



September 25, 2024

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

RE: Project: City of Bristol
Pace Project No.: 92754951

Dear David Cochran:

Enclosed are the analytical results for sample(s) received by the laboratory on September 20, 2024. 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,

Eben Buchanan
eben.buchanan@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Karen Culbertson, City of Bristol VA
Jonathan Hayes
Logan Howard, City of Bristol VA
Jennifer Robb, City of Bristol VA



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: City of Bristol
Pace Project No.: 92754951

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.: 92754951

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92754951001	September 24hr	Air	09/19/24 07:45	09/20/24 09:00

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SAMPLE ANALYTE COUNT

Project: City of Bristol

Pace Project No.: 92754951

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92754951001	September 24hr	TO-15	GH	72	PAN

PAN = Pace National - Mt. Juliet

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SUMMARY OF DETECTION

Project: City of Bristol

Pace Project No.: 92754951

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92754951001	September 24hr					
TO-15	1,4-Dichlorobenzene	11.2	ug/m3	1.20	09/22/24 13:41	
TO-15	Acetone	8.10	ug/m3	2.97	09/22/24 13:41	
TO-15	Acetonitrile	3.31J	ug/m3	8.39	09/22/24 13:41	B,J
TO-15	Benzene	2.01	ug/m3	0.639	09/22/24 13:41	
TO-15	Carbon disulfide	0.373J	ug/m3	1.24	09/22/24 13:41	J
TO-15	Chloromethane	1.25	ug/m3	0.413	09/22/24 13:41	
TO-15	Dichlorodifluoromethane	1.45	ug/m3	0.989	09/22/24 13:41	
TO-15	Ethanol	9.92	ug/m3	4.71	09/22/24 13:41	
TO-15	Ethylbenzene	0.572J	ug/m3	0.867	09/22/24 13:41	J
TO-15	Gasoline	190J	ug/m3	1030	09/22/24 13:41	J
TO-15	m&p-Xylene	0.993J	ug/m3	1.73	09/22/24 13:41	J
TO-15	Methylene Chloride	0.538J	ug/m3	0.694	09/22/24 13:41	J
TO-15	trans-1,2-Dichloroethene	0.923	ug/m3	0.793	09/22/24 13:41	
TO-15	Trichlorofluoromethane	1.15	ug/m3	1.12	09/22/24 13:41	
TO-15	Xylene (Total)	0.994J	ug/m3	2.61	09/22/24 13:41	J

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PROJECT NARRATIVE

Project: City of Bristol
Pace Project No.: 92754951

Method: TO-15
Description: VOA (MS) TO-15
Client: City of Bristol VA
Date: September 25, 2024

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: 2367448

B: Analyte was detected in the associated method blank.

