

May 13, 2019

Joe Sampson  
City of Urbana  
416 Taft Ave  
Urbana, OH 43078

RE: Project: RC2\_UCMR4\_SE2\_FEB2019  
Pace Project No.: 35466348

Dear Joe Sampson:

Enclosed are the analytical results for sample(s) received by the laboratory on May 07, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Aaron Crump  
aaron.crump@pacelabs.com  
(386) 672-5668  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## CERTIFICATIONS

Project: RC2\_UCMR4\_SE2\_FEB2019  
Pace Project No.: 35466348

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### Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174  
Alaska DEC- CS/UST/LUST  
Alabama Certification #: 41320  
Arizona Certification# AZ0819  
Colorado Certification: FL NELAC Reciprocity  
Connecticut Certification #: PH-0216  
Delaware Certification: FL NELAC Reciprocity  
Florida Certification #: E83079  
Georgia Certification #: 955  
Guam Certification: FL NELAC Reciprocity  
Hawaii Certification: FL NELAC Reciprocity  
Illinois Certification #: 200068  
Indiana Certification: FL NELAC Reciprocity  
Kansas Certification #: E-10383  
Kentucky Certification #: 90050  
Louisiana Certification #: FL NELAC Reciprocity  
Louisiana Environmental Certificate #: 05007  
Maryland Certification: #346  
Michigan Certification #: 9911  
Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236  
Montana Certification #: Cert 0074  
Nebraska Certification: NE-OS-28-14  
New Hampshire Certification #: 2958  
New Jersey Certification #: FL022  
New York Certification #: 11608  
North Carolina Environmental Certificate #: 667  
North Carolina Certification #: 12710  
North Dakota Certification #: R-216  
Oklahoma Certification #: D9947  
Pennsylvania Certification #: 68-00547  
Puerto Rico Certification #: FL01264  
South Carolina Certification: #96042001  
Tennessee Certification #: TN02974  
Texas Certification: FL NELAC Reciprocity  
US Virgin Islands Certification: FL NELAC Reciprocity  
Virginia Environmental Certification #: 460165  
West Virginia Certification #: 9962C  
Wisconsin Certification #: 399079670  
Wyoming (EPA Region 8): FL NELAC Reciprocity

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: RC2\_UCMR4\_SE2\_FEB2019  
Pace Project No.: 35466348

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
35466348001	EP - Urbana WTP 3	Drinking Water	05/06/19 07:45	05/07/19 11:00

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: RC2\_UCMR4\_SE2\_FEB2019  
Pace Project No.: 35466348

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Lab ID	Sample ID	Method	Analysts	Analytes Reported
35466348001	EP - Urbana WTP 3	EPA 541	CMB	4

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: RC2\_UCMR4\_SE2\_FEB2019  
Pace Project No.: 35466348

**Sample: EP - Urbana WTP 3**      **Lab ID: 35466348001**      Collected: 05/06/19 07:45      Received: 05/07/19 11:00      Matrix: Drinking Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>541 UCMR4 Alcohols</b>		Analytical Method: EPA 541      Preparation Method: EPA 541							
n-Butanol	<b>0.67U</b>	ug/L	2.0	0.67	1	05/09/19 15:30	05/12/19 03:50	71-36-3	N2
2-Methoxyethanol	<b>0.13U</b>	ug/L	0.40	0.13	1	05/09/19 15:30	05/12/19 03:50	109-86-4	N2
2-Propen-1-ol (Allyl alcohol)	<b>0.17U</b>	ug/L	0.50	0.17	1	05/09/19 15:30	05/12/19 03:50	107-18-6	N2
<b>Surrogates</b>									
n-Butanol-d10 (S)	92	%	70-130		1	05/09/19 15:30	05/12/19 03:50	34193-38-9	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: RC2\_UCMR4\_SE2\_FEB2019  
Pace Project No.: 35466348

QC Batch: 537381 Analysis Method: EPA 541  
QC Batch Method: EPA 541 Analysis Description: 541 UCMR4 Alcohols  
Associated Lab Samples: 35466348001

METHOD BLANK: 2911651 Matrix: Water  
Associated Lab Samples: 35466348001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
2-Methoxyethanol	ug/L	0.13U	0.40	0.13	05/11/19 20:31	N2
2-Propen-1-ol (Allyl alcohol)	ug/L	0.17U	0.50	0.17	05/11/19 20:31	N2
n-Butanol	ug/L	0.67U	2.0	0.67	05/11/19 20:31	N2
n-Butanol-d10 (S)	%	91	70-130		05/11/19 20:31	

LABORATORY CONTROL SAMPLE: 2911652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Methoxyethanol	ug/L	0.4	0.34J	86	50-150	N2
2-Propen-1-ol (Allyl alcohol)	ug/L	0.5	0.40J	80	50-150	N2
n-Butanol	ug/L	2	1.7J	87	50-150	N2
n-Butanol-d10 (S)	%			91	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2911776 2911777

Parameter	Units	7087507005		2911777		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
2-Methoxyethanol	ug/L	<0.40	1.6	1.6	1.4	87	93	0-200	7	40	N2
2-Propen-1-ol (Allyl alcohol)	ug/L	<0.50	2	2	2.0	98	104	0-200	6	40	N2
n-Butanol	ug/L	<2.0	8	8	7.5	94	97	0-200	2	40	N2
n-Butanol-d10 (S)	%					89	93	70-130			

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.

