

May 05, 2021

Sam Hess
Bristol Solid Waste Management Facility
2125 Shakesville Rd
Bristol, VA 24201

RE: Project: City of Bristol
Pace Project No.: 92535070

Dear Sam Hess:

Enclosed are the analytical results for sample(s) received by the laboratory on April 24, 2021. 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,



Ryan Brumfield
ryan.brumfield@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Ms. Carrie Blankenship, Draper Aden Associates
Ms. Janet Frazier, Draper Aden Associates
Kathy Olsen, Draper Aden Associates



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: City of Bristol

Pace Project No.: 92535070

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.: 92535070

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92535070001	First Southwest 6 Arc	Air	04/21/21 13:49	04/24/21 09:30

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SAMPLE ANALYTE COUNT

Project: City of Bristol

Pace Project No.: 92535070

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92535070001	First Southwest 6 Arc	TO-15	FKG	69	PAN

PAN = Pace National - Mt. Juliet

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: City of Bristol

Pace Project No.: 92535070

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92535070001	First Southwest 6 Arc					
TO-15	Acetone	8.58	ug/m3	2.97	04/27/21 15:00	
TO-15	Benzene	0.524J	ug/m3	0.639	04/27/21 15:00	J
TO-15	Carbon tetrachloride	0.554J	ug/m3	1.26	04/27/21 15:00	J
TO-15	Chloromethane	1.61	ug/m3	0.413	04/27/21 15:00	
TO-15	Ethanol	36.0	ug/m3	1.19	04/27/21 15:00	
TO-15	Trichlorofluoromethane	2.55	ug/m3	1.12	04/27/21 15:00	
TO-15	Dichlorodifluoromethane	3.06	ug/m3	0.989	04/27/21 15:00	
TO-15	n-Hexane	1.50J	ug/m3	2.22	04/27/21 15:00	J
TO-15	Methylene Chloride	0.472J	ug/m3	0.694	04/27/21 15:00	J
TO-15	2-Butanone (MEK)	0.840J	ug/m3	3.69	04/27/21 15:00	J
TO-15	2-Propanol	7.15	ug/m3	3.07	04/27/21 15:00	
TO-15	Styrene	0.489J	ug/m3	0.851	04/27/21 15:00	J
TO-15	Toluene	1.06J	ug/m3	1.88	04/27/21 15:00	J
TO-15	Trichloroethene	1.07J	ug/m3	1.07	04/27/21 15:00	J

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: City of Bristol

Pace Project No.: 92535070

Method: TO-15

Description: VOA (MS) TO-15

Client: Draper Aden - Virginia

Date: May 05, 2021

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.

QC Batch: 1659424

R1: RPD value was outside control limits.

