chloride	ug/m3	9.59	9.69	9.89	101	103	70.0-130	2.09	25	
Vinyl bromide	ug/m3	16.4	16.3	16.5	99.2	101	70.0-130	1.34	25	
Vinyl acetate	ug/m3	13.2	11.5	11.8	87.2	89.3	70.0-130	2.42	25	
m&p-Xylene	ug/m3	32.5	34.7	34.6	107	106	70.0-130	0.375	25	
o-Xylene	ug/m3	16.3	17.3	17.0	106	105	70.0-130	1.52	25	
Xylene (Total)	ug/m3	49.1	52.1	51.7	106	105	70.0-130	0.837	25	
4-Bromofluorobenzene (S)	%				98.5	98.0	60.0-140			

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QUALIFIERS

Project: City of Bristol
Pace Project No.: 92693991

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

B Analyte was detected in the associated method blank.
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.: 92693991

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92693991001	October 24hr	TO-15	2151663	TO-15	2151663

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