**REPORT OF LABORATORY ANALYSIS**

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## QUALIFIERS

Project: RC2\_UCMR4\_SE2\_FEB2019  
Pace Project No.: 35466348

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### 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.  
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

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: RC2\_UCMR4\_SE2\_FEB2019

Pace Project No.: 35466348

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35466348001	EP - Urbana WTP 3	EPA 541	537381	EPA 541	537621

**REPORT OF LABORATORY ANALYSIS**

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WO#: 35466348



35466348

**CHAIN-OF-CUSTODY / Analytical Request Document**

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

**Section A**  
 Required Client Information:  
 Company: City of Urbana UCMR4  
 Address: 416 Taft Ave  
 Urbana, OH 43078  
 Email:  
 Phone:  
 Fax:  
 Requested Due Date:

**Section C**  
 Invoice Information:  
 Attention: Joe Sampson  
 Company Name:  
 Address:  
 Pace Quote:  
 Pace Project Manager: meghan.hill@pacelabs.com  
 Pace Profile #: 10772

**Section D**  
 Report To: Joe Sampson  
 Copy To:  
 Purchase Order #: RC2\_UCMR4\_SE2\_FEB2019  
 Project Name:  
 Project #:

**Section E**  
 Regulatory Agency:  
 State / Location: OH

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		DATE	TIME	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on	Custody Sealed (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)	
			START	END													
1	EP - Urbana WTP 3	WT	5/6	745	5/6	745											
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

**ADDITIONAL COMMENTS**  
 PWS: CH1101212 / City of Urbana  
 RELINQUISHED BY / AFFILIATION: ACL  
 DATE: 4-9-19  
 TIME: 6:00  
 ACCEPTED BY / AFFILIATION: Joe Sampson  
 DATE: 5-6-19  
 TIME: 11:00  
 SAMPLE CONDITIONS: NA Y Y K

**SAMPLER NAME AND SIGNATURE**  
 PRINT Name of SAMPLER: Joe Sampson  
 SIGNATURE of SAMPLER: [Signature]

DATE Signed: 5-6-19





March 18, 2019

Joe Sampson  
City of Urbana  
416 Taft Ave  
Urbana, OH 43078

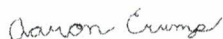
RE: Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

Dear Joe Sampson:

Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Aaron Crump  
aaron.crump@pacelabs.com  
(386) 672-5668  
Project Manager

Enclosures



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## CERTIFICATIONS

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

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### Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alabama Certification #: 41320

Colorado Certification: FL NELAC Reciprocity

Connecticut Certification #: PH-0216

Florida Certification #: E83079

Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity

Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Kentucky Certification #: 90050

Louisiana Certification #: FL NELAC Reciprocity

Louisiana Environmental Certificate #: 05007

Maryland Certification: #346

Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236

Montana Certification #: Cert 0074

Nebraska Certification: NE-OS-28-14

New Hampshire Certification #: 2958

New Jersey Certification #: FL022

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710

North Dakota Certification #: R-216

Oklahoma Certification #: D9947

Pennsylvania Certification #: 68-00547

Puerto Rico Certification #: FL01264

South Carolina Certification: #96042001

Tennessee Certification #: TN02974

Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity

Virginia Environmental Certification #: 460165

West Virginia Certification #: 9962C

Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

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## REPORT OF LABORATORY ANALYSIS

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**SAMPLE SUMMARY**

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35450826001	EP- Urbana WTP 2	Drinking Water	02/27/19 09:45	02/28/19 10:40
35450826002	EP- Urbana WTP 3	Drinking Water	02/27/19 10:30	02/28/19 10:40
35450826003	SR-Raw 8	Drinking Water	02/27/19 08:10	02/28/19 10:40
35450826004	SR-Raw 9	Drinking Water	02/27/19 09:45	02/28/19 10:40
35450826005	SR-SR 29 Combined	Drinking Water	02/27/19 09:00	02/28/19 10:40
35450826006	DS-1579 E 29	Drinking Water	02/27/19 08:30	02/28/19 10:40
35450826007	DS-1840 E 36	Drinking Water	02/27/19 08:16	02/28/19 10:40

**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE ANALYTE COUNT

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

Lab ID	Sample ID	Method	Analysts	Analytes Reported
35450826001	EP- Urbana WTP 2	EPA 525.3	SWR	12
		EPA 530	CMB	5
		EPA 541	CMB	4
		EPA 200.8	CRT	2
35450826002	EP- Urbana WTP 3	EPA 525.3	SWR	12
		EPA 530	CMB	5
		EPA 200.8	CRT	2
35450826003	SR-Raw 8	EPA 300.1	JWH	1
		SM 5310B	FGF	1
35450826004	SR-Raw 9	EPA 300.1	JWH	1
		SM 5310B	FGF	1
35450826005	SR-SR 29 Combined	EPA 300.1	JWH	1
		SM 5310B	FGF	1
35450826006	DS-1579 E 29	EPA 552.3	MMB	13
35450826007	DS-1840 E 36	EPA 552.3	MMB	13