- LCSD (Lab ID: R3647451-2)
- Propylene

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.: 92535070

Sample: First Southwest 6 Arc		Lab ID: 92535070001		Collected: 04/21/21 13:49		Received: 04/24/21 09:30		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									
Gasoline Range Organics	ND	ug/m3	826	164	1	04/27/21 15:00	04/27/21 15:00	8006-61-9	
Acetone	8.58	ug/m3	2.97	1.39	1	04/27/21 15:00	04/27/21 15:00	67-64-1	
Allyl chloride	ND	ug/m3	0.626	0.357	1	04/27/21 15:00	04/27/21 15:00	107-05-1	
Benzene	0.524J	ug/m3	0.639	0.228	1	04/27/21 15:00	04/27/21 15:00	71-43-2	J
Benzyl chloride	ND	ug/m3	1.04	0.311	1	04/27/21 15:00	04/27/21 15:00	100-44-7	
Bromodichloromethane	ND	ug/m3	1.34	0.471	1	04/27/21 15:00	04/27/21 15:00	75-27-4	
Bromoform	ND	ug/m3	6.21	0.757	1	04/27/21 15:00	04/27/21 15:00	75-25-2	
Bromomethane	ND	ug/m3	0.776	0.381	1	04/27/21 15:00	04/27/21 15:00	74-83-9	
1,3-Butadiene	ND	ug/m3	4.43	0.230	1	04/27/21 15:00	04/27/21 15:00	106-99-0	
Carbon disulfide	ND	ug/m3	0.622	0.317	1	04/27/21 15:00	04/27/21 15:00	75-15-0	
Carbon tetrachloride	0.554J	ug/m3	1.26	0.461	1	04/27/21 15:00	04/27/21 15:00	56-23-5	J
Chlorobenzene	ND	ug/m3	0.924	0.385	1	04/27/21 15:00	04/27/21 15:00	108-90-7	
Chloroethane	ND	ug/m3	0.528	0.263	1	04/27/21 15:00	04/27/21 15:00	75-00-3	
Chloroform	ND	ug/m3	0.973	0.349	1	04/27/21 15:00	04/27/21 15:00	67-66-3	
Chloromethane	1.61	ug/m3	0.413	0.213	1	04/27/21 15:00	04/27/21 15:00	74-87-3	
2-Chlorotoluene	ND	ug/m3	1.03	0.427	1	04/27/21 15:00	04/27/21 15:00	95-49-8	
Cyclohexane	ND	ug/m3	0.689	0.259	1	04/27/21 15:00	04/27/21 15:00	110-82-7	
Dibromochloromethane	ND	ug/m3	1.70	0.618	1	04/27/21 15:00	04/27/21 15:00	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.54	0.554	1	04/27/21 15:00	04/27/21 15:00	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.20	0.770	1	04/27/21 15:00	04/27/21 15:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.20	1.09	1	04/27/21 15:00	04/27/21 15:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.20	0.335	1	04/27/21 15:00	04/27/21 15:00	106-46-7	
1,2-Dichloroethane	ND	ug/m3	0.810	0.283	1	04/27/21 15:00	04/27/21 15:00	107-06-2	
1,1-Dichloroethane	ND	ug/m3	0.802	0.290	1	04/27/21 15:00	04/27/21 15:00	75-34-3	
1,1-Dichloroethene	ND	ug/m3	0.793	0.302	1	04/27/21 15:00	04/27/21 15:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.793	0.311	1	04/27/21 15:00	04/27/21 15:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.793	0.267	1	04/27/21 15:00	04/27/21 15:00	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.924	0.351	1	04/27/21 15:00	04/27/21 15:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.908	0.313	1	04/27/21 15:00	04/27/21 15:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.908	0.331	1	04/27/21 15:00	04/27/21 15:00	10061-02-6	
1,4-Dioxane (p-Dioxane)	ND	ug/m3	0.721	0.300	1	04/27/21 15:00	04/27/21 15:00	123-91-1	
Ethanol	36.0	ug/m3	1.19	0.500	1	04/27/21 15:00	04/27/21 15:00	64-17-5	
Ethylbenzene	ND	ug/m3	0.867	0.362	1	04/27/21 15:00	04/27/21 15:00	100-41-4	
4-Ethyltoluene	ND	ug/m3	0.982	0.384	1	04/27/21 15:00	04/27/21 15:00	622-96-8	
Trichlorofluoromethane	2.55	ug/m3	1.12	0.460	1	04/27/21 15:00	04/27/21 15:00	75-69-4	
Dichlorodifluoromethane	3.06	ug/m3	0.989	0.678	1	04/27/21 15:00	04/27/21 15:00	75-71-8	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.53	0.608	1	04/27/21 15:00	04/27/21 15:00	76-13-1	
Dichlorotetrafluoroethane	ND	ug/m3	1.40	0.622	1	04/27/21 15:00	04/27/21 15:00	76-14-2	
n-Heptane	ND	ug/m3	0.818	0.425	1	04/27/21 15:00	04/27/21 15:00	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	6.73	1.12	1	04/27/21 15:00	04/27/21 15:00	87-68-3	
n-Hexane	1.50J	ug/m3	2.22	0.726	1	04/27/21 15:00	04/27/21 15:00	110-54-3	J
Isopropylbenzene (Cumene)	ND	ug/m3	0.983	0.382	1	04/27/21 15:00	04/27/21 15:00	98-82-8	
Methylene Chloride	0.472J	ug/m3	0.694	0.340	1	04/27/21 15:00	04/27/21 15:00	75-09-2	J
2-Hexanone	ND	ug/m3	5.11	0.544	1	04/27/21 15:00	04/27/21 15:00	591-78-6	
2-Butanone (MEK)	0.840J	ug/m3	3.69	0.240	1	04/27/21 15:00	04/27/21 15:00	78-93-3	J