- R4123760-3 (Lab ID: R4123760-3)
- Acetonitrile

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.: 92754951

Sample: September 24hr Lab ID: 92754951001 Collected: 09/19/24 07:45 Received: 09/20/24 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									
1,1,1-Trichloroethane	ND	ug/m3	1.09	0.400	1	09/22/24 13:41	09/22/24 13:41	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.37	0.511	1	09/22/24 13:41	09/22/24 13:41	79-34-5	
1,1,2-Trichloroethane	ND	ug/m3	1.09	0.422	1	09/22/24 13:41	09/22/24 13:41	79-00-5	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.53	0.608	1	09/22/24 13:41	09/22/24 13:41	76-13-1	
1,1-Dichloroethane	ND	ug/m3	0.802	0.290	1	09/22/24 13:41	09/22/24 13:41	75-34-3	
1,1-Dichloroethene	ND	ug/m3	0.793	0.302	1	09/22/24 13:41	09/22/24 13:41	75-35-4	
1,2,4-Trichlorobenzene	ND	ug/m3	4.66	1.10	1	09/22/24 13:41	09/22/24 13:41	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/m3	0.982	0.375	1	09/22/24 13:41	09/22/24 13:41	95-63-6	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.54	0.554	1	09/22/24 13:41	09/22/24 13:41	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.20	0.770	1	09/22/24 13:41	09/22/24 13:41	95-50-1	
1,2-Dichloroethane	ND	ug/m3	0.810	0.283	1	09/22/24 13:41	09/22/24 13:41	107-06-2	
1,2-Dichloropropane	ND	ug/m3	0.924	0.351	1	09/22/24 13:41	09/22/24 13:41	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/m3	0.982	0.382	1	09/22/24 13:41	09/22/24 13:41	108-67-8	
1,3-Butadiene	ND	ug/m3	4.43	0.230	1	09/22/24 13:41	09/22/24 13:41	106-99-0	
1,3-Dichlorobenzene	ND	ug/m3	1.20	1.09	1	09/22/24 13:41	09/22/24 13:41	541-73-1	
1,4-Dichlorobenzene	11.2	ug/m3	1.20	0.335	1	09/22/24 13:41	09/22/24 13:41	106-46-7	
1,4-Dioxane (p-Dioxane)	ND	ug/m3	2.27	0.300	1	09/22/24 13:41	09/22/24 13:41	123-91-1	
2,2,4-Trimethylpentane	ND	ug/m3	0.934	0.621	1	09/22/24 13:41	09/22/24 13:41	540-84-1	
2-Butanone (MEK)	ND	ug/m3	3.69	0.240	1	09/22/24 13:41	09/22/24 13:41	78-93-3	
2-Chlorotoluene	ND	ug/m3	1.03	0.427	1	09/22/24 13:41	09/22/24 13:41	95-49-8	
2-Hexanone	ND	ug/m3	5.11	0.544	1	09/22/24 13:41	09/22/24 13:41	591-78-6	
2-Propanol	ND	ug/m3	3.07	0.649	1	09/22/24 13:41	09/22/24 13:41	67-63-0	
4-Ethyltoluene	ND	ug/m3	0.982	0.384	1	09/22/24 13:41	09/22/24 13:41	622-96-8	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	5.12	0.313	1	09/22/24 13:41	09/22/24 13:41	108-10-1	
Acetone	8.10	ug/m3	2.97	1.39	1	09/22/24 13:41	09/22/24 13:41	67-64-1	
Acetonitrile	3.31J	ug/m3	8.39	0.395	1	09/22/24 13:41	09/22/24 13:41	75-05-8	B,J
Allyl chloride	ND	ug/m3	0.626	0.357	1	09/22/24 13:41	09/22/24 13:41	107-05-1	
Benzene	2.01	ug/m3	0.639	0.228	1	09/22/24 13:41	09/22/24 13:41	71-43-2	
Benzyl chloride	ND	ug/m3	1.04	0.311	1	09/22/24 13:41	09/22/24 13:41	100-44-7	
Bromodichloromethane	ND	ug/m3	1.34	0.471	1	09/22/24 13:41	09/22/24 13:41	75-27-4	
Bromoform	ND	ug/m3	6.21	0.757	1	09/22/24 13:41	09/22/24 13:41	75-25-2	
Bromomethane	ND	ug/m3	0.776	0.381	1	09/22/24 13:41	09/22/24 13:41	74-83-9	
Carbon disulfide	0.373J	ug/m3	1.24	0.317	1	09/22/24 13:41	09/22/24 13:41	75-15-0	J
Carbon tetrachloride	ND	ug/m3	1.26	0.461	1	09/22/24 13:41	09/22/24 13:41	56-23-5	
Chlorobenzene	ND	ug/m3	0.924	0.385	1	09/22/24 13:41	09/22/24 13:41	108-90-7	
Chloroethane	ND	ug/m3	0.528	0.263	1	09/22/24 13:41	09/22/24 13:41	75-00-3	
Chloroform	ND	ug/m3	0.973	0.349	1	09/22/24 13:41	09/22/24 13:41	67-66-3	
Chloromethane	1.25	ug/m3	0.413	0.213	1	09/22/24 13:41	09/22/24 13:41	74-87-3	
cis-1,2-Dichloroethene	ND	ug/m3	0.793	0.311	1	09/22/24 13:41	09/22/24 13:41	156-59-2	
cis-1,3-Dichloropropene	ND	ug/m3	0.908	0.313	1	09/22/24 13:41	09/22/24 13:41	10061-01-5	
Cyclohexane	ND	ug/m3	0.689	0.259	1	09/22/24 13:41	09/22/24 13:41	110-82-7	
Dibromochloromethane	ND	ug/m3	1.70	0.618	1	09/22/24 13:41	09/22/24 13:41	124-48-1	
Dichlorodifluoromethane	1.45	ug/m3	0.989	0.678	1	09/22/24 13:41	09/22/24 13:41	75-71-8	
Dichlorotetrafluoroethane	ND	ug/m3	1.40	0.622	1	09/22/24 13:41	09/22/24 13:41	76-14-2	
Ethanol	9.92	ug/m3	4.71	0.500	1	09/22/24 13:41	09/22/24 13:41	64-17-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: City of Bristol
Pace Project No.: 92754951