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: UCMR4\_SE2\_FEB2019

Pace Project No.: 35450826

**Sample: EP- Urbana WTP 2**      **Lab ID: 35450826001**      Collected: 02/27/19 09:45      Received: 02/28/19 10:40      Matrix: Drinking Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>525.3 UCMR4</b>									
Analytical Method: EPA 525.3 Preparation Method: EPA 525.3									
alpha-BHC	<b>0.0033U</b>	ug/L	0.0099	0.0033	1	03/13/19 07:49	03/14/19 11:46	319-84-6	N2
Chlorpyrifos	<b>0.0099U</b>	ug/L	0.030	0.0099	1	03/13/19 07:49	03/14/19 11:46	2921-88-2	N2
Dimethipin	<b>0.067U</b>	ug/L	0.20	0.067	1	03/13/19 07:49	03/14/19 11:46	55290-64-7	N2
Ethoprop	<b>0.0099U</b>	ug/L	0.030	0.0099	1	03/13/19 07:49	03/14/19 11:46	13194-48-4	N2
Merphos-Oxone	<b>0.023U</b>	ug/L	0.070	0.023	1	03/13/19 07:49	03/14/19 11:46	78-48-8	N2
Oxyfluorfen	<b>0.017U</b>	ug/L	0.050	0.017	1	03/13/19 07:49	03/14/19 11:46	42874-03-3	N2
Permethrin	<b>0.013U</b>	ug/L	0.040	0.013	1	03/13/19 07:49	03/14/19 11:46	52645-53-1	N2
Profenofos	<b>0.099U</b>	ug/L	0.30	0.099	1	03/13/19 07:49	03/14/19 11:46	41198-08-7	N2
Tebuconazole	<b>0.067U</b>	ug/L	0.20	0.067	1	03/13/19 07:49	03/14/19 11:46	107534-96-3	N2
<b>Surrogates</b>									
1,3-Dimethyl-2-nitrobenzene(S)	93	%	70-130		1	03/13/19 07:49	03/14/19 11:46	81209	
Benzo(a)pyrene-d12 (S)	93	%	70-130		1	03/13/19 07:49	03/14/19 11:46		
Triphenylphosphate (S)	93	%	70-130		1	03/13/19 07:49	03/14/19 11:46	115-86-6	
<b>530 UCMR4 Semivolatiles</b>									
Analytical Method: EPA 530 Preparation Method: EPA 530									
Butylated Hydroxyanisole	<b>0.0097U</b>	ug/L	0.029	0.0097	1	03/08/19 07:05	03/12/19 22:53	25013-16-5	N2
Quinoline	<b>0.0065U</b>	ug/L	0.019	0.0065	1	03/08/19 07:05	03/12/19 22:53	91-22-5	N2
O-Toluidine	<b>0.0022U</b>	ug/L	0.0068	0.0022	1	03/08/19 07:05	03/12/19 22:53	95-53-4	N2
<b>Surrogates</b>									
Quinoline -d7 (S)	93	%	70-130		1	03/08/19 07:05	03/12/19 22:53	34071-94-8	
O-Toluidine-d9 (S)	70	%	50-130		1	03/08/19 07:05	03/12/19 22:53	194423-47-7	
<b>541 UCMR4 Alcohols</b>									
Analytical Method: EPA 541 Preparation Method: EPA 541									
n-Butanol	<b>0.67U</b>	ug/L	2.0	0.67	1	03/08/19 14:17	03/10/19 10:11	71-36-3	N2
2-Methoxyethanol	<b>0.13U</b>	ug/L	0.40	0.13	1	03/08/19 14:17	03/10/19 10:11	109-86-4	N2
2-Propen-1-ol (Allyl alcohol)	<b>0.17U</b>	ug/L	0.50	0.17	1	03/08/19 14:17	03/10/19 10:11	107-18-6	N2
<b>Surrogates</b>									
n-Butanol-d10 (S)	85	%	70-130		1	03/08/19 14:17	03/10/19 10:11	34193-38-9	
<b>200.8 MET ICPMS UCMR</b>									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8									
Germanium	<b>0.10U</b>	ug/L	0.30	0.10	1.25	03/05/19 06:42	03/07/19 20:03	7440-56-4	N2
Manganese	<b>0.13U</b>	ug/L	0.40	0.13	1.25	03/05/19 06:42	03/07/19 20:03	7439-96-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

**Sample: EP- Urbana WTP 3**      **Lab ID: 35450826002**      Collected: 02/27/19 10:30      Received: 02/28/19 10:40      Matrix: Drinking Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>525.3 UCMR4</b>									
Analytical Method: EPA 525.3 Preparation Method: EPA 525.3									
alpha-BHC	<b>0.0032U</b>	ug/L	0.0097	0.0032	1	03/13/19 07:49	03/14/19 12:51	319-84-6	N2
Chlorpyrifos	<b>0.0097U</b>	ug/L	0.029	0.0097	1	03/13/19 07:49	03/14/19 12:51	2921-88-2	N2
Dimethipin	<b>0.065U</b>	ug/L	0.19	0.065	1	03/13/19 07:49	03/14/19 12:51	55290-64-7	N2
Ethoprop	<b>0.0097U</b>	ug/L	0.029	0.0097	1	03/13/19 07:49	03/14/19 12:51	13194-48-4	N2
Merphos-Oxone	<b>0.022U</b>	ug/L	0.068	0.022	1	03/13/19 07:49	03/14/19 12:51	78-48-8	N2
Oxyfluorfen	<b>0.016U</b>	ug/L	0.049	0.016	1	03/13/19 07:49	03/14/19 12:51	42874-03-3	N2
Permethrin	<b>0.013U</b>	ug/L	0.039	0.013	1	03/13/19 07:49	03/14/19 12:51	52645-53-1	N2
Profenofos	<b>0.097U</b>	ug/L	0.29	0.097	1	03/13/19 07:49	03/14/19 12:51	41198-08-7	N2
Tebuconazole	<b>0.065U</b>	ug/L	0.19	0.065	1	03/13/19 07:49	03/14/19 12:51	107534-96-3	N2
<b>Surrogates</b>									
1,3-Dimethyl-2-nitrobenzene(S)	88	%	70-130		1	03/13/19 07:49	03/14/19 12:51	81209	
Benzo(a)pyrene-d12 (S)	99	%	70-130		1	03/13/19 07:49	03/14/19 12:51		
Triphenylphosphate (S)	95	%	70-130		1	03/13/19 07:49	03/14/19 12:51	115-86-6	
<b>530 UCMR4 Semivolatiles</b>									
Analytical Method: EPA 530 Preparation Method: EPA 530									
Butylated Hydroxyanisole	<b>0.0096U</b>	ug/L	0.029	0.0096	1	03/08/19 07:05	03/12/19 23:17	25013-16-5	N2
Quinoline	<b>0.0065U</b>	ug/L	0.019	0.0065	1	03/08/19 07:05	03/12/19 23:17	91-22-5	N2
O-Toluidine	<b>0.0022U</b>	ug/L	0.0067	0.0022	1	03/08/19 07:05	03/12/19 23:17	95-53-4	N2
<b>Surrogates</b>									
Quinoline -d7 (S)	92	%	70-130		1	03/08/19 07:05	03/12/19 23:17	34071-94-8	
O-Toluidine-d9 (S)	64	%	50-130		1	03/08/19 07:05	03/12/19 23:17	194423-47-7	
<b>200.8 MET ICPMS UCMR</b>									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8									
Germanium	<b>0.10J</b>	ug/L	0.30	0.10	1.25	03/05/19 06:42	03/07/19 18:55	7440-56-4	N2
Manganese	<b>22.1</b>	ug/L	1.6	0.53	5	03/05/19 06:42	03/07/19 19:38	7439-96-5	D4