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: City of Bristol

Pace Project No.: 92535070

Sample: First Southwest 6 Arc		Lab ID: 92535070001		Collected: 04/21/21 13:49		Received: 04/24/21 09:30		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	04/27/21 15:00	04/27/21 15:00	108-10-1	
Methyl methacrylate	ND	ug/m3	0.819	0.359	1	04/27/21 15:00	04/27/21 15:00	80-62-6	
Methyl-tert-butyl ether	ND	ug/m3	0.721	0.233	1	04/27/21 15:00	04/27/21 15:00	1634-04-4	
Naphthalene	ND	ug/m3	3.30	1.83	1	04/27/21 15:00	04/27/21 15:00	91-20-3	
2-Propanol	7.15	ug/m3	3.07	0.649	1	04/27/21 15:00	04/27/21 15:00	67-63-0	
Propylene	ND	ug/m3	0.689	0.160	1	04/27/21 15:00	04/27/21 15:00	115-07-1	R1
Styrene	0.489J	ug/m3	0.851	0.335	1	04/27/21 15:00	04/27/21 15:00	100-42-5	J
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.37	0.511	1	04/27/21 15:00	04/27/21 15:00	79-34-5	
Tetrachloroethene	ND	ug/m3	1.36	0.553	1	04/27/21 15:00	04/27/21 15:00	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.590	0.216	1	04/27/21 15:00	04/27/21 15:00	109-99-9	
Toluene	1.06J	ug/m3	1.88	0.328	1	04/27/21 15:00	04/27/21 15:00	108-88-3	J
1,2,4-Trichlorobenzene	ND	ug/m3	4.66	1.10	1	04/27/21 15:00	04/27/21 15:00	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.09	0.400	1	04/27/21 15:00	04/27/21 15:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1.09	0.422	1	04/27/21 15:00	04/27/21 15:00	79-00-5	
Trichloroethene	1.07J	ug/m3	1.07	0.364	1	04/27/21 15:00	04/27/21 15:00	79-01-6	J
1,2,4-Trimethylbenzene	ND	ug/m3	0.982	0.375	1	04/27/21 15:00	04/27/21 15:00	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	0.982	0.382	1	04/27/21 15:00	04/27/21 15:00	108-67-8	
2,2,4-Trimethylpentane	ND	ug/m3	0.934	0.621	1	04/27/21 15:00	04/27/21 15:00	540-84-1	
Vinyl chloride	ND	ug/m3	0.511	0.243	1	04/27/21 15:00	04/27/21 15:00	75-01-4	
Vinyl bromide	ND	ug/m3	0.875	0.373	1	04/27/21 15:00	04/27/21 15:00	593-60-2	
Vinyl acetate	ND	ug/m3	0.704	0.408	1	04/27/21 15:00	04/27/21 15:00	108-05-4	
m&p-Xylene	ND	ug/m3	1.73	0.585	1	04/27/21 15:00	04/27/21 15:00	179601-23-1	
o-Xylene	ND	ug/m3	0.867	0.359	1	04/27/21 15:00	04/27/21 15:00	95-47-6	
Surrogates									
1,4-Dichlorobenzene-d4 (IS)	98.0	%	60.0-140		1	04/27/21 15:00	04/27/21 15:00	3855-82-1	

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QUALITY CONTROL DATA

Project: City of Bristol
Pace Project No.: 92535070

QC Batch:	1659424	Analysis Method:	TO-15
QC Batch Method:	TO-15	Analysis Description:	VOA (MS) TO-15
		Laboratory:	Pace National - Mt. Juliet