Sample: September 24hr		Lab ID: 92754951001		Collected: 09/19/24 07:45		Received: 09/20/24 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									
Ethyl acetate	ND	ug/m3	2.27	0.360	1	09/22/24 13:41	09/22/24 13:41	141-78-6	
Ethylbenzene	0.572J	ug/m3	0.867	0.362	1	09/22/24 13:41	09/22/24 13:41	100-41-4	J
Gasoline	190J	ug/m3	1030	164	1	09/22/24 13:41	09/22/24 13:41	8006-61-9	J
Hexachloro-1,3-butadiene	ND	ug/m3	6.73	1.12	1	09/22/24 13:41	09/22/24 13:41	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/m3	0.983	0.382	1	09/22/24 13:41	09/22/24 13:41	98-82-8	
m&p-Xylene	0.993J	ug/m3	1.73	0.585	1	09/22/24 13:41	09/22/24 13:41	179601-23-1	J
Methyl methacrylate	ND	ug/m3	0.819	0.359	1	09/22/24 13:41	09/22/24 13:41	80-62-6	
Methyl-tert-butyl ether	ND	ug/m3	0.721	0.233	1	09/22/24 13:41	09/22/24 13:41	1634-04-4	
Methylene Chloride	0.538J	ug/m3	0.694	0.340	1	09/22/24 13:41	09/22/24 13:41	75-09-2	J
n-Heptane	ND	ug/m3	0.818	0.425	1	09/22/24 13:41	09/22/24 13:41	142-82-5	
n-Hexane	ND	ug/m3	2.22	0.726	1	09/22/24 13:41	09/22/24 13:41	110-54-3	
Naphthalene	ND	ug/m3	3.30	1.83	1	09/22/24 13:41	09/22/24 13:41	91-20-3	
o-Xylene	ND	ug/m3	0.867	0.359	1	09/22/24 13:41	09/22/24 13:41	95-47-6	
Propylene	ND	ug/m3	2.15	0.160	1	09/22/24 13:41	09/22/24 13:41	115-07-1	
Styrene	ND	ug/m3	1.70	0.335	1	09/22/24 13:41	09/22/24 13:41	100-42-5	
Tetrachloroethene	ND	ug/m3	1.36	0.553	1	09/22/24 13:41	09/22/24 13:41	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.590	0.216	1	09/22/24 13:41	09/22/24 13:41	109-99-9	
Toluene	ND	ug/m3	1.88	0.328	1	09/22/24 13:41	09/22/24 13:41	108-88-3	
trans-1,2-Dichloroethene	0.923	ug/m3	0.793	0.267	1	09/22/24 13:41	09/22/24 13:41	156-60-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.908	0.331	1	09/22/24 13:41	09/22/24 13:41	10061-02-6	
Trichloroethene	ND	ug/m3	1.07	0.364	1	09/22/24 13:41	09/22/24 13:41	79-01-6	
Trichlorofluoromethane	1.15	ug/m3	1.12	0.460	1	09/22/24 13:41	09/22/24 13:41	75-69-4	
Vinyl acetate	ND	ug/m3	2.22	0.408	1	09/22/24 13:41	09/22/24 13:41	108-05-4	
Vinyl bromide	ND	ug/m3	0.875	0.373	1	09/22/24 13:41	09/22/24 13:41	593-60-2	
Vinyl chloride	ND	ug/m3	0.511	0.243	1	09/22/24 13:41	09/22/24 13:41	75-01-4	
Xylene (Total)	0.994J	ug/m3	2.61	0.586	1	09/22/24 13:41	09/22/24 13:41	1330-20-7	J
Surrogates									
4-Bromofluorobenzene (S)	96.5	%	60.0-140		1	09/22/24 13:41	09/22/24 13:41	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: City of Bristol
Pace Project No.: 92754951