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### ANALYTICAL RESULTS

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

Sample: SR-Raw 8      Lab ID: 35450826003      Collected: 02/27/19 08:10      Received: 02/28/19 10:40      Matrix: Drinking Water									
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.1 Oxihalide IC Anions 28d</b>	Analytical Method: EPA 300.1								
Bromide	<b>34.7J</b>	ug/L	80.0	3.6	4		03/07/19 17:31	24959-67-9	
<b>5310B TOC UCMR</b>	Analytical Method: SM 5310B								
Total Organic Carbon	<b>500U</b>	ug/L	1000	500	1		03/04/19 21:28	7440-44-0	

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### ANALYTICAL RESULTS

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

**Sample: SR-Raw 9**      **Lab ID: 35450826004**      Collected: 02/27/19 09:45      Received: 02/28/19 10:40      Matrix: Drinking Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.1 Oxihalide IC Anions 28d</b>	Analytical Method: EPA 300.1								
Bromide	<b>33.3J</b>	ug/L	80.0	3.6	4		03/07/19 19:42	24959-67-9	
<b>5310B TOC UCMR</b>	Analytical Method: SM 5310B								
Total Organic Carbon	<b>500U</b>	ug/L	1000	500	1		03/04/19 21:44	7440-44-0	

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**ANALYTICAL RESULTS**

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

Sample: SR-SR 29 Combined      Lab ID: 35450826005      Collected: 02/27/19 09:00      Received: 02/28/19 10:40      Matrix: Drinking Water									
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.1 Oxihalide IC Anions 28d</b>	Analytical Method: EPA 300.1								
Bromide	<b>3.6U</b>	ug/L	80.0	3.6	4		03/07/19 20:26	24959-67-9	
<b>5310B TOC UCMR</b>	Analytical Method: SM 5310B								
Total Organic Carbon	<b>500U</b>	ug/L	1000	500	1		03/04/19 22:01	7440-44-0	

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### ANALYTICAL RESULTS

Project: UCMR4\_SE2\_FEB2019

Pace Project No.: 35450826

**Sample: DS-1579 E 29**      **Lab ID: 35450826006**      Collected: 02/27/19 08:30      Received: 02/28/19 10:40      Matrix: Drinking Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>552.3 UCMR4 Haloacetic Acids</b>									
Analytical Method: EPA 552.3    Preparation Method: EPA 552.3									
Bromochloroacetic Acid	1.7	ug/L	0.30	0.10	1	03/08/19 09:29	03/09/19 03:31	5589-96-8	
Bromodichloroacetic Acid	0.17U	ug/L	0.50	0.17	1	03/08/19 09:29	03/09/19 03:31	71133-14-7	N2
Chlorodibromoacetic Acid	0.58	ug/L	0.30	0.10	1	03/08/19 09:29	03/09/19 03:31	5278-95-5	N2
Dibromoacetic Acid	0.91	ug/L	0.30	0.10	1	03/08/19 09:29	03/09/19 03:31	631-64-1	
Dichloroacetic Acid	3.2	ug/L	0.20	0.067	1	03/08/19 09:29	03/09/19 03:31	79-43-6	
HAA9 Group	7.6 ✓	ug/L	2.0	0.67	1	03/08/19 09:29	03/09/19 03:31		
Total Brominated HAAs	3.2 ✓	ug/L	2.0	0.67	1	03/08/19 09:29	03/09/19 03:31		
Haloacetic Acids (Total)	5.3 ✓	ug/L	2.0	0.67	1	03/08/19 09:29	03/09/19 03:31		
Monobromoacetic Acid	0.10U	ug/L	0.30	0.10	1	03/08/19 09:29	03/09/19 03:31	79-08-3	
Monochloroacetic Acid	0.67U	ug/L	2.0	0.67	1	03/08/19 09:29	03/09/19 03:31	79-11-8	
Tribromoacetic Acid	0.67U	ug/L	2.0	0.67	1	03/08/19 09:29	03/09/19 03:31	75-96-7	N2
Trichloroacetic Acid	1.2	ug/L	0.50	0.17	1	03/08/19 09:29	03/09/19 03:31	76-03-9	
<b>Surrogates</b>									
2,3-Dibromopropanoic Acid (S)	102	%	70-130		1	03/08/19 09:29	03/09/19 03:31	600-05-5	