Associated Lab Samples: 92535070001

METHOD BLANK: R3647451-3 Matrix: Air
Associated Lab Samples: 92535070001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acetone	ppbv	ND	1.25	0.584	04/27/21 09:39	
Allyl chloride	ppbv	ND	0.200	0.114	04/27/21 09:39	
Benzene	ppbv	ND	0.200	0.0715	04/27/21 09:39	
Benzyl chloride	ppbv	ND	0.200	0.0598	04/27/21 09:39	
Bromodichloromethane	ppbv	ND	0.200	0.0702	04/27/21 09:39	
Bromoform	ppbv	ND	0.600	0.0732	04/27/21 09:39	
Bromomethane	ppbv	ND	0.200	0.0982	04/27/21 09:39	
1,3-Butadiene	ppbv	ND	2.00	0.104	04/27/21 09:39	
Carbon disulfide	ppbv	ND	0.200	0.102	04/27/21 09:39	
Carbon tetrachloride	ppbv	ND	0.200	0.0732	04/27/21 09:39	
Chlorobenzene	ppbv	ND	0.200	0.0832	04/27/21 09:39	
Chloroethane	ppbv	ND	0.200	0.0996	04/27/21 09:39	
Chloroform	ppbv	ND	0.200	0.0717	04/27/21 09:39	
Chloromethane	ppbv	ND	0.200	0.103	04/27/21 09:39	
2-Chlorotoluene	ppbv	ND	0.200	0.0828	04/27/21 09:39	
Cyclohexane	ppbv	ND	0.200	0.0753	04/27/21 09:39	
Dibromochloromethane	ppbv	ND	0.200	0.0727	04/27/21 09:39	
1,2-Dibromoethane (EDB)	ppbv	ND	0.200	0.0721	04/27/21 09:39	
1,2-Dichlorobenzene	ppbv	ND	0.200	0.128	04/27/21 09:39	
1,3-Dichlorobenzene	ppbv	ND	0.200	0.182	04/27/21 09:39	
1,4-Dichlorobenzene	ppbv	ND	0.200	0.0557	04/27/21 09:39	
1,2-Dichloroethane	ppbv	ND	0.200	0.0700	04/27/21 09:39	
1,1-Dichloroethane	ppbv	ND	0.200	0.0723	04/27/21 09:39	
1,1-Dichloroethene	ppbv	ND	0.200	0.0762	04/27/21 09:39	
cis-1,2-Dichloroethene	ppbv	ND	0.200	0.0784	04/27/21 09:39	
trans-1,2-Dichloroethene	ppbv	ND	0.200	0.0673	04/27/21 09:39	
1,2-Dichloropropane	ppbv	ND	0.200	0.0760	04/27/21 09:39	
cis-1,3-Dichloropropene	ppbv	ND	0.200	0.0689	04/27/21 09:39	
trans-1,3-Dichloropropene	ppbv	ND	0.200	0.0728	04/27/21 09:39	
1,4-Dioxane (p-Dioxane)	ppbv	ND	0.200	0.0833	04/27/21 09:39	
Ethylbenzene	ppbv	ND	0.200	0.0835	04/27/21 09:39	
4-Ethyltoluene	ppbv	ND	0.200	0.0783	04/27/21 09:39	
Trichlorofluoromethane	ppbv	ND	0.200	0.0819	04/27/21 09:39	
Dichlorodifluoromethane	ppbv	ND	0.200	0.137	04/27/21 09:39	
1,1,2-Trichlorotrifluoroethane	ppbv	ND	0.200	0.0793	04/27/21 09:39	
Dichlorotetrafluoroethane	ppbv	ND	0.200	0.0890	04/27/21 09:39	
n-Heptane	ppbv	ND	0.200	0.104	04/27/21 09:39	
Hexachloro-1,3-butadiene	ppbv	ND	0.630	0.105	04/27/21 09:39	
n-Hexane	ppbv	ND	0.630	0.206	04/27/21 09:39	
Isopropylbenzene (Cumene)	ppbv	ND	0.200	0.0777	04/27/21 09:39	