QC Batch:	2367448	Analysis Method:	TO-15
QC Batch Method:	TO-15	Analysis Description:	VOA (MS) TO-15
		Laboratory:	Pace National - Mt. Juliet

Associated Lab Samples: 92754951001

METHOD BLANK: R4123760-3 Matrix: Air
Associated Lab Samples: 92754951001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.09	0.400	09/22/24 10:58	
1,1,2,2-Tetrachloroethane	ug/m3	ND	1.37	0.511	09/22/24 10:58	
1,1,2-Trichloroethane	ug/m3	ND	1.09	0.422	09/22/24 10:58	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.53	0.608	09/22/24 10:58	
1,1-Dichloroethane	ug/m3	ND	0.802	0.290	09/22/24 10:58	
1,1-Dichloroethene	ug/m3	ND	0.793	0.302	09/22/24 10:58	
1,2,4-Trichlorobenzene	ug/m3	ND	4.66	1.10	09/22/24 10:58	
1,2,4-Trimethylbenzene	ug/m3	ND	0.982	0.375	09/22/24 10:58	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.54	0.554	09/22/24 10:58	
1,2-Dichlorobenzene	ug/m3	ND	1.20	0.770	09/22/24 10:58	
1,2-Dichloroethane	ug/m3	ND	0.810	0.283	09/22/24 10:58	
1,2-Dichloropropane	ug/m3	ND	0.924	0.351	09/22/24 10:58	
1,3,5-Trimethylbenzene	ug/m3	ND	0.982	0.382	09/22/24 10:58	
1,3-Butadiene	ug/m3	ND	4.43	0.230	09/22/24 10:58	
1,3-Dichlorobenzene	ug/m3	ND	1.20	1.09	09/22/24 10:58	
1,4-Dichlorobenzene	ug/m3	ND	1.20	0.335	09/22/24 10:58	
1,4-Dioxane (p-Dioxane)	ug/m3	ND	2.27	0.300	09/22/24 10:58	
2,2,4-Trimethylpentane	ug/m3	ND	0.934	0.621	09/22/24 10:58	
2-Butanone (MEK)	ug/m3	ND	3.69	0.240	09/22/24 10:58	
2-Chlorotoluene	ug/m3	ND	1.03	0.427	09/22/24 10:58	
2-Hexanone	ug/m3	ND	5.11	0.544	09/22/24 10:58	
2-Propanol	ug/m3	ND	3.07	0.649	09/22/24 10:58	
4-Ethyltoluene	ug/m3	ND	0.982	0.384	09/22/24 10:58	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	5.12	0.313	09/22/24 10:58	
Acetone	ug/m3	ND	2.97	1.39	09/22/24 10:58	
Acetonitrile	ug/m3	0.576J	8.39	0.395	09/22/24 10:58	J
Allyl chloride	ug/m3	ND	0.626	0.357	09/22/24 10:58	
Benzene	ug/m3	ND	0.639	0.228	09/22/24 10:58	
Benzyl chloride	ug/m3	ND	1.04	0.311	09/22/24 10:58	
Bromodichloromethane	ug/m3	ND	1.34	0.471	09/22/24 10:58	
Bromoform	ug/m3	ND	6.21	0.757	09/22/24 10:58	
Bromomethane	ug/m3	ND	0.776	0.381	09/22/24 10:58	
Carbon disulfide	ug/m3	ND	1.24	0.317	09/22/24 10:58	
Carbon tetrachloride	ug/m3	ND	1.26	0.461	09/22/24 10:58	
Chlorobenzene	ug/m3	ND	0.924	0.385	09/22/24 10:58	
Chloroethane	ug/m3	ND	0.528	0.263	09/22/24 10:58	
Chloroform	ug/m3	ND	0.973	0.349	09/22/24 10:58	
Chloromethane	ug/m3	ND	0.413	0.213	09/22/24 10:58	
cis-1,2-Dichloroethene	ug/m3	ND	0.793	0.311	09/22/24 10:58	
cis-1,3-Dichloropropene	ug/m3	ND	0.908	0.313	09/22/24 10:58	