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### ANALYTICAL RESULTS

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

**Sample: DS-1840 E 36**      **Lab ID: 35450826007**      Collected: 02/27/19 08:16      Received: 02/28/19 10:40      Matrix: Drinking Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>552.3 UCMR4 Haloacetic Acids</b>									
Analytical Method: EPA 552.3    Preparation Method: EPA 552.3									
Bromochloroacetic Acid	0.97	ug/L	0.30	0.10	1	03/08/19 09:29	03/09/19 03:54	5589-96-8	
Bromodichloroacetic Acid	0.17U	ug/L	0.50	0.17	1	03/08/19 09:29	03/09/19 03:54	71133-14-7	N2
Chlorodibromoacetic Acid	0.56	ug/L	0.30	0.10	1	03/08/19 09:29	03/09/19 03:54	5278-95-5	N2
Dibromoacetic Acid	0.54	ug/L	0.30	0.10	1	03/08/19 09:29	03/09/19 03:54	631-64-1	
Dichloroacetic Acid	0.73	ug/L	0.20	0.067	1	03/08/19 09:29	03/09/19 03:54	79-43-6	
HAA9 Group	3.2	ug/L	2.0	0.67	1	03/08/19 09:29	03/09/19 03:54		
Total Brominated HAAs	2.5	ug/L	2.0	0.67	1	03/08/19 09:29	03/09/19 03:54		
Haloacetic Acids (Total)	1.7J	ug/L	2.0	0.67	1	03/08/19 09:29	03/09/19 03:54		
Monobromoacetic Acid	0.41	ug/L	0.30	0.10	1	03/08/19 09:29	03/09/19 03:54	79-08-3	
Monochloroacetic Acid	0.67U	ug/L	2.0	0.67	1	03/08/19 09:29	03/09/19 03:54	79-11-8	
Tribromoacetic Acid	0.67U	ug/L	2.0	0.67	1	03/08/19 09:29	03/09/19 03:54	75-96-7	N2
Trichloroacetic Acid	0.50J	ug/L	0.50	0.17	1	03/08/19 09:29	03/09/19 03:54	76-03-9	
<b>Surrogates</b>									
2,3-Dibromopropanoic Acid (S)	99	%	70-130		1	03/08/19 09:29	03/09/19 03:54	600-05-5	

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**QUALITY CONTROL DATA**

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

QC Batch: 520405 Analysis Method: EPA 200.8  
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET UCMR Drinking Water  
Associated Lab Samples: 35450826001, 35450826002

METHOD BLANK: 2810098 Matrix: Water  
Associated Lab Samples: 35450826001, 35450826002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Germanium	ug/L	0.10U	0.30	0.10	03/07/19 18:32	N2
Manganese	ug/L	0.13U	0.40	0.13	03/07/19 18:32	

LABORATORY CONTROL SAMPLE: 2810099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Germanium	ug/L	0.3	0.38	126	50-150	N2
Manganese	ug/L	0.4	0.48	119	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2810100 2810101

Parameter	Units	35450579005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
										RPD	RPD	
Germanium	ug/L	0.10J	0.3	0.3	0.39	0.39	94	96	0-200	2	20	N2
Manganese	ug/L	0.35J	0.4	0.4	0.77	0.79	104	109	0-200	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2810102 2810103

Parameter	Units	35450878002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
										RPD	RPD	
Germanium	ug/L	0.10U	5	5	4.7	5.0	92	99	0-200	7	20	N2
Manganese	ug/L	1.4	5	5	5.9	6.3	90	98	0-200	6	20	

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### QUALITY CONTROL DATA

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

QC Batch: 522460 Analysis Method: EPA 525.3  
QC Batch Method: EPA 525.3 Analysis Description: 525.3 UCMR  
Associated Lab Samples: 35450826001, 35450826002

METHOD BLANK: 2822455 Matrix: Water  
Associated Lab Samples: 35450826001, 35450826002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
alpha-BHC	ug/L	0.0033U	0.010	0.0033	03/14/19 09:56	N2
Chlorpyrifos	ug/L	0.010U	0.030	0.010	03/14/19 09:56	N2
Dimethipin	ug/L	0.067U	0.20	0.067	03/14/19 09:56	N2
Ethoprop	ug/L	0.010U	0.030	0.010	03/14/19 09:56	N2
Merphos-Oxone	ug/L	0.023U	0.070	0.023	03/14/19 09:56	N2
Oxyfluorfen	ug/L	0.017U	0.050	0.017	03/14/19 09:56	N2
Permethrin	ug/L	0.013U	0.040	0.013	03/14/19 09:56	N2
Profenofos	ug/L	0.10U	0.30	0.10	03/14/19 09:56	N2
Tebuconazole	ug/L	0.067U	0.20	0.067	03/14/19 09:56	N2
1,3-Dimethyl-2-nitrobenzene(S)	%	93	70-130		03/14/19 09:56	
Benzo(a)pyrene-d12 (S)	%	92	70-130		03/14/19 09:56	
Triphenylphosphate (S)	%	97	70-130		03/14/19 09:56	

LABORATORY CONTROL SAMPLE: 2822456

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
alpha-BHC	ug/L	0.01	0.0079J	79	50-150	N2
Chlorpyrifos	ug/L	0.03	0.026J	87	50-150	N2
Dimethipin	ug/L	0.2	0.18J	90	50-150	N2
Ethoprop	ug/L	0.03	0.029J	98	50-150	N2
Merphos-Oxone	ug/L		0.056J			N2
Oxyfluorfen	ug/L	0.05	0.043J	86	50-150	N2
Permethrin	ug/L	0.04	0.027J	68	50-150	N2
Profenofos	ug/L	0.3	0.27J	91	50-150	N2
Tebuconazole	ug/L	0.2	0.21	104	50-150	N2
1,3-Dimethyl-2-nitrobenzene(S)	%			88	70-130	
Benzo(a)pyrene-d12 (S)	%			90	70-130	
Triphenylphosphate (S)	%			87	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2823058 2823059