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.: 92535070

METHOD BLANK: R3647451-3
Associated Lab Samples: 92535070001

Matrix: Air

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methylene Chloride	ppbv	ND	0.200	0.0979	04/27/21 09:39	
2-Hexanone	ppbv	ND	1.25	0.133	04/27/21 09:39	
2-Butanone (MEK)	ppbv	ND	1.25	0.0814	04/27/21 09:39	
4-Methyl-2-pentanone (MIBK)	ppbv	ND	1.25	0.0765	04/27/21 09:39	
Methyl methacrylate	ppbv	ND	0.200	0.0876	04/27/21 09:39	
Methyl-tert-butyl ether	ppbv	ND	0.200	0.0647	04/27/21 09:39	
Naphthalene	ppbv	ND	0.630	0.350	04/27/21 09:39	
2-Propanol	ppbv	ND	1.25	0.264	04/27/21 09:39	
Propylene	ppbv	0.403	0.400	0.0932	04/27/21 09:39	
Styrene	ppbv	ND	0.200	0.0788	04/27/21 09:39	
1,1,2,2-Tetrachloroethane	ppbv	ND	0.200	0.0743	04/27/21 09:39	
Tetrachloroethene	ppbv	ND	0.200	0.0814	04/27/21 09:39	
Tetrahydrofuran	ppbv	ND	0.200	0.0734	04/27/21 09:39	
Toluene	ppbv	ND	0.500	0.0870	04/27/21 09:39	
1,2,4-Trichlorobenzene	ppbv	ND	0.630	0.148	04/27/21 09:39	
1,1,1-Trichloroethane	ppbv	ND	0.200	0.0736	04/27/21 09:39	
1,1,2-Trichloroethane	ppbv	ND	0.200	0.0775	04/27/21 09:39	
Trichloroethene	ppbv	ND	0.200	0.0680	04/27/21 09:39	
1,2,4-Trimethylbenzene	ppbv	ND	0.200	0.0764	04/27/21 09:39	
1,3,5-Trimethylbenzene	ppbv	ND	0.200	0.0779	04/27/21 09:39	
2,2,4-Trimethylpentane	ppbv	ND	0.200	0.133	04/27/21 09:39	
Vinyl chloride	ppbv	ND	0.200	0.0949	04/27/21 09:39	
Vinyl bromide	ppbv	ND	0.200	0.0852	04/27/21 09:39	
Vinyl acetate	ppbv	ND	0.200	0.116	04/27/21 09:39	
m&p-Xylene	ppbv	ND	0.400	0.135	04/27/21 09:39	
o-Xylene	ppbv	ND	0.200	0.0828	04/27/21 09:39	
Ethanol	ppbv	0.378J	0.630	0.265	04/27/21 09:39	J
Gasoline Range Organics	ppbv	ND	200	39.7	04/27/21 09:39	
1,4-Dichlorobenzene-d4 (IS)	%	100	60.0-140		04/27/21 09:39	

LABORATORY CONTROL SAMPLE & LCSD: R3647451-1

R3647451-2

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethanol	ppbv	3.75	4.56	4.36	122	116	55.0-148	4.48	25	
Propylene	ppbv	3.75	2.62	3.98	69.9	106	64.0-144	41.2	25	R1
Dichlorodifluoromethane	ppbv	3.75	4.20	4.08	112	109	64.0-139	2.90	25	
Dichlorotetrafluoroethane	ppbv	3.75	4.21	4.17	112	111	70.0-130	0.955	25	
Chloromethane	ppbv	3.75	4.51	4.22	120	113	70.0-130	6.64	25	
Vinyl chloride	ppbv	3.75	4.21	4.28	112	114	70.0-130	1.65	25	
1,3-Butadiene	ppbv	3.75	3.94	4.02	105	107	70.0-130	2.01	25	
Bromomethane	ppbv	3.75	4.20	4.20	112	112	70.0-130	0.00	25	
Chloroethane	ppbv	3.75	4.25	4.21	113	112	70.0-130	0.946	25	
Trichlorofluoromethane	ppbv	3.75	4.13	4.12	110	110	70.0-130	0.242	25	
1,1,2-Trichlorotrifluoroethane	ppbv	3.75	4.30	4.28	115	114	70.0-130	0.466	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: City of Bristol
Pace Project No.: 92535070