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.: 92754951

METHOD BLANK: R4123760-3

Matrix: Air

Associated Lab Samples: 92754951001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyclohexane	ug/m3	ND	0.689	0.259	09/22/24 10:58	
Dibromochloromethane	ug/m3	ND	1.70	0.618	09/22/24 10:58	
Dichlorodifluoromethane	ug/m3	ND	0.989	0.678	09/22/24 10:58	
Dichlorotetrafluoroethane	ug/m3	ND	1.40	0.622	09/22/24 10:58	
Ethanol	ug/m3	ND	4.71	0.500	09/22/24 10:58	
Ethyl acetate	ug/m3	ND	2.27	0.360	09/22/24 10:58	
Ethylbenzene	ug/m3	ND	0.867	0.362	09/22/24 10:58	
Gasoline	ug/m3	ND	1030	164	09/22/24 10:58	
Hexachloro-1,3-butadiene	ug/m3	ND	6.73	1.12	09/22/24 10:58	
Isopropylbenzene (Cumene)	ug/m3	ND	0.983	0.382	09/22/24 10:58	
m&p-Xylene	ug/m3	ND	1.73	0.585	09/22/24 10:58	
Methyl methacrylate	ug/m3	ND	0.819	0.359	09/22/24 10:58	
Methyl-tert-butyl ether	ug/m3	ND	0.721	0.233	09/22/24 10:58	
Methylene Chloride	ug/m3	ND	0.694	0.340	09/22/24 10:58	
n-Heptane	ug/m3	ND	0.818	0.425	09/22/24 10:58	
n-Hexane	ug/m3	ND	2.22	0.726	09/22/24 10:58	
Naphthalene	ug/m3	ND	3.30	1.83	09/22/24 10:58	
o-Xylene	ug/m3	ND	0.867	0.359	09/22/24 10:58	
Propylene	ug/m3	ND	2.15	0.160	09/22/24 10:58	
Styrene	ug/m3	ND	1.70	0.335	09/22/24 10:58	
Tetrachloroethene	ug/m3	ND	1.36	0.553	09/22/24 10:58	
Tetrahydrofuran	ug/m3	ND	0.590	0.216	09/22/24 10:58	
Toluene	ug/m3	ND	1.88	0.328	09/22/24 10:58	
trans-1,2-Dichloroethene	ug/m3	ND	0.793	0.267	09/22/24 10:58	
trans-1,3-Dichloropropene	ug/m3	ND	0.908	0.331	09/22/24 10:58	
Trichloroethene	ug/m3	ND	1.07	0.364	09/22/24 10:58	
Trichlorofluoromethane	ug/m3	ND	1.12	0.460	09/22/24 10:58	
Vinyl acetate	ug/m3	ND	2.22	0.408	09/22/24 10:58	
Vinyl bromide	ug/m3	ND	0.875	0.373	09/22/24 10:58	
Vinyl chloride	ug/m3	ND	0.511	0.243	09/22/24 10:58	
Xylene (Total)	ug/m3	ND	2.61	0.586	09/22/24 10:58	
4-Bromofluorobenzene (S)	%	96.7	60.0-140		09/22/24 10:58	