Parameter	Units	2823058		2823059		MS % Rec	MSD % Rec	% Rec Limits	Max			
		35450826001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result				MSD Result	RPD	RPD	Qual
alpha-BHC	ug/L	0.0033U	0.039	0.039	0.035	0.032	90	81	0-200	10	40	N2
Chlorpyrifos	ug/L	0.0099U	0.12	0.12	0.095	0.092	81	78	0-200	3	40	N2
Dimethipin	ug/L	0.067U	0.78	0.78	0.70	0.64	89	82	0-200	8	40	N2
Ethoprop	ug/L	0.0099U	0.12	0.12	0.10	0.10	86	86	0-200	0	40	N2
Merphos-Oxone	ug/L	0.023U			0.22	0.22				2	40	N2

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**QUALITY CONTROL DATA**

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

Parameter	Units	2823058		2823059		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
		35450826001 Result	MS Spike Conc.	MSD Spike Conc.	RPD						RPD		
Oxyfluorfen	ug/L	0.017U	0.2	0.2	0.17	0.16	85	82	0-200	4	40	N2	
Permethrin	ug/L	0.013U	0.16	0.16	0.12	0.11	74	70	0-200	6	40	N2	
Profenofos	ug/L	0.099U	1.2	1.2	1.1	1.0	90	87	0-200	3	40	N2	
Tebuconazole	ug/L	0.067U	0.78	0.78	0.88	0.88	112	112	0-200	0	40	N2	
1,3-Dimethyl-2-nitrobenzene(S)	%						92	88	70-130				
Benzo(a)pyrene-d12 (S)	%						91	90	70-130				
Triphenylphosphate (S)	%						72	70	70-130				

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**QUALITY CONTROL DATA**

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

QC Batch: 521336 Analysis Method: EPA 530  
QC Batch Method: EPA 530 Analysis Description: 530 UCMR4 Semivolatiles  
Associated Lab Samples: 35450826001, 35450826002

METHOD BLANK: 2815812 Matrix: Water  
Associated Lab Samples: 35450826001, 35450826002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Butylated Hydroxyanisole	ug/L	0.010U	0.030	0.010	03/12/19 17:00	N2
O-Toluidine	ug/L	0.0023U	0.0070	0.0023	03/12/19 17:00	N2
Quinoline	ug/L	0.0067U	0.020	0.0067	03/12/19 17:00	N2
O-Toluidine-d9 (S)	%	71	50-130		03/12/19 17:00	
Quinoline -d7 (S)	%	91	70-130		03/12/19 17:00	

LABORATORY CONTROL SAMPLE: 2815813

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Butylated Hydroxyanisole	ug/L	0.03	0.034	113	50-150	N2
O-Toluidine	ug/L	0.007	0.0081	116	50-150	N2
Quinoline	ug/L	0.02	0.026	130	50-150	N2
O-Toluidine-d9 (S)	%			71	50-130	
Quinoline -d7 (S)	%			92	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2815814 2815815

Parameter	Units	2815814		2815815		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
		35450912001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Butylated Hydroxyanisole	ug/L	0.0096U	0.12	0.12	0.12	0.12	103	106	0-200	3	40 N2
O-Toluidine	ug/L	0.0022U	0.027	0.027	0.021	0.021	77	78	0-200	1	40 N2
Quinoline	ug/L	0.0064U	0.077	0.077	0.079	0.079	103	103	0-200	0	40 N2
O-Toluidine-d9 (S)	%						68	68	50-130		
Quinoline -d7 (S)	%						97	96	70-130		

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**QUALITY CONTROL DATA**

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

QC Batch: 521593 Analysis Method: EPA 541  
QC Batch Method: EPA 541 Analysis Description: 541 UCMR4 Alcohols  
Associated Lab Samples: 35450826001

METHOD BLANK: 2817366 Matrix: Water  
Associated Lab Samples: 35450826001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
2-Methoxyethanol	ug/L	0.13U	0.40	0.13	03/10/19 00:09	N2
2-Propen-1-ol (Allyl alcohol)	ug/L	0.17U	0.50	0.17	03/10/19 00:09	N2
n-Butanol	ug/L	0.67U	2.0	0.67	03/10/19 00:09	N2
n-Butanol-d10 (S)	%	81	70-130		03/10/19 00:09	

LABORATORY CONTROL SAMPLE: 2817367

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Methoxyethanol	ug/L	0.4	0.44	111	50-150	N2
2-Propen-1-ol (Allyl alcohol)	ug/L	0.5	0.60	121	50-150	N2
n-Butanol	ug/L	2	2.3	114	50-150	N2
n-Butanol-d10 (S)	%			84	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2817448 2817449

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
		35450574006 Result	Spike Conc.	Spike Conc.	MS Result						
2-Methoxyethanol	ug/L	0.13U	1.6	1.6	1.4	1.4	86	88	0-200	2	40 N2
2-Propen-1-ol (Allyl alcohol)	ug/L	0.17U	2	2	1.8	1.8	89	90	0-200	1	40 N2
n-Butanol	ug/L	0.67U	8	8	7.2	7.3	83	84	0-200	1	40 N2
n-Butanol-d10 (S)	%						86	85	70-130		