LABORATORY CONTROL SAMPLE & LCSD: R3647451-1			R3647451-2							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1-Dichloroethene	ppbv	3.75	4.23	4.21	113	112	70.0-130	0.474	25	
1,1-Dichloroethane	ppbv	3.75	4.40	4.40	117	117	70.0-130	0.00	25	
Acetone	ppbv	3.75	4.18	4.12	111	110	70.0-130	1.45	25	
2-Propanol	ppbv	3.75	4.39	4.30	117	115	70.0-139	2.07	25	
Carbon disulfide	ppbv	3.75	4.34	4.29	116	114	70.0-130	1.16	25	
Methylene Chloride	ppbv	3.75	4.23	4.12	113	110	70.0-130	2.63	25	
Methyl-tert-butyl ether	ppbv	3.75	4.34	4.34	116	116	70.0-130	0.00	25	
trans-1,2-Dichloroethene	ppbv	3.75	4.29	4.27	114	114	70.0-130	0.467	25	
n-Hexane	ppbv	3.75	4.51	4.44	120	118	70.0-130	1.56	25	
Vinyl acetate	ppbv	3.75	3.85	3.89	103	104	70.0-130	1.03	25	
2-Butanone (MEK)	ppbv	3.75	4.31	4.48	115	119	70.0-130	3.87	25	
cis-1,2-Dichloroethene	ppbv	3.75	4.35	4.36	116	116	70.0-130	0.230	25	
Chloroform	ppbv	3.75	4.23	4.27	113	114	70.0-130	0.941	25	
Cyclohexane	ppbv	3.75	4.20	4.54	112	121	70.0-130	7.78	25	
1,1,1-Trichloroethane	ppbv	3.75	4.04	4.22	108	113	70.0-130	4.36	25	
Carbon tetrachloride	ppbv	3.75	3.86	4.16	103	111	70.0-130	7.48	25	
Benzene	ppbv	3.75	4.32	4.52	115	121	70.0-130	4.52	25	
1,2-Dichloroethane	ppbv	3.75	4.03	4.11	107	110	70.0-130	1.97	25	
n-Heptane	ppbv	3.75	4.39	4.61	117	123	70.0-130	4.89	25	
Trichloroethene	ppbv	3.75	4.18	4.29	111	114	70.0-130	2.60	25	
1,2-Dichloropropane	ppbv	3.75	4.27	4.52	114	121	70.0-130	5.69	25	
1,4-Dioxane (p-Dioxane)	ppbv	3.75	4.41	4.57	118	122	70.0-140	3.56	25	
Bromodichloromethane	ppbv	3.75	4.26	4.34	114	116	70.0-130	1.86	25	
cis-1,3-Dichloropropene	ppbv	3.75	4.25	4.46	113	119	70.0-130	4.82	25	
4-Methyl-2-pentanone (MIBK)	ppbv	3.75	4.39	4.66	117	124	70.0-139	5.97	25	
Toluene	ppbv	3.75	4.34	4.42	116	118	70.0-130	1.83	25	
trans-1,3-Dichloropropene	ppbv	3.75	4.24	4.39	113	117	70.0-130	3.48	25	
1,1,2-Trichloroethane	ppbv	3.75	4.42	4.52	118	121	70.0-130	2.24	25	
Tetrachloroethene	ppbv	3.75	4.30	4.26	115	114	70.0-130	0.935	25	
2-Hexanone	ppbv	3.75	4.60	4.92	123	131	70.0-149	6.72	25	
Dibromochloromethane	ppbv	3.75	4.30	4.27	115	114	70.0-130	0.700	25	
1,2-Dibromoethane (EDB)	ppbv	3.75	4.35	4.45	116	119	70.0-130	2.27	25	
Chlorobenzene	ppbv	3.75	4.23	4.36	113	116	70.0-130	3.03	25	
Ethylbenzene	ppbv	3.75	4.26	4.33	114	115	70.0-130	1.63	25	
m&p-Xylene	ppbv	7.50	8.68	8.77	116	117	70.0-130	1.03	25	
o-Xylene	ppbv	3.75	4.25	4.32	113	115	70.0-130	1.63	25	
Styrene	ppbv	3.75	4.46	4.53	119	121	70.0-130	1.56	25	
Bromoform	ppbv	3.75	4.05	4.06	108	108	70.0-130	0.247	25	
1,1,2,2-Tetrachloroethane	ppbv	3.75	4.16	4.33	111	115	70.0-130	4.00	25	
4-Ethyltoluene	ppbv	3.75	4.36	4.38	116	117	70.0-130	0.458	25	
1,3,5-Trimethylbenzene	ppbv	3.75	4.17	4.28	111	114	70.0-130	2.60	25	
1,2,4-Trimethylbenzene	ppbv	3.75	4.28	4.33	114	115	70.0-130	1.16	25	
1,3-Dichlorobenzene	ppbv	3.75	4.50	4.55	120	121	70.0-130	1.10	25	
1,4-Dichlorobenzene	ppbv	3.75	4.61	4.65	123	124	70.0-130	0.864	25	
Benzyl chloride	ppbv	3.75	3.88	3.91	103	104	70.0-152	0.770	25	
1,2-Dichlorobenzene	ppbv	3.75	4.34	4.35	116	116	70.0-130	0.230	25	
1,2,4-Trichlorobenzene	ppbv	3.75	3.84	3.77	102	101	70.0-160	1.84	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: City of Bristol