LABORATORY CONTROL SAMPLE & LCSD: R4123760-1

R4123760-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	3.75	20.1	20.3	98.7	99.7	70.0-130	1.08	25	
1,1,2,2-Tetrachloroethane	ug/m3	3.75	28.0	27.8	109	108	70.0-130	0.985	25	
1,1,2-Trichloroethane	ug/m3	3.75	21.1	21.1	103	103	70.0-130	0.00	25	
1,1,2-Trichlorotrifluoroethane	ug/m3	3.75	30.1	29.5	105	103	70.0-130	2.06	25	
1,1-Dichloroethane	ug/m3	3.75	15.4	15.5	102	103	70.0-130	0.519	25	
1,1-Dichloroethene	ug/m3	3.75	14.8	14.7	99.5	98.9	70.0-130	0.538	25	
1,2,4-Trichlorobenzene	ug/m3	3.75	32.1	31.9	116	115	70.0-160	0.694	25	
1,2,4-Trimethylbenzene	ug/m3	3.75	19.3	19.2	105	105	70.0-130	0.509	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: City of Bristol
Pace Project No.: 92754951

LABORATORY CONTROL SAMPLE & LCSD: R4123760-1 R4123760-2										
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/m3	3.75	30.6	30.5	106	106	70.0-130	0.252	25	
1,2-Dichlorobenzene	ug/m3	3.75	25.1	24.6	111	109	70.0-130	1.94	25	
1,2-Dichloroethane	ug/m3	3.75	15.4	15.5	102	102	70.0-130	0.262	25	
1,2-Dichloropropane	ug/m3	3.75	18.4	18.0	106	104	70.0-130	2.28	25	
1,3,5-Trimethylbenzene	ug/m3	3.75	19.8	19.7	107	107	70.0-130	0.248	25	
1,3-Butadiene	ug/m3	3.75	8.78	8.76	106	106	70.0-130	0.252	25	
1,3-Dichlorobenzene	ug/m3	3.75	25.2	24.9	112	110	70.0-130	1.20	25	
1,4-Dichlorobenzene	ug/m3	3.75	25.3	24.6	112	109	70.0-130	2.89	25	
1,4-Dioxane (p-Dioxane)	ug/m3	3.75	14.2	14.4	105	106	70.0-140	1.26	25	
2,2,4-Trimethylpentane	ug/m3	3.75	17.6	17.5	100	99.7	70.0-130	0.533	25	
2-Butanone (MEK)	ug/m3	3.75	11.4	11.6	103	105	70.0-130	1.79	25	
2-Chlorotoluene	ug/m3	3.75	20.0	20.2	104	105	70.0-130	0.768	25	
2-Hexanone	ug/m3	3.75	15.2	15.5	99.2	101	70.0-149	1.60	25	
2-Propanol	ug/m3	3.75	9.12	8.92	98.9	96.8	70.0-139	2.18	25	
4-Ethyltoluene	ug/m3	3.75	19.8	19.8	108	107	70.0-130	0.248	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	3.75	15.2	14.9	98.9	97.3	70.0-139	1.63	25	
Acetone	ug/m3	3.75	8.79	8.65	98.7	97.1	70.0-130	1.63	25	
Acetonitrile	ug/m3	18.8	30.1	29.9	95.2	94.7	70.0-130	0.560	25	
Allyl chloride	ug/m3	3.75	11.1	11.3	94.9	96.0	70.0-130	1.12	25	
Benzene	ug/m3	3.75	12.6	12.4	106	103	70.0-130	2.30	25	
Benzyl chloride	ug/m3	3.75	20.2	19.7	104	101	70.0-152	2.34	25	
Bromodichloromethane	ug/m3	3.75	25.9	25.4	103	101	70.0-130	1.83	25	
Bromoform	ug/m3	3.75	42.3	41.9	109	108	70.0-130	0.983	25	
Bromomethane	ug/m3	3.75	15.2	15.3	104	105	70.0-130	0.764	25	
Carbon disulfide	ug/m3	7.50	24.2	24.0	104	103	70.0-130	0.903	25	
Carbon tetrachloride	ug/m3	3.75	23.9	23.9	101	101	70.0-130	0.264	25	
Chlorobenzene	ug/m3	3.75	19.0	18.9	110	109	70.0-130	0.976	25	
Chloroethane	ug/m3	3.75	10.4	10.6	105	107	70.0-130	2.26	25	
Chloroform	ug/m3	3.75	18.7	18.6	102	102	70.0-130	0.261	25	
Chloromethane	ug/m3	3.75	8.84	8.84	114	114	70.0-130	0.00	25	
cis-1,2-Dichloroethene	ug/m3	3.75	15.0	15.0	101	101	70.0-130	0.00	25	
cis-1,3-Dichloropropene	ug/m3	3.75	17.5	17.3	103	102	70.0-130	1.04	25	
Cyclohexane	ug/m3	3.75	12.9	12.9	100	99.7	70.0-130	0.533	25	
Dibromochloromethane	ug/m3	3.75	34.2	33.2	107	104	70.0-130	3.03	25	
Dichlorodifluoromethane	ug/m3	3.75	16.6	15.8	89.3	85.1	64.0-139	4.89	25	
Dichlorotetrafluoroethane	ug/m3	3.75	26.9	24.8	103	94.4	70.0-130	8.39	25	
Ethanol	ug/m3	3.75	8.56	8.13	121	115	55.0-148	5.20	25	
Ethyl acetate	ug/m3	3.75	13.9	14.4	103	106	70.0-130	3.31	25	
Ethylbenzene	ug/m3	3.75	16.9	16.8	104	103	70.0-130	0.772	25	
Gasoline	ug/m3	349	1470	1470	102	102	70.0-130	0.00	25	
Hexachloro-1,3-butadiene	ug/m3	3.75	46.4	46.8	116	117	70.0-151	0.687	25	
Isopropylbenzene (Cumene)	ug/m3	3.75	19.6	19.6	106	106	70.0-130	0.251	25	
m&p-Xylene	ug/m3	7.50	33.9	33.8	104	104	70.0-130	0.512	25	
Methyl methacrylate	ug/m3	3.75	15.8	15.6	103	102	70.0-130	1.56	25	
Methyl-tert-butyl ether	ug/m3	3.75	13.4	13.6	99.5	101	70.0-130	1.33	25	
Methylene Chloride	ug/m3	3.75	12.4	12.2	95.2	93.6	70.0-130	1.69	25	
n-Heptane	ug/m3	3.75	15.1	14.6	98.7	95.2	70.0-130	3.58	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: City of Bristol