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**QUALITY CONTROL DATA**

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

QC Batch: 521369 Analysis Method: EPA 552.3  
QC Batch Method: EPA 552.3 Analysis Description: 5523 UCMR Haloacetic Acids  
Associated Lab Samples: 35450826006, 35450826007

METHOD BLANK: 2816176 Matrix: Water  
Associated Lab Samples: 35450826006, 35450826007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromochloroacetic Acid	ug/L	0.10U	0.30	0.10	03/08/19 22:05	
Bromodichloroacetic Acid	ug/L	0.17U	0.50	0.17	03/08/19 22:05	N2
Chlorodibromoacetic Acid	ug/L	0.10U	0.30	0.10	03/08/19 22:05	N2
Dibromoacetic Acid	ug/L	0.10U	0.30	0.10	03/08/19 22:05	
Dichloroacetic Acid	ug/L	0.067U	0.20	0.067	03/08/19 22:05	
HAA9 Group	ug/L	0.67U	2.0	0.67	03/08/19 22:05	
Haloacetic Acids (Total)	ug/L	0.67U	2.0	0.67	03/08/19 22:05	
Monobromoacetic Acid	ug/L	0.10U	0.30	0.10	03/08/19 22:05	
Monochloroacetic Acid	ug/L	0.67U	2.0	0.67	03/08/19 22:05	
Total Brominated HAAs	ug/L	0.67U	2.0	0.67	03/08/19 22:05	
Tribromoacetic Acid	ug/L	0.67U	2.0	0.67	03/08/19 22:05	N2
Trichloroacetic Acid	ug/L	0.17U	0.50	0.17	03/08/19 22:05	
2,3-Dibromopropanoic Acid (S)	%	83	70-130		03/08/19 22:05	

LABORATORY CONTROL SAMPLE: 2816177

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromochloroacetic Acid	ug/L	0.3	0.33	110	50-150	
Bromodichloroacetic Acid	ug/L	0.5	0.74	149	50-150	
Chlorodibromoacetic Acid	ug/L	0.3	0.44	146	50-150	
Dibromoacetic Acid	ug/L	0.3	0.24J	80	50-150	
Dichloroacetic Acid	ug/L	0.2	0.19J	93	50-150	
Haloacetic Acids (Total)	ug/L		0.67U			
Monobromoacetic Acid	ug/L	0.3	0.33	111	50-150	
Monochloroacetic Acid	ug/L	2	1.6J	82	50-150	
Tribromoacetic Acid	ug/L	2	2.1	103	50-150	
Trichloroacetic Acid	ug/L	0.5	0.47J	93	50-150	
2,3-Dibromopropanoic Acid (S)	%			82	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2816511 2816512

Parameter	Units	2816511		2816512		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Bromochloroacetic Acid	ug/L	5.9	0.3	0.3	6.1	6.1	37	55	70-130	1	40 M1
Bromodichloroacetic Acid	ug/L	4.7	0.5	0.5	5.6	6.1	177	273	70-130	8	40 M1
Chlorodibromoacetic Acid	ug/L	1.7	0.3	0.3	1.8	2.0	18	89	70-130	11	40 M1
Dibromoacetic Acid	ug/L	1.2	0.3	0.3	1.5	1.5	86	94	70-130	2	40
Dichloroacetic Acid	ug/L	12.3	0.2	0.2	12.6	12.1	131	-108	70-130	4	40 M1

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.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

Parameter	Units	2816511		2816512		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
		3545060006 Result	MS Spike Conc.	MSD Spike Conc.	RPD						RPD		
Haloacetic Acids (Total)	ug/L	22.1				26.4	25.8				2	40	
Monobromoacetic Acid	ug/L	0.54	0.3	0.3		1.3	1.2	263	235	70-130	6	40	M1
Monochloroacetic Acid	ug/L	0.67U	2	2		2.6	2.5	130	125	70-130	4	40	
Tribromoacetic Acid	ug/L	0.67U	2	2		2.7	2.9	136	146	70-130	7	40	M1
Trichloroacetic Acid	ug/L	8.0	0.5	0.5		8.4	8.5	75	84	70-130	1	40	
2,3-Dibromopropanoic Acid (S)	%							86	98	70-130			

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

QC Batch:	521119	Analysis Method:	EPA 300.1
QC Batch Method:	EPA 300.1	Analysis Description:	300.1 UCMR Oxihalides IC Anions
Associated Lab Samples:	35450826003, 35450826004, 35450826005		

METHOD BLANK: 2814258 Matrix: Water  
Associated Lab Samples: 35450826003, 35450826004, 35450826005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Bromide	ug/L	0.90U	20.0	0.90	03/07/19 05:52	

LABORATORY CONTROL SAMPLE: 2814259

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	ug/L	40	40.2	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2814260 2814261

Parameter	Units	2814260		2814261		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		35450730008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Bromide	ug/L	241	160	160	390	391	93	93	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2814262 2814263

Parameter	Units	2814262		2814263		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		35450826003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Bromide	ug/L	34.7J	80	80	116	116	102	101	80-120	0	20	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

QC Batch: 520140 Analysis Method: SM 5310B  
QC Batch Method: SM 5310B Analysis Description: 5310B TOC UCMR  
Associated Lab Samples: 35450826003, 35450826004, 35450826005

METHOD BLANK: 2808818 Matrix: Water  
Associated Lab Samples: 35450826003, 35450826004, 35450826005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	ug/L	500U	1000	500	03/04/19 19:16	

LABORATORY CONTROL SAMPLE: 2808819

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	20000	19400	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2808820 2808821