Pace Project No.: 92535070

LABORATORY CONTROL SAMPLE & LCSD: R3647451-1			R3647451-2							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Hexachloro-1,3-butadiene	ppbv	3.75	4.01	3.94	107	105	70.0-151	1.76	25	
Naphthalene	ppbv	3.75	4.32	4.16	115	111	70.0-159	3.77	25	
Gasoline Range Organics	ppbv	203	220	223	108	110	70.0-130	1.35	25	
Allyl chloride	ppbv	3.75	4.63	4.02	123	107	70.0-130	14.1	25	
2-Chlorotoluene	ppbv	3.75	4.17	4.32	111	115	70.0-130	3.53	25	
Methyl methacrylate	ppbv	3.75	4.28	4.46	114	119	70.0-130	4.12	25	
Tetrahydrofuran	ppbv	3.75	4.30	4.54	115	121	70.0-137	5.43	25	
2,2,4-Trimethylpentane	ppbv	3.75	4.04	4.64	108	124	70.0-130	13.8	25	
Vinyl bromide	ppbv	3.75	4.24	4.24	113	113	70.0-130	0.00	25	
Isopropylbenzene (Cumene)	ppbv	3.75	4.27	4.33	114	115	70.0-130	1.40	25	
1,4-Dichlorobenzene-d4 (IS)	%				101	99.4	60.0-140			

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: City of Bristol
Pace Project No.: 92535070

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.

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.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: City of Bristol

Pace Project No.: 92535070

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92535070001	First Southwest 6 Arc	TO-15	1659424	TO-15	1659424

REPORT OF LABORATORY ANALYSIS

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Company Name/Address:
Pace Analytical - Atlanta, GA

**110 Technology Pky
Peachtree Corners, GA 30092**

Report to:

Ryan Brumfield

Project Description:
City of Bristol

Phone: 770-734-4200

Collected by (print):
Franklin D Cochran

Collected by (signature):
[Signature]

Immediately Packed on Ice N ☒ Y ☐

Sample ID

First South West 6002

Comp/Grab

Matrix *

Depth

Date

Time

Cnts

No. of

Date Results Needed

Quote #

Rush? (Lab MUST Be Notified)

Same Day ☐ Five Day ☐
Next Day ☐ 5 Day (Rad Only) ☐
Three Day ☐ 10 Day (Rad Only) ☐

Site/Facility ID #

P.O. #

Air

Air

4/21/21

1:44pm

1

X

X

X

X

X

X

X

X

Remarks:

SS - Soil ☒ F - Filter

GW - Groundwater ☐ B - Biossay

WW - Wastewater ☐

DW - Drinking Water ☐

OT - Other ☐

Relinquished by: (Signature)

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MO#: 92535070
92535070

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the terms and conditions of the chain of custody. For more information, please visit: www.pacelabs.com/public/pacsstandards/terms.pdf

SDG # **1543703**

M122

Account: **PACEAGA**

Template: **T184093**

Prelogin: **P841844**

PM: 844 - Christl M Wagner

PB: **CSG 04/19/21**

Shipped Via: **FedEx Ground**

Remarks: **Sample # (lab only)**

92535070 - 01

- 001

92535070 - 01

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92535070 - 01

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