Pace Project No.: 92754951

LABORATORY CONTROL SAMPLE & LCSD: R4123760-1			R4123760-2							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
n-Hexane	ug/m3	3.75	13.0	12.8	98.4	96.5	70.0-130	1.92	25	
Naphthalene	ug/m3	3.75	22.5	22.0	115	112	70.0-159	2.12	25	
o-Xylene	ug/m3	3.75	17.0	17.2	104	106	70.0-130	1.52	25	
Propylene	ug/m3	3.75	6.39	6.39	98.9	98.9	64.0-144	0.00	25	
Styrene	ug/m3	7.50	34.9	34.8	109	109	70.0-130	0.122	25	
Tetrachloroethene	ug/m3	3.75	28.1	27.6	110	108	70.0-130	1.95	25	
Tetrahydrofuran	ug/m3	3.75	10.7	10.9	97.1	98.4	70.0-137	1.36	25	
Toluene	ug/m3	3.75	14.7	14.7	104	104	70.0-130	0.513	25	
trans-1,2-Dichloroethene	ug/m3	3.75	14.9	14.9	100	100	70.0-130	0.00	25	
trans-1,3-Dichloropropene	ug/m3	3.75	17.6	17.8	103	105	70.0-130	1.28	25	
Trichloroethene	ug/m3	3.75	21.1	20.9	105	104	70.0-130	0.510	25	
Trichlorofluoromethane	ug/m3	3.75	21.9	21.7	104	103	70.0-130	0.774	25	
Vinyl acetate	ug/m3	3.75	13.1	12.7	99.2	96.3	70.0-130	3.00	25	
Vinyl bromide	ug/m3	3.75	17.8	18.3	109	111	70.0-130	2.67	25	
Vinyl chloride	ug/m3	3.75	11.0	11.2	115	117	70.0-130	1.15	25	
Xylene (Total)	ug/m3	11.3	50.8	51.2	104	104	70.0-130	0.851	25	
4-Bromofluorobenzene (S)	%				96.6	97.4	60.0-140			