Parameter	Units	35450823003		2808820		2808821		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MS Spike Conc.	MS Result	MS Spike Conc.	MS Result	MS Spike Conc.					
Total Organic Carbon	ug/L	628J	20000	20000	20000	21200	21200	98	103	80-120	5	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2808822 2808823

Parameter	Units	35450850006		2808822		2808823		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MS Spike Conc.	MS Result	MS Spike Conc.	MS Result	MS Spike Conc.					
Total Organic Carbon	ug/L	733J	20000	20000	21300	20900	20900	103	101	80-120	2	20

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## QUALIFIERS

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

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### 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.  
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

D4 Sample was diluted due to the presence of high levels of target analytes.  
M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.  
N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: UCMR4\_SE2\_FEB2019  
Pace Project No.: 35450826

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35450826001	EP- Urbana WTP 2	EPA 525.3	522460	EPA 525.3	522998
35450826002	EP- Urbana WTP 3	EPA 525.3	522460	EPA 525.3	522998
35450826001	EP- Urbana WTP 2	EPA 530	521336	EPA 530	521702
35450826002	EP- Urbana WTP 3	EPA 530	521336	EPA 530	521702
35450826001	EP- Urbana WTP 2	EPA 541	521593	EPA 541	521814
35450826006	DS-1579 E 29	EPA 552.3	521369	EPA 552.3	521665
35450826007	DS-1840 E 36	EPA 552.3	521369	EPA 552.3	521665
35450826001	EP- Urbana WTP 2	EPA 200.8	520405	EPA 200.8	520479
35450826002	EP- Urbana WTP 3	EPA 200.8	520405	EPA 200.8	520479
35450826003	SR-Raw 8	EPA 300.1	521119		
35450826004	SR-Raw 9	EPA 300.1	521119		
35450826005	SR-SR 29 Combined	EPA 300.1	521119		
35450826003	SR-Raw 8	SM 5310B	520140		
35450826004	SR-Raw 9	SM 5310B	520140		
35450826005	SR-SR 29 Combined	SM 5310B	520140		

### REPORT OF LABORATORY ANALYSIS

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Document Name:  
Sample Condition Upon Receipt UCMR  
Document No:

Document Revised:  
July 16, 2018  
Issuing Authority:  
Pace Florida Quality Office

**WO#: 35450826**

UCMR) - UCMR 4

**Project #** PM: LLB **Due Date:** 03/28/19  
**Project Manager:** CLIENT: URBANUCMR4

**Date and Initials of person:**  
Examining contents: \_\_\_\_\_  
Label: \_\_\_\_\_  
Deliver: \_\_\_\_\_

**Client:**

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other \_\_\_\_\_  
Shipping Method:  First Overnight  Priority Overnight  Standard Overnight  Ground  Other \_\_\_\_\_  
Billing:  Recipient  Sender  Third Party  Credit Card  Unknown  
Tracking # 4782 3076 0230 1-11-0229  
Custody Seal on Cooler/Box Present:  Yes  No Seals intact:  Yes  No Ice: Wet Blue Dry None  
Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

**Comments:**

Chain of Custody Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Chain of Custody Filled Out	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Relinquished Signature & Sampler Name COC	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Samples Arrived within Hold Time	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sufficient Volume	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Correct Containers Used	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Containers Intact	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Sample Labels match COC	<input type="checkbox"/> Yes <input type="checkbox"/> No
Samples received within 48 hours of collection	<input type="checkbox"/> Yes <input type="checkbox"/> No
If no, were samples kept $\leq 6^{\circ}\text{C}$ after collection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Person contacted for verification: _____	

**Preservation Verification** Date: 2/28/19 Time: 1:52 Initials: AS

Temperature IR Gun ID: 7-238 CF ( $^{\circ}\text{C}$ ): 0.2  
EPA 525.3 Temp  $^{\circ}\text{C}$  3.6 (Visual) 3.4 (Actual) 0.1  
EPA 530 Temp  $^{\circ}\text{C}$  4.3 (Visual) 4.1 (Actual) 2.2  
EPA 541 Temp  $^{\circ}\text{C}$  5.4 (Visual) 5.2 (Actual) \_\_\_\_\_  
EPA 544 Temp  $^{\circ}\text{C}$  \_\_\_\_\_ (Visual) \_\_\_\_\_ (Actual) \_\_\_\_\_  
EPA 545 Temp  $^{\circ}\text{C}$  \_\_\_\_\_ (Visual) \_\_\_\_\_ (Actual) \_\_\_\_\_  
EPA 546 Temp  $^{\circ}\text{C}$  \_\_\_\_\_ (Visual) \_\_\_\_\_ (Actual) \_\_\_\_\_  
EPA 552.3 Temp  $^{\circ}\text{C}$  \_\_\_\_\_ (Visual) \_\_\_\_\_ (Actual) 5.3  
SM5310B Temp  $^{\circ}\text{C}$  4.7 (Visual) 4.5 (Actual) 3.7  
EPA 300.0 Temp  $^{\circ}\text{C}$  3.1 (Visual) 2.9 (Actual) 1.4

Sample	pH Strips:						Free Chlorine Strips*:						
	545 pH $\leq 4.0$	525.3 pH $\leq 4.0$	530 pH 6-8	541 pH $\leq 3.0$	544 pH 6.5-7.5	200.8 pH $< 2.0$	525.3	530	541	544	545	546	552.3
REP-urbanucmr2		4/4=4	4/4=7	2/2=2		1/1=1							
REP-urbanucmr3		2/2=4	2/2=7			1/1=1							
DS-1579													ND
DS-1840													ND

\*( $< 0.1\text{mg/L} = \text{ND}$ )