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QUALIFIERS

Project: City of Bristol
Pace Project No.: 92754951

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.: 92754951

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92754951001	September 24hr	TO-15	2367448	TO-15	2367448

REPORT OF LABORATORY ANALYSIS

W0#: 92754951

W0#: 92754951

Company Name:
Pace Analytical - Huntersville, NC

Street Address:
**9800 Kincoy Avenue, Suite 100
Huntersville, NC 28078**

City, State Zip:

Customer Project #:

Project Name:
City of Bristol

Site Collection Info/Facility ID (as applicable):

PAGE-POULSONVA 001

Contact/Report To: **Eben Buchanan**

Phone #: **704-875-9092**

E-Mail: **eben.buchanan@pacelabs.com**

CCE Mail:

Invoice To: **Karen Calbertson**

Invoice #: **Karen Calbertson**

E-Mail: **Karen.Calbertson@bushnell.com**

Purchase Order # (if applicable):

Quote #:

State origin of sample(s):

Time Zone Collected: [] AM [] PM [] MT [] CT [] ET

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

[] Level II [] Level III [] Level IV

[] ECUS

[] Other:

Rush (Pre-approval required):

2 Day 3 day 5 day Other:

Date Results Requested:

Permit # as applicable:

Units for Reporting: ug/m³ PBV mg/m³ PMV

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

Customer Sample ID

Matrix *

Summa

Canister ID

Flow

Controller ID

Begin Collection

End Collection

Date

Time

Date

Time

Date

Time

Date

Time

Date

Time

Start Pressure / Vacuum (in Hg)

End Pressure / Vacuum (in Hg)

Duration (minutes)

Flow Rate

Total Volume

Sampled m³/min or L/min

Sampled m³ or L

Sampled m³ or L

Sampled m³ or L

Sampled m³ or L

Sampled m³ or L

September 24th

02107005292

01/06/2009

01/06/2009

01/06/2009

01/06/2009

01/06/2009

01/06/2009

01/06/2009

Customer Remarks / Special Conditions / Possible Hazards:

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

Requisitioned by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Requisitioned by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

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Received by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Date/Time:

Received by/Company: (Signature)

Field Information

Canister

PUF / FILTER

Pressure / Vacuum

Start Pressure / Vacuum (in Hg)

End Pressure / Vacuum (in Hg)

Duration (minutes)

Flow Rate

Total Volume

Sampled m³/min or L/min

Sampled m³ or L

Pressure / Vacuum

Start Pressure / Vacuum (in Hg)

End Pressure / Vacuum (in Hg)

Duration (minutes)

Flow Rate

Total Volume

Sampled m³/min or L/min

Sampled m³ or L

Pressure / Vacuum

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Flow Rate

Total Volume

Sampled m³/min or L/min

Sampled m³ or L

Pressure / Vacuum

Start Pressure / Vacuum (in Hg)

End Pressure / Vacuum (in Hg)

Duration (minutes)

Flow Rate

Total Volume

Sampled m³/min or L/min

Sampled m³ or L

Analyses Requested

Pressure / Vacuum

Start Pressure / Vacuum (in Hg)

End Pressure / Vacuum (in Hg)

Duration (minutes)

Pressure / Vacuum

Start Pressure / Vacuum (in Hg)